



# **2023 Annual Compliance Monitoring Report**

**Shell Harbor Island Terminal  
2555, 1835, 1711 13th Avenue Southwest  
Seattle, Washington**

**PlaNNet Site ID           MIGUS357032**

**PlaNNet Project ID       86013**

**Consent Decree No. 99-2-07176-0SEA**

**Equilon Enterprises LLC dba Shell Oil Products US**

**February 14, 2024**

**→ The Power of Commitment**

*This report: has been prepared by GHD for Equilon Enterprises LLC dba Shell Oil Products US and may only be used and relied on by Equilon Enterprises LLC dba Shell Oil Products US for the purpose agreed between GHD and Equilon Enterprises LLC dba Shell Oil Products US .*

*GHD otherwise disclaims responsibility to any person other than Equilon Enterprises LLC dba Shell Oil Products US arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.*

*The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.*

**GHD**

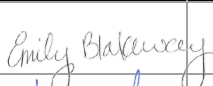
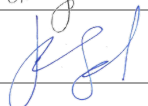
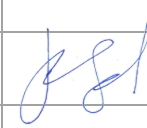
9725 3rd Avenue NE, Suite 204

Seattle, Washington 98115, United States

T +1 425 563 6500 | E info-northamerica@ghd.com | [ghd.com](http://ghd.com)

<b>Printed date</b>	January 26, 2023
<b>Last saved date</b>	February 13, 2024
<b>File name</b>	\\ghdnet\ghd\US\Santa Rosa\Projects\561\11218519\New 11218519-RPT-7-2023_Annual.docx
<b>Author</b>	Alexa Penna-Waterman
<b>Project manager</b>	Emily Blakeway
<b>Client name</b>	Equilon Enterprises LLC dba Shell Oil Products US
<b>Project name</b>	Shell - TRITON WEST CONSENT DECREE
<b>Document title</b>	2023 Annual Compliance Monitoring Report   Shell Harbor Island Terminal
<b>Revision version</b>	Rev 0
<b>Project number</b>	11218519

**Document status**

Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S0		Alexa Penna-Waterman	Emily Blakeway				
[Status code]			Jacquelyn England		Jacquelyn England		2/14/24
[Status code]							

© GHD 2024

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorized use of this document in any form whatsoever is prohibited.

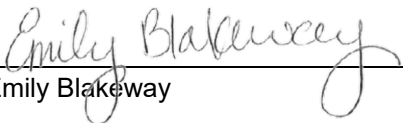
# 2023 Annual Compliance Monitoring Report

Shell Harbor Island Terminal  
2555, 1835, 1711 13th Avenue Southwest  
Seattle, Washington

**PlaNNet Site ID           MIGUS357032**

**PlaNNet Project ID       86013**

**Consent Decree No. 99-2-07176-0SEA**

  
Emily Blakeway

  
Jacquelyn England, LG



Jacquelyn England

# Contents

<b>1.</b>	<b>Introduction</b>	<b>1</b>
1.1	Summary of Cleanup Actions	1
1.2	Summary of Compliance Monitoring Program	2
1.2.1	SH-04 Area	3
1.2.2	TX-03A Area	4
1.3	Geology and Hydrogeology	4
<b>2.</b>	<b>Groundwater Elevations and Flow</b>	<b>4</b>
2.1	TX-03A Area (including the North Tank Farm)	5
2.2	SH-04 Area	5
2.3	Shoreline Manifold Area	5
2.4	Pump House Investigation Area	6
<b>3.</b>	<b>General Compliance Results</b>	<b>6</b>
3.1	Performance Product Monitoring	6
3.2	Natural Attenuation Performance Criteria	6
3.3	Analytical Results for the Groundwater Performance and Confirmational Monitoring	7
3.3.1	Background Monitoring Well Results	7
3.3.2	POC Well Results	7
3.3.3	Sentry Monitoring Results	8
3.3.3.1	North Tank Farm (included in the TX-03A Area)	8
3.3.3.2	Main Tank Farm – Northern Boundary (included in the TX-03A Area)	8
3.3.3.3	Main Tank Farm – Eastern and Western Boundaries	8
3.3.3.4	Main Tank Farm – Southern Boundary (includes the SH-04 Area)	8
<b>4.</b>	<b>TX-03A Area Investigation</b>	<b>9</b>
4.1	TX-03A Area Groundwater Flow	9
4.2	Bio Sparging System	9
4.3	TX-03A Area Groundwater Analytical Results	9
4.3.1	Petroleum Hydrocarbon Results	10
4.3.2	BTEX Results	10
4.4	Bio Sparging System Rebound Evaluation	10
<b>5.</b>	<b>Pump House Area Investigation</b>	<b>11</b>
5.1	Groundwater Flow	11
5.2	Pump House Area Groundwater Analytical Results	11
5.2.1	Petroleum Hydrocarbon Results	11
5.2.2	BTEX Results	11
<b>6.</b>	<b>Summary</b>	<b>11</b>
<b>7.</b>	<b>References</b>	<b>12</b>



## Table index

Table 1	Groundwater Cleanup Levels
Table 2	Groundwater Monitoring Program
Table 3	Groundwater Elevation Data
Table 4	Performance Product Monitoring Data
Table 5	Compliance Monitoring Natural Attenuation Parameters
Table 6	BTEX, Petroleum Hydrocarbons, and Lead in Groundwater
Table 7	Carcinogenic PAHs in Groundwater

## Figure index

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	TX-03A Area Groundwater Surface Contour Map – 3/27/2023 (1Q2023)
Figure 4	TX-03A Area Groundwater Surface Contour Map – 6/12/2023 (2Q2023)
Figure 5	TX-03A Area Groundwater Surface Contour Map – 9/11/2023 (3Q2023)
Figure 6	TX-03A Area Groundwater Surface Contour Map – 12/19/2023 (4Q2023)
Figure 7	Pump House Area Groundwater Surface Contour Map – 6/12/2023
Figure 8	Pump House Area Groundwater Surface Contour Map – 12/18/2023
Figure 9	Gasoline and Diesel Concentrations – 2023
Figure 10	Benzene Concentrations – 2023
Figure 11	TX-03A Area Monitoring Well TW-03A BTEX and Gasoline Concentrations

## Appendices

Appendix A	Figure 1 – Groundwater Surface Contour Map – April 18, 2022 and Figure 2 – Chemical Concentration Map – May 18-20, 2022
Appendix B	Field Sampling Data Sheets
Appendix C	Laboratory Analytical Results
Appendix D	Data Validation

# 1. Introduction

GHD Services Inc. (GHD) is submitting this *2023 Annual Compliance Monitoring Report* on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) for the Shell Distribution Terminal on Harbor Island in Seattle, Washington (Site, Figure 1). The Site is comprised of three parcels located at 2555, 1835, and 1711 13<sup>th</sup> Avenue Southwest, designated as the Main Tank Farm, North Tank Farm, and Shoreline Manifold Area, respectively (Figure 2). Three groundwater monitoring and cleanup areas are associated with the parcels:

- The TX-03 Area, encompassing the North Tank Farm and the northern portion of the Main Tank Farm.
- The SH-04 Area, overlapping the southeastern portion of the Main Tank Farm.
- The Shoreline Manifold Area.

Compliance monitoring activities described in this report are performed under the October 1998 Equilon Seattle Terminal Washington State Department of Ecology's (Ecology) Model Toxics Control Act (MTCA) Consent Decree No. 99-2-07176-0SEA (Consent Decree; Ecology, 1998). The information presented herein is based on data collected during the monitoring period of January through December 2023.

## 1.1 Summary of Cleanup Actions

Cleanup actions were performed in compliance with the Consent Decree, which provides Site-specific cleanup levels for total petroleum hydrocarbons (TPH), lead, and arsenic in soils, and for TPH, select metals, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) in groundwater. The Site-specific cleanup levels applicable to this report are summarized in Table 1. The Site-specific soil cleanup levels are included in the summary of cleanup actions discussed below.

The primary cleanup action at the Site included excavation of near surface lead and arsenic impacted soil in areas throughout the Main Tank Farm, which was conducted from December 2003 through February 2004. Lead- and arsenic-impacted surface soils with concentrations above the soil cleanup levels of 1,000 milligrams per kilogram (mg/kg) and 32 mg/kg, respectively, were removed. In addition, a small area of lead-impacted soil near the oil-water separator (OWS) in the Main Tank Farm was excavated in October 2001; however, some lead-impacted soils were left in-place due to structural constraints. A 3-inch cap was placed over the lead impacted subsurface soil in the area around the OWS.

Between November 2001 and October 2009, TPH-impacted surface and subsurface hotspots with concentrations greater than 10,000 mg/kg, the shoreline soil cleanup level, were removed from the Shoreline Manifold Area. Additional impacted soils with TPH concentrations greater than 20,000 mg/kg, the inland soil cleanup level, were removed near a former underground storage tank (UST) in October 2001, and in the Main Tank Farm in February 2004 and November 2007.

A free product and vapor extraction system was installed in the Shoreline Manifold Area in 1996. The vapor extraction system operated until August 2005 when it was shut down because the hydrocarbon recovery through vapor extraction had declined. Passive free product recovery occurred in the Shoreline Manifold Area at monitoring well MW-211 through 2010 and in monitoring wells MW-210 and MW-212 through 2011. Vacuum purging was conducted on a quarterly basis in monitoring wells MW-210 and MW-212 in 2012.

On September 10, 2013, less than three barrels of diesel product were released in the Shoreline Manifold Area during an "in line" inspection of the dock lines. Approximately 2.4 barrels of free-standing product were recovered immediately by vacuum truck and the use of sorbent pads. Additionally, approximately 8 to 10 cubic yards of soil were removed. Confirmation soil samples collected from the excavated area were below the shoreline soil cleanup level of 10,000 mg/kg. Field observations indicated that surface water and the stormwater system were not impacted by the release (URS, 2014). Pooled diesel product was observed surrounding monitoring well MW-212 following the release. The product was removed using a vacuum truck and subsequent monitoring did not detect product. At the request of

Ecology, sorbent socks were installed in monitoring wells MW-209, MW-210, and MW-212 in January 2014. In addition, monitoring wells MW-208, MW-210, MW-211, and MW-212 are monitored monthly for product.

In September 2016, RECON Environmental, Inc. (RECON) excavated and disposed of approximately 5.28 tons of visibly stained soils at the former Lubes Facility, located near the southwest corner of the Main Tank Farm and directly west of the Pump House. Confirmation soil samples were collected and the open piping at two small petroleum impacted areas were capped. The TPH concentrations in the confirmation soil samples were less than the inland soil cleanup level of 20,000 mg/kg (Ecology, 1998; RECON, 2017). Upon receipt of these results, AECOM authorized RECON to backfill the excavations.

In November 2016, construction of the bio-sparging system commenced within the TX-03A Area (Figure 2). The City of Seattle (the City) halted the completion of the system in December 2016 due to a delay in the issuance of the Utility Major Permit and the Annual Permit. Prior to the work halt, AECOM oversaw the installation of the 37 bio sparging wells in the City Parking Lot and Main Tank Farm, and the installation of the system piping within the Main Tank Farm. System construction was completed in May 2017 and the system was started on May 25, 2017. The bio sparging system construction details were documented in a *Bio Sparging Completion Technical Memorandum*, submitted in the first quarter of 2018. The bio sparging system was shut down in December 2019 to evaluate for rebound and has remained off.

Between March and September of 2018, AECOM completed rehabilitation of the 24-inch mainline of the City's stormwater system located directly north of the Seattle Terminal's Main Tank Farm, per the terms of a Voluntary Compliance Agreement (VCA) between Shell and the City, dated April 2016. Per the VCA, annual dry weather stormwater system sampling events were required for a period of 3 years. Sampling events were conducted in January and August of 2019, in August 2020, and in July 2021. All three dry weather sample event results indicated that the rehabilitation was successful. An Acknowledgement of Completion for the requirements in the VCA was issued by the City on October 27, 2021.

On October 1, 2020 a gasoline release occurred from a failed pump inside the Pump House during tanker truck fueling operations. The Pump House is located south of the Main Tank Farm. Areas affected by the release included the Pump House interior, Manifold Pit East, and limited areas outside the Pump House on the ground surface at its northern and southern entryways. Following initial recovery of the release, additional excavation was completed including soil excavation at the north and south ends of the Pump House where a total of 136.05 tons of impacted soil and 9,190 gallons of fuel and water were hauled off Site (Interim Action Report (GHD, 2021a). In June of 2022, GHD installed three groundwater monitoring wells per the approved Well Installation Work Plan (GHD, 2021b); the results of the investigation are summarized in our *Revised Site Investigation Report* (GHD, 2022).

## 1.2 Summary of Compliance Monitoring Program

Compliance monitoring consists of product monitoring, groundwater level monitoring, and groundwater sampling as detailed in the Compliance Monitoring Plan (EMCON and LCI, 1999). The monitoring objectives have been categorized as confirmational, performance, and sentry:

- Performance monitoring is conducted to monitor the effectiveness of the cleanup actions. Performance monitoring consists of three components: product thickness and sheen monitoring, groundwater natural attenuation monitoring, and groundwater quality monitoring.
- Confirmational monitoring is conducted to confirm the long-term effectiveness of the cleanup action once performance and cleanup levels have been met. Confirmation product monitoring consists of monitoring product thickness and sheen.
- Sentry monitoring is conducted to provide early warnings of off-Site contaminant migrations. Semi-annual sentry groundwater quality monitoring is conducted simultaneously with groundwater performance monitoring.

Site-wide quarterly monitoring was conducted until 2006 in accordance with the Compliance Monitoring Plan. In 2006, the monitoring program was modified in accordance with proposed changes by RETEC (RETEC, 2006a; RETEC, 2006b), and additional modifications in the monitoring program occurred in 2008 in accordance with email

correspondence with Ecology (URS, 2008). The groundwater monitoring program established in 2008 is presented in black text in Table 2. Additional modifications to the compliance monitoring program between 2011 and 2022 are presented in red text. The groundwater cleanup levels specified in the 1998 Consent Decree are presented in Table 1.

## 1.2.1 SH-04 Area

Compliance monitoring wells MW-05, MW-111, MW-112A, MW-104, and SH-04 are located along 13<sup>th</sup> Avenue Southwest and in the southeast corner of the Main Tank Farm, within the SH-04 Area of the Site (Figure 2). The compliance monitoring program for the SH-04 Area was modified between 2011 and 2015 as described below and presented in red text on Table 2.

- In 2001, additional semiannual samples were obtained from the above listed five monitoring wells to assess the dissolved groundwater plume (URS, 2012). Monitoring wells MW-305 and MW-306 were installed in the SH-04 Area in November 2011.
- In 2012 through 2014, quarterly groundwater samples were collected to assess the dissolved hydrocarbon plume in the SH-04 Area. Additionally, three joint groundwater sampling events were conducted in 2012 with the neighboring Kinder Morgan Terminal in the SH-04 Area.
- In 2014, benzene and gasoline concentrations within sentry well SH-04 were below the cleanup levels. Therefore, due to reductions of concentrations within the sentry well, URS removed groundwater monitoring at monitoring wells MW-305 and MW-306 from the monitoring program (URS, 2014)

The fifth EPA 5-Year review of the Harbor Island Superfund Site (EPA, 2020) noted that elevated contaminant concentrations have been observed in wells A-28R and MW-23, associated with the Kinder Morgan facility. These wells are located along the southwestern edge of the Kinder Morgan facility, near 13<sup>th</sup> Avenue Southwest. Surrounding wells, including Shell well MW-111, do not indicate an expanding plume, but the EPA noted that additional data are needed to determine a trend.

A coordinated gauging event of wells in the SH-04 area with wells at the Kinder Morgan facility was conducted on April 12, 2021. However, GHD was not able to generate a groundwater flow diagram because the shared well SH-04 is shown in a different location on the map generated for the Kinder Morgan facility from the location on our map. Since then, Arcadis U.S., Inc. (Arcadis) has confirmed well locations, and a joint gauging and groundwater sampling event was conducted on April 18, 2022. GHD generated a groundwater surface contour map and a chemical concentration map showing results of the April 2022 sampling event, provided in Appendix A. Data for the Kinder Morgan facility was sourced from the *2022 Annual Groundwater Monitoring Report* prepared by Arcadis, dated January 2023, and uploaded to Ecology's Cleanup Site Page for the Kinder Morgan facility for inclusion on our figures. Groundwater elevation ranged from 0.69 feet above mean sea level (AMSL) in Kinder Morgan's well A-12 (located along Kinder Morgan's southern property boundary) to 9.24 feet AMSL in Kinder Morgan's well MW-19 (located in Kinder Morgan's 'D' Yard). The shallow groundwater flowed in a radial fashion to the north and south, from a potentiometric high located within Kinder Morgan's 'D' Yard (Appendix A, Figure 1).

Select Kinder Morgan and Shell wells were sampled and analyzed for TPH as gasoline-range (TPHg), TPH as diesel-range (TPHd), TPH as oil-range (TPHo), BTEX, and/or total lead. Concentrations of TPHg were detected above the Site-specific cleanup level in Kinder Morgan wells 12, TMW-4, TMW-6, A-27, A-28R, MW-19, MW-23, and MW-24, and Shell wells SH-04 and MW-112A (Appendix A, Figure 2). The highest TPHg concentration was identified in Kinder Morgan's well MW-24, which is located within the 13<sup>th</sup> Avenue Southwest right-of-way. The remaining wells with TPHg exceedances are also located near 13<sup>th</sup> Avenue Southwest and within Kinder Morgan's 'B' Yard. Concentrations of benzene were detected above the Site-specific cleanup level in Kinder Morgan wells MW-23 and MW-24. The remaining sampled wells during this joint April 2022 event did not have concentrations above Site-specific cleanup levels for the analyzed contaminants.

## 1.2.2 TX-03A Area

As indicated on Table 2, multiple compliance monitoring wells are in the TX-03A Area of the Site. This area includes the northern boundary of the Main Tank Farm and extends north to the northern boundary of the North Tank Farm (Figure 2). The compliance monitoring program within the TX-03A Area includes historical monitoring wells and additional monitoring wells that were installed within the TX-03A Area between 2011 and 2016 as part of the TX-03A Area investigation. Modifications since 2008 are presented in red text on Table 2.

To assess the dissolved hydrocarbon plume at the TX-03A Area, the following additional monitoring wells were installed within the TX-03A Area between 2011 and 2016:

- MW-301 through MW-304 in November 2011
- MW-307 through MW-310 in November 2012
- MW-311 and MW-312 in October 2014
- MW-313, MW-314, and MW-315 in July 2016

The monitoring wells installed in November 2011 through July 2016 were sampled at least semiannually since 2012.

## 1.3 Geology and Hydrogeology

The 405-acre Harbor Island was constructed during the early 1900s in an area consisting of intertidal wetlands at the mouth of the Duwamish River. The island was created using sediments dredged to facilitate navigation in the Lower Duwamish River and West Waterway (KJC, 1990).

Soil underlying the Site consists of emplaced grade and dredge fill overlying native estuarine deposits (EMCON and LCI, 1999). The uppermost grade fill unit consists of coarse-grained fill varying in thickness from less than one foot to approximately two feet thick. The underlying dredge fill unit was created when estuarine deposits near the Site were dredged and used as fill. The contact between the dredge fill and native estuarine units is poorly defined due to similar properties of the two units. The dredge fill varies from approximately 8 to 20 feet in thickness at the Site. It consists of fine- to medium-grained sand with some gravel. Native estuarine deposits underlie the dredge fill at depths of approximately 9 to 21 feet below ground surface (bgs). These deposits are composed of primarily fine- to medium-grained sand with thin silt interbeds.

The shallow, unconfined groundwater aquifer consists of a thin lens of freshwater overlying brackish water. The groundwater table is 4 to 8 feet bgs, within the dredge fill. The water table within the North Tank Farm and Main Tank Farm areas are generally unaffected by tides; groundwater quality and elevations within the Shoreline Manifold Area are affected by tides.

The native estuarine deposits are fully saturated, and groundwater within this unit is unconfined. Groundwater quality and groundwater elevations within this unit are influenced by surrounding surface water bodies and associated tidal fluctuations. This shallow groundwater flows in a radial fashion to the north and to the south from a potentiometric high located within the Main Tank Farm area.

## 2. Groundwater Elevations and Flow

Monitoring wells at the Site are screened in either the shallow or deep depth intervals. The monitoring well screen intervals are presented on Table 2 and discussed below.

- All but two of the monitoring wells in the groundwater monitoring program are screened in the shallow depth interval (approximately 5 to 15 feet bgs)
- Monitoring wells MW-213 and MW-214 are screened in the deeper depth interval (approximately 30 to 40 feet bgs)

Groundwater elevation data for the monitoring period (January 2023 through December 2023) and historical groundwater elevation data are presented in Table 3. The groundwater elevation data are discussed in the following subsections for each area, as identified on Figure 2. Monitoring well gauging field logs, which include depth to groundwater and depth to product provided in Appendix B.

## 2.1 TX-03A Area (including the North Tank Farm)

The TX-03A Area is shown on Figure 2. The North Tank Farm has been incorporated into the TX-03A Area because it provides downgradient and cross gradient data for the TX-03A Area (Figures 3 through 6).

In accordance with the groundwater monitoring program, depth to groundwater was measured in North Tank Farm monitoring wells (MW-201 through MW-204 and MW-206A) and in additional TX-03A Area monitoring wells (MW-101, MW-102, MW-301 through MW-304, MW-307 through MW-315, TES-MW-1, and TX-03A) during the quarterly sampling events.

The range in groundwater elevations for each quarterly 2023 event is listed below:

- First Quarter 2023 | 6.74 (MW-314) to 9.10 (MW-206A) feet AMSL
- Second Quarter 2023 | 6.49 (MW-314) to 8.53 (MW-312) feet AMSL
- Third Quarter 2023 | 5.42 (TX-03A) to 7.37 (MW-308) feet AMSL
- Fourth Quarter 2023 | 6.66 (MW-206A) to 8.90 (MW-101) feet AMSL

Localized groundwater elevation contour maps depicting the March, June, September, and December 2023 groundwater elevations for the shallow depth interval beneath the TX-03A Area are presented as Figures 3 through 6, respectively. Groundwater in the TX-03A Area flows in variable directions in quarters one and two, and north to northwest in the third and fourth quarters.

## 2.2 SH-04 Area

In accordance with the groundwater monitoring program, depth to groundwater was measured semiannually in MW-05, MW-104, MW-111, MW-112A, and SH-04 in June and December 2023.

The range in groundwater elevations for each semiannual 2023 event is listed below:

- June 2023 | 7.06 (MW-112A) to 7.67 (SH-04) feet AMSL
- December 2023 | 7.00 (MW-112A) to 8.72 (MW-05) feet AMSL

## 2.3 Shoreline Manifold Area

In accordance with the groundwater monitoring program, depth to groundwater was measured semiannually in MW-213 and MW-214 (June and December) and monthly from monitoring wells MW-208, MW-210, MW-211, and MW-212. It should be noted that although wells MW-208, MW-210, MW-211, and MW-212 were gauged on October 19, 2023, the collected data was unavailable at the issuance of this report and will be incorporated into the data table when available.

The range in groundwater elevations for each quarter in 2023 is listed below:

- First Quarter 2023 | 6.18 (MW-210) to 8.05 (MW-208) feet AMSL
- Second Quarter 2023 | 5.69 (MW-214) to 7.72 (MW-208) feet AMSL
- Third Quarter 2023 | 5.56 (MW-212) to 6.84 (MW-208) feet AMSL
- Fourth Quarter 2023 | 6.52 (MW-212) to 8.53 (MW-214) feet AMSL

## 2.4 Pump House Investigation Area

Following the 2020 Pump House area gasoline release and excavation, GHD installed three wells, MW-113, MW-114, and MW-115, to assess impact to groundwater in the area (*Revised Site Investigation Report*, GHD 2022). These three wells are monitored in the second and fourth quarters (Figure 7 and Figure 8).

The range in groundwater elevations for each quarter in 2023 is listed below:

- Second Quarter 2023 | 7.42 (MW-113) to 8.00 (MW-114) feet AMSL
- Fourth Quarter 2023 | 8.52 (MW-113) to 8.96 (MW-114) feet AMSL

Localized groundwater elevation contour maps depicting the June and December 2023 groundwater elevations for the shallow depth interval beneath the SH-04 area and Pump House area are presented as Figures 7 and 8, respectively. Groundwater flow direction is generally to the south.

## 3. General Compliance Results

This section presents the analytical results of the groundwater monitoring and performance product monitoring (in support of operation and maintenance). Field sampling data sheets, which include field parameter measurements and product measurement field forms, are provided in Appendix B. Laboratory data packages are provided in Appendix C. Laboratory analytical data were assessed to ensure data quality and were deemed acceptable for their intended use with noted qualifiers. Data validation reports are provided in Appendix D.

### 3.1 Performance Product Monitoring

In accordance with the groundwater monitoring program (Table 2), depth to groundwater and thickness of free product was measured in the monitoring wells listed below:

- Shoreline Manifold Area | MW-208, MW-210, MW-211, and MW-212, monthly
- North Tank Farm | MW-204, quarterly

Performance product monitoring data are presented in Table 4. Absorbent socks are present for product recovery in monitoring wells MW-210 and MW-212 and are replaced monthly or as needed.

No measurable thickness of floating product was detected in monitoring wells MW-208, MW-211, or MW-212 during the 2023 events. No product was detected at MW-210 in the months of February, June, September, and December. Measurable thicknesses of product ranged from 0.01 feet (ft) in August to 0.47 ft in January at MW-210.

### 3.2 Natural Attenuation Performance Criteria

In accordance with the groundwater monitoring program (Table 2), natural attenuation performance monitoring is conducted annually at ten monitoring wells within the TX-03A Area. The results are presented in Table 5 along with the standard groundwater stabilization parameters, which are collected from monitoring wells quarterly after completion of purging and prior to collection of groundwater samples. A deviation from this groundwater monitoring program was identified in December 2023 in which an insufficient amount of sample was collected from monitoring well MW-202; therefore, the sample was not able to be analyzed for sulfate.

## 3.3 Analytical Results for the Groundwater Performance and Confirmational Monitoring

This section presents analytical results for the performance and compliance monitoring events conducted in 2023. Groundwater samples were collected during the fourth quarter of 2023 from the following monitoring wells in accordance with Table 2.

- Background well MW-206A
- Point of compliance (POC) wells MW-213 and MW-214
- Sentry wells MW-102, MW-104, MW-201, MW-204, MW-311 through MW-315, MW-05, MW-111, MW-112A, SH-04, MW-105, TX-04, and TX-06A
- General compliance wells MW-101, MW-301, MW-303, MW-309, and TES-MW-1
- Natural attenuation performance wells MW-202, MW-203, MW-302, MW-304, MW-307, MW-308, MW-310, MW-311, MW-312, and TX-03A

Monitoring wells at the Site were monitored in 2023 monthly, quarterly, semiannually, or annually according to Table 2. Monitoring wells MW-311 and MW-312 are identified as both natural attenuation performance wells and sentry wells.

The 2023 and historical groundwater sample results are included on Tables 6 and 7 and are summarized in the following subsections. The gasoline and diesel results for 2023 are included on Figure 9, and the benzene results are included on Figure 10. Cleanup level exceedances are highlighted in red on Figures 9 and 10.

### 3.3.1 Background Monitoring Well Results

A groundwater sample was collected from background monitoring well MW-206A in December 2023. The background sample was analyzed for BTEX, TPHg, TPHd, and TPHo. The results are presented on Table 6.

TPHd and TPHo were detected at concentrations of 0.246 milligrams per liter (mg/L) and 0.783 mg/L, respectively. Other analytes were not detected. Detections and reporting limits are below the applicable clean up levels.

### 3.3.2 POC Well Results

Groundwater samples were collected from POC wells MW-213 and MW-214 in June and December 2023. The groundwater samples from the POC wells were analyzed for BTEX, TPHg, TPHd, TPHo, and cPAHs. The results for the two monitoring wells are presented within Tables 6 and 7.

During the June 2023 event TPHg was detected at an estimated concentration (J-flagged) of 0.0426 mg/L (J) in groundwater collected from monitoring well MW-213. TPHd and TPHo were not detected in well MW-213 during the June 2023 event, and TPHg, TPHd, and TPHo were not detected in well MW-214 during the June 2023 event. During the December 2023 event, TPHd and TPHo were detected at concentrations of 0.271 mg/L and 0.396 mg/L in MW-213, respectively. In MW-214 TPHd and TPHo were detected at concentrations of 0.293 mg/L and 0.398 mg/L, respectively. Where detected, TPH concentrations are below respective Site-specific cleanup objectives. TPHg was not detected in wells MW-213 and MW-214 during the December 2023 event. BTEX was not detected in wells MW-213 and MW-214 during the June or December 2023 events.

cPAHs were not detected in well MW-213 during the June or December 2023 events. Benzo(a)-anthracene was detected at an approximate value (J-flagged) in well MW-214 during the June 2023 event. The calculated cPAH total toxic equivalent concentration (TEQ) for well MW-214 for June 2023 was 0.0000224 (J) mg/L, which is below the Site-specific cleanup level of 0.000031 mg/L. Multiple cPAHs were detected at approximate values (J-flagged) in well MW-214 during the December 2023 event. The calculated cPAH TEQ using the estimated values for well MW-214 for December 2023 was 0.0000345 J mg/L, which is slightly above the Site-specific cleanup level of 0.000031 mg/L and is presented with a J flag as an estimated value.



### 3.3.3 Sentry Monitoring Results

Sentry wells include MW-05, MW-102, MW-104, MW-105, MW-111, MW-112A, MW-201, MW-204, MW-311 through MW-315, SH-04, TX-04, and TX-06A. The following subsections summarize the results in the sentry wells characterizing groundwater flowing from beneath the North and Main Tank Farms.

#### 3.3.3.1 North Tank Farm (included in the TX-03A Area)

Monitoring wells MW-201 and MW-204 are representative sampling points for assessing the quality of groundwater flowing across the northern boundary of the North Tank Farm. The groundwater samples were analyzed for BTEX, TPHg, TPHd, and TPHo. The results for both wells are presented in Table 6.

No analytes were detected in sentry wells MW-201 and MW-204 at concentrations above the cleanup levels during 2023.

#### 3.3.3.2 Main Tank Farm – Northern Boundary (included in the TX-03A Area)

Historically, monitoring well TX-03A was the representative sampling point for assessing the quality of groundwater flowing across the northern boundary of the Main Tank Farm. However, the investigation within the TX-03A has expanded with the installation of additional monitoring wells as discussed in Section 1.2.2.

Monitoring wells MW-102 and MW-311 through MW-315 are additional sentry wells used for the characterization of the northern boundary of the Main Tank Farm. Groundwater samples were collected from MW-102 in December 2023, MW-314 in March, June, and September, and from MW-311, MW-312, and MW-313 in March, June, September, and December 2023. Monitoring well MW-314 was not accessible during the fourth quarter event due to a car parked on top of the well.

The groundwater samples from the six sentry wells were all analyzed for BTEX and TPHg, and the groundwater samples from MW-102 and MW-313 through MW-315 were also analyzed for TPHd and TPHo. Results are summarized in Table 6.

No analytes were detected above the cleanup levels at MW-102, MW-313, and MW-314.

Concentrations of TPHg exceeded the cleanup level of 1 mg/L in wells MW-311, MW-312 and MW-315 during all four quarters. The maximum detected concentration in monitoring well MW-311 was during the September event at 2.49 mg/L, the maximum concentration in MW-312 was 2.58 mg/L during the September event, and the maximum concentration in MW-315 was 3.02 mg/L during the September event. While some of the wells had exceedances of TPHg as described above, benzene was below the cleanup level in each well in all four quarters of 2023. Concentrations of toluene, ethylbenzene, total xylenes, TPHd, and TPHo were below reporting limits and/or applicable cleanup levels in each well for all four quarters of 2023. TPHg exceedances are highlighted in red on Figures 9 and 10.

#### 3.3.3.3 Main Tank Farm – Eastern and Western Boundaries

Monitoring wells TX-04 and TX-06A were designated as the sentry wells for the eastern and western boundaries of the Main Tank Farm. Groundwater samples were collected from these two monitoring wells in December 2023 and analyzed for BTEX, TPHg, TPHd, and TPHo.

No analytes were detected above the cleanup levels at TX-04 and TX-06A (Table 6).

#### 3.3.3.4 Main Tank Farm – Southern Boundary (includes the SH-04 Area)

SH-04 Area monitoring wells MW-05, MW-104, MW-111, MW-112A, and SH-04 as well as monitoring well MW-105, located to the west of the SH-04 Area, were designated as the sentry wells for the southern boundary of the Main Tank Farm.

- MW-05, MW-111, MW-112A, and SH-04 were sampled in June and December 2023 for BTEX, TPHg, TPHd, and TPHo.
- MW-104 was sampled in June and December 2023 for total lead, TPHg, TPHd, and TPHo.
- MW-105 was sampled in December 2023 for total lead, BTEX, TPHg, TPHd, and TPHo.

The results are presented in Table 6, and the cleanup level exceedances for these five sentry wells are as follows:

- TPHg concentrations exceeded the cleanup level of 1 mg/L in June and December at MW-112A with a maximum concentration of 1.29 mg/L (Figure 9).
- Lead was reported at a concentration of 0.0336 mg/L in MW-105 during the December 2023 event.

## 4. TX-03A Area Investigation

The TX-03A Area is shown on Figure 2. The TX-03A Area, which includes the North Tank Farm, was identified for additional evaluation in the third EPA 5-Year review of the Harbor Island Superfund Site (EPA, 2010), and active remediation was recommended in the fourth EPA 5-year review (EPA, 2015). This section summarizes the other activities conducted in the TX-03A Area during 2023 in addition to the compliance monitoring.

### 4.1 TX-03A Area Groundwater Flow

Localized groundwater elevation contour maps for the shallow depth interval beneath the TX-03A Area using the March, June, September, and December 2023 groundwater elevations are presented as Figures 3 through 6, respectively. Groundwater in the TX-03A Area flows in variable directions in quarters one and two, and north to northwest in the third and fourth quarters.

### 4.2 Bio Sparging System

Construction of the bio sparging system was completed in May 2017, and the system was started on May 25, 2017. Details of the system installation and the operation and maintenance plan are provided in AECOM's *Bio Sparging Completion Technical Memorandum*, dated March 28, 2018. The location of the bio sparging system, including the air-lines and a total of six main trunk lines, is shown on Figure 2.

The bio sparge system operated until December 6, 2019, when it was shutdown to support the fourth quarter sampling event, and the system has remained off for rebound testing.

### 4.3 TX-03A Area Groundwater Analytical Results

The TX-03A Area is evaluated by North Tank Farm monitoring wells (MW-201 through MW-204 and MW-206A) and TX-03A Area monitoring wells (MW-101, MW-102, MW-301 through MW-304, MW-307 through MW-315, TES-MW-1, and TX-03A). Groundwater samples from these monitoring wells were analyzed for one or more of the following: TPHg, TPHd, TPHo, BTEX, and natural attenuation parameters (Table 2). The results are included in Tables 5 and 6. The BTEX and petroleum hydrocarbon concentrations detected in groundwater in the TX-03A Area in 2023 are summarized below. The TPHg, TPHd, and benzene concentration are shown on Figures 9 and 10. The BTEX and TPHg concentration trends for monitoring well TX-03A are shown on Figure 11.

Note: To support effectiveness monitoring of the bio sparging program, the monitoring program within the TX-03A Area was modified in 2017 to include the quarterly sampling of monitoring wells MW-302, MW-303, and MW-304. Quarterly groundwater sampling began in June 2017 for monitoring wells MW-302 and MW-304 and began in December 2017 for monitoring well MW-303.

### 4.3.1 Petroleum Hydrocarbon Results

TPHg was analyzed in 21 monitoring wells located in the TX-03A Area during the monitoring period (Table 2). TPHd and TPHo were analyzed in 16 monitoring wells located in the TX-03A Area during the monitoring period (Table 2).

TPHg exceeded the cleanup level of 1 mg/L during one or more sampling events in monitoring wells MW-202, MW-302, MW-303, MW-307, MW-311, MW-312, MW-315, and TX-03A at concentrations ranging from 1.05 mg/L (MW-202 in December 2023) to 3.02 mg/L (MW-315 in September 2023). TPHg concentrations have decreased to below cleanup levels in 2023 at wells MW-101, MW-102, MW-201, MW-203, MW-204, MW-206A, MW-301, MW-304, MW-308, MW-309, MW-310, MW-313, MW-314, and TES-MW-1.

Mann-Kendall trend analysis was completed by the EPA and summarized in their fifth 5-year review (EPA, 2020). Their review noted that wells MW-312 and MW-315 showed increasing trends for TPHg and benzene above cleanup levels, but that concentrations will likely decline as the remediated groundwater migrates downgradient.

Reported TPHd and TPHo concentrations exceeded the cleanup levels of 10 mg/L only in monitoring well MW-202 during the December 2023 event with a concentration of 14.5 mg/L of TPHd.

### 4.3.2 BTEX Results

BTEX constituents were analyzed in 20 monitoring wells located in the TX-03A Area. Benzene concentrations exceeded the cleanup level of 0.071 mg/L in monitoring wells MW-301, MW-303, MW-304, and TX-03A at concentrations ranging from 0.0782 mg/L (MW-301 in March 2023) to 0.366 mg/L (MW-303 in September 2023). Benzene concentrations are shown on Figure 10 with the cleanup level exceedances highlighted in red.

Toluene and ethylbenzene detections were all below the cleanup levels of 200 mg/L and 29 mg/L, respectively. A cleanup level for xylenes has not been established for the Site.

## 4.4 Bio Sparging System Rebound Evaluation

The bio sparging system operated from May 2017 through December 2019. Seventeen monitoring events (one event in 2019, four in 2020, four in 2021, four in 2022 and four in 2023) have been completed since the system was shutdown. Wells MW-301, MW-302, MW-303, MW-304, MW-307, MW-308, MW-310, and TX-03A are closest to the bio sparge lines (Figure 2).

Since the system was shutdown, TPHg, TPHd, TPHo, and BTEX concentrations have remained generally below respective cleanup levels in wells MW-301, MW-304, MW-308, and MW-310, with periodic exceedances. Well MW-308 has only had two exceedances of TPHg and/or benzene cleanup levels in the seventeen events, and wells MW-301, MW-304, and MW-310 have had only three exceedances of TPHg and/or benzene cleanup levels, in the seventeen events.

In well MW-302, BTEX concentrations have remained below respective cleanup levels, and TPHg concentrations have exceeded cleanup levels in seven of the seventeen events since the system was shutdown. TPHd has only exceeded the cleanup level once in the seventeen events completed since the system was shutdown and TPHo has remained in compliance with cleanup levels. In wells MW-303 and MW-307, TPHg concentrations have exceeded cleanup objectives in fourteen or fifteen of the seventeen events each, and benzene in six of the seventeen for MW-303 and eleven of the seventeen for MW-307. TPHg concentrations in wells MW-302, MW-303, and MW-307 remain significantly lower than concentrations reported between 2012 and 2016, prior to system operation. Maximum gasoline concentrations in wells MW-302, MW-303, and MW-307 in the seventeen events since shutdown were 1.85 mg/L (MW-302, April 2021), 4.07 mg/L (MW-303, April 2021), and 4.06J mg/L (MW-307, April 2021), compared to maximum historical concentrations of 5.86 mg/L (MW-302, April 2014), 12.8 mg/L (MW-303, February 2013), and 10.9 mg/L (MW-307, November 2012).

Based on these results, GHD recommends continued rebound monitoring in 2024. Given that the system has not been operated for several years, GHD will also conduct an evaluation of the bio sparging system condition in the first quarter of 2024.

## 5. Pump House Area Investigation

This area is located around the Pump House, south of SH-04 area. Monitoring wells MW-113, MW-114, and MW-115 were installed in June 2022 to assess potential groundwater impacts from the 2020 gasoline release.

### 5.1 Groundwater Flow

Groundwater elevations were monitored in the second and fourth quarters of 2023. Groundwater flow direction is generally to the south (Figure 7 and Figure 8).

### 5.2 Pump House Area Groundwater Analytical Results

In June and December 2023 groundwater samples were collected from MW-113, MW-114, MW-115 and analyzed for the following petroleum hydrocarbons and BTEX (Table 2).

#### 5.2.1 Petroleum Hydrocarbon Results

Concentrations of TPHg, TPHd, and TPHo in monitoring wells MW-113, MW-114, and MW-115 were all below the cleanup goals of 1 mg/L (TPHg) and 10 mg/L (TPHd and TPHo) during the June and December 2023 events.

#### 5.2.2 BTEX Results

BTEX constituents were not detected in groundwater samples in wells MW-114 and MW-115 in either the June or December 2023 events. These wells are located to the west of the pump house.

Groundwater samples collected from well MW-113, southwest of the pump house, in June 2023, had detections of toluene, ethylbenzene and total xylenes at concentrations that are below cleanup levels (where established). By December 2023, ethylbenzene was not detected and the toluene and total xylenes concentrations decreased and remained below the cleanup level. Benzene was detected in MW-113 in June 2023 at a concentration of 0.396 mg/L, which exceeds the Site-specific cleanup level (0.071 mg/L). By December 2023, the benzene concentration had reduced to 0.0513 mg/L, which is below the cleanup level.

GHD recommends continuing to monitor wells MW-113, MW-114, and MW-115 throughout 2024 to understand the contaminant trends. If concentrations of petroleum hydrocarbons and BTEX stay below cleanup levels throughout 2024, the frequency or cessation of monitoring in 2025 will be reassessed.

## 6. Summary

Based on the analytical results of the January through December 2023 monitoring period, GHD concludes the following:

- Groundwater elevations at the Site generally appear to be consistent with historical levels. Elevation data will be collected in association with all monitoring events in 2024. GHD proposes no changes to the monitoring schedule, which is summarized in Table 2.

- Measurable product from an older release is still present in the Shoreline Manifold Area. During the past year, measurable product was observed in monitoring well MW-210. Absorbent socks are present for product recovery in monitoring wells MW-210 and MW-212. Given the presence of product, absorbent socks will remain in monitoring wells MW-210 and MW-212, and performance product monitoring will continue until discussed further with Ecology. The performance product monitoring schedule is included in Table 2.
- Natural attenuation parameters were collected annually from eight monitoring wells (MW-302, MW-304, MW-307, MW-308, MW-310, MW-311, MW-312, and TX-03A) on the northern boundary of the Main Tank Farm and two monitoring wells (MW-202 and MW-203) in the North Tank Farm. In support of evaluating natural attenuation and the bio sparging system, no changes to the natural attenuation monitoring program are proposed in this report. The groundwater monitoring program is summarized in Table 2.
- Of the sentry wells, cleanup level exceedances included TPHg detections in MW -112A, MW-311, MW-312, MW-315. Benzene no longer exceeds cleanup levels in these wells.
- The POC wells MW-213 and MW-214 continue to have periodic detections of TPHg, TPHd, and TPHo at concentrations below the applicable cleanup levels. BTEX concentrations have remained below reporting limits. The cPAH TEQ in well MW-213 also remains below reporting limits and/or cleanup levels. The cPAH TEQ for well MW-214 was below the cleanup level during the June 2023 event; however, the cPAH TEQ for well MW-214 was above the Site-specific cleanup level during the December 2023 event, noting that the result is an estimated value. This is the first cPAH TEQ exceedance for this well and Site; therefore, GHD recommends continuing with the semiannual sampling of these wells to further understand the contaminant trend.
- SH 04 Area: Concentrations of benzene and TPHg in monitoring well MW-104 remain below the cleanup levels in 2023. Concentrations are generally consistent with historical results.
- TX 03A Area: Concentrations of benzene and TPHg have decreased from pre bio sparge system operation levels in source area wells but continue to increase and still exceed cleanup levels in wells MW-302, MW-303, and MW-307. GHD recommends continued rebound monitoring and an assessment of the condition of the biosparge system.
- Wells MW-113, MW-114, and MW-115 were sampled in June and December as part of the pump house release investigation. TPH and BTEX were either not detected and/or were below the cleanup levels, except for the benzene concentration detected above the cleanup level in the groundwater sampled from well MW-113 in June. The benzene concentration had declined to below the cleanup level in December 2023. Currently, all analyzed constituents in MW-114, and MW-115 are below cleanup levels. GHD recommends continuing to monitor wells MW-113, MW-114, and MW-115 throughout 2024 to understand the contaminant trends. If concentrations of petroleum hydrocarbons and BTEX stay below cleanup levels throughout 2024, the frequency or cessation of monitoring in 2025 will be reassessed.

## 7. References

AECOM, 2015. Stormwater System Cleanout and Video Survey Report, Shell Oil Products US Harbor Island Terminal, Seattle, Washington, Consent Decree No. 99 2 07176 OSEA. October 5.

AECOM, 2019a. Technical Memorandum: Stormwater System Pipe Rehabilitation Construction Completion Memorandum, Shell Harbor Island Terminal, Seattle, Washington. January 25.

AECOM, 2019b. Technical Memorandum: August 2019 Dry Weather Stormwater System Sampling Results, Shell Harbor Island Terminal, Seattle, Washington. October 14.

AECOM, 2020. Technical Memorandum: August 2020 Dry Weather Stormwater System Sampling Results, Shell Harbor Island Terminal, Seattle, Washington. September 18.

Arcadis, 2023. 2022 Annual Groundwater Monitoring Report, Harbor Island Terminal, Seattle, Washington. January 2023.

Ecology, 1998. Equilon Seattle Terminal MTCA Consent Decree. October 2.

Ecology, 1998. Cleanup Action Plan, Equilon Seattle Sales Terminal, Harbor Island Site, Seattle, Washington. September 28.

EMCON and LCI, 1999. Compliance Monitoring Plan, Equilon Seattle Sales Terminal, Seattle, Washington. Submitted to the Washington State Department of Ecology. February 24 (revised).

EPA, 2010. Third Five Year Review Report, Harbor Island Superfund Site, Seattle, Washington. September 24.

EPA, 2015. Five Year Review Report for Harbor Island Superfund Site, Seattle, Washington. September 23.

EPA, 2020. Fifth Five Year Review Report for Harbor Island Superfund Site, King County, Washington. September 16.

GHD, 2021a. Interim Action Report, Shell Harbor Island Terminal, Seattle, Washington. March 11.

GHD, 2021b. Well Installation Work Plan, Shell Harbor Island Terminal, Seattle, Washington. August 31.

GHD, 2021c. 2021 Dry Weather Stormwater System Sampling Results, Shell Harbor Island Terminal, Seattle, Washington. August 23.

GHD, 2022. Revised Site Investigation Report, Shell Harbor Island Terminal, Seattle, Washington, December 15.

KJC, 1990. Contaminant Source Tracing Investigation, Harbor Island Storm Drain System. September.

RECON, 2017. Remedial Action Letter Report – Former Lubes Facility Decommissioning, Shell Harbor Island Terminal, Seattle, Washington, Consent Decree 99 2 07176 OSEA. June 19.

RETEC, 2006a. Proposed Technical Changes to Shell Harbor Island Compliance Monitoring Plan, submitted to the Washington State Department of Ecology. February 1.

RETEC, 2006b. Follow up to Telephone Conversation Regarding the Shell Harbor Island Compliance Monitoring Plan. Submitted to the Washington State Department of Ecology. March 9.

URS, 2008. Proposed Changes to Shell's Seattle Terminal Compliance Monitoring Plan. Submitted to the Washington State Department of Ecology. April.

URS, 2012. Annual Compliance Monitoring Report – 2010 2011, Shell Seattle Distribution Terminal, Seattle, Washington. February.

URS, 2014. Annual Compliance Monitoring Report 2014, Shell Harbor Island Terminal, Seattle, Washington. April.

VCA, 2016. Voluntary Compliance Agreement, Shell Harbor Island Terminal, Seattle, Washington. April.

# Tables

**Table 1**  
**Groundwater Cleanup Levels**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Constituent	Cleanup Level <sup>a</sup> (mg/L)
Arsenic	0.036 <sup>b</sup>
Benzene	0.071
Benzo(a)anthracene	0.000031
Benzo(a)pyrene	0.000031
Benzo(b)fluoranthene	0.000031
Benzo(k)fluoranthene	0.000031
Chrysene	0.000031
Dibenzo(a,h)anthracene	0.000031
Ethylbenzene	29.0
Indeno(1,2,3-cd)pyrene	0.000031
Lead	0.0058
TPH-G	1.0
TPH-D	10
TPH-O	10
Toluene	200.0

**Notes:**

<sup>a</sup> Cleanup levels per the Consent Decree (Ecology, 1998), except where noted.

<sup>b</sup> Cleanup level based on ambient water quality criteria (chronic criteria for the protection of aquatic organisms) per WAC 173-201A-040.

mg/L = milligrams per liter

TPH-D = total petroleum hydrocarbons as diesel

TPH-G = total petroleum hydrocarbons as gasoline

TPH-O = total petroleum hydrocarbons as oil



**Table 2  
Groundwater Monitoring Program  
Shell Harbor Island Terminal  
Seattle, Washington**

Well	Schedule								Analysis					Compliance Monitoring Well Network Well Class				Well Construction		Comments and Deviations from Monitoring Program	
	1Q		2Q		3Q		4Q (2nd Semi-Annual & Annual)		Total Lead	BTEX	TPH-Gx	TPH-Dx	PAHs	NA Parameters	Performance Product	NA Performance	Groundwater Quality Confirmation	Sentry	Total Depth (ft bgs)		Screened Interval (ft bgs)
	Gauge	Sample	Gauge	Sample	Gauge	Sample	Gauge	Sample													
<b>TX-03A Area - North Tank Farm</b>																					
MW-201	G		G		G		G	S		X	X	X						X	15	5.0 - 14.5	
MW-202	G		G	S	G		G	S		xA	X	X		xA		X			15	5.0 - 14.5	
MW-203	G		G	S	G		G	S			X	X		xA		X			15	5.0 - 14.5	
MW-204	G		G		G		G	S		X	X	X			X			X	15	5.0 - 14.5	
MW-206A	G		G		G		G	S		X	X	X						X	15	5.0 - 14.5	
<b>TX-03A Area - Excluding the North Tank Farm</b>																					
MW-101	G		G		G		G	S		X	X	X							15	5.0 - 14.5	
MW-102	G		G		G		G	S		X	X	X						X	15	5.0 - 14.5	
MW-301	G	S	G	S	G	S	G	S		X	X	X							15	5.0 - 15.0	
MW-302	G	S	G	S	G	S	G	S		X	X	xA		xA		X			15	5.0 - 15.0	
MW-303	G	S	G	S	G	S	G	S		X	X	xA		xA		X			15	5.0 - 15.0	
MW-304	G	S	G	S	G	S	G	S		X	X	xA		xA		X			15	5.0 - 15.0	
MW-307	G	S	G	S	G	S	G	S		X	X	xS		xA		X			15	5.0 - 15.0	
MW-308	G	S	G	S	G	S	G	S		X	X			xA		X			15	5.0 - 15.0	
MW-309	G		G	S	G		G	S		X	X	xA							15	5.0 - 15.0	
MW-310	G	S	G	S	G	S	G	S		X	X	xA		xA		X			15	5.0 - 15.0	
MW-311	G	S	G	S	G	S	G	S		X	X			xA		X		X	15	5.0 - 15.0	
MW-312	G	S	G	S	G	S	G	S		X	X			xA		X		X	15	5.0 - 15.0	
MW-313	G	S	G	S	G	S	G	S		X	X	X						X	15	5.0 - 15.0	
MW-314	G	S	G	S	G	S	G	S		X	X	X						X	15	5.0 - 15.0	
MW-315	G	S	G	S	G	S	G	S		X	X	X						X	15	5.0 - 15.0	
TES-MW-1	G		G		G		G	S		X	X	X							18	3.0 - 18.0	
TX-03A	G	S	G	S	G	S	G	S		X	X	xA		xA		X			16	6.0 - 16.0	
<b>SH-04 Area</b>																					
MW-05			G	S			G	S		X	X	X						X	15	5.0 - 15.0	
MW-111			G	S			G	S		X	X	X						X	15	5.0 - 14.5	
MW-112A			G	S			G	S		X	X	X						X	15	5.5 - 15.0	
SH-04			G	S			G	S		X	X	X						X	16	6.0 - 16.0	
MW-104			G	S			G	S	X		X	X						X	15	5.0 - 14.5	
<b>Additional Compliance Monitoring Wells</b>																					
MW-105							G	S	X	X	X	X						X	15	5.0 - 14.5	
TX-04							G	S		X	X	X						X	16	6.0 - 16.0	
TX-06A							G	S		X	X	X						X	15.8	5.5 - 15.5	
<b>Shoreline Manifold Area</b>																					
MW-208	MG		MG		MG		MG							X					16.5	5.0 - 14.5	
MW-210	MG		MG		MG		MG							X					15	unknown	
MW-211	MG		MG		MG		MG							X					13	5.0 -13.0	
MW-212	MG		MG		MG		MG							X					12	unknown	
MW-213			G	S			G	S		X	X	X	X					X-POC	30	30 - 40	
MW-214			G	S			G	S		X	X	X	X					X-POC	30	30 - 40	

**Table 2  
Groundwater Monitoring Program  
Shell Harbor Island Terminal  
Seattle, Washington**

Well	Schedule								Analysis					Compliance Monitoring Well				Well Construction		Comments and Deviations from Monitoring Program	
	1Q		2Q		3Q		4Q (2nd Semi-Annual & Annual)							Network	Well Class	Well Construction					
	Gauge	Sample	Gauge	Sample	Gauge	Sample	Gauge	Sample	Total Lead	BTEX	TPH-Gx	TPH-Dx	PAHs	NA Parameters	Performance Product	NA Performance	Groundwater Quality Confirmation	Sentry	Total Depth (ft bgs)		Screened Interval (ft bgs)
<b>Additional Wells (Included in Annual Inspection only)</b>																					
ASW-1																			14	13 - 14	Air sparge well
PSV-1																			4	3 - 4	Soil gas well
PSV-2																			4	3 - 4	Soil gas well
SVE-1																			4	3 - 4	Soil vapor extraction well
TW-01																			14	4 - 14	Pumping test well
DP-06																					
MW-06																					
MW-103																					
MW-106																					
MW-107																					
MW-108																					
MW-109																					
MW-110																					
MW-205																					
MW-209																					
MW-305																					
MW-306																					
AMW-8																					Wells were discovered during TSO Terminal Audit and are no longer used by operations for leak detection.
AMW-X																					Groundwater monitoring of these wells is not required. Checking for well logs for future well abandonment.

**Notes:**

- Red = Modifications to the program since the November 2008 proposed changes which were established in correspondence between URS and Ecology. 1Q = March
- 2Q = June 3Q = August
- 4Q = December Addtl = Additional
- BGD = Background well with respect to confirmational sampling
- BTEX = benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260B Dec = December
- DTP = Depth to product
- ft bgs = below ground surface
- G = indicates a well to be gauged during that event MG = monthly gauge
- NA = natural attenuation
- Natural Attenuation Parameters: Nitrate and Nitrite by EPA Method 353.2, Sulfate by EPA Method 300.0, Dissolved Iron and Manganese by EPA Method 6010B/6020A (Lab Filtered), and Ferrous Iron collected in the field.
- PAHs = polycyclic aromatic hydrocarbons by EPA Method 8270C-SIM POC = Conditional Point of Compliance Well
- Q = quarter
- S = indicates a well to be sampled during that event Sept = September
- Total Lead by EPA Method 6020
- TPH-Dx = total petroleum hydrocarbons as diesel by NWTPH-Dx TPH-Gx = total petroleum hydrocarbons as gasoline by NWTPH-Gx WLM = Water level measurement
- X = indicates a well to be analyzed for that analyte
- X<sup>A</sup> = indicates a well to be analyzed for that analyte during the annual sampling event only
- X<sup>S</sup> = indicates a well to be analyzed for that analyte during both semi-annual sampling events only

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-05	04/06/93	10.39	6.12	4.27
MW-05	05/13/93	10.39	5.92	4.47
MW-05	06/10/93	10.39	5.98	4.41
MW-05	07/08/93	10.39	6.23	4.16
MW-05	08/03/93	10.39	6.50	3.89
MW-05	10/08/93	10.39	7.22	3.17
MW-05	11/05/93	10.39	7.42	2.97
MW-05	12/03/93	10.39	7.38	3.01
MW-05	01/05/94	10.39	6.64	3.75
MW-05	02/04/94	10.39	6.54	3.85
MW-05	08/28/95	10.39	Not Measured	Not Measured
MW-05	09/27/95	10.39	8.35	2.04
MW-05	04/27/99	10.39	8.07	2.32
MW-05	07/14/99	10.39	5.88	4.51
MW-05	10/18/99	10.39	7.00	3.39
MW-05	04/05/00	10.39	5.05	5.34
MW-05	07/18/00	10.39	6.30	4.09
MW-05	10/02/00	10.39	7.15	3.24
MW-05	01/22/01	10.39	6.50	3.89
MW-05	07/23/01	10.39	7.43	2.96
MW-05	07/18/02	10.39	7.10	3.29
MW-05	01/30/03	10.39	5.84	4.55
MW-05	04/15/03	10.39	5.80	4.59
MW-05	07/17/03	10.39	7.12	3.27
MW-05	10/15/03	10.39	7.78	2.61
MW-05	10/23/03	10.39	7.80	2.59
MW-05	01/13/04	10.39	5.65	4.74
MW-05	04/19/04	13.57	6.35	7.22
MW-05	07/27/04	13.57	7.32	6.25
MW-05	10/18/04	13.57	7.36	6.21
MW-05	01/24/05	13.57	6.26	7.31
MW-05	04/18/05	13.57	6.27	7.30
MW-05	07/12/05	13.57	6.85	6.72
MW-05	10/18/05	13.57	7.60	5.97
MW-05	01/25/06	13.57	4.78	8.79
MW-05	04/25/06	13.57	5.90	7.67
MW-05	10/11/06	13.57	7.62	5.95
MW-05	11/19/08	13.57	8.23	5.34
MW-05	11/16/09	13.57	6.44	7.13
MW-05	10/29/10	13.57	6.57	7.00

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-05	10/25/11	13.57	7.25	6.32
MW-05	05/30/12	13.57	5.86	7.71
MW-05	08/23/12	13.57	6.63	6.94
MW-05	11/27/12	13.57	5.30	8.27
MW-05	05/16/13	13.57	5.72	7.85
MW-05	11/07/13	13.57	6.49	7.08
MW-05	04/22/14	13.57	5.25	8.32
MW-05	12/08/15	13.57	5.42	8.15
MW-05	05/04/16	13.57	5.22	8.35
MW-05	12/14/16	13.57	4.78	8.79
MW-05	06/13/17	13.57	5.45	8.12
MW-05	12/04/17	13.57	5.64	7.93
MW-05	06/12/18	13.57	6.43	7.14
MW-05	12/17/18	13.57	6.27	7.30
MW-05	05/15/19	13.57	6.69	6.88
MW-05	12/09/19	13.57	7.09	6.48
MW-05	06/29/20	13.57	6.30	7.27
MW-05	12/14/20	13.57	6.31	7.26
MW-05	04/12/21	13.57	5.40	8.17
MW-05	06/14/21	13.57	6.27	7.30
MW-05	12/15/21	13.57	5.00	8.57
MW-05	04/18/22	13.57	5.35	8.22
MW-05	06/27/22	13.57	5.73	7.84
MW-05	12/12/22	13.57	5.95	7.62
MW-05	06/12/23	13.57	5.98	7.59
MW-05	12/18/23	13.57	4.85	8.72
MW-101	04/06/93	15.14	10.48	4.66
MW-101	05/13/93	15.14	10.32	4.82
MW-101	06/10/93	15.14	10.45	4.69
MW-101	07/08/93	15.14	10.75	4.39
MW-101	08/03/93	15.14	11.09	4.05
MW-101	09/08/93	15.14	11.52	3.62
MW-101	10/08/93	15.14	11.89	3.25
MW-101	11/05/93	15.14	12.13	3.01
MW-101	12/03/93	15.14	12.14	3.00
MW-101	01/05/94	15.14	11.16	3.98
MW-101	02/04/94	15.14	11.02	4.12
MW-101	08/28/95	15.14	11.25	3.89
MW-101	09/27/95	15.14	11.49	3.65

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-101	04/27/99	15.14	9.22	5.92
MW-101	07/14/99	15.14	10.73	4.41
MW-101	10/18/99	15.14	11.78	3.36
MW-101	01/11/00	15.14	9.73	5.41
MW-101	04/05/00	15.14	9.85	5.29
MW-101	07/18/00	15.14	11.01	4.13
MW-101	10/02/00	15.14	11.85	3.29
MW-101	01/22/01	15.14	11.67	3.47
MW-101	07/23/01	15.14	12.33	2.81
MW-101	10/16/01	15.14	13.15	1.99
MW-101	04/23/02	15.14	10.81	4.33
MW-101	07/18/02	15.14	11.88	3.26
MW-101	10/23/02	15.14	12.73	2.41
MW-101	01/30/03	15.14	10.09	5.05
MW-101	04/15/03	15.14	10.36	4.78
MW-101	07/17/03	15.14	11.94	3.20
MW-101	10/15/03	15.14	12.68	2.46
MW-101	01/13/04	15.14	10.06	5.08
MW-101	04/19/04	18.21	11.13	7.08
MW-101	07/27/04	18.21	12.07	6.14
MW-101	10/18/04	18.21	12.19	6.02
MW-101	01/24/05	18.21	10.61	7.60
MW-101	04/18/05	18.21	10.86	7.35
MW-101	07/12/05	18.21	11.61	6.60
MW-101	10/18/05	18.21	12.45	5.76
MW-101	01/25/06	18.21	9.21	9.00
MW-101	04/25/06	18.21	10.75	7.46
MW-101	10/11/06	18.21	12.39	5.82
MW-101	11/18/08	18.21	11.45	6.76
MW-101	11/16/09	18.21	10.95	7.26
MW-101	10/26/10	18.21	11.36	6.85
MW-101	10/25/11	18.21	12.15	6.06
MW-101	05/30/12	18.21	10.79	7.42
MW-101	06/13/12	18.21	10.90	7.31
MW-101	09/26/12	18.21	12.04	6.17
MW-101	11/27/12	18.21	9.90	8.31
MW-101	02/22/13	18.21	10.24	7.97
MW-101	05/16/13	18.21	10.89	7.32
MW-101	09/06/13	18.21	11.99	6.22
MW-101	11/07/13	18.21	11.78	6.43

**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation
		Elevation ft AMSL		ft AMSL
MW-101	04/22/14	18.21	10.16	8.05
MW-101	11/04/14	18.21	10.70	7.51
MW-101	03/10/15	18.21	10.31	7.90
MW-101	05/15/15	18.21	10.03	8.18
MW-101	07/29/15	18.21	11.86	6.35
MW-101	12/10/15	18.21	9.12	9.09
MW-101	02/23/16	18.21	8.81	9.40
MW-101	05/03/16	18.21	10.29	7.92
MW-101	08/30/16	18.21	11.29	6.92
MW-101	12/14/16	18.21	9.62	8.59
MW-101	03/13/17	18.21	8.87	9.34
MW-101	06/13/17	18.21	10.53	7.68
MW-101	08/22/17	18.21	11.63	6.58
MW-101	12/04/17	18.21	10.18	8.03
MW-101	03/06/18	18.21	10.05	8.16
MW-101	06/12/18	18.21	11.03	7.18
MW-101	09/05/18	18.21	11.97	6.24
MW-101	12/17/18	18.21	10.98	7.23
MW-101	03/18/19	18.21	10.17	8.04
MW-101	05/15/19	18.21	10.58	7.63
MW-101	09/17/19	18.21	12.03	6.18
MW-101	12/09/19	18.21	11.82	6.39
MW-101	04/27/20	18.21	10.53	7.68
MW-101	06/29/20	18.21	11.15	7.06
MW-101	09/21/20	18.21	12.00	6.21
MW-101	12/14/20	18.21	11.10	7.11
MW-101	04/12/21	18.21	10.20	8.01
MW-101	06/14/21	18.21	11.05	7.16
MW-101	09/22/21	18.21	12.00	6.21
MW-101	12/14/21	18.21	9.41	8.80
MW-101	03/28/22	18.21	9.67	8.54
MW-101	06/27/22	18.21	11.22	6.99
MW-101	09/19/22	18.21	11.79	6.42
MW-101	12/12/22	18.21	10.70	7.51
MW-101	03/27/23	18.21	11.26	6.95
MW-101	06/12/23	18.21	10.30	7.91
MW-101	09/11/23	18.21	10.96	7.25
MW-101	12/18/23	18.21	9.31	8.90
MW-102	04/06/93	12.51	7.99	4.52

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-102	05/13/93	12.51	7.82	4.69
MW-102	06/10/93	12.51	7.80	4.71
MW-102	07/08/93	12.51	8.32	4.19
MW-102	08/03/93	12.51	8.68	3.83
MW-102	09/08/93	12.51	9.03	3.48
MW-102	10/08/93	12.51	9.44	3.07
MW-102	11/05/93	12.51	9.62	2.89
MW-102	12/03/93	12.51	9.42	3.09
MW-102	01/05/94	12.51	8.50	4.01
MW-102	02/04/94	12.51	8.52	3.99
MW-102	08/28/95	12.51	8.86	3.65
MW-102	09/27/95	12.51	9.17	3.34
MW-102	04/27/99	12.51	6.68	5.83
MW-102	07/14/99	12.51	8.40	4.11
MW-102	10/18/99	12.51	9.38	3.13
MW-102	01/11/00	12.51	7.43	5.08
MW-102	04/05/00	12.51	7.55	4.96
MW-102	07/18/00	12.51	8.37	4.14
MW-102	10/02/00	12.51	9.45	3.06
MW-102	01/22/01	12.51	9.12	3.39
MW-102	07/23/01	12.51	9.91	2.60
MW-102	04/23/02	12.51	8.17	4.34
MW-102	07/18/02	12.51	9.44	3.07
MW-102	07/18/02	12.51	9.44	3.07
MW-102	10/23/02	12.51	10.05	2.46
MW-102	01/28/03	12.51	7.20	5.31
MW-102	04/15/03	12.51	7.75	4.76
MW-102	07/17/03	12.51	9.51	3.00
MW-102	10/15/03	12.51	10.11	2.40
MW-102	01/13/04	12.51	7.49	5.02
MW-102	04/19/04	15.60	8.72	6.88
MW-102	07/27/04	15.60	9.62	5.98
MW-102	10/18/04	15.60	9.54	6.06
MW-102	01/24/05	15.60	7.92	7.68
MW-102	04/18/05	15.60	8.20	7.40
MW-102	07/12/05	15.60	9.10	6.50
MW-102	10/18/05	15.60	9.87	5.73
MW-102	01/25/06	15.60	3.94	11.66
MW-102	04/25/06	15.60	8.24	7.36
MW-102	10/11/06	15.60	9.84	5.76

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-102	11/19/08	15.60	8.79	6.81
MW-102	11/16/09	15.60	8.10	7.50
MW-102	10/28/10	15.60	8.64	6.96
MW-102	10/25/11	15.60	9.59	6.01
MW-102	05/30/12	15.60	8.27	7.33
MW-102	06/13/12	15.60	8.32	7.28
MW-102	09/26/12	15.60	9.53	6.07
MW-102	11/27/12	15.60	7.03	8.57
MW-102	02/22/13	15.60	7.88	7.72
MW-102	05/16/13	15.60	8.40	7.20
MW-102	09/06/13	15.60	9.36	6.24
MW-102	11/07/13	15.60	9.18	6.42
MW-102	04/22/14	15.60	7.69	7.91
MW-102	11/04/14	15.60	7.91	7.69
MW-102	03/10/15	15.60	7.90	7.70
MW-102	05/15/15	15.60	8.47	7.13
MW-102	07/29/15	15.60	9.39	6.21
MW-102	12/10/15	15.60	6.53	9.07
MW-102	02/23/16	15.60	6.78	8.82
MW-102	05/03/16	15.60	7.92	7.68
MW-102	08/30/16	15.60	8.98	6.62
MW-102	12/14/16	15.60	7.27	8.33
MW-102	03/13/17	15.60	6.75	8.85
MW-102	06/13/17	15.60	8.10	7.50
MW-102	08/22/17	15.60	9.20	6.40
MW-102	12/04/17	15.60	7.32	8.28
MW-102	03/06/18	15.60	8.61	6.99
MW-102	06/12/18	15.60	9.02	6.58
MW-102	09/05/18	15.60	9.47	6.13
MW-102	12/17/18	15.60	8.20	7.40
MW-102	03/18/19	15.60	7.69	7.91
MW-102	05/15/19	15.60	7.83	7.77
MW-102	09/17/19	15.60	9.36	6.24
MW-102	12/09/19	15.60	9.23	6.37
MW-102	04/27/20	15.60	7.97	7.63
MW-102	06/29/20	15.60	8.53	7.07
MW-102	09/21/20	15.60	9.48	6.12
MW-102	12/14/20	15.60	8.31	7.29
MW-102	04/12/21	15.60	7.77	7.83
MW-102	06/14/21	15.60	8.47	7.13



**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation
		Elevation ft AMSL		ft AMSL
MW-102	09/22/21	15.60	9.39	6.21
MW-102	12/16/21	15.60	6.81	8.79
MW-102	03/28/22	15.60	7.28	8.32
MW-102	06/27/22	15.60	8.46	7.14
MW-102	09/19/22	15.60	9.44	6.16
MW-102	12/12/22	15.60	7.25	8.35
MW-102	03/27/23	15.60	8.02	7.58
MW-102	06/12/23	15.60	7.97	7.63
MW-102	09/11/23	15.60	9.00	6.60
MW-102	12/18/23	15.60	6.84	8.76
MW-104	04/06/93	10.22	5.98	4.24
MW-104	05/13/93	10.22	6.79	3.43
MW-104	06/10/93	10.22	5.85	4.37
MW-104	07/08/93	10.22	6.13	4.09
MW-104	08/03/93	10.22	6.38	3.84
MW-104	09/08/93	10.22	6.72	3.50
MW-104	10/08/93	10.22	7.05	3.17
MW-104	11/05/93	10.22	7.26	2.96
MW-104	12/03/93	10.22	7.26	2.96
MW-104	01/05/94	10.22	6.64	3.58
MW-104	02/04/94	10.22	6.46	3.76
MW-104	08/28/95	10.22	6.43	3.79
MW-104	09/27/95	10.22	6.70	3.52
MW-104	04/27/99	10.22	2.41	7.81
MW-104	07/14/99	10.22	5.62	4.60
MW-104	10/18/99	10.22	6.80	3.42
MW-104	01/11/00	10.22	5.04	5.18
MW-104	04/05/00	10.22	4.80	5.42
MW-104	07/18/00	10.22	6.15	4.07
MW-104	10/02/00	10.22	7.02	3.20
MW-104	01/22/01	10.22	6.45	3.77
MW-104	07/23/01	10.22	7.39	2.83
MW-104	10/16/01	10.22	8.59	1.63
MW-104	04/23/02	10.22	5.91	4.31
MW-104	07/18/02	10.22	7.07	3.15
MW-104	10/23/02	10.22	7.74	2.48
MW-104	01/28/03	10.22	6.03	4.19
MW-104	04/15/03	10.22	5.75	4.47
MW-104	07/17/03	10.22	7.08	3.14

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-104	10/15/03	10.22	7.76	2.46
MW-104	01/13/04	10.22	5.58	4.64
MW-104	04/19/04	13.46	6.30	7.16
MW-104	07/27/04	13.46	7.25	6.21
MW-104	10/18/04	13.46	7.34	6.12
MW-104	01/24/05	13.46	6.27	7.19
MW-104	04/18/05	13.46	6.22	7.24
MW-104	07/12/05	13.46	6.81	6.65
MW-104	10/18/05	13.46	7.55	5.91
MW-104	01/25/06	13.46	4.78	8.68
MW-104	04/25/06	13.46	5.82	7.64
MW-104	10/11/06	13.46	7.54	5.92
MW-104	11/18/08	13.46	6.74	6.72
MW-104	04/08/09	13.46	6.27	7.19
MW-104	11/16/09	13.46	6.39	7.07
MW-104	04/27/10	13.46	5.45	8.01
MW-104	10/26/10	13.46	6.53	6.93
MW-104	10/25/11	13.46	7.15	6.31
MW-104	03/01/12	13.46	5.82	7.64
MW-104	05/30/12	13.46	5.74	7.72
MW-104	06/13/12	13.46	5.86	7.60
MW-104	08/23/12	13.46	6.50	6.96
MW-104	09/26/12	13.46	6.90	6.56
MW-104	11/27/12	13.46	5.24	8.22
MW-104	05/16/13	13.46	5.65	7.81
MW-104	11/07/13	13.46	6.44	7.02
MW-104	04/22/14	13.46	5.20	8.26
MW-104	11/05/14	13.46	6.02	7.44
MW-104	05/20/15	13.46	5.86	7.60
MW-104	12/09/15	13.46	5.32	8.14
MW-104	12/14/16	13.46	4.78	8.68
MW-104	06/13/17	13.46	5.41	8.05
MW-104	12/04/17	13.46	5.75	7.71
MW-104	06/12/18	13.46	5.96	7.50
MW-104	12/17/18	13.46	6.23	7.23
MW-104	05/15/19	13.46	5.97	7.49
MW-104	12/09/19	13.46	6.99	6.47
MW-104	06/29/20	13.46	6.22	7.24
MW-104	12/14/20	13.46	6.18	7.28
MW-104	04/12/21	13.46	5.30	8.16

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-104	06/14/21	13.46	6.17	7.29
MW-104	12/15/21	13.46	4.99	8.47
MW-104	04/18/22	13.46	5.21	8.25
MW-104	06/27/22	13.46	5.62	7.84
MW-104	12/12/22	13.46	5.81	7.65
MW-104	06/12/23	13.46	5.96	7.50
MW-104	12/18/23	13.46	4.78	8.68
MW-105	04/06/93	9.05	4.97	4.08
MW-105	05/13/93	9.05	4.88	4.17
MW-105	06/10/93	9.05	4.83	4.22
MW-105	07/08/93	9.05	5.20	3.85
MW-105	08/03/93	9.05	5.43	3.62
MW-105	09/08/93	9.05	6.76	2.29
MW-105	10/08/93	9.05	6.06	2.99
MW-105	11/05/93	9.05	6.28	2.77
MW-105	12/03/93	9.05	6.18	2.87
MW-105	01/05/94	9.05	5.65	3.40
MW-105	02/04/94	9.05	5.63	3.42
MW-105	08/28/95	9.05	5.39	3.66
MW-105	09/27/95	9.05	5.70	3.35
MW-105	04/27/99	9.05	3.39	5.66
MW-105	07/14/99	9.05	4.58	4.47
MW-105	10/18/99	9.05	5.79	3.26
MW-105	01/11/00	9.05	3.97	5.08
MW-105	04/05/00	9.05	3.84	5.21
MW-105	07/18/00	9.05	4.90	4.15
MW-105	10/02/00	9.05	6.22	2.83
MW-105	01/22/01	9.05	5.56	3.49
MW-105	07/23/01	9.05	6.48	2.57
MW-105	04/23/02	9.05	5.25	3.80
MW-105	07/18/02	9.05	6.17	2.88
MW-105	10/23/02	9.05	6.78	2.27
MW-105	01/28/03	9.05	5.02	4.03
MW-105	04/15/03	9.05	4.97	4.08
MW-105	07/17/03	9.05	6.2	2.85
MW-105	10/15/03	9.05	6.66	2.39
MW-105	01/13/04	9.05	5.01	4.04
MW-105	04/19/04	12.18	5.51	6.67
MW-105	07/27/04	12.18	6.28	5.90

**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation
		Elevation ft AMSL		ft AMSL
MW-105	10/18/04	12.18	6.15	6.03
MW-105	01/24/05	12.18	5.02	7.16
MW-105	04/18/05	12.18	5.19	6.99
MW-105	07/12/05	12.18	5.82	6.36
MW-105	10/18/05	12.18	6.44	5.74
MW-105	01/25/06	12.18	4.05	8.13
MW-105	04/25/06	12.18	5.00	7.18
MW-105	10/11/06	12.18	6.51	5.67
MW-105	11/19/08	12.18	5.52	6.66
MW-105	11/16/09	12.18	5.03	7.15
MW-105	10/26/10	12.18	5.33	6.85
MW-105	10/25/11	12.18	6.06	6.12
MW-105	11/26/12	12.18	3.82	8.36
MW-105	11/07/13	12.18	5.42	6.76
MW-105	11/05/14	12.18	4.62	7.56
MW-105	12/08/15	12.18	4.00	8.18
MW-105	12/14/16	12.18	4.15	8.03
MW-105	12/04/17	12.18	4.55	7.63
MW-105	12/17/18	12.18	5.04	7.14
MW-105	12/09/19	12.18	5.83	6.35
MW-105	12/14/20	12.18	5.18	7.00
MW-105	04/12/21	12.18	4.55	7.63
MW-105	12/15/21	12.18	3.99	8.19
MW-105	12/12/22	12.18	4.35	7.83
MW-105	12/18/23	12.18	3.99	8.19
MW-111	04/06/93	8.61	4.95	3.66
MW-111	05/13/93	8.61	4.87	3.74
MW-111	06/10/93	8.61	4.84	3.77
MW-111	07/08/93	8.61	5.11	3.50
MW-111	08/03/93	8.61	5.29	3.32
MW-111	09/08/93	8.61	5.56	3.05
MW-111	10/08/93	8.61	5.81	2.80
MW-111	11/05/93	8.61	5.97	2.64
MW-111	12/03/93	8.61	5.93	2.68
MW-111	01/05/94	8.61	5.45	3.16
MW-111	02/04/94	8.61	5.28	3.33
MW-111	08/28/95	8.61	5.28	3.33
MW-111	09/27/95	8.61	5.45	3.16
MW-111	04/27/99	8.61	3.55	5.06

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-111	07/14/99	8.61	4.65	3.96
MW-111	10/18/99	8.61	5.59	3.02
MW-111	01/11/00	8.61	4.18	4.43
MW-111	04/05/00	8.61	3.94	4.67
MW-111	07/13/00	8.61	5.30	3.31
MW-111	10/02/00	8.61	5.68	2.93
MW-111	01/22/01	8.61	5.37	3.24
MW-111	07/23/01	8.61	6.22	2.39
MW-111	10/16/01	8.61	7.37	1.24
MW-111	04/23/02	8.61	5.28	3.33
MW-111	07/18/02	8.61	5.94	2.67
MW-111	10/23/02	8.61	6.50	2.11
MW-111	01/28/03	8.61	5.05	3.56
MW-111	04/15/03	8.61	5.03	3.58
MW-111	07/17/03	8.61	6.05	2.56
MW-111	10/15/03	8.61	6.45	2.16
MW-111	01/13/04	8.61	4.84	3.77
MW-111	04/19/04	11.88	5.46	6.42
MW-111	07/27/04	11.88	6.16	5.72
MW-111	10/18/04	11.88	6.11	5.77
MW-111	01/24/05	11.88	5.33	6.55
MW-111	04/18/05	11.88	5.27	6.61
MW-111	07/12/05	11.88	5.75	6.13
MW-111	10/18/05	11.88	6.26	5.62
MW-111	01/25/06	11.88	4.42	7.46
MW-111	04/25/06	11.88	4.88	7.00
MW-111	10/11/06	11.88	6.30	5.58
MW-111	11/19/08	11.88	8.62	3.26
MW-111	11/16/09	11.88	5.30	6.58
MW-111	10/26/10	11.88	5.35	6.53
MW-111	10/25/11	11.88	5.89	5.99
MW-111	05/30/12	11.88	4.81	7.07
MW-111	08/23/12	11.88	Not Measured	Not Measured
MW-111	11/29/12	11.88	4.14	7.74
MW-111	05/16/13	11.88	4.63	7.25
MW-111	11/07/13	11.88	5.10	6.78
MW-111	04/22/14	11.88	4.32	7.56
MW-111	11/05/14	11.88	4.58	7.30
MW-111	12/08/15	11.88	4.36	7.52
MW-111	12/14/16	11.88	4.04	7.84

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-111	06/13/17	11.88	4.51	7.37
MW-111	12/04/17	11.88	4.59	7.29
MW-111	06/12/18	11.88	5.25	6.63
MW-111	12/17/18	11.88	4.98	6.90
MW-111	05/15/19	11.88	4.97	6.91
MW-111	12/09/19	11.88	5.66	6.22
MW-111	06/29/20	11.88	5.12	6.76
MW-111	12/14/20	11.88	5.10	6.78
MW-111	04/12/21	11.88	4.46	7.42
MW-111	06/14/21	11.88	5.10	6.78
MW-111	12/15/21	11.88	4.14	7.74
MW-111	04/18/22	11.88	4.38	7.50
MW-111	06/27/22	11.88	4.67	7.21
MW-111	12/12/22	11.88	4.75	7.13
MW-111	06/12/23	11.88	4.59	7.29
MW-111	12/18/23	11.88	3.95	7.93
MW-112	04/06/93	9.98	6.69	3.29
MW-112	05/13/93	9.98	6.61	3.37
MW-112	06/10/93	9.98	6.51	3.47
MW-112	07/08/93	9.98	6.83	3.15
MW-112	08/03/93	9.98	7.00	2.98
MW-112	09/08/93	9.98	7.24	2.74
MW-112	10/08/93	9.98	7.50	2.48
MW-112	11/05/93	9.98	7.56	2.42
MW-112	12/03/93	9.98	7.41	2.57
MW-112	01/05/94	9.98	6.93	3.05
MW-112	02/04/94	9.98	6.83	3.15
MW-112	08/28/95	9.98	6.98	3.00
MW-112	09/27/95	9.98	7.13	2.85
MW-112	04/27/99	9.98	5.66	4.32
MW-112	07/14/99	9.98	6.57	3.41
MW-112	10/18/99	9.98	7.36	2.62
MW-112	01/11/00	9.98	5.89	4.09
MW-112	04/05/00	9.98	5.81	4.17
MW-112	07/18/00	9.98	7.11	2.87
MW-112	10/02/00	9.98	7.57	2.41
MW-112	04/25/06	9.98	6.44	3.54

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-112A	04/24/02	9.98	6.85	3.13
MW-112A	07/18/02	9.98	7.22	2.76
MW-112A	10/23/02	9.98	7.52	2.46
MW-112A	01/28/03	9.98	6.25	3.73
MW-112A	04/15/03	9.98	6.47	3.51
MW-112A	07/17/03	9.98	7.3	2.68
MW-112A	10/15/03	9.98	7.49	2.49
MW-112A	01/13/04	9.98	6.2	3.78
MW-112A	04/19/04	12.52	6.93	5.59
MW-112A	07/27/04	12.52	7.41	5.11
MW-112A	10/18/04	12.52	7.15	5.37
MW-112A	01/24/05	12.52	6.52	6.00
MW-112A	04/18/05	12.52	6.6	5.92
MW-112A	07/12/05	12.52	7.1	5.42
MW-112A	10/18/05	12.52	7.34	5.18
MW-112A	01/25/06	12.52	5.95	6.57
MW-112A	10/11/06	12.52	7.43	5.09
MW-112A	11/19/08	12.52	6.73	5.79
MW-112A	11/16/09	12.52	6.35	6.17
MW-112A	10/29/10	12.52	6.51	6.01
MW-112A	10/25/11	12.52	7.03	5.49
MW-112A	05/30/12	12.52	6.28	6.24
MW-112A	08/23/12	12.52	6.56	5.96
MW-112A	11/25/12	12.52	5.23	7.29
MW-112A	05/16/13	12.52	6.24	6.28
MW-112A	11/04/13	12.52	-	-
MW-112A	04/22/14	12.52	5.90	6.62
MW-112A	11/06/14	12.52	5.68	6.84
MW-112A	12/08/15	12.52	5.42	7.10
MW-112A	12/14/16	12.52	5.69	6.83
MW-112A	06/13/17	12.52	6.25	6.27
MW-112A	12/04/17	12.52	5.93	6.59
MW-112A	06/12/18	12.52	6.51	6.01
MW-112A	12/17/18	12.52	5.97	6.55
MW-112A	05/16/19	12.52	6.39	6.13
MW-112A	12/09/19	12.52	6.73	5.79
MW-112A	06/29/20	12.52	6.31	6.21
MW-112A	12/14/20	12.52	6.45	6.07
MW-112A	04/12/21	12.52	6.11	6.41
MW-112A	06/14/21	12.52	6.40	6.12

**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
MW-112A	12/15/21	12.52	5.52	7.00
MW-112A	04/18/22	12.52	6.04	6.48
MW-112A	06/27/22	12.52	6.17	6.35
MW-112A	12/12/22	12.52	5.88	6.64
MW-112A	06/12/23	12.52	5.46	7.06
MW-112A	12/18/23	12.52	5.52	7.00
MW-113	06/27/22	--	4.76	--
MW-113	12/12/22	12.47	4.82	7.65
MW-113	06/12/23	12.47	5.05	7.42
MW-113	12/18/23	12.47	3.95	8.52
MW-114	06/27/22	--	5.03	--
MW-114	12/12/22	13.18	5.10	8.08
MW-114	06/12/23	13.18	5.18	8.00
MW-114	12/18/23	13.18	4.22	8.96
MW-115	06/27/22	--	4.74	--
MW-115	12/12/22	12.64	4.60	8.04
MW-115	06/12/23	12.64	5.10	7.54
MW-115	12/18/23	12.64	3.98	8.66
MW-201	04/06/93	17.07	14.03	3.04
MW-201	05/13/93	17.07	14.02	3.05
MW-201	06/10/93	17.07	13.97	3.10
MW-201	07/08/93	17.07	14.25	2.82
MW-201	08/03/93	17.07	14.48	2.59
MW-201	09/08/93	17.07	14.68	2.39
MW-201	10/08/93	17.07	14.90	2.17
MW-201	11/05/93	17.07	15.03	2.04
MW-201	12/03/93	17.07	14.96	2.11
MW-201	01/05/94	17.07	14.10	2.97
MW-201	02/04/94	17.07	14.32	2.75
MW-201	08/28/95	17.07	14.49	2.58
MW-201	09/27/95	17.07	14.56	2.51
MW-201	04/27/99	17.07	13.04	4.03
MW-201	07/14/99	17.07	14.26	2.81
MW-201	10/18/99	17.07	14.93	2.14
MW-201	01/11/00	17.07	13.03	4.04
MW-201	04/05/00	17.07	13.90	3.17



**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-201	07/18/00	17.07	14.09	2.98
MW-201	10/02/00	17.07	14.82	2.25
MW-201	01/22/01	17.07	14.43	2.64
MW-201	07/23/01	17.07	14.95	2.12
MW-201	10/16/01	17.07	16.11	0.96
MW-201	04/24/02	17.07	14.23	2.84
MW-201	07/18/02	17.07	14.73	2.34
MW-201	10/23/02	17.07	15.13	1.94
MW-201	01/28/03	17.07	13.13	3.94
MW-201	04/15/03	17.07	13.58	3.49
MW-201	07/17/03	17.07	14.70	2.37
MW-201	10/15/03	17.07	14.99	2.08
MW-201	01/13/04	17.07	12.71	4.36
MW-201	04/19/04	20.18	14.07	6.11
MW-201	07/27/04	20.18	14.70	5.48
MW-201	10/18/04	20.18	14.70	5.48
MW-201	01/24/05	20.18	13.44	6.74
MW-201	04/18/05	20.18	13.73	6.45
MW-201	07/12/05	20.18	14.47	5.71
MW-201	10/18/05	20.18	14.99	5.19
MW-201	01/25/06	20.18	12.61	7.57
MW-201	04/25/06	20.18	13.94	6.24
MW-201	10/11/06	20.18	15.00	5.18
MW-201	11/20/08	20.18	13.77	6.41
MW-201	11/16/09	20.18	13.74	6.44
MW-201	10/27/10	20.18	14.42	5.76
MW-201	10/26/11	20.18	14.94	5.24
MW-201	11/27/12	20.18	13.10	7.08
MW-201	02/22/13	20.18	13.74	6.44
MW-201	05/16/13	20.18	14.45	5.73
MW-201	09/06/13	20.18	14.78	5.40
MW-201	11/07/13	20.18	14.70	5.48
MW-201	04/22/14	20.18	13.42	6.76
MW-201	11/04/14	20.18	13.65	6.53
MW-201	03/10/15	20.18	13.64	6.54
MW-201	05/15/15	20.18	14.34	5.84
MW-201	07/29/15	20.18	14.65	5.53
MW-201	12/10/15	20.18	12.23	7.95
MW-201	02/23/16	20.18	12.33	7.85
MW-201	05/03/16	20.18	13.74	6.44

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-201	08/30/16	20.18	14.04	6.14
MW-201	12/14/16	20.18	12.86	7.32
MW-201	03/13/17	20.18	12.18	8.00
MW-201	06/13/17	20.18	13.85	6.33
MW-201	08/22/17	20.18	14.43	5.75
MW-201	12/04/17	20.18	12.87	7.31
MW-201	03/06/18	20.18	13.28	6.90
MW-201	06/12/18	20.18	13.58	6.60
MW-201	09/05/18	20.18	8.22	11.96
MW-201	12/17/18	20.18	13.66	6.52
MW-201	03/18/19	20.18	13.14	7.04
MW-201	05/15/19	20.18	14.06	6.12
MW-201	09/17/19	20.18	14.64	5.54
MW-201	12/09/19	20.18	14.52	5.66
MW-201	04/27/20	20.18	14.05	6.13
MW-201	06/29/20	20.18	14.32	5.86
MW-201	09/21/20	20.18	14.59	5.59
MW-201	12/14/20	20.18	14.28	5.90
MW-201	04/12/21	20.18	13.74	6.44
MW-201	06/14/21	20.18	14.32	5.86
MW-201	09/22/21	20.18	14.68	5.50
MW-201	12/16/21	20.18	--	--
MW-201	03/28/22	20.18	13.16	7.02
MW-201	06/27/22	20.18	14.06	6.12
MW-201	09/19/22	20.18	14.31	5.87
MW-201	12/12/22	20.18	13.90	6.28
MW-201	03/27/23	20.18	13.41	6.77
MW-201	06/12/23	20.18	12.96	7.22
MW-201	09/11/23	20.18	14.07	6.11
MW-201	12/18/23	20.18	12.91	7.27
MW-202	04/06/93	16.77	13.23	3.54
MW-202	05/13/93	16.77	13.17	3.60
MW-202	06/10/93	16.77	13.26	3.51
MW-202	07/08/93	16.77	13.54	3.23
MW-202	08/03/93	16.77	13.76	3.01
MW-202	09/08/93	16.77	14.04	2.73
MW-202	10/08/93	16.77	14.30	2.47
MW-202	11/05/93	16.77	14.48	2.29
MW-202	12/03/93	16.77	14.34	2.43

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-202	01/05/94	16.77	13.73	3.04
MW-202	02/04/94	16.77	13.63	3.14
MW-202	08/28/95	16.77	13.78	2.99
MW-202	09/27/95	16.77	13.95	2.82
MW-202	04/27/99	16.77	12.38	4.39
MW-202	07/14/99	16.77	13.57	3.20
MW-202	10/18/99	16.77	14.31	2.46
MW-202	01/11/00	16.77	12.95	3.82
MW-202	04/05/00	16.77	12.96	3.81
MW-202	07/18/00	16.77	13.21	3.56
MW-202	10/02/00	16.77	14.25	2.52
MW-202	01/22/01	16.77	14.46	2.31
MW-202	07/23/01	16.77	14.64	2.13
MW-202	10/16/01	16.77	15.81	0.96
MW-202	04/24/02	16.77	13.80	2.97
MW-202	07/18/02	16.77	14.28	2.49
MW-202	10/23/02	16.77	14.73	2.04
MW-202	01/28/03	16.77	12.95	3.82
MW-202	04/15/03	16.77	13.13	3.64
MW-202	07/17/03	16.77	14.30	2.47
MW-202	10/15/03	16.77	14.62	2.15
MW-202	01/13/04	16.77	12.81	3.96
MW-202	04/19/04	19.86	13.61	6.25
MW-202	07/27/04	19.86	14.29	5.57
MW-202	10/18/04	19.86	14.30	5.56
MW-202	01/24/05	19.86	13.29	6.57
MW-202	04/18/05	19.86	13.51	6.35
MW-202	07/12/05	19.86	14.02	5.84
MW-202	10/18/05	19.86	14.59	5.27
MW-202	01/25/06	19.86	12.38	7.48
MW-202	04/25/06	19.86	13.43	6.43
MW-202	10/11/06	19.86	14.58	5.28
MW-202	11/20/08	19.86	13.92	5.94
MW-202	04/07/09	19.86	13.71	6.15
MW-202	11/16/09	19.86	13.70	6.16
MW-202	04/27/10	19.86	13.24	6.62
MW-202	10/27/10	19.86	14.04	5.82
MW-202	10/26/11	19.86	14.45	5.41
MW-202	03/02/12	19.86	13.70	6.16
MW-202	05/30/12	19.86	13.65	6.21

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-202	06/13/12	19.86	13.76	6.10
MW-202	09/26/12	19.86	14.42	5.44
MW-202	11/27/12	19.86	13.09	6.77
MW-202	02/22/13	19.86	13.27	6.59
MW-202	05/16/13	19.86	13.80	6.06
MW-202	09/06/13	19.86	14.38	5.48
MW-202	11/07/13	19.86	14.25	5.61
MW-202	04/22/14	19.86	13.23	6.63
MW-202	11/04/14	19.86	13.44	6.42
MW-202	03/10/15	19.86	13.23	6.63
MW-202	05/15/15	19.86	13.76	6.10
MW-202	07/29/15	19.86	14.18	5.68
MW-202	12/10/15	19.86	12.76	7.10
MW-202	02/23/16	19.86	12.15	7.71
MW-202	05/03/16	19.86	13.11	6.75
MW-202	08/30/16	19.86	14.00	5.86
MW-202	12/14/16	19.86	12.81	7.05
MW-202	03/13/17	19.86	12.25	7.61
MW-202	06/13/17	19.86	13.23	6.63
MW-202	08/22/17	19.86	13.98	5.88
MW-202	12/04/17	19.86	13.15	6.71
MW-202	03/06/18	19.86	13.03	6.83
MW-202	06/12/18	19.86	13.53	6.33
MW-202	09/05/18	19.86	8.20	11.66
MW-202	12/17/18	19.86	13.45	6.41
MW-202	03/18/19	19.86	12.95	6.91
MW-202	05/15/19	19.86	13.42	6.44
MW-202	09/17/19	19.86	14.16	5.70
MW-202	12/09/19	19.86	14.10	5.76
MW-202	04/27/20	19.86	13.49	6.37
MW-202	06/29/20	19.86	13.75	6.11
MW-202	09/21/20	19.86	14.20	5.66
MW-202	12/14/20	19.86	13.65	6.21
MW-202	04/12/21	19.86	13.15	6.71
MW-202	06/14/21	19.86	13.75	6.11
MW-202	09/22/21	19.86	14.20	5.66
MW-202	12/16/21	19.86	12.70	7.16
MW-202	03/28/22	19.86	12.77	7.09
MW-202	06/27/22	19.86	13.23	6.63
MW-202	09/19/22	19.86	13.84	6.02

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
MW-202	12/12/22	19.86	13.56	6.30
MW-202	03/27/23	19.86	12.98	6.88
MW-202	06/12/23	19.86	12.35	7.51
MW-202	09/11/23	19.86	13.69	6.17
MW-202	12/18/23	19.86	12.62	7.24
MW-203	04/06/93	11.04	7.39	3.65
MW-203	05/13/93	11.04	7.31	3.73
MW-203	06/10/93	11.04	7.40	3.64
MW-203	07/08/93	11.04	7.66	3.38
MW-203	08/03/93	11.04	7.93	3.11
MW-203	09/08/93	11.04	8.20	2.84
MW-203	10/08/93	11.04	8.46	2.58
MW-203	11/05/93	11.04	8.65	2.39
MW-203	12/03/93	11.04	8.64	2.40
MW-203	01/05/94	11.04	7.99	3.05
MW-203	02/04/94	11.04	7.88	3.16
MW-203	08/28/95	11.04	7.86	3.18
MW-203	09/27/95	11.04	8.02	3.02
MW-203	04/27/99	11.04	6.32	4.72
MW-203	07/14/99	11.04	7.58	3.46
MW-203	10/18/99	11.04	8.42	2.62
MW-203	01/11/00	11.04	6.98	4.06
MW-203	04/05/00	11.04	6.92	4.12
MW-203	07/18/00	11.04	8.00	3.04
MW-203	10/02/00	11.04	8.40	2.64
MW-203	01/22/01	11.04	8.47	2.57
MW-203	07/23/01	11.04	8.69	2.35
MW-203	10/16/01	11.04	9.73	1.31
MW-203	04/24/02	11.04	7.45	3.59
MW-203	10/23/02	11.04	8.80	2.24
MW-203	01/28/03	11.04	6.76	4.28
MW-203	04/15/03	11.04	7.05	3.99
MW-203	07/17/03	11.04	8.25	2.79
MW-203	01/13/04	11.04	6.71	4.33
MW-203	04/19/04	13.99	7.58	6.41
MW-203	07/27/04	13.99	8.25	5.74
MW-203	10/18/04	13.99	8.34	5.65
MW-203	01/24/05	13.99	7.31	6.68
MW-203	04/18/05	13.99	7.43	6.56

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-203	07/12/05	13.99	7.96	6.03
MW-203	10/18/05	13.99	8.64	5.35
MW-203	01/25/06	13.99	6.41	7.58
MW-203	04/25/06	13.99	7.18	6.81
MW-203	10/11/06	13.99	8.58	5.41
MW-203	11/18/08	13.99	8.01	5.98
MW-203	04/08/09	13.99	7.63	6.36
MW-203	11/16/09	13.99	4.97	9.02
MW-203	04/26/10	13.99	7.17	6.82
MW-203	10/25/10	13.99	8.10	5.89
MW-203	10/26/11	13.99	5.45	8.54
MW-203	05/30/12	13.99	7.61	6.38
MW-203	06/13/12	13.99	7.65	6.34
MW-203	09/26/12	13.99	8.40	5.59
MW-203	11/27/12	13.99	7.25	6.74
MW-203	02/22/13	13.99	7.26	6.73
MW-203	05/16/13	13.99	7.80	6.19
MW-203	09/06/13	13.99	8.37	5.62
MW-203	11/07/13	13.99	8.27	5.72
MW-203	04/22/14	13.99	7.33	6.66
MW-203	11/04/14	13.99	7.59	6.40
MW-203	03/10/15	13.99	6.70	7.29
MW-203	05/15/15	13.99	7.74	6.25
MW-203	07/29/15	13.99	8.18	5.81
MW-203	12/10/15	13.99	6.83	7.16
MW-203	02/23/16	13.99	5.92	8.07
MW-203	05/03/16	13.99	7.02	6.97
MW-203	08/30/16	13.99	8.17	5.82
MW-203	12/14/16	13.99	6.62	7.37
MW-203	03/13/17	13.99	5.83	8.16
MW-203	06/13/17	13.99	7.17	6.82
MW-203	08/22/17	13.99	7.98	6.01
MW-203	12/04/17	13.99	7.24	6.75
MW-203	03/06/18	13.99	6.57	7.42
MW-203	06/12/18	13.99	7.55	6.44
MW-203	09/05/18	13.99	8.14	5.85
MW-203	12/17/18	13.99	7.68	6.31
MW-203	03/18/19	13.99	6.96	7.03
MW-203	05/16/19	13.99	7.38	6.61
MW-203	09/17/19	13.99	8.19	5.80

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-203	12/09/19	13.99	8.13	5.86
MW-203	04/27/20	13.99	7.39	6.60
MW-203	06/29/20	13.99	7.55	6.44
MW-203	09/21/20	13.99	8.14	5.85
MW-203	12/14/20	13.99	7.62	6.37
MW-203	04/12/21	13.99	7.13	6.86
MW-203	06/14/21	13.99	7.75	6.24
MW-203	09/22/21	13.99	8.26	5.73
MW-203	12/16/21	13.99	6.80	7.19
MW-203	03/28/22	13.99	6.90	7.09
MW-203	06/27/22	13.99	7.02	6.97
MW-203	09/19/22	13.99	7.39	6.60
MW-203	12/12/22	13.99	7.04	6.95
MW-203	03/27/23	13.99	6.29	7.70
MW-203	06/12/23	13.99	5.63	8.36
MW-203	09/12/23	13.99	7.24	6.75
MW-203	12/20/23	13.99	5.16	8.83
MW-204	04/06/93	14.21	10.97	3.24
MW-204	05/13/93	14.21	10.92	3.29
MW-204	06/10/93	14.21	10.98	3.23
MW-204	07/08/93	14.21	11.20	3.01
MW-204	08/03/93	14.21	11.44	2.77
MW-204	09/08/93	14.21	11.64	2.57
MW-204	10/08/93	14.21	11.85	2.36
MW-204	11/05/93	14.21	12.03	2.18
MW-204	12/03/93	14.21	12.01	2.20
MW-204	01/05/94	14.21	11.42	2.79
MW-204	02/04/94	14.21	11.35	2.86
MW-204	08/28/95	14.21	11.58	2.63
MW-204	09/27/95	14.21	11.57	2.64
MW-204	04/05/00	14.21	Not Measured	Not Measured
MW-204	10/02/00	14.21	Not Measured	Not Measured
MW-204	01/22/01	14.21	11.69	2.52
MW-204	07/23/01	14.21	12.05	2.16
MW-204	10/16/01	14.21	13.17	1.04
MW-204	07/27/04	14.21	11.67	2.54
MW-204	10/18/04	17.27	11.71	5.56
MW-204	01/24/05	17.27	10.72	6.55
MW-204	04/18/05	17.27	10.98	6.29

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-204	07/12/05	17.27	11.4	5.87
MW-204	10/18/05	17.27	11.98	5.29
MW-204	01/25/06	17.27	9.96	7.31
MW-204	10/11/06	17.27	11.96	5.31
MW-204	11/20/08	17.27	11.45	5.82
MW-204	11/16/09	17.27	11.20	6.07
MW-204	10/27/10	17.27	11.54	5.73
MW-204	10/27/11	17.27	10.71	6.56
MW-204	03/26/12	17.27	Not Measured	Not Measured
MW-204	06/12/12	17.27	11.20	6.07
MW-204	09/27/12	17.27	Not Measured	Not Measured
MW-204	11/27/12	17.27	10.81	6.46
MW-204	12/20/12	17.27	Not Measured	Not Measured
MW-204	02/22/13	17.27	10.81	6.46
MW-204	05/16/13	17.27	11.30	5.97
MW-204	09/06/13	17.27	11.77	5.50
MW-204	11/07/13	17.27	11.71	5.56
MW-204	04/22/14	17.27	10.78	6.49
MW-204	11/04/14	17.27	11.04	6.23
MW-204	03/10/15	17.27	10.75	6.52
MW-204	05/15/15	17.27	11.21	6.06
MW-204	07/29/15	17.27	11.59	5.68
MW-204	12/10/15	17.27	9.91	7.36
MW-204	02/23/16	17.27	9.67	7.60
MW-204	05/03/16	17.27	10.53	6.74
MW-204	08/30/16	17.27	11.78	5.49
MW-204	12/14/16	17.27	10.34	6.93
MW-204	03/13/17	17.27	9.83	7.44
MW-204	08/22/17	17.27	11.34	5.93
MW-204	12/04/17	17.27	10.84	6.43
MW-204	03/06/18	17.27	10.55	6.72
MW-204	06/12/18	17.27	11.04	6.23
MW-204	09/05/18	17.27	8.20	9.07
MW-204	12/17/18	17.27	11.10	6.17
MW-204	03/18/19	17.27	10.51	6.76
MW-204	05/15/19	17.27	10.98	6.29
MW-204	09/17/19	17.27	11.65	5.62
MW-204	12/09/19	17.27	11.54	5.73
MW-204	04/27/20	17.27	10.94	6.33
MW-204	06/29/20	17.27	11.26	6.01



**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-204	09/21/20	17.27	11.59	5.68
MW-204	12/14/20	17.27	11.22	6.05
MW-204	04/12/21	17.27	10.71	6.56
MW-204	06/14/21	17.27	11.27	6.00
MW-204	09/22/21	17.27	11.65	5.62
MW-204	12/16/21	17.27	10.42	6.85
MW-204	03/28/22	17.27	10.48	6.79
MW-204	06/27/22	17.27	11.18	6.09
MW-204	09/19/22	17.27	11.58	5.69
MW-204	12/12/22	17.27	10.88	6.39
MW-204	03/27/23	17.27	9.70	7.57
MW-204	06/12/23	17.27	10.23	7.04
MW-204	09/11/23	17.27	11.33	5.94
MW-204	12/18/23	17.27	9.89	7.38
MW-206	04/06/93	10.75	9.83	0.92
MW-206	05/13/93	10.75	6.72	4.03
MW-206	06/10/93	10.75	6.78	3.97
MW-206	07/08/93	10.75	7.08	3.67
MW-206	08/03/93	10.75	7.35	3.40
MW-206	09/08/93	10.75	7.66	3.09
MW-206	10/08/93	10.75	7.95	2.80
MW-206	11/05/93	10.75	8.15	2.60
MW-206	12/03/93	10.75	8.17	2.58
MW-206	01/05/94	10.75	7.42	3.33
MW-206	02/04/94	10.75	7.24	3.51
MW-206	08/28/95	10.75	7.01	3.74
MW-206	09/27/95	10.75	7.19	3.56
MW-206	04/27/99	10.75	5.59	5.16
MW-206	07/14/99	10.75	6.97	3.78
MW-206	10/18/99	10.75	7.88	2.87
MW-206	01/11/00	10.75	6.34	4.41
MW-206	04/05/00	10.75	6.32	4.43
MW-206	07/18/00	10.75	7.11	3.64
MW-206	10/02/00	10.75	7.92	2.83
MW-206	01/22/01	10.75	8.93	1.82
MW-206	04/25/06	10.75	9.30	1.45
MW-206	10/11/06	10.75	10.44	0.31
MW-206A	04/24/02	10.75	7.43	3.32

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-206A	07/18/02	10.75	8.07	2.68
MW-206A	10/23/02	10.75	8.55	2.20
MW-206A	01/28/03	10.75	6.40	4.35
MW-206A	04/15/03	10.75	5.26	5.49
MW-206A	07/17/03	10.75	8.06	2.69
MW-206A	04/19/04	15.90	9.51	6.39
MW-206A	07/27/04	15.90	10.23	5.67
MW-206A	10/18/04	15.90	10.17	5.73
MW-206A	01/24/05	15.90	9.18	6.72
MW-206A	04/18/05	15.90	9.38	6.52
MW-206A	07/12/05	15.90	9.87	6.03
MW-206A	10/18/05	15.90	10.50	5.40
MW-206A	01/25/06	15.90	8.23	7.67
MW-206A	11/20/08	15.90	9.81	6.09
MW-206A	11/16/09	15.90	9.48	6.42
MW-206A	10/25/10	15.90	9.74	6.16
MW-206A	10/26/11	15.90	10.25	5.65
MW-206A	05/30/12	15.90	9.44	6.46
MW-206A	06/13/12	15.90	9.49	6.41
MW-206A	09/26/12	15.90	10.21	5.69
MW-206A	11/27/12	15.90	9.05	6.85
MW-206A	02/22/13	15.90	9.04	6.86
MW-206A	05/16/13	15.90	8.44	7.46
MW-206A	09/06/13	15.90	10.06	5.84
MW-206A	11/07/13	15.90	10.04	5.86
MW-206A	04/22/14	15.90	9.01	6.89
MW-206A	11/04/14	15.90	9.25	6.65
MW-206A	03/10/15	15.90	9.03	6.87
MW-206A	05/15/15	15.90	9.49	6.41
MW-206A	07/29/15	15.90	9.99	5.91
MW-206A	12/10/15	15.90	8.36	7.54
MW-206A	02/23/16	15.90	8.09	7.81
MW-206A	05/03/16	15.90	9.03	6.87
MW-206A	08/30/16	15.90	10.25	5.65
MW-206A	12/14/16	15.90	8.51	7.39
MW-206A	03/13/17	15.90	7.98	7.92
MW-206A	06/13/17	15.90	9.02	6.88
MW-206A	08/22/17	15.90	9.74	6.16
MW-206A	12/04/17	15.90	9.07	6.83
MW-206A	03/06/18	15.90	8.78	7.12

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-206A	06/12/18	15.90	6.90	9.00
MW-206A	09/05/18	15.90	9.94	5.96
MW-206A	12/17/18	15.90	9.23	6.67
MW-206A	03/18/19	15.90	8.86	7.04
MW-206A	05/15/19	15.90	9.30	6.60
MW-206A	09/17/19	15.90	10.13	5.77
MW-206A	12/09/19	15.90	9.98	5.92
MW-206A	04/27/20	15.90	9.22	6.68
MW-206A	06/29/20	15.90	9.40	6.50
MW-206A	09/21/20	15.90	10.08	5.82
MW-206A	12/14/20	15.90	7.15	8.75
MW-206A	04/12/21	15.90	7.20	8.70
MW-206A	06/14/21	15.90	9.45	6.45
MW-206A	09/22/21	15.90	10.05	5.85
MW-206A	12/16/21	15.90	8.57	7.33
MW-206A	03/28/22	15.90	8.79	7.11
MW-206A	06/27/22	15.90	7.23	8.67
MW-206A	09/19/22	15.90	9.23	6.67
MW-206A	12/12/22	15.90	9.31	6.59
MW-206A	03/27/23	15.90	6.80	9.10
MW-206A	06/12/23	15.90	7.88	8.02
MW-206A	09/11/23	15.90	9.84	6.06
MW-206A	12/18/23	15.90	9.24	6.66
MW-208	06/28/13	--	4.98	--
MW-208	09/11/13	--	5.67	--
MW-208	10/30/13	--	5.97	--
MW-208	11/05/13	--	5.51	--
MW-208	01/16/14	--	5.46	--
MW-208	02/27/14	--	4.72	--
MW-208	03/25/14	--	4.91	--
MW-208	04/22/14	--	4.98	--
MW-208	06/10/14	--	5.62	--
MW-208	07/24/14	--	5.50	--
MW-208	08/28/14	--	5.73	--
MW-208	09/23/14	--	5.76	--
MW-208	10/22/14	--	4.82	--
MW-208	11/05/14	--	4.50	--
MW-208	12/18/14	12.16	4.28	7.88
MW-208	01/27/15	12.16	4.52	7.64
MW-208	02/26/15	12.16	4.92	7.24

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-208	03/11/15	12.16	5.29	6.87
MW-208	04/21/15	12.16	5.08	7.08
MW-208	05/19/15	12.16	5.31	6.85
MW-208	06/11/15	12.16	5.34	6.82
MW-208	07/29/15	12.16	5.81	6.35
MW-208	08/25/15	12.16	5.95	6.21
MW-208	09/24/15	12.16	5.72	6.44
MW-208	10/15/15	12.16	5.35	6.81
MW-208	11/20/15	12.16	4.37	7.79
MW-208	12/09/15	12.16	2.55	9.61
MW-208	02/23/16	12.16	4.18	7.98
MW-208	04/22/16	12.16	4.90	7.26
MW-208	05/03/16	12.16	5.27	6.89
MW-208	06/02/16	12.16	5.34	6.82
MW-208	07/14/16	12.16	5.58	6.58
MW-208	08/18/16	12.16	5.80	6.36
MW-208	09/08/16	12.16	5.88	6.28
MW-208	10/21/16	12.16	5.40	6.76
MW-208	11/17/16	12.16	3.67	8.49
MW-208	12/01/16	12.16	3.93	8.23
MW-208	01/11/17	12.16	2.83	9.33
MW-208	02/14/17	12.16	3.81	8.35
MW-208	03/13/17	12.16	4.04	8.12
MW-208	04/13/17	12.16	3.78	8.38
MW-208	05/08/17	12.16	4.78	7.38
MW-208	06/13/17	12.16	5.00	7.16
MW-208	07/18/17	12.16	5.32	6.84
MW-208	08/22/17	12.16	5.32	6.84
MW-208	09/13/17	12.16	5.68	6.48
MW-208	10/31/17	12.16	5.58	6.58
MW-208	11/13/17	12.16	4.67	7.49
MW-208	12/04/17	12.16	4.15	8.01
MW-208	03/06/18	12.16	4.57	7.59
MW-208	06/12/18	12.16	5.25	6.91
MW-208	09/05/18	12.16	5.75	6.41
MW-208	12/17/18	12.16	4.13	8.03
MW-208	01/16/19	12.16	4.48	7.68
MW-208	02/20/19	12.16	3.98	8.18
MW-208	03/18/19	12.16	4.95	7.21
MW-208	04/10/19	12.16	4.66	7.50

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation
		Elevation ft AMSL		ft AMSL
MW-208	05/15/19	12.16	4.91	7.25
MW-208	06/26/19	12.16	5.47	6.69
MW-208	07/24/19	12.16	5.43	6.73
MW-208	08/13/19	12.16	5.45	6.71
MW-208	09/17/19	12.16	5.23	6.93
MW-208	10/16/19	12.16	5.61	6.55
MW-208	11/05/19	12.16	5.62	6.54
MW-208	12/09/19	12.16	5.08	7.08
MW-208	01/28/20	12.16	3.05	9.11
MW-208	02/26/20	12.16	4.81	7.35
MW-208	04/27/20	12.16	5.18	6.98
MW-208	06/16/20	12.16	5.25	6.91
MW-208	06/29/20	12.16	5.08	7.08
MW-208	07/29/20	12.16	5.20	6.96
MW-208	08/27/20	12.16	5.41	6.75
MW-208	09/21/20	12.16	5.09	7.07
MW-208	10/29/20	12.16	5.58	6.58
MW-208	11/30/20	12.16	4.82	7.34
MW-208	12/14/20	12.16	4.75	7.41
MW-208	01/21/21	12.16	4.27	7.89
MW-208	02/16/21	12.16	3.69	8.47
MW-208	03/23/21	12.16	4.53	7.63
MW-208	04/12/21	12.16	5.28	6.88
MW-208	05/12/21	12.16	5.54	6.62
MW-208	06/14/21	12.16	4.97	7.19
MW-208	07/15/21	12.16	5.31	6.85
MW-208	08/18/21	12.16	5.52	6.64
MW-208	09/22/21	12.16	5.46	6.70
MW-208	10/21/21	12.16	5.32	6.84
MW-208	11/23/21	12.16	4.28	7.88
MW-208	12/14/21	12.16	3.99	8.17
MW-208	01/25/22	12.16	4.34	7.82
MW-208	02/28/22	12.16	4.59	7.57
MW-208	03/28/22	12.16	4.63	7.53
MW-208	04/18/22	12.16	5.08	7.08
MW-208	05/23/22	12.16	4.81	7.35
MW-208	06/27/22	12.16	5.02	7.14
MW-208	07/20/22	12.16	5.03	7.13
MW-208	08/23/22	12.16	5.55	6.61
MW-208	09/19/22	12.16	5.58	6.58

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
MW-208	12/12/22	12.16	4.21	7.95
MW-208	01/26/23	12.16	4.41	7.75
MW-208	02/23/23	12.16	4.11	8.05
MW-208	03/27/23	12.16	4.34	7.82
MW-208	04/13/23	12.16	4.44	7.72
MW-208	05/16/23	12.16	4.63	7.53
MW-208	06/12/23	12.16	4.88	7.28
MW-208	07/20/23	12.16	5.32	6.84
MW-208	08/17/23	12.16	5.37	6.79
MW-208	09/11/23	12.16	5.62	6.54
MW-208	11/16/23	12.16	4.52	7.64
MW-208	12/18/23	12.16	4.25	7.91
MW-209	09/11/13	--	6.61	--
MW-209	10/30/13	--	5.65	--
MW-209	01/16/14	--	5.56	--
MW-209	02/27/14	--	6.04	--
MW-209	03/25/14	--	5.90	--
MW-209	04/22/14	--	5.89	--
MW-209	06/10/14	--	8.31	--
MW-209	07/24/14	--	6.91	--
MW-209	08/28/14	--	6.79	--
MW-209	09/23/14	--	5.73	--
MW-209	10/22/14	--	4.91	--
MW-209	11/05/14	--	6.60	--
MW-209	12/18/14	12.10	5.27	6.83
MW-209	01/27/15	12.10	4.88	7.22
MW-209	02/26/15	12.10	5.54	6.56
MW-209	03/11/15	12.10	5.55	6.55
MW-209	05/19/15	12.10	8.60	3.50
MW-210	03/29/13	--	6.53	--
MW-210	06/28/13	--	6.35	--
MW-210	09/11/13	--	6.63	--
MW-210	10/30/13	--	7.08	--
MW-210	11/05/13	--	6.41	--
MW-210	01/16/14	--	6.48	--
MW-210	02/27/14	--	6.79	--
MW-210	03/25/14	--	6.96	--
MW-210	04/22/14	--	6.32	--

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-210	06/10/14	--	7.08	--
MW-210	07/24/14	--	6.64	--
MW-210	08/28/14	--	6.72	--
MW-210	09/23/14	--	6.56	--
MW-210	10/22/14	--	5.87	--
MW-210	11/05/14	--	6.45	--
MW-210	12/18/14	12.85	5.49	7.36
MW-210	01/27/15	12.85	6.15	6.70
MW-210	02/26/15	12.85	6.69	6.16
MW-210	03/11/15	12.85	6.56	6.29
MW-210	04/21/15	12.85	6.44	6.41
MW-210	05/19/15	12.85	6.50	6.35
MW-210	06/11/15	12.85	6.48	6.37
MW-210	07/29/15	12.85	6.73	6.12
MW-210	08/25/15	12.85	6.23	6.62
MW-210	09/24/15	12.85	6.60	6.25
MW-210	10/15/15	12.85	6.30	6.55
MW-210	11/20/15	12.85	6.47	6.38
MW-210	12/09/15	12.85	4.45	8.40
MW-210	02/23/16	12.85	5.82	7.03
MW-210	04/22/16	12.85	5.96	6.89
MW-210	05/03/16	12.85	6.42	6.43
MW-210	06/02/16	12.85	6.44	6.41
MW-210	07/14/16	12.85	6.67	6.18
MW-210	08/18/16	12.85	6.78	6.07
MW-210	09/08/16	12.85	6.78	6.07
MW-210	10/21/16	12.85	6.32	6.53
MW-210	11/17/16	12.85	5.43	7.42
MW-210	12/01/16	12.85	6.00	6.85
MW-210	01/11/17	12.85	5.38	7.47
MW-210	02/14/17	12.85	5.69	7.16
MW-210	03/13/17	12.85	5.98	6.87
MW-210	04/13/17	12.85	6.42	6.43
MW-210	05/08/17	12.85	6.74	6.11
MW-210	06/13/17	12.85	6.18	6.67
MW-210	07/18/17	12.85	6.47	6.38
MW-210	08/22/17	12.85	6.42	6.43
MW-210	09/13/17	12.85	6.60	6.25
MW-210	10/31/17	12.85	6.64	6.21
MW-210	11/13/17	12.85	6.08	6.77

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-210	12/04/17	12.85	6.05	6.80
MW-210	03/06/18	12.85	6.19	6.66
MW-210	06/12/18	12.85	6.50	6.35
MW-210	09/05/18	12.85	6.74	6.11
MW-210	12/17/18	12.85	5.31	7.54
MW-210	01/16/19	12.85	6.07	6.78
MW-210	02/20/19	12.85	6.45	6.40
MW-210	03/18/19	12.85	6.67	6.18
MW-210	04/10/19	12.85	5.24	7.61
MW-210	05/15/19	12.85	7.05	5.80
MW-210	06/26/19	12.85	6.58	6.27
MW-210	07/24/19	12.85	5.59	7.26
MW-210	08/13/19	12.85	6.58	6.27
MW-210	09/17/19	12.85	6.18	6.67
MW-210	10/16/19	12.85	6.47	6.38
MW-210	11/05/19	12.85	6.78	6.07
MW-210	12/09/19	12.85	6.27	6.58
MW-210	01/28/20	12.85	4.06	8.79
MW-210	02/26/20	12.85	5.78	7.07
MW-210	04/27/20	12.85	6.43	6.42
MW-210	06/16/20	12.85	5.56	7.29
MW-210	06/29/20	12.85	6.58	6.27
MW-210	07/29/20	12.85	6.43	6.42
MW-210	08/27/20	12.85	6.71	6.14
MW-210	09/21/20	12.85	6.35	6.50
MW-210	10/29/20	12.85	6.87	5.98
MW-210	11/30/20	12.85	6.23	6.62
MW-210	12/14/20	12.85	6.05	6.80
MW-210	01/21/21	12.85	6.96	5.89
MW-210	02/16/21	12.85	5.83	7.02
MW-210	03/23/21	12.85	6.57	6.28
MW-210	04/12/21	12.85	6.42	6.43
MW-210	05/12/21	12.85	6.61	6.24
MW-210	06/14/21	12.85	6.15	6.70
MW-210	07/15/21	12.85	6.36	6.49
MW-210	08/18/21	12.85	6.60	6.25
MW-210	09/22/21	12.85	6.50	6.35
MW-210	10/21/21	12.85	6.36	6.49
MW-210	11/23/21	12.85	6.20	6.65
MW-210	12/14/21	12.85	5.12	7.73



**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-210	01/25/22	12.85	6.34	6.51
MW-210	02/28/22	12.85	6.31	6.54
MW-210	03/28/22	12.85	5.92	6.93
MW-210	04/18/22	12.85	6.18	6.69
MW-210	05/23/22	12.85	6.50	6.35
MW-210	06/27/22	12.85	6.21	6.64
MW-210	07/20/22	12.85	6.24	6.61
MW-210	08/23/22	12.85	6.62	6.23
MW-210	09/19/22	12.85	6.99	5.86
MW-210	12/12/22	12.85	5.15	7.70
MW-210	01/26/23	12.85	6.12	7.11
MW-210	02/23/23	12.85	5.79	7.06
MW-210	03/27/23	12.85	6.53	6.18
MW-210	04/13/23	12.85	5.68	7.17
MW-210	05/16/23	12.85	6.27	6.58
MW-210	06/12/23	12.85	6.90	5.95
MW-210	07/20/23	12.85	6.32	6.53
MW-210	08/17/23	12.85	6.42	6.43
MW-210	09/11/23	12.85	6.81	6.04
MW-210	11/16/23	12.85	5.66	7.19
MW-210	12/18/23	12.85	5.11	7.74
MW-211	03/29/13	--	5.97	--
MW-211	06/28/13	--	5.68	--
MW-211	10/30/13	--	6.43	--
MW-211	11/05/13	--	5.68	--
MW-211	01/16/14	--	5.51	--
MW-211	02/27/14	--	5.01	--
MW-211	03/25/14	--	5.38	--
MW-211	04/22/14	--	5.33	--
MW-211	06/10/14	--	6.02	--
MW-211	07/24/14	--	6.85	--
MW-211	08/28/14	--	6.06	--
MW-211	09/23/14	--	5.96	--
MW-211	10/22/14	--	4.96	--
MW-211	11/05/14	--	4.70	--
MW-211	12/18/14	12.21	4.50	7.71
MW-211	01/27/15	12.21	4.82	7.39
MW-211	02/26/15	12.21	5.38	6.83
MW-211	03/11/15	12.21	5.52	6.69

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-211	04/21/15	12.21	5.50	6.71
MW-211	05/19/15	12.21	5.71	6.50
MW-211	06/11/15	12.21	5.70	6.51
MW-211	07/29/15	12.21	6.10	6.11
MW-211	08/25/15	12.21	6.17	6.04
MW-211	09/24/15	12.21	5.72	6.49
MW-211	10/15/15	12.21	5.30	6.91
MW-211	11/20/15	12.21	4.78	7.43
MW-211	12/09/15	12.21	2.80	9.41
MW-211	02/23/16	12.21	4.45	7.76
MW-211	04/22/16	12.21	4.67	7.54
MW-211	05/03/16	12.21	5.63	6.58
MW-211	06/02/16	12.21	5.77	6.44
MW-211	07/14/16	12.21	6.02	6.19
MW-211	08/18/16	12.21	6.16	6.05
MW-211	09/08/16	12.21	6.22	5.99
MW-211	10/21/16	12.21	6.01	6.20
MW-211	11/17/16	12.21	3.86	8.35
MW-211	12/01/16	12.21	4.14	8.07
MW-211	01/11/17	12.21	3.18	9.03
MW-211	02/14/17	12.21	4.02	8.19
MW-211	03/13/17	12.21	4.27	7.94
MW-211	04/13/17	12.21	4.02	8.19
MW-211	05/08/17	12.21	5.32	6.89
MW-211	06/13/17	12.21	5.36	6.85
MW-211	07/18/17	12.21	5.78	6.43
MW-211	08/22/17	12.21	5.76	6.45
MW-211	09/13/17	12.21	Not Measured	Not Measured
MW-211	10/31/17	12.21	Not Measured	Not Measured
MW-211	11/13/17	12.21	Not Measured	Not Measured
MW-211	12/04/17	12.21	Not Measured	Not Measured
MW-211	03/06/18	12.21	5.03	7.18
MW-211	06/12/18	12.21	5.73	6.48
MW-211	09/05/18	12.21	6.16	6.05
MW-211	12/17/18	12.21	4.14	8.07
MW-211	01/16/19	12.21	4.30	7.91
MW-211	02/20/19	12.21	4.22	7.99
MW-211	03/18/19	12.21	5.34	6.87
MW-211	04/10/19	12.21	4.66	7.55
MW-211	05/15/19	12.21	5.38	6.83

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-211	06/26/19	12.21	6.88	5.33
MW-211	07/24/19	12.21	5.88	6.33
MW-211	08/13/19	12.21	5.72	6.49
MW-211	09/17/19	12.21	5.54	6.67
MW-211	10/16/19	12.21	5.77	6.44
MW-211	11/05/19	12.21	6.01	6.20
MW-211	12/09/19	12.21	5.54	6.67
MW-211	01/28/20	12.21	3.12	9.09
MW-211	02/26/20	12.21	5.19	7.02
MW-211	04/27/20	12.21	5.47	6.74
MW-211	06/16/20	12.21	5.72	6.49
MW-211	06/29/20	12.21	5.78	6.43
MW-211	07/29/20	12.21	5.67	6.54
MW-211	08/27/20	12.21	5.85	6.36
MW-211	09/21/20	12.21	5.45	6.76
MW-211	10/29/20	12.21	5.99	6.22
MW-211	11/30/20	12.21	5.11	7.10
MW-211	12/14/20	12.21	5.28	6.93
MW-211	01/21/21	12.21	4.82	7.39
MW-211	02/16/21	12.21	4.18	8.03
MW-211	03/23/21	12.21	5.37	6.84
MW-211	04/12/21	12.21	5.65	6.56
MW-211	05/12/21	12.21	5.86	6.35
MW-211	06/14/21	12.21	5.24	6.97
MW-211	07/15/21	12.21	5.60	6.61
MW-211	08/18/21	12.21	5.90	6.31
MW-211	09/22/21	12.21	5.70	6.51
MW-211	10/21/21	12.21	5.50	6.71
MW-211	11/23/21	12.21	4.42	7.79
MW-211	12/14/21	12.21	4.39	7.82
MW-211	01/25/22	12.21	4.85	7.36
MW-211	02/28/22	12.21	4.51	7.70
MW-211	03/28/22	12.21	5.00	7.21
MW-211	04/18/22	12.21	5.28	6.93
MW-211	05/23/22	12.21	5.28	6.93
MW-211	06/27/22	12.21	5.28	6.93
MW-211	07/20/22	12.21	5.42	6.79
MW-211	08/23/22	12.21	5.94	6.27
MW-211	09/19/22	12.21	5.93	6.28
MW-211	12/12/22	12.21	4.39	7.82

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
MW-211	01/26/23	12.21	4.58	7.63
MW-211	02/23/23	12.21	4.45	7.76
MW-211	03/27/23	12.21	5.35	6.86
MW-211	04/13/23	12.21	4.66	7.55
MW-211	05/16/23	12.21	5.21	7.00
MW-211	06/12/23	12.21	5.35	6.86
MW-211	07/20/23	12.21	5.60	6.61
MW-211	08/17/23	12.21	5.50	6.71
MW-211	09/11/23	12.21	5.94	6.27
MW-211	11/16/23	12.21	4.68	7.53
MW-211	12/18/23	12.21	4.82	7.39
MW-212	03/29/13	--	4.90	--
MW-212	06/28/13	--	4.42	--
MW-212	09/11/13	--	5.32	--
MW-212	09/12/13	--	5.52	--
MW-212	10/30/13	--	5.28	--
MW-212	11/05/13	--	5.51	--
MW-212	01/16/14	--	5.47	--
MW-212	02/27/14	--	6.12	--
MW-212	03/25/14	--	6.30	--
MW-212	04/22/14	--	5.85	--
MW-212	06/10/14	--	Not Measured	Not Measured
MW-212	07/24/14	--	6.06	--
MW-212	08/28/14	--	6.23	--
MW-212	09/23/14	--	6.08	--
MW-212	10/22/14	--	4.13	--
MW-212	11/05/14	--	5.12	--
MW-212	12/18/14	11.95	4.89	7.06
MW-212	01/27/15	11.95	5.38	6.57
MW-212	02/26/15	11.95	5.59	6.36
MW-212	03/11/15	11.95	5.45	6.50
MW-212	04/21/15	11.95	5.85	6.10
MW-212	05/19/15	11.95	5.67	6.28
MW-212	06/11/15	11.95	5.46	6.49
MW-212	07/29/15	11.95	5.85	6.10
MW-212	08/25/15	11.95	6.82	5.13
MW-212	09/24/15	11.95	6.33	5.62
MW-212	10/15/15	11.95	5.82	6.13
MW-212	11/20/15	11.95	5.51	6.44

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-212	12/09/15	11.95	3.61	8.34
MW-212	02/23/16	11.95	4.38	7.57
MW-212	04/22/16	11.95	5.37	6.58
MW-212	05/03/16	11.95	6.00	5.95
MW-212	06/02/16	11.95	6.18	5.77
MW-212	07/14/16	11.95	6.27	5.68
MW-212	08/18/16	11.95	6.44	5.51
MW-212	09/08/16	11.95	6.55	5.40
MW-212	10/21/16	11.95	6.10	5.85
MW-212	11/17/16	11.95	4.68	7.27
MW-212	12/01/16	11.95	4.88	7.07
MW-212	01/11/17	11.95	3.88	8.07
MW-212	02/14/17	11.95	4.79	7.16
MW-212	03/13/17	11.95	4.98	6.97
MW-212	04/13/17	11.95	5.02	6.93
MW-212	05/08/17	11.95	5.31	6.64
MW-212	06/13/17	11.95	5.60	6.35
MW-212	07/18/17	11.95	5.83	6.12
MW-212	08/22/17	11.95	5.92	6.03
MW-212	09/13/17	11.95	6.21	5.74
MW-212	10/31/17	11.95	6.17	5.78
MW-212	11/13/17	11.95	4.98	6.97
MW-212	12/04/17	11.95	5.38	6.57
MW-212	03/06/18	11.95	5.46	6.49
MW-212	06/12/18	11.95	6.06	5.89
MW-212	09/05/18	11.95	6.35	5.60
MW-212	12/17/18	11.95	4.43	7.52
MW-212	01/16/19	11.95	5.56	6.39
MW-212	02/20/19	11.95	4.32	7.63
MW-212	03/18/19	11.95	6.12	5.83
MW-212	04/10/19	11.95	5.78	6.17
MW-212	05/15/19	11.95	6.13	5.82
MW-212	06/26/19	11.95	6.11	5.84
MW-212	07/24/19	11.95	5.96	5.99
MW-212	08/13/19	11.95	6.02	5.93
MW-212	09/17/19	11.95	6.28	5.67
MW-212	10/16/19	11.95	6.36	5.59
MW-212	11/05/19	11.95	6.51	5.44
MW-212	12/09/19	11.95	6.14	5.81
MW-212	01/28/20	11.95	2.03	9.92

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-212	02/26/20	11.95	4.97	6.98
MW-212	04/27/20	11.95	5.29	6.66
MW-212	06/16/20	11.95	6.25	5.70
MW-212	06/29/20	11.95	5.85	6.10
MW-212	07/29/20	11.95	6.31	5.64
MW-212	08/27/20	11.95	6.15	5.80
MW-212	09/21/20	11.95	6.23	5.72
MW-212	10/29/20	11.95	6.23	5.72
MW-212	11/30/20	11.95	5.10	6.85
MW-212	12/14/20	11.95	5.83	6.12
MW-212	01/21/21	11.95	5.63	6.32
MW-212	02/16/21	11.95	4.25	7.70
MW-212	03/23/21	11.95	5.74	6.21
MW-212	04/12/21	11.95	6.31	5.64
MW-212	05/12/21	11.95	6.21	5.74
MW-212	06/14/21	11.95	5.62	6.33
MW-212	07/15/21	11.95	6.01	5.94
MW-212	08/18/21	11.95	6.16	5.79
MW-212	09/22/21	11.95	6.10	5.85
MW-212	10/21/21	11.95	6.05	5.90
MW-212	11/23/21	11.95	5.19	6.76
MW-212	12/14/21	11.95	4.79	7.16
MW-212	01/25/22	11.95	5.67	6.28
MW-212	02/28/22	11.95	2.86	9.09
MW-212	03/28/22	11.95	5.98	5.97
MW-212	04/18/22	11.95	5.98	5.97
MW-212	05/23/22	11.95	5.70	6.25
MW-212	06/27/22	11.95	5.90	6.05
MW-212	07/20/22	11.95	5.85	6.10
MW-212	08/23/22	11.95	6.19	5.76
MW-212	09/19/22	11.95	6.19	5.76
MW-212	12/12/22	11.95	4.70	7.25
MW-212	01/26/23	11.95	4.59	7.36
MW-212	02/23/23	11.95	5.07	6.88
MW-212	03/27/23	11.95	5.61	6.34
MW-212	04/13/23	11.95	5.17	6.78
MW-212	05/16/23	11.95	5.70	6.25
MW-212	06/12/23	11.95	5.65	6.30
MW-212	07/20/23	11.95	6.01	5.94
MW-212	08/17/23	11.95	5.99	5.96

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
MW-212	09/11/23	11.95	6.39	5.56
MW-212	11/16/23	11.95	5.43	6.52
MW-212	12/18/23	11.95	5.13	6.82
MW-213	07/23/01	8.57	10.17	-1.60
MW-213	10/16/01	8.57	5.81	2.76
MW-213	04/24/02	8.57	7.34	1.23
MW-213	07/18/02	8.57	7.39	1.18
MW-213	10/23/02	8.57	5.04	3.53
MW-213	01/28/03	8.57	4.60	3.97
MW-213	04/15/03	8.57	4.43	4.14
MW-213	07/17/03	8.57	10.24	-1.67
MW-213	10/15/03	8.57	5.85	2.72
MW-213	01/13/04	8.57	5.02	3.55
MW-213	04/19/04	8.57	7.91	0.66
MW-213	07/27/04	8.57	6.94	1.63
MW-213	10/18/04	8.57	5.70	2.87
MW-213	01/24/05	8.57	4.70	3.87
MW-213	04/18/05	8.57	7.43	1.14
MW-213	07/12/05	8.57	8.72	-0.15
MW-213	10/18/05	8.57	7.24	1.33
MW-213	01/25/06	8.57	5.79	2.78
MW-213	04/25/06	8.57	7.82	0.75
MW-213	10/11/06	8.57	6.09	2.48
MW-213	11/19/08	8.57	5.98	2.59
MW-213	04/07/09	8.57	7.69	0.88
MW-213	11/16/09	8.57	4.97	3.60
MW-213	04/26/10	8.57	8.22	0.35
MW-213	10/28/10	8.57	5.33	3.24
MW-213	10/25/11	8.57	7.43	1.14
MW-213	06/12/12	8.57	7.84	0.73
MW-213	11/29/12	8.57	4.65	3.92
MW-213	05/15/13	8.57	8.86	-0.29
MW-213	10/30/13	8.57	5.45	3.12
MW-213	11/05/13	8.57	5.29	3.28
MW-213	04/22/14	8.57	6.39	2.18
MW-213	11/05/14	12.17	6.55	5.62
MW-213	05/19/15	12.17	7.85	4.32
MW-213	12/09/15	12.17	4.18	7.99
MW-213	12/14/16	12.17	5.22	6.95

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-213	06/13/17	12.17	5.75	6.42
MW-213	12/04/17	12.17	6.33	5.84
MW-213	06/12/18	12.17	9.38	2.79
MW-213	12/17/18	12.17	3.87	8.30
MW-213	05/15/19	12.17	8.76	3.41
MW-213	12/09/19	12.17	6.26	5.91
MW-213	06/29/20	12.17	7.30	4.87
MW-213	12/14/20	12.17	5.21	6.96
MW-213	04/12/21	12.17	6.01	6.16
MW-213	06/14/21	12.17	5.45	6.72
MW-213	12/16/21	12.17	5.76	6.41
MW-213	06/27/22	12.17	6.88	5.29
MW-213	12/12/22	12.17	4.35	7.82
MW-213	06/12/23	12.17	5.97	6.20
MW-213	12/18/23	12.17	4.00	8.17
MW-214	07/23/01	8.63	10.37	-1.74
MW-214	10/19/01	8.63	5.74	2.89
MW-214	04/24/02	8.63	7.94	0.69
MW-214	07/18/02	8.63	7.25	1.38
MW-214	10/23/02	8.63	5.85	2.78
MW-214	01/28/03	8.63	4.25	4.38
MW-214	04/15/03	8.63	4.66	3.97
MW-214	07/17/03	8.63	10.40	-1.77
MW-214	10/15/03	8.63	4.89	3.74
MW-214	01/13/04	8.63	4.86	3.77
MW-214	04/19/04	8.63	7.92	0.71
MW-214	07/27/04	8.63	6.42	2.21
MW-214	10/18/04	8.63	5.37	3.26
MW-214	01/24/05	8.63	5.00	3.63
MW-214	04/18/05	8.63	7.65	0.98
MW-214	07/12/05	8.63	8.82	-0.19
MW-214	10/18/05	8.63	7.18	1.45
MW-214	01/25/06	8.63	5.96	2.67
MW-214	04/25/06	8.63	7.80	0.83
MW-214	10/11/06	8.63	5.95	2.68
MW-214	11/19/08	8.63	5.50	3.13
MW-214	04/07/09	12.92	7.05	5.87
MW-214	11/16/09	12.92	5.28	7.64
MW-214	04/26/10	12.92	7.80	5.12



**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-214	10/28/10	12.92	5.25	7.67
MW-214	10/25/11	12.92	7.78	5.14
MW-214	06/12/12	12.92	7.80	5.12
MW-214	11/29/12	12.92	5.00	7.92
MW-214	05/15/13	12.92	9.23	3.69
MW-214	10/30/13	12.92	7.88	5.04
MW-214	11/05/13	12.92	5.38	7.54
MW-214	02/27/14	12.92	6.08	6.84
MW-214	04/22/14	12.92	6.78	6.14
MW-214	11/05/14	12.39	6.80	5.59
MW-214	05/19/15	12.39	8.10	4.29
MW-214	12/09/15	12.39	4.74	7.65
MW-214	12/14/16	12.39	5.58	6.81
MW-214	06/13/17	12.39	6.04	6.35
MW-214	12/04/17	12.39	6.41	5.98
MW-214	06/12/18	12.39	9.70	2.69
MW-214	12/17/18	12.39	4.13	8.26
MW-214	05/15/19	12.39	7.81	4.58
MW-214	12/09/19	12.39	6.39	6.00
MW-214	06/29/20	12.39	7.59	4.80
MW-214	12/14/20	12.39	5.32	7.07
MW-214	04/12/21	12.39	5.87	6.52
MW-214	06/14/21	12.39	5.63	6.76
MW-214	12/16/21	12.39	5.71	6.68
MW-214	06/27/22	12.39	7.74	4.65
MW-214	12/12/22	12.39	4.38	8.01
MW-214	06/12/23	12.39	6.70	5.69
MW-214	12/18/23	12.39	3.86	8.53
MW-301	03/02/12	12.56	6.03	6.53
MW-301	05/30/12	12.56	6.03	6.53
MW-301	06/13/12	12.56	6.11	6.45
MW-301	09/26/12	12.56	6.82	5.74
MW-301	11/27/12	12.56	5.34	7.22
MW-301	02/21/13	12.56	5.66	6.90
MW-301	05/16/13	12.56	6.14	6.42
MW-301	09/06/13	12.56	6.71	5.85
MW-301	11/07/13	12.56	6.60	5.96
MW-301	04/22/14	12.56	5.56	7.00
MW-301	07/24/14	12.56	6.38	6.18

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-301	09/23/14	12.56	6.71	5.85
MW-301	11/04/14	12.56	5.73	6.83
MW-301	03/10/15	12.56	5.64	6.92
MW-301	05/15/15	12.56	6.10	6.46
MW-301	07/29/15	12.56	6.63	5.93
MW-301	12/10/15	12.56	4.57	7.99
MW-301	02/23/16	12.56	4.50	8.06
MW-301	05/03/16	12.56	5.53	7.03
MW-301	08/30/16	12.56	6.68	5.88
MW-301	12/14/16	12.56	5.08	7.48
MW-301	03/13/17	12.56	7.60	4.96
MW-301	05/16/17	12.56	5.21	7.35
MW-301	06/13/17	12.56	5.70	6.86
MW-301	08/22/17	12.56	6.43	6.13
MW-301	12/04/17	12.56	5.40	7.16
MW-301	03/06/18	12.56	5.37	7.19
MW-301	06/12/18	12.56	5.90	6.66
MW-301	09/05/18	12.56	6.58	5.98
MW-301	12/17/18	12.56	5.75	6.81
MW-301	03/18/19	12.56	5.23	7.33
MW-301	05/16/19	12.56	5.74	6.82
MW-301	09/17/19	12.56	6.49	6.07
MW-301	12/09/19	12.56	6.41	6.15
MW-301	04/27/20	12.56	5.50	7.06
MW-301	06/29/20	12.56	5.85	6.71
MW-301	09/21/20	12.56	6.57	5.99
MW-301	12/14/20	12.56	5.90	6.66
MW-301	04/12/21	12.56	5.26	7.30
MW-301	06/14/21	12.56	5.95	6.61
MW-301	09/22/21	12.56	6.57	5.99
MW-301	12/16/21	12.56	4.67	7.89
MW-301	03/28/22	12.56	4.91	7.65
MW-301	06/27/22	12.56	5.34	7.22
MW-301	09/21/22	12.56	6.95	5.61
MW-301	12/12/22	12.56	5.22	7.34
MW-301	03/27/23	12.56	5.56	7.00
MW-301	06/12/23	12.56	5.90	6.66
MW-301	09/11/23	12.56	6.17	6.39
MW-301	12/18/23	12.56	4.49	8.07

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-302	03/01/12	12.85	6.47	6.38
MW-302	05/30/12	12.85	Not Measured	Not Measured
MW-302	06/13/12	12.85	Not Measured	Not Measured
MW-302	09/26/12	12.85	7.23	5.62
MW-302	11/27/12	12.85	5.83	7.02
MW-302	02/22/13	12.85	6.10	6.75
MW-302	05/16/13	12.85	6.61	6.24
MW-302	09/06/13	12.85	7.11	5.74
MW-302	11/07/13	12.85	6.99	5.86
MW-302	01/16/14	12.85	6.80	6.05
MW-302	04/22/14	12.85	6.09	6.76
MW-302	06/10/14	12.85	6.40	6.45
MW-302	07/24/14	12.85	6.85	6.00
MW-302	09/23/14	12.85	7.13	5.72
MW-302	11/04/14	12.85	6.28	6.57
MW-302	03/10/15	12.85	6.22	6.63
MW-302	05/15/15	12.85	6.60	6.25
MW-302	07/29/15	12.85	7.07	5.78
MW-302	12/10/15	12.85	5.12	7.73
MW-302	02/23/16	12.85	5.23	7.62
MW-302	05/03/16	12.85	6.15	6.70
MW-302	08/30/16	12.85	7.26	5.59
MW-302	12/14/16	12.85	5.74	7.11
MW-302	03/13/17	12.85	5.33	7.52
MW-302	05/16/17	12.85	5.79	7.06
MW-302	06/13/17	12.85	6.30	6.55
MW-302	08/22/17	12.85	6.92	5.93
MW-302	12/04/17	12.85	5.80	7.05
MW-302	03/06/18	12.85	5.91	6.94
MW-302	06/12/18	12.85	6.48	6.37
MW-302	09/05/18	12.85	6.96	5.89
MW-302	12/17/18	12.85	6.10	6.75
MW-302	03/18/19	12.85	5.65	7.20
MW-302	05/16/19	12.85	6.20	6.65
MW-302	09/17/19	12.85	7.33	5.52
MW-302	12/09/19	12.85	6.75	6.10
MW-302	04/27/20	12.85	5.95	6.90
MW-302	06/29/20	12.85	6.22	6.63
MW-302	09/21/20	12.85	6.92	5.93
MW-302	12/15/20	12.85	6.15	6.70

**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-302	04/13/21	12.85	5.67	7.18
MW-302	06/15/21	12.85	6.28	6.57
MW-302	09/23/21	12.85	6.84	6.01
MW-302	12/16/21	12.85	4.98	7.87
MW-302	03/28/22	12.85	5.25	7.60
MW-302	06/27/22	12.85	5.68	7.17
MW-302	09/21/22	12.85	7.38	5.47
MW-302	12/12/22	12.85	5.88	6.97
MW-302	03/27/23	12.85	5.44	7.41
MW-302	06/13/23	12.85	6.32	6.53
MW-302	09/12/23	12.85	6.80	6.05
MW-302	12/20/23	12.85	4.38	8.47
MW-303	03/02/12	12.64	5.96	6.68
MW-303	05/30/12	12.64	5.97	6.67
MW-303	06/13/12	12.64	6.06	6.58
MW-303	09/26/12	12.64	6.86	5.78
MW-303	11/27/12	12.64	5.22	7.42
MW-303	02/21/13	12.64	5.58	7.06
MW-303	05/16/13	12.64	6.10	6.54
MW-303	09/06/13	12.64	6.80	5.84
MW-303	11/07/13	12.64	6.61	6.03
MW-303	04/22/14	12.64	5.49	7.15
MW-303	07/24/14	12.64	6.44	6.20
MW-303	09/23/14	12.64	6.80	5.84
MW-303	11/04/14	12.64	5.73	6.91
MW-303	03/10/15	12.64	5.62	7.02
MW-303	05/15/15	12.64	6.11	6.53
MW-303	07/29/15	12.64	6.71	5.93
MW-303	12/10/15	12.64	4.38	8.26
MW-303	02/23/16	12.64	4.44	8.20
MW-303	05/03/16	12.64	5.56	7.08
MW-303	08/30/16	12.64	6.82	5.82
MW-303	12/14/16	12.64	5.06	7.58
MW-303	03/13/17	12.64	4.51	8.13
MW-303	05/16/17	12.64	5.18	7.46
MW-303	06/13/17	12.64	5.75	6.89
MW-303	08/22/17	12.64	6.55	6.09
MW-303	12/04/17	12.64	5.35	7.29
MW-303	03/06/18	12.64	5.35	7.29

**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-303	06/12/18	12.64	6.07	6.57
MW-303	09/05/18	12.64	6.73	5.91
MW-303	12/17/18	12.64	5.83	6.81
MW-303	03/18/19	12.64	5.33	7.31
MW-303	05/16/19	12.64	5.89	6.75
MW-303	09/17/19	12.64	6.68	5.96
MW-303	12/09/19	12.64	6.54	6.10
MW-303	04/27/20	12.64	5.63	7.01
MW-303	06/29/20	12.64	6.10	6.54
MW-303	09/21/20	12.64	6.72	5.92
MW-303	12/14/20	12.64	5.95	6.69
MW-303	04/12/21	12.64	5.33	7.31
MW-303	06/14/21	12.64	6.00	6.64
MW-303	09/22/21	12.64	6.69	5.95
MW-303	12/15/21	12.64	4.61	8.03
MW-303	03/28/22	12.64	4.84	7.80
MW-303	06/27/22	12.64	5.38	7.26
MW-303	09/21/22	12.64	7.02	5.62
MW-303	12/12/22	12.64	5.24	7.40
MW-303	03/27/23	12.64	5.33	7.31
MW-303	06/12/23	12.64	6.02	6.62
MW-303	09/11/23	12.64	6.36	6.28
MW-303	12/18/23	12.64	4.58	8.06
MW-304	03/01/12	12.70	6.07	6.63
MW-304	05/30/12	12.70	6.12	6.58
MW-304	06/13/12	12.70	6.22	6.48
MW-304	09/26/12	12.70	6.98	5.72
MW-304	11/27/12	12.70	5.43	7.27
MW-304	02/22/13	12.70	5.78	6.92
MW-304	05/16/13	12.70	Not Measured	Not Measured
MW-304	09/06/13	12.70	6.89	5.81
MW-304	11/07/13	12.70	6.75	5.95
MW-304	01/16/14	12.70	6.50	6.20
MW-304	04/22/14	12.70	5.67	7.03
MW-304	07/24/14	12.70	6.57	6.13
MW-304	09/23/14	12.70	6.89	5.81
MW-304	11/04/14	12.70	5.91	6.79
MW-304	03/10/15	12.70	5.80	6.90
MW-304	05/15/15	12.70	6.28	6.42

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-304	07/29/15	12.70	6.84	5.86
MW-304	12/10/15	12.70	4.80	7.90
MW-304	02/23/16	12.70	Not Measured	Not Measured
MW-304	05/03/16	12.70	5.79	6.91
MW-304	08/30/16	12.70	Not Measured	Not Measured
MW-304	12/14/16	12.70	5.27	7.43
MW-304	03/13/17	12.70	4.82	7.88
MW-304	06/13/17	12.70	5.95	6.75
MW-304	08/22/17	12.70	6.67	6.03
MW-304	12/04/17	12.70	5.53	7.17
MW-304	03/06/18	12.70	5.46	7.24
MW-304	06/12/18	12.70	6.18	6.52
MW-304	09/05/18	12.70	6.78	5.92
MW-304	12/17/18	12.70	5.90	6.80
MW-304	03/18/19	12.70	5.39	7.31
MW-304	05/16/19	12.70	5.98	6.72
MW-304	09/17/19	12.70	6.67	6.03
MW-304	12/09/19	12.70	6.58	6.12
MW-304	04/27/20	12.70	5.71	6.99
MW-304	06/29/20	12.70	6.10	6.60
MW-304	09/21/20	12.70	6.78	5.92
MW-304	12/14/20	12.70	6.00	6.70
MW-304	04/12/21	12.70	5.42	7.28
MW-304	06/14/21	12.70	6.05	6.65
MW-304	09/22/21	12.70	6.72	5.98
MW-304	12/16/21	12.70	4.69	8.01
MW-304	03/28/22	12.70	5.08	7.62
MW-304	06/27/22	12.70	5.45	7.25
MW-304	09/20/22	12.70	7.03	5.67
MW-304	12/12/22	12.70	5.28	7.42
MW-304	03/27/23	12.70	5.71	6.99
MW-304	06/12/23	12.70	6.05	6.65
MW-304	09/11/23	12.70	6.39	6.31
MW-304	12/18/23	12.70	4.57	8.13
MW-305	03/01/12	13.48	6.47	7.01
MW-305	05/30/12	13.48	6.43	7.05
MW-305	06/11/12	13.48	6.43	7.05
MW-305	09/26/12	13.48	7.22	6.26
MW-305	11/28/12	13.48	5.86	7.62

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-305	05/16/13	13.48	6.01	7.47
MW-305	11/07/13	13.48	6.40	7.08
MW-305	04/22/14	13.48	5.92	7.56
MW-305	11/06/14	13.48	6.22	7.26
MW-305	05/21/15	13.48	6.32	7.16
MW-306	03/01/12	13.36	6.24	7.12
MW-306	05/30/12	13.36	6.14	7.22
MW-306	06/11/12	13.36	6.12	7.24
MW-306	09/26/12	13.36	6.99	6.37
MW-306	11/28/12	13.36	5.64	7.72
MW-306	05/16/13	13.36	5.57	7.79
MW-306	11/07/13	13.36	6.04	7.32
MW-306	04/22/14	13.36	5.63	7.73
MW-306	05/21/15	13.36	5.99	7.37
MW-306	12/10/15	13.36	4.80	8.56
MW-307	11/27/12	15.62	7.94	7.68
MW-307	02/22/13	15.62	8.42	7.20
MW-307	05/16/13	15.62	8.91	6.71
MW-307	09/06/13	15.62	9.67	5.95
MW-307	11/07/13	15.62	9.49	6.13
MW-307	04/22/14	15.62	8.52	7.10
MW-307	03/10/15	15.62	8.42	7.20
MW-307	05/15/15	15.62	8.92	6.70
MW-307	07/29/15	15.62	9.58	6.04
MW-307	12/10/15	15.62	7.33	8.29
MW-307	02/23/16	15.62	7.24	8.38
MW-307	05/03/16	15.62	8.39	7.23
MW-307	08/30/16	15.62	9.51	6.11
MW-307	12/14/16	15.62	7.84	7.78
MW-307	03/13/17	15.62	7.32	8.30
MW-307	05/16/17	15.62	8.02	7.60
MW-307	06/13/17	15.62	8.51	7.11
MW-307	08/22/17	15.62	9.42	6.20
MW-307	09/25/17	15.62	9.76	5.86
MW-307	12/04/17	15.62	8.18	7.44
MW-307	03/06/18	15.62	8.16	7.46
MW-307	06/12/18	15.62	8.70	6.92
MW-307	09/05/18	15.62	9.61	6.01

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-307	12/17/18	15.62	8.62	7.00
MW-307	03/18/19	15.62	8.07	7.55
MW-307	05/15/19	15.62	8.69	6.93
MW-307	09/17/19	15.62	9.52	6.10
MW-307	12/09/19	15.62	9.39	6.23
MW-307	04/27/20	15.62	8.42	7.20
MW-307	06/29/20	15.62	8.83	6.79
MW-307	09/21/20	15.62	9.57	6.05
MW-307	12/14/20	15.62	8.72	6.90
MW-307	04/12/21	15.62	8.10	7.52
MW-307	06/14/21	15.62	8.80	6.82
MW-307	09/22/21	15.62	9.54	6.08
MW-307	12/14/21	15.62	7.32	8.30
MW-307	03/28/22	15.62	7.73	7.89
MW-307	06/27/22	15.62	8.61	7.01
MW-307	09/20/22	15.62	9.17	6.45
MW-307	12/12/22	15.62	7.98	7.64
MW-307	03/27/23	15.62	8.25	7.37
MW-307	06/12/23	15.62	8.46	7.16
MW-307	09/11/23	15.62	8.50	7.12
MW-307	12/18/23	15.62	7.23	8.39
MW-308	11/27/12	15.59	7.90	7.69
MW-308	02/22/13	15.59	8.22	7.37
MW-308	05/16/13	15.59	8.80	6.79
MW-308	09/06/13	15.59	9.56	6.03
MW-308	11/07/13	15.59	9.45	6.14
MW-308	04/22/14	15.59	8.10	7.49
MW-308	11/04/14	15.59	8.40	7.19
MW-308	03/10/15	15.59	8.31	7.28
MW-308	05/15/15	15.59	9.01	6.58
MW-308	07/29/15	15.59	9.62	5.97
MW-308	12/10/15	15.59	6.15	9.44
MW-308	02/23/16	15.59	6.88	8.71
MW-308	05/03/16	15.59	8.20	7.39
MW-308	08/30/16	15.59	9.59	6.00
MW-308	12/14/16	15.59	7.56	8.03
MW-308	03/13/17	15.59	6.72	8.87
MW-308	05/16/17	15.59	7.69	7.90
MW-308	06/13/17	15.59	8.38	7.21



**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-308	08/22/17	15.59	9.29	6.30
MW-308	09/25/17	15.59	9.74	5.85
MW-308	12/04/17	15.59	7.90	7.69
MW-308	03/06/18	15.59	7.98	7.61
MW-308	06/12/18	15.59	8.78	6.81
MW-308	09/05/18	15.59	9.55	6.04
MW-308	12/17/18	15.59	8.38	7.21
MW-308	03/18/19	15.59	8.02	7.57
MW-308	05/15/19	15.59	8.65	6.94
MW-308	09/17/19	15.59	9.49	6.10
MW-308	12/09/19	15.59	9.34	6.25
MW-308	04/27/20	15.59	8.32	7.27
MW-308	06/29/20	15.59	8.78	6.81
MW-308	09/21/20	15.59	9.53	6.06
MW-308	12/14/20	15.59	8.70	6.89
MW-308	04/12/21	15.59	8.00	7.59
MW-308	06/14/21	15.59	8.65	6.94
MW-308	09/22/21	15.59	9.50	6.09
MW-308	12/14/21	15.59	7.07	8.52
MW-308	03/28/22	15.59	7.43	8.16
MW-308	06/27/22	15.59	8.34	7.25
MW-308	09/20/22	15.59	8.85	6.74
MW-308	12/12/22	15.59	7.94	7.65
MW-308	03/27/23	15.59	8.18	7.41
MW-308	06/12/23	15.59	7.73	7.86
MW-308	09/11/23	15.59	8.22	7.37
MW-308	12/18/23	15.59	7.09	8.50
MW-309	11/27/12	12.67	5.41	7.26
MW-309	02/21/13	12.67	5.73	6.94
MW-309	05/16/13	12.67	6.21	6.46
MW-309	09/06/13	12.67	6.84	5.83
MW-309	11/07/13	12.67	6.76	5.91
MW-309	04/22/14	12.67	5.60	7.07
MW-309	07/24/14	12.67	6.47	6.20
MW-309	09/23/14	12.67	6.81	5.86
MW-309	11/04/14	12.67	5.81	6.86
MW-309	03/10/15	12.67	5.72	6.95
MW-309	05/15/15	12.67	6.18	6.49
MW-309	07/29/15	12.67	6.74	5.93

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-309	12/10/15	12.67	4.59	8.08
MW-309	02/23/16	12.67	4.70	7.97
MW-309	05/03/16	12.67	5.60	7.07
MW-309	08/30/16	12.67	6.75	5.92
MW-309	12/12/16	12.67	5.12	7.55
MW-309	03/13/17	12.67	4.62	8.05
MW-309	06/13/17	12.67	5.76	6.91
MW-309	08/22/17	12.67	6.56	6.11
MW-309	12/04/17	12.67	5.52	7.15
MW-309	03/06/18	12.67	5.40	7.27
MW-309	06/12/18	12.67	6.18	6.49
MW-309	09/05/18	12.67	6.72	5.95
MW-309	12/17/18	12.67	5.93	6.74
MW-309	03/18/19	12.67	5.41	7.26
MW-309	05/16/19	12.67	5.95	6.72
MW-309	09/17/19	12.67	6.74	5.93
MW-309	12/09/19	12.67	6.59	6.08
MW-309	04/27/20	12.67	5.74	6.93
MW-309	06/29/20	12.67	6.00	6.67
MW-309	09/21/20	12.67	6.75	5.92
MW-309	12/14/20	12.67	6.08	6.59
MW-309	04/12/21	12.67	5.42	7.25
MW-309	06/14/21	12.67	6.10	6.57
MW-309	09/22/21	12.67	6.72	5.95
MW-309	12/15/21	12.67	4.84	7.83
MW-309	03/28/22	12.67	5.03	7.64
MW-309	06/27/22	12.67	5.51	7.16
MW-309	09/19/22	12.67	7.20	5.47
MW-309	12/12/22	12.67	5.41	7.26
MW-309	03/27/23	12.67	5.62	7.05
MW-309	06/12/23	12.67	5.95	6.72
MW-309	09/11/23	12.67	6.86	5.81
MW-309	12/18/23	12.67	4.71	7.96
MW-310	11/27/12	13.51	6.42	7.09
MW-310	02/21/13	13.51	6.78	6.73
MW-310	05/16/13	13.51	7.20	6.31
MW-310	09/06/13	13.51	7.72	5.79
MW-310	11/07/13	13.51	7.61	5.90
MW-310	01/16/14	13.51	7.39	6.12

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-310	04/23/14	13.51	6.64	6.87
MW-310	07/24/14	13.51	7.43	6.08
MW-310	09/23/14	13.51	7.73	5.78
MW-310	11/04/14	13.51	6.84	6.67
MW-310	03/10/15	13.51	6.78	6.73
MW-310	05/15/15	13.51	7.19	6.32
MW-310	07/29/15	13.51	7.67	5.84
MW-310	12/10/15	13.51	5.80	7.71
MW-310	02/23/16	13.51	5.77	7.74
MW-310	05/03/16	13.51	6.70	6.81
MW-310	08/30/16	13.51	7.76	5.75
MW-310	12/14/16	13.51	6.32	7.19
MW-310	03/13/17	13.51	5.90	7.61
MW-310	05/16/17	13.51	6.39	7.12
MW-310	06/13/17	13.51	6.88	6.63
MW-310	08/22/17	13.51	7.56	5.95
MW-310	12/04/17	13.51	6.48	7.03
MW-310	03/06/18	13.51	6.52	6.99
MW-310	06/12/18	13.51	7.08	6.43
MW-310	09/05/18	13.51	7.57	5.94
MW-310	12/17/18	13.51	6.73	6.78
MW-310	03/18/19	13.51	5.28	8.23
MW-310	05/16/19	13.51	6.92	6.59
MW-310	09/17/19	13.51	7.59	5.92
MW-310	12/09/19	13.51	7.41	6.10
MW-310	04/27/20	13.51	6.60	6.91
MW-310	06/29/20	13.51	6.78	6.73
MW-310	09/21/20	13.51	7.57	5.94
MW-310	12/14/20	13.51	8.95	4.56
MW-310	04/12/21	13.51	6.41	7.10
MW-310	06/14/21	13.51	6.98	6.53
MW-310	09/22/21	13.51	7.62	5.89
MW-310	12/16/21	13.51	5.58	7.93
MW-310	03/28/22	13.51	5.85	7.66
MW-310	06/27/22	13.51	7.08	6.43
MW-310	09/20/22	13.51	8.08	5.43
MW-310	12/12/22	13.51	6.20	7.31
MW-310	03/27/23	13.51	5.91	7.60
MW-310	06/12/23	13.51	6.17	7.34
MW-310	09/11/23	13.51	7.15	6.36

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
MW-310	12/18/23	13.51	5.43	8.08
MW-311	11/05/14	14.91	8.03	6.88
MW-311	03/10/15	14.91	8.02	6.89
MW-311	05/15/15	14.91	8.42	6.49
MW-311	07/29/15	14.91	8.83	6.08
MW-311	12/10/15	14.91	7.08	7.83
MW-311	02/23/16	14.91	6.97	7.94
MW-311	05/03/16	14.91	7.92	6.99
MW-311	08/30/16	14.91	8.92	5.99
MW-311	12/14/16	14.91	7.53	7.38
MW-311	03/13/17	14.91	7.10	7.81
MW-311	06/13/17	14.91	8.05	6.86
MW-311	08/22/17	14.91	8.70	6.21
MW-311	12/04/17	14.91	7.70	7.21
MW-311	03/06/18	14.91	7.74	7.17
MW-311	06/12/18	14.91	8.32	6.59
MW-311	09/05/18	14.91	8.78	6.13
MW-311	12/17/18	14.91	8.02	6.89
MW-311	03/18/19	14.91	7.63	7.28
MW-311	05/15/19	14.91	8.06	6.85
MW-311	09/17/19	14.91	8.78	6.13
MW-311	12/09/19	14.91	8.64	6.27
MW-311	04/27/20	14.91	7.94	6.97
MW-311	06/29/20	14.91	8.24	6.67
MW-311	09/21/20	14.91	8.80	6.11
MW-311	12/14/20	14.91	8.20	6.71
MW-311	04/12/21	14.91	7.68	7.23
MW-311	06/14/21	14.91	--	--
MW-311	09/22/21	14.91	8.79	6.12
MW-311	12/16/21	14.91	7.05	7.86
MW-311	03/28/22	14.91	7.25	7.66
MW-311	06/27/22	14.91	7.69	7.22
MW-311	09/20/22	14.91	9.23	5.68
MW-311	12/12/22	14.91	7.62	7.29
MW-311	03/27/23	14.91	7.77	7.14
MW-311	06/12/23	14.91	7.62	7.29
MW-311	09/11/23	14.91	8.58	6.33
MW-311	12/18/23	14.91	6.92	7.99

**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-312	11/05/14	14.31	7.58	6.73
MW-312	03/10/15	14.31	7.56	6.75
MW-312	05/15/15	14.31	7.95	6.36
MW-312	07/29/15	14.31	8.34	5.97
MW-312	12/10/15	14.31	6.97	7.34
MW-312	02/23/16	14.31	6.68	7.63
MW-312	05/03/16	14.31	7.49	6.82
MW-312	08/30/16	14.31	8.44	5.87
MW-312	12/14/16	14.31	7.10	7.21
MW-312	03/13/17	14.31	6.75	7.56
MW-312	06/13/17	14.31	7.61	6.70
MW-312	08/22/17	14.31	8.22	6.09
MW-312	12/04/17	14.31	7.36	6.95
MW-312	03/06/18	14.31	7.32	6.99
MW-312	06/12/18	14.31	7.83	6.48
MW-312	09/05/18	14.31	8.31	6.00
MW-312	12/17/18	14.31	7.57	6.74
MW-312	03/18/19	14.31	7.23	7.08
MW-312	05/15/19	14.31	7.59	6.72
MW-312	09/17/19	14.31	8.26	6.05
MW-312	12/09/19	14.31	8.12	6.19
MW-312	04/27/20	14.31	7.52	6.79
MW-312	06/29/20	14.31	7.70	6.61
MW-312	09/21/20	14.31	8.30	6.01
MW-312	12/14/20	14.31	7.77	6.54
MW-312	04/12/21	14.31	7.31	7.00
MW-312	06/14/21	14.31	7.80	6.51
MW-312	09/22/21	14.31	8.25	6.06
MW-312	12/16/21	14.31	6.63	7.68
MW-312	03/28/22	14.31	5.90	8.41
MW-312	06/27/22	14.31	7.56	6.75
MW-312	09/20/22	14.31	7.11	7.20
MW-312	12/12/22	14.31	7.08	7.23
MW-312	03/27/23	14.31	7.46	6.85
MW-312	06/12/23	14.31	5.78	8.53
MW-312	09/11/23	14.31	7.96	6.35
MW-312	12/18/23	14.31	6.58	7.73
MW-313	08/30/16	13.25	7.05	6.20
MW-313	12/14/16	13.25	5.63	7.62

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
MW-313	03/13/17	13.25	5.31	7.94
MW-313	06/13/17	13.25	6.10	7.15
MW-313	08/22/17	13.25	6.80	6.45
MW-313	12/04/17	13.25	5.77	7.48
MW-313	03/06/18	13.25	5.87	7.38
MW-313	06/12/18	13.25	6.38	6.87
MW-313	09/05/18	13.25	6.98	6.27
MW-313	12/17/18	13.25	6.04	7.21
MW-313	03/18/19	13.25	5.87	7.38
MW-313	05/15/19	13.25	6.21	7.04
MW-313	09/17/19	13.25	6.82	6.43
MW-313	12/09/19	13.25	6.74	6.51
MW-313	04/27/20	13.25	6.03	7.22
MW-313	06/29/20	13.25	6.36	6.89
MW-313	09/21/20	13.25	6.95	6.30
MW-313	12/14/20	13.25	6.27	6.98
MW-313	04/12/21	13.25	5.96	7.29
MW-313	06/14/21	13.25	6.27	6.98
MW-313	09/22/21	13.25	6.83	6.42
MW-313	12/16/21	13.25	5.11	8.14
MW-313	03/28/22	13.25	5.48	7.77
MW-313	06/27/22	13.25	5.87	7.38
MW-313	09/20/22	13.25	7.30	5.95
MW-313	12/12/22	13.25	5.48	7.77
MW-313	03/27/23	13.25	5.90	7.35
MW-313	06/12/23	13.25	6.15	7.10
MW-313	09/11/23	13.25	6.73	6.52
MW-313	12/18/23	13.25	5.58	7.67
MW-314	08/30/16	13.49	7.72	5.77
MW-314	12/14/16	13.49	6.77	6.72
MW-314	03/13/17	13.49	6.55	6.94
MW-314	06/13/17	13.49	7.08	6.41
MW-314	08/22/17	13.49	7.55	5.94
MW-314	12/04/17	13.49	7.00	6.49
MW-314	03/06/18	13.49	6.99	6.50
MW-314	06/12/18	13.49	7.38	6.11
MW-314	09/05/18	13.49	7.66	5.83
MW-314	12/17/18	13.49	6.98	6.51
MW-314	03/18/19	13.49	6.92	6.57

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
MW-314	05/16/19	13.49	7.13	6.36
MW-314	09/17/19	13.49	Not Measured	Not Measured
MW-314	12/09/19	13.49	7.46	6.03
MW-314	04/27/20	13.49	7.19	6.30
MW-314	06/29/20	13.49	7.40	6.09
MW-314	09/22/20	13.49	7.53	5.96
MW-314	12/15/20	13.49	7.31	6.18
MW-314	04/13/21	13.49	7.13	6.36
MW-314	06/14/21	13.49	--	--
MW-314	09/22/21	13.49	--	--
MW-314	12/16/21	13.49	--	--
MW-314	03/28/22	13.49	6.68	6.81
MW-314	06/27/22	13.49	6.93	6.56
MW-314	09/20/22	13.49	8.41	5.08
MW-314	12/12/22	13.49	--	--
MW-314	03/27/23	13.49	6.75	6.74
MW-314	06/14/23	13.49	7.00	6.49
MW-314	09/11/23	13.49	--	--
MW-314	12/20/23	13.49	5.60	7.89
MW-315	08/30/16	14.61	8.56	6.05
MW-315	12/14/16	14.61	7.26	7.35
MW-315	03/13/17	14.61	6.93	7.68
MW-315	06/13/17	14.61	7.72	6.89
MW-315	08/22/17	14.61	8.32	6.29
MW-315	12/04/17	14.61	7.45	7.16
MW-315	03/06/18	14.61	7.47	7.14
MW-315	06/12/18	14.61	7.98	6.63
MW-315	09/05/18	14.61	8.46	6.15
MW-315	12/17/18	14.61	7.64	6.97
MW-315	03/18/19	14.61	7.43	7.18
MW-315	05/15/19	14.61	7.73	6.88
MW-315	09/17/19	14.61	9.43	5.18
MW-315	12/09/19	14.61	8.21	6.40
MW-315	04/27/20	14.61	7.64	6.97
MW-315	06/29/20	14.61	7.95	6.66
MW-315	09/21/20	14.61	8.41	6.20
MW-315	12/14/20	14.61	7.77	6.84
MW-315	04/12/21	14.61	7.52	7.09
MW-315	06/14/21	14.61	7.90	6.71

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
MW-315	09/22/21	14.61	8.34	6.27
MW-315	12/16/21	14.61	6.76	7.85
MW-315	03/28/22	14.61	7.03	7.58
MW-315	06/27/22	14.61	7.42	7.19
MW-315	09/20/22	14.61	9.08	5.53
MW-315	12/12/22	14.61	7.08	7.53
MW-315	03/27/23	14.61	7.43	7.18
MW-315	06/12/23	14.61	7.61	7.00
MW-315	09/11/23	14.61	8.10	6.51
MW-315	12/18/23	14.61	6.74	7.87
SH-04	07/08/93	12.92	9.94	2.98
SH-04	08/03/93	12.92	10.15	2.77
SH-04	09/08/93	12.92	10.50	2.42
SH-04	10/08/93	12.92	10.72	2.20
SH-04	11/05/93	12.92	10.88	2.04
SH-04	12/03/93	12.92	10.78	2.14
SH-04	01/05/94	12.92	10.20	2.72
SH-04	02/04/94	12.92	10.12	2.80
SH-04	08/28/95	12.92	10.15	2.77
SH-04	09/27/95	12.92	10.37	2.55
SH-04	04/27/99	12.92	8.55	4.37
SH-04	07/14/99	12.92	7.63	5.29
SH-04	10/18/99	12.92	10.58	2.34
SH-04	01/11/00	12.92	9.06	3.86
SH-04	04/05/00	12.92	8.94	3.98
SH-04	07/18/00	12.92	9.96	2.96
SH-04	10/02/00	12.92	10.62	2.30
SH-04	01/22/01	12.92	10.13	2.79
SH-04	07/23/01	12.92	6.98	5.94
SH-04	10/16/01	12.92	12.20	0.72
SH-04	04/23/02	12.92	9.91	3.01
SH-04	07/18/02	12.92	10.74	2.18
SH-04	10/23/02	12.92	11.27	1.65
SH-04	01/28/03	12.92	9.73	3.19
SH-04	04/15/03	12.92	9.69	3.23
SH-04	07/17/03	12.92	10.78	2.14
SH-04	10/15/03	12.92	11.19	1.73
SH-04	01/13/04	12.92	9.61	3.31
SH-04	04/19/04	16.62	10.05	6.57



**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
SH-04	07/27/04	16.62	10.90	5.72
SH-04	10/18/04	16.62	10.89	5.73
SH-04	01/24/05	16.62	10.03	6.59
SH-04	04/18/05	16.62	10.03	6.59
SH-04	07/12/05	16.62	10.51	6.11
SH-04	10/18/05	16.62	11.01	5.61
SH-04	01/25/06	16.62	8.98	7.64
SH-04	10/11/06	16.62	11.06	5.56
SH-04	11/20/08	16.62	10.40	6.22
SH-04	04/08/09	16.62	10.01	6.61
SH-04	11/16/09	16.62	10.09	6.53
SH-04	04/27/10	16.62	9.33	7.29
SH-04	10/25/10	16.62	10.23	6.39
SH-04	10/27/11	16.62	10.68	5.94
SH-04	03/01/12	16.62	9.63	6.99
SH-04	05/30/12	16.62	9.56	7.06
SH-04	06/11/12	16.62	9.55	7.07
SH-04	08/23/12	16.62	9.95	6.67
SH-04	09/25/12	16.62	10.21	6.41
SH-04	11/25/12	16.62	8.77	7.85
SH-04	05/16/13	16.62	8.64	7.98
SH-04	11/04/13	16.62	8.75	7.87
SH-04	04/22/14	16.62	9.00	7.62
SH-04	11/06/14	16.62	9.23	7.39
SH-04	05/21/15	16.62	9.15	7.47
SH-04	12/08/15	16.62	8.80	7.82
SH-04	12/14/16	16.62	8.34	8.28
SH-04	06/13/17	16.62	8.75	7.87
SH-04	12/04/17	16.62	9.33	7.29
SH-04	06/12/18	16.62	9.39	7.23
SH-04	12/17/18	16.62	9.65	6.97
SH-04	05/16/19	16.62	9.72	6.90
SH-04	12/09/19	16.62	10.50	6.12
SH-04	06/29/20	16.62	9.89	6.73
SH-04	12/14/20	16.62	9.90	6.72
SH-04	04/12/21	16.62	9.18	7.44
SH-04	06/14/21	16.62	9.60	7.02
SH-04	12/15/21	16.62	8.79	7.83
SH-04	04/18/22	16.62	9.15	7.47
SH-04	06/27/22	16.62	9.33	7.29

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
SH-04	12/12/22	16.62	9.20	7.42
SH-04	06/12/23	16.62	8.95	7.67
SH-04	12/19/23	16.62	8.05	8.57
TES-MW-1	04/06/93	13.10	8.79	4.31
TES-MW-1	05/13/93	13.10	8.61	4.49
TES-MW-1	06/10/93	13.10	8.63	4.47
TES-MW-1	07/08/93	13.10	8.98	4.12
TES-MW-1	08/03/93	13.10	9.28	3.82
TES-MW-1	09/08/93	13.10	8.66	4.44
TES-MW-1	10/08/93	13.10	9.98	3.12
TES-MW-1	11/05/93	13.10	10.20	2.90
TES-MW-1	12/03/93	13.10	10.17	2.93
TES-MW-1	01/05/94	13.10	9.30	3.80
TES-MW-1	02/04/94	13.10	9.19	3.91
TES-MW-1	08/28/95	13.10	9.26	3.84
TES-MW-1	09/27/95	13.10	9.53	3.57
TES-MW-1	04/27/99	13.10	7.49	5.61
TES-MW-1	07/14/99	13.10	8.90	4.20
TES-MW-1	10/18/99	13.10	9.88	3.22
TES-MW-1	01/11/00	13.10	7.59	5.51
TES-MW-1	04/05/00	13.10	8.20	4.90
TES-MW-1	10/02/00	13.10	9.99	3.11
TES-MW-1	01/22/01	13.10	9.65	3.45
TES-MW-1	07/23/01	13.10	10.77	2.33
TES-MW-1	10/16/01	13.10	11.93	1.17
TES-MW-1	04/23/02	13.10	9.32	3.78
TES-MW-1	07/18/02	13.10	10.34	2.76
TES-MW-1	10/23/02	13.10	10.92	2.18
TES-MW-1	01/30/03	13.10	8.43	4.67
TES-MW-1	04/15/03	13.10	8.89	4.21
TES-MW-1	07/17/03	13.10	10.41	2.69
TES-MW-1	10/15/03	13.10	10.82	2.28
TES-MW-1	01/13/04	13.10	8.82	4.28
TES-MW-1	04/19/04	16.15	9.76	6.39
TES-MW-1	07/27/04	16.15	10.48	5.67
TES-MW-1	10/18/04	16.15	10.27	5.88
TES-MW-1	01/24/05	16.15	9.26	6.89
TES-MW-1	04/18/05	16.15	9.46	6.69
TES-MW-1	07/12/05	16.15	10.10	6.05

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
TES-MW-1	10/18/05	16.15	10.70	5.45
TES-MW-1	01/25/06	16.15	8.17	7.98
TES-MW-1	04/25/06	16.15	9.33	6.82
TES-MW-1	10/11/06	16.15	10.66	5.49
TES-MW-1	11/18/08	16.15	9.85	6.30
TES-MW-1	11/16/09	16.15	9.35	6.80
TES-MW-1	10/26/10	16.15	9.66	6.49
TES-MW-1	10/27/11	16.15	10.42	5.73
TES-MW-1	05/30/12	16.15	9.37	6.78
TES-MW-1	06/13/12	16.15	9.43	6.72
TES-MW-1	06/26/12	16.15	10.31	5.84
TES-MW-1	11/27/12	16.15	8.62	7.53
TES-MW-1	05/16/13	16.15	9.46	6.69
TES-MW-1	11/07/13	16.15	10.06	6.09
TES-MW-1	04/22/14	16.15	8.70	7.45
TES-MW-1	11/04/14	16.15	9.07	7.08
TES-MW-1	03/10/15	16.15	8.92	7.23
TES-MW-1	05/15/15	16.15	9.40	6.75
TES-MW-1	07/29/15	16.15	10.08	6.07
TES-MW-1	12/10/15	16.15	7.14	9.01
TES-MW-1	02/23/16	16.15	7.58	8.57
TES-MW-1	05/03/16	16.15	8.80	7.35
TES-MW-1	08/30/16	16.15	9.86	6.29
TES-MW-1	12/14/16	16.15	8.30	7.85
TES-MW-1	03/13/17	16.15	7.57	8.58
TES-MW-1	06/13/17	16.15	9.01	7.14
TES-MW-1	08/22/17	16.15	9.90	6.25
TES-MW-1	12/04/17	16.15	8.75	7.40
TES-MW-1	03/06/18	16.15	8.61	7.54
TES-MW-1	06/12/18	16.15	9.56	6.59
TES-MW-1	09/05/18	16.15	10.17	5.98
TES-MW-1	12/17/18	16.15	9.08	7.07
TES-MW-1	03/18/19	16.15	8.73	7.42
TES-MW-1	05/15/19	16.15	9.34	6.81
TES-MW-1	09/17/19	16.15	10.19	5.96
TES-MW-1	12/09/19	16.15	9.99	6.16
TES-MW-1	04/27/20	16.15	9.04	7.11
TES-MW-1	06/29/20	16.15	9.50	6.65
TES-MW-1	09/21/20	16.15	10.23	5.92
TES-MW-1	12/14/20	16.15	9.43	6.72

**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
TES-MW-1	04/12/21	16.15	8.79	7.36
TES-MW-1	06/14/21	16.15	9.35	6.80
TES-MW-1	09/22/21	16.15	10.15	6.00
TES-MW-1	12/14/21	16.15	7.87	8.28
TES-MW-1	03/28/22	16.15	8.19	7.96
TES-MW-1	06/27/22	16.15	9.18	6.97
TES-MW-1	09/19/22	16.15	10.50	5.65
TES-MW-1	12/12/22	16.15	10.35	5.80
TES-MW-1	03/27/23	16.15	8.10	8.05
TES-MW-1	06/12/23	16.15	8.86	7.29
TES-MW-1	09/11/23	16.15	9.36	6.79
TES-MW-1	12/19/23	16.15	7.92	8.23
TX-03	04/06/93	9.58	5.57	4.01
TX-03	06/10/93	9.58	5.50	4.08
TX-03	07/08/93	9.58	5.81	3.77
TX-03	08/03/93	9.58	6.08	3.50
TX-03	09/08/93	9.58	6.42	3.16
TX-03	10/08/93	9.58	6.74	2.84
TX-03	11/05/93	9.58	6.91	2.67
TX-03	12/03/93	9.58	6.90	2.68
TX-03	01/05/94	9.58	6.16	3.42
TX-03	02/04/94	9.58	Not Measured	Not Measured
TX-03	08/28/95	9.58	6.16	3.42
TX-03	09/27/95	9.58	Not Measured	Not Measured
TX-03	04/27/99	9.58	4.68	4.90
TX-03	07/14/99	9.58	5.87	3.71
TX-03	10/18/99	9.58	6.71	2.87
TX-03	01/11/00	9.58	5.30	4.28
TX-03	04/05/00	9.58	5.31	4.27
TX-03	07/18/00	9.58	5.98	3.60
TX-03	10/02/00	9.58	6.65	2.93
TX-03A	04/23/02	9.58	6.25	3.33
TX-03A	07/18/02	9.58	6.75	2.83
TX-03A	10/23/02	9.58	7.15	2.43
TX-03A	01/28/03	9.58	5.40	4.18
TX-03A	04/15/03	9.58	5.76	3.82
TX-03A	07/17/03	9.58	6.76	2.82
TX-03A	10/15/03	9.58	7.05	2.53

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
TX-03A	01/13/04	9.58	5.46	4.12
TX-03A	04/19/04	12.26	6.22	6.04
TX-03A	07/27/04	12.26	6.78	5.48
TX-03A	10/18/04	12.26	6.69	5.57
TX-03A	01/24/05	12.26	5.76	6.50
TX-03A	04/18/05	12.26	5.91	6.35
TX-03A	07/12/05	12.26	6.41	5.85
TX-03A	10/18/05	12.26	6.92	5.34
TX-03A	01/25/06	12.26	4.82	7.44
TX-03A	04/25/06	12.26	5.82	6.44
TX-03A	10/11/06	12.26	6.91	5.35
TX-03A	11/20/08	12.26	6.14	6.12
TX-03A	04/08/09	12.26	5.90	6.36
TX-03A	11/16/09	12.26	5.80	6.46
TX-03A	04/27/10	12.26	5.53	6.73
TX-03A	10/25/10	12.26	6.20	6.06
TX-03A	10/27/11	12.26	6.74	5.52
TX-03A	03/01/12	12.26	5.86	6.40
TX-03A	06/13/12	12.26	5.97	6.29
TX-03A	09/26/12	12.26	6.67	5.59
TX-03A	11/27/12	12.26	5.21	7.05
TX-03A	02/21/13	12.26	5.55	6.71
TX-03A	05/16/13	12.26	6.01	6.25
TX-03A	09/06/13	12.26	6.56	5.70
TX-03A	11/07/13	12.26	6.45	5.81
TX-03A	04/22/14	12.26	5.45	6.81
TX-03A	07/24/14	12.26	6.28	5.98
TX-03A	09/23/14	12.26	6.57	5.69
TX-03A	11/04/14	12.26	5.64	6.62
TX-03A	03/10/15	12.26	5.57	6.69
TX-03A	05/15/15	12.26	5.98	6.28
TX-03A	07/29/15	12.26	6.51	5.75
TX-03A	12/10/15	12.26	4.48	7.78
TX-03A	02/23/16	12.26	4.44	7.82
TX-03A	05/03/16	12.26	5.46	6.80
TX-03A	08/30/16	12.26	6.59	5.67
TX-03A	12/14/16	12.26	5.04	7.22
TX-03A	03/13/17	12.26	4.56	7.70
TX-03A	05/16/17	12.26	5.12	7.14
TX-03A	06/13/17	12.26	5.63	6.63

**Table 3**  
**Groundwater Elevation Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
TX-03A	08/22/17	12.26	6.37	5.89
TX-03A	12/04/17	12.26	5.20	7.06
TX-03A	03/27/18	12.26	5.42	6.84
TX-03A	06/12/18	12.26	6.33	5.93
TX-03A	09/05/18	12.26	6.43	5.83
TX-03A	12/17/18	12.26	5.61	6.65
TX-03A	03/18/19	12.26	5.12	7.14
TX-03A	05/16/19	12.26	5.56	6.70
TX-03A	09/17/19	12.26	6.42	5.84
TX-03A	12/09/19	12.26	6.27	5.99
TX-03A	04/27/20	12.26	5.45	6.81
TX-03A	06/29/20	12.26	5.65	6.61
TX-03A	09/21/20	12.26	6.43	5.83
TX-03A	12/15/20	12.26	5.70	6.56
TX-03A	04/12/21	12.26	5.12	7.14
TX-03A	06/14/21	12.26	5.72	6.54
TX-03A	09/23/21	12.26	6.35	5.91
TX-03A	12/16/21	12.26	--	--
TX-03A	03/28/22	12.26	4.90	7.36
TX-03A	06/27/22	12.26	5.17	7.09
TX-03A	09/21/22	12.26	6.75	5.51
TX-03A	12/12/22	12.26	5.05	7.21
TX-03A	03/27/23	12.26	4.97	7.29
TX-03A	06/14/23	12.26	5.42	6.84
TX-03A	09/12/23	12.26	6.84	5.42
TX-03A	12/20/23	12.26	4.45	7.81
TX-04	04/06/93	14.36	9.97	4.39
TX-04	05/13/93	14.36	9.83	4.53
TX-04	06/10/93	14.36	9.87	4.49
TX-04	07/08/93	14.36	10.24	4.12
TX-04	08/03/93	14.36	10.54	3.82
TX-04	09/08/93	14.36	10.96	3.40
TX-04	10/08/93	14.36	11.28	3.08
TX-04	11/05/93	14.36	11.51	2.85
TX-04	12/03/93	14.36	11.43	2.93
TX-04	01/05/94	14.36	10.60	3.76
TX-04	02/04/94	14.36	10.45	3.91
TX-04	08/28/95	14.36	10.64	3.72
TX-04	09/27/95	14.36	10.88	3.48

**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
TX-04	04/27/99	14.36	8.57	5.79
TX-04	07/14/99	14.36	10.01	4.35
TX-04	10/18/99	14.36	11.12	3.24
TX-04	01/11/00	14.36	9.06	5.30
TX-04	04/05/00	14.36	9.04	5.32
TX-04	07/18/00	14.36	10.41	3.95
TX-04	10/02/00	14.36	11.23	3.13
TX-04	01/22/01	14.36	10.70	3.66
TX-04	07/23/01	14.36	11.50	2.86
TX-04	10/16/01	14.36	9.57	4.79
TX-04	04/23/02	14.36	6.81	7.55
TX-04	07/18/02	14.36	11.33	3.03
TX-04	10/23/02	14.36	11.79	2.57
TX-04	01/28/03	14.36	9.51	4.85
TX-04	04/15/03	14.36	9.55	4.81
TX-04	07/17/03	14.36	11.28	3.08
TX-04	10/15/03	14.36	11.93	2.43
TX-04	01/13/04	14.36	9.54	4.82
TX-04	04/19/04	17.65	10.50	7.15
TX-04	07/27/04	17.65	11.46	6.19
TX-04	10/18/04	17.65	11.46	6.19
TX-04	01/24/05	17.65	10.16	7.49
TX-04	04/18/05	17.65	10.35	7.30
TX-04	07/12/05	17.65	11.04	6.61
TX-04	10/18/05	17.65	11.79	5.86
TX-04	01/25/06	17.65	8.43	9.22
TX-04	04/25/06	17.65	10.22	7.43
TX-04	10/11/06	17.65	11.77	5.88
TX-04	11/18/08	17.65	10.84	6.81
TX-04	11/16/09	17.65	10.39	7.26
TX-04	10/25/10	17.65	10.77	6.88
TX-04	10/26/11	17.65	11.47	6.18
TX-04	11/26/12	17.65	9.26	8.39
TX-04	11/04/13	17.65	10.98	6.67
TX-04	11/06/14	17.65	10.05	7.60
TX-04	02/27/15	17.65	9.37	8.28
TX-04	12/08/15	17.65	9.27	8.38
TX-04	12/14/16	17.65	8.97	8.68
TX-04	12/04/17	17.65	9.64	8.01
TX-04	12/17/18	17.65	10.39	7.26

**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC Elevation ft AMSL	Depth to Water ft below TOC	GW Elevation ft AMSL
TX-04	12/09/19	17.65	11.22	6.43
TX-04	12/14/20	17.65	10.45	7.20
TX-04	04/12/21	17.65	9.63	8.02
TX-04	12/15/21	17.65	8.90	8.75
TX-04	12/12/22	17.65	9.81	7.84
TX-04	12/18/23	17.65	8.07	9.58
TX-06	04/06/93	8.58	3.85	4.73
TX-06	06/10/93	8.58	3.71	4.87
TX-06	09/08/93	8.58	4.96	3.62
TX-06	10/08/93	8.58	5.35	3.23
TX-06	11/05/93	8.58	5.54	3.04
TX-06	12/03/93	8.58	5.37	3.21
TX-06	01/05/94	8.58	4.48	4.10
TX-06	02/04/94	8.58	4.43	4.15
TX-06	08/28/95	8.58	4.75	3.83
TX-06	09/27/95	8.58	5.78	2.80
TX-06	04/27/99	8.58	2.62	5.96
TX-06	07/14/99	8.58	4.05	4.53
TX-06	10/18/99	8.58	5.19	3.39
TX-06	01/11/00	8.58	2.98	5.60
TX-06	04/05/00	8.58	3.16	5.42
TX-06	07/18/00	8.58	4.25	4.33
TX-06	10/02/00	8.58	5.23	3.35
TX-06	04/25/06	8.58	3.88	4.70
TX-06A	04/23/02	8.58	3.98	4.60
TX-06A	07/18/02	8.58	4.14	4.44
TX-06A	10/23/02	8.58	5.98	2.60
TX-06A	01/28/03	8.58	3.40	5.18
TX-06A	04/15/03	8.58	3.57	5.01
TX-06A	07/17/03	8.58	5.24	3.34
TX-06A	10/15/03	8.58	6.01	2.57
TX-06A	01/13/04	8.58	3.36	5.22
TX-06A	04/19/04	11.67	4.41	7.26
TX-06A	07/27/04	11.67	5.39	6.28
TX-06A	10/18/04	11.67	5.23	6.44
TX-06A	01/24/05	11.67	3.66	8.01
TX-06A	04/18/05	11.67	3.89	7.78
TX-06A	07/12/05	11.67	4.78	6.89



**Table 3  
Groundwater Elevation Data  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	TOC	Depth to Water ft below TOC	GW Elevation ft AMSL
		Elevation ft AMSL		
TX-06A	10/18/05	11.67	5.63	6.04
TX-06A	01/25/06	11.67	3.00	8.67
TX-06A	04/25/06	11.67	5.54	6.13
TX-06A	11/18/08	11.67	4.56	7.11
TX-06A	11/16/09	11.67	3.99	7.68
TX-06A	10/28/10	11.67	4.47	7.20
TX-06A	10/25/11	11.67	5.40	6.27
TX-06A	11/25/12	11.67	3.03	8.64
TX-06A	11/07/13	11.67	4.87	6.80
TX-06A	11/06/14	11.67	4.03	7.64
TX-06A	12/08/15	11.67	2.80	8.87
TX-06A	12/14/16	11.67	3.26	8.41
TX-06A	12/04/17	11.67	3.36	8.31
TX-06A	12/17/18	11.67	4.18	7.49
TX-06A	12/09/19	11.67	5.20	6.47
TX-06A	12/14/20	11.67	4.32	7.35
TX-06A	04/12/21	11.67	3.91	7.76
TX-06A	12/15/21	11.67	2.90	8.77
TX-06A	12/12/22	11.67	7.46	4.21
TX-06A	12/19/23	11.67	2.45	9.22

**Notes:**

= Indicates data collected during this progress report period

-- = Survey data not available

AMSL = above mean sea level

ft = feet

TOC = Top of monitoring well casing

**Table 4**  
**Performance Product Monitoring Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Date	MW-204			MW-208			MW-209			MW-210			MW-211			MW-212		
	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness
06/01/04	10.68	NP	NP	5.01	NP	NP	—	—	—	6.20	6.15	0.05	5.33	NP	NP	5.60	NP	NP
10/02/04	10.12	NP	NP	4.77	NP	NP	—	—	—	7.09	6.31	0.78	5.04	NP	NP	4.89	NP	NP
10/03/04	10.50	NP	NP	5.98	NP	NP	—	—	—	7.26	6.71	0.55	5.86	NP	NP	6.06	NP	NP
04/19/04	10.95	NP	NP	6.29	NP	NP	—	—	—	6.99	NP	NP	4.90	NP	NP	5.13	NP	NP
05/13/04	11.24	NP	NP	6.07	NP	NP	—	—	—	6.95	NP	NP	4.78	NP	NP	4.80	NP	NP
08/06/04	11.35	NP	NP	4.76	NP	NP	—	—	—	5.52	NP	NP	4.64	NP	NP	4.41	NP	NP
06/07/04	11.55	NP	NP	5.06	NP	NP	—	—	—	6.98	NP	NP	4.55	NP	NP	4.61	NP	NP
11/08/04	11.79	NP	NP	6.51	NP	NP	—	—	—	7.22	NP	NP	7.18	NP	NP	7.27	NP	NP
09/09/04	11.79	NP	NP	6.66	NP	NP	—	—	—	7.19	7.18	0.01	7.16	NP	NP	7.14	7.14	Trace
06/10/04	11.76	NP	NP	6.58	NP	NP	—	—	—	7.18	NP	NP	7.11	NP	NP	7.08	NP	NP
09/11/04	11.61	NP	NP	6.17	NP	NP	—	—	—	7.04	7.01	0.03	6.93	NP	NP	6.95	6.95	Trace
10/12/04	—	—	—	3.91	NP	NP	—	—	—	6.96	NP	NP	5.31	NP	NP	5.00	NP	NP
11/01/05	11.04	NP	NP	3.80	NP	NP	—	—	—	5.78	NP	NP	4.85	4.85	Trace	4.71	NP	NP
11/02/05	10.81	10.81	Trace	4.47	NP	NP	—	—	—	6.19	6.18	0.01	5.71	NP	NP	5.68	NP	NP
11/03/05	11.18	NP	NP	5.48	NP	NP	—	—	—	6.73	NP	NP	6.56	6.56	Trace	6.50	NP	NP
04/18/05	10.98	NP	NP	5.97	NP	NP	—	—	—	6.95	6.81	0.14	6.18	NP	NP	6.42	NP	NP
05/25/05	10.98	NP	NP	4.78	NP	NP	—	—	—	6.12	NP	NP	5.73	NP	NP	5.78	NP	NP
09/06/05	11.15	NP	NP	5.74	NP	NP	—	—	—	6.68	6.67	0.01	6.11	NP	NP	6.33	NP	NP
11/07/05	11.40	NP	NP	6.12	NP	NP	—	—	—	7.13	NP	NP	6.32	NP	NP	6.65	NP	NP
08/19/05	11.64	NP	NP	6.25	NP	NP	—	—	—	6.91	NP	NP	6.50	NP	NP	7.85	NP	NP
09/16/05	11.83	NP	NP	6.51	NP	NP	—	—	—	7.32	NP	NP	6.85	NP	NP	7.02	NP	NP
10/18/05	11.98	NP	NP	6.06	NP	NP	—	—	—	6.93	NP	NP	6.51	NP	NP	6.54	NP	NP
09/11/05	11.67	NP	NP	4.43	NP	NP	—	—	—	6.34	NP	NP	4.86	NP	NP	4.10	NP	NP
05/12/05	11.48	NP	NP	4.65	NP	NP	—	—	—	6.57	NP	NP	—	—	—	—	—	—
01/26/06	9.96	NP	NP	4.72	NP	NP	—	—	—	5.83	NP	NP	6.65	NP	NP	3.95	NP	NP
02/28/06	10.24	NP	NP	5.34	NP	NP	—	—	—	6.28	NP	NP	4.53	NP	NP	4.88	NP	NP
03/24/06	10.57	NP	NP	5.34	NP	NP	—	—	—	4.20	NP	NP	5.74	NP	NP	4.94	NP	NP
04/18/06	10.78	NP	NP	5.41	NP	NP	—	—	—	6.46	6.45	0.01	5.81	NP	NP	5.28	NP	NP
05/18/06	11.06	NP	NP	6.02	NP	NP	—	—	—	7.01	NP	NP	6.32	NP	NP	5.56	NP	NP
06/19/06	11.26	NP	NP	5.98	NP	NP	—	—	—	6.91	NP	NP	6.23	NP	NP	5.48	NP	NP
08/28/06	11.74	NP	NP	6.45	NP	NP	—	—	—	7.25	NP	NP	6.63	NP	NP	5.68	NP	NP
09/15/06	11.83	NP	NP	6.21	NP	NP	—	—	—	7.02	NP	NP	6.54	NP	NP	5.53	NP	NP
10/11/06	11.96	NP	NP	6.10	NP	NP	—	—	—	6.95	NP	NP	5.93	NP	NP	5.48	NP	NP
11/29/06	—	—	—	4.19	NP	NP	—	—	—	5.83	NP	NP	5.39	NP	NP	4.27	NP	NP
12/13/06	10.53	NP	NP	3.60	NP	NP	—	—	—	5.58	5.58	0.01	4.39	NP	NP	2.81	NP	NP
01/31/07	10.17	NP	NP	3.98	NP	NP	—	—	—	6.32	6.09	0.23	5.58	NP	NP	4.26	NP	NP
02/26/07	10.56	NP	NP	4.55	NP	NP	—	—	—	6.04	NP	NP	5.24	NP	NP	4.12	NP	NP
03/20/07	10.68	NP	NP	4.68	NP	NP	—	—	—	6.42	6.41	0.01	5.68	NP	NP	4.82	NP	NP
04/26/07	10.99	NP	NP	—	NP	NP	—	—	—	—	NP	NP	6.15	NP	NP	4.97	4.96	0.01
05/25/07	11.29	NP	NP	5.68	NP	NP	—	—	—	7.05	NP	NP	6.60	NP	NP	5.11	NP	NP
06/15/07	11.50	NP	NP	5.93	NP	NP	—	—	—	7.04	NP	NP	6.35	NP	NP	5.03	NP	NP
07/19/07	11.70	NP	NP	5.82	5.81	0.01	—	—	—	6.81	6.80	0.01	6.34	NP	NP	5.29	5.28	0.01
08/17/07	11.81	NP	NP	5.90	NP	NP	—	—	—	6.75	NP	NP	6.22	NP	NP	5.35	NP	NP
09/11/07	—	NP	NP	6.24	NP	NP	—	—	—	7.28	7.28	<.01	6.68	6.68	<.01	5.73	NP	NP

**Table 4**  
**Performance Product Monitoring Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Date	MW-204			MW-208			MW-209			MW-210			MW-211			MW-212		
	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness
10/29/07	11.80	NP	NP	5.60	NP	NP	—	—	—	6.68	NP	NP	5.25	NP	NP	6.03	NP	NP
11/12/07	11.84	NP	NP	5.56	NP	NP	—	—	—	6.58	6.57-6.58	<.01	5.82	NP	NP	4.83	—	—
12/26/07	10.84	NP	NP	4.09	NP	NP	—	—	—	5.85	5.84	<.01	4.84	4.85	<.01	4.44	4.43	<.01
01/11/08	10.64	NP	NP	3.84	NP	NP	—	—	—	5.26	5.25	0.01	4.13	4.12	<.01	3.64	3.63	<.01
02/13/08	10.65	NP	NP	4.58	NP	NP	—	—	—	6.60	6.25	0.35	5.75	NP	NP	4.84	NP	NP
03/14/08	11.05	NP	NP	5.37	NP	NP	—	—	—	6.31	NP	NP	5.65	NP	NP	5.01	NP	NP
04/18/08	10.78	NP	NP	5.41	NP	NP	—	—	—	6.46	6.45	0.01	5.81	NP	NP	5.28	NP	NP
05/05/08	11.39	NP	NP	5.84	NP	NP	—	—	—	7.06	7.05	0.01	6.39	NP	NP	5.49	NP	NP
05/20/08	11.53	NP	NP	5.84	NP	NP	—	—	—	7.03	7.02	0.01	6.69	NP	NP	5.52	NP	NP
06/30/08	11.67	NP	NP	5.85	NP	NP	—	—	—	dry	NP	NP	6.35	6.34	0.01	5.45	5.44	0.01
07/10/08	11.70	NP	NP	5.70	NP	NP	—	—	—	6.83	6.80	0.03	6.23	NP	NP	5.24	NP	NP
08/13/08	11.75	NP	NP	5.61	NP	NP	—	—	—	6.75	NP	NP	6.25	NP	NP	6.17	NP	NP
09/02/08	11.82	NP	NP	5.86	NP	NP	—	—	—	6.98	NP	NP	6.40	NP	NP	5.71	NP	NP
10/10/08	11.82	NP	NP	7.11	NP	NP	—	—	—	5.83	NP	NP	6.59	NP	NP	5.83	NP	NP
11/10/08	10.02	NP	NP	4.68	NP	NP	—	—	—	6.40	NP	NP	5.61	NP	NP	5.21	NP	NP
12/08/08	11.48	NP	NP	5.53	NP	NP	—	—	—	6.70	6.52	0.18	5.82	NP	Sheen	5.17	NP	Sheen
01/07/09	11.00	NP	NP	3.93	NP	NP	—	—	—	5.32	NP	Sheen	4.51	NP	Sheen	4.41	NP	Sheen
02/17/09	11.60	NP	NP	5.20	NP	NP	—	—	—	6.40	NP	Sheen	5.72	NP	Sheen	5.21	NP	Sheen
03/06/09	11.21	NP	NP	4.67	NP	NP	—	—	—	6.02	5.59	0.43	4.45	NP	Sheen	4.83	NP	Sheen
04/07/09	—	—	—	—	—	—	—	—	—	6.98	6.96	0.02	—	—	—	—	—	—
07/09/09	11.55	NP	NP	—	—	—	—	—	—	6.90	NP	Sheen	6.34	NP	Sheen	5.56	NP	Sheen
10/20/09	11.75	NP	NP	4.90	NP	NP	—	—	—	6.28	NP	Sheen	5.63	NP	Sheen	4.91	NP	Sheen
01/05/10	10.98	NP	NP	3.60	NP	NP	—	—	—	5.78	NP	Sheen	3.55	NP	NP	3.30	NP	NP
04/26/10	10.7	NP	NP	5.04	NP	NP	—	—	—	6.29	6.28	0.01	5.76	NP	NP	5.05	NP	NP
07/22/10	11.44	NP	NP	5.83	NP	NP	—	—	—	10.02	NP	Sheen	6.74	NP	NP	5.37	NP	Sheen
10/20/10	11.68	NP	NP	5.90	NP	NP	—	—	—	6.78	NP	Sheen	6.20	NP	Sheen	5.45	NP	Sheen
12/12/10	10.79	NP	NP	4.45	NP	NP	—	—	—	5.97	NP	<0.01	5.27	NP	NP	4.62	NP	Sheen
04/08/11	9.97	NP	NP	4.62	NP	NP	—	—	—	5.72	5.71	0.01	5.22	NP	NP	4.82	NP	NP
07/28/11	11.08	NP	NP	5.71	NP	NP	—	—	—	6.90	6.89	0.01	6.22	NP	NP	5.38	NP	NP
09/21/11	11.75	NP	NP	6.19	NP	NP	—	—	—	7.06	7.05	0.01	6.55	NP	NP	5.78	NP	Sheen
03/26/12	—	—	—	4.68	NP	NP	—	—	—	6.09	5.76	0.33	5.08	NP	NP	4.19	NP	Sheen
06/12/12	11.20	NP	NP	5.24	NP	NP	—	—	—	7.25	6.38	0.87	5.86	NP	NP	4.69	NP	Sheen
09/27/12	—	—	—	8.39	NP	NP	—	—	—	7.29	6.98	0.31	6.73	NP	NP	5.47	NP	Sheen
11/27/12	10.81	NP	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12/20/12	—	—	—	2.15	NP	NP	—	—	—	5.40	4.72	0.68	1.97	NP	NP	0.00	NP	NP
02/22/13	10.81	NP	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
03/29/13	—	—	—	—	—	—	—	—	—	6.53	6.44	0.09	5.97	NP	Sheen	4.90	NP	Sheen
05/16/13	11.30	NP	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
06/28/13	—	—	—	4.98	NP	NP	—	—	—	6.35	6.33	0.02	5.68	NP	NP	4.42	NP	Sheen
09/06/13	11.77	NP	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
09/11/13	—	—	—	5.67	NP	Sheen	—	—	—	6.63	NP	NP	—	—	—	5.32	4.82	0.50
09/12/13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.52	5.03	0.49
10/30/13	—	—	—	5.97	NP	NP	—	—	—	7.08	6.96	0.12	6.43	NP	NP	5.29	5.28	0.01
11/07/13	11.73	NP	NP	5.51	NP	NP	—	—	—	6.44	6.41	0.03	5.68	NP	NP	5.54	5.51	0.03

**Table 4**  
**Performance Product Monitoring Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Date	MW-204			MW-208			MW-209			MW-210			MW-211			MW-212		
	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness
01/16/14	—	—	—	5.46	NP	NP	5.46	5.51	0.05	6.48	6.36	0.12	5.51	NP	NP	5.47	5.43	0.04
02/27/14	—	—	—	4.72	NP	NP	6.04	NP	Sheen	6.79	6.12	0.67	5.01	NP	NP	6.12	NP	Sheen
03/25/14	—	—	—	4.91	NP	NP	5.90	NP	NP	6.96	5.84	1.12	5.38	NP	NP	6.30	NP	NP
04/22/14	10.78	NP	NP	4.98	NP	NP	5.89	NP	NP	6.32	5.98	0.34	5.33	NP	NP	5.85	NP	Sheen
06/10/14	—	—	—	5.62	NP	Sheen	8.31	NP	NP	7.08	6.85	0.23	6.02	NP	NP	—	NP	NP
07/24/14	—	—	—	5.50	NP	NP	6.91	NP	NP	6.64	6.56	0.08	6.85	NP	NP	6.06	NP	Sheen
08/28/14	—	—	—	5.73	NP	NP	6.79	NP	NP	6.72	6.65	0.07	6.06	NP	NP	6.23	NP	NP
09/23/14	—	—	—	5.76	NP	NP	5.73	NP	NP	6.65	6.55	0.10	5.96	NP	NP	6.08	NP	NP
10/22/14	—	—	—	4.82	NP	NP	4.91	NP	NP	5.87	NP	NP	4.96	NP	NP	4.13	NP	Sheen
11/05/14	11.04	NP	NP	4.50	NP	NP	6.60	NP	NP	6.45	5.90	0.55	4.70	NP	NP	5.12	NP	NP
12/18/14	—	—	—	4.28	NP	NP	5.77	NP	NP	5.49	5.26	0.23	4.50	NP	NP	4.89	NP	NP
01/27/15	—	—	—	4.52	NP	NP	4.88	NP	NP	6.15	5.60	0.55	4.82	NP	NP	5.38	NP	NP
02/26/15	—	—	—	4.92	NP	NP	5.54	NP	NP	6.69	5.88	0.81	5.38	NP	NP	5.59	NP	NP
03/11/15	10.75	NP	NP	5.29	NP	NP	5.55	NP	NP	6.56	6.15	0.41	5.52	NP	NP	5.45	NP	Sheen
04/21/15	—	—	—	5.08	NP	NP	—	—	—	6.44	6.36	0.08	5.50	NP	NP	5.85	NP	NP
05/19/15	11.21	NP	NP	5.31	NP	NP	8.60	NP	NP	6.50	6.49	0.01	5.71	NP	NP	5.67	NP	NP
06/11/15	—	—	—	5.34	NP	NP	—	—	—	6.48	NP	NP	5.70	NP	NP	5.46	NP	NP
07/29/15	11.59	NP	NP	5.81	NP	NP	—	—	—	6.73	NP	NP	6.10	NP	NP	5.85	NP	NP
08/25/15	—	—	—	5.95	NP	NP	—	—	—	6.23	NP	NP	6.17	NP	NP	6.82	NP	NP
09/24/15	—	—	—	5.72	NP	NP	—	—	—	6.60	NP	NP	5.72	NP	NP	6.33	NP	NP
10/15/15	—	—	—	5.35	NP	NP	—	—	—	6.30	NP	NP	5.30	NP	NP	5.82	NP	NP
11/20/15	—	—	—	4.37	NP	NP	—	—	—	6.47	5.67	0.80	4.78	NP	NP	5.51	NP	NP
12/09/15	9.91	NP	NP	2.55	NP	NP	—	—	—	4.45	4.45	Trace	2.80	NP	NP	3.61	NP	NP
02/23/16	—	—	—	4.18	NP	NP	—	—	—	5.82	5.23	0.59	4.45	NP	NP	4.38	NP	Odor
04/22/16	—	—	—	4.90	NP	NP	—	—	—	5.96	5.83	0.13	4.67	NP	NP	5.37	NP	NP
05/03/16	—	—	—	5.27	NP	NP	—	—	—	6.42	6.19	0.23	5.63	NP	NP	6.00	NP	NP
06/02/16	—	—	—	5.34	NP	NP	—	—	—	6.44	6.44	Odor	5.77	NP	NP	6.18	NP	NP
07/14/16	—	—	—	5.58	NP	NP	—	—	—	6.67	NP	NP	6.02	NP	NP	6.27	NP	NP
08/18/16	—	—	—	5.80	NP	NP	—	—	—	6.78	6.78	Odor	6.16	NP	NP	6.44	NP	NP
09/08/16	—	—	—	5.88	NP	NP	—	—	—	6.78	6.78	Odor	6.22	NP	NP	6.55	NP	NP
10/21/16	—	—	—	5.40	NP	NP	—	—	—	6.32	Trace	Trace	6.01	NP	NP	6.10	NP	NP
11/17/16	—	—	—	3.67	NP	NP	—	—	—	5.43	4.49	0.94	3.86	NP	NP	4.68	NP	NP
12/01/16	—	—	—	3.93	NP	NP	—	—	—	6.00	4.94	1.06	4.14	NP	NP	4.88	NP	NP
12/14/16	10.34	NP	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
01/11/17	—	—	—	2.83	NP	NP	—	—	—	5.38	5.34	0.04	3.18	NP	NP	3.88	NP	Sheen
02/14/17	—	—	—	3.81	NP	NP	—	—	—	5.69	4.75	0.94	4.02	NP	NP	4.79	NP	NP
03/13/17	9.83	NP	NP	4.04	NP	NP	—	—	—	5.98	5.17	0.81	4.27	NP	NP	4.98	NP	NP
04/13/17	—	—	—	3.78	NP	NP	—	—	—	6.42	5.03	1.39	4.02	NP	NP	5.02	NP	NP
05/08/17	—	—	—	4.78	NP	NP	—	—	—	6.74	5.83	0.91	5.32	NP	NP	5.31	NP	NP
06/13/17	—	—	—	5.00	NP	NP	—	—	—	6.18	5.98	0.20	5.36	NP	NP	5.60	NP	NP
07/18/17	—	—	—	5.32	NP	NP	—	—	—	6.47	6.43	0.04	5.78	NP	NP	5.83	NP	NP
08/22/17	11.34	NP	NP	5.32	NP	NP	—	—	—	6.42	NP	NP	5.76	NP	NP	5.92	NP	NP
09/13/17	—	—	—	5.68	NP	NP	—	—	—	6.60	NP	NP	—	—	—	6.21	NP	NP
10/31/17	—	—	—	5.58	NP	NP	—	—	—	6.64	NP	NP	—	—	—	6.17	NP	NP

**Table 4**  
**Performance Product Monitoring Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Date	MW-204			MW-208			MW-209			MW-210			MW-211			MW-212		
	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness
11/13/17	—	—	—	4.67	NP	NP	—	—	—	6.08	NP	NP	—	—	—	4.98	NP	NP
12/04/17	10.84	NP	NP	4.15	NP	NP	—	—	—	6.05	5.53	0.52	—	—	—	5.38	NP	NP
01/24/18	—	—	—	3.55	NP	NP	—	—	—	5.34	4.95	0.39	3.78	NP	NP	4.16	NP	NP
02/15/18	—	—	—	4.68	NP	NP	—	—	—	6.65	5.64	1.01	4.40	NP	NP	5.42	NP	NP
03/06/18	10.55	NP	NP	4.57	NP	NP	—	—	—	6.19	5.80	0.39	5.03	NP	NP	5.46	NP	NP
04/12/18	—	—	—	4.72	NP	NP	—	—	—	4.96	4.87	0.09	5.68	NP	NP	5.37	NP	NP
05/02/18	—	—	—	4.85	NP	NP	—	—	—	6.22	5.80	0.42	5.17	NP	NP	5.54	NP	NP
06/12/18	11.04	NP	NP	5.25	NP	NP	—	—	—	6.50	6.47	0.03	5.73	NP	NP	6.06	NP	NP
07/12/18	—	—	—	5.24	NP	NP	—	—	—	6.40	6.39	0.01	6.70	NP	NP	5.94	NP	NP
08/23/18	—	—	—	5.57	NP	NP	—	—	—	6.56	6.55	0.01	5.97	NP	NP	6.08	NP	NP
09/05/18	8.20	NP	NP	5.75	NP	NP	—	—	—	6.74	NP	NP	6.16	NP	NP	6.35	NP	NP
10/11/18	—	—	—	5.18	NP	NP	—	—	—	6.32	NP	NP	5.50	NP	NP	5.83	NP	NP
11/07/18	—	—	—	5.01	NP	NP	—	—	—	6.33	NP	NP	5.56	NP	NP	5.66	NP	NP
12/17/18	11.10	NP	NP	4.13	NP	NP	—	—	—	5.31	NP	NP	4.14	NP	NP	4.43	NP	NP
01/16/19	—	—	—	4.48	NP	NP	—	—	—	6.07	5.35	0.72	4.30	NP	NP	5.56	NP	NP
02/20/19	—	—	—	3.98	NP	NP	—	—	—	6.45	5.02	1.43	4.22	NP	NP	4.32	NP	NP
03/18/19	10.51	NP	NP	4.95	4.94	0.01	—	—	—	6.67	5.96	0.71	5.34	NP	NP	6.12	NP	NP
04/10/19	—	—	—	4.66	NP	NP	—	—	—	5.24	NP	NP	4.98	NP	NP	5.78	5.75	0.03
05/15/19	—	—	—	4.19	NP	NP	—	—	—	7.05	6.22	0.83	5.38	NP	NP	6.13	6.10	0.03
06/26/19	—	—	—	5.47	NP	NP	—	—	—	6.58	6.56	0.02	6.88	NP	NP	6.11	NP	NP
07/24/19	—	—	—	5.43	NP	NP	—	—	—	6.59	6.58	0.01	5.88	NP	NP	5.96	NP	NP
08/13/19	—	—	—	5.45	NP	NP	—	—	—	6.58	6.57	0.01	5.72	NP	NP	6.02	NP	NP
09/17/19	11.65	NP	NP	5.23	NP	NP	—	—	—	6.18	6.13	0.05	5.54	NP	NP	6.28	6.25	0.03
10/16/19	—	—	—	5.61	NP	NP	—	—	—	6.47	6.45	0.02	5.77	NP	NP	6.36	NP	NP
11/05/19	—	—	—	5.62	NP	NP	—	—	—	6.78	6.68	0.10	6.01	NP	NP	6.51	NP	NP
12/09/19	11.54	NP	NP	5.08	NP	NP	—	—	—	6.27	NP	NP	5.54	NP	NP	6.14	NP	NP
01/28/20	—	—	—	3.05	NP	NP	—	—	—	4.13	4.06	0.07	3.12	NP	NP	2.03	NP	NP
02/26/20	—	—	—	4.81	NP	NP	—	—	—	6.71	5.78	0.93	5.19	NP	NP	4.97	NP	Sheen
04/27/20	10.94	NP	NP	5.18	NP	NP	—	—	—	6.43	6.23	0.20	5.47	NP	NP	5.29	NP	NP
06/16/20	—	—	—	5.25	NP	NP	—	—	—	5.69	5.56	0.13	5.72	NP	NP	6.25	NP	NP
06/29/20	11.26	NP	NP	5.08	NP	NP	—	—	—	6.58	6.50	0.08	5.78	NP	NP	5.85	NP	NP
07/29/20	—	—	—	5.20	NP	NP	—	—	—	6.43	6.42	0.01	5.67	NP	NP	6.31	NP	NP
08/27/20	—	—	—	5.41	NP	NP	—	—	—	6.71	6.70	0.01	5.85	NP	NP	6.15	NP	NP
09/21/20	11.59	NP	NP	5.09	NP	NP	—	—	—	6.35	NP	NP	5.45	NP	NP	6.23	NP	NP
10/29/20	—	—	—	5.58	NP	NP	—	—	—	6.87	6.50	0.37	5.99	NP	NP	6.23	NP	NP
11/30/20	—	—	—	4.82	NP	NP	—	—	—	6.23	5.78	0.45	5.11	NP	NP	5.10	NP	NP
12/14/20	11.22	NP	NP	4.75	NP	NP	—	—	—	6.05	5.91	0.14	5.28	NP	NP	5.83	NP	NP
01/21/21	—	—	—	4.27	NP	NP	—	—	—	6.96	4.9	2.06	4.82	NP	NP	5.63	NP	NP
02/16/21	—	—	—	3.69	NP	NP	—	—	—	5.83	4.92	0.91	4.18	NP	NP	4.25	NP	NP
03/23/21	—	—	—	4.53	NP	NP	—	—	—	6.57	6.11	0.46	5.37	NP	NP	5.74	NP	NP
04/12/21	—	—	—	5.28	NP	NP	—	—	—	6.42	6.32	0.10	5.65	NP	NP	6.31	NP	NP
05/12/21	—	—	—	5.54	NP	NP	—	—	—	6.61	6.57	0.04	5.86	NP	NP	6.21	NP	NP
06/14/21	—	—	—	4.97	NP	NP	—	—	—	6.15	NP	NP	5.24	NP	NP	5.62	NP	NP
07/15/21	—	—	—	5.31	NP	NP	—	—	—	6.36	6.32	0.04	5.60	NP	NP	6.01	NP	NP

**Table 4**  
**Performance Product Monitoring Data**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Date	MW-204			MW-208			MW-209			MW-210			MW-211			MW-212		
	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness	Groundwater Depth	Product Depth	Product Thickness
08/18/21	—	—	—	5.52	NP	NP	—	—	—	6.60	NP	Sheen	5.90	NP	NP	6.16	NP	NP
09/22/21	11.65	NP	NP	5.46	NP	NP	—	—	—	6.50	NP	NP	5.70	NP	NP	6.10	NP	NP
10/21/21	—	—	—	5.32	NP	NP	—	—	—	6.36	NP	NP	5.50	NP	NP	6.05	NP	NP
11/23/21	—	—	—	4.28	NP	NP	—	—	—	6.20	5.38	0.82	4.42	NP	NP	5.19	NP	NP
12/14/21	10.42	NP	NP	3.99	NP	NP	—	—	—	5.12	NP	NP	4.39	NP	NP	4.79	NP	NP
01/25/22	—	—	—	4.34	NP	NP	—	—	—	6.34	5.45	0.89	4.85	NP	NP	5.67	NP	NP
02/28/22	—	—	—	4.59	NP	NP	—	—	—	6.31	NP	NP	4.51	NP	NP	2.86	NP	NP
03/28/22	—	—	—	4.63	NP	NP	—	—	—	5.92	NP	NP	5.00	NP	NP	5.98	NP	NP
04/18/22	—	—	—	5.08	NP	NP	—	—	—	6.18	6.15	0.03	5.28	NP	NP	5.98	NP	NP
05/23/22	—	—	—	4.81	NP	NP	—	—	—	6.50	6.29	0.21	5.28	NP	NP	5.70	NP	NP
06/27/22	11.18	NP	NP	5.02	NP	NP	—	—	—	6.21	6.06	0.15	5.28	NP	NP	5.90	NP	NP
07/20/22	—	—	—	5.03	NP	NP	—	—	—	6.24	NP	NP	5.42	NP	NP	5.85	NP	NP
08/23/22	—	—	—	5.55	NP	NP	—	—	—	6.62	6.60	0.02	5.94	NP	NP	6.19	NP	NP
09/19/22	—	—	—	5.58	NP	NP	—	—	—	6.99	NP	NP	5.93	NP	NP	6.19	NP	NP
12/12/22	—	—	—	4.21	NP	NP	—	—	—	5.15	NP	NP	4.39	NP	NP	4.70	NP	NP
01/26/23	—	—	—	4.41	NP	NP	—	—	—	6.12	5.65	0.47	4.58	NP	NP	5.59	NP	NP
02/23/23	—	—	—	4.11	NP	NP	—	—	—	5.79	NP	NP	4.45	NP	NP	5.07	NP	NP
03/27/23	—	—	—	4.34	NP	NP	—	—	—	6.53	6.70	0.17	5.35	NP	NP	5.61	NP	NP
04/13/23	—	—	—	4.44	NP	NP	—	—	—	5.68	5.62	0.06	4.66	NP	NP	5.17	NP	NP
05/16/23	—	—	—	4.63	NP	NP	—	—	—	6.27	6.07	0.20	5.21	NP	NP	5.70	NP	NP
06/12/23	—	—	—	4.88	NP	NP	—	—	—	6.90	NP	NP	5.35	NP	NP	5.65	NP	NP
07/20/23	—	—	—	5.32	NP	NP	—	—	—	6.32	6.27	0.05	5.60	NP	NP	6.01	NP	NP
08/17/23	—	—	—	5.37	NP	NP	—	—	—	6.42	6.41	0.01	5.50	NP	NP	5.99	NP	NP
09/11/23	—	—	—	5.62	NP	NP	—	—	—	6.81	NP	NP	5.94	NP	NP	6.39	NP	NP
11/16/23	—	—	—	4.52	NP	NP	—	—	—	5.66	5.55	0.11	4.68	NP	NP	5.43	NP	NP
12/18/23	—	—	—	4.25	NP	NP	—	—	—	5.11	NP	NP	4.82	NP	NP	5.13	NP	NP

**Notes:**  
 = Indicates data collected during this progress report period  
 Depth relative to the measuring point at the top of the monitoring well PVC pipe  
 Product depth/thick = product depth/thickness in well measured in feet  
 — = not measured  
 NP = no product detected

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-05	05/04/16	14.3	357	3.38	6.26	31.6	9.99	--	--	--	--	--	--
MW-05	12/14/16	12.22	308	5.94	6.45	47	0	--	--	--	--	--	--
MW-05	06/14/17	14.8	249	1.7	6.37	25.4	5.13	--	--	--	--	--	--
MW-05	12/07/17	15.16	263	791.21	6.73	-165.1	8.37	--	--	--	--	--	--
MW-05	06/12/18	15.66	211	1.47	6.35	-44.7	6.88	--	--	--	--	--	--
MW-05	12/18/18	15	299	1.73	7.28	-23.6	80	--	--	--	--	--	--
MW-05	05/15/19	15.3	294	0.85	6.92	18.3	45	--	--	--	--	--	--
MW-05	12/10/19	14.31	300	4.76	5.91	32.8	16	--	--	--	--	--	--
MW-05	06/29/20	14.7	289	0.31	6.74	198.90	11	--	--	--	--	--	--
MW-05	12/14/20	13.95	292	0.71	8.25	148.90	16	--	--	--	--	--	--
MW-05	06/15/21	9.16	276	0.99	6.77	29.8	22	--	--	--	--	--	--
MW-05	12/15/21	13.5	241	0.57	10.40	-83.3	21	--	--	--	--	--	--
MW-05	04/18/22	12.06	356	0.14	7.87	77.8	13	--	--	--	--	--	--
MW-05	06/29/22	15	351	0.71	6.21	36.9	34	--	--	--	--	--	--
MW-05	12/14/22	13.77	375	0.21	7.81	220.9	3	--	--	--	--	--	--
MW-05	06/13/23	15.41	302	3.11	7.25	-48.5	21	--	--	--	--	--	--
MW-05	12/18/23	14.82	245	0.32	6.41	-53.4	14	--	--	--	--	--	--
MW-101	12/13/16	8.35	244	1.67	6.81	-75	0	--	--	--	--	--	--
MW-101	12/06/17	10.99	103	0.32	6.75	-12.3	9	--	--	--	--	--	--
MW-101	12/19/18	12.5	239	1.38	7.39	-74.6	11	--	--	--	--	--	--
MW-101	12/09/19	13.13	207	3.59	6.49	-69.6	44	--	--	--	--	--	--
MW-101	12/16/20	12.73	243	0.25	7.67	118.40	48	--	--	--	--	--	--
MW-101	12/14/21	11.5	314	0.59	6.79	124.0	25	--	--	--	--	--	--
MW-101	12/12/22	11.79	278	0.4	6.75	130.7	5	--	--	--	--	--	--
MW-101	12/19/23	13.49	242	3.87	6.79	-116.6	18	--	--	--	--	--	--
MW-102	12/14/16	9.44	438	1.96	6.77	32	0	--	--	--	--	--	--
MW-102	12/05/17	11.76	310	1.14	6.43	106.3	9.6	--	--	--	--	--	--
MW-102	12/18/18	14.2	415	1.51	7.49	-35.9	12	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-102	12/10/19	13.55	410	3.43	6.16	59.4	27	--	--	--	--	--	--
MW-102	12/16/20	13.66	477	0.41	7.72	117.60	30	--	--	--	--	--	--
MW-102	12/16/21	12.2	295	0.77	8.10	73.9	11	--	--	--	--	--	--
MW-102	12/12/22	12.27	346	0.55	6.54	-46.3	83	--	--	--	--	--	--
MW-102	12/18/23	13.18	373	0.46	6.54	-11.7	19	--	--	--	--	--	--
MW-104	05/05/16	17.11	420	0.65	6.19	-105.1	4.31	--	--	--	--	--	--
MW-104	12/14/16	10.9	340	1.76	6.49	-70	0	--	--	--	--	--	--
MW-104	06/14/17	17.09	323	0.82	7.09	-39.3	2.61	--	--	--	--	--	--
MW-104	12/07/17	15.6	349	0.61	6.65	-4	0	--	--	--	--	--	--
MW-104	06/12/18	19.32	180	0.54	6.24	-44	2.52	--	--	--	--	--	--
MW-104	12/18/18	15.8	331	1.34	7.35	-41.6	10	--	--	--	--	--	--
MW-104	05/15/19	17.8	258	0.78	6.6	-74.9	6	--	--	--	--	--	--
MW-104	12/10/19	15.35	345	2.66	5.4	74.8	36	--	--	--	--	--	--
MW-104	06/29/20	17.6	395	0.24	6.73	198.90	9	--	--	--	--	--	--
MW-104	12/14/20	16.19	412	0.34	7.75	172.10	13	--	--	--	--	--	--
MW-104	06/15/21	11.03	309	1.74	7.20	58.9	6	--	--	--	--	--	--
MW-104	12/15/21	14.4	275	0.15	10.06	-115.0	9	--	--	--	--	--	--
MW-104	04/18/22	13.97	297	0.11	8.15	62	27	--	--	--	--	--	--
MW-104	06/29/22	17	314	0.52	6.35	-38.2	13	--	--	--	--	--	--
MW-104	12/14/22	15.42	368	0.13	7.74	216.3	2	--	--	--	--	--	--
MW-104	06/13/23	16.72	389	5.77	7.12	-17.6	24	--	--	--	--	--	--
MW-104	12/19/23	15.13	263	0.73	6.27	66.3	23	--	--	--	--	--	--
MW-105	12/14/16	14.63	160	0.32	6.14	-58.1	8.67	--	--	--	--	--	--
MW-105	12/06/17	13.11	136	1.37	6.12	-26.4	0	--	--	--	--	--	--
MW-105	12/18/18	15.5	93	1.01	7.21	-33.7	49	--	--	--	--	--	--
MW-105	12/11/19	15.53	166	0.48	7.31	-17.2	25	--	--	--	--	--	--
MW-105	12/14/20	14.90	289	0.50	7.83	155.60	27	--	--	--	--	--	--
MW-105	12/15/21	13.0	170	0.13	9.91	-101.9	15	--	--	--	--	--	--
MW-105	12/14/22	13.2	234	0.18	7.8	221.3	15	--	--	--	--	--	--
MW-105	12/18/23	15.3	177	0.58	6.47	-80.5	23	--	--	--	--	--	--



**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-111	05/04/16	15.2	148	3.67	6.29	4.6	23.2	--	--	--	--	--	--
MW-111	12/14/16	13.4	295	0.35	6.45	-87.3	6.48	--	--	--	--	--	--
MW-111	06/14/17	16.6	112	1.12	7.08	1	8.2	--	--	--	--	--	--
MW-111	12/06/17	15.03	386	10.65	6.42	-51.3	5.13	--	--	--	--	--	--
MW-111	06/12/18	17.56	118	0.73	6.22	-46.2	4.01	--	--	--	--	--	--
MW-111	12/18/18	15	417	1.25	7.76	-46.6	20	--	--	--	--	--	--
MW-111	05/15/19	16.1	147	0.75	7.57	-55.6	14	--	--	--	--	--	--
MW-111	12/11/19	15.42	280	0.4	7.54	-13.1	6	--	--	--	--	--	--
MW-111	06/29/20	19	116	0.55	6.75	206.50	9	--	--	--	--	--	--
MW-111	12/14/20	15.93	242	0.28	7.61	169.80	16	--	--	--	--	--	--
MW-111	06/15/21	10.31	110	1.05	6.87	73.4	22	--	--	--	--	--	--
MW-111	12/15/21	14.9	238	0.18	9.85	-72.1	6	--	--	--	--	--	--
MW-111	04/18/22	12.31	139	0.09	8.15	62.3	44	--	--	--	--	--	--
MW-111	06/27/22	18.4	119	0.62	6.21	11.8	34	--	--	--	--	--	--
MW-111	12/14/22	12.94	220	0.15	7.43	190.3	3	--	--	--	--	--	--
MW-111	06/13/23	16.30	130	1.49	7.24	-61.7	20	--	--	--	--	--	--
MW-111	12/19/23	15.09	360	0.07	6.17	37.5	28	--	--	--	--	--	--
MW-112A	05/05/16	14.28	448	0.87	6.41	-87	4.41	--	--	--	--	--	--
MW-112A	12/12/16	13.7	401	0.67	6.51	-87.1	9.78	--	--	--	--	--	--
MW-112A	06/15/17	15.75	498	0.6	7.26	-62.6	--	--	--	--	--	--	--
MW-112A	12/07/17	13.97	359	0.82	6.5	-27.9	0	--	--	--	--	--	--
MW-112A	06/13/18	16.28	517	0.26	6.51	-56.1	0	--	--	--	--	--	--
MW-112A	12/20/18	14	495	0.12	6.75	-101	128	--	--	--	--	--	--
MW-112A	05/16/19	10.91	529	0.52	6.27	-104	77	--	--	--	--	--	--
MW-112A	12/12/19	13.87	620	0.5	8.9	-80.8	12	--	--	--	--	--	--
MW-112A	06/29/20	15.7	430	0.32	6.76	189.10	16	--	--	--	--	--	--
MW-112A	12/14/20	14.67	399	0.18	7.77	123.70	5	--	--	--	--	--	--
MW-112A	06/15/21	9.58	338	0.89	6.56	31.4	4	--	--	--	--	--	--
MW-112A	12/15/21	14.4	243	0.19	9.95	-85.8	12	--	--	--	--	--	--
MW-112A	04/18/22	11.44	305	0.09	8.24	56.9	18	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-112A	06/28/22	16.2	272	0.52	6.27	-37.2	14	--	--	--	--	--	--
MW-112A	12/13/22	12.79	254	0.1	6.38	-36.0	25	--	--	--	--	--	--
MW-112A	06/13/23	14.94	374	1.95	7.37	-62.5	16	--	--	--	--	--	--
MW-112A	12/19/23	10.57	363	0.89	6.16	22.1	17	--	--	--	--	--	--
MW-113	06/27/22	15.4	284	0.54	6.28	-38.4	37	--	--	--	--	--	--
MW-113	12/14/22	12.47	265	0.21	7.6	209.5	8	--	--	--	--	--	--
MW-113	06/13/23	13.60	265	1.99	7.28	-26.7	17	--	--	--	--	--	--
MW-113	12/19/23	13.70	228	0.26	6.45	-10.1	13	--	--	--	--	--	--
MW-114	06/27/22	15.4	139	1.32	6.16	53.6	33	--	--	--	--	--	--
MW-114	12/14/22	12.68	216	0.3	7.77	222.2	30	--	--	--	--	--	--
MW-114	06/13/23	13.76	148	4.47	7.40	-49.0	50	--	--	--	--	--	--
MW-114	12/19/23	13.83	126	0.92	6.29	60.2	36	--	--	--	--	--	--
MW-115	06/27/22	16.9	248	0.51	6.11	-33.7	46	--	--	--	--	--	--
MW-115	12/14/22	13.69	208	0.18	7.8	224.1	5	--	--	--	--	--	--
MW-115	06/13/23	14.66	276	1.82	7.33	-60.0	17	--	--	--	--	--	--
MW-115	12/19/23	13.88	290	0.62	6.19	6.3	15	--	--	--	--	--	--
MW-201	01/14/04	12	282	1.98	5.59	-95.5	1.5	--	--	--	--	--	--
MW-201	04/20/04	11.4	101	5.52	5	61.3	7	ND	--	--	5.71	--	--
MW-201	01/26/05	9	720	9.12	5.48	129	9	--	--	--	--	--	--
MW-201	04/20/05	11.9	700	6.24	6.66	83	8	0	--	--	7.67	--	--
MW-201	07/13/05	15.4	99	0.16	5.64	178.1	1.9	--	--	--	--	--	--
MW-201	10/20/05	14.1	535	0.42	7.21	49.2	3.9	--	--	--	--	--	--
MW-201	01/26/06	8.3	24	7.47	7.02	-72.5	4	--	--	--	--	--	--
MW-201	11/20/08	9.3	172	14.08	6.12	268	38.2	--	--	--	--	--	--
MW-201	04/07/09	--	--	--	--	--	--	--	--	--	--	--	--
MW-201	11/19/09	10.6	13.2	7.79	5.21	61	6.5	--	--	--	--	--	--
MW-201	10/27/10	12.7	15.2	6.92	4.79	157	0.5	--	--	--	--	--	--
MW-201	10/26/11	11.53	655	2.77	7.59	-76	5.9	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-201	11/27/12	--	--	--	--	--	--	--	--	--	--	--	--
MW-201	11/06/13	11.78	800	0	6.68	-74	0	--	--	--	--	--	--
MW-201	11/06/14	14.1	121	0	6.08	297	3.3	--	--	--	--	--	--
MW-201	12/13/16	8.12	47	3.58	6.13	142.3	9.27	--	--	--	--	--	--
MW-201	12/06/17	11.3	57	14.37	6.08	37.7	12.2	--	--	--	--	--	--
MW-201	12/19/18	12.6	387	0.65	6.81	-87.4	30	--	--	--	--	--	--
MW-201	12/16/20	11.99	116	0.79	6.75	145.80	120	--	--	--	--	--	--
MW-201	12/12/22	10.64	634	0.27	7.08	148.3	15	--	--	--	--	--	--
MW-201	12/18/23	11.19	51	11.03	6.27	97.2	31	--	--	--	--	--	--
MW-202	01/14/04	8	52	12.4	5.32	-40.2	9.1	--	--	--	--	--	--
MW-202	04/20/04	12.1	317	1.31	5.27	112	9.8	3	--	--	< 1	--	--
MW-202	01/26/05	11.6	218	1.69	4.8	3	126	--	--	--	--	--	--
MW-202	04/20/05	12.6	44	0	7.78	-60	26	8	--	--	<1	--	--
MW-202	07/13/05	15.7	281	0.11	6.09	-22	6.3	--	--	--	--	--	--
MW-202	10/20/05	15.5	576	0.44	6.42	-47.9	5.5	--	--	--	--	--	--
MW-202	01/26/06	10.78	213	0.18	7.73	-104.7	70	--	--	--	--	--	--
MW-202	11/20/08	14.5	532	3.65	6.4	232	10.2	36.6	--	--	< 1	--	--
MW-202	04/07/09	11.86	0.175	0	6.12	-82	56.1	--	--	--	--	--	--
MW-202	11/19/09	12.4	51.6	1.65	5.81	-53	29.5	19	--	--	82	--	--
MW-202	04/27/10	12.3	34	0.22	5.46	-96	55.4	--	--	--	--	--	--
MW-202	10/27/10	15	29.5	2.35	6.15	-48	24	7.4	--	--	< 1.0	--	--
MW-202	10/26/11	12.9	214	2.45	8.22	-104.2	2.72	8.5	--	--	< 0.50	--	--
MW-202	03/02/12	10.03	334	0	6.3	-39	27.2	--	--	--	--	--	--
MW-202	06/13/12	12.5	284	4.36	7.22	-59	25.7	--	--	--	--	--	--
MW-202	09/26/12	14.2	332	0	6.74	-112	25	--	--	--	--	--	--
MW-202	11/27/12	12.99	383	0	7.33	-70	77.7	--	--	--	15	--	--
MW-202	11/06/13	13.67	263	2.28	5.79	-43.6	4.9	3	--	--	0.76	< 0.200	0.439
MW-202	11/06/14	15.87	373	0	6.47	-49	107	5	< 0.25	< 0.25	7	0.288	0.631
MW-202	12/10/15	12.85	241	0.42	6.42	-21.3	98.6	1.5	< 0.10	< 0.10	11.6	24.2	0.628
MW-202	05/03/16	15.95	232	0.36	6.2	-45.6	16.9	--	--	--	--	--	--
MW-202	12/13/16	10.66	223	0.39	6.33	-102.4	9.52	0.5	< 0.0400	< 0.0400	1.24 J	45.3	0.401

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-202	06/14/17	14.76	222	0.33	7.08	-145.6	9	--	--	--	--	--	--
MW-202	12/06/17	11.62	153	0.71	6	-49	4.5	2.75	< 0.0400	< 0.0400	28.6	11.2	0.45
MW-202	06/14/18	14.22	159	0.69	6.04	-2.9	9.87	--	--	--	--	--	--
MW-202	12/19/18	12.6	287	0.28	6.84	-87.4	22	14	< 0.0400	< 0.0400	58.4	17.9	0.649
MW-202	05/16/19	12.6	266	0.48	6.53	-91.9	71	--	--	--	--	--	--
MW-202	12/10/19	12.88	278	4.97	6.12	-10.2	50	3.5	<0.0600	<0.0600	8.61	28.3	0.543
MW-202	06/29/20	15.4	406	0.77	7.24	173.70	42	--	--	--	--	--	--
MW-202	12/16/20	12.44	272	0.20	7.36	111.10	88	1.20	<0.200	<0.400	9.44 J+	12.90	0.436
MW-202	06/14/21	8.10	254	1.50	6.63	170.6	34	--	--	--	--	--	--
MW-202	12/16/21	11.4	174	0.81	7.76	3.8	125	--	--	--	4.00 J	0.32 J	0.532
MW-202	06/29/22	14.1	637	0.76	6.96	6.3	58	--	--	--	--	--	--
MW-202	12/12/22	10.49	430	0.2	7.21	154.0	52	--	--	--	100	0.122 J	0.868
MW-202	06/12/23	15.92	911	0.46	7.11	39.6	46	--	--	--	--	--	--
MW-202	12/18/23	12.52	532	0.95	5.97	-77.7	17	--	--	--	--	14.5	1.21
MW-203	01/13/04	12.4	243	2.91	6.38	-6.9	13.7	--	--	--	--	--	--
MW-203	04/19/04	13	369	1.02	6.58	110	39.2	1	--	--	2.4	--	--
MW-203	07/27/04	16.4	514	1.12	6.11	90.9	32.2	--	--	--	--	--	--
MW-203	10/18/04	14.8	643	0.35	9.42	136.8	110	--	--	--	--	--	--
MW-203	01/25/05	12.9	476	2.79	6.37	21	210	--	--	--	--	--	--
MW-203	04/19/05	12.8	44	0	6.22	0	5	5.5	--	--	6.48	--	--
MW-203	07/13/05	15	351	0.67	6.34	-46	15	--	--	--	--	--	--
MW-203	10/20/05	15.9	902	1.12	6.69	-48.7	34	--	--	--	--	--	--
MW-203	01/23/06	11.4	131	2.2	6.45	7.6	60	--	--	--	--	--	--
MW-203	11/18/08	13.9	448	10.3	7.11	87	190	1.35	--	--	17.1	--	--
MW-203	04/08/09	12.23	136	1.87	6.83	-31	338	--	--	--	--	--	--
MW-203	11/17/09	12.2	25.8	5.49	6.28	197	45.6	< 0.1	--	--	8.3	--	--
MW-203	04/26/10	12.7	40.9	0.3	6.81	-109	80.1	--	--	--	--	--	--
MW-203	10/25/10	14.1	43.8	1.58	6.1	-4	51.8	4.3	--	--	14	--	--
MW-203	05/23/11	--	--	--	--	--	--	--	--	--	--	--	--
MW-203	10/26/11	13.98	384	2.94	8.4	-80.9	10.9	8.8	--	--	< 0.50	--	--
MW-203	06/13/12	12.8	375	4.27	7.2	-38	22.3	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-203	11/27/12	14.83	250	0	6.61	22	41.7	--	--	--	24.4	--	--
MW-203	11/06/13	12.59	486	0.18	6.35	-51	0	3	--	--	< 0.50	3.68	0.178
MW-203	11/06/14	16.13	236	4.55	6.71	135.1	28.4	1.5	0.42 J	< 0.25	14.5	< 0.200	0.127
MW-203	12/09/15	12.51	0.407	0	6.05	-60	67.2	5	< 0.10	< 0.10	4.13	24	0.197
MW-203	05/04/16	12.93	266	4.91	6.42	-108	14.5	--	--	--	--	--	--
MW-203	12/13/16	10.46	221	0.73	6.25	-88	9.6	0.5	< 0.0400	< 0.0400	2.27	14.1	0.134
MW-203	06/14/17	15.02	203	0.23	6.09	-205.4	12.7	--	--	--	--	--	--
MW-203	12/08/17	11.65	274	1.6	6.3	43.8	0	1.25	< 0.0400	< 0.0400	21.6	3.32	0.166
MW-203	06/14/18	13.9	265	1.93	6.25	3.9	35.1	--	--	--	--	--	--
MW-203	12/20/18	12.8	357	0.78	7.41	-44.6	>1000	1.4	0.307	0.307	7.81	2.32	0.195
MW-203	05/16/19	10.89	353	1.89	5.52	-1	99	--	--	--	--	--	--
MW-203	12/10/19	12.77	441	4.84	5.3	0.5	41	3	<0.0600	<0.0600	1.34 J	20	0.207
MW-203	06/29/20	15.1	339	1.06	7.18	-9.10	10	--	--	--	--	--	--
MW-203	12/15/20	12.26	319	0.77	8.07	130.10	87	2.00	1.49	<0.400	35.80	<1.00	0.0182
MW-203	06/14/21	7.69	259	1.28	6.33	21.6	406	--	--	--	--	--	--
MW-203	12/16/21	11.6	193	0.21	8.30	16.1	16	--	--	--	16.9	<0.5	0.0505
MW-203	06/28/22	14.1	571	0.57	6.52	13.2	513	--	--	--	--	--	--
MW-203	12/14/22	11.74	469	0.23	6.93	174.7	5	--	--	--	7.94	8.34	0.693
MW-203	06/12/23	16.23	436	1.62	6.41	113.4	61	--	--	--	--	--	--
MW-203	12/20/23	13.46	413	0.82	6.41	-40.2	37	--	--	--	1.01 J	<0.5	<0.0100
MW-204	12/13/16	10.72	173	0.99	5.84	21	4	--	--	--	--	--	--
MW-204	12/06/17	13.48	129	12.04	5.6	49.8	6.22	--	--	--	--	--	--
MW-204	12/19/18	12.9	218	0.33	6.98	-66.1	27	--	--	--	--	--	--
MW-204	12/10/19	13.47	340	1.83	6.01	-6	22	--	--	--	--	--	--
MW-204	12/16/20	13.41	347	1.00	6.27	190.10	70	--	--	--	--	--	--
MW-204	12/16/21	10.5	144	0.22	7.70	-17.2	25	--	--	--	--	--	--
MW-204	12/12/22	11.69	247	0.58	6.51	-76.1	26	--	--	--	--	--	--
MW-204	12/18/23	14.43	177	1.00	5.8	105.3	8	--	--	--	--	--	--
MW-206A	12/12/16	11.31	482	0.68	6.6	-104.9	9.44	--	--	--	--	--	--
MW-206A	12/08/17	11.87	491	1.39	6.63	34	0	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-206A	12/20/18	13.1	605	0.81	7.41	-52.3	70	--	--	--	--	--	--
MW-206A	12/10/19	13.08	617	2.28	6.07	-41.9	11	--	--	--	--	--	--
MW-206A	12/16/20	12.02	718	0.22	9.45	42.10	440	--	--	--	--	--	--
MW-206A	12/16/21	8.6	394	0.61	8.20	15.9	21	--	--	--	--	--	--
MW-206A	12/12/22	9.59	404	0.17	7.02	-68.2	96	--	--	--	--	--	--
MW-206A	12/18/23	13.15	499	0.36	7.23	-166.2	93	--	--	--	--	--	--
MW-213	05/03/16	14.65	12440	0.13	8.26	-330	0	--	--	--	--	--	--
MW-213	12/13/16	9.57	18.7	5.52	8.28	-321	5.6	--	--	--	--	--	--
MW-213	06/14/17	15.37	10550	0.23	7.03	-330.2	7.36	--	--	--	--	--	--
MW-213	12/07/17	12.43	13640	0.55	8.14	-72.3	0	--	--	--	--	--	--
MW-213	06/12/18	14.43	8410	0.91	7.65	-91.3	3.02	--	--	--	--	--	--
MW-213	12/19/18	12.8	11390	0.82	7.57	-45.6	5	--	--	--	--	--	--
MW-213	05/16/19	14.8	11641	1.84	7.5	79.5	2	--	--	--	--	--	--
MW-213	12/11/19	10.91	1322	1.28	8.51	-112.7	16	--	--	--	--	--	--
MW-213	06/29/20	13	16341	0.34	7.83	191.70	9	--	--	--	--	--	--
MW-213	12/16/20	12.38	17,924	0.08	7.99	53.20	0	--	--	--	--	--	--
MW-213	06/14/21	7.18	17,427	0.47	7.89	113.6	3	--	--	--	--	--	--
MW-213	12/16/21	9.9	13,386	0.85	9.67	-101.5	5	--	--	--	--	--	--
MW-213	06/29/22	13.8	20,936	0.43	8.09	-313.6	25	--	--	--	--	--	--
MW-213	12/12/22	11.24	3,297	0.26	6.83	140.2	5	--	--	--	--	--	--
MW-213	06/12/23	15.16	9,167	0.11	7.32	-65.8	17	--	--	--	--	--	--
MW-213	12/18/23	12.67	1,843	0.5	8.12	-197.5	18	--	--	--	--	--	--
MW-214	05/03/16	14.91	10960	0.44	8.16	-363	0	--	--	--	--	--	--
MW-214	12/14/16	10.5	312	7.24	6.98	39	0	--	--	--	--	--	--
MW-214	06/14/17	15.55	10395	0.05	8.14	-358.6	0.85	--	--	--	--	--	--
MW-214	12/07/17	14.01	7725	838.05	8.01	-355.1	3.11	--	--	--	--	--	--
MW-214	06/12/18	14.77	3900	0.74	7.82	-90.5	0	--	--	--	--	--	--
MW-214	12/19/18	13.4	11888	0.12	7.45	-101.6	29	--	--	--	--	--	--
MW-214	05/16/19	15.7	10667	0.59	7.43	-62.3	3	--	--	--	--	--	--
MW-214	12/11/19	11.41	1576	1.16	10.33	-211.5	9	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-214	06/29/20	15.93	1516	1.66	7.91	-152.70	12	--	--	--	--	--	--
MW-214	12/16/20	13.00	17,750	0.15	6.90	95.20	6	--	--	--	--	--	--
MW-214	06/14/21	8.21	2,117	1.49	7.47	78.3	2	--	--	--	--	--	--
MW-214	12/16/21	12.5	8,441	0.30	9.34	-172.8	5	--	--	--	--	--	--
MW-214	06/29/22	14.3	1,680	3.25	7.97	-189.6	13	--	--	--	--	--	--
MW-214	12/12/22	12.4	7,989	0.17	6.52	-50	10	--	--	--	--	--	--
MW-214	06/12/23	16.44	6,045	0.28	6.74	-115.2	1	--	--	--	--	--	--
MW-214	12/18/23	13.2	1,519	0.12	8.47	-185.7	25	--	--	--	--	--	--
MW-301	02/22/16	12.32	449	0.34	6.5	-127.1	15.1	--	--	--	--	--	--
MW-301	05/02/16	17.58	257	0.29	6.6	-119.6	6.74	--	--	--	--	--	--
MW-301	08/29/16	18.76	183	1.96	6.86	5	0	--	--	--	--	--	--
MW-301	12/12/16	10.16	357	2.37	6.73	-140	0	--	--	--	--	--	--
MW-301	03/13/17	11.62	355	0	6.72	-125	0	--	--	--	--	--	--
MW-301	06/13/17	15.6	192	0.37	6.59	-107.4	--	--	--	--	--	--	--
MW-301	08/22/17	20.23	187	0	7.32	-105	0	--	--	--	--	--	--
MW-301	12/08/17	14.93	151	1.2	6.89	-118.3	-11	--	--	--	--	--	--
MW-301	03/06/18	12.6	435	0.82	6.78	19.7	3.19	--	--	--	--	--	--
MW-301	06/13/18	16.7	521	0.21	6.61	-76.4	1.8	--	--	--	--	--	--
MW-301	09/06/18	18.95	651	0.16	6.57	-94.8	1.34	7	--	--	--	--	--
MW-301	12/20/18	15.1	836	0.12	6.53	-50	14	--	--	--	--	--	--
MW-301	03/19/19	13.4	930	1.02	7.52	-48.5	119	--	--	--	--	--	--
MW-301	05/16/19	12.3	693	0.71	6.11	-52	97	--	--	--	--	--	--
MW-301	09/17/19	15.31	373	0.87	6.7	-23.8	11	--	--	--	--	--	--
MW-301	12/11/19	14.25	755	10.14	7.15	55.9	64	--	--	--	--	--	--
MW-301	04/28/20	13.4	628	0.51	7.56	14.60	14	--	--	--	--	--	--
MW-301	06/29/20	20.47	572	0.66	6.50	-28.40	60	--	--	--	--	--	--
MW-301	09/21/20	19.2	699	0.37	6.29	20.80	12	--	--	--	--	--	--
MW-301	12/15/20	11.20	611	0.40	7.53	116.90	33	--	--	--	--	--	--
MW-301	04/13/21	10.6	347	2.26	6.01	35.3	76	--	--	--	--	--	--
MW-301	06/14/21	11.44	726	1.78	7.00	37.3	27	--	--	--	--	--	--
MW-301	09/22/21	18.21	615	1.43	6.54	-35.6	55	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-301	12/16/21	10.17	502	0.14	6.60	82.3	112	--	--	--	--	--	--
MW-301	03/29/22	12.17	592	0.14	6.82	160.7	30	--	--	--	--	--	--
MW-301	06/27/22	15.9	601	0.44	6.45	-105.6	65	--	--	--	--	--	--
MW-301	09/21/22	16.48	402	0.90	6.40	335.6	42	--	--	--	--	--	--
MW-301	12/13/22	12.78	587	0.09	6.39	-31.4	80	--	--	--	--	--	--
MW-301	03/28/23	12.27	676	0.33	7.6	-63.1	18	--	--	--	--	--	--
MW-301	06/14/23	17.08	723	1.24	7.31	-79	16	--	--	--	--	--	--
MW-301	09/11/23	19.59	534	0.09	6.55	-176.6	10	--	--	--	--	--	--
MW-301	12/20/23	12.88	495	0.92	6.31	-38.6	39	--	--	--	--	--	--
MW-302	03/01/12	--	--	--	--	--	--	--	--	--	--	--	--
MW-302	06/12/12	--	--	--	--	--	--	--	--	--	--	--	--
MW-302	06/28/12	--	--	--	--	--	--	--	--	--	--	--	--
MW-302	09/25/12	--	--	--	--	--	--	--	--	--	--	--	--
MW-302	11/25/12	--	--	--	--	--	--	--	--	--	--	--	--
MW-302	11/05/13	14.81	346	0.1	6.42	-67	0	6.0-6.5	--	--	13.2	< 0.200	0.349
MW-302	11/03/14	15.91	342	0.53	6.5	-27.8	5.06	2.5	< 0.10	< 0.10	< 0.50	0.765	0.493
MW-302	12/10/15	14.58	337	0.35	6.63	-104.8	0	1.5	< 0.10	< 0.10	< 0.50	27.4	0.402
MW-302	05/04/16	13.6	371	4.92	6.51	-116.5	2.49	--	--	--	--	--	--
MW-302	12/15/16	10.93	388	0.95	6.58	-89	0	1	< 0.0400	< 0.0400	< 0.128	35.1	0.572
MW-302	06/13/17	16.99	143	0.3	5.79	39.2	--	--	--	--	--	--	--
MW-302	08/23/17	20.32	358	9.36	7.08	-54	2.7	--	--	--	--	--	--
MW-302	12/05/17	13.54	755	0.89	5.82	30.4	8.95	4.25	< 0.0400	< 0.0400	97.2	42.9	2.15
MW-302	03/07/18	11.57	984	0.27	6.15	12	9.95	--	--	--	--	--	--
MW-302	06/13/18	16.08	446	0.81	6.04	-61.4	5.51	--	--	--	--	--	--
MW-302	09/06/18	19.67	424	0.74	6.49	-27	3.37	1.75	--	--	--	--	--
MW-302	12/20/18	15.9	726	0.1	6.4	73	55	7	0.105	0.105	364	1.4	2.52
MW-302	03/19/19	14.5	1321	0.4	7.44	-54.1	58	--	--	--	--	--	--
MW-302	05/16/19	12.83	589	0.7	5.81	-53	43	--	--	--	--	--	--
MW-302	09/17/19	14.71	424	0.79	6.75	-35.3	14	--	--	--	--	--	--
MW-302	12/11/19	16.95	1359	2.13	8.06	-57.4	19	3	<0.0600	<0.0600	629	67.4	3.52
MW-302	04/28/20	14	655	0.33	7.32	-25.30	16	--	--	--	--	--	--



**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-302	06/29/20	15.22	509	0.88	6.29	-30.80	34	--	--	--	--	--	--
MW-302	09/21/20	18	499	0.84	6.30	46.20	39	--	--	--	--	--	--
MW-302	12/15/20	10.90	692	0.38	7.46	116.20	131	1.80	<0.200	<0.400	11.80	12.40	1.74
MW-302	04/13/21	13.4	409	1.39	6.53	-53.4	26	--	--	--	--	--	--
MW-302	06/15/21	10.57	538	0.45	7.21	6.0	26	--	--	--	--	--	--
MW-302	09/23/21	16.29	630	1.77	5.97	70.0	17	--	--	--	--	--	--
MW-302	12/16/21	10.70	597	0.10	7.67	20.3	35	--	--	--	104	0.282 J	2.74
MW-302	03/28/22	11.51	769	0.04	7.41	115.1	12	--	--	--	--	--	--
MW-302	06/28/22	16	936	0.79	6.4	-115.3	11	--	--	--	--	--	--
MW-302	09/21/22	16.92	550	0.09	7.22	343.0	18	--	--	--	--	--	--
MW-302	12/13/22	12.55	220	0.18	6.39	-43.9	19	--	--	--	39.1	31.8	0.607
MW-302	03/27/23	12.62	790	0.3	7.52	-58.7	25	--	--	--	--	--	--
MW-302	06/13/23	15.47	360	1.17	7.3	-41.6	28	--	--	--	--	--	--
MW-302	09/12/23	19.37	342	0.21	6.19	-96.2	2	--	--	--	--	--	--
MW-302	12/20/23	14.46	778	0.83	6.4	-59.6	70	--	--	--	49	0.326 J	1.82
MW-303	05/04/16	11.9	91	2.92	6.42	-73.9	9.31	--	--	--	--	--	--
MW-303	12/12/16	11.2	185	1.29	6.49	-50	0	--	--	--	--	--	--
MW-303	06/13/17	15.03	69	0.3	6.2	15.9	--	--	--	--	--	--	MN
MW-303	12/08/17	12.72	257	1.74	5.18	77.1	4.48	--	--	--	--	--	--
MW-303	03/06/18	11.47	382	0.76	5.59	91.7	3.47	--	--	--	--	--	--
MW-303	06/13/18	14.32	148	0.64	5.84	-19.6	4.22	--	--	--	--	--	--
MW-303	09/06/18	18.26	388	0.32	6.38	-56.1	4.4	6	--	--	--	--	--
MW-303	12/20/18	12.9	561	0.39	5.51	145	18	--	--	--	--	--	--
MW-303	03/19/19	11.1	470	0.59	7.19	-34.9	20	--	--	--	--	--	--
MW-303	05/16/19	10.49	590	1.8	5.56	-19	29	--	--	--	--	--	--
MW-303	09/17/19	14.68	474	1.3	6.31	-24.7	7	--	--	--	--	--	--
MW-303	12/11/19	13.89	570	0.71	7.8	-53.9	41	--	--	--	--	--	--
MW-303	04/28/20	12.7	238	0.43	6.65	40.80	20	--	--	--	--	--	--
MW-303	06/29/20	14.79	566	0.72	7.22	2.10	24	--	--	--	--	--	--
MW-303	09/21/20	18.8	1105	0.25	6.50	1.40	20	--	--	--	--	--	--
MW-303	12/15/20	10.93	382	0.42	7.20	115.80	15	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-303	04/13/21	9.1	87	2.46	5.91	36.1	26	--	--	--	--	--	--
MW-303	06/14/21	9.33	368	1.32	6.65	6.7	12	--	--	--	--	--	--
MW-303	09/22/21	18.13	1,158	1.25	6.53	-47.5	11	--	--	--	--	--	--
MW-303	12/15/21	9.0	251	0.43	7.58	14.9	8	--	--	--	--	--	--
MW-303	03/28/22	10.79	212	0.06	6.93	144.3	12	--	--	--	--	--	--
MW-303	06/28/22	15.2	300	0.48	6.03	-51.3	13	--	--	--	--	--	--
MW-303	09/21/22	15.76	641	0.09	6.45	343.4	23	--	--	--	--	--	--
MW-303	12/13/22	10.75	345	0.16	6.44	-16.9	16	--	--	--	--	--	--
MW-303	03/28/23	10.30	211	1.02	7.44	-3.3	21	--	--	--	--	--	--
MW-303	06/14/23	15.83	348	1.17	7.59	-42.4	29	--	--	--	--	--	--
MW-303	09/11/23	17.83	611	0.13	6.27	-103.9	17	--	--	--	--	--	--
MW-303	12/20/23	11.55	295	0.37	6.12	-28.5	22	--	--	--	--	--	--
MW-304	11/05/13	12.2	396	0.1	6.6	-119	0	7	--	--	< 0.50	0.345	0.273
MW-304	11/03/14	14.86	310	0.62	6.46	-36.9	11.2	5	< 0.10	< 0.10	0.51	3.60 J	0.297 J
MW-304	12/10/15	12.81	345	0.35	6.55	100.1	3.99	3	< 0.10	< 0.10	0.873	33.7	0.39
MW-304	05/04/16	12.9	337	1.95	6.35	-103.1	6.29	--	--	--	--	--	--
MW-304	12/15/16	9.2	342	2.4	6.65	-92	0	0.5	< 0.0400	< 0.0400	3.35	28.2	0.276
MW-304	06/13/17	16.82	162	1.47	6.27	-24.2	--	--	--	--	--	--	--
MW-304	08/23/17	20.76	529	0	7.09	-55	0.1	--	--	--	--	--	--
MW-304	12/05/17	13.01	1421	1	3.42	134.2	3.96	2.25	< 0.0400	< 0.0400	253	18.6	8.94
MW-304	03/06/18	12.36	794	1.52	4.82	105.9	3.92	--	--	--	--	--	--
MW-304	06/13/18	16.04	305	0.19	6.12	-63.2	5.78	--	--	--	--	--	--
MW-304	09/06/18	20.2	439	0.48	4.72	127.5	3.83	--	--	--	--	--	--
MW-304	12/20/18	14.3	830	0.19	4.19	272	96	6.5	0.0730 J	0.0730 J	520	2.51	2.74
MW-304	03/19/19	11.8	155	0.71	7.53	-30.3	24	--	--	--	--	--	--
MW-304	05/16/19	10.89	367	1.27	4.82	36	9	--	--	--	--	--	--
MW-304	09/17/19	13.56	323	1.29	6.73	5.4	15	--	--	--	--	--	--
MW-304	12/11/19	15.3	1518	5.46	8.24	91.6	62	6	<0.0600	<0.0600	908	11.3	4.79
MW-304	04/28/20	12.4	324	0.59	6.92	25.80	10	--	--	--	--	--	--
MW-304	06/29/20	14.78	301	0.78	6.83	-13.60	26	--	--	--	--	--	--
MW-304	09/21/20	16.7	393	0.22	5.78	59.30	41	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-304	12/15/20	11.07	457	0.33	7.32	120.80	32	1.00	<0.200	<0.400	75.10	50.60	0.483
MW-304	04/13/21	9.0	92	2.60	6.00	79.8	33	--	--	--	--	--	--
MW-304	06/15/21	9.80	224	1.12	6.49	55.5	8	--	--	--	--	--	--
MW-304	09/22/21	17.36	370	1.33	5.72	19.8	15	--	--	--	--	--	--
MW-304	12/16/21	9.17	244	0.06	6.60	108.2	23	--	--	--	72.8	19	1.18
MW-304	03/28/22	11.80	135	0.10	6.79	152.3	10	--	--	--	--	--	--
MW-304	06/28/22	15.9	230	0.45	6.64	11.3	10	--	--	--	--	--	--
MW-304	09/20/22	18.11	345	0.11	6.28	349.1	12	--	--	--	--	--	--
MW-304	12/13/22	11.01	317	0.22	6.37	-24.1	17	--	--	--	51.6	8.8	0.462
MW-304	03/27/23	10.31	205	0.22	8.09	-31.5	20	--	--	--	--	--	--
MW-304	06/14/23	18.16	281	0.67	7.11	-59.3	17	--	--	--	--	--	--
MW-304	09/11/23	19.23	356	5.84	6.35	-69.5	3	--	--	--	--	--	--
MW-304	12/20/23	12.56	371	0.48	6.36	-49.4	20	--	--	--	7.22	6.6	1.06
MW-307	11/26/12	12.7	332	0	7.18	-62	36.6	--	--	--	1.5	--	--
MW-307	11/06/13	12.31	231	0.07	6.42	-106	0.8	3.5	--	--	< 0.50	< 0.200	0.217
MW-307	11/04/14	14.49	383	0.26	6.86	-107	6.9	4.5	< 0.10	< 0.10	< 0.50	18.2	0.513
MW-307	12/09/15	12.78	225	0.51	6.4	-77.6	7.89	2.25	< 0.10	< 0.10	< 0.50	29.6	0.338
MW-307	02/23/16	10.43	225	0.27	6.21	-68.9	9.98	--	--	--	--	--	--
MW-307	05/03/16	12.71	211	0.39	6.05	-54	9.27	--	--	--	--	--	--
MW-307	08/30/16	16.9	198	1.18	6.91	67	0	--	--	--	--	--	--
MW-307	12/13/16	10.28	138	0.57	6.46	-87.4	8.09	1.5	< 0.0400	< 0.0400	< 0.256	21.2	0.235
MW-307	03/14/17	11.62	224	0	6.46	-79	0	--	--	--	--	--	--
MW-307	06/15/17	12.72	126	0.33	5.4	15.1	1.91	--	--	--	--	--	--
MW-307	08/23/17	17.87	149	0	7.03	-13	2.1	--	--	--	--	--	--
MW-307	12/06/17	14.55	405	1.49	6.18	-47.1	0	0.6	< 0.0400	< 0.0400	465	37.1	1.07
MW-307	03/08/18	13.9	270	0.38	6.42	2.6	5.1	--	--	--	--	--	--
MW-307	06/14/18	13.8	205	0.45	6.55	-23	2.92	--	--	--	--	--	--
MW-307	09/04/18	18.44	235	0.99	6.11	-25.6	0	2	--	--	--	--	--
MW-307	12/19/18	16.6	343	2.15	7.69	28.7	17	1.4	< 0.0400	< 0.0400	82.6	7.61	0.669
MW-307	03/18/19	14.3	530	0.85	6.79	-62.3	20	--	--	--	--	--	--
MW-307	05/16/19	14.1	315	0.72	6.82	-90.6	4	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-307	09/17/19	13.21	231	1.15	6.95	1.6	10	--	--	--	--	--	--
MW-307	12/10/19	15.65	541	1.37	6.88	-44.6	18	5.5	<0.0600	<0.0600	210	60.4	1.21
MW-307	04/27/20	13.6	677	0.6	6.72	-96.40	43	--	--	--	--	--	--
MW-307	06/29/20	14.8	505	0.34	6.82	115.90	40	--	--	--	--	--	--
MW-307	09/21/20	15.8	476	0.41	5.96	37.20	29	--	--	--	--	--	--
MW-307	12/16/20	13.16	694	0.32	7.50	130.10	0	2.40	<0.200	<0.400	8.26 J+	51.80	1.17
MW-307	04/12/21	11.2	276	1.91	6.47	-56.9	65	--	--	--	--	--	--
MW-307	06/14/21	6.85	352	0.51	7.35	156.3	11	--	--	--	--	--	--
MW-307	09/22/21	16.03	661	1.12	6.10	0.8	17	--	--	--	--	--	--
MW-307	12/14/21	11.0	423	0.30	9.10	-24.0	18	--	--	--	22.1	0.172 J	0.764
MW-307	03/28/22	11.21	403	0.01	7.43	114.4	40	--	--	--	--	--	--
MW-307	06/29/22	15.2	430	0.66	6.88	34.8	19	--	--	--	--	--	--
MW-307	09/20/22	18.41	685	0.18	7.13	341.8	13	--	--	--	--	--	--
MW-307	12/12/22	11.27	322	0.43	6.45	-16.4	12	--	--	--	1.43 J	0.366 J	0.678
MW-307	03/27/23	14.60	634	0.26	7.03	-19.2	10	--	--	--	--	--	--
MW-307	06/13/23	12.14	403	1.16	6.64	83.9	18	--	--	--	--	--	--
MW-307	09/11/23	16.93	693	0.71	6.88	186.7	18	--	--	--	--	--	--
MW-307	12/19/23	13.22	483	0.68	6.49	-104.2	29	--	--	--	23.6	21.7	0.695
MW-308	02/23/16	10.09	657	0.32	6.78	-36.3	9.17	--	--	--	--	--	--
MW-308	05/03/16	13.49	431	0.31	6.52	-42.7	7.44	--	--	--	--	--	--
MW-308	08/30/16	16.93	224	1.43	7	50	0	--	--	--	--	--	--
MW-308	12/13/16	10.31	577	0.51	6.75	-22.5	8.43	1.5	< 0.0400	< 0.0400	141	1.53	1.05
MW-308	03/14/17	10.27	587	0	6.99	86	0	--	--	--	--	--	--
MW-308	06/15/17	13.16	355	0.9	7.07	-53	7.5	--	--	--	--	--	--
MW-308	08/23/17	18.34	235	0	7.15	-32	0	--	--	--	--	--	--
MW-308	12/06/17	13.3	591	801.24	6.76	-73.2	3.97	1.7	< 0.0400	< 0.0400	21.4	1.24	1.49
MW-308	03/08/18	10.08	758	0.29	6.74	-26.7	6.79	--	--	--	--	--	--
MW-308	06/14/18	14.41	208	0.43	6.34	-13.5	4.1	--	--	--	--	--	--
MW-308	09/05/18	17.87	270	0.64	6.57	-45.2	0	2	--	--	--	--	--
MW-308	12/19/18	10.7	579	1.68	6.94	52.4	30	0	< 0.0400	< 0.0400	48.1	0.167 J	0.0912
MW-308	03/18/19	12.5	912	0.63	7.03	-61.3	15	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-308	05/16/19	13.2	311	0.29	6.78	-107.3	10	--	--	--	--	--	--
MW-308	09/17/19	12.9	213	1.61	6.64	2.6	12	--	--	--	--	--	--
MW-308	12/09/19	14.07	386	1.89	6.32	-53.5	10	5.5	<0.0600 J	<0.0600 J	93.9	16.1	1.01
MW-308	04/27/20	13.3	825	0.77	6.43	-73.10	31	--	--	--	--	--	--
MW-308	06/29/20	15.3	726	0.44	7.05	108.80	24	--	--	--	--	--	--
MW-308	09/21/20	15.7	489	0.7	5.69	239.30	38	--	--	--	--	--	--
MW-308	12/16/20	11.78	556	0.39	7.62	123.70	11	2.60	<0.200	<0.400	3.79 J+	4.57	0.293
MW-308	04/12/21	10.4	323	2.15	6.72	142.2	38	--	--	--	--	--	--
MW-308	06/14/21	7.31	600	1.15	6.97	137.7	11	--	--	--	--	--	--
MW-308	09/22/21	15.90	589	1.44	6.39	-17.2	6	--	--	--	--	--	--
MW-308	12/14/21	7.7	548	0.87	6.95	150.0	10	--	--	--	20.9	<0.5	0.219
MW-308	03/28/22	10.54	647	0.01	7.32	121.8	11	--	--	--	--	--	--
MW-308	06/29/22	15.3	439	0.66	6.68	7.6	17	--	--	--	--	--	--
MW-308	09/20/22	17.72	723	0.29	7.08	337.8	28	--	--	--	--	--	--
MW-308	12/12/22	9.79	369	0.38	6.46	34.4	83	--	--	--	48.0	0.162 J	0.00254 J
MW-308	03/27/23	13.97	684	0.38	7.05	-41.2	22	--	--	--	--	--	--
MW-308	06/13/23	12.31	316	0.64	6.59	-41.6	24	--	--	--	--	--	--
MW-308	09/11/23	16.49	746	0.43	7.01	147.9	36	--	--	--	--	--	--
MW-308	12/19/23	11.23	680	0.69	7.02	-24.4	8	--	--	--	128	0.11 J	0.118
MW-309	05/04/16	14.84	208	2.8	6.5	-102.7	8.08	--	--	--	--	--	--
MW-309	12/12/16	11.39	250	0.67	6.46	-110.3	9.47	--	--	--	--	--	--
MW-309	06/13/17	15.23	147	0.21	6.49	-89.1	--	--	--	--	--	--	--
MW-309	12/05/17	14.56	215	1.1	6.72	-87.3	-20.7	--	--	--	--	--	--
MW-309	06/12/18	16.23	161	0.53	6.41	-42	7.48	--	--	--	--	--	--
MW-309	12/20/18	13.9	410	0.16	6.8	-112	21	--	--	--	--	--	--
MW-309	05/16/19	11.48	588	0.57	6.16	-109	62	--	--	--	--	--	--
MW-309	12/11/19	14.91	554	0.37	7.49	-70.1	37	--	--	--	--	--	--
MW-309	06/29/20	17.23	582	0.72	6.71	-12.60	77	--	--	--	--	--	--
MW-309	12/15/20	12.09	6.76	0.36	7.53	119.30	91	--	--	--	--	--	--
MW-309	06/15/21	11.34	322	0.59	6.52	23.4	68	--	--	--	--	--	--
MW-309	12/15/21	12.8	384	0.07	8.17	-22.8	6	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-309	06/28/22	16	287	0.51	6.35	-76.8	151	--	--	--	--	--	--
MW-309	12/13/22	12.43	298	0.11	6.4	-29.9	120	--	--	--	--	--	--
MW-309	06/14/23	17.21	379	0.86	7.23	-66.5	51	--	--	--	--	--	--
MW-309	12/20/23	13.5	240	0.25	6.24	-37.8	25	--	--	--	--	--	--
MW-310	11/28/12	13.97	385	0	7.22	-88	80.6	--	--	--	< 0.50	--	--
MW-310	11/05/13	14.07	396	0.05	6.44	-95	0	2.0-2.5	--	--	< 0.50	0.982	0.528
MW-310	11/04/14	15.97	393	0.03	6.88	-101	0	1.5	< 0.10	< 0.10	< 0.50	11.5	0.615
MW-310	12/10/15	13.23	313	0.45	6.39	-78.5	0	2	< 0.10	< 0.10	< 0.50	34.8	0.554
MW-310	02/22/16	11.72	358	0.29	6.4	-98.5	3.83	--	--	--	--	--	--
MW-310	05/02/16	15.68	270	0.34	6.18	-67.1	8.56	--	--	--	--	--	--
MW-310	08/29/16	19.29	283	1.64	6.82	29	0	--	--	--	--	--	--
MW-310	12/15/16	11.6	258	1.26	6.49	-70	0	2	< 0.0400	< 0.0400	1.13	26.4	0.485
MW-310	03/13/17	11.24	317	0	6.53	-102	0	--	--	--	--	--	--
MW-310	06/15/17	15.8	229	0.33	6.21	-69.1	--	--	--	--	--	--	--
MW-310	08/22/17	23.88	365	0	6.96	-80	21.4	--	--	--	--	--	--
MW-310	12/05/17	13.45	603	1.39	4.01	101	3.3	1.5	< 0.0400	< 0.0400	44.2	1.55	2.66
MW-310	03/06/18	12.75	946	0.3	5.25	72.8	5.8	--	--	--	--	--	--
MW-310	06/13/18	17.54	464	0.2	5.84	-34.4	2.01	--	--	--	--	--	--
MW-310	09/06/18	20	293	0.67	5.45	74	2.13	3	--	--	--	--	--
MW-310	12/20/18	15.9	605	1.43	7.1	49.6	18	3.2	0.346	0.346	318	7.48	1.63
MW-310	03/19/19	14.4	804	1.25	7.21	-21.1	28	--	--	--	--	--	--
MW-310	05/16/19	12.36	695	1.09	4.51	87	72	--	--	--	--	--	--
MW-310	09/17/19	13.46	281	0.83	6.93	-23.9	16	--	--	--	--	--	--
MW-310	12/11/19	16.4	1551	12.52	6.92	155.8	28	5	<0.0600	<0.0600	999	53.1	7.24
MW-310	04/28/20	14	1460	0.54	6.71	64.40	18	--	--	--	--	--	--
MW-310	06/29/20	15.03	908	0.99	6.96	-21.80	47	--	--	--	--	--	--
MW-310	09/21/20	17.8	745	2.68	6.01	249.70	12	--	--	--	--	--	--
MW-310	12/15/20	11.86	1,020	0.33	7.57	116.90	64	1.60	<0.200	<0.400	167	64.90	1.48
MW-310	04/12/21	13.8	386	1.67	6.39	-28.8	92	--	--	--	--	--	--
MW-310	06/15/21	12.16	571	0.64	7.05	45.9	53	--	--	--	--	--	--
MW-310	09/22/21	18.17	789	1.05	6.02	-15.7	51	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-310	12/16/21	12.25	648	0.06	6.66	-28.1	85	--	--	--	90.8	0.339 J	2.5
MW-310	03/29/22	11.83	677	0.21	6.95	154.3	22	--	--	--	--	--	--
MW-310	06/28/22	15.4	752	0.41	6.41	-98.6	37	--	--	--	--	--	--
MW-310	09/20/22	19.95	572	0.48	6.32	316.7	23	--	--	--	--	--	--
MW-310	12/13/22	10.61	399	0.31	6.39	-54.3	44	--	--	--	22.2	7.74	0.857
MW-310	03/27/23	13.26	824	0.23	7.58	-92.5	29	--	--	--	--	--	--
MW-310	06/13/23	16.15	767	1.53	7.29	-83	35	--	--	--	--	--	--
MW-310	09/11/23	20.58	473	0.1	6.34	-148	21	--	--	--	--	--	--
MW-310	12/19/23	13.41	973	0.17	6.57	-51.1	42	--	--	--	22.2	10.8	1.49
MW-311	11/05/14	16.57	606	0	7.42	-146	7	1.5	< 0.25	< 0.25	42.3	< 0.200	1.57
MW-311	12/10/15	14.15	482	0	6.35	-103	1.4	0.75	< 0.10	< 0.10	46.4	27.4	1.45
MW-311	02/22/16	13.84	583	0.26	6.45	-103.1	4.19	--	--	--	--	--	--
MW-311	05/04/16	14.42	564	1.02	6.49	-109.3	6.22	--	--	--	--	--	--
MW-311	08/29/16	22.58	384	1.01	6.89	22	7.66	--	--	--	--	--	--
MW-311	12/15/16	12.91	270	0.4	6.64	-107.3	7.38	3	< 0.0400	< 0.0400	23.7	22.7	0.801
MW-311	03/13/17	12.31	424	0.31	6.73	-98.5	0	--	--	--	--	--	--
MW-311	06/15/17	15.25	453	0.95	7.16	-87.5	--	--	--	--	--	--	--
MW-311	08/22/17	19.69	390	8.27	7.1	-72	0	--	--	--	--	--	--
MW-311	12/07/17	15.15	276	0.38	6.61	-33.2	0	3.75	< 0.0400 J	< 0.0400 J	28.4	8.42	0.703
MW-311	03/08/18	10.87	585	1.04	6.62	-17.2	0	--	--	--	--	--	--
MW-311	06/13/18	17.24	366	0.25	6.44	-45.7	0	--	--	--	--	--	--
MW-311	09/05/18	19.44	455	0.19	6.27	38.8	3.11	--	--	--	--	--	--
MW-311	12/20/18	14.6	522	1.15	7.33	-72.6	14	1.7	< 0.0400	< 0.0400	8.59	4.44	1.02
MW-311	03/18/19	14.8	530	0.32	6.71	-73.9	3	--	--	--	--	--	--
MW-311	05/16/19	14.3	519	0.1	6.82	-71.4	5	--	--	--	--	--	--
MW-311	09/17/19	13.98	338	0.62	6.61	-22.9	3	--	--	--	--	--	--
MW-311	12/12/19	15.24	674	0.8	7.22	-84.4	3	4.5	<0.0600	<0.0600	8.28	41.5	1.81
MW-311	04/27/20	14.2	792	0.72	7.60	-83.20	9	--	--	--	--	--	--
MW-311	06/29/20	15.2	957	0.44	6.97	121.90	15	--	--	--	--	--	--
MW-311	09/21/20	17.5	763	0.26	6.53	-51.20	16	--	--	--	--	--	--
MW-311	12/15/20	14.11	877	0.20	7.80	118.00	30	2.80	<0.200	<0.400	74.20	18.30	2.04

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-311	04/13/21	13.0	338	2.30	6.75	-71.2	18	--	--	--	--	--	--
MW-311	09/22/21	17.34	812	1.57	6.70	-50.1	9	--	--	--	--	--	--
MW-311	12/16/21	10.67	473	0.08	7.34	37.4	8	--	--	--	4.42	0.144 J	1.77
MW-311	03/29/22	13.47	728	0.01	7.18	137.7	2	--	--	--	--	--	--
MW-311	06/28/22	15.7	636	0.46	6.48	-98.6	17	--	--	--	--	--	--
MW-311	09/20/22	19.90	764	0.03	6.42	380.4	6	--	--	--	--	--	--
MW-311	12/13/22	14.18	616	0.13	6.42	-48.6	6	--	--	--	0.429 J	6.14	1.89
MW-311	03/28/23	12.43	718	0.36	7.22	-11.2	13	--	--	--	--	--	--
MW-311	06/14/23	15.28	751	5.49	7.78	5.3	16	--	--	--	--	--	--
MW-311	09/12/23	18.95	601	0.11	6.47	-127.5	14	--	--	--	--	--	--
MW-311	12/20/23	14.79	641	0.29	6.3	-38.3	9	--	--	--	<1.5	3.1	1.58
MW-312	11/05/14	17.07	459	0.58	6.78	-92	0	5.7	< 0.25	< 0.25	< 1.3	< 0.200	0.787
MW-312	12/10/15	13.74	434	0	6.3	-89	0	1.5	< 0.10	< 0.10	< 0.50	16.8	0.717
MW-312	02/23/16	13.69	578	0.22	6.63	-113.5	8.84	--	--	--	--	--	--
MW-312	05/04/16	14.77	539	1.19	6.63	-122.1	4.05	--	--	--	--	--	--
MW-312	08/29/16	24.31	480	1.01	6.89	28	0	--	--	--	--	--	--
MW-312	12/15/16	13.74	452	0.4	6.74	-121.8	9.47	4	< 0.0400	< 0.0400	< 0.500	20.4	0.924
MW-312	03/13/17	12.95	598	0	6.81	-126	0	--	--	--	--	--	--
MW-312	06/15/17	15.14	465	0.27	6.68	-106.8	--	--	--	--	--	--	--
MW-312	08/23/17	19.07	460	0	7.3	-81	0	--	--	--	--	--	--
MW-312	12/07/17	16.15	351	0.88	6.66	-107.7	1.17	2.6	< 0.0400	< 0.0400	488	3.95	0.664
MW-312	03/08/18	11.91	501	1.12	6.88	-6.3	0	--	--	--	--	--	--
MW-312	06/13/18	15.38	349	1.59	6.58	-106.1	0.92	--	--	--	--	--	--
MW-312	09/05/18	20.03	417	0.16	6.55	-72.6	3.75	6	--	--	--	--	--
MW-312	12/20/18	14.1	429	0.75	7.29	-45.3	7	2.5	< 0.0400	< 0.0400	0.164 J	4.35	0.715
MW-312	03/19/19	12.6	553	0.58	7.74	-41	3	--	--	--	--	--	--
MW-312	05/16/19	13.8	524	0.67	6.7	-101.9	2	--	--	--	--	--	--
MW-312	09/17/19	13.84	289	0.55	6.54	-31.9	2	--	--	--	--	--	--
MW-312	12/12/19	14.76	514	0.36	8.17	-86.4	5	2	<0.0600	<0.0600	0.63	22	0.957
MW-312	04/28/20	14.9	596	0.36	7.64	-85.90	4	--	--	--	--	--	--
MW-312	06/29/20	15.03	491	0.94	6.39	-25.70	12	--	--	--	--	--	--



**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-312	09/21/20	17.5	607	0.33	6.56	-35.30	20	--	--	--	--	--	--
MW-312	12/15/20	13.39	571	0.28	7.75	118.20	35	3.00	<0.200	<0.400	<1.20	6.93	1.08
MW-312	04/13/21	12.3	286	2.10	6.78	-84.4	17	--	--	--	--	--	--
MW-312	06/16/21	8.65	476	2.05	6.93	17.3	3	--	--	--	--	--	--
MW-312	09/22/21	16.72	805	2.04	6.62	-30.2	10	--	--	--	--	--	--
MW-312	12/16/21	10.85	338	0.04	7.04	35.2	6	--	--	--	<0.500	0.115 J	0.83
MW-312	03/29/22	12.62	452	0.03	6.89	158.7	1	--	--	--	--	--	--
MW-312	06/29/22	14.5	635	0.78	6.48	10.1	30	--	--	--	--	--	--
MW-312	09/20/22	19.81	714	0.32	6.80	361.9	9	--	--	--	--	--	--
MW-312	12/13/22	13.2	440	0.24	6.48	-12.9	19	--	--	--	4.73	0.399 J	0.903
MW-312	03/28/23	12.05	573	0.18	8.38	-68.7	10	--	--	--	--	--	--
MW-312	06/14/23	16.40	552	2.13	7.90	-49.8	17	--	--	--	--	--	--
MW-312	09/12/23	18.9	543	0.19	6.52	-128.2	1	--	--	--	--	--	--
MW-312	12/20/23	15.16	614	0.08	6.37	-21.5	17	--	--	--	<1.5	1.7	1.04
MW-313	08/29/16	21.96	489	1.07	6.88	23	0	--	--	--	--	--	--
MW-313	12/12/16	14.13	474	1.04	6.82	-34.9	9.06	--	--	--	--	--	--
MW-313	03/13/17	11.3	850	0.03	6.78	-23	3.5	--	--	--	--	--	--
MW-313	06/15/17	15.94	374	1.32	6.85	-24.6	--	--	--	--	--	--	--
MW-313	08/22/17	23.47	400	8.21	7.39	-62	0	--	--	--	--	--	--
MW-313	12/07/17	15.72	395	0.99	6.95	24.8	3.22	--	--	--	--	--	--
MW-313	03/07/18	11.05	615	0.89	6.96	36.8	8.42	--	--	--	--	--	--
MW-313	06/13/18	16.73	400	0.46	6.76	-44.1	3.02	--	--	--	--	--	--
MW-313	09/05/18	20.55	447	0.18	6.76	-29.7	1.34	--	--	--	--	--	--
MW-313	12/20/18	14.7	555	1.03	7.07	-52.9	43	--	--	--	--	--	--
MW-313	03/19/19	11.1	686	0.73	7.81	-30.4	6	--	--	--	--	--	--
MW-313	05/16/19	14.5	781	0.42	7.05	-39.1	10	--	--	--	--	--	--
MW-313	09/17/19	15.71	343	0.71	6.65	-25.3	7	--	--	--	--	--	--
MW-313	12/12/19	14.86	574	0.64	7.99	-55.7	5	--	--	--	--	--	--
MW-313	04/27/20	15.6	683	1.21	7.87	3.40	11	--	--	--	--	--	--
MW-313	06/29/20	16.33	486	1.81	6.73	-74.50	32	--	--	--	--	--	--
MW-313	09/21/20	18.7	605	0.55	6.84	21.90	13	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-313	12/15/20	13.54	718	0.22	7.93	109.70	69	--	--	--	--	--	--
MW-313	04/13/21	12.9	250	2.02	6.85	-69.0	48	--	--	--	--	--	--
MW-313	06/16/21	9.60	441	0.99	7.38	30.4	38	--	--	--	--	--	--
MW-313	09/22/21	17.25	668	1.34	6.95	-41.6	28	--	--	--	--	--	--
MW-313	12/16/21	11.89	401	0.19	7.16	30.7	80	--	--	--	--	--	--
MW-313	03/29/22	11.77	390	0.10	7.10	141.2	10	--	--	--	--	--	--
MW-313	06/28/22	17.4	631	1.12	6.65	10.8	154	--	--	--	--	--	--
MW-313	09/20/22	21	573	0.05	6.99	378.8	24	--	--	--	--	--	--
MW-313	12/13/22	11.68	548	0.15	6.38	-28.6	81	--	--	--	--	--	--
MW-313	03/28/23	10.12	553	1.48	8.42	-38.5	50	--	--	--	--	--	--
MW-313	06/14/23	16.96	632	0.32	8.03	-50.7	56	--	--	--	--	--	--
MW-313	09/12/23	20.47	440	0.22	6.7	28.4	41	--	--	--	--	--	--
MW-313	12/20/23	13.07	769	0.13	6.53	9.0	32	--	--	--	--	--	--
MW-314	08/30/16	20.6	565	1.23	6.87	82	8.52	--	--	--	--	--	--
MW-314	12/14/16	13.42	471	0.52	6.73	-90.3	9.44	--	--	--	--	--	--
MW-314	03/13/17	12.34	626	0	6.73	-53	3.9	--	--	--	--	--	--
MW-314	06/14/17	18.28	447	0.46	7.07	-87.9	8.2	--	--	--	--	--	--
MW-314	08/23/17	18.35	453	0	7.33	-35	3.6	--	--	--	--	--	--
MW-314	12/06/17	14	413	0.68	6.56	-62.5	4.2	--	--	--	--	--	--
MW-314	03/07/18	11.95	583	0.9	6.84	23.5	8.42	--	--	--	--	--	--
MW-314	06/12/18	15.92	455	0.74	6.7	-110	2.91	--	--	--	--	--	--
MW-314	09/05/18	18.9	427	0.4	6.49	-40.8	4.24	--	--	--	--	--	--
MW-314	12/20/18	14.7	567	0.16	6.79	-87	29	--	--	--	--	--	--
MW-314	03/19/19	11.4	564	0.97	7.12	-32.4	48	--	--	--	--	--	--
MW-314	05/16/19	11.01	714	0.77	6.27	-61	79	--	--	--	--	--	--
MW-314	09/17/19	--	--	--	--	--	--	--	--	--	--	--	--
MW-314	12/10/19	13.97	725	1.55	5.67	-36	7	--	--	--	--	--	--
MW-314	04/28/20	13.2	749	0.44	7.55	-53.60	7	--	--	--	--	--	--
MW-314	06/29/20	18.27	639	1.02	6.53	-29.80	16	--	--	--	--	--	--
MW-314	09/22/20	16.5	758	0.49	6.28	22.60	16	--	--	--	--	--	--
MW-314	12/15/20	13.53	800	0.15	7.78	114.80	35	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-314	04/13/21	10.7	272	2.02	6.54	-7.9	58	--	--	--	--	--	--
MW-314	03/28/22	12.03	731	0.06	7.77	76.2	83	--	--	--	--	--	--
MW-314	06/28/22	15.7	819	0.46	6.36	-58.1	14	--	--	--	--	--	--
MW-314	09/20/22	19.23	638	0.10	6.48	351.7	13	--	--	--	--	--	--
MW-314	03/27/23	11.49	699	0.60	8.17	21.0	54	--	--	--	--	--	--
MW-314	06/14/23	16.38	720	2.6	7.63	-56.9	25	--	--	--	--	--	--
MW-314	12/20/23	12.58	269	0.21	6.31	-17.6	30	--	--	--	--	--	--
MW-315	08/29/16	20.56	558	1.04	6.86	2	8.44	--	--	--	--	--	--
MW-315	12/12/16	12.07	488	1.45	6.74	-102	0	--	--	--	--	--	--
MW-315	03/13/17	12.81	522	0	6.77	-117	0	--	--	--	--	--	--
MW-315	06/15/17	14.2	450	1.27	7.21	-99	--	--	--	--	--	--	--
MW-315	08/23/17	18.2	465	0	7.3	-68	0	--	--	--	--	--	--
MW-315	12/07/17	14.59	372	0.84	6.68	-28.7	0	--	--	--	--	--	--
MW-315	03/08/18	11.74	448	1.34	6.84	20.7	0	--	--	--	--	--	--
MW-315	06/13/18	15.32	325	1	6.58	-41.5	0	--	--	--	--	--	--
MW-315	09/05/18	18.81	378	0.12	6.39	-28.8	0.54	--	--	--	--	--	--
MW-315	12/20/18	14.5	460	0.32	7.15	-92	5	--	--	--	--	--	--
MW-315	03/18/19	14.7	497	0.81	6.74	-65.4	3	--	--	--	--	--	--
MW-315	05/16/19	13.6	508	0.2	6.83	-64.3	3	--	--	--	--	--	--
MW-315	09/17/19	13.01	311	0.58	6.37	-41.8	4	--	--	--	--	--	--
MW-315	12/12/19	14.4	587	0.79	7.98	-67.8	3	--	--	--	--	--	--
MW-315	04/27/20	14.8	591	0.53	7.67	-70	8	--	--	--	--	--	--
MW-315	06/29/20	14.3	584	0.64	6.92	189.80	9	--	--	--	--	--	--
MW-315	09/21/20	16.7	589	0.25	6.43	-26.20	14	--	--	--	--	--	--
MW-315	12/15/20	13.69	588	0.09	7.80	119.30	43	--	--	--	--	--	--
MW-315	04/13/21	13.1	289	2.23	6.65	-68.2	22	--	--	--	--	--	--
MW-315	06/16/21	8.01	501	1.37	6.79	0.9	3	--	--	--	--	--	--
MW-315	09/22/21	17.62	785	1.14	6.45	-19.0	10	--	--	--	--	--	--
MW-315	12/16/21	10.40	304	1.36	7.31	-8.2	10	--	--	--	--	--	--
MW-315	03/29/22	12.06	519	0.08	7.21	134.1	3	--	--	--	--	--	--
MW-315	06/28/22	14.4	583	0.48	6.44	-86.4	15	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
MW-315	09/20/22	17.79	634	0.10	7.32	356.7	5	--	--	--	--	--	--
MW-315	12/13/22	11.9	570	0.25	6.29	-23.1	87	--	--	--	--	--	--
MW-315	03/28/23	12.07	645	0.18	7.70	-76.2	14	--	--	--	--	--	--
MW-315	06/14/23	14.23	663	1.36	7.34	-43	20	--	--	--	--	--	--
MW-315	09/12/23	17.38	553	0.09	6.37	-112	8	--	--	--	--	--	--
MW-315	12/20/23	14.16	579	0.92	6.31	45.3	6	--	--	--	--	--	--
SH-04	05/05/16	14.18	129	1.43	6.47	-107.3	8.73	--	--	--	--	--	--
SH-04	12/14/16	8.88	133	0.39	6.41	-48.2	7.21	--	--	--	--	--	--
SH-04	06/14/17	17.02	116	0.27	6.33	52.7	1.67	--	--	--	--	--	--
SH-04	12/05/17	15.32	134	0.71	6.72	-65.4	3.51	--	--	--	--	--	--
SH-04	06/13/18	16.5	140	0.47	6.12	-54.2	1.05	--	--	--	--	--	--
SH-04	12/18/18	12.3	180	1.05	7.31	-30.6	19	--	--	--	--	--	--
SH-04	05/16/19	9.31	226	0.91	5.71	-126	13	--	--	--	--	--	--
SH-04	12/11/19	14.43	391	0.63	7.51	-12.1	19	--	--	--	--	--	--
SH-04	06/29/20	14.4	219	0.49	6.46	215.30	8	--	--	--	--	--	--
SH-04	12/14/20	14.00	371	0.29	7.56	151.80	21	--	--	--	--	--	--
SH-04	06/15/21	8.75	190	0.94	7.00	57.0	6	--	--	--	--	--	--
SH-04	12/15/21	11.6	140	0.15	9.84	-77.1	6	--	--	--	--	--	--
SH-04	04/18/22	9.00	220	0.09	8.12	64.6	39	--	--	--	--	--	--
SH-04	06/28/22	16.9	198	0.49	6.02	-11.9	16	--	--	--	--	--	--
SH-04	12/13/22	9.50	90	0.08	6.41	-25.2	20	--	--	--	--	--	--
SH-04	06/13/23	15.31	149	4.44	7.32	-48.1	18	--	--	--	--	--	--
SH-04	12/19/23	10.14	243	0.66	6.14	24.3	18	--	--	--	--	--	--
TX-03A	01/13/04	14	480	1.4	6.39	-59	1.8	--	--	--	--	--	--
TX-03A	04/19/04	13.7	560	1.44	6.18	21	2.4	6	--	--	< 1	--	--
TX-03A	07/27/04	17.9	589	1.31	6.26	68	3	--	--	--	--	--	--
TX-03A	10/18/04	16.7	595	2.77	6.63	-100	42	--	--	--	--	--	--
TX-03A	01/24/05	14.6	563	1.79	5.11	5	43.1	--	--	--	--	--	--
TX-03A	04/19/05	13.8	552	0	6.47	-86	20	4	--	--	< 1	--	--
TX-03A	07/12/05	17.3	477	0.16	6.55	-121	55.6	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
TX-03A	10/31/07	--	--	--	--	--	--	--	--	--	--	--	--
TX-03A	11/20/08	15.8	821	0.49	6.87	-59	31.8	30.4	--	--	< 1	--	--
TX-03A	04/08/09	12.84	236	0	6.58	-145	43.1	--	--	--	--	--	--
TX-03A	11/17/09	16.3	50.6	1.29	6.39	-102	9.7	36	--	--	1.2	--	--
TX-03A	04/27/10	13.2	52.8	0.21	5.76	-153	9.5	--	--	--	--	--	--
TX-03A	10/25/10	15.5	42.5	1.39	6.68	-115	48	30	--	--	6.8	--	--
TX-03A	05/23/11	--	--	--	--	--	--	--	--	--	--	--	--
TX-03A	10/27/11	15.44	478	1.72	8.5	-100.9	--	20.3	--	--	< 0.50	--	--
TX-03A	03/01/12	12.29	564	0	6.71	-118	12.6	--	--	--	--	--	--
TX-03A	06/12/12	14	507	4	7.19	-103	4.5	--	--	--	--	--	--
TX-03A	09/25/12	17.83	514	0	6.48	-139	15.2	--	--	--	--	--	--
TX-03A	11/28/12	13.79	439	0	6.7	-104	--	--	--	--	< 0.50	--	--
TX-03A	11/05/13	10.98	528	0.06	6.57	-114	0	4	--	--	< 0.50	< 0.200	0.47
TX-03A	11/04/14	16.8	424	0.38	6.49	-39	5.83	6	< 0.10	< 0.10	< 0.50	6.18	0.523
TX-03A	12/10/15	15.11	456	0.25	6.51	-103.5	6.7	0.5	< 0.10	< 0.10	< 0.50	31.7	0.5
TX-03A	02/22/16	12.73	484	0.3	6.34	-109.1	7.22	--	--	--	--	--	--
TX-03A	05/02/16	15.06	418	0.22	6.36	-103.1	3.96	--	--	--	--	--	--
TX-03A	08/29/16	18.69	395	2.27	6.84	18	0	--	--	--	--	--	--
TX-03A	12/15/16	12.31	295	0.29	6.54	-109.9	8.97	2	< 0.0400	< 0.0400	< 0.500	37.8	0.517
TX-03A	03/13/17	11.74	287	0.23	6.74	-109.5	0	--	--	--	--	--	--
TX-03A	06/13/17	14.63	322	0.24	6.32	-98	--	--	--	--	--	--	--
TX-03A	08/22/17	18.97	317	0	7.07	-87	0	--	--	--	--	--	--
TX-03A	12/05/17	13.23	477	1.83	6.57	-104.1	2.77	1.5	< 0.0400	< 0.0400	219	25.1	0.784
TX-03A	03/27/18	12.27	465	0.65	6.19	71.9	3.37	--	--	--	--	--	--
TX-03A	06/13/18	15.4	407	4.12	6.07	-82.4	0.69	--	--	--	--	--	--
TX-03A	09/06/18	19.9	551	0.14	6.24	-76.8	1.26	--	--	--	--	--	--
TX-03A	12/20/18	16.5	369	0.1	6.67	-116	16	4.5	< 0.0400	< 0.0400	19	6.46	0.465
TX-03A	03/19/19	13.9	550	0.45	7.55	-67.1	8	--	--	--	--	--	--
TX-03A	05/16/19	12.64	538	0.51	6.11	-84	12	--	--	--	--	--	--
TX-03A	09/17/19	16.79	348	0.97	6.41	3.1	8	--	--	--	--	--	--
TX-03A	12/11/19	16.75	1514	1.86	8.64	-94	5	3	<0.0600 J	<0.0600 J	704	104	2.99
TX-03A	04/28/20	14.1	881	0.46	7.5	-65.10	12	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity µS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
TX-03A	06/29/20	16.13	577	1.24	6.36	-20.20	13	--	--	--	--	--	--
TX-03A	09/21/20	18.1	505	0.32	6.22	74	15	--	--	--	--	--	--
TX-03A	12/15/20	13.20	501	0.31	7.59	114.00	15	2.40	<0.200	<0.400	42.30	26.20	1.16
TX-03A	04/12/21	11.6	259	1.91	6.26	-6.2	40	--	--	--	--	--	--
TX-03A	06/16/21	9.02	416	1.35	7.60	39.3	3	--	--	--	--	--	--
TX-03A	09/23/21	17.45	633	1.17	6.09	-5.6	7	--	--	--	--	--	--
TX-03A	03/28/22	12.57	540	0.12	7.24	126.9	12	--	--	--	--	--	--
TX-03A	06/28/22	15.4	521	0.5	6.49	-91.2	14	--	--	--	--	--	--
TX-03A	09/21/22	16.84	473	0.41	7.29	348.7	29	--	--	--	--	--	--
TX-03A	12/13/22	14.22	368	0.25	6.43	-49.9	8	--	--	--	8.86	0.109 J	0.927
TX-03A	03/27/23	12.92	494	0.28	7.52	-64.4	19	--	--	--	--	--	--
TX-03A	06/14/23	16.15	441	0.89	7.21	-49.4	18	--	--	--	--	--	--
TX-03A	09/12/23	18.21	372	0.16	6.5	-109.7	1	--	--	--	--	--	--
TX-03A	12/20/23	14.33	339	0.79	6.42	-24.3	17	--	--	--	<1.5	0.36 J	0.803
TES-MW-1	12/13/16	8.37	99	7.01	5.86	89	0	--	--	--	--	--	--
TES-MW-1	12/06/17	10	69	6.02	5.67	39.9	5.7	--	--	--	--	--	--
TES-MW-1	12/19/18	11.2	172	1.3	6.68	-96	24	--	--	--	--	--	--
TES-MW-1	12/09/19	13.42	172	6.2	6.51	63.9	11	--	--	--	--	--	--
TES-MW-1	12/16/20	12.07	98	0.92	7.72	135.70	36	--	--	--	--	--	--
TES-MW-1	12/14/21	11.2	93	0.70	7.71	132.1	34	--	--	--	--	--	--
TES-MW-1	12/12/22	11.24	430	0.61	6.89	130.7	1	--	--	--	--	--	--
TES-MW-1	12/19/23	12.39	90	5.91	5.63	147.3	2	--	--	--	--	--	--
TX-04	12/12/16	10.65	353	0.82	7.02	-108	0	--	--	--	--	--	--
TX-04	12/05/17	12.06	167	0.68	7.01	-10.8	23.2	--	--	--	--	--	--
TX-04	12/18/18	14.5	233	1.26	7.69	-48.3	44	--	--	--	--	--	--
TX-04	12/12/19	14.81	295	0.44	8.46	-83.3	14	--	--	--	--	--	--
TX-04	12/14/20	14.54	334	0.17	7.81	136.90	7	--	--	--	--	--	--
TX-04	12/15/21	10.4	207	0.21	8.32	-3.0	17	--	--	--	--	--	--
TX-04	12/13/22	12.4	199	0.07	6.4	-47.2	77	--	--	--	--	--	--
TX-04	12/19/23	13.95	185	0.11	6.53	-11.2	42	--	--	--	--	--	--

**Table 5**  
**Compliance Monitoring Natural Attenuation Parameters**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Field Parameters						Laboratory Parameters					
		Temperature oC	Conductivity μS/cm	Dissolved Oxygen mg/L	pH	ORP mv	Turbidity NTU	Ferrous Iron mg/L	Nitrogen, Nitrate mg/L	Nitrogen, Nitrite mg/L	Sulfate mg/L	Iron Dissolved mg/L	Manganese Dissolved mg/L
TX-06A	12/12/16	11.95	212	0.55	6.55	-97.3	6.56	--	--	--	--	--	--
TX-06A	12/05/17	14.43	248	1.15	6.69	-63.6	5.63	--	--	--	--	--	--
TX-06A	12/20/18	14.5	257	0.17	6.76	-99	11	--	--	--	--	--	--
TX-06A	12/10/19	13.58	230	4.49	5.62	8.6	12	--	--	--	--	--	--
TX-06A	12/14/20	13.92	341	0.20	7.74	123.80	17	--	--	--	--	--	--
TX-06A	12/15/21	12.1	174	0.25	7.85	9.5	10	--	--	--	--	--	--
TX-06A	12/19/23	12.61	1,147	0.07	6.22	3.6	64	--	--	--	--	--	--

**Note:**

= Indicates data collected during this progress report period

°C = degrees Celsius

J = indicates a estimated value

J+ = The result is an estimated quantity, but the result may be biased high.

< = not detected at or above the indicated limit. Beginning June 12, 2012, limits shown are laboratory Method Detection Limits (MDLs). Prior to June 12, 2012, limits shown are laboratory Reporting Limits (RLs).

mg/L = milligrams per liter

mV = millivolts

NM = not measured

NTU = nephelometric turbidity unit

ORP = oxidation-reduction potential

μS/cm = microsiemens per centimeter

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-05	01/15/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.37	< 0.5	--
MW-05	04/21/04	0.0015	< 0.001	0.0053	< 0.001	< 0.25	0.41	< 0.5	--
MW-05	07/28/04	0.0015	0.001	< 0.001	0.0017	< 0.25	< 0.25	< 0.5	--
MW-05	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-05	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-05	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	0.072	< 0.25	< 0.5	--
MW-05	07/12/05	< 0.001	< 0.001	< 0.001	< 0.001	0.25	< 0.25	< 0.5	--
MW-05	10/19/05	< 0.001	< 0.001	< 0.001	< 0.001	0.11	< 0.25	< 0.5	--
MW-05	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	< 0.238	< 0.476	--
MW-05	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.25	< 0.5	--
MW-05	11/17/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
MW-05	10/29/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.14	< 0.1	--
MW-05	05/23/11	< 0.0003	< 0.0005	< 0.0003	< 0.0007	0.0744	--	--	--
MW-05	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.115	< 0.095	< 0.19	--
MW-05	11/29/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0954	< 0.095	--
MW-05	11/07/13	< 0.00020	0.00083 J	< 0.00020	0.00087 J	0.345	< 0.049	< 0.097	--
MW-05	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	0.0507 J	0.137	< 0.094	--
MW-05	12/08/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	< 0.233	< 0.388	--
MW-05	05/04/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000162	70.9 J	< 0.0398	< 0.0598	--
MW-05	12/14/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	< 0.0436	< 0.0654	--
MW-05	06/14/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.0860	< 0.129	--
MW-05	12/07/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.0968 J	0.105 J	< 0.121	--
MW-05	06/12/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.114	< 0.124	--
MW-05	12/19/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.230 J	0.119 J	--
MW-05	05/15/19	< 0.000200	< 0.000170	< 0.000190	< 0.000580	0.0589	< 0.108	< 0.118	--



**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-05	12/10/19	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.111 J	< 0.121	--
MW-05	06/30/20	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.113	< 0.124	--
MW-05	12/14/20	<0.00020	<0.0002	<0.00020	<0.0005	<0.250	0.163	<0.340	--
MW-05	06/15/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	<0.240	<0.401	--
MW-05	12/15/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	<0.254	<0.424	--
MW-05	04/18/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.235	<0.392	--
MW-05	06/29/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.243	<0.405	--
MW-05	12/14/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.387	0.191 J	--
MW-05	06/13/23	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.241	<0.401	--
MW-05	12/18/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.100	0.238	0.680	--
MW-101	01/16/04	< 0.001	< 0.001	< 0.001	0.0028	0.55	< 0.25	< 0.5	--
MW-101	04/20/04	0.0016	< 0.001	< 0.001	0.0014	0.67	< 0.25	< 0.5	--
MW-101	07/28/04	0.0012	< 0.001	< 0.001	0.0011	1	< 0.25	< 0.5	--
MW-101	10/18/04	0.0011	< 0.001	< 0.001	< 0.001	0.42	< 0.25	< 0.5	--
MW-101	01/26/05	< 0.001	< 0.001	< 0.001	0.0011	0.51	< 0.25	< 0.5	--
MW-101	04/19/05	0.0016	< 0.001	< 0.001	< 0.001	0.58	< 0.25	< 0.5	--
MW-101	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.31	< 0.25	< 0.5	--
MW-101	10/10/05	< 0.001	< 0.001	< 0.001	< 0.001	0.16	< 0.25	< 0.5	--
MW-101	01/27/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	0.223	< 0.236	< 0.476	--
MW-101	11/18/08	< 0.005	< 0.005	< 0.005	< 0.005	0.1	< 0.25	< 0.5	--
MW-101	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
MW-101	10/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	0.15	0.13	< 0.1	--
MW-101	10/27/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.0936	< 0.10	< 0.20	--
MW-101	11/26/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	0.188 J	0.0937 J	< 0.10	--
MW-101	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	0.118 J	< 0.0048	< 0.0095	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-101	11/04/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.0048	< 0.0095	--
MW-101	12/09/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	0.129	< 0.201	--
MW-101	12/13/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.101	0.0983 J	< 0.0632	--
MW-101	12/06/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.237	0.246 J	< 0.127	--
MW-101	12/19/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.127 J	0.157 J	< 0.115	--
MW-101	12/09/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.155 J	< 0.125	--
MW-101	12/16/20	<0.00020 J	<0.0002 J	<0.00020 J	<0.0005 J	<0.250	<0.238	<0.397	--
MW-101	12/14/21	<0.000400	<0.00100	<0.00100	<0.00300	0.433	0.305	0.128 J	--
MW-101	12/12/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.247	<0.411	--
MW-101	12/19/23	<0.00100	<0.00100	<0.00100	<0.00200	0.208	0.139	0.127 J	--
MW-102	01/14/04	0.0021	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-102	04/21/04	0.0036	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-102	07/28/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-102	10/18/04	0.0011	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-102	01/25/05	0.0024	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-102	04/18/05	0.0027	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	--
MW-102	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.077	< 0.25	< 0.5	--
MW-102	10/19/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	--
MW-102	01/26/06	0.00498	< 0.0005	0.00174	0.00201	< 0.05	< 0.238	< 0.472	--
MW-102	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.25	< 0.5	--
MW-102	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
MW-102	10/28/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
MW-102	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.113	< 0.20	--
MW-102	11/28/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	< 0.10	--
MW-102	11/07/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.047	0.144 J	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-102	11/04/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0568 J	< 0.094	--
MW-102	12/08/15	< 0.0020	< 0.0010	< 0.0010	< 0.0030	< 0.100	< 0.233	< 0.388	--
MW-102	12/14/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	< 0.0413	< 0.0620	--
MW-102	12/05/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.0834	< 0.125	--
MW-102	12/05/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.0834	< 0.125	--
MW-102	12/19/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.774	0.197 J	--
MW-102	12/10/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.151 J	<0.123	--
MW-102	12/16/20	<0.00020 J	<0.0002 J	<0.00020 J	<0.0005 J	<0.250	<0.248	<0.413	--
MW-102	12/16/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	<0.240	<0.401	--
MW-102	12/12/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.226	0.143 J	--
MW-102	12/18/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.100	0.0869 J	0.133 J	--
MW-104	01/15/04	0.0019	< 0.001	0.15	0.1028	<b>2.7</b>	1.2	< 0.5	0.00555
MW-104	01/15/04	0.0012	< 0.001	0.1	0.0706	<b>2</b>	1.3	< 0.5	< 0.005
MW-104	04/21/04	0.0066	0.0025	0.35	0.0931	<b>4.3</b>	1.7	< 0.5	0.00575
MW-104	07/28/04	0.0018	< 0.001	0.048	0.017	<b>2.2</b>	0.87	< 0.5	< 0.005
MW-104	07/28/04	0.0017	< 0.001	0.049	0.019	<b>2.1</b>	1.3	< 0.5	< 0.005
MW-104	10/19/04	< 0.001	< 0.001	0.0021	0.0016	< 0.25	0.61	< 0.5	< 0.005
MW-104	01/24/05	< 0.001	< 0.001	0.0012	< 0.001	< 0.25	0.74	< 0.5	< 0.005
MW-104	04/18/05	< 0.001	< 0.001	0.057	0.0067	<b>1.4</b>	1.2	< 0.5	< 0.005
MW-104	07/12/05	0.0014	< 0.001	0.11	0.012	<b>1.8</b>	0.7	< 0.5	< 0.005
MW-104	10/19/05	< 0.001	< 0.001	0.024	0.0049	0.29	0.62	< 0.5	< 0.005
MW-104	01/25/06	0.00245	0.00129	0.33	0.0273	<b>2.07</b>	3.73	< 0.962	0.0077
MW-104	10/30/07	--	--	--	--	<b>1.25</b>	--	--	< 0.002
MW-104	05/20/08	--	--	--	--	<b>4</b>	2.1	< 0.5	--
MW-104	11/18/08	--	--	--	--	0.13	0.69	< 0.5	< 0.005

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-104	04/08/09	--	--	--	--	<b>1.8</b>	1.6	< 0.1	0.00326
MW-104	11/17/09	< 0.0005	< 0.001	0.0016	< 0.001	0.21	0.17	< 0.1	0.00778
MW-104	04/27/10	--	--	--	--	<b>3.9</b>	2.5	0.27	0.00232
MW-104	10/26/10	--	--	--	--	0.23	0.23	< 0.1	--
MW-104	05/23/11	<0.0006	0.003	0.104	0.0018	<b>4.44</b>	0.448	<0.097	< 0.01
MW-104	10/25/11	--	--	--	--	<b>3.38</b>	0.413	< 0.20	< 0.01
MW-104	03/01/12	0.00079 J	0.0015	0.0467	0.0016 J	<b>3.69</b>	--	--	--
MW-104	06/13/12	--	--	--	--	<b>4.78</b>	0.423	< 0.10	< 0.01
MW-104	09/26/12	0.00066 J	0.0024	0.0509	0.0019 J	<b>4.54</b>	--	--	--
MW-104	11/29/12	0.00038 J	0.00037 J	0.0113	< 0.00046	0.592	0.315	< 0.098	--
MW-104	05/14/13	--	--	--	--	<b>5.07</b>	0.601	< 0.096	< 0.01
MW-104	11/07/13	--	--	--	--	<b>3.62</b>	0.666 J	< 0.095	< 0.01
MW-104	04/24/14	--	--	--	--	<b>5.68</b>	1.13	0.100 J	< 0.01
MW-104	11/05/14	--	--	--	--	0.441	0.527	0.221	< 0.01
MW-104	05/20/15	--	--	--	--	<b>2.82</b>	0.686	< 0.097	< 0.01
MW-104	12/09/15	--	--	--	--	< 0.100	0.408	< 0.398	< 0.00200
MW-104	05/05/16	--	--	--	--	<b>7.45</b>	2.85	0.144 J	0.00285
MW-104	12/14/16	--	--	--	--	<b>3.61</b>	2.22	0.155 J	0.000902 J
MW-104	06/14/17	--	--	--	--	<b>4.85</b>	2.9	0.159 J	0.00444
MW-104	12/07/17	< 0.0000993	< 0.000312	0.00411	< 0.000442	0.53	1.34	0.126 J	--
MW-104	06/12/18	--	--	--	--	<b>3.04</b>	1.86	< 0.122	0.00207 J
MW-104	12/19/18	--	--	--	--	0.552	2.25	0.967	0.00185 J
MW-104	05/15/19	--	--	--	--	<b>2.59</b>	1.64	0.316 J	0.00163 J
MW-104	12/10/19	--	--	--	--	0.956	0.713	< 0.122	< 0.000995
MW-104	06/30/20	--	--	--	--	<b>1.02</b>	0.914	0.117 J	0.00408
MW-104	12/14/20	<0.00020	<0.0002	0.00171	<0.0005	0.487	1.56	1.31	<0.004

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-104	06/15/21	--	--	--	--	0.948	0.753	<0.395	<0.0600
MW-104	12/15/21	--	--	--	--	0.300	0.456	0.175 J	<0.0600
MW-104	04/18/22	--	--	--	--	0.896	0.503	<0.393	<0.0600
MW-104	06/29/22	<0.000400	<0.00100	0.00106	<0.00300	0.648	0.381	<0.413	<0.0600
MW-104	12/14/22	--	--	--	--	0.153	2.57	1.01	<0.0600
MW-104	06/13/23	--	--	--	--	0.160	0.261	<0.393	0.00195 J
MW-104	12/19/23	--	--	--	--	0.466	1.68	1.14	0.00118 J
MW-105	01/15/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.4	< 0.5	0.00647
MW-105	04/21/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.65	< 0.5	0.00793
MW-105	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	2.2	< 0.5	0.0128
MW-105	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.8	< 0.5	0.0311
MW-105	01/24/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	3	< 0.5	0.00824
MW-105	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.3	0.78	0.00615
MW-105	07/12/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.7	< 0.5	< 0.005
MW-105	10/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.7	0.66	< 0.005
MW-105	01/25/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	3.95	< 0.962	0.00321
MW-105	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	--	--	< 0.005
MW-105	11/17/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.17	< 0.1	0.021
MW-105	10/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	--	--	--
MW-105	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.253	< 0.20	< 0.01
MW-105	11/26/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.291	< 0.098	< 0.01
MW-105	11/07/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.189	< 0.095	<b>0.0179</b>
MW-105	11/05/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.377	0.192	< 0.01
MW-105	12/08/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	0.406	0.408	<b>0.0152</b>
MW-105	12/14/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	0.85	0.377	<b>0.0116</b>

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-105	12/06/17	< 0.000930	< 0.000312	< 0.000198	< 0.000442	0.146 J	0.624	0.176 J	< 0.00200
MW-105	12/19/18	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.672	0.737	0.0107
MW-105	12/11/19	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.388	0.382 J	<b>0.00754</b>
MW-105	12/14/20	<0.00020	<0.0002	<0.00020	<0.0005	<0.250	1.81	0.972	0.00421
MW-105	12/15/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	0.523	0.670	<b>0.0324 J</b>
MW-105	12/14/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	1.25	0.679	<b>0.0143 J</b>
MW-105	12/18/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	1.47	1.29	<b>0.0336</b>
MW-111	01/15/04	0.047	< 0.001	< 0.001	< 0.001	< 0.25	0.98	< 0.5	--
MW-111	04/21/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.48	< 0.5	--
MW-111	07/27/04	0.015	< 0.001	< 0.001	0.0012	< 0.25	0.45	< 0.5	--
MW-111	10/19/04	0.036	0.0012	< 0.001	0.0035	0.35	0.45	< 0.5	--
MW-111	01/25/05	<b>0.079</b>	< 0.005	< 0.005	< 0.005	0.58 J	0.63	< 0.5	--
MW-111	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	0.096	< 0.25	< 0.5	--
MW-111	07/12/05	0.0094	< 0.001	< 0.001	< 0.001	0.23	0.26	< 0.5	--
MW-111	10/18/05	0.017	< 0.001	< 0.001	0.0013	0.26	0.27	< 0.5	--
MW-111	01/25/06	<b>0.0956</b>	0.00189	0.000796	0.0037	0.683	0.998	< 0.481	--
MW-111	11/19/08	0.014	< 0.005	< 0.005	< 0.005	0.23	0.37	< 0.5	--
MW-111	11/17/09	0.041	< 0.001	< 0.001	< 0.001	0.24	0.11	< 0.1	--
MW-111	10/26/10	0.0043	< 0.001	< 0.001	< 0.001	< 0.1	0.12	< 0.1	--
MW-111	05/23/11	0.00064	<.0005	<.0003	<.0007	<0.050	--	--	--
MW-111	10/25/11	0.00094	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.122	< 0.20	--
MW-111	11/29/12	0.0248	0.001	< 0.00020	0.0012 J	0.371	0.269	< 0.10	--
MW-111	11/07/13	<b>0.0845</b>	0.001	0.00023 J	0.00069 J	0.208	0.174	< 0.095	--
MW-111	11/05/14	<b>0.0574</b>	0.0012	0.00083 J	0.00047 J	0.232	0.167	0.118 J	--
MW-111	12/08/15	<b>0.386</b>	0.00649	0.00291	0.00333	0.944	0.335	<0.388	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-111	05/04/16	<b>0.0719</b>	0.00157	0.00158	0.00125 J	0.294	0.141	< 0.0598	--
MW-111	12/14/16	<b>0.248</b>	0.00375 J	0.00243 J	<0.00442	0.739 J	0.343	0.0883 J	--
MW-111	06/14/17	0.00575	0.000480 J	< 0.000198	0.000466 J	0.0836 J	0.142 J	< 0.123	--
MW-111	12/06/17	<b>0.202</b>	0.00632	0.00214	0.00507	0.792	0.597	< 0.132	--
MW-111	06/12/18	0.0273	0.00181	0.000334 J	0.00238 J	0.227	0.210 J	< 0.123	--
MW-111	12/19/18	0.0592	0.00574	0.0012	0.00475	0.766	1.27	0.462	--
MW-111	05/15/19	0.00484	< 0.000170	< 0.000190	< 0.000580	0.149	0.195 J	< 0.117	--
MW-111	12/11/19	0.000270 J	< 0.000312	< 0.000198	< 0.000422	< 0.0704	0.255 J	< 0.125	--
MW-111	06/29/20	0.00124	0.000637 J	< 0.000198	0.000648 J	0.0898 J	< 0.110	< 0.120	--
MW-111	12/14/20	0.00163	0.000945	<0.00020	0.00118	<0.250	0.346	0.348	--
MW-111	06/15/21	0.000251 J	0.000593 J	<0.00100	0.00100 J	0.120 J	<0.233	<0.389	--
MW-111	12/15/21	0.00337	0.00161	0.000247 J	0.00166 J	0.421	0.340	0.149 J	--
MW-111	04/18/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.229	<0.381	--
MW-111	06/27/22	0.00274	<0.00100	<0.00100	<0.00300	0.11 J	0.118 J	<0.402	--
MW-111	12/14/22	0.0538	0.00333	0.000527 J	0.00259 J	0.49	1.31	0.326 J	--
MW-111	06/13/23	0.00132	<0.00100	<0.00100	<0.00300	<0.15	<0.232	<0.387	--
MW-111	12/19/23	0.0424	0.00191	<0.00100	0.00187 J	0.129	0.616	0.445	--
MW-112A	01/15/04	0.02	< 0.001	< 0.001	< 0.001	0.25	0.63	< 0.5	--
MW-112A	04/21/04	< 0.005	< 0.005	< 0.005	< 0.005	< 1.2	0.56	< 0.75	--
MW-112A	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.51	< 0.5	--
MW-112A	10/19/04	0.0013	< 0.001	< 0.001	< 0.001	< 0.25	0.68	< 0.5	--
MW-112A	01/24/05	0.003	0.0012	< 0.001	0.001	0.44	0.65	< 0.5	--
MW-112A	04/20/05	< 0.001	< 0.001	< 0.001	< 0.001	0.42	1.4	< 0.5	--
MW-112A	07/12/05	0.0029	< 0.001	< 0.001	< 0.001	0.28	0.48	< 0.5	--
MW-112A	10/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-112A	01/26/06	0.00211	< 0.0005	< 0.0005	< 0.001	0.236	0.602	< 0.485	--
MW-112A	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	0.3	1.3	< 0.5	--
MW-112A	11/18/09	0.00075	< 0.001	< 0.001	< 0.001	0.2	0.23	< 0.1	--
MW-112A	10/29/10	0.036	< 0.001	< 0.001	0.0015	0.77	0.6	< 0.1	--
MW-112A	05/24/11	0.00041	<0.0005	<0.0003	<0.0007	0.129	--	--	--
MW-112A	10/25/11	0.0055	< 0.0010	< 0.0010	< 0.0020	0.292	0.2	< 0.20	--
MW-112A	11/25/12	0.0058	0.00022 J	0.00037 J	< 0.00046	0.197 J	0.282	< 0.10	--
MW-112A	11/04/13	0.0238	0.00068 J	0.0376	0.0012 J	0.909	1.72	< 0.19	--
MW-112A	11/06/14	0.0156	0.0014	0.028	0.0016 J	0.76	1.43	0.295	--
MW-112A	12/08/15	0.0297	0.00368	0.00219	0.00406	<b>1.31</b>	5.89	< 0.389	--
MW-112A	05/05/16	0.0248	0.00131	0.0992	0.00688	<b>1.75</b>	7.96	0.132 J	--
MW-112A	12/12/16	0.0426	0.00666	0.0109	0.0103	<b>2.27</b>	2.77	0.180 J	--
MW-112A	06/15/17	0.0348	0.0037	0.02	0.00464 J	<b>1.46</b>	7.34	0.210 J	--
MW-112A	12/07/17	0.00111	0.00169	< 0.000198	0.00196 J	0.811	1.71	0.151 J	--
MW-112A	06/13/18	0.0289	0.00297	0.134	0.00748	<b>2.39</b>	<b>12.6</b>	0.150 J	--
MW-112A	12/20/18	0.00166	0.00171	0.000248 J	0.00196 J	0.728	2.93	0.789	--
MW-112A	05/16/19	0.0111	0.00173	0.0231	0.00208 J	<b>2</b>	2.37	0.222 J	--
MW-112A	12/12/19	0.0149	0.00296	0.00154	0.00385	<b>1.91</b>	<b>12.2</b>	0.419 J	--
MW-112A	06/30/20	0.00354 J	0.000903 J	0.0215 J	0.00155 J	<b>1.05</b>	3.62	0.204 J	--
MW-112A	12/14/20	0.00442	0.00253	0.00186	0.00375	<b>1.77 J+</b>	2.30	1.02	--
MW-112A	06/15/21	0.00207	0.000659 J	0.00702	0.00189 J	0.976	2.58	0.161 J	--
MW-112A	12/15/21	0.00235	0.00147	0.000665 J	0.00213 J	<b>2.34</b>	1.10	0.215 J	--
MW-112A	04/18/22	0.00102	0.000759 J	0.0279	0.00269 J	<b>1.87</b>	1.39	<0.389	--
MW-112A	06/28/22	0.00139	0.000935 J	0.0106	0.00263 J	<b>1.26</b>	0.675	<0.407	--
MW-112A	12/13/22	0.00263	0.00159	0.000729 J	0.00225 J	<b>1.06</b>	2.67	0.686	--
MW-112A	06/13/23	0.00246	0.00125	0.0289	0.00317	<b>1.29</b>	2.56	<0.389	--



**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-112A	12/19/23	0.00244	0.00245	0.00129	0.00423	1.09	3.22	0.883	--
MW-113	06/27/22	0.156	0.00522	0.00405	0.00540	<15	0.933	0.156 J	--
MW-113	12/14/22	0.0650	0.00466	<0.00100	<0.00300	0.177	1.24	0.44	--
MW-113	06/13/23	0.396	0.0322	0.00572	0.00476	0.488	1.3	<0.389	--
MW-113	12/19/23	0.0513	0.0156	<0.00100	0.000649 J	0.153	0.868	0.481	--
MW-114	06/27/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.413	0.16 J	--
MW-114	12/14/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.339	0.523	--
MW-114	06/13/23	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.246	<0.411	--
MW-114	12/19/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	0.144	0.447	--
MW-115	06/27/22	<0.000400	<0.00100	<0.00100	<0.00300	0.372	4.93	0.24 J	--
MW-115	12/14/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	1.24	0.42 J	--
MW-115	06/13/23	<0.000400	<0.00100	<0.00100	<0.00300	0.328	2.77	<0.39	--
MW-115	12/19/23	<0.00100	<0.00100	<0.00100	<0.00200	0.334	2.46	0.872	--
MW-201	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-201	04/20/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-201	01/26/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.33	< 0.5	--
MW-201	04/20/05	< 0.001	< 0.001	< 0.001	0.0021	< 0.25	< 0.25	< 0.5	--
MW-201	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.12	0.7	< 0.5	--
MW-201	10/20/05	< 0.001	< 0.001	< 0.001	< 0.001	0.22	4.6	2.3	--
MW-201	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.050	0.342	< 0.476	--
MW-201	11/20/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	0.41	< 0.5	--
MW-201	11/19/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-201	10/27/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.18	< 0.1	--
MW-201	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.0899	1.46	0.181	--
MW-201	11/27/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.122	< 0.10	--
MW-201	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	0.0964 J	0.52	< 0.094	--
MW-201	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.173	0.195	--
MW-201	12/10/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	0.121	0.323	< 0.389	--
MW-201	12/13/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	0.203	0.174 J	--
MW-201	12/06/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.159 J	< 0.132	--
MW-201	12/19/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.281	0.383 J	--
MW-201	12/16/20	<0.00020 J	<0.0002 J	<0.00020 J	<0.0005 J	<0.250	0.315	<0.368	--
MW-201	12/12/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.556	0.163 J	--
MW-201	12/18/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	0.255	0.551	--
MW-202	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	<b>2.5</b>	<b>15</b>	< 10	--
MW-202	04/20/04	0.014	0.0062	0.074	0.021	<b>4.4</b>	<b>28</b>	< 10	--
MW-202	01/26/05	< 0.005	< 0.005	< 0.005	< 0.005	<b>7.7</b>	5.2	< 5	--
MW-202	04/20/05	0.016	0.0022	0.036	0.0237	<b>3.7</b>	6.2	< 5	--
MW-202	07/13/05	0.016	0.0033	0.067	0.0191	<b>3.5</b>	6.2	< 1	--
MW-202	10/20/05	0.019	0.0021	0.058	0.0056	<b>3.3</b>	5.9	< 2.5	--
MW-202	01/26/06	0.0224	0.00598	0.041	0.0191	<b>5.79</b>	<b>11.2</b>	< 4.76	--
MW-202	04/25/06	0.00749	0.00378	0.062	0.0124	<b>6.78</b>	8.7	<4.85	--
MW-202	10/12/06	0.00936	0.00339	0.0828	0.00616	<b>5.65</b>	<b>11.5</b>	0.834	--
MW-202	04/26/07	0.00825	0.0048	0.063	<0.015	<b>4.78</b>	8.24	1.05	--
MW-202	10/30/07	--	--	--	--	<b>4.55</b>	<b>10.9</b>	< 1	--
MW-202	05/20/08	--	--	--	--	<b>2.3</b>	1.8	< 2.5	--
MW-202	11/20/08	--	--	--	--	<b>5</b>	2.2	< 0.5	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-202	04/07/09	--	--	--	--	<b>4.8</b>	<b>14</b>	< 0.1	--
MW-202	11/19/09	--	--	--	--	<b>6.6</b>	<b>20</b>	< 0.5	--
MW-202	04/27/10	--	--	--	--	<b>3.3</b>	6.4	0.12	--
MW-202	10/27/10	0.0081	0.0031	0.066	0.0022	<b>6</b>	5.4	< 0.1	--
MW-202	05/23/11	--	--	--	--	<b>3.5</b>	1.84	< 0.097	--
MW-202	10/26/11	--	--	--	--	<b>4.3</b>	1.02	< 0.21	--
MW-202	03/02/12	0.0053	0.0019	0.0107	0.0013 J	<b>3.87</b>	--	--	--
MW-202	06/13/12	--	--	--	--	<b>3.31</b>	1.54	< 0.10	--
MW-202	09/26/12	0.0058	0.0029 J	0.0378	< 0.0018	<b>4.07</b>	--	--	--
MW-202	11/27/12	0.0113	0.0034	0.0274	0.0022	<b>6.07</b>	2.67	< 0.30	--
MW-202	05/15/13	--	--	--	--	<b>3.83</b>	1.62	< 0.096	--
MW-202	11/06/13	< 0.00020	0.0027	0.0335	0.0012 J	<b>4.68</b>	1.29	< 0.095	--
MW-202	04/22/14	--	--	--	--	<b>3.22</b>	2.18	< 0.28	--
MW-202	11/06/14	0.0083	0.0026	0.0154	0.0011	<b>5.1</b>	2.45	0.282 J	--
MW-202	05/19/15	--	--	--	--	<b>2.96</b>	0.842	< 0.096	--
MW-202	12/10/15	0.00419	0.00124	0.00277	< 0.0030	<b>5.67</b>	<b>27.2</b>	0.565	--
MW-202	05/03/16	--	--	--	--	<b>2.89</b>	2.29	0.111 J	--
MW-202	12/13/16	0.00606	0.0028	0.00901	0.00110 J	<b>2.92</b>	4.04	0.201	--
MW-202	06/14/17	--	--	--	--	<b>2.58</b>	3.68	0.134 J	--
MW-202	12/06/17	0.00102	< 0.000312	0.00144	0.00129 J	<b>3.02</b>	<b>25.8</b>	0.402 J	--
MW-202	06/14/18	--	--	--	--	<b>1.49</b>	4.1	0.166 J	--
MW-202	12/19/18	0.00178	0.000839 J	0.00444	0.00187 J	<b>4.74</b>	<b>48.3</b>	1.69	--
MW-202	05/16/19	--	--	--	--	<b>3.04</b>	<b>11.8</b>	0.718	--
MW-202	12/10/19	0.00179	0.00159	0.0128	0.00202 J	<b>4.29</b>	<b>24</b>	0.534	--
MW-202	06/29/20	--	--	--	--	<b>1.78</b>	<b>13.1</b>	0.412	--
MW-202	12/16/20	0.00132 J	0.000409 J	0.00236 J	<0.0005 J	<b>3.47</b>	<b>36.60</b>	0.641	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-202	06/14/21	--	--	--	--	<b>1.32</b>	4.52	0.327 J	--
MW-202	12/16/21	0.00275	0.000751 J	0.00121	0.00169 J	<b>3.71</b>	<b>17.0</b>	0.706	--
MW-202	06/29/22	--	--	--	--	<b>3.33</b>	2.84	1.09	--
MW-202	12/12/22	0.00314	0.00111	0.00193	0.00155 J	<b>2.98</b>	<b>22.1</b>	0.505	--
MW-202	06/12/23	--	--	--	--	0.947	2.18	0.365 J	--
MW-202	12/18/23	0.00276	0.000818 J	0.000989 J	0.00672 J	<b>1.05</b>	<b>14.5</b>	0.99	--
MW-203	01/13/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-203	04/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.26	< 0.5	--
MW-203	07/27/04	0.013	< 0.001	0.0069	< 0.001	<b>2.6</b>	0.45	< 0.5	--
MW-203	10/19/04	0.013	< 0.001	0.015	0.0025	<b>1.6</b>	< 0.25	< 0.5	--
MW-203	10/19/04	0.017	< 0.001	0.012	0.0018	<b>1.4</b>	< 0.25	< 0.5	--
MW-203	01/25/05	0.0063	< 0.001	0.011	0.0013	<b>1.6</b>	0.52	0.68	--
MW-203	04/19/05	0.0068	< 0.001	0.0018	< 0.001	0.63	< 0.25	0.55	--
MW-203	07/13/05	0.01	< 0.001	0.0077	< 0.001	0.89	< 0.25	< 0.5	--
MW-203	10/20/05	0.023	0.002	0.021	0.0026	<b>4.2</b>	2.1	1.1	--
MW-203	01/23/06	0.00186	< 0.0005	0.00182	0.00125	0.76	0.565	< 0.943	--
MW-203	04/26/16	0.00694	0.00076	0.00079	<0.003	<b>1.38</b>	0.66	0.625	--
MW-203	10/13/16	0.023	0.00553	0.00448	0.00652	<b>6.22</b>	7.39	1.34	--
MW-203	04/27/17	0.00502	<0.0005	0.00053	<0.003	<b>1.24</b>	0.507	0.515	--
MW-203	05/20/08	--	--	--	--	0.6	0.32	< 0.5	--
MW-203	11/18/08	--	--	--	--	0.17	< 0.25	< 0.5	--
MW-203	04/08/09	--	--	--	--	< 0.1	0.12	0.11	--
MW-203	11/17/09	--	--	--	--	< 0.1	< 0.1	< 0.1	--
MW-203	04/26/10	--	--	--	--	0.16	0.18	< 0.1	--
MW-203	10/25/10	--	--	--	--	0.92	0.36	< 0.1	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-203	05/23/11	--	--	--	--	0.333	0.0854	0.314	--
MW-203	10/26/11	--	--	--	--	<b>1.38</b>	0.262	0.118	--
MW-203	06/13/12	--	--	--	--	0.459	0.134	0.332	--
MW-203	11/27/12	--	--	--	--	<b>1.05</b>	0.0943 J	< 0.10	--
MW-203	05/15/13	--	--	--	--	0.144 J	< 0.048	< 0.096	--
MW-203	11/06/13	--	--	--	--	0.68	< 0.047	< 0.094	--
MW-203	04/22/14	--	--	--	--	0.164	0.210 J	0.732 J	--
MW-203	11/06/14	--	--	--	--	0.102	0.0933 J	0.168 J	--
MW-203	05/19/15	--	--	--	--	0.285	0.166	0.170 J	--
MW-203	12/09/15	--	--	--	--	< 0.100	0.319	< 0.394	--
MW-203	05/04/16	--	--	--	--	0.575	0.161	0.133 J	--
MW-203	5/5/2016 DUF	--	--	--	--	0.534	0.151	0.134 J	--
MW-203	12/13/16	--	--	--	--	0.203	0.234	0.125 J	--
MW-203	06/14/17	--	--	--	--	0.0898 J	0.212 J	0.172 J	--
MW-203	12/08/17	--	--	--	--	<b>1.56</b>	0.323	< 0.122	--
MW-203	06/14/18	--	--	--	--	0.156	0.152 J	0.167 J	--
MW-203	12/20/18	--	--	--	--	0.107 J	0.806	0.944	--
MW-203	05/16/19	--	--	--	--	0.471	0.185 J	0.159 J	--
MW-203	12/10/19	--	--	--	--	<b>1.74</b>	0.495	0.189 J	--
MW-203	06/29/20	--	--	--	--	0.256	0.209 J	0.181 J	--
MW-203	12/15/20	--	--	--	--	0.282	<0.229	0.930	--
MW-203	06/15/21	--	--	--	--	<0.150	<0.246	0.267 J	--
MW-203	12/16/21	--	--	--	--	0.129 J	0.138 J	0.273 J	--
MW-203	06/28/22	--	--	--	--	0.0343 J	0.645	1.56	--
MW-203	12/14/22	--	--	--	--	0.227	0.993	0.35 J	--
MW-203	06/12/23	--	--	--	--	0.944	2.91	0.383	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-203	12/20/23	--	--	--	--	<0.1	0.0750 J	0.226 J	--
MW-204	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.6	< 0.5	--
MW-204	01/26/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	6.2	< 1	--
MW-204	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.5	0.79	--
MW-204	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.076	1.1	0.59	--
MW-204	10/19/05	< 0.001	< 0.001	< 0.001	< 0.001	0.082	0.45	< 0.5	--
MW-204	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	5.53	< 0.952	--
MW-204	04/25/06	<0.0005	<0.0005	<0.0005	<0.003	0.0755	2.51	1.11	--
MW-204	10/12/06	<0.0005	<0.0005	<0.0005	<0.003	0.0634	0.896	0.519	--
MW-204	04/26/07	<0.0005	<0.0005	<0.0005	<0.003	0.0855	1.81	0.749	--
MW-204	10/30/07	--	--	--	--	< 0.05	--	--	--
MW-204	11/20/08	< 0.005	< 0.005	< 0.005	< 0.005	0.13	1	< 0.5	--
MW-204	11/19/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	3.5	0.16	--
MW-204	10/27/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.29	< 0.1	--
MW-204	10/27/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.066	0.599	< 0.20	--
MW-204	11/27/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.975	< 0.10	--
MW-204	11/06/13	0.00057 J	< 0.00020	< 0.00020	< 0.00046	0.0762 J	0.28	0.0976 J	--
MW-204	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.505	0.321	--
MW-204	12/10/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	0.579	< 0.388	--
MW-204	12/13/16	0.000187 J	< 0.000312	0.000555 J	< 0.000442	< 0.0178	0.507	0.215	--
MW-204	12/06/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.786	0.232 J	--
MW-204	12/19/18	0.000204 J	< 0.000312	< 0.000198	< 0.000442	0.138 J	0.599	0.729	--
MW-204	12/10/19	0.00105	< 0.000312	< 0.000198	< 0.000442	<0.0704	0.238 J	0.128 J	--
MW-204	12/16/20	0.0003 J	0.000245 J	<0.00020 J	<0.0005 J	<0.250	0.303	0.405	--
MW-204	12/16/21	0.000342 J	<0.00100	<0.00100	<0.00300	<0.150	0.379	0.413	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-204	12/12/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.351	0.458	--
MW-204	12/18/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	0.364	0.601	--
MW-206A	01/22/04	< 0.001	< 0.001	< 0.001	0.004	< 0.25	< 0.25	< 0.5	--
MW-206A	04/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-206A	07/27/04	< 0.005	< 0.005	< 0.005	< 0.005	< 1.2	1.8	0.78	--
MW-206A	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	2	1.1	--
MW-206A	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	2.1	2.2	--
MW-206A	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.3	1.5	--
MW-206A	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.2	1.9	--
MW-206A	10/20/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	2.1	7.9	--
MW-206A	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	4.41	2.54	--
MW-206A	11/20/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	2.1	1.7	--
MW-206A	11/19/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.1	< 0.1	--
MW-206A	10/25/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	0.18	--
MW-206A	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.141	< 0.20	--
MW-206A	11/27/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.116	0.111 J	--
MW-206A	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.047	< 0.094	--
MW-206A	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.236	0.392	--
MW-206A	12/08/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	< 0.242	< 0.403	--
MW-206A	12/12/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	0.18	0.135 J	--
MW-206A	12/08/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.258	0.239 J	--
MW-206A	12/20/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	2.25	3.96	--
MW-206A	12/10/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.591	0.396	--
MW-206A	12/16/20	<0.00020	<0.0002	<0.00020	<0.0005	<0.250	<0.236	<0.394	--
MW-206A	12/16/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	0.150 J	0.215 J	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-206A	12/12/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.264	0.575	--
MW-206A	12/18/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	0.246	0.783	--
MW-213	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-213	04/20/04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	< 0.25	< 0.5	--
MW-213	07/28/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-213	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-213	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-213	04/19/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	--
MW-213	07/12/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	--
MW-213	10/20/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	0.34	< 0.5	--
MW-213	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	0.653	< 0.495	--
MW-213	10/30/07	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--	--
MW-213	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	< 0.25	< 0.5	--
MW-213	04/07/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
MW-213	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
MW-213	04/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
MW-213	10/28/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
MW-213	05/24/11	<0.0003	<0.0005	<0.0003	<0.0007	< 0.050	< 0.049	< 0.098	--
MW-213	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	< 0.11	< 0.21	--
MW-213	06/12/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	< 0.10	--
MW-213	11/29/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	< 0.10	--
MW-213	05/15/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.096	--
MW-213	11/05/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0625 J	< 0.095	--
MW-213	04/23/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0586	< 0.094	--
MW-213	11/05/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0782 J	< 0.094	--



**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-213	05/19/15	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.102	< 0.10	--
MW-213	12/09/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	< 0.235	< 0.392	--
MW-213	05/03/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000162	< 0.100	0.0415 J	< 0.0593	--
MW-213	12/13/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.100	0.115 J	< 0.0622	--
MW-213	06/14/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.128 J	< 0.123	--
MW-213	12/07/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.158 J	< 0.121	--
MW-213	06/12/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.111	< 0.121	--
MW-213	12/19/18	< 0.0000930	0.000320 J	< 0.000198	< 0.000442	0.0717 J	0.434	0.411	--
MW-213	05/16/19	< 0.000200	0.000349 J	< 0.000190	< 0.000580	0.0912	0.153 J	< 0.123	--
MW-213	12/11/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.147 J	< 0.117	--
MW-213	06/29/20	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-213	12/16/20	< 0.00020 J	< 0.0002 J	< 0.00020 J	< 0.0005 J	< 0.250	< 0.233	< 0.388	--
MW-213	06/14/21	< 0.000400	< 0.00100	< 0.00100	< 0.00300	< 0.150	< 0.235	< 0.392	--
MW-213	12/16/21	< 0.000400	< 0.00100	< 0.00100	< 0.00300	< 0.150	0.158 J	0.199 J	--
MW-213	06/29/22	< 0.000400	< 0.00100	< 0.00100	< 0.00300	< 0.15	0.163 J	< 0.475	--
MW-213	12/12/22	< 0.000400	< 0.00100	< 0.00100	< 0.00300	< 0.15	0.27	0.268 J	--
MW-213	06/12/23	< 0.000400	< 0.00100	< 0.00100	< 0.00300	0.0426 J	< 0.224	< 0.373	--
MW-213	12/18/23	< 0.00100	< 0.00100	< 0.00100	< 0.00200	< 0.1	0.271	0.396	--
MW-214	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-214	04/20/04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	< 0.25	< 0.5	--
MW-214	07/28/04	< 0.005	< 0.005	< 0.005	< 0.005	< 1.2	< 0.25	< 0.5	--
MW-214	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
MW-214	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.36	< 0.5	--
MW-214	04/19/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	0.3	< 0.5	--
MW-214	07/12/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	0.29	< 0.5	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-214	10/20/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	0.33	< 0.5	--
MW-214	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	0.91	< 0.476	--
MW-214	10/30/07	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--	--
MW-214	05/05/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	0.91	< 0.5	--
MW-214	07/10/08	--	--	--	--	--	< 0.5	< 1	--
MW-214	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	0.8	< 0.5	--
MW-214	04/07/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.17	< 0.1	--
MW-214	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.11	< 0.1	--
MW-214	04/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.19	< 0.1	--
MW-214	10/28/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
MW-214	05/24/11	<0.0003	<0.0005	<0.0003	<0.0007	<0.050	0.127	<0.097	--
MW-214	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.126	< 0.21	--
MW-214	06/12/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	0.135 J	--
MW-214	11/29/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	--
MW-214	05/15/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0857 J	< 0.096	--
MW-214	11/05/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0552 J	< 0.094	--
MW-214	04/23/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.118	< 0.094	--
MW-214	11/05/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.168	0.103	--
MW-214	05/19/15	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.106	< 0.094	--
MW-214	12/09/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	0.248	< 0.392	--
MW-214	05/03/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000162	< 0.100	0.123	< 0.0594	--
MW-214	12/14/16	< 0.0000930	< 0.000312	0.000275 J	< 0.000442	0.0226 J	0.13	< 0.0600	--
MW-214	06/14/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.214 J	< 0.121	--
MW-214	12/07/17	< 0.0000930 J	< 0.000312 J	< 0.000198 J	< 0.000442 J	< 0.0704 J	0.305	< 0.128	--
MW-214	06/12/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.170 J	< 0.120	--
MW-214	12/19/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.547	0.415	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-214	05/16/19	< 0.000200	0.000303 J	< 0.000190	< 0.000580	< 0.0550	0.213 J	< 0.122	--
MW-214	12/11/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.239 J	< 0.121	--
MW-214	06/29/20	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-214	12/16/20	<0.00020 J	<0.0002 J	<0.00020 J	<0.0005 J	<0.250	<0.218	<0.363	--
MW-214	06/14/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	0.122 J	<0.395	--
MW-214	12/16/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	0.172 J	0.129 J	--
MW-214	06/29/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.181 J	0.135 J	--
MW-214	12/12/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.367	0.275 J	--
MW-214	06/12/23	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.233	<0.389	--
MW-214	12/18/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	0.293	0.398	--
MW-301	03/02/12	<b>0.24</b>	0.0138	0.0099	0.0212	<b>3.37</b>	--	--	--
MW-301	09/25/12	<b>0.333</b>	0.0131	0.0186	0.0192	<b>4.02</b>	--	--	--
MW-301	11/28/12	<b>0.241</b>	0.0099	0.0125	0.0106	<b>2.76</b>	--	--	--
MW-301	02/21/13	<b>0.659</b>	0.0175	0.0264	0.0173 J	<b>3.98</b>	0.315	< 0.10	--
MW-301	05/15/13	<b>0.357</b>	0.0122	0.0231	0.0145	<b>3.63</b>	--	--	--
MW-301	11/04/13	<b>0.16</b>	0.0097	0.0164	0.0109	<b>2.29</b>	--	--	--
MW-301	04/23/14	<b>0.252</b>	0.0072	0.0135	0.0075	<b>3.57</b>	--	--	--
MW-301	07/24/14	<b>0.314</b>	0.008	0.0143	0.0096	<b>3.7</b>	0.361	< 0.094	--
MW-301	11/03/14	<b>0.108</b>	0.0043 J	0.0046 J	0.0051 J	<b>1.76</b>	--	--	--
MW-301	03/09/15	<b>0.222</b>	0.0067	0.0065	0.0062 J	<b>2.27</b>	--	--	--
MW-301	05/21/15	<b>0.194</b>	0.0069	0.01	0.0060 J	<b>2.24</b>	--	--	--
MW-301	07/28/15	<b>0.116</b>	0.0036	0.0037	0.0019 J	<b>2.09</b>	--	--	--
MW-301	12/10/15	0.0437	0.00351	0.00104	0.00551	<b>1.34</b>	--	--	--
MW-301	02/22/16	<b>0.28</b>	0.00881	0.0104	0.00746	<b>3.65</b>	--	--	--
MW-301	05/02/16	<b>0.17</b>	0.00834	0.0138	0.00663	<b>3.32</b>	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-301	08/29/16	0.0647	0.00551	0.0103	0.0064	<b>2.9</b>	--	--	--
MW-301	12/12/16	<b>0.251</b>	0.00745	0.0173	0.00633	<b>3</b>	--	--	--
MW-301	03/13/17	<b>0.206</b>	0.00771	0.0117	0.00585	<b>3.02</b>	--	--	--
MW-301	06/13/17	<b>0.111</b>	0.00659 J	0.0128	0.00713 J	<b>2.5</b>	--	--	--
MW-301	08/22/17	0.0652	0.00472	0.0108	0.00366	<b>1.93</b>	--	--	--
MW-301	12/05/17	0.0222	0.00228	0.00217	0.00272 J	<b>1.67</b>	--	--	--
MW-301	03/06/18	<b>0.207</b>	0.00303	0.00542	0.00248 J	<b>1.32</b>	--	--	--
MW-301	06/13/18	0.0132	0.00108	0.00239	0.000821 J	<b>1.27</b>	--	--	--
MW-301	09/06/18	0.00368	0.000585 J	0.000352 J	0.000489 J	<b>1.45</b>	--	--	--
MW-301	12/20/18	0.0175	0.000688 J	0.00259	0.000536 J	0.445	--	--	--
MW-301	03/19/19	<b>0.0999</b>	0.00182	0.00923	0.00182 J	<b>1.34</b>	--	--	--
MW-301	05/16/19	0.00684	< 0.000170	0.000357 J	< 0.000580	0.483	--	--	--
MW-301	09/19/19	0.0000937 J	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-301	12/11/19	0.000093	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-301	04/28/20	0.0399	0.00115	0.00676	0.000676 J	0.368	--	--	--
MW-301	06/29/20	0.0163	< 0.000312	0.00205	< 0.000442	0.114 J	--	--	--
MW-301	09/21/20	0.00732	<0.001	0.00127	0.000442 J	0.167	--	--	--
MW-301	12/15/20	0.0416	0.00146	0.0109	0.00117	0.441	--	--	--
MW-301	04/13/21	0.0238	0.00105	0.00767	0.000879	<b>1.69</b>	--	--	--
MW-301	06/15/21	0.0168	0.00103	0.00822	0.00101 J	0.439	--	--	--
MW-301	09/22/21	0.00333	<0.00100	0.00200	0.000535 J	0.226	--	--	--
MW-301	12/16/21	0.0185	0.000723 J	0.00439	0.000768 J	0.471	--	--	--
MW-301	03/29/22	0.0308	0.000663 J	0.00248	0.00113 J	0.572	--	--	--
MW-301	06/28/22	0.0215	0.000854 J	0.00316	0.000735 J	0.478	--	--	--
MW-301	09/21/22	0.00932	0.000952 J	0.00172	0.000953 J	0.245	--	--	--
MW-301	12/13/22	0.0242	0.00151	0.000703 J	0.00148 J	--	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-301	03/28/23	<b>0.0782</b>	0.00502	0.0129	0.00396	0.952	--	--	--
MW-301	06/14/23	<b>0.11</b>	0.00408	0.00609	0.00315	0.794	--	--	--
MW-301	09/11/23	0.0704	0.00526	0.000846 J	0.00300	0.59	--	--	--
MW-301	12/20/23	0.0289	0.00480	0.00380	0.00384	0.804	--	--	--
MW-302	03/01/12	<b>0.831</b>	0.0275	0.213	0.248	<b>5.33</b>	--	--	--
MW-302	06/12/12	<b>0.574</b>	0.0156	0.0183	0.0244	<b>4.18</b>	--	--	--
MW-302	06/28/12	<b>1.23</b>	0.0437	0.403	0.289	<b>5.65</b>	--	--	--
MW-302	09/25/12	<b>0.657</b>	0.0247	0.18	0.106	<b>4.07</b>	--	--	--
MW-302	11/25/12	<b>0.449</b>	0.0152	0.191	0.177	<b>4.58</b>	--	--	--
MW-302	02/22/13	<b>0.393</b>	0.0149	0.124	0.116	<b>4.15</b>	0.435	< 0.10	--
MW-302	05/14/13	<b>0.873</b>	0.0231	0.236	0.145	<b>4.19</b>	--	--	--
MW-302	09/05/13	<b>0.783</b>	0.0189	0.162	0.0746	<b>3.7</b>	--	--	--
MW-302	11/05/13	<b>0.607</b>	0.0112	0.0977	0.0529	<b>2.69</b>	--	--	--
MW-302	01/16/14	<b>0.404</b>	0.0161	0.0843	0.0504	<b>3.54</b>	--	--	--
MW-302	04/23/14	<b>0.98</b>	0.0269	0.276	0.232	<b>5.86</b>	--	--	--
MW-302	07/24/14	<b>0.656</b>	0.0206	0.178	0.131	<b>4.66</b>	0.363	< 0.094	--
MW-302	11/03/14	<b>0.506</b>	0.0159	0.221	0.176	<b>4.06</b>	0.361	< 0.094	--
MW-302	05/21/15	<b>0.454</b>	0.0161	0.174	0.15	<b>3.44</b>	--	--	< 0.010
MW-302	12/10/15	<b>0.372</b>	0.00853	0.0139	0.0176	<b>2.16</b>	1	< 0.391	--
MW-302	05/04/16	<b>0.595</b>	0.0145	0.27	0.153	<b>3.75</b>	--	--	--
MW-302	12/15/16	<b>0.759</b>	0.0263	0.453	0.117	<b>5.08</b>	1.73	< 0.0630	--
MW-302	06/13/17	<b>0.487</b>	0.0146 J	0.215	0.0524 J	<b>1.98</b>	--	--	--
MW-302	08/23/17	0.047	0.00305	0.00823	0.00647	0.709	--	--	--
MW-302	12/05/17	0.0414	0.00196	0.00271	0.003	<b>1.79</b>	9.96	0.209 J	--
MW-302	03/07/18	0.0707	0.00314	0.043	0.00763	<b>1.61</b>	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-302	06/13/18	0.0591	0.00363	0.0481	0.0227	1	--	--	--
MW-302	09/06/18	0.0312	0.00138	0.0242	0.00479	0.526	--	--	--
MW-302	12/20/18	0.00121	< 0.000312	0.00431	0.000625 J	0.232	2.5	0.386	--
MW-302	03/19/19	0.0133	0.000823 J	0.0122	0.00433	<b>1.84 J</b>	--	--	--
MW-302	05/16/19	0.0035	0.000363 J	0.00678	0.00177 J	0.578	--	--	--
MW-302	09/19/19	0.0174	0.00115	0.0217	0.00428	0.662	--	--	--
MW-302	12/11/19	0.0132	0.000741 J	0.00976	0.00222 J	0.297	3.69	0.179 J	--
MW-302	04/28/20	0.027	0.00181	0.0397	0.00698	<b>1.23</b>	--	--	--
MW-302	06/30/20	0.0219	0.00152	0.0368	0.00590 J	<b>1.23</b>	--	--	--
MW-302	09/21/20	0.00148	<0.001	0.00888	0.00108 J	0.205	--	--	--
MW-302	12/15/20	0.0404 J	0.00282 J-	0.0684 J	0.0117 J-	<b>1.84</b>	<b>10.80</b>	0.529	--
MW-302	04/13/21	0.00616 J-	0.000526 J	0.0178 J-	0.00419 J-	<b>1.85</b>	--	--	--
MW-302	06/15/21	0.0203	0.00193	0.0614	0.0101	0.886	--	--	--
MW-302	09/23/21	0.0184	0.00373	0.0585	0.00883	0.637	--	--	--
MW-302	12/16/21	0.00644	0.000755 J	0.0211	0.00374	<b>1.19</b>	6.39	0.622	--
MW-302	03/28/22	0.00516	0.000712 J	0.0122	0.00292 J	<b>1.18</b>	--	--	--
MW-302	06/28/22	0.00282	0.000505 J	0.0214	0.00456	0.414	--	--	--
MW-302	09/21/22	0.00527	0.00190	0.0296	0.00693	0.54	--	--	--
MW-302	12/13/22	<0.000400	<0.00100	<0.00100	<0.00300	0.198	0.387	0.145 J	--
MW-302	03/27/23	0.00557	<0.00100	<0.00100	0.00369	0.508	--	--	--
MW-302	06/13/23	0.0298	0.00162	0.00816	0.00170 J	0.554	--	--	--
MW-302	09/12/23	0.0373	0.00480	<0.00100	0.00694	<b>1.26</b>	--	--	--
MW-302	12/20/23	0.00329	0.000795 J	<0.00100	0.00154 J	0.68	2.9	0.878	--
MW-303	03/02/12	<b>3.13</b>	0.0759	0.76	0.232	<b>12.3</b>	--	--	--
MW-303	06/13/12	<b>2.9</b>	0.0957	0.884	0.268	<b>12.5</b>	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-303	09/25/12	<b>1.83</b>	0.0635	0.474	0.146	<b>9.14</b>	--	--	--
MW-303	11/28/12	<b>1.94</b>	0.0873	1.18	0.319	<b>12.6</b>	--	--	--
MW-303	02/21/13	<b>2.34</b>	0.0955	1.29	0.338	<b>12.8</b>	0.674	< 0.10	--
MW-303	05/15/13	<b>1.9</b>	0.0864	0.983	0.272	<b>10.6</b>	--	--	--
MW-303	11/04/13	<b>0.884</b>	0.0278	0.219	0.0544	<b>6.11</b>	--	--	--
MW-303	04/23/14	<b>1.58</b>	0.071	1.114	0.224	<b>11.8</b>	--	--	--
MW-303	07/24/14	<b>0.808</b>	0.0471	0.653	0.161	<b>9.76</b>	0.622	< 0.094	--
MW-303	11/04/14	<b>1.42</b>	0.0618	0.924	0.18	<b>11.5</b>	1	1.15	--
MW-303	05/20/15	<b>0.669</b>	0.0432	0.713	0.157	<b>7.9</b>	--	--	--
MW-303	12/08/15	<b>1.19</b>	0.071	1.33	< 0.300	<b>7.6</b>	2.45	< 0.398	--
MW-303	05/04/16	<b>0.704</b>	0.0625	1.82	0.287	<b>8.6</b>	--	--	--
MW-303	12/12/16	<b>0.831</b>	0.0482	1.45	0.176	<b>8.31</b>	2.52	< 0.0602	--
MW-303	06/13/17	<b>0.353</b>	0.0408	1.54	0.19	<b>5.69</b>	--	--	--
MW-303	12/05/17	<b>0.104</b>	0.0116 J	0.3	0.0400 J	<b>4.29</b>	7.49	< 0.125	--
MW-303	03/06/18	0.039	0.0154	0.147 J	0.0352	<b>2.5</b>	--	--	--
MW-303	06/13/18	<b>0.157</b>	0.0151 J	0.39	0.0317 J	<b>2.94 J</b>	--	--	--
MW-303	09/06/18	0.000729	< 0.000312	0.00117	< 0.000442	< 0.0704	--	--	--
MW-303	12/20/18	0.000581	0.000342 J	0.00136	0.00088 J	0.382	8.25	0.505	--
MW-303	03/19/19	0.0346	0.00611	0.194	0.0111	<b>2.48</b>	--	--	--
MW-303	05/16/19	0.0173	0.0017	0.0869	0.00541	<b>1.33</b>	--	--	--
MW-303	09/19/19	0.00776	0.00207	0.0717	0.00326	0.785	--	--	--
MW-303	12/11/19	0.00114	0.000373 J	0.0404	0.00134 J	0.371	2.73	0.281 J	--
MW-303	04/28/20	0.00258	< 0.000312	0.00511	0.00705	<b>2.46</b>	--	--	--
MW-303	06/30/20	0.0152	0.000897 J	0.0386	0.00696	<b>2.64</b>	--	--	--
MW-303	09/22/20	0.02	0.00254	0.153	0.00623	<b>1.86</b>	--	--	--
MW-303	12/15/20	0.0150 J-	0.00412 J-	0.119 J-	0.0146 J-	<b>3.34</b>	5.28	<0.389	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-303	04/13/21	0.0135 J-	0.00170 J-	0.0371 J-	0.0104 J-	<b>4.07</b>	--	--	--
MW-303	06/15/21	0.0258	0.00343	0.133	0.00867	<b>1.94</b>	--	--	--
MW-303	09/22/21	<b>0.252</b>	0.00724	0.344	0.0194	<b>2.29</b>	--	--	--
MW-303	12/15/21	0.0248	0.000620 J	0.0142	0.00435	<b>2.39</b>	6.51	0.385 J	--
MW-303	03/28/22	0.0270	0.00196	0.0638	0.00892	<b>2.63</b>	--	--	--
MW-303	06/28/22	<b>0.107</b>	0.00303	0.0272	0.00922	<b>2.25</b>	--	--	--
MW-303	09/21/22	<b>0.216</b>	0.00710	0.0558	0.0121	<b>1.99</b>	--	--	--
MW-303	12/13/22	<b>0.139</b>	0.00483	0.0580	0.00982	<b>1.18</b>	3.73	0.321 J	--
MW-303	03/28/23	0.0282	0.00281	0.14	0.0122	<b>1.14</b>	--	--	--
MW-303	06/14/23	<b>0.0999</b>	0.00403	0.0399	0.00813	<b>1.26</b>	--	--	--
MW-303	09/11/23	<b>0.366</b>	0.0119	0.0674	0.0179	<b>2.22</b>	--	--	--
MW-303	12/20/23	0.0271	0.00114	0.0133	0.00344	0.924	3.47	0.6	--
MW-304	03/01/12	<b>0.686</b>	0.0351	0.214	0.264	<b>5.64</b>	--	--	--
MW-304	06/12/12	<b>1.04</b>	0.0408	0.27	0.218	<b>5.98</b>	--	--	--
MW-304	09/25/12	<b>0.63</b>	0.024	0.198	0.105	<b>3.93</b>	--	--	--
MW-304	11/28/12	<b>0.411</b>	0.0244	0.306	0.252	<b>5.89</b>	--	--	--
MW-304	02/22/13	<b>0.507</b>	0.0225	0.208	0.149	<b>5.56</b>	0.762	0.186 J	--
MW-304	05/14/13	<b>0.645</b>	0.0283	0.209	0.144	<b>4.73</b>	--	--	--
MW-304	09/05/13	<b>0.862</b>	0.0188	0.0849	0.0616	<b>3.09</b>	--	--	--
MW-304	11/05/13	<b>0.695</b>	0.0163	0.0629	0.054	<b>2.67</b>	--	--	--
MW-304	01/16/14	<b>0.79</b>	0.0194	0.0472	0.0571	<b>4.89</b>	--	--	--
MW-304	04/23/14	<b>0.778</b>	0.0248	0.185	0.147	<b>5.93</b>	--	--	--
MW-304	07/24/14	<b>0.437</b>	0.0173	0.109	0.0666	<b>3.59</b>	0.557	< 0.094	--
MW-304	11/03/14	<b>1.11</b>	0.0421	0.48	0.214	<b>3.32</b>	0.366	< 0.094	--
MW-304	05/20/15	<b>0.486</b>	0.0136	0.115	0.0373	<b>3.3</b>	--	--	< 0.010



**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-304	12/10/15	<b>0.775</b>	0.0312	0.336	0.114	<b>4.37</b>	1.55	< 0.387	--
MW-304	05/04/16	<b>0.527</b>	0.0187	0.355	0.0559	<b>4.05</b>	--	--	--
MW-304	12/15/16	<b>0.749</b>	0.0271	0.586	0.0664	<b>5.75</b>	1.78	0.0686 J	--
MW-304	06/13/17	<b>0.209</b>	0.0113	0.413	0.0246 J	<b>2.2</b>	--	--	--
MW-304	08/23/17	0.021	0.00437	0.0124	0.00494	0.566	--	--	--
MW-304	12/05/17	0.000217 J	< 0.000312	< 0.000494 J	0.00118 J	0.291	3.2	< 0.122	--
MW-304	03/06/18	0.000493	< 0.000312	0.000337 J	< 0.000442	0.562	--	--	--
MW-304	06/13/18	0.00107	< 0.000312	0.00561	0.00104 J	0.425	--	--	--
MW-304	09/06/18	0.000535	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-304	12/20/18	< 0.000093	< 0.000312	< 0.000198	< 0.000442	< 0.0704	1.5	0.219 J	--
MW-304	03/19/19	0.000448	< 0.000312	0.000514 J	< 0.000442	0.105 J	--	--	--
MW-304	05/16/19	< 0.000200	< 0.000170	< 0.000190	< 0.000580	< 0.055	--	--	--
MW-304	09/19/19	0.000242 J	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-304	12/11/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.188 J	0.120 U	--
MW-304	04/28/20	0.00171	< 0.000312	0.000281 J	< 0.000442	0.113 J	--	--	--
MW-304	06/30/20	0.0399	0.000627 J	0.000544 J	< 0.000442	0.131 J	--	--	--
MW-304	09/21/20	0.0623	0.000391 J	0.00109	0.000491 J	0.191	--	--	--
MW-304	12/15/20	0.0363	0.000932	0.00188	0.000883	0.26	4.22	<0.393	--
MW-304	04/13/21	0.00194	<0.000200	0.00107 J+	<0.000500	0.307	--	--	--
MW-304	06/15/21	0.0263	<0.00100	0.000697 J	<0.00300	0.230	--	--	--
MW-304	09/22/21	0.0389	<0.00100	0.000696 J	<0.00300	0.225	--	--	--
MW-304	12/16/21	0.00339	<0.00100	0.00132	0.000646 J	0.406	1.86	0.292 J	--
MW-304	03/28/22	0.0276	0.000750 J	0.00125	0.000843 J	0.624	--	--	--
MW-304	06/28/22	0.0169	0.000903 J	0.00318	0.00112 J	0.549	--	--	--
MW-304	09/20/22	<b>0.133</b>	0.000434 J	0.00181	0.00134 J	0.594	--	--	--
MW-304	12/13/22	0.00466	<0.00100	0.000588 J	0.000748 J	0.364	2.15	0.674	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-304	03/27/23	0.0692	0.00300	0.000721 J	0.00585	0.609	--	--	--
MW-304	06/14/23	<b>0.116</b>	0.00502	0.000506 J	0.00815	0.734	--	--	--
MW-304	09/11/23	<b>0.0911</b>	0.00648	0.00167	0.0147	0.938	--	--	--
MW-304	12/20/23	0.0249	0.00186	<0.00100	0.00558	0.613	2.23	0.692	--
MW-305	03/01/12	<b>1.14</b>	0.0227	0.0389	0.0375 J	<b>5.84</b>	--	--	--
MW-305	06/11/12	<b>1.34</b>	0.0221	0.0517	0.0331 J	<b>5.97</b>	--	--	--
MW-305	09/26/12	<b>1.27</b>	0.0229	0.0388	0.0355 J	<b>5.89</b>	--	--	--
MW-305	11/28/12	<b>0.286</b>	0.0061	0.0032 J	0.014	<b>1.53</b>	--	--	--
MW-305	05/15/13	<b>0.397</b>	0.0263	0.29	0.0867	<b>6.28</b>	--	--	--
MW-305	11/07/13	<b>0.0844</b>	0.025	0.216	0.0919	<b>3.59</b>	--	--	--
MW-305	04/23/14	<b>0.0884</b>	0.0139	0.0941	0.0454	<b>2.82</b>	--	--	--
MW-305	11/06/14	0.0419	0.0052	0.002	0.0306	<b>1.16</b>	--	--	--
MW-305	05/21/15	<b>0.12</b>	0.0101	0.191	0.108	<b>2.81</b>	--	--	--
MW-306	03/01/12	<b>0.606</b>	0.015	0.0353	0.718	<b>4.74</b>	--	--	--
MW-306	06/11/12	<b>0.393</b>	0.0115	0.0509	0.763	<b>5.09</b>	--	--	--
MW-306	09/26/12	<b>1.05</b>	0.0261	0.135	0.147	<b>6.56</b>	--	--	--
MW-306	11/28/12	<b>0.393</b>	0.0125	0.0183	0.0895	<b>3.06</b>	--	--	--
MW-306	05/15/13	<b>0.746</b>	0.0472	0.837	3.7	<b>18.5</b>	--	--	--
MW-306	11/07/13	<b>0.101</b>	0.0502	0.482	2.65	<b>12.8</b>	--	--	--
MW-306	04/23/14	<b>0.0762</b>	0.0345	0.325	1.97	<b>11</b>	--	--	--
MW-306	11/06/14	<b>0.119</b>	0.0226	0.302 J	0.939 J	<b>5.59</b>	--	--	--
MW-306	05/21/15	<b>0.106</b>	0.0354 J	0.874	5.15	<b>20.6</b>	--	--	--
MW-307	11/26/12	<b>2.15</b>	0.0858	0.833	0.513	<b>10.9</b>	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-307	02/22/13	<b>0.497</b>	0.0358	0.226	0.145	<b>6.02</b>	0.604	< 0.094	--
MW-307	05/15/13	<b>0.437</b>	0.0461	0.167	0.12	<b>4.56</b>	--	--	--
MW-307	09/05/13	<b>0.643</b>	0.0645	0.154	0.131	<b>5.3</b>	--	--	--
MW-307	11/06/13	<b>0.568</b>	0.0448 J	0.104	0.0912	<b>4.39</b>	--	--	--
MW-307	04/22/14	<b>0.52</b>	0.0408	0.241	0.152	<b>5.68</b>	--	--	--
MW-307	11/04/14	<b>0.596</b>	0.039	0.176	0.095	<b>5.16</b>	0.632	< 0.095	--
MW-307	03/09/15	<b>0.444</b>	0.0358	0.271	0.104	<b>5.41</b>	--	--	--
MW-307	05/19/15	<b>0.306</b>	0.0273	0.14	0.0673	<b>3.44</b>	0.479	< 0.096	--
MW-307	07/29/15	<b>0.298</b>	0.0245	0.109	0.0434	<b>4.09</b>	--	--	--
MW-307	12/09/15	<b>0.699</b>	0.0585	0.334	0.131	<b>5.03</b>	1.63	< 0.392	--
MW-307	02/23/16	<b>0.498</b>	0.0417	0.578	0.110 J	<b>4.98</b>	--	--	--
MW-307	05/03/16	<b>0.469</b>	0.0338	0.456	0.0981	<b>5.04</b>	1.55	< 0.0597	--
MW-307	08/30/16	<b>0.261</b>	0.0299	0.222	0.195	<b>5.13</b>	--	--	--
MW-307	12/13/16	<b>0.275</b>	0.0255	0.302	0.102	<b>4.02</b>	1.34	0.0812 J	--
MW-307	03/14/17	<b>0.418</b>	0.0311	0.54	0.136	<b>6.33</b>	--	--	--
MW-307	06/15/17	<b>0.166</b>	0.0242	0.283	0.194 J	<b>4.18</b>	1.32	< 0.121	--
MW-307	08/23/17	<b>0.102 J</b>	0.0162	0.095	0.0912	<b>3.22</b>	1.33	< 0.126	--
MW-307	12/06/17	0.0501	0.00663	0.0479	0.0134	0.977	1.04	< 0.128	--
MW-307	03/08/18	<b>0.15</b>	0.0158	0.134	0.0255	<b>2.09</b>	--	--	--
MW-307	06/14/18	<b>0.243</b>	0.0256	0.315	0.0329	<b>2.71</b>	1.45	< 0.120	--
MW-307	09/05/18	0.0507	0.00339	0.016	0.00343	<b>1.45</b>	--	--	--
MW-307	12/19/18	0.027	0.000413 J	0.0119	0.00153 J	<b>1.17</b>	1.79	0.396 J	--
MW-307	03/18/19	0.0587	0.00269	0.05	0.00393	0.965	--	--	--
MW-307	05/16/19	0.0324	0.00693	0.026	0.0113	<b>2.47</b>	2.74	0.265 J	--
MW-307	09/19/19	0.0126	< 0.000312	0.00135	< 0.000442	0.444	--	--	--
MW-307	12/10/19	0.00497	< 0.000312	0.000291 J	< 0.000442	0.28	0.66	< 0.118	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-307	04/27/20	<b>0.0974</b>	0.00608	0.159	0.0267	<b>1.45</b>	--	--	--
MW-307	06/29/20	<b>0.0946</b>	0.00479	0.0909	0.0164	<b>1.18</b>	7.11	0.273 J	--
MW-307	09/21/20	<b>0.21</b>	0.0102	0.156	0.0516	<b>2.01</b>	--	--	--
MW-307	12/16/20	<b>0.106 J-</b>	0.0072 J-	0.0622 J	0.0336 J-	<b>1.52</b>	7.75	<0.379	--
MW-307	04/12/21	<b>0.133 J</b>	0.0228 J-	0.0930 J	0.0950 J	<b>4.06 J+</b>	--	--	--
MW-307	06/14/21	<b>0.230</b>	0.0180	0.282	0.0885	<b>2.02</b>	6.68	0.422	--
MW-307	09/22/21	<b>0.135</b>	0.0145	0.109	0.0717	<b>1.83</b>	--	--	--
MW-307	12/14/21	0.0426	0.00493	0.0921	0.0402	<b>2.39</b>	4.92	0.492	--
MW-307	03/28/22	<b>0.0982</b>	0.0223	0.147	0.0988	<b>3.69</b>	--	--	--
MW-307	06/29/22	<b>0.149</b>	0.0318	0.176	0.158 J	<b>2.87</b>	4.02	0.33 J	--
MW-307	09/20/22	<b>0.16</b>	0.0199	0.117	0.108	<b>2.49</b>	--	--	--
MW-307	12/12/22	<b>0.0820</b>	0.0190	0.0740	0.0793	<b>2</b>	5.93	0.699	--
MW-307	03/27/23	0.0698	0.00305	0.000735 J	0.00571	0.569	--	--	--
MW-307	06/13/23	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.247	<0.412	--
MW-307	09/11/23	0.0545	0.0216	0.0856	0.0928	<b>2.87</b>	--	--	--
MW-307	12/19/23	0.0303	0.0101	0.0260	0.0431	<b>2.00</b>	6.73	0.923	--
MW-308	11/26/12	<b>0.144</b>	0.0010 J	0.0072	0.0013 J	0.778	--	--	--
MW-308	02/22/13	<b>0.668</b>	0.0078 J	0.0443	0.0059 J	<b>3.48</b>	0.354	< 0.10	--
MW-308	05/15/13	<b>0.392</b>	0.0052 J	0.0427	< 0.0046	<b>2.54</b>	--	--	--
MW-308	11/06/13	<b>0.237</b>	0.0033 J	0.0056	0.0026 J	<b>1.65</b>	--	--	--
MW-308	04/22/14	0.0165	< 0.00020	0.00036 J	< 0.00046	0.146	--	--	--
MW-308	11/04/14	<b>0.132</b>	0.0012	0.0044	0.00058	0.782	< 0.048	< 0.095	--
MW-308	03/09/15	<b>0.121 J</b>	0.002	0.00064 J	0.0013 J	<b>1.1</b>	--	--	--
MW-308	05/19/15	<b>0.213</b>	0.0013 J	< 0.00050	< 0.0012	0.973	--	--	--
MW-308	07/29/15	<b>0.242</b>	0.0017 J	0.0014 J	< 0.0012	<b>1.77</b>	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-308	12/09/15	<b>0.146</b>	0.00361	0.0284	0.00527	<b>1.19</b>	--	--	--
MW-308	02/23/16	0.00711	< 0.000380	0.000101 J	< 0.0000160	0.0619	--	--	--
MW-308	05/03/16	<b>0.281</b>	0.000903 J	0.00376	0.000680 J	<b>1.41</b>	--	--	--
MW-308	08/30/16	<b>0.196</b>	< 0.00312	< 0.00198	< 0.00162	<b>1.48</b>	--	--	--
MW-308	12/13/16	0.0309	< 0.000312	0.000529 J	< 0.000442	0.207	--	--	--
MW-308	03/14/17	0.000861	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-308	06/15/17	<b>0.383</b>	0.00147	0.00107	0.000477 J	<b>1.28</b>	--	--	--
MW-308	08/23/17	<b>0.234</b>	< 0.00312	< 0.00198	< 0.00442	0.812 J	--	--	--
MW-308	12/06/17	<b>0.085</b>	< 0.000312	0.000717 J	< 0.000442	0.245	--	--	--
MW-308	03/08/18	<b>0.252</b>	0.000314 J	< 0.000198	< 0.000442	0.55	--	--	--
MW-308	06/14/18	<b>0.238</b>	0.000765 J	0.00226	< 0.000442	0.487	--	--	--
MW-308	09/05/18	0.00741	< 0.000312	< 0.000198	< 0.000442	0.118 J	--	--	--
MW-308	12/19/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-308	03/18/19	0.000815	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-308	05/16/19	0.00703	< 0.000170	< 0.000190	< 0.000580	0.397	--	--	--
MW-308	09/19/19	0.0096	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-308	12/09/19	0.000322 J	< 0.000312	< 0.000198	< 0.000442	0.118 J	--	--	--
MW-308	04/27/20	0.00314	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-308	06/29/20	0.00406	< 0.000312	0.000292 J	< 0.000442	0.140 J	--	--	--
MW-308	09/21/20	0.0175	0.00145	<0.001	<0.003	0.185	--	--	--
MW-308	12/16/20	<b>0.0730 J</b>	0.0954 J	0.026 J	0.0417 J	0.30	--	--	--
MW-308	04/12/21	0.0365 J+	0.000521 J+	0.000515 J+	<0.000500	0.267	--	--	--
MW-308	06/14/21	0.0572	0.00139	0.000975 J	0.00155 J	0.793	--	--	--
MW-308	09/22/21	<b>0.129</b>	0.00408	0.000975 J	0.00257 J	<b>1.25</b>	--	--	--
MW-308	12/14/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	--	--	--
MW-308	03/28/22	0.00476	<0.00100	0.000244 J	<0.00300	0.106 J	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-308	06/29/22	<0.000400	<0.00100	0.000281 J	0.000485 J	0.0545 J	--	--	--
MW-308	09/20/22	0.0461	0.00355	0.000888 J	0.00171 J	0.696	--	--	--
MW-308	12/12/22	0.00143	<0.00100	<0.00100	<0.00300	<0.15	--	--	--
MW-308	03/27/23	0.0418	0.00257	0.0254	0.0100	0.854	--	--	--
MW-308	06/13/23	<0.000400	<0.00100	0.000368 J	<0.00300	0.175	--	--	--
MW-308	09/11/23	0.000979 J	0.000845 J	<0.00100	<0.00200	0.154	--	--	--
MW-308	12/19/23	0.00426	<0.00100	<0.00100	<0.00200	<0.1	--	--	--
MW-309	11/28/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	--	--	--
MW-309	02/21/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0790 J	< 0.10	--
MW-309	05/16/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	--	--	--
MW-309	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	--	--	--
MW-309	04/23/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	--	--	--
MW-309	07/24/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.102	< 0.094	--
MW-309	11/03/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	--
MW-309	05/20/15	< 0.00020	< 0.00020	0.00027 J	< 0.00046	0.0542 J	--	--	--
MW-309	12/08/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	< 0.241	< 0.402	--
MW-309	05/04/16	< 0.0000930	< 0.000312	0.000337 J	< 0.000162	< 0.100	--	--	--
MW-309	12/12/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	0.0834 J	< 0.0595	--
MW-309	06/13/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-309	12/05/17	0.000184 J	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.0877 J	< 0.128	--
MW-309	06/12/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-309	12/20/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.220 J	< 0.118	--
MW-309	05/16/19	< 0.000200	< 0.000170	< 0.000190	< 0.000580	0.3	--	--	--
MW-309	12/11/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.0804 J	0.614	<0.120	--
MW-309	06/29/20	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.123 J	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-309	12/15/20	<0.00020	<0.0002	<0.00020	<0.0005	<0.250	0.292	<0.390	--
MW-309	06/15/21	<0.000400	<0.00100	<0.00100	<0.00300	0.150	--	--	--
MW-309	12/15/21	<0.000400	<0.00100	<0.00100	<0.00300	0.113 J	0.273	0.140 J	--
MW-309	06/28/22	<0.000400	<0.00100	<0.00100	<0.00300	0.108 J	--	--	--
MW-309	12/13/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.249	<0.391	--
MW-309	06/14/23	<0.000400	<0.00100	<0.00100	<0.00300	0.0514 J	--	--	--
MW-309	12/20/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	0.149	0.144 J	--
MW-310	11/28/12	<b>0.86</b>	0.0265	0.211	0.147	<b>5.74</b>	--	--	--
MW-310	02/21/13	<b>1.8</b>	0.0768	0.506	0.18	<b>8.37</b>	0.603	< 0.10	--
MW-310	05/14/13	<b>0.993</b>	0.0703	0.654	0.175	<b>6.49</b>	--	--	--
MW-310	09/05/13	<b>0.96</b>	0.0598	0.31	0.11	<b>5.51</b>	--	--	--
MW-310	11/05/13	<b>0.772</b>	0.0409	0.226	0.0846	<b>4.92</b>	--	--	--
MW-310	01/16/14	<b>0.821</b>	0.0414	0.189	0.0775	<b>5.94</b>	--	--	< 0.001 <sup>1</sup>
MW-310	04/23/14	<b>0.796</b>	0.0432	0.187	0.0607	<b>5.88</b>	--	--	--
MW-310	07/24/14	<b>0.92</b>	0.0489	0.368	0.0647	<b>6.36</b>	0.605	< 0.094	--
MW-310	11/04/14	<b>0.739</b>	0.0387	0.132	0.0538	<b>5.15</b>	0.613	< 0.094	--
MW-310	03/09/15	<b>0.736</b>	0.0475	0.189	0.0606	<b>4.71</b>	--	--	--
MW-310	05/21/15	<b>0.641</b>	0.0464	0.169	0.0572	<b>4.39</b>	--	--	< 0.010
MW-310	07/28/15	<b>0.714</b>	0.0428	0.181	0.0488	<b>3.72</b>	--	--	--
MW-310	12/10/15	<b>0.405</b>	0.0396	0.0771	0.0564	<b>3.89</b>	2.75	< 0.390	--
MW-310	02/23/16	<b>0.755</b>	0.0436	0.303	0.0615	<b>4.86</b>	--	--	--
MW-310	05/02/16	<b>0.655</b>	0.0349	0.324	0.0721	<b>4.82</b>	--	--	--
MW-310	08/29/16	<b>0.734</b>	0.0608	0.209	0.0885	<b>5.38</b>	--	--	--
MW-310	12/15/16	<b>0.673</b>	0.0504	0.289	0.0747	<b>5.92</b>	1.72	< 0.0624	--
MW-310	03/13/17	<b>0.809</b>	0.0541	0.387	0.0848	<b>5.58</b>	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-310	06/15/17	<b>0.984</b>	0.0504	0.318	0.0635	<b>4.29</b>	--	--	--
MW-310	08/22/17	0.0562	0.0135	0.0416	0.0297	<b>2.17</b>	--	--	--
MW-310	12/05/17	0.00444	0.000430 J	0.0122	0.0172	0.459	1.66	< 0.122	--
MW-310	03/06/18	0.0293	< 0.000312	0.00108	0.00167 J	0.724	--	--	--
MW-310	06/13/18	0.0448	0.00103	0.0098	0.00308	0.748	--	--	--
MW-310	09/06/18	0.0182	0.000905 J	< 0.000198	0.000637 J	0.284	--	--	--
MW-310	12/20/18	0.00126	< 0.000312	< 0.000198	< 0.000442	0.0782 J	0.652	0.126 J	--
MW-310	03/19/19	0.00127	< 0.000312	0.000226 J	< 0.000442	0.297	--	--	--
MW-310	05/16/19	< 0.000200	< 0.000170	< 0.000190	< 0.000580	0.24	--	--	--
MW-310	09/19/19	0.000104 J	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-310	12/11/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.0739 J	0.453	< 0.120	--
MW-310	04/28/20	0.00595	< 0.000312	0.000357 J	< 0.000442	0.579	--	--	--
MW-310	06/30/20	0.00523	< 0.000312	0.000481 J	< 0.000442	0.669 J	--	--	--
MW-310	09/21/20	0.00903	<0.001	0.000681 J	<0.003	0.427	--	--	--
MW-310	12/15/20	0.00622	<0.0002	0.00156	<0.0005	0.726	8.62	0.508	--
MW-310	04/12/21	0.0221 J-	0.000414 J	0.00269 J-	0.000570 J-	<b>1.61</b>	--	--	--
MW-310	06/15/21	0.0289	0.000421 J	0.00359	0.00117 J	0.554	--	--	--
MW-310	09/22/21	0.0159	<0.00100	0.00137	<0.00300	0.343	--	--	--
MW-310	12/16/21	0.0166	<0.00100	0.00170	0.000730 J	<b>1.40</b>	6.76	0.667	--
MW-310	03/29/22	0.0313	0.000978 J	0.00948	0.00296 J	<b>1.55</b>	--	--	--
MW-310	06/28/22	0.0392	0.000966 J	0.0179	0.00550	0.924	--	--	--
MW-310	09/20/22	0.0244	0.00129	0.00162	0.00206 J	0.77	--	--	--
MW-310	12/13/22	0.0163	0.00103	0.000555 J	0.00144 J	0.463	4.64	0.743	--
MW-310	03/27/23	0.0369	0.00237	0.0216	0.00890	0.879	--	--	--
MW-310	06/13/23	0.0275	0.00153	0.00761	0.00148 J	0.474	--	--	--
MW-310	09/11/23	0.0163	0.00112	<0.00100	0.00163 J	0.872	--	--	--



**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-310	12/19/23	0.0104	0.00150	0.00344	0.00339	0.987	5.56	2.42	--
MW-311	11/05/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	< 0.010
MW-311	03/09/15	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	--	--	--
MW-311	06/11/15	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	--	--	--
MW-311	07/28/15	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	--	--	--
MW-311	12/10/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	--	--	--
MW-311	02/23/16	< 0.0000320	< 0.0000380	< 0.0000860	< 0.0000160	< 0.0178	--	--	--
MW-311	05/04/16	0.000716	< 0.000312	< 0.000198	< 0.000162	0.0260 J	--	--	--
MW-311	08/29/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000162	< 0.0178	--	--	--
MW-311	12/15/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	--	--	--
MW-311	03/13/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-311	06/15/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-311	08/22/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-311	12/07/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-311	03/08/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-311	06/13/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-311	09/05/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-311	12/20/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	--	--	--
MW-311	03/18/19	0.000107 J	0.000409 J	< 0.000198	< 0.000442	0.3	--	--	--
MW-311	05/16/19	0.000237 J	0.000976 J	< 0.000190	< 0.000580	0.618	--	--	--
MW-311	09/19/19	0.000211 J	< 0.000312	< 0.000198	< 0.000442	0.461	--	--	--
MW-311	12/12/19	< 0.0000930	< 0.000312	0.000290 J	0.000839 J	0.751	--	--	--
MW-311	04/27/20	0.000221 J	0.00104	0.000292 J	0.000654 J	0.919	--	--	--
MW-311	06/30/20	0.000252 J	0.000799 J	0.000361 J	0.000883 J	<b>1.41 J</b>	--	--	--
MW-311	09/22/20	0.000313 J	0.00122	0.000351 J	0.000558 J	0.894	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-311	12/15/20	0.000211	0.000865	0.000386	0.000641	<b>1.66 J+</b>	--	--	--
MW-311	04/13/21	<0.000200	0.00102	0.000247	<0.000500	<b>1.32</b>	--	--	--
MW-311	09/23/21	0.00207	0.00309	0.000899 J	0.000789 J	<b>1.20</b>	--	--	--
MW-311	12/16/21	0.000347 J	0.000923 J	0.000343 J	0.00105 J	<b>1.63</b>	--	--	--
MW-311	03/29/22	0.000243 J	0.000909 J	0.000302 J	0.000828 J	<b>1.66</b>	--	--	--
MW-311	06/28/22	0.00253	0.00349	0.000596 J	0.000644 J	<b>2.05</b>	--	--	--
MW-311	09/20/22	0.00223	0.00339	0.000472 J	0.00113 J	<b>1.57</b>	--	--	--
MW-311	12/13/22	0.00374	0.00260	0.000542 J	0.00100 J	<b>1.32</b>	--	--	--
MW-311	03/28/23	0.00191	0.00233	0.000746 J	<0.00300	<b>1.64</b>	--	--	--
MW-311	06/14/23	0.00239	0.00281	0.000568 J	0.00115 J	<b>1.53</b>	--	--	--
MW-311	09/12/23	0.00217	0.00312	0.000520 J	0.000984 J	<b>2.49</b>	--	--	--
MW-311	12/20/23	0.00189	0.00206	<0.00100	0.00105 J	<b>1.84</b>	--	--	--
MW-312	11/05/14	<b>0.239</b>	0.0058	0.0065	0.0102	<b>1.64</b>	1.13	0.132 J	< 0.010
MW-312	03/09/15	<b>0.357</b>	0.0044 J	0.0086	0.0050 J	<b>1.91</b>	--	--	--
MW-312	06/11/15	<b>0.204</b>	0.0034 J	0.0023 J	0.0027 J	<b>1.35</b>	--	--	--
MW-312	07/28/15	<b>0.313</b>	0.0041 J	0.0030 J	0.0032 J	<b>1.65</b>	--	--	--
MW-312	12/10/15	<b>0.0718</b>	0.00333	0.00222	0.00461	<b>1.26</b>	--	--	--
MW-312	02/23/16	<b>0.327</b>	0.00354	0.00759	0.00416	<b>1.96</b>	--	--	--
MW-312	05/04/16	<b>0.414</b>	0.00399	0.00662	0.00376	<b>2.22</b>	--	--	--
MW-312	08/29/16	<b>0.37</b>	0.00457 J	0.00354 J	0.00394 J	<b>2.3</b>	--	--	--
MW-312	12/15/16	<b>0.356</b>	0.00336 J	0.00556 J	< 0.000442	<b>2.27</b>	--	--	--
MW-312	03/13/17	<b>0.35</b>	0.00362	0.00527	0.00375	<b>2.07</b>	--	--	--
MW-312	06/15/17	<b>0.383</b>	0.00372	0.00425	0.00368 J	<b>1.89</b>	--	--	--
MW-312	08/23/17	<b>0.33</b>	0.00395	0.00279	0.00422	<b>2.02</b>	--	--	--
MW-312	12/07/17	<b>0.241</b>	0.00441	0.00223	0.00708	<b>1.72</b>	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-312	03/08/18	<b>0.261</b>	0.00273 J	0.00260 J	0.00311 J	<b>1.77</b>	--	--	--
MW-312	06/13/18	<b>0.284</b>	0.0044	0.00243	0.0048	<b>1.69</b>	--	--	--
MW-312	09/05/18	<b>0.283</b>	0.00405	0.00306	0.0041	<b>2.06</b>	--	--	--
MW-312	12/20/18	<b>0.126</b>	0.00284	0.00231	0.00361	<b>1.44</b>	--	--	--
MW-312	03/19/19	<b>0.183</b>	0.00372	0.00472	0.00447	<b>2.07</b>	--	--	--
MW-312	05/16/19	<b>0.189</b>	0.00286	0.00353	0.00290 J	<b>2.5</b>	--	--	--
MW-312	09/19/19	<b>0.0928</b>	0.00233	0.00307	0.00220 J	<b>1.64</b>	--	--	--
MW-312	12/12/19	<b>0.094</b>	0.00251	0.00341	0.00275 J	<b>1.7</b>	--	--	--
MW-312	04/28/20	<b>0.0721</b>	0.00213	0.00315	0.00274 J	<b>1.66</b>	--	--	--
MW-312	06/30/20	<b>0.0792</b>	0.00238	0.00406	0.00208 J	<b>1.47</b>	--	--	--
MW-312	09/22/20	<b>0.176</b>	0.00286	0.0068	0.00295 J	<b>2.69</b>	--	--	--
MW-312	12/15/20	0.0498	0.00251	0.00437	0.00284	<b>2.56 J+</b>	--	--	--
MW-312	04/13/21	<b>0.121</b>	0.00244	0.00453	0.00219	--	--	--	--
MW-312	06/16/21	0.0472	0.00214	0.00250	0.00199 J	<b>1.57</b>	--	--	--
MW-312	09/23/21	0.0398	0.00264	0.00329	0.00226 J	<b>1.83</b>	--	--	--
MW-312	12/16/21	0.0300	0.00225	0.00290	0.00237 J	<b>2.99</b>	--	--	--
MW-312	03/29/22	0.0136	0.00172	0.00240	0.00180 J	<b>2.77</b>	--	--	--
MW-312	06/29/22	0.0358	0.00269	0.00230	0.00205 J	<b>2.28</b>	--	--	--
MW-312	09/20/22	0.0203	0.00240	0.00207	0.00231 J	<b>1.9</b>	--	--	--
MW-312	12/13/22	0.00392	0.00214	0.00126	0.00198 J	<b>1.72</b>	--	--	--
MW-312	03/28/23	0.00491	0.00205	0.00101	<0.00300	<b>1.32</b>	--	--	--
MW-312	06/14/23	0.00488	0.00196	0.00104	0.00179 J	<b>1.23</b>	--	--	--
MW-312	09/12/23	0.0110	0.00227	0.00118	0.00208	<b>2.58</b>	--	--	--
MW-312	12/20/23	0.0110	0.00246	0.00127	0.00236	<b>2.15</b>	--	--	--
MW-313	08/29/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000162	<0.0178	0.218	< 0.0603	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-313	12/12/16	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.100	0.207	< 0.0598	--
MW-313	03/13/17	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.146 J	< 0.121	--
MW-313	06/15/17	< 0.000930	< 0.000312	< 0.000198	0.000463 J	< 0.0704	0.165 J	< 0.122	--
MW-313	08/22/17	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.222 J	< 0.121	--
MW-313	12/07/17	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.153 J	< 0.120	--
MW-313	03/07/18	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.120	< 0.131	--
MW-313	06/13/18	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.139 J	< 0.123	--
MW-313	09/05/18	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.362	0.255 J	--
MW-313	12/20/18	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.468	0.327 J	--
MW-313	03/19/19	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.174 J	< 0.117	--
MW-313	05/16/19	< 0.000200	< 0.000170	< 0.000190	< 0.000580	0.0807	0.207 J	0.164 J	--
MW-313	09/19/19	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.237	< 0.114	--
MW-313	12/12/19	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.473	0.153 J	--
MW-313	04/27/20	< 0.000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.149 J	< 0.122	--
MW-313	06/30/20	0.000136 J	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.260	< 0.116	--
MW-313	09/22/20	<0.0004	<0.001	<0.001	<0.003	<0.150	0.309	<0.408	--
MW-313	12/15/20	<0.00020	<0.0002	<0.00020	<0.0005	<0.250	0.288	<0.388	--
MW-313	04/13/21	<0.000200	<0.000200	<0.000200	<0.000500	<0.250	0.272	<0.350	--
MW-313	06/16/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	0.156 J	<0.401	--
MW-313	09/23/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	0.161 J	<0.392	--
MW-313	12/16/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	0.359	0.185 J	--
MW-313	03/29/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.237	<0.395	--
MW-313	06/28/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.177 J	0.14 J	--
MW-313	09/20/22	<0.000400	<0.00100	<0.00100	<0.00300	0.0407 J	<0.23	<0.383	--
MW-313	12/13/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.523	0.333 J	--
MW-313	03/28/23	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.224	<0.373	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-313	06/14/23	<0.000400	<0.00100	<0.00100	<0.00300	0.0325 J	<0.244	<0.407	--
MW-313	09/12/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.0500	0.157	0.14 J	--
MW-313	12/20/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	0.627	0.517	--
MW-314	08/30/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000162	0.182	0.293	< 0.0599	--
MW-314	12/14/16	0.00432	0.000374 J	< 0.000198	< 0.000442	0.298	0.401	0.0679 J	--
MW-314	03/13/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.0891 J	0.245	<0.120	--
MW-314	06/14/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.227 J	< 0.122	--
MW-314	08/23/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.136 J	0.283	< 0.124	--
MW-314	12/06/17	0.000153 J	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.285	< 0.122	--
MW-314	03/07/18	0.00726	< 0.000312	< 0.000198	< 0.000442	0.131 J	0.336	< 0.127	--
MW-314	06/12/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.121 J	0.46	< 0.121	--
MW-314	09/05/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.203	0.825	0.501	--
MW-314	12/20/18	0.000564	0.000600 J	< 0.000198	< 0.000442	0.138 J	0.788	0.471	--
MW-314	03/19/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.157	0.608	0.139 J	--
MW-314	05/16/19	< 0.000200	< 0.000170	< 0.000190	< 0.000580	0.201	2.09	0.248 J	--
MW-314	12/10/19	< 0.000105 J	0.000400 J	< 0.000198	< 0.000442	0.26	1.44	0.178 J	--
MW-314	04/28/20	0.000578	< 0.000312	< 0.000198	< 0.000442	0.283	2.36	0.186 J	--
MW-314	06/29/20	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	0.147 J	2.57	0.214 J	--
MW-314	09/22/20	0.00584	0.000903 J	<0.001	0.000807 J	0.345	1.60	0.155 J	--
MW-314	12/15/20	0.0146	0.00182	0.00036	0.00186	0.578	1.84	<0.379	--
MW-314	04/13/21	<0.000200	0.000391 J+	<0.000200	<0.000500	0.363	2.75	0.745	--
MW-314	03/28/22	0.000477	0.000624 J	<0.00100	0.000682 J	0.253	0.682	<0.391	--
MW-314	06/28/22	<0.000400	0.000346 J	<0.00100	<0.00300	0.253	0.936	0.166 J	--
MW-314	09/20/22	0.00523	0.00187	0.0294	0.00795	0.634	2.63	0.237 J	--
MW-314	03/27/23	0.000964	<0.00100	<0.00100	<0.00300	0.15	0.664	<0.393	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-314	06/14/23	<0.000400	<0.00100	<0.00100	<0.00300	0.123 J	0.666	<0.405	--
MW-314	12/20/23	0.00147	0.000584 J	<0.00100	0.000741 J	0.331	1.28	0.466	--
MW-315	08/29/16	<b>0.0965</b>	0.00265	0.000548 J	0.00135 J	0.453	1.55	< 0.0600	--
MW-315	12/12/16	0.0174	0.00361	0.0023	0.00408	<b>1.17</b>	1.29	0.0871 J	--
MW-315	03/13/17	0.0295	0.00478	0.00153	0.00793	<b>1.24</b>	1.64	< 0.121	--
MW-315	06/15/17	<b>0.0804</b>	0.00426	0.000634 J	0.00965	<b>1.2</b>	2.95	< 0.122	--
MW-315	08/23/17	<b>0.0727</b>	0.00403	0.000909 J	0.00871	<b>1.71</b>	2.74	< 0.123	--
MW-315	12/07/17	0.00479	0.00377	0.000382 J	0.00756	<b>1.19</b>	2.21	< 0.121	--
MW-315	03/08/18	0.0435	0.00411	0.000736 J	0.00712	<b>1.39</b>	1.15	< 0.125	--
MW-315	06/13/18	0.0619	0.00529	0.000648 J	0.00762	<b>1.19</b>	1.78	< 0.120	--
MW-315	09/05/18	0.0178	0.00461	0.000476 J	0.00904	<b>1.33</b>	2.89	0.267 J	--
MW-315	12/20/18	0.00283	0.00464	0.000599 J	0.0106	<b>1.16</b>	3.06	0.310 J	--
MW-315	03/18/19	0.0233	0.00363	0.000959 J	0.0039	<b>1.4</b>	1.89	0.149 J	--
MW-315	05/16/19	0.0565	0.00393	0.000584 J	0.00399	<b>2.16</b>	2.38	0.179 J	--
MW-315	09/19/19	0.0361	0.0036	0.000542 J	0.00353	<b>1.29</b>	2.61	0.133 J	--
MW-315	12/12/19	0.00334	0.00389	0.000667 J	0.005	<b>1.68</b>	3.96	0.266 J	--
MW-315	04/27/20	0.051	0.00406	0.000695 J	0.00368	<b>1.66</b>	2.81	0.126 J	--
MW-315	06/30/20	0.0699	0.00574	0.000878 J	0.00413	<b>1.82</b>	2.74	0.155 J	--
MW-315	09/22/20	0.0297	0.00383	0.000625 J	0.00266 J	<b>1.78</b>	2.89	0.171 J	--
MW-315	12/15/20	0.0028	0.0044	0.000673	0.00368	<b>2.26 J+</b>	3.34	<0.385	--
MW-315	04/13/21	0.0666 J	0.00493	0.00141	0.00256	<b>2.90 J+</b>	5.04	0.691	--
MW-315	06/16/21	0.0578	0.00411	0.00182	0.00289 J	<b>1.66</b>	3.32	0.218 J	--
MW-315	09/23/21	0.00915	0.00392	0.000428 J	0.00276 J	<b>1.48</b>	3.27	0.180 J	--
MW-315	12/16/21	0.00421	0.00375	0.000543 J	0.00251 J	<b>2.81</b>	3.23	0.296 J	--
MW-315	03/29/22	0.0452	0.00420	0.000890 J	0.00252 J	<b>2.41</b>	2.44	0.136 J	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-315	06/28/22	0.0177	0.00382	0.000548 J	0.00284 J	<b>2.37</b>	2.31	0.207 J	--
MW-315	09/20/22	0.00610	0.00379	0.000566 J	0.00230 J	<b>2.21</b>	2.98	0.194 J	--
MW-315	12/13/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.47	0.323 J	--
MW-315	03/28/23	0.0273	0.00410	0.00102	0.00384	<b>1.72</b>	2.01	<0.368	--
MW-315	06/14/23	0.0169	0.00427	0.00118	0.00292 J	<b>1.65</b>	2.5	<0.394	--
MW-315	09/12/23	0.00101	0.00354	<0.00100	0.00296	<b>3.02</b>	4.17	0.29 J	--
MW-315	12/20/23	0.00658	0.00466	0.000664 J	0.00362	<b>2.74</b>	3.02	0.399	--
SH-04	01/13/04	<b>1.2</b>	0.21	0.14	2.11	<b>15</b>	4.7	< 2.5	--
SH-04	04/20/04	<b>1.5</b>	0.49	0.64	5.79	<b>26</b>	6.2	< 10	--
SH-04	07/27/04	<b>1.3</b>	0.13	0.55	1.78	<b>15</b>	5.4	0.53	--
SH-04	04/20/05	<b>0.98</b>	0.061	0.36	1.07	<b>11</b>	4.2	< 1.5	--
SH-04	04/25/06	<b>1.25</b>	0.089	0.65	2.31	<b>20</b>	8.23	2.52	--
SH-04	10/30/07	<b>0.884</b>	0.0315	0.315	0.0814	<b>&lt;5.0</b>	--	--	--
SH-04	05/20/08	<b>1.1</b>	0.048	0.52	0.657	<b>8.9</b>	4.8	0.92	--
SH-04	11/20/08	<b>0.79</b>	0.032	0.23	0.0384	<b>6.6</b>	2.7	< 0.5	--
SH-04	04/08/09	<b>0.87</b>	0.04	0.25	0.19	<b>9.2</b>	4.7	< 0.1	--
SH-04	11/16/09	<b>0.48</b>	0.023	0.068	0.016	<b>4.9</b>	3.7	< 0.1	--
SH-04	04/27/10	<b>0.71</b>	0.027	0.27	0.13	<b>7.3</b>	4.7	0.39	--
SH-04	10/25/10	<b>0.58</b>	0.019	0.18	0.013	<b>4</b>	2.8	< 0.1	--
SH-04	05/23/11	<b>0.655</b>	0.0145	0.151	0.034	<b>5.4</b>	1.84	0.13	--
SH-04	10/27/11	<b>0.393</b>	0.02	0.0926	0.0279	<b>5.35</b>	1.22	< 0.19	--
SH-04	03/01/12	<b>0.614</b>	0.0227	0.0932	0.0124 J	<b>5.53</b>	--	--	--
SH-04	06/11/12	<b>0.426</b>	0.0142	0.112	0.0198 J	<b>6</b>	1.49	0.393	--
SH-04	09/25/12	<b>0.124</b>	0.0184	0.461	0.139	<b>6.52</b>	--	--	--
SH-04	11/25/12	<b>0.073</b>	0.0079 J	0.609	0.326	<b>8.15</b>	0.762	< 0.098	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SH-04	05/15/13	0.0016 J	0.0005	0.0042	0.0032 J	<b>2.16</b>	0.376	< 0.096	--
SH-04	11/04/13	0.0032	0.00043 J	0.0071	0.005	<b>1.05</b>	0.134	< 0.094	--
SH-04	04/24/14	0.0091	0.00053 J	0.00090 J	0.0014 J	0.938	0.469	0.0944 J	--
SH-04	11/06/14	0.0249	0.0023	0.0173	0.0072	0.984	0.608	< 0.094	--
SH-04	05/21/15	0.0094	0.00048 J	0.0035	0.0021	0.78	0.171	< 0.094	--
SH-04	12/08/15	0.0155	0.00118	0.00359	0.00409	0.927	1.74	0.422	--
SH-04	05/05/16	0.000454	< 0.000312	0.000939 J	0.000887 J	0.941	0.23	< 0.0601	--
SH-04	12/14/16	0.00534	0.000990 J	0.0199	0.0123	0.843	1	0.102 J	--
SH-04	06/14/17	0.00158	0.000468 J	0.00192	0.00208 J	0.702	0.242 J	0.138 J	--
SH-04	12/07/17	0.00934	0.0015	0.00205	0.00351	0.796	1.78	< 0.136	--
SH-04	06/13/18	0.0052	0.000593 J	0.0042	0.00212 J	0.724	0.187 J	< 0.123	--
SH-04	12/19/18	0.0118	0.00195	0.0125	0.00477	0.804	0.954	0.210 J	--
SH-04	05/16/19	0.00169	0.000346 J	0.00225	0.00227 J	<b>1.35</b>	0.582	0.174 J	--
SH-04	12/11/19	0.012	0.00186	0.00139	0.00342	0.0805	1.26	< 0.121	--
SH-04	06/30/20	0.00239	0.000477 J	0.00124	0.00123 J	0.379	0.256	< 0.119	--
SH-04	12/14/20	0.0118	0.00164	0.00587	0.00262	0.359	2.78	0.472	--
SH-04	06/15/21	0.00525	0.000511 J	0.00294	0.00162 J	0.472	0.209 J	<0.404	--
SH-04	12/15/21	0.0167	0.00172	0.00150	0.00380	<b>1.29</b>	2.67	0.400 J	--
SH-04	04/18/22	0.00626	0.00105	0.00384	0.00457	<b>1.17</b>	0.549	<0.392	--
SH-04	06/28/22	0.0117	0.00110	0.00263	0.00226 J	0.813	0.38	0.14 J	--
SH-04	12/13/22	0.00697	0.00107	0.00327	0.00283 J	0.369	1.82	0.417	--
SH-04	06/13/23	0.00265	0.000486 J	0.00175	0.00192 J	0.367	0.231 J	<0.398	--
SH-04	12/19/23	0.00223	0.000787 J	0.00329	0.00458	0.363	0.573	0.279 J	--
TES-MW-1	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
TES-MW-1	04/20/04	0.0067	< 0.001	0.011	0.043	< 0.25	< 0.25	< 0.5	--



**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
TES-MW-1	04/20/04	0.0075	< 0.001	0.013	0.049	< 0.25	< 0.25	< 0.5	--
TES-MW-1	07/28/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
TES-MW-1	10/18/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
TES-MW-1	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
TES-MW-1	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	--
TES-MW-1	04/19/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	--
TES-MW-1	07/13/05	0.001	< 0.001	0.006	0.0189	0.1	< 0.25	< 0.5	--
TES-MW-1	10/20/05	0.0039	< 0.001	0.013	0.0437	0.23	< 0.25	< 0.5	--
TES-MW-1	01/27/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	< 0.240	< 0.481	--
TES-MW-1	11/18/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.25	< 0.5	--
TES-MW-1	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
TES-MW-1	10/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	--
TES-MW-1	05/24/11	<0.0003	<0.0005	<0.0003	<0.0007	<0.050	--	--	--
TES-MW-1	10/27/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	< 0.10	< 0.20	--
TES-MW-1	11/26/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	< 0.10	--
TES-MW-1	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	--
TES-MW-1	11/04/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	--
TES-MW-1	12/09/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	< 0.234	< 0.390	--
TES-MW-1	12/13/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	< 0.0466	< 0.0699	--
TES-MW-1	12/06/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.0816	< 0.122	--
TES-MW-1	12/19/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.106	< 0.116	--
TES-MW-1	12/09/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.111	< 0.121	--
TES-MW-1	12/16/20	<0.00020	<0.0002	<0.00020	<0.0005	<0.250	<0.238	<0.397	--
TES-MW-1	12/14/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	<0.237	0.162 J	--
TES-MW-1	12/12/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.256	<0.427	--
TES-MW-1	12/19/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	<0.11	0.115 J	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
TX-03A	01/13/04	<b>2.9</b>	0.018	0.038	0.091	<b>2.7</b>	0.86	< 0.5	--
TX-03A	04/19/04	<b>4.4</b>	0.047	0.12	0.11	<b>12</b>	1.3	< 0.5	--
TX-03A	07/27/04	<b>1.7</b>	0.011	0.016	0.037	<b>5.2</b>	0.81	< 0.5	--
TX-03A	10/18/04	<b>3.2</b>	0.024	0.062	0.093	<b>7.5</b>	1.2	< 0.5	--
TX-03A	01/24/05	<b>2.5</b>	0.02	< 0.01	0.065	<b>8.2</b>	0.54	< 0.5	--
TX-03A	04/19/05	<b>2.5</b>	0.021	0.026	0.049	<b>6.1</b>	0.47	< 0.5	--
TX-03A	07/12/05	<b>3.1</b>	0.024	0.044	0.054	<b>10</b>	0.32	< 0.5	--
TX-03A	10/31/07	<b>2.2</b>	0.0233	0.0601	0.0503	<5.0	--	--	--
TX-03A	05/20/08	<b>0.88</b>	0.007	0.016	0.01	<b>3</b>	--	--	--
TX-03A	11/20/08	<b>2.1</b>	0.019	0.038	0.018	<b>4.5</b>	--	--	--
TX-03A	04/08/09	<b>1.2</b>	< 0.025	0.028	< 0.025	<b>3.5</b>	--	--	--
TX-03A	11/17/09	<b>0.97</b>	0.0078	0.016	0.011	<b>2.4</b>	--	--	--
TX-03A	04/27/10	<b>1.7</b>	0.0096	0.0087	0.0099	<b>4.6</b>	--	--	--
TX-03A	10/25/10	<b>1.7</b>	0.011	0.067	0.013	<b>3.3</b>	--	--	--
TX-03A	05/23/11	<b>1.78</b>	<0.025	0.044	<0.035	<b>7.53</b>	--	--	--
TX-03A	10/27/11	<b>3.44</b>	0.0712	0.147	0.111	<b>8.51</b>	--	--	--
TX-03A	03/01/12	<b>1.74</b>	0.0261	0.0272	0.0345 J	<b>5.58</b>	--	--	--
TX-03A	06/12/12	<b>1.57</b>	0.0200 J	0.0139 J	0.0300 J	<b>6.78</b>	--	--	--
TX-03A	09/25/12	<b>1.7</b>	0.0298	0.041	0.0501	<b>5.53</b>	--	--	--
TX-03A	11/28/12	<b>1.18</b>	0.0188 J	0.0232	0.0357 J	<b>4.91</b>	--	--	--
TX-03A	02/21/13	<b>2.81</b>	0.0403	0.0421	0.0489 J	<b>8.2</b>	0.32	< 0.10	--
TX-03A	05/15/13	<b>2.15</b>	0.0459 J	0.189	0.0643 J	<b>3.11</b>	--	--	--
TX-03A	11/05/13	<b>2.72</b>	0.0343 J	0.0364 J	0.0411 J	<b>6.01</b>	--	--	--
TX-03A	04/23/14	<b>1.22</b>	0.0171	0.0251	0.027	<b>5.76</b>	--	--	--
TX-03A	07/24/14	<b>1.64</b>	0.0317	0.0698	0.052	<b>7.55</b>	0.382	< 0.094	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
TX-03A	11/04/14	<b>0.941</b>	0.0137	0.0366	0.0269	<b>5.76</b>	0.448	< 0.094	--
TX-03A	03/09/15	<b>1.86</b>	0.0246 J	0.0581	0.0390 J	<b>7.16</b>	--	--	--
TX-03A	05/21/15	<b>1.15</b>	0.0144 J	0.0462	0.0260 J	<b>3.4</b>	--	--	--
TX-03A	07/28/15	<b>1.72</b>	0.0213 J	0.118	0.0355 J	<b>5.42</b>	--	--	--
TX-03A	12/10/15	<b>0.635</b>	0.0126	0.026	0.0253	<b>3.32</b>	1.34	< 0.391	--
TX-03A	02/23/16	<b>1.78</b>	0.0274	0.0882	0.0385	<b>5.17</b>	--	--	--
TX-03A	05/02/16	<b>1.54</b>	0.037	0.208	0.0503	<b>6.3</b>	--	--	--
TX-03A	08/29/16	<b>0.844</b>	0.0257	0.246	0.053	<b>5.89</b>	--	--	--
TX-03A	12/15/16	<b>0.995</b>	0.0197 J	0.0697	0.0357 J	<b>4.81</b>	1.73	0.125 J	--
TX-03A	03/13/17	<b>0.76</b>	0.0208	0.0901	0.0352 J	<b>3.66</b>	--	--	--
TX-03A	06/13/17	<b>1.37</b>	0.0361	0.246	0.0618 J	<b>5.36</b>	--	--	--
TX-03A	08/22/17	<b>1.08</b>	0.0233	0.137	0.0363	<b>4.55</b>	--	--	--
TX-03A	12/05/17	<b>0.258</b>	0.00697 J	0.0172 J	0.0126 J	<b>3.07</b>	2.03	0.172 J	--
TX-03A	03/27/18	<b>0.135</b>	0.00114	0.00395	0.000969 J	<b>1.21</b>	--	--	--
TX-03A	06/13/18	<b>0.204</b>	0.0024	0.015	0.000713 J	0.97	--	--	--
TX-03A	09/06/18	<b>0.263</b>	0.00308	0.0252	0.00115 J	<b>1.31</b>	--	--	--
TX-03A	12/20/18	0.0278	0.000612 J	0.00282	0.000499 J	0.768	2.88	1.05	--
TX-03A	03/19/19	0.0131 J	< 0.000312	0.00143	< 0.000442	0.938	--	--	--
TX-03A	05/16/19	<b>0.102 J</b>	< 0.000170 J	0.00115 J	< 0.000580 J	0.991	--	--	--
TX-03A	09/19/19	0.00642	< 0.000312	0.00722	< 0.000442	0.446	--	--	--
TX-03A	12/11/19	0.00173	< 0.000312	0.0017	< 0.000442	0.521	1.72	0.154 J	--
TX-03A	04/28/20	0.023	< 0.000312	0.000578 J	< 0.000442	0.181	--	--	--
TX-03A	06/30/20	0.00796	< 0.000312	0.00135	< 0.000442	0.129 J	--	--	--
TX-03A	09/21/20	0.00527	<0.001	0.00293	<0.003	0.139 J	--	--	--
TX-03A	12/15/20	0.00499	0.00022	0.0029	<0.0005	<0.250	0.520	<0.371	--
TX-03A	04/12/21	0.0665 J	0.00151	0.00955	<0.000500	0.465	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
TX-03A	06/16/21	0.0416	0.00151	0.0192	0.000832 J	0.285	--	--	--
TX-03A	09/23/21	0.0183	0.000973 J	0.00677	0.000651 J	0.221	--	--	--
TX-03A	03/28/22	<b>0.121</b>	0.00255	0.0120	0.00163 J	0.998	--	--	--
TX-03A	06/28/22	<b>0.114</b>	0.00632	0.0132	0.00356	<b>1.39</b>	--	--	--
TX-03A	09/21/22	0.00895	0.000999 J	0.00181	0.00111 J	0.294	--	--	--
TX-03A	12/13/22	<b>0.122</b>	0.00701	0.00140	0.00682	<b>1.05</b>	1.51	0.598	--
TX-03A	03/27/23	<b>0.165</b>	0.00807	0.00532	0.00904	<b>1.5</b>	--	--	--
TX-03A	06/14/23	<b>0.241</b>	0.00880	0.00497	0.00791	<b>1.37</b>	--	--	--
TX-03A	09/12/23	<b>0.0890</b>	0.00760	0.000770 J	0.00860	<b>1.98</b>	--	--	--
TX-03A	12/20/23	<b>0.0886</b>	0.00846	0.00165	0.0108	<b>1.99</b>	1.2	0.374	--
TX-04	01/13/04	0.025	0.0055	< 0.001	0.0194	0.65	0.59	< 0.5	--
TX-04	04/21/04	0.0025	0.0017	< 0.001	0.0031	0.47	2.2	< 0.75	--
TX-04	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.5	< 0.5	--
TX-04	10/18/04	< 0.001	< 0.001	< 0.001	0.0022	0.28	1.2	< 0.5	--
TX-04	01/24/05	0.031	0.0071	< 0.001	0.0204	0.87	0.64	< 0.5	--
TX-04	04/20/05	0.014	0.0036	< 0.001	0.0085	0.54	0.73	< 0.5	--
TX-04	07/12/05	< 0.001	< 0.001	< 0.001	0.0014	0.34	0.82	< 0.5	--
TX-04	10/18/05	< 0.001	< 0.001	< 0.001	< 0.001	0.2	1.1	< 0.5	--
TX-04	01/25/06	0.00127	0.001	< 0.0005	0.00151	0.206	0.835	< 0.476	--
TX-04	11/18/08	< 0.005	< 0.005	< 0.005	< 0.005	0.076	< 0.25	< 0.5	--
TX-04	11/16/09	< 0.0005	< 0.001	< 0.001	< 0.001	0.17	0.13	< 0.1	--
TX-04	10/25/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.17	< 0.1	--
TX-04	05/23/11	< 0.0003	< 0.0005	< 0.0003	< 0.0007	0.0554	--	--	--
TX-04	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.0966	< 0.20	--
TX-04	11/26/12	0.0013	0.00038 J	< 0.00020	0.00052 J	0.0980 J	0.0807 J	< 0.10	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
TX-04	11/04/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0492 J	< 0.095	--
TX-04	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.096	--
TX-04	12/08/15	0.000268	< 0.0010	< 0.0010	< 0.0030	< 0.100	< 0.245	< 0.408	--
TX-04	12/12/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	0.0762 J	< 0.0608	--
TX-04	12/05/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.0834	< 0.125	--
TX-04	12/19/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	< 0.104	< 0.114	--
TX-04	12/12/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.122 J	< 0.119	--
TX-04	12/14/20	<0.00020	<0.0002	<0.00020	<0.0005	<0.250	<0.110	<0.351	--
TX-04	12/15/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	<0.247	<0.411	--
TX-04	12/13/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	<0.232	<0.386	--
TX-04	12/19/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	<0.12	0.125 J	--
TX-06A	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	5.8	< 1	--
TX-06A	04/21/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	3.4	< 0.75	--
TX-06A	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	3.6	< 0.5	--
TX-06A	10/18/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	4.1	< 0.5	--
TX-06A	01/24/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	2.7	< 0.5	--
TX-06A	04/20/05	< 0.001	< 0.001	< 0.001	< 0.001	0.18	6.3	< 1.5	--
TX-06A	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.26	2.5	< 0.5	--
TX-06A	10/18/05	< 0.001	< 0.001	< 0.001	< 0.001	0.072	0.93	< 0.5	--
TX-06A	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	0.126	1.57	< 0.476	--
TX-06A	11/18/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	0.49	< 0.5	--
TX-06A	11/17/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.24	< 0.1	--
TX-06A	10/28/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.72	< 0.1	--
TX-06A	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.0519	0.499	< 0.21	--
TX-06A	11/25/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.50	0.716	< 0.098	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
	Site-Specific Cleanup Level	0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
TX-06A	11/07/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.358	< 0.095	--
TX-06A	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.758	0.184	--
TX-06A	12/08/15	< 0.00020	< 0.0010	< 0.0010	< 0.0030	< 0.100	1.03	<0.388	--
TX-06A	12/12/16	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0178	0.433	0.0707 J	--
TX-06A	12/05/17	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.36	< 0.122	--
TX-06A	12/20/18	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.592	0.244 J	--
TX-06A	12/10/19	< 0.0000930	< 0.000312	< 0.000198	< 0.000442	< 0.0704	0.244	< 0.119	--
TX-06A	12/14/20	<0.00020	<0.0002	<0.00020	<0.0005	<0.250	1.32	0.589	--
TX-06A	12/15/21	<0.000400	<0.00100	<0.00100	<0.00300	<0.150	0.589	0.146 J	--
TX-06A	12/12/22	<0.000400	<0.00100	<0.00100	<0.00300	<0.15	0.659	0.21 J	--
TX-06A	12/19/23	<0.00100	<0.00100	<0.00100	<0.00200	<0.1	0.816	0.483	--
MW-01	07/28/15	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	--	--	--

**Table 6**  
**BTEX, Petroleum Hydrocarbons, and Lead in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	Volatile Organic Compounds				Hydrocarbons			Lead
		Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg	TPHd	TPHo	Total
<b>Site-Specific Cleanup Level</b>		0.071	200	29	NE	1	10	10	0.0058
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L

**Note:**

  = Indicates data collected during this progress report period

\* = Cleanup levels per the Cleanup Action Plan (Ecology, 1998)

<sup>1</sup> = Dissolved lead result

**Bold** = indicate detected concentration greater than cleanup level

BTEX = benzene, toluene, ethylbenzene, and total xylenes

J = Result is less than the reporting limit, but greater than or equal to the method detection limit, and the concentration is an approximate value.

J+ = The result is an estimated quantity, but the result may be biased high.

J- = The result is an estimated quantity, but the result may be biased low.

< = not detected at or above the indicated limit. Beginning June 12, 2012, limits shown are laboratory Method Detection Limits (MDLs). Prior to June 12, 2012, limits shown are laboratory Reporting Limits (RLs).

mg/L = milligrams per liter

NA = not analyzed

NE = not established

TPHg = Total petroleum hydrocarbons as gasoline analyzed by Northwest Method NWTPH-Gx.

TPHd = Total petroleum hydrocarbons as diesel analyzed by Northwest Method NWTPH-Dx.

TPHo = Total petroleum hydrocarbons as oil analyzed by Northwest Method NWTPH-Dx.

**Table 7**  
**Carcinogenic PAHs in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	PAHs							cPAH TEQ
		Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Chrysene	Dibenz(a,h)-anthracene	Indeno(1,2,3-cd)pyrene	
Site-Specific Cleanup Level		--	--	--	--	--	--	--	0.000031
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-213	01/14/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	04/20/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	07/28/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	10/19/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	01/25/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	04/19/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	07/12/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	10/20/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	01/26/06	< 0.0000943	< 0.0000943	< 0.0000943	< 0.0000943	< 0.0000943	< 0.0000943	< 0.0000943	< 0.0000943
MW-213	10/30/07	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-213	11/19/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-213	04/07/09	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	11/18/09	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	04/26/10	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	10/28/10	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-213	05/24/11	< 0.00003	< 0.00003	< 0.00003	< 0.00003	< 0.00003	< 0.00003	< 0.00003	< 0.00003
MW-213	10/25/11	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
MW-213	06/12/12	< 0.000050	< 0.000041	< 0.000035	< 0.000039	< 0.000045	< 0.000035	< 0.000035	< 0.000050
MW-213	11/29/12	< 0.000053	< 0.000041	< 0.000035	< 0.000039	< 0.000045	< 0.000035	< 0.000035	< 0.000053
MW-213	05/15/13	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-213	11/05/13	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000043	< 0.000033	< 0.000033	< 0.000050
MW-213	04/23/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000043	< 0.000033	< 0.000033	< 0.000050
MW-213	11/05/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-213	05/19/15	< 0.0014	< 0.0011	< 0.0013	< 0.0013	< 0.0016	< 0.0012	< 0.0013	< 0.0016
MW-213	12/09/15	< 0.0000948	< 0.0000948	< 0.0000948	< 0.0000948	< 0.0000948	< 0.0000948	< 0.0000948	< 0.0000948



**Table 7**  
**Carcinogenic PAHs in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	PAHs							cPAH TEQ
		Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Chrysene	Dibenz(a,h)-anthracene	Indeno(1,2,3-cd)pyrene	
Site-Specific Cleanup Level		--	--	--	--	--	--	--	0.000031
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-213	05/03/16	< 0.00000920	< 0.0000101	< 0.0000101	< 0.0000138	< 0.00000644	< 0.0000120	< 0.0000202	< 0.0000202
MW-213	12/13/16	0.0000122	< 0.0000887	< 0.0000108	< 0.0000148	< 0.00000690	< 0.0000128	< 0.0000217	0.00000122
MW-213	06/14/17	< 0.0000888	< 0.0000109	< 0.0000109	< 0.0000148	< 0.00000691	< 0.0000128	< 0.0000217	< 0.0000128
MW-213	12/07/17	< 0.00000965	< 0.0000106	< 0.0000106	< 0.0000145	< 0.00000676	< 0.0000125	< 0.0000212	< 0.0000212
MW-213	06/12/18	< 0.0000103	< 0.0000113	< 0.0000113	< 0.0000154	< 0.00000720	< 0.0000134	< 0.0000226	< 0.0000226
MW-213	12/19/18	< 0.0000119	< 0.0000119	< 0.0000109	< 0.0000149	< 0.00000893	< 0.0000129	< 0.0000218	< 0.0000218
MW-213	05/16/19	< 0.0000119	< 0.0000119	< 0.0000109	< 0.0000149	< 0.00000893	< 0.0000129	< 0.0000218	< 0.0000218
MW-213	12/11/19	< 0.0000119	< 0.0000896	< 0.0000109	< 0.0000149	< 0.00000995	< 0.0000129	< 0.0000219	< 0.0000219
MW-213	06/29/20	<0.0000124	<0.0000124	<0.0000113	<0.0000154	<0.0000103	<0.0000134	<0.0000226	<0.0000226
MW-213	12/16/20	<0.0000503	<0.000101	<0.0000503	<0.0000503	<0.000101	<0.000101	<0.0000503	<0.000101
MW-213	06/14/21	<0.0000506	<0.000101	<0.0000506	<0.0000506	<0.000101	<0.000101	<0.0000506	<0.000101
MW-213	12/16/21	<0.0000895	<0.0000895	<0.0000895	<0.0000895	<0.0000895	<0.0000895	<0.0000895	<0.0000895
MW-213	06/29/22	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905
MW-213	12/12/22	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905
MW-213	06/12/23	<0.0000907	<0.0000907	<0.0000907	<0.0000907	<0.0000907	<0.0000907	<0.0000907	<0.0000907
MW-213	12/18/23	<0.0000530	<0.000106	<0.000106	<0.0000530	<0.000106	<0.000106	<0.0000530	<0.000106
MW-214	01/30/03	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	04/17/03	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	07/17/03	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	10/16/03	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	01/14/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	04/20/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	07/28/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	10/19/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	01/25/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001

**Table 7**  
**Carcinogenic PAHs in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	PAHs							cPAH TEQ
		Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Chrysene	Dibenz(a,h)-anthracene	Indeno(1,2,3-cd)pyrene	
Site-Specific Cleanup Level		--	--	--	--	--	--	--	0.000031
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-214	04/19/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	07/12/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	10/20/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	01/26/06	< 0.000099	< 0.000099	< 0.000099	< 0.000099	< 0.000099	< 0.000099	< 0.000099	< 0.000099
MW-214	10/30/07	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-214	05/05/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-214	11/19/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-214	04/07/09	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	11/18/09	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	04/26/10	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	10/28/10	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
MW-214	05/24/11	< 0.000029	< 0.000029	< 0.000029	< 0.000029	< 0.000029	< 0.000029	< 0.000029	< 0.000029
MW-214	10/25/11	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
MW-214	06/12/12	< 0.000051	< 0.000040	< 0.000034	< 0.000038	< 0.000044	< 0.000034	< 0.000034	< 0.000051
MW-214	11/29/12	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-214	05/15/13	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-214	11/05/13	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-214	04/23/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000043	< 0.000033	< 0.000033	< 0.000050
MW-214	11/05/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-214	05/19/15	< 0.0013	< 0.0010	< 0.0012	< 0.0013	< 0.0015	< 0.0012	< 0.0013	< 0.0015
MW-214	12/09/15	< 0.0000908	< 0.0000908	< 0.0000908	< 0.0000908	< 0.0000908	< 0.0000908	< 0.0000908	< 0.0015
MW-214	05/04/16	< 0.00000926	< 0.0000102	< 0.0000102	< 0.0000139	< 0.00000648	< 0.0000120	< 0.0000204	< 0.0000204
MW-214	12/14/16	0.00000994	< 0.0000883	< 0.0000108	< 0.0000147	< 0.00000687	< 0.0000128	< 0.0000216	0.00000994
MW-214	06/14/17	< 0.0000850	< 0.0000104	< 0.0000104	< 0.0000142	< 0.00000661	< 0.0000123	< 0.0000208	< 0.0000208
MW-214	12/07/17	< 0.0000102	< 0.0000112	< 0.0000112	< 0.0000153	< 0.00000713	< 0.0000132	< 0.0000224	< 0.0000224
MW-214	06/12/18	< 0.00000976	< 0.0000107	< 0.0000107	< 0.0000146	< 0.00000683	< 0.0000127	< 0.0000215	< 0.0000215

**Table 7**  
**Carcinogenic PAHs in Groundwater**  
**Shell Harbor Island Terminal**  
**Seattle, Washington**

Sample ID	Sample Date	PAHs							cPAH TEQ
		Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Chrysene	Dibenz(a,h)-anthracene	Indeno(1,2,3-cd)pyrene	
Site-Specific Cleanup Level		--	--	--	--	--	--	--	0.000031
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-214	12/19/18	< 0.0000119	< 0.0000119	< 0.0000109	< 0.0000149	< 0.00000894	< 0.0000129	< 0.0000219	< 0.0000219
MW-214	05/16/19	< 0.0000119	< 0.0000119	< 0.0000109	< 0.0000149	< 0.00000894	< 0.0000129	< 0.0000219	< 0.0000219
MW-214	12/11/19	0.0000141 J	< 0.0000921	< 0.0000113	< 0.0000154	< 0.0000102	< 0.0000133	< 0.0000225	0.00000141
MW-214	06/29/20	<0.0000117	<0.0000117	<0.0000108	<0.0000147	<0.00000977	<0.0000127	<0.0000215	<0.0000215
MW-214	12/16/20	<0.0000517	<0.000103	<0.0000517	<0.0000517	<0.000103	<0.000103	<0.0000517	<0.0000517
MW-214	06/14/21	<0.0000499	<0.0000999	<0.0000499	<0.0000499	<0.0000999	<0.0000999	<0.0000499	<0.0000499
MW-214	12/16/21	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905	<0.0000905
MW-214	06/29/22	<0.0000910	0.0000123 J	<0.0000910	<0.0000910	0.0000148 J	<0.0000910	<0.0000910	0.0000124
MW-214	12/12/22	<0.0000904	<0.0000904	<0.0000904	<0.0000904	<0.0000904	<0.0000904	<0.0000904	<0.0000904
MW-214	06/12/23	0.0000224 J	<0.0000903	<0.0000903	<0.0000903	<0.0000903	<0.0000903	<0.0000903	0.00000224
MW-214	12/18/23	0.0000275 J	0.0000243 J	0.0000275 J	0.0000243 J	<0.0000984	<0.0000984	0.0000228 J	<b>0.0000345 J</b>
MW-301	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-301	05/21/15	< 0.0014	< 0.0011	< 0.0013	< 0.0013	< 0.0016	< 0.0012	< 0.0013	< 0.0016
MW-302	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-302	05/21/15	< 0.0013	< 0.0010	< 0.0012	< 0.0013	< 0.0015	< 0.0012	< 0.0013	< 0.0015
MW-303	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000043	< 0.000033	< 0.000033	< 0.000050
MW-303	05/20/15	< 0.0014	< 0.0011	< 0.0013	< 0.0013	< 0.0016	< 0.0012	< 0.0013	< 0.0016
MW-304	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-304	05/20/15	< 0.0013	< 0.0010	< 0.0012	< 0.0013	< 0.0015	< 0.0012	< 0.0013	< 0.0015
MW-309	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-309	05/20/15	< 0.0014	< 0.0011	< 0.0013	< 0.0014	< 0.0016	< 0.0012	< 0.0013	< 0.0016

**Table 7  
Carcinogenic PAHs in Groundwater  
Shell Harbor Island Terminal  
Seattle, Washington**

Sample ID	Sample Date	PAHs							cPAH TEQ
		Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Chrysene	Dibenz(a,h)-anthracene	Indeno(1,2,3-cd)pyrene	
Site-Specific Cleanup Level		--	--	--	--	--	--	--	0.000031
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-310	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-310	05/21/15	< 0.0013	< 0.0010	< 0.0012	< 0.0013	< 0.0015	< 0.0012	< 0.0013	< 0.0015
MW-311	11/05/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
MW-312	11/05/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
TX-03A	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033	< 0.000050
TX-03A	05/21/15	< 0.0014	< 0.0010	< 0.0013	< 0.0013	< 0.0016	< 0.0012	< 0.0013	< 0.0016

**Note:**

= Indicates data collected during this progress report period

-- = There are not established individual cleanup levels for polycyclic aromatic hydrocarbons (PAHs). The carcinogenic PAHs total toxic equivalent concentration (TEQ) is calculated and compared to the established cleanup level.

\* = Cleanup levels per the Cleanup Action Plan (Ecology, 1998)

J = Result is less than the reporting limit, but greater than or equal to the method detection limit, and the concentration is an approximate value.

< = not detected at or above the indicated limit. Beginning June 12, 2012, limits shown are

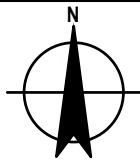
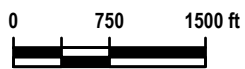
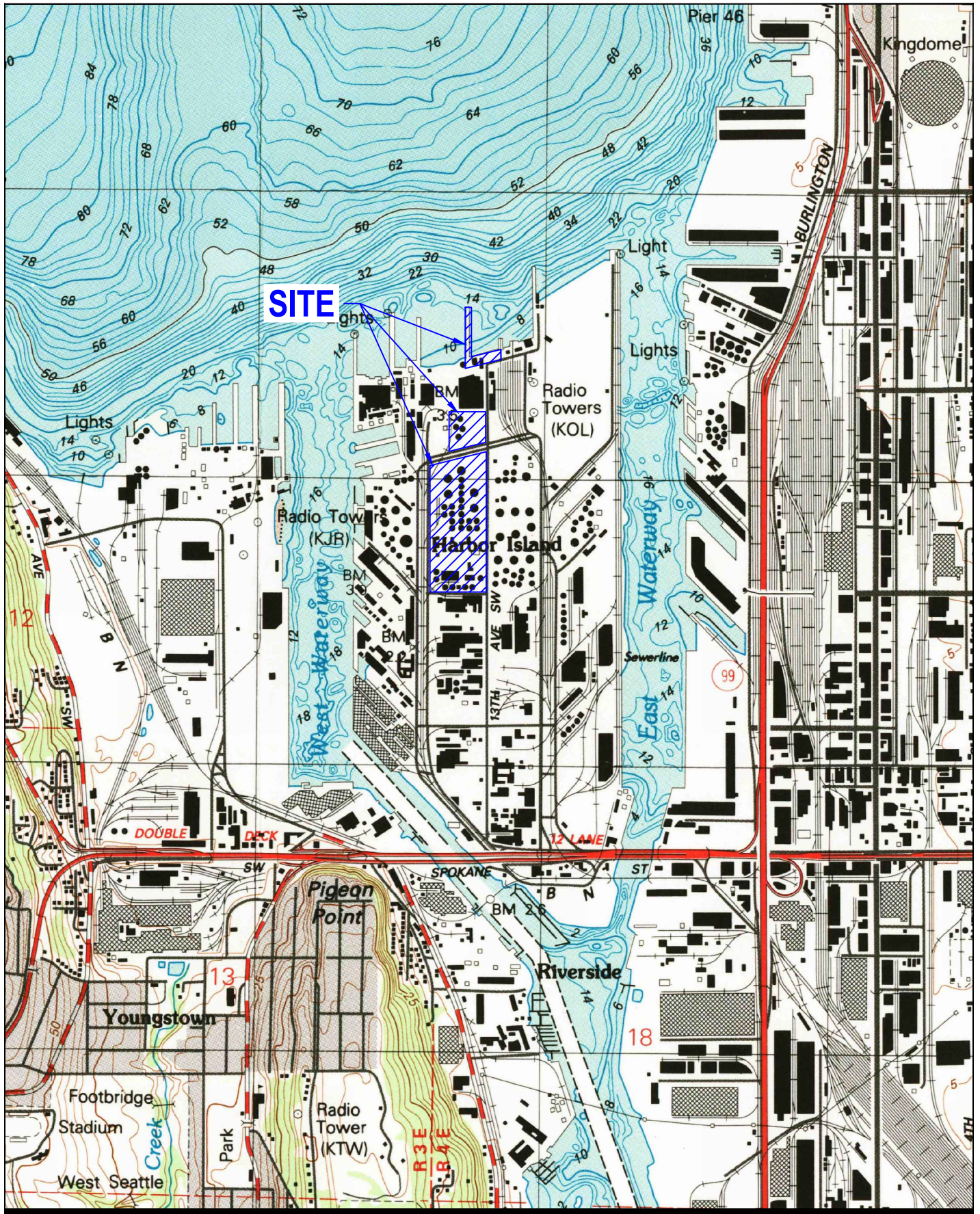
ID = identification

mg/L = milligrams per liter

PAHs = polycyclic aromatic hydrocarbons

# Figures





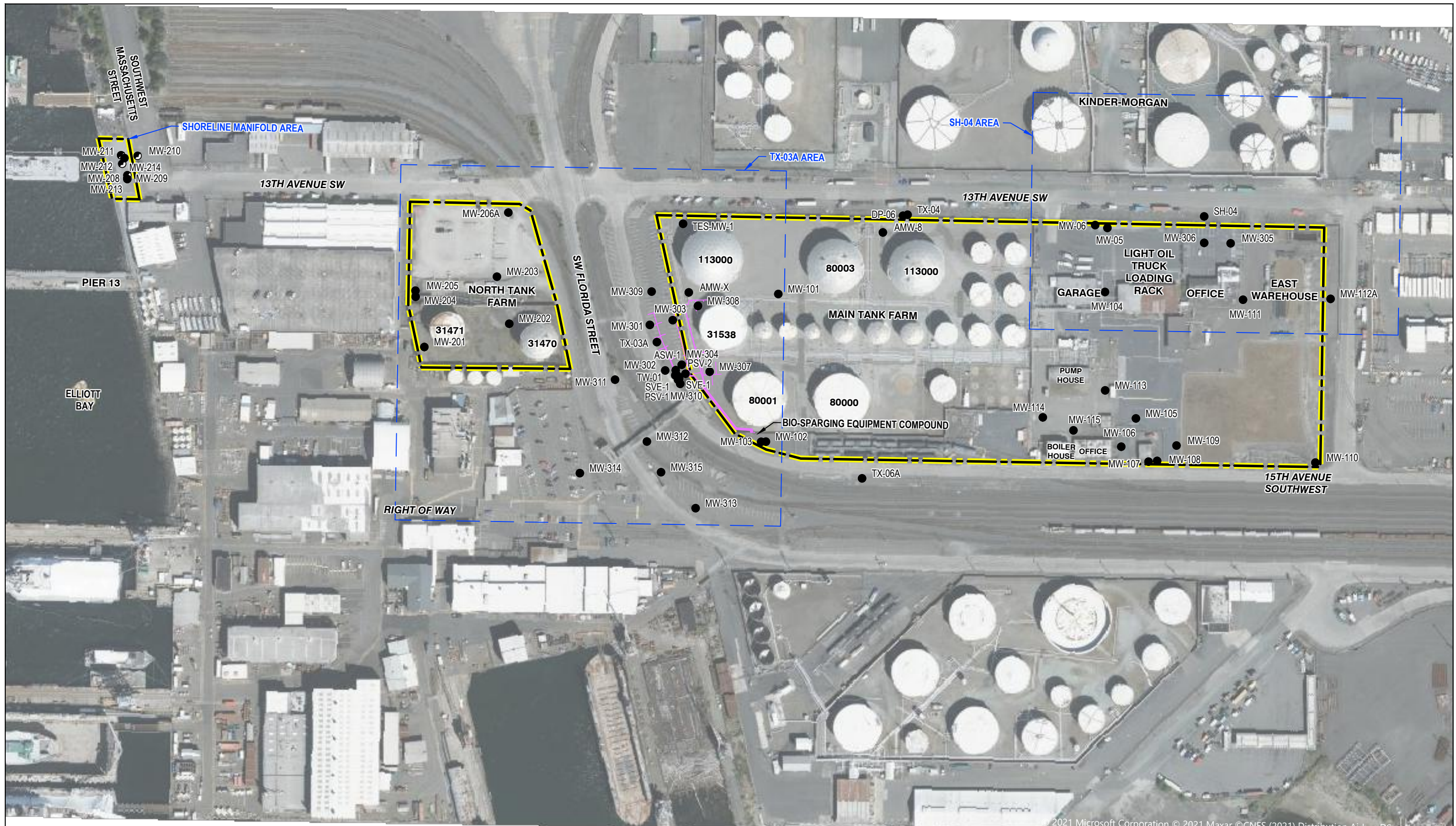
SHELL HARBOR ISLAND TERMINAL  
 2555 13TH AVENUE SW  
 SEATTLE, WASHINGTON

Project No. 11218519  
 Date February 2024

SITE LOCATION MAP

FIGURE 1

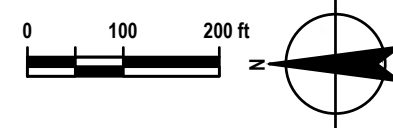




© 2021 Microsoft Corporation © 2021 Maxar ©CNES (2021) Distribution Airbus DS

**LEGEND**

- - - SHELL PROPERTY LINE
- MW-214 ● MONITORING WELL LOCATION
- MW-210 ● PRODUCT RECOVERY WELL LOCATION
- - - BIO-SPARGING LINE



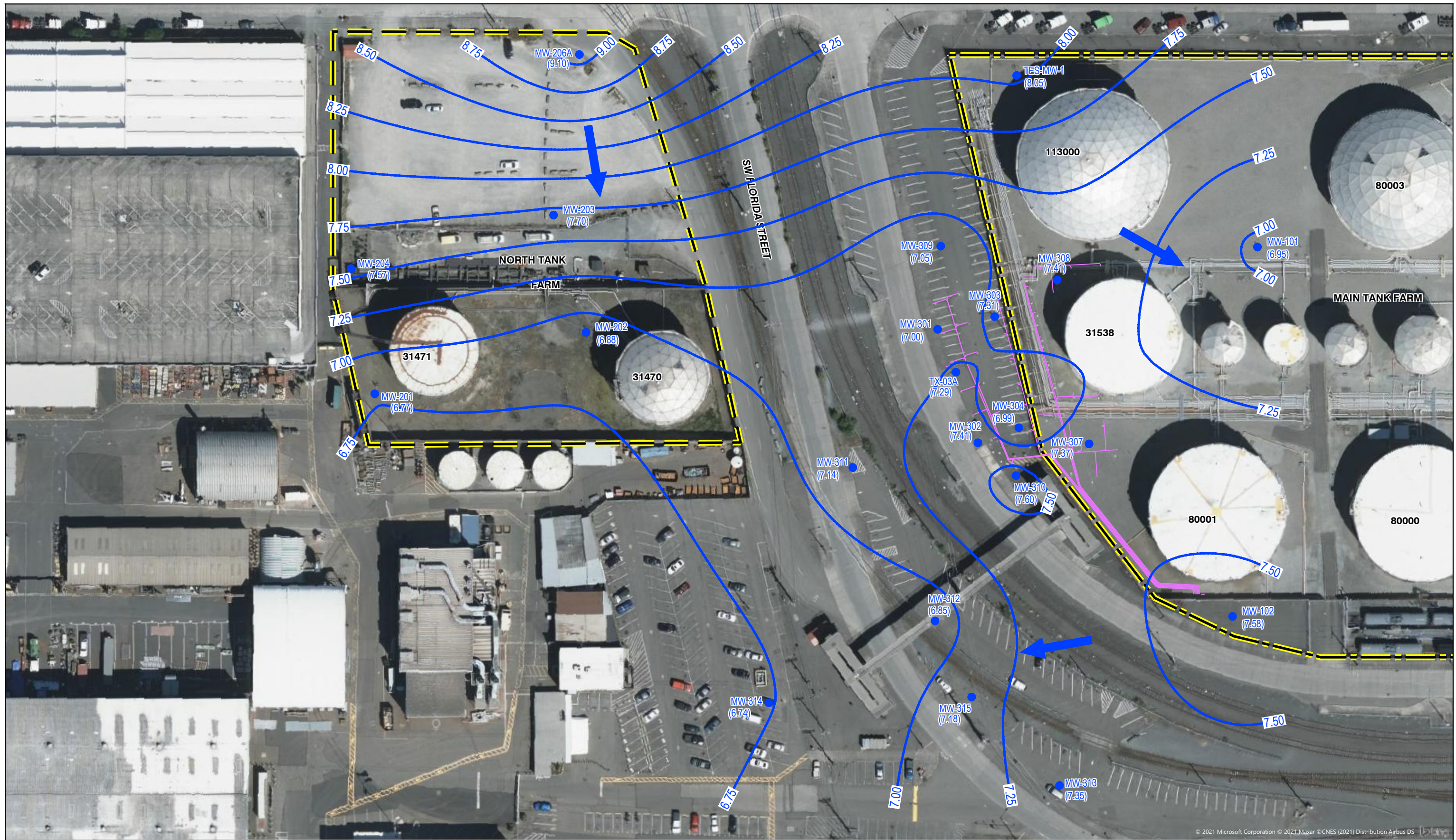
**SHELL HARBOR ISLAND TERMINAL**  
 2555 13th AVENUE SW  
 SEATTLE, WASHINGTON

Project No. 11218519  
 Date February 2024

**SITE PLAN**

**FIGURE 2**

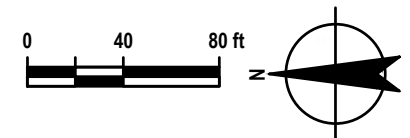




© 2021 Microsoft Corporation © 2021 Maxar © CNES (2021) Distribution Airbus DS

**LEGEND**  
 --- SHELL PROPERTY LINE  
 ● MW-214 MONITORING WELL LOCATION  
 ● MW-210 PRODUCT RECOVERY WELL LOCATION  
 --- BIO-SPARGING LINE

(6.74) GROUNDWATER ELEVATION  
 — 7.00 GROUNDWATER ELEVATION CONTOUR  
 → GROUNDWATER FLOW DIRECTION

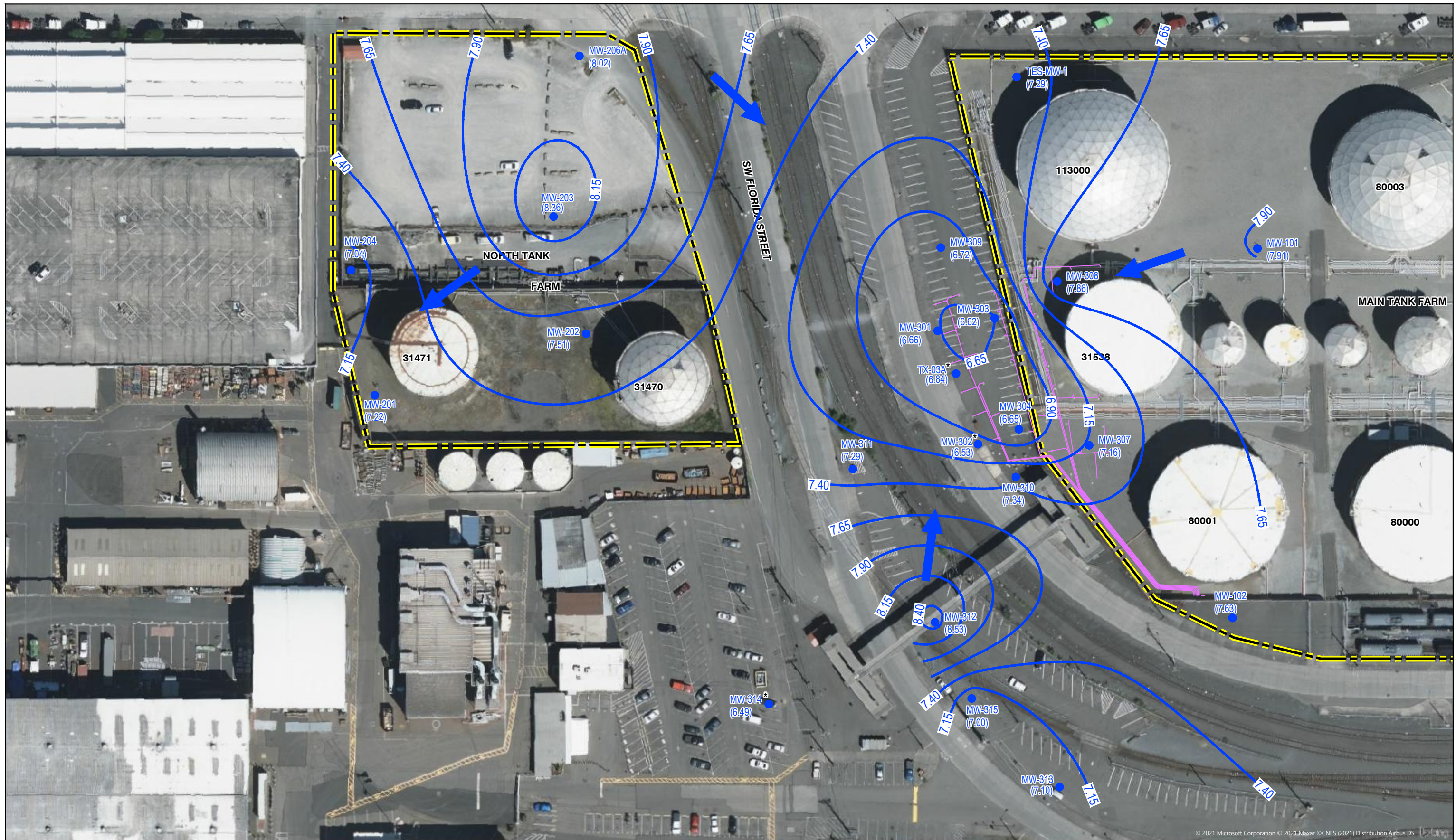


SHELL HARBOR ISLAND TERMINAL  
 2555 13th AVENUE SW  
 SEATTLE, WASHINGTON  
 TX-03A AREA  
 GROUNDWATER SURFACE  
 CONTOUR MAP - 3/27/2023 (1Q2023)

Project No. 11218519  
 Date February 2024

**FIGURE 3**



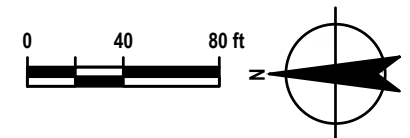


© 2021 Microsoft Corporation © 2021 Maxar © CNES (2021) Distribution Airbus DS

**LEGEND**

	SHELL PROPERTY LINE		(5.69)	GROUNDWATER ELEVATION
	MW-214 MONITORING WELL LOCATION		6.65	GROUNDWATER ELEVATION CONTOUR
	MW-210 PRODUCT RECOVERY WELL LOCATION			GROUNDWATER FLOW DIRECTION
	BIO-SPARGING LINE			

NOTE:  
 \* MW-302, TX-03A, AND MW-314 WELLS WERE GAUGED ON 6/13 OR 6/14 AND ARE NOT USED IN CONTOURING



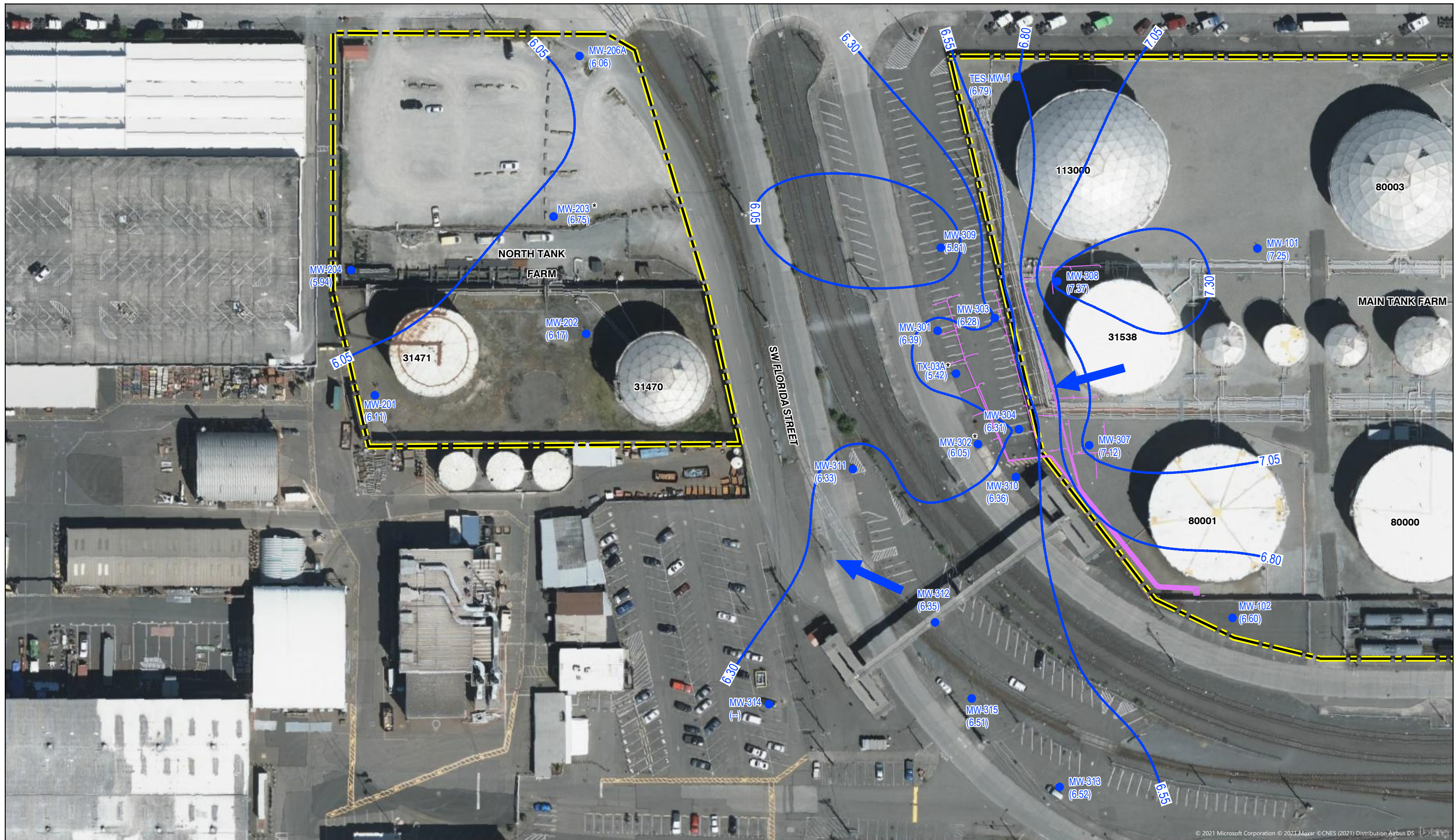
SHELL HARBOR ISLAND TERMINAL  
 2555 13th AVENUE SW  
 SEATTLE, WASHINGTON

TX-03A AREA  
 GROUNDWATER SURFACE  
 CONTOUR MAP - 6/12/2023 (2Q2023)

Project No. 11218519  
 Date February 2024

**FIGURE 4**



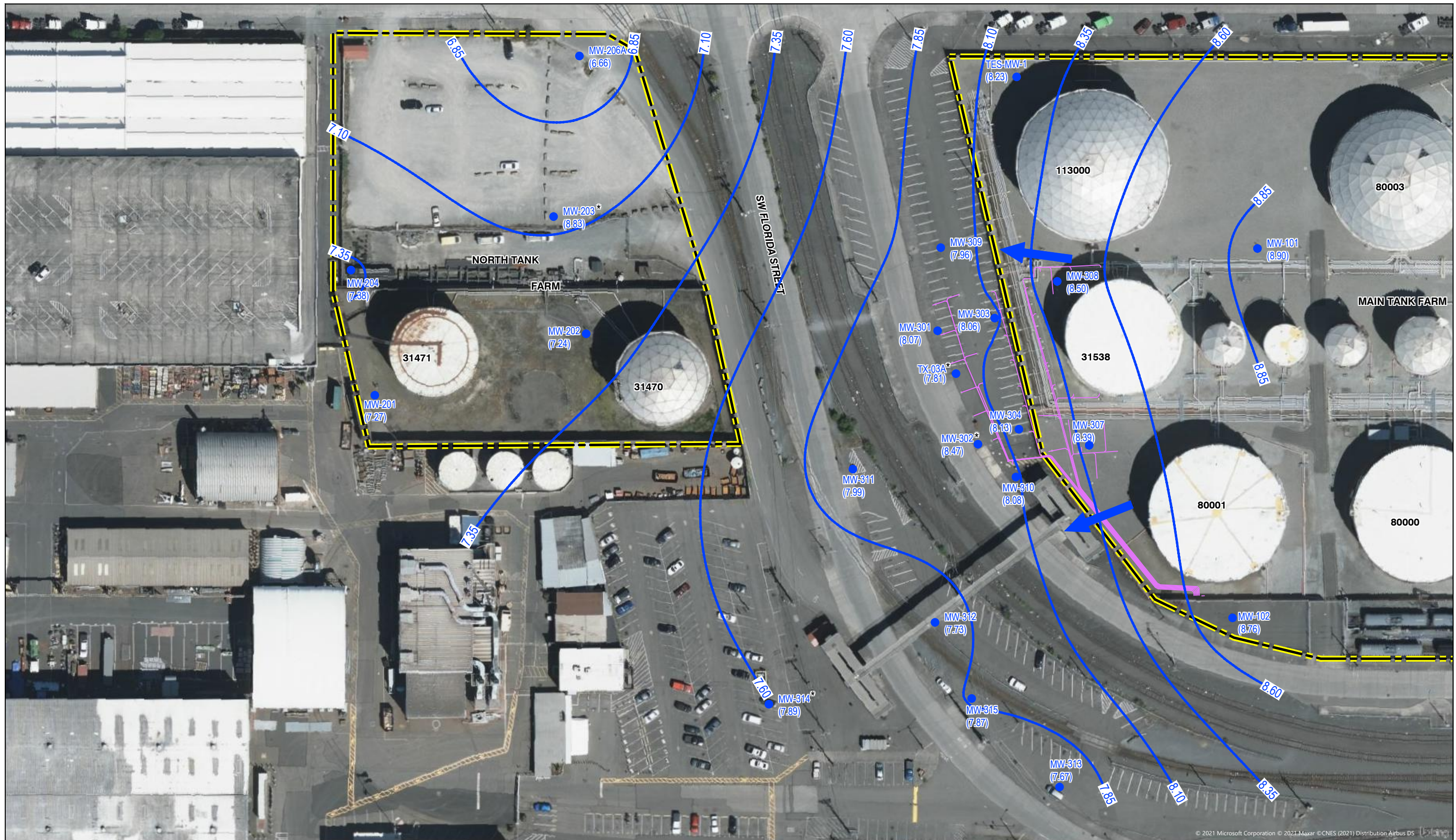


© 2021 Microsoft Corporation © 2021 Maxar © CNES (2021) Distribution Airbus DS

<p><b>LEGEND</b></p> <p>--- SHELL PROPERTY LINE</p> <p>MW-214 ● MONITORING WELL LOCATION</p> <p>MW-210 ● PRODUCT RECOVERY WELL LOCATION</p> <p>--- BIO-SPARGING LINE</p>		<p>(5.81) GROUNDWATER ELEVATION</p> <p>6.30 GROUNDWATER ELEVATION CONTOUR</p> <p>➔ GROUNDWATER FLOW DIRECTION</p> <p>(-) WELL WAS INACCESSIBLE; THEREFORE, DEPTH TO GROUNDWATER COULD NOT BE MEASURED</p>	<p>NOTE:</p> <p>* MW-203, MW-302, AND TX-03A WELLS WERE GAUGED ON 9/12 AND ARE NOT USED IN CONTOURING</p>	<p>0 40 80 ft</p>		<p>SHELL HARBOR ISLAND TERMINAL 2555 13th AVENUE SW SEATTLE, WASHINGTON</p> <p>TX-03A AREA GROUNDWATER SURFACE CONTOUR MAP - 9/11/2023 (3Q2023)</p>	<p>Project No. 11218519 Date February 2024</p>
--	--	---	---	-------------------	--	---	--

**FIGURE 5**





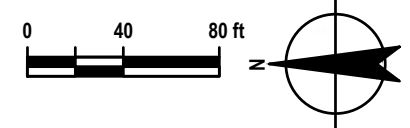
© 2021 Microsoft Corporation © 2021 Maxar © CNES (2021) Distribution Airbus DS

**LEGEND**

	SHELL PROPERTY LINE		GROUNDWATER ELEVATION
	MONITORING WELL LOCATION		GROUNDWATER ELEVATION CONTOUR
	PRODUCT RECOVERY WELL LOCATION		GROUNDWATER FLOW DIRECTION
	BIO-SPARGING LINE		

(8.66) GROUNDWATER ELEVATION  
 6.35 GROUNDWATER ELEVATION CONTOUR  
 GROUNDWATER FLOW DIRECTION

NOTE:  
 \* MW-203, MW-302, TX-03A, AND MW-314 WELLS WERE GAUGED ON 12/20 AND ARE NOT USED IN CONTOURING



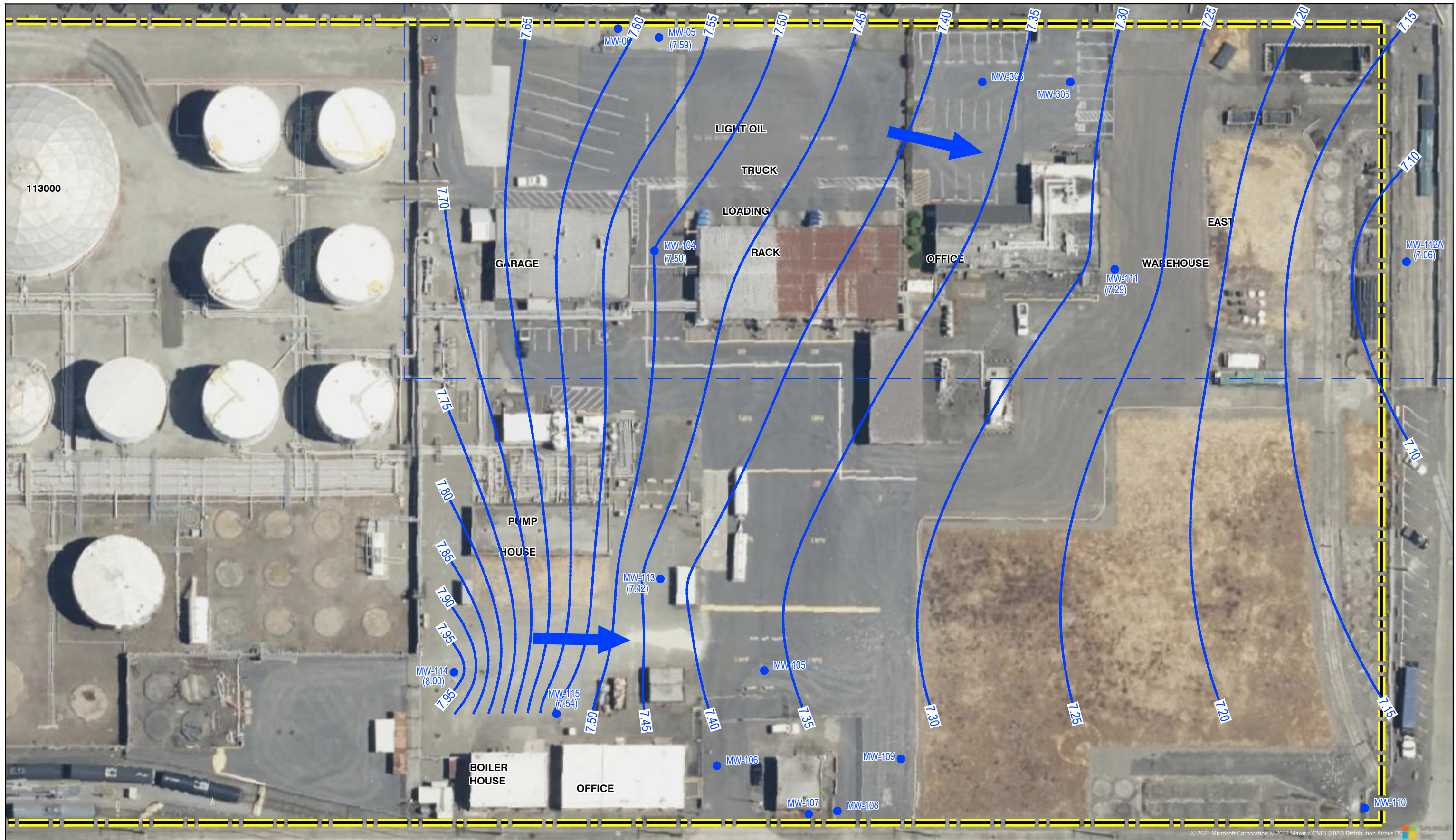
SHELL HARBOR ISLAND TERMINAL  
 2555 13th AVENUE SW  
 SEATTLE, WASHINGTON

TX-03A AREA  
 GROUNDWATER SURFACE  
 CONTOUR MAP - 12/19/2023 (4Q2023)

Project No. 11218519  
 Date February 2024

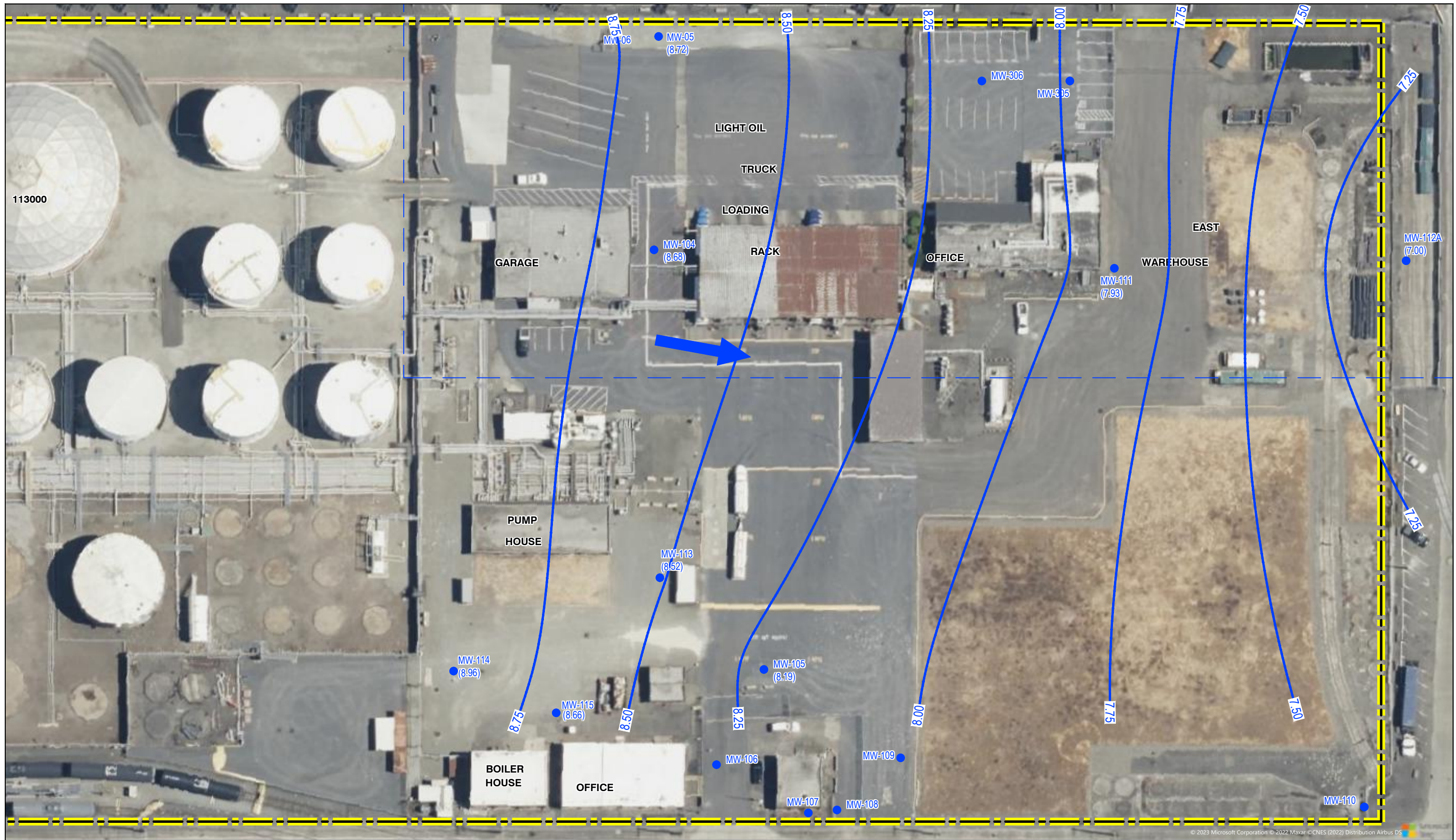
**FIGURE 6**





<p><b>LEGEND</b></p> <p>--- SHELL PROPERTY LINE</p> <p>MW-214 ● MONITORING WELL LOCATION</p>		<p>(7.59) GROUNDWATER ELEVATION</p> <p>— 7.55 — GROUNDWATER ELEVATION CONTOUR</p> <p>➔ GROUNDWATER FLOW DIRECTION</p>	<p>0 30 60 ft</p>		<p>SHELL HARBOR ISLAND TERMINAL 2555 13th AVENUE SW SEATTLE, WASHINGTON</p> <p>PUMP HOUSE AREA GROUNDWATER SURFACE CONTOUR MAP - 6/12/2023</p>	<p>Project No. 11218519 Date February 2024</p>	<p><b>FIGURE 7</b></p>
--	--	---	-------------------	--	--	--	------------------------

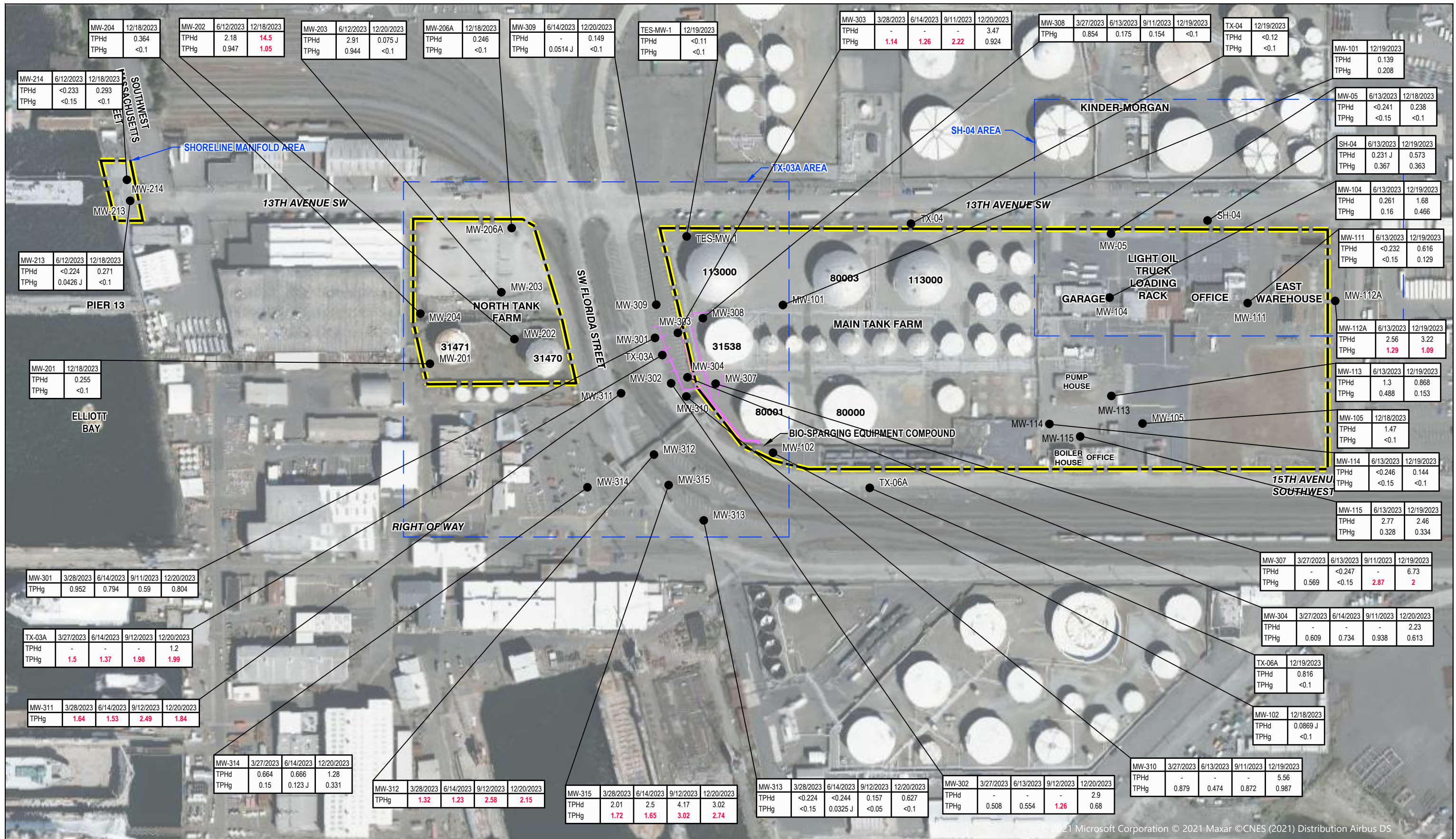




<p><b>LEGEND</b></p> <p>--- SHELL PROPERTY LINE</p> <p>MW-214 ● MONITORING WELL LOCATION</p>		<p>(8.72) GROUNDWATER ELEVATION</p> <p>— 8.75 — GROUNDWATER ELEVATION CONTOUR</p> <p>➔ GROUNDWATER FLOW DIRECTION</p>	<p>0 30 60 ft</p>		<p>SHELL HARBOR ISLAND TERMINAL 2555 13th AVENUE SW SEATTLE, WASHINGTON</p> <p>PUMP HOUSE AREA GROUNDWATER SURFACE CONTOUR MAP - 12/18/2023</p>	<p>Project No. 11218519 Date February 2024</p>
--	--	---	-------------------	--	---	--

**FIGURE 8**





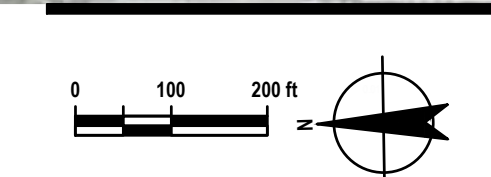
© 2021 Microsoft Corporation © 2021 Maxar ©CNES (2021) Distribution Airbus DS

**LEGEND**

- SHELL PROPERTY LINE
- MW-214 MONITORING WELL LOCATION
- BIO-SPARGING LINE

MW-307	3/28/2022	6/29/2022	
TPHd	-	4.02	SAMPLE DATE
TPHg	3.69	2.87	RESULT (mg/L)
			PARAMETER

- NOTES:**
- RESULTS ARE IN MILLIGRAMS PER LITER (mg/L)
  - RED INDICATES DETECTED CONCENTRATIONS GREATER THAN CLEANUP LEVEL
  - TPHg CLEANUP LEVEL = 1 mg/L
  - TPHd CLEANUP LEVEL = 10 mg/L
  - < NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT
  - NOT ANALYZED
  - J REPORTED VALUE IS ESTIMATED



**GHD**

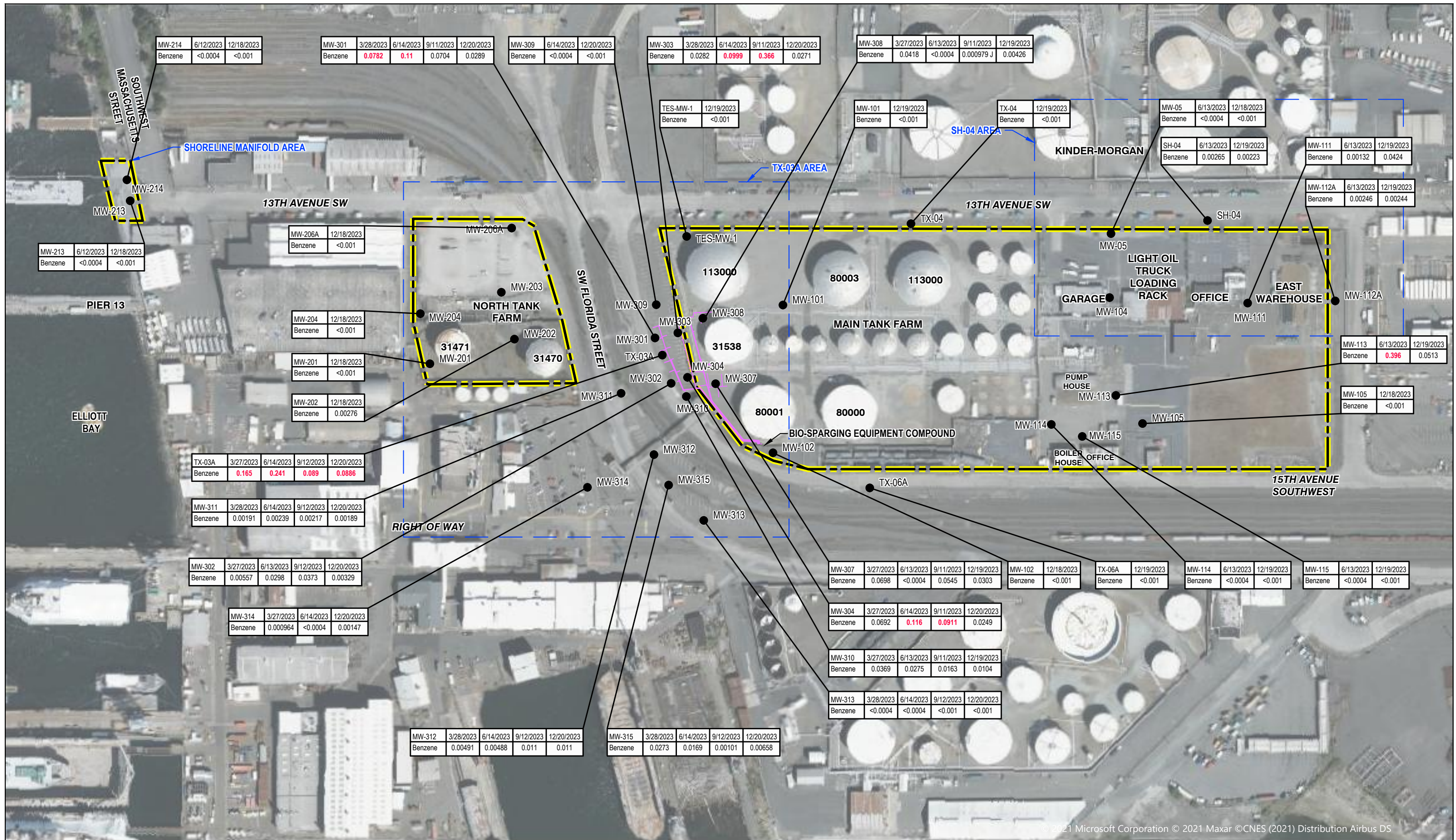
**SHELL HARBOR ISLAND TERMINAL**  
2555 13TH AVENUE SW  
SEATTLE, WASHINGTON

**GASOLINE AND DIESEL CONCENTRATIONS - 2023**

Project No. 11218519  
Date February 2024

**FIGURE 9**





**LEGEND**

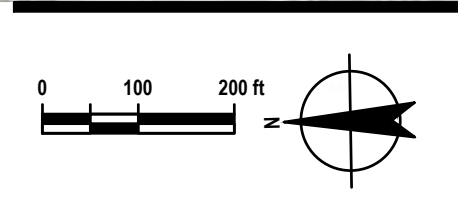
- SHELL PROPERTY LINE
- MW-214 MONITORING WELL LOCATION
- BIO-SPARGING LINE

MW-307	3/28/2022	6/29/2022	
Benzene	0.0982	0.149	

--- SAMPLE LOCATION  
--- SAMPLE DATE  
--- RESULT  
--- PARAMETER

**NOTES:**

- RESULTS ARE IN MILLIGRAMS PER LITER (mg/L)
- RED INDICATES DETECTED CONCENTRATIONS GREATER THAN CLEANUP LEVEL
- BENZENE CLEANUP LEVEL = 0.071 mg/L
- < NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT
- NOT ANALYZED
- J REPORTED VALUE IS ESTIMATED



© 2021 Microsoft Corporation © 2021 Maxar ©CNES (2021) Distribution Airbus DS

**GHD**

**SHELL HARBOR ISLAND TERMINAL**  
2555 13TH AVENUE SW  
SEATTLE, WASHINGTON

**BENZENE CONCENTRATIONS - 2023**

Project No. 11218519  
Date February 2024

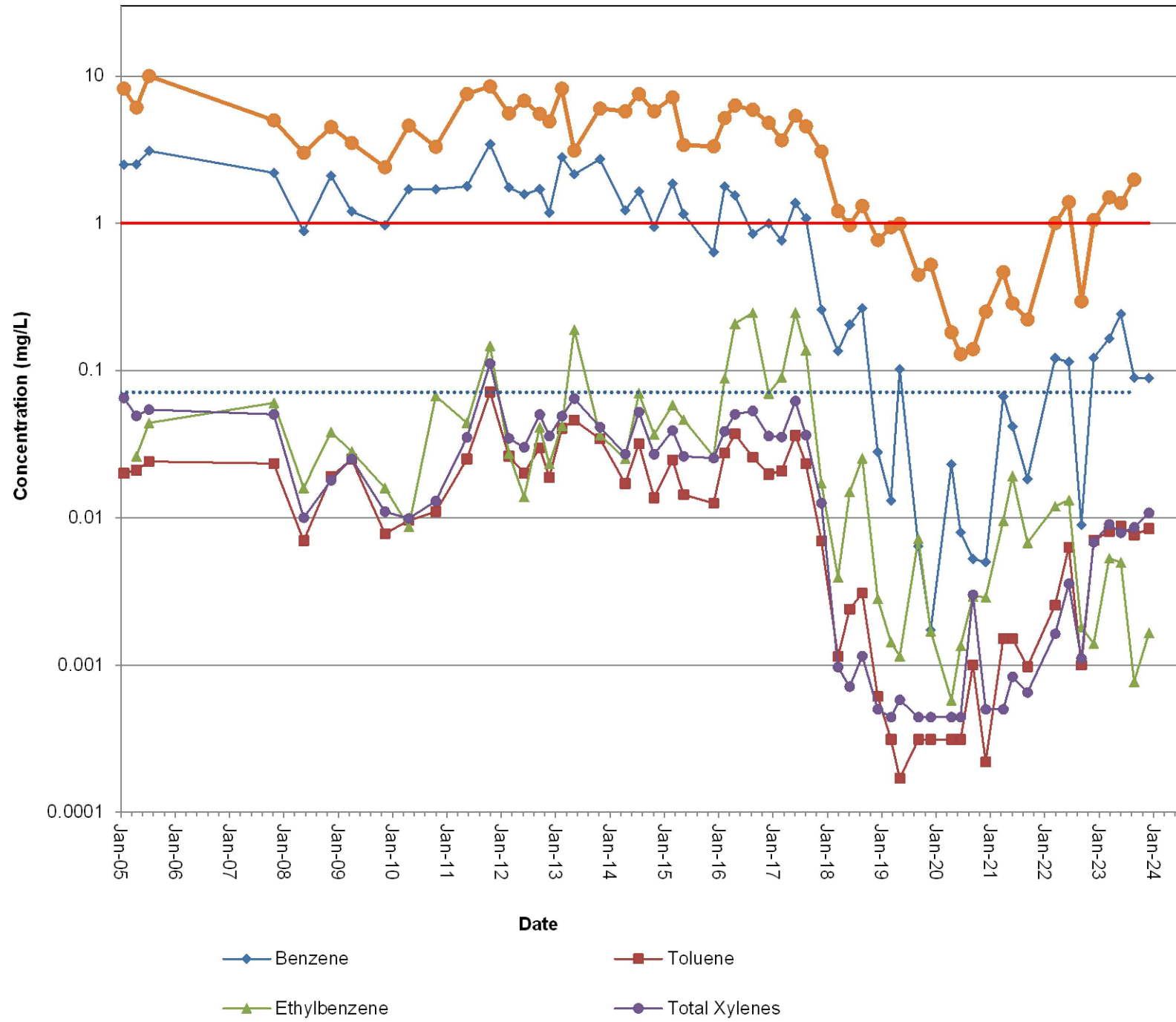
**FIGURE 10**

Data Source: AECOM Site Map dated 2/3/2020.



Figure 11: TX-03A Area Monitoring Well TX-03A BTEX and Gasoline Concentrations

Shell - Harbor Island Terminal



SHELL HARBOR ISLAND TERMINAL  
 2555 13th AVENUE SW  
 SEATTLE, WASHINGTON  
 TX-03A AREA MONITORING WELL  
 TX-03A BTEX AND  
 GASOLINE CONCENTRATIONS

Project No. 11218519  
 Date February 2024

FIGURE 11

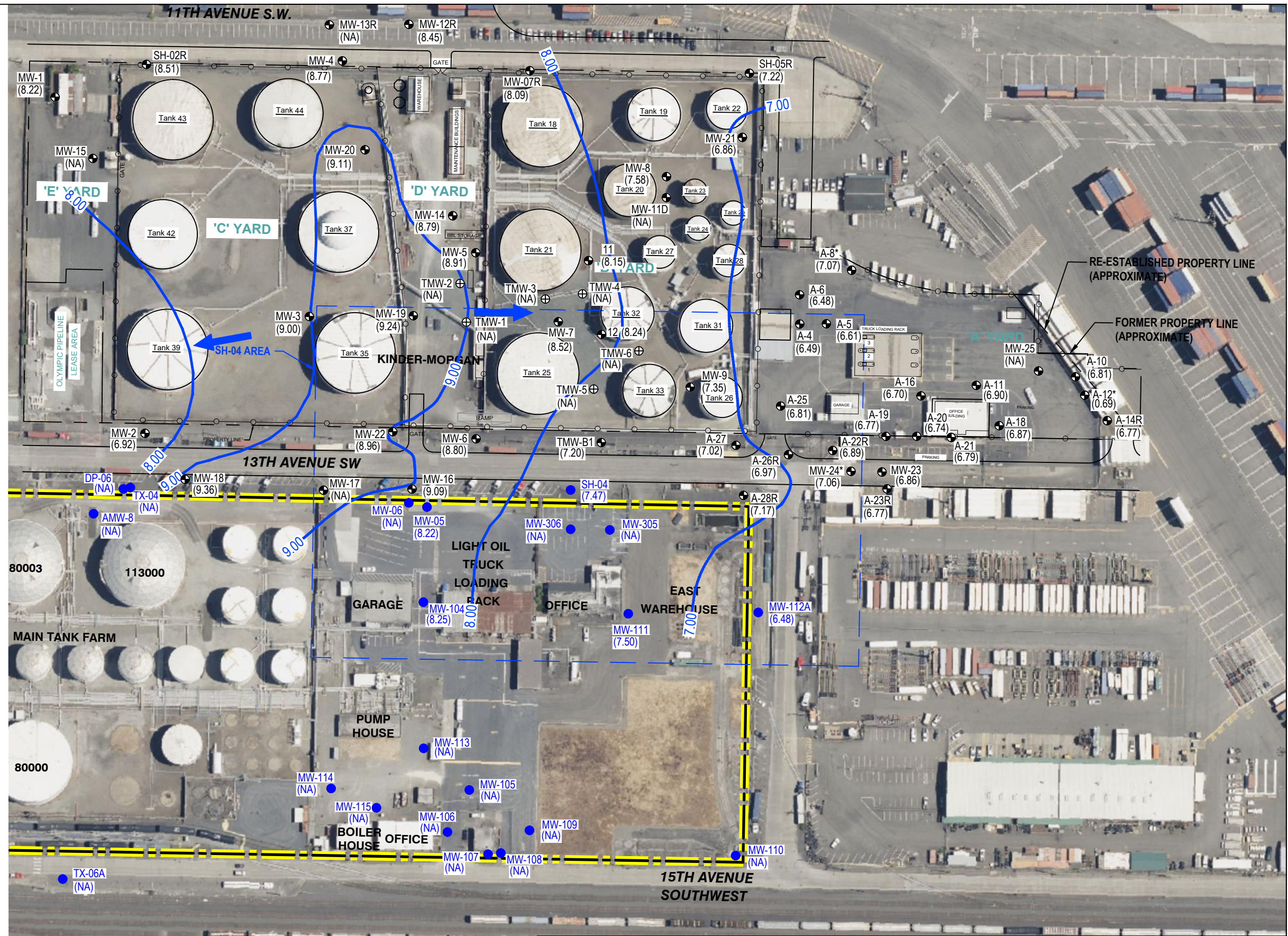


# Appendices

# **Appendix A**

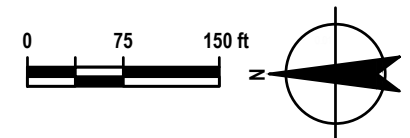
**Figure 1 – Groundwater Surface Contour Map – April 18, 2022 and Figure 2 – Chemical Concentration Map – May 18-20, 2022**





- LEGEND**
- - - SHELL PROPERTY LINE
  - MW-214 SHELL MONITORING WELL LOCATION
  - ⊕ MW-7 KINDER MORGAN MONITORING WELL LOCATION
  - ⊕ TMW-2 KINDER MORGAN PERFORMANCE MONITORING WELL LOCATION
  - (8.25) GROUNDWATER ELEVATION
  - 11.50 GROUNDWATER ELEVATION CONTOUR
  - GROUNDWATER FLOW DIRECTION

- NOTES:**
1. CONTOURS DASHED WHERE INFERRED AND ARE BASED ON SITE-WIDE MEASUREMENTS.
  2. NA = NOT AVAILABLE.
  3. \*WELLS A-8, A-12, AND MW-24 NOT USED IN CONTOURING.



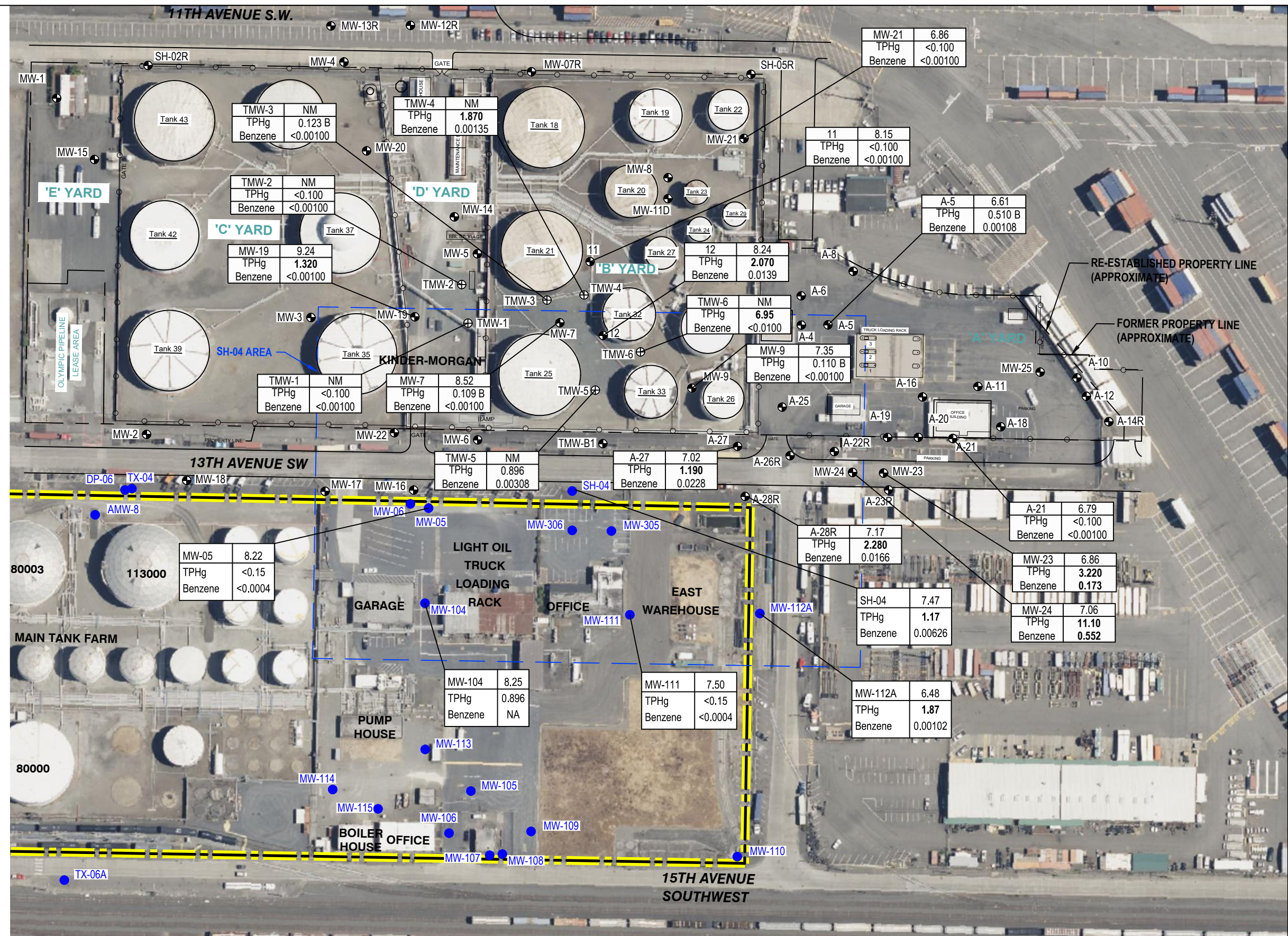
SHELL DISTRIBUTION TERMINAL  
2555 13th AVENUE SW  
SEATTLE, WASHINGTON

**GROUNDWATER SURFACE CONTOUR  
MAP - APRIL 18, 2022**

Project No. 11218519  
Date December 2023

**FIGURE 1**





**LEGEND**

--- SHELL PROPERTY LINE

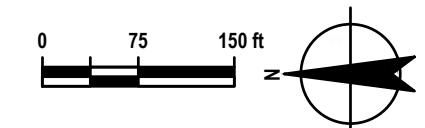
MW-214 ● SHELL MONITORING WELL LOCATION

MW-7 ⊕ KINDER MORGAN MONITORING WELL LOCATION

TMW-2 ⊕ KINDER MORGAN PERFORMANCE MONITORING WELL LOCATION

SH-04	7.47	SAMPLE LOCATION
TPHg	1.17	GROUNDWATER ELEVATION (MSL)
Benzene	0.00626	RESULT
		PARAMETER

- NOTES:**
1. ALL CONCENTRATIONS REPORTED IN MILLIGRAMS PER LITER (mg/L).
  2. BOLD = EXCEEDANCE ABOVE SITE-SPECIFIC CLEANUP LEVEL.
  3. TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE.
  4. NM = NOT MEASURED.
  5. NA = NOT ANALYZED.
  6. B = THE SAME ANALYTE IS FOUND IN THE ASSOCIATED BLANK.



**SHELL DISTRIBUTION TERMINAL**  
 2555 13th AVENUE SW  
 SEATTLE, WASHINGTON

**CHEMICAL CONCENTRATION MAP -**  
 APRIL 18-20, 2022

Project No. 11218519  
 Date December 2023

**FIGURE 2**



# **Appendix B**

**Field Sampling Data Sheets**

Monitoring Well Gauging Field Log - Shoreline

Project No: 11218519  
SAP: 357032  
PlaNet ID: MIGUS357032  
Location: 2555 13th Avenue SW Seattle (Harbor Island Terminal)

Personnel: Nicholas Adamowski

Date: 1/26/2023

Well ID	Time Gauged	Depth to Product	Depth to Water	Comments
MW-208	920		4.41	
NW-210	930	5.65	6.12	Absorbent sock replaced
MW-211	910		4.58	
MW-212	850		5.59	



=

Monitoring Well Gauging Field Log - Shoreline

Project No: 11218519  
 SAP: 357032  
 PlaNet ID: MIGUS357032  
 Location: 2555 13th Avenue SW Seattle (Harbor Island Terminal)

Personnel: Arthur Clauss, Michael Cyrer

Date: 2/23/23

Well ID	Time Gauged	Depth to Product	Depth to Water	Comments
MW-208	0910	—	4.11'	2 of 3 bolts stripped. Loosely sitting. 2" well.
NW-210	1002	—	5.79'	2" well. Sorbent saturated w/ water w/ oxidized staining. Strong Petroleum odor. All 3 bolts stripped.
MW-211	0926	—	4.45'	4" well.
MW-212	0940	—	5.07'	4" well. Sorbent saturated w/ water, some oxidized staining. No petroleum odor. Only 2 bolts.





### Monitoring Well Gauging Field Log - Shoreline

Date: 03/27/23

Job No: 230327-501

SAP:

Incident No 300036

Location: 2555 13th Ave SW, Seattle (Harbor Island Terminal)

Personnel: Jonah Davis

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-208	0820	4.34	—	—
MW-210	0816	6.53	6.70	odor ; Absorbant sock/replaced
MW-211	0812	5.35	—	—
MW-212	0808	5.61	—	Absorbant sock/replaced

## WELL GAUGING DATA

Project # 230327-J01 Date 03/27/23 Client GHD

Site Shell Harbor Island Seattle, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>TOC</u>	Notes
MW-201	0951	2	—	—	—	—	13.41	21.50		
MW-202	0845	2	—	—	—	—	12.98	21.62		
MW-203	0908	2	—	—	—	—	6.29	14.08		
MW-204	0859	2	—	—	—	—	9.70	17.69		
MW-206A	0916	2	—	—	—	—	5.80	16.45		
MW-101	1128	2	—	—	—	—	11.26	20.07		
MW-102	1110	2	—	—	—	—	8.02	17.41		
MW-301	1047	2	—	—	—	—	5.56	14.37		
MW-302	1321	2	—	—	—	—	5.44	14.97		barred over
MW-303	1042	2	—	—	—	—	5.33	14.60		
MW-304	1056	2	—	—	—	—	5.71	14.71		
MW-307	1121	2	—	—	—	—	8.25	17.30		
MW-308	1142	2	—	—	—	—	8.18	17.38		
MW-309	1037	2	—	—	—	—	5.62	14.58		
MW-310	1101	2	—	—	—	—	5.91	14.49		
MW-311	0927	2	—	—	—	—	7.77	15.00		
MW-312	0931	2	—	—	—	—	7.46	14.95		

## WELL GAUGING DATA

Project # 230327-501 Date 03/27/23 Client GHO

Site Shell Harbor Island Seattle, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MU-313	0937	2	-	-	-	-	5.90	13.73	↓	
MU-314	0955	2	-	-	-	6.75	14.80			
MU-315	0943	2	-	-	-	7.43	14.50			
TES-MU-1	1136	4	-	-	-	9.10	15.49			
TX-03A	1450	2	-	-	-	4.97	14.85	↓		Arted over

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230327-J01</u>	Client: <u>GHO</u>
Sampler: <u>J0</u>	Gauging Date: <u>03/28/23</u>
Well I.D.: <u>MW-301</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.37</u>	Depth to Water (ft.): <u>5.56</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1003      Flow Rate: 200 ml/min      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. ( <del>mg/cm</del> or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1006	11.94	7.49	0.695	21	0.55	-55.4	600	5.56
1009	12.14	7.54	0.687	24	0.41	-57.5	1200	5.56
1012	12.21	7.56	0.681	19	0.36	-60.0	1800	5.56
1015	12.26	7.57	0.678	19	0.33	-61.9	2400	5.56
1018	12.27	7.60	0.676	18	0.33	-63.1	3000	5.56

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>1019</u>	Sampling Date: <u>03/28/23</u>
Sample I.D.: <u>MW-301</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>see COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u> </u>

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230327-501</u>	Client: <u>Arcadis</u>
Sampler: <u>JD</u>	Gauging Date: <u>03/27/23</u>
Well I.D.: <u>MW-302</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.97</u>	Depth to Water (ft.): <u>5.44</u>
Depth to Free Product: <u>-</u>	Thickness of Free Product (feet): <u>-</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>VSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1325      Flow Rate: 200ml/m      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1328	12.10	7.43	0.797	28	0.46	-49.5	600	5.44
1331	12.33	7.46	0.793	30	0.40	-52.4	1200	5.44
1334	12.49	7.51	0.791	26	0.33	-55.1	1800	5.44
1337	12.60	7.50	0.790	25	0.31	-56.0	2400	5.44
1340	12.62	7.52	0.790	25	0.30	-58.7	3000	5.44

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>1341</u>	Sampling Date: <u>03/27/23</u>
Sample I.D.: <u>MW-302</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see COC</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: _____





## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230327-501</u>	Client: <u>A GHO</u>
Sampler: <u>50</u>	Gauging Date: <u>03/27/23</u>
Well I.D.: <u>MW-304</u>	Well Diameter (in.): <u>Ø 3 4 6 8</u>
Total Well Depth (ft.): <u>14.71</u>	Depth to Water (ft.): <u>5.71</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVE</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1354      Flow Rate: 200ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1357	10.66	8.02	0.218	23	0.39	-22.4	600	5.82
1400	10.59	8.02	0.212	21	0.31	-25.2	1200	5.95
1403	10.42	8.05	0.207	20	0.26	-27.4	1800	5.95
1406	10.38	8.08	0.205	19	0.23	-29.2	2400	5.95
1409	10.31	8.09	0.205	20	0.22	-31.5	3000	5.95

Did well dewater? Yes  No       Amount actually evacuated: 3000ml

Sampling Time: 1410      Sampling Date: 03/27/23

Sample I.D.: MW-304      Laboratory: TA

Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other see COC

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Duplicate I.D.: \_\_\_\_\_

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230327-JD	Client: GHD
Sampler: JD	Gauging Date: 03/27/23
Well I.D.: MW.307	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 17.30	Depth to Water (ft.): 8.25
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: TS1-556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1213      Flow Rate: 200ml/m      Pump Depth: 13ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1216	13.86	7.04	0.646	19	6.59	-31.2	600	8.25
1219	14.29	7.02	0.641	14	0.46	-24.9	1200	8.25
1222	14.45	7.02	0.640	11	0.30	-22.6	1800	8.25
1225	14.53	7.02	0.637	10	0.29	-20.3	2400	8.25
1228	14.60	7.03	0.634	10	0.26	-19.2	3000	8.25

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 3000ml
Sampling Time: 1229	Sampling Date: 03/27/23
Sample I.D.: MW.307	Laboratory: FA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <input checked="" type="checkbox"/> see COC
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230327-J01</u>	Client: <u>GHD</u>
Sampler: <u>J0</u>	Gauging Date: <u>03/27/23</u>
Well I.D.: <u>MW.308</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8 <u>    </u>
Total Well Depth (ft.): <u>17.38</u>	Depth to Water (ft.): <u>8.18</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other       
 Start Purge Time: 1245      Flow Rate: 200ml/m      Pump Depth: 13ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1248	13.34	7.15	0.704	29	0.77	-33.8	600	18.32
1251	13.65	7.13	0.694	27	0.55	-37.5	1200	18.32
1254	13.88	7.07	0.690	24	0.41	-38.2	1800	18.32
1257	14.03	7.07	0.686	24	0.40	-40.3	2400	18.32
1300	13.97	7.05	0.684	22	0.38	-41.2	3000	18.32

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>1301</u>	Sampling Date: <u>03/27/23</u>
Sample I.D.: <u>MW.308</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see cor</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u>    </u>

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230327-J01	Client: GAD
Sampler: JP	Gauging Date: 03/27/23
Well I.D.: MW-310	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): 14.49	Depth to Water (ft.): 5.91
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: PVC Grade	Flow Cell Type: 751-556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1426      Flow Rate: 200ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1429	13.92	7.40	0.799	45	0.63	-81.5	600	5.91
1432	13.67	7.41	0.799	37	0.46	-84.3	1200	5.91
1435	13.44	7.46	0.801	34	0.31	-88.0	1800	5.91
1438	13.36	7.51	0.819	30	0.24	-89.3	2400	5.91
1441	13.30	7.55	0.822	30	0.23	-90.1	3000	5.91
1444	13.26	7.58	0.824	29	0.23	-92.5	3600	5.91

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 3000ml
Sampling Time: 1445	Sampling Date: 03/27/23
Sample I.D.: MW-310	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <input checked="" type="checkbox"/> see COC
Equipment Blank I.D.: @ _____ <small>Time</small>	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230327-JO1</u>	Client: <u>GHD</u>
Sampler: <u>JO</u>	Gauging Date: <u>03/28/23</u>
Well I.D.: <u>MU-311</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8
Total Well Depth (ft.): <u>15.00</u>	Depth to Water (ft.): <u>7.77</u>
Depth to Free Product: <u>---</u>	Thickness of Free Product (feet): <u>---</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YS-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0736      Flow Rate: 200ml/min      Pump Depth: 12ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0739	12.80	7.10	0.694	18	0.63	-4.0	600	7.77
0742	12.67	7.15	0.703	15	0.44	-8.2	1200	7.77
0745	12.58	7.18	0.710	14	0.37	-10.5	1800	7.77
0748	12.44	7.20	0.716	14	0.37	-12.8	2400	7.77
0751	12.43	7.22	0.718	13	0.36	-11.2	3000	7.77

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>MW-311 JO 0752</u>	Sampling Date: <u>03/28/23</u>
Sample I.D.: <u>MW-311</u>	Laboratory: <u>IA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see Coe</u>	
Equipment Blank I.D.: <u>@</u> _____ Time _____	Duplicate I.D.: _____

### LOW FLOW WELL MONITORING DATA SHEET

Project #: 230327-J01	Client: GHD
Sampler: JA	Gauging Date: 03/28/23
Well I.D.: MV.312	Well Diameter (in.): <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8    _____
Total Well Depth (ft.): 14.95	Depth to Water (ft.): 7.46
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Grade	Flow Cell Type: YSI-556

Purge Method:	<input checked="" type="checkbox"/> 2" Grundfos Pump	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump
Sampling Method:	<input checked="" type="checkbox"/> Dedicated Tubing	<input type="checkbox"/> New Tubing	<input type="checkbox"/> Other _____
Start Purge Time: 0801	Flow Rate: 200 ml/m	Pump Depth: 11.5 ft	

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0804	11.64	8.23	0.601	17	0.37	-56.5	600	7.46
0807	11.79	8.27	0.586	12	0.29	-60.2	1200	7.46
0810	11.85	8.34	0.579	10	0.21	-63.4	1800	7.46
0813	11.98	8.34	0.575	10	0.20	-66.9	2400	7.46
0816	12.05	8.38	0.573	10	0.18	-68.7	3000	7.46

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Amount actually evacuated: 3000ml
Sampling Time: 0817	Sampling Date: 03/28/23
Sample I.D.: MV.312	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____ <small style="margin-left: 40px;">Time</small>	Duplicate I.D.: _____



### LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230327-501</u>	Client: <u>A GH0</u>
Sampler: <u>JD</u>	Gauging Date: <u>03/28/23</u>
Well I.D.: <u>MW-313</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>13.73</u>	Depth to Water (ft.): <u>5.90</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0830      Flow Rate: 200 ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0833	10.61	8.03	0.569	83	2.09	-28.6	600	5.90
0836	10.30	8.21	0.562	68	1.68	-31.2	1200	5.90
0839	10.21	8.36	0.558	54	1.54	-34.9	1800	5.90
0842	10.15	8.39	0.555	52	1.51	-37.0	2400	5.90
0845	10.12	8.42	0.553	50	1.48	-38.5	3000	5.90

Did well dewater?    Yes <u>No</u>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>0846</u>	Sampling Date: <u>03/28/23</u>
Sample I.D.: <u>MW-313</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D	<u>Other: see COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u>—</u>

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230327-501</u>	Client: <u>LHO</u>
Sampler: <u>JD</u>	Gauging Date: <u>03/27/23</u>
Well I.D.: <u>MW-314</u>	Well Diameter (in.): <u>2</u> 3 4 6 8 <u>    </u>
Total Well Depth (ft.): <u>14.80</u>	Depth to Water (ft.): <u>6.75</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump                      Peristaltic Pump                      Bladder Pump  
 Sampling Method: Dedicated Tubing                      New Tubing                      Other       
 Start Purge Time: 1001                      Flow Rate: 200ml/m                      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1004	10.98	7.94	0.715	63	0.89	31.0	600	6.75
1007	11.26	8.03	0.711	60	0.71	26.7	1200	6.75
1010	11.41	8.13	0.704	57	0.63	24.8	1800	6.75
1013	11.53	8.14	0.700	56	0.62	22.3	2400	6.75
1016	11.49	8.17	0.699	54	0.60	21.0	3000	6.75

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>1017</u>	Sampling Date: <u>03/27/23</u>
Sample I.D.: <u>MW-314</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see COC</u>	
Equipment Blank I.D.: <u>    </u> @ <u>    </u> Time	Duplicate I.D.: <u>    </u>

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230327-J01</u>	Client: <u>GHO</u>
Sampler: <u>J0</u>	Gauging Date: <u>03/28/23</u>
Well I.D.: <u>MW-315</u>	Well Diameter (in.): <u>2</u> 3 4 6 8 <u>    </u>
Total Well Depth (ft.): <u>14.56</u>	Depth to Water (ft.): <u>7.43</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>751-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other       
 Start Purge Time: 0858      Flow Rate: 200ml/m      Pump Depth: 1ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0901	12.23	7.61	0.649	21	0.34	-68.5	600	7.53
0904	12.18	7.64	0.646	18	0.25	-70.5	1200	7.68
0907	12.14	7.67	0.645	15	0.20	-71.9	1800	7.68
0910	12.10	7.68	0.645	14	0.20	-74.8	2400	7.68
0913	12.07	7.70	0.645	14	0.18	-76.2	3000	7.68

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000 mL</u>
Sampling Time: <u>0914</u>	Sampling Date: <u>03/28/23</u>
Sample I.D.: <u>MW-315</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D	Other: <u>Sac Coe</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>    </u>

### LOW FLOW WELL MONITORING DATA SHEET

Project #: 230327-JD1	Client: GHD
Sampler: JD	Gauging Date: 03/27/23
Well I.D.: <del>TX-03A</del> TX-03A	Well Diameter (in.): 3 4 6 8
Total Well Depth (ft.): 14.85	Depth to Water (ft.): 4.97
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: 51-556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1453      Flow Rate: 200ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1456	13.33	7.57	0.502	24	0.34	-59.4	600	5.13
1459	13.21	7.54	0.498	22	0.31	-61.8	1200	5.13
1502	13.06	7.52	0.496	20	0.27	-63.1	1800	5.13
1505	12.97	7.52	0.496	19	0.28	-64.0	2400	5.13
1508	12.92	7.52	0.494	19	0.28	-64.4	3000	5.13

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 3000ml
Sampling Time: 1509	Sampling Date: 03/27/23
Sample I.D.: TX-03A	Laboratory: IA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

LAB (LOCATION)

- ACCUTEST ( )
  - CALSCIENCE ( )
  - TESTAMERICA ( )
  - Other ( )
- Lab Vendor # \_\_\_\_\_ Dropdown



Shell Oil Products US Chain Of Custody Record

- Please Check Appropriate Box:
- SOW FDG
  - PIPELINE
  - RETAIL
  - CHEMICALS
  - CONSULTANT
  - LUBES
  - TRANSPORTATION
  - OTHER

Print Bill To Contact Name:

PlaNat Site or Project ID  
 PO # \_\_\_\_\_ GSAP Project ID \_\_\_\_\_

CHECK IF NO INCIDENT # APPLIES  
 DATE: 03/28/23  
 PAGE: 1 of 2

SAMPLING COMPANY:  
**Blaine Tech Services, Inc**  
 ADDRESS: 1680 Rogers Ave, San Jose, CA, 95112  
 PROJECT CONTACT (hardcopy or PDF Report to):  
 TELEPHONE: (707)523-1010 FAX: jacquelyn.england@ghd.com  
 BIT TO CONTACT E-MAIL: jacquelyn.england@ghd.com

SITE ADDRESS: Street and City  
**2555 13th Avenue**  
 EDP DELIVERABLE TO (Name, Company, Office Location):  
 PHONE NO.: (707)523-1010  
 STATE: WA  
 E-MAIL: jacquelyn.england@ghd.com  
 GHD Project / Task Number: 11218519  
 RECORD Other ID: \_\_\_\_\_  
 LAB USE ONLY

*Jonah Davis*

TURNAROUND TIME (CALENDAR DAYS):  
 STANDARD (14 DAY)  5 DAYS  3 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT  UST AGENCY:  
 LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_

DELIVERABLES: \_\_\_\_\_  
 TEMPERATURE ON RECEIPT C° \_\_\_\_\_  
 Cooler #1 \_\_\_\_\_ Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_

REQUESTED ANALYSIS

UNIT COST	NON-UNIT COST	FIELD NOTES:
8260C BTEX		
NWTRP-GX		
8270D SIM P-HS		
300.0 Sulfate		
6020A Total Lead		
353.2 Nitrate & Nitrite		
6020A Diss. Iron & Manganese (lab filter)		
300.0 Chloride		
2320B Alkalinity		

SPECIAL INSTRUCTIONS OR NOTES:

- SHELL CONTRACT RATE APPLIES
- STATE REIMBURSEMENT RATE APPLIES
- EDD NOT NEEDED
- RECEIPT VERIFICATION REQUESTED
- PROVIDE LEDD DISK

TEMPERATURE ON RECEIPT C° \_\_\_\_\_  
 Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification		SAMPLING		MATRIX	PRESERVATIVE			NO. OF CONT.
	DATE	TIME	HCL	HNO3		H2SO4	NONE	OTHER	
	TB-1	03/27/23	0900	X	UT	X			2
	MW-302		1341	X		X			4
	MW-304		1410	X		X			4
	MW-307		1229	X		X			4
	MW-308		1301	X		X			4
	MW-310		1445	X		X			4
	MW-314		1017	X		X			6
	TX-03A		1509	X		X			4
	MW-301	03/28/23	1019	X		X			4
	MW-303		0951	X		X			4

Relinquished by (Signature): *[Signature]*  
 Relinquished by (Signature): *[Signature]*  
 Relinquished by (Signature): *[Signature]*

Received by (Signature): *Shipped Via Fed Ex*  
 Date: 03/28/23  
 Time: 1400

# Shell Oil Products US Chain Of Custody Record



## LAB (LOCATION)

- ACCUTEST ( )
- CALSCIENCE ( )
- TESTAMERICA ( )
- Other ( )

Lab Vendor # Dropdown

### Please Check Appropriate Box:

- SGW PDG
- PIPELINE
- RETAIL
- CHEMICALS
- CONSULTANT
- LUBES
- TRANSPORTATION
- OTHER

Print Bill To Contact Name: _____ PlateNet Site or Project ID: _____		<input type="checkbox"/> CHECK IF NO INCIDENT # APPLIES DATE: <u>03/28/23</u> PAGE: <u>2</u> of <u>2</u>	
Lab Vendor # _____ Blaine Tech Services, Inc Address: _____ 1680 Rogers Ave, San Jose, CA, 95112 PROJECT CONTACT (Handcopy or PDF Report to): _____ TELEPHONE: (707)523-1010 FAX: _____ EMAIL: jacquelyn.england@ghd.com		GHD Project / Task Number: _____ AECOM Other ID: 11218519 EMAIL: _____ jacquelyn.england@ghd.com LAB USE ONLY	
STATE: WA PHONE NO: (707)523-1010 JACQUELYN ENGLAND, GHD, SANTA ROSA SAMPLER NAME(S) (Print): <u>Jonah Davis</u>		SITE ADDRESS: Street and City 2555 13th Avenue EDP DELIVERABLE TO (Name, Company, Office Location): _____ STATE: WA PHONE NO: (707)523-1010 JACQUELYN ENGLAND, GHD, SANTA ROSA SAMPLER NAME(S) (Print): _____	
LOG CODE: BTSS 1680 Rogers Ave, San Jose, CA, 95112 Jacquelyn England jacquelyn.england@ghd.com		UNIT COST: _____ NON-UNIT COST: _____	
TURNAROUND TIME (CALENDAR DAYS): <input checked="" type="checkbox"/> STANDARD (14 DAY) <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 3 DAYS <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> RESULTS NEEDED ON WEEKEND		UNIT COST: _____ NON-UNIT COST: _____	
LA - RWQCS REPORT FORMAT <input type="checkbox"/> UST AGENCY: _____ DELIVERABLES: <input type="checkbox"/> LEVEL 1 <input type="checkbox"/> LEVEL 2 <input type="checkbox"/> LEVEL 3 <input type="checkbox"/> LEVEL 4 <input type="checkbox"/> OTHER (SPECIFY) _____ TEMPERATURE ON RECEIPT C° Cooler #1 _____ Cooler #2 _____ Cooler #3 _____		UNIT COST: _____ NON-UNIT COST: _____	
SPECIAL INSTRUCTIONS OR NOTES: <input type="checkbox"/> SHELL CONTRACT RATE APPLIES <input type="checkbox"/> STATE REIMBURSEMENT RATE APPLIES <input type="checkbox"/> EDD NOT NEEDED <input type="checkbox"/> RECEIPT VERIFICATION REQUESTED <input type="checkbox"/> PROVIDE LEDD DISK			
FIELD SAMPLE IDENTIFICATION MW-311 MW-312 MW-313 MW-315		NO. OF CONT.: 4, 4, 6, 6	
PRESERVATIVE: HCL, HNO3, H2SO4, NONE, OTHER		MATRIX: WT, ↓, ↓, ↓	
SAMPLING DATE: 03/28/23, 0757, 0817, 0816, 0919		TEMPERATURE ON RECEIPT C°: _____	
RECEIVED BY (SIGNATURE): <u>[Signature]</u>		RECEIVED BY (SIGNATURE): <u>[Signature]</u>	
RECEIVED BY (SIGNATURE): <u>[Signature]</u>		RECEIVED BY (SIGNATURE): <u>[Signature]</u>	
RECEIVED BY (SIGNATURE): _____		RECEIVED BY (SIGNATURE): _____	
DATE: _____		DATE: 03/28/23	
TIME: _____		TIME: 1400	
CONTAINER PID READINGS OR LABORATORY NOTES: _____		CONTAINER PID READINGS OR LABORATORY NOTES: _____	

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 230327-501 ADDRESS 2555 13th Ave SW CITY & STATE Seattle, WA  
 DATE: 03/27/23

Well ID	Manway Cover, Type, Condition & Size		Observations Upon Arrival			Well Pad / Surface Condition	Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials
	Manway Cover	Type, Condition & Size	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition	Well Lock Condition				
MW-201	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-202	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-203	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-204	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-206A	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-101	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-102	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-301	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-302	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-303	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
MW-304	Standpipe	Flush G P 2 (inch)	Y	G	R	G		Y	
TOTAL # CAPS REPLACED = 0						TOTAL # OF LOCKS REPLACED = 0			

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure	Condition of Area Inside Enclosure	Compound Security	Emergency Contact Info Visible	Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials
NA						Y	
Building							
Building w/ Fence Comp.							
Fenced Compound							
Trailer							
Number of Drums On-site	Does the Label Reveal the Source of the Contents	Labeled Correctly and Writing Legible	Drum Condition	Confirm Drums Related to Environmental	Drums Located to Min Business Interference	Detailed Explanation of Any Issues Resolved	
0	Y	N	N/A	Y	N	N/A	

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Jonah Davis *J.D.*  
 Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
 P = Poor (needs attention) NL = No Lock Required  
 Note: All repairs other than locks and grippers require Shell PM approval prior to repair.  
 \* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
 Version 2.4, March 2008



ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 230327-501

ADDRESS 2555 13th Ave SW

DATE: 2555 13th Ave SW 03/27/23

CITY & STATE Seattle, WA

Well ID	Observations Upon Arrival				Well Pad / Surface Condition			Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM and Initials
	Manway Cover, Type, Condition & Size	Well Labeled / Painted Properly	Well Cap (Gripper) Condition	Well Lock Condition	Well Pad / Surface Condition	Well Pad / Surface Condition	Well Pad / Surface Condition			
MW-307	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
MW-308	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
MW-309	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
MW-310	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
MW-311	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
MW-312	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
MW-313	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
MW-314	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
MW-315	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
TX-03A	Standpipe Flush G P 2	Y	G	R	G	G			Y N	
TOTAL # CAPS REPLACED = 0										
TOTAL # OF LOCKS REPLACED = 0										
Condition of Soil Boring Patches or Abandoned Monitoring Wells										
Remediation Compound Type (Check boxes that apply)										
Building										
Building w/ Fence Comp.										
Fenced Compound										
Trailer										
Condition of Enclosure										
Condition of Area Inside Enclosure										
Compound Security										
Emergency Contact Info Visible										
Cleaning / Repairs Recommended and Conducted										
Photos of Condition										
Repair Date and PM Initials										
Number of Drums On-site										
Does the Label Reveal the Source of the Contents										
Labeled Correctly and Writing Legible										
Drum Condition										
Confirm Drums Related to Environmental										
Drums Located to Min Business Interference										
Detailed Explanation of Any Issues Resolved										
Photos of Drum Condition										
Date Drums Removed from Site and PM Initials										

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Joan Davis @ BTS

Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
P = Poor (needs attention) NL = No Lock Required  
Note: All repairs other than locks and grippers require Shell PM approval prior to repair.  
\*\* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
Version 2.4, March 2008

INCIDENT # 230327-JD ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM  
 ADDRESS 2555 13th Ave SW  
 DATE: 03/27/23 CITY & STATE Seattle, WA

Well ID	Observations Upon Arrival				Well Pad / Surface Condition	Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials	
	Manway Cover, Type, Condition & Size	Well Labeled / Painted Properly	Well Cap (Gripper) Condition	Well Lock Condition					
MU-208	Standpipe Flush G P	Y N	G R	R G	G P		Y N		
MU-210	Standpipe Flush G P	Y N	G R	R G	G P	ABS sock replaced	Y N		
MU-211	Standpipe Flush G P	Y N	G R	R G	G P		Y N		
MU-212	Standpipe Flush G P	Y N	G R	R G	G P	ABS sock replaced	Y N		
	Standpipe Flush G P	Y N	G R	R G	G P		Y N		
	Standpipe Flush G P	Y N	G R	R G	G P		Y N		
	Standpipe Flush G P	Y N	G R	R G	G P		Y N		
	Standpipe Flush G P	Y N	G R	R G	G P		Y N		
	Standpipe Flush G P	Y N	G R	R G	G P		Y N		
	Standpipe Flush G P	Y N	G R	R G	G P		Y N		
	Standpipe Flush G P	Y N	G R	R G	G P		Y N		
TOTAL # CAPS REPLACED = 0				TOTAL # OF LOCKS REPLACED = 0					

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure		Condition of Area Inside Enclosure		Compound Security		Emergency Contact Info Visible		Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials
	Condition of Enclosure	Condition of Area Inside Enclosure	Compound Security	Condition of Area Inside Enclosure	Emergency Contact Info Visible	Photos of Condition	Repair Date and PM Initials				
NA											
Building											
Building w/ Fence Comp.											
Fenced Compound											
Trailer											
Does the Label Reveal the Source of the Contents	Y	N	N/A	Y	N	Y	N	Y			
Labelled Correctly and Writing Legible	Y	N	N/A	Y	N	Y	N	Y			
Drum Condition	G	P	N/A	Y	N	Y	N	Y			
Confirm Drums Related to Environmental	G	P	N/A	Y	N	Y	N	Y			
Drums Located to Min Business Interference	G	P	N/A	Y	N	Y	N	Y			
Detailed Explanation of Any Issues Resolved											

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Jonah Davis, P.E. R.T.S.  
 Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
 P = Poor (needs attention) NL = No Lock Required  
 Note: All repairs other than locks and grippers require Shell PM approval prior to repair.  
 \* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
 Version 2.4, March 2008





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	Seattle Harbor Island Terminal	Date:	03/27/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	

List activities to be performed today:	GW Monitoring & Sampling
Permitted Activities (specific permit to be completed):	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Excavation/Trenching <input type="checkbox"/> Hot Work <input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs) <input type="checkbox"/> Natural Gas System Maintenance
The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.	

Muster Point:	Shell safety office	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Truck
Emergency cut-off switches:	NA	Designated cell phone use area(s):	Cab of Truck

Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work site walk?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Have all personnel reviewed and understand the site specific HASP?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each activity have a Job Safety Analysis (JSA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each subcontractor have JSAs for their activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* *
Per our lone worker procedure, is each employee either accompanied by or in communications with another?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?	<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? If yes, discuss modifications.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
If permits are required, have they been reviewed and permit conditions understood by the Team?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?	<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?	<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:		Title of Subcontractor's JSAs reviewed today:	GW Monitoring @ shell
-----------------------------------	--	---	-----------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Safety Vest <input checked="" type="checkbox"/> Steel-Toed Boots <input checked="" type="checkbox"/> Gloves (appropriate for task) See JSA for additional task specific PPE requirements.
---	--

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule icons that are applicable to the work/activities that will take place today:

BYPASSING SAFETY CONTROLS	CONFINED SPACE	DRIVING	ENERGY ISOLATION	HOT WORK	LINE OF FIRE	SAFE MECHANICAL LIFTS	WORK AUTHORIZATION	WORKING AT HEIGHTS



**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty.
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jonah Davis / BIS		JD In & Fit 0630	Out & Fit 1530
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jonah Davis	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No site Rep		No site Rep

**TWILIGHT TOOL BOX TALK (Complete the following once field activities for the day have been concluded):**

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature:



**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	Seattle Harbor Island Terminal	Date:	03/28/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	

List activities to be performed today:	Shell GV Monitoring		
Permitted Activities (specific permit to be completed):	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Excavation/Trenching <input type="checkbox"/> Hot Work <input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs) <input type="checkbox"/> Natural Gas System Maintenance		
The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.			

Muster Point:	Shell safety office	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Truck
Emergency cut-off switches:	NA	Designated cell phone use area(s):	Cab of Truck

Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work site walk?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Have all personnel reviewed and understand the site specific HASP?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each activity have a Job Safety Analysis (JSA)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each subcontractor have JSAs for their activities?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Per our lone worker procedure, is each employee either accompanied by or in communications with another?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? If yes, discuss modifications.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
If permits are required, have they been reviewed and permit conditions understood by the Team?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:		Title of Subcontractor's JSAs reviewed today:	GV Monitoring @ shell jc @ shell
-----------------------------------	--	---	----------------------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Safety Vest <input checked="" type="checkbox"/> Steel-Toed Boots <input checked="" type="checkbox"/> Gloves (appropriate for task) See JSA for additional task specific PPE requirements.
---	--

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule Icons that are applicable to the work/activities that will take place today:





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty.
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jonah Davis @ BIS	<i>[Signature]</i>	JD In & Fit 0645	JD Out & Fit 1115
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jonah Davis	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No site Rep		No Site Rep

**TWILIGHT TOOL BOX TALK (Complete the following once field activities for the day have been concluded):**

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature: <i>[Signature]</i>



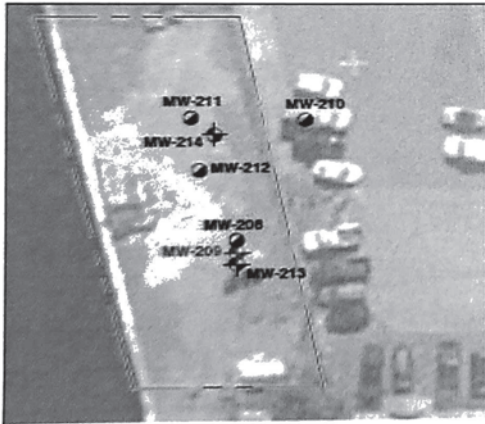
Monitoring Well Gauging Field Log - Shoreline

Project No: 11218519  
 SAP: 357032  
 PlaNet ID: MIGUS357032  
 Location: 2555 13th Avenue SW Seattle (Harbor Island Terminal)

Personnel: Michael Cyrier

Date: 4/13/23

Well ID	Time Gauged	Depth to Product	(Ft) Depth to Water	Comments
MW-208	09 20	—	4.44	Strong odor, sorbent partially saturated and replaced. MC
NW-210	09 35	5.62	<sup>MC</sup> 6.5.68	Strong odor, sorbent partially fully saturated and replaced
MW-211	0848	—	4.66	—
MW-212	0905	—	5.17	Sorbent somewhat saturated + oxidized and was replaced



Monitoring Well Gauging Field Log - Shoreline

Project No: 11218519  
SAP: 357032  
PlaNet ID: MIGUS357032  
Location: 2555 13th Avenue SW Seattle (Harbor Island Terminal)

Personnel: N. Adamowski

Date: 5 / 16 /23

Well ID	Time Gauged	Depth to Product	Depth to Water	Comments
MW-208	1019	—	4.63	
NW-210	1023	6.07	6.27	Absorbent saturated/replaced
MW-211	1014	—	5.21	
MW-212	1017	—	5.7	



## WELL GAUGING DATA

Project # 230612-JDI Date 06/12/23 Client GHO

Site Shell Harbor Island Terminal Seattle, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-201	1030	2	—	—	—	—	12.96	21.56	TOC	
MW-202	1023	2	—	—	—	—	12.35	21.75		
MW-203	<del>1013</del> 1035	2	—	—	—	—	5.63	14.11		*
MW-204	1015	2	—	—	—	—	10.23	17.80		
MW-206A	1052	2	—	—	—	—	7.88	16.44		
MW-101	0741	2	—	—	—	—	10.30	18.86		
MW-102	1105	2	—	—	—	—	7.97	18.95		
MW-301	0927	2	—	—	—	—	5.90	14.68		
MW-302	1330	2	—	—	—	—	6.32	14.97		*06/13/23
MW-303	0931	2	—	—	—	—	6.02	14.75		
MW-304	0922	2	—	—	—	—	6.05	14.65		
MW-307	0757	2	—	—	—	—	8.46	17.40		
MW-308	0756	2	—	—	—	—	7.73	17.30		
MW-309	0936	2	—	—	—	—	5.95	14.62		
MW-310	0915	2	—	—	—	—	6.17	14.55		
MW-311	0945	2	—	—	—	—	7.62	15.00		
MW-312	0951	2	—	—	—	—	5.78	14.86		

## WELL GAUGING DATA

Project # 230612-JDI Date 06/12/23 Client GHD

Site Shell Harbor Island Terminal Seattle, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-313	0956	2	-	-	-	-	6.15	13.63	↓	
MW-314	1145	2	-	-	-	-	7.00	14.66	↓	↑ 06/14/23
MW-315	1000	2	-	-	-	-	7.61	14.94	↓	
TES-MW-1	0746	4	-	-	-	-	8.86	15.60	↓	
TX-03A	1439	2	-	-	-	-	5.42	14.80	↓	↑ 06/14/23
MW-05	0816	2	-	-	-	-	5.98	18.81	↓	
MW-111	0845	2	-	-	-	-	4.59	14.66	↓	
MW-112A	0907	2	-	-	-	-	5.46	14.58	↓	
SH-04	0856	2	-	-	-	-	8.95	18.02	↓	
MW-104	0809	2	-	-	-	-	5.96	14.72	↓	
MW-113	0830	2	-	-	-	-	5.05	14.73	↓	
MW-114	0836	2	-	-	-	-	5.18	14.76	↓	
MW-115	0826	2	-	-	-	-	5.10	14.70	↓	
MW-213	1142	2	-	-	-	-	5.97	38.50	↓	
MW-214	1146	2	-	-	-	-	6.70	39.28	↓	

### Monitoring Well Gauging Field Log - Shoreline

Date:

Job No:

SAP:

Incident No 300036

Location: 2555 13th Ave SW, Seattle (Harbor Island Terminal)

Personnel:

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-208	1137	4.88	—	
MW-210	1123	6.90	—	odor Absorbant sock - replaced
MW-211	1128	5.35	—	
MW-212	1132	5.65	—	odor Absorbant sock - replaced

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-J01</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>06/13/23</u>
Well I.D.: <u>MW-05</u>	Well Diameter (in.): <u>Ø 3 4 6 8</u>
Total Well Depth (ft.): <u>18.81</u>	Depth to Water (ft.): <u>5.98</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0926      Flow Rate: 100ml/m      Pump Depth: 14ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0929	15.21	7.15	0.312	24	3.36	-38.2	300	6.04
0932	15.33	7.15	0.307	22	3.24	-41.5	600	6.04
0935	15.37	7.19	0.365	22	3.20	-44.6	900	6.04
0938	15.46	7.22	0.304	22	3.18	-47.0	1200	6.04
0941	15.41	7.25	0.302	21	3.11	-48.5	1500	6.04

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1500ml</u>
Sampling Time: <u>0942</u>	Sampling Date: <u>06/13/23</u>
Sample I.D.: <u>MW-05</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TPH-G BTEX MTBE TPH-D</u>	Other: <u>see COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u>—</u>

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-J01</u>	Client: <u>GHD</u>
Sampler: <u>J0</u>	Gauging Date: <u>06/13/23</u>
Well I.D.: <u>MW-104</u>	Well Diameter (in.): <u>2</u> 3 4 6 8 <u>   </u>
Total Well Depth (ft.): <u>14.72</u>	Depth to Water (ft.): <u>5.96</u>
Depth to Free Product: <u>   </u>	Thickness of Free Product (feet): <u>   </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-536</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other      
 Start Purge Time: 0854      Flow Rate: 100ml/m      Pump Depth: 11 ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0857	16.56	7.04	0.397	28	6.15	-33.1	300	5.96
0900	16.60	7.06	0.393	27	5.97	-26.8	600	5.96
0903	16.66	7.09	0.390	25	5.83	-22.6	900	5.96
0906	16.70	7.11	0.387	25	5.79	-19.4	1200	5.96
0909	16.72	7.12	0.384	24	5.77	-17.6	1500	5.96

Did well dewater? Yes  No       Amount actually evacuated: to 1500m

Sampling Time: 0910      Sampling Date: 06/13/23

Sample I.D.: MW-104      Laboratory: TA

Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: see COC

Equipment Blank I.D.: @      Duplicate I.D.:



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-JD1	Client: GHD
Sampler: JD	Gauging Date: 06/13/23
Well I.D.: MW-111	Well Diameter (in.): <input checked="" type="radio"/> 2   3   4   6   8   _____
Total Well Depth (ft.): 14.66	Depth to Water (ft.): 4.59
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <input checked="" type="radio"/> PVC Grade	Flow Cell Type: VSI 556

Purge Method:      2" Grundfos Pump                      Peristaltic Pump                      Bladder Pump  
 Sampling Method:     Dedicated Tubing                      New Tubing                      Other \_\_\_\_\_  
 Start Purge Time: 0954                      Flow Rate: 100ml/m                      Pump Depth: 10ft+

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1002	16.62	7.33	0.130	26	1.81	-48.7	300	4.71
1005	16.59	7.30	0.130	24	1.62	-53.2	600	4.82
1008	16.42	7.26	0.130	21	1.54	-57.0	900	4.87
1011	16.38	7.25	0.130	20	1.53	-58.9	1200	4.87
1014	16.30	7.24	0.130	20	1.49	-61.7	1500	4.87

Did well dewater?    Yes <input checked="" type="radio"/> No	Amount actually evacuated: 1500 ml
Sampling Time: 1015	Sampling Date: 06/13/23
Sample I.D.: MW-111	Laboratory: TA
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D	Other: <input checked="" type="radio"/> see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-J01	Client: GHD
Sampler: JD	Gauging Date: 06/13/23
Well I.D.: MW-112A	Well Diameter (in.): <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8
Total Well Depth (ft.): 14.58	Depth to Water (ft.): 5.46
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <input checked="" type="radio"/> PVC <input type="radio"/> Grade	Flow Cell Type: Y51-556

Purge Method: 2" Grundfos Pump	<input checked="" type="radio"/> Peristaltic Pump	<input type="radio"/> Bladder Pump
Sampling Method: Dedicated Tubing	<input type="radio"/> New Tubing	<input type="radio"/> Other _____
Start Purge Time: 1230	Flow Rate: 100 ml/min	Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1233	15.31	7.32	0.374	20	2.30	-47.9	300	5.46
1236	15.17	7.33	0.377	20	2.13	-55.1	600	5.46
1239	14.98	7.35	0.375	17	2.02	-52.4	900	5.46
1242	14.90	7.38	0.375	16	1.97	-60.0	1200	5.46
1245	14.94	7.37	0.374	16	1.95	-62.5	1500	5.46

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 1560 ml
Sampling Time: 1246	Sampling Date: 06/13/23
Sample I.D.: MW-112A	Laboratory: TA
Analyzed for: TPH-G    BTEX    MTBE    TPH-D	<input checked="" type="radio"/> Other: See COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-501	Client: GHO
Sampler: JO	Gauging Date: 06/13/23
Well I.D.: MW-113	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): 14.73	Depth to Water (ft.): 5.05
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	Flow Cell Type: 251-556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1024      Flow Rate: 100 ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1032	14.01	7.16	0.273	21	2.29	-41.4	300	5.23
1035	13.85	7.20	0.271	18	2.15	-34.6	600	5.23
1038	13.75	7.23	0.267	17	2.09	-30.1	900	5.23
1041	13.68	7.24	0.265	16	2.04	-28.5	1200	5.23
1044	13.60	7.28	0.265	17	1.99	-26.7	1500	5.23

Did well dewater? Yes <u>No</u>	Amount actually evacuated: 1500ml
Sampling Time: 1045	Sampling Date: 06/13/23
Sample I.D.: MW-113	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

### LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-501</u>	Client: <u>GHD</u>
Sampler: <u>50</u>	Gauging Date: <u>06/13/23</u>
Well I.D.: <u>MW-114</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.76</u>	Depth to Water (ft.): <u>5.18</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1127      Flow Rate: 100 ml/min      Pump Depth: 10 ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1130	13.58	7.33	0.153	58	4.16	-38.2	300	5.18
1133	13.65	7.34	0.150	56	4.30	-41.6	600	5.18
1136	13.71	7.38	0.151	53	4.39	-45.0	900	5.18
1139	13.82	7.38	0.149	52	4.44	-47.3	1200	5.18
1142	13.76	7.40	0.148	50	4.47	-49.0	1500	5.18

Did well dewater? Yes  No       Amount actually evacuated: 1500ml

Sampling Time: 1143      Sampling Date: 06/13/23

Sample I.D.: MW-114      Laboratory: TA

Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: see COC

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_      Duplicate I.D.: \_\_\_\_\_

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-501	Client: GHD
Sampler: JD	Gauging Date: 06/13/23
Well I.D.: MW-115	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 14.70	Depth to Water (ft.): 5.10
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: Y51-556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1059      Flow Rate: 100ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)
1102	14.38	7.28	0.286	23	2.05	-71.4	300	5.10
1105	14.55	7.29	0.283	20	1.96	-67.1	600	5.10
1108	14.59	7.31	0.280	18	1.91	-64.6	900	5.10
1111	14.69	7.31	0.277	18	1.85	-61.3	1200	5.10
1114	14.66	7.33	0.276	17	1.82	-60.0	1500	5.10

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 1500ml
Sampling Time: 1115	Sampling Date: 06/13/23
Sample I.D.: MW-115	Laboratory: JA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-J01</u>	Client: <u>GHD</u>
Sampler: <u>JO</u>	Gauging Date: <u>06/12/23</u>
Well I.D.: <u>MW-202</u>	Well Diameter (in.): <u>2</u> 3 4 6 8 _____
Total Well Depth (ft.): <u>21.75</u>	Depth to Water (ft.): <u>12.35</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade _____	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1323      Flow Rate: 100ml/m      Pump Depth: 18ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1326	15.61	7.02	0.928	49	0.61	29.6	<del>600</del> 300	12.39
1329	15.73	7.05	0.923	48	0.53	31.7	600	12.44
1332	15.80	7.08	0.920	47	0.49	36.0	900	12.44
1335	15.88	7.09	0.916	47	0.48	37.5	1200	12.44
1338	15.92	7.11	0.911	46	0.46	39.6	1500	12.44

Did well dewater? Yes  No       Amount actually evacuated: 7500ml

Sampling Time: 1334      Sampling Date: 06/12/23

Sample I.D.: MW-202      Laboratory: TA

Analyzed for: TPH-G BTEX MTBE TPH-D      Other: see LOC

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time \_\_\_\_\_      Duplicate I.D.: \_\_\_\_\_

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-501	Client: G-H
Sampler: 50	Gauging Date: 06/12/23
Well I.D.: MW-203	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 14.11	Depth to Water (ft.): 5.63
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: Y51-556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1353      Flow Rate: 100 ml/m      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1356	16.29	6.56	0.446	63	1.75	96.9	300	5.71
1359	16.60	6.49	0.441	68	1.69	103.0	600	5.77
1402	16.68	6.45	0.439	64	1.66	106.7	900	5.83
1405	16.77	6.44	0.439	61	1.66	110.4	1200	5.85
1408	16.23	6.41	0.436	61	1.62	113.4	1500	5.85

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 1500 ml
Sampling Time: 1409	Sampling Date: 06/12/23
Sample I.D.: MW-203	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-501</u>	Client: <u>GHD</u>
Sampler: <u>50</u>	Gauging Date: <u>06/12/23</u>
Well I.D.: <u>MW-213</u>	Well Diameter (in.): <u>2</u> 3 4 6 8 <u>    </u>
Total Well Depth (ft.): <u>38.50</u>	Depth to Water (ft.): <u>5.97</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other       
 Start Purge Time: 1217      Flow Rate: 100 ml/m      Pump Depth: 30ft

Time	Temp. ( <u>C</u> or <u>F</u> )	pH	Cond. ( <u>mS/cm</u> or <u>µS/cm</u> )	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>mL</u> )	Depth to Water (ft.)
1220	14.97	7.40	10.009	21	0.23	-53.8	300	6.02
1223	15.01	7.35	9.989	18	0.15	-52.0	600	6.02
1226	15.09	7.33	9.177	17	0.12	-59.5	900	6.02
1229	15.21	7.30	9.170	17	0.12	-61.9	1200	6.02
1232	15.16	7.32	9.167	17	0.11	-65.8	1500	6.02

Did well dewater? Yes  No       Amount actually evacuated: 1500ml  
 Sampling Time: 1233      Sampling Date: 06/12/23  
 Sample I.D.: MW-213      Laboratory: TA  
 Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: See COC  
 Equipment Blank I.D.: @      Duplicate I.D.:

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-501</u>	Client: <u>GHO</u>
Sampler: <u>JD</u>	Gauging Date: <u>06/12/23</u>
Well I.D.: <u>MW-214</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>39.28</u>	Depth to Water (ft.): <u>6.70</u>
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade _____	Flow Cell Type: <u>YSI-556</u>

Purge Method: <u>2" Grundfos Pump</u>	<u>Peristaltic Pump</u>	Bladder Pump
Sampling Method: <u>Dedicated Tubing</u>	<u>New Tubing</u>	Other _____
Start Purge Time: <u>1247</u>	Flow Rate: <u>100 mL/m</u>	Pump Depth: <u>30ft</u>

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1250	16.11	6.61	6.004	1	0.49	-101.5	300	6.70
1253	16.27	6.64	6.017	1	0.36	-107.0	600	6.70
1256	16.36	6.69	6.028	1	0.31	-109.5	0900	6.70
1259	16.40	6.72	6.039	1	0.30	-112.4	1200	6.70
1302	16.44	6.74	6.045	1	0.28	-115.2	1500	6.70

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000mL</u>
Sampling Time: <u>1303</u>	Sampling Date: <u>06/12/23</u>
Sample I.D.: <u>MW-214</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>See COC</u>
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612 - J01	Client: GHD
Sampler: J0	Gauging Date: 06/14/23
Well I.D.: MW-301	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): 19.68	Depth to Water (ft.): 5.90
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	Flow Cell Type: Y51-556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1247      Flow Rate: 100 ml/m      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1252	17.62	7.46	0.728	17	1.56	-66.5	300	5.90
1255	17.31	7.41	0.725	17	1.38	-69.4	600	5.90
1258	17.15	7.37	0.724	17	1.30	-72.9	900	5.90
1301	17.13	7.34	0.725	16	1.28	-76.2	1200	5.90
1304	17.08	7.31	0.723	16	1.24	-79.0	1500	5.90

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 1500 ml
Sampling Time: 1305	Sampling Date: 06/14/23
Sample I.D.: MW-301	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>502 COC</u>
Equipment Blank I.D.: _____ <small>@ Time</small>	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-J01</u>	Client: <u>GHD</u>
Sampler: <u>50</u>	Gauging Date: <u>06/13/23</u>
Well I.D.: <u>MW-302</u>	Well Diameter (in.): <u>2</u> 3 4 6 8 <u>   </u>
Total Well Depth (ft.): <u>19.97</u>	Depth to Water (ft.): <u>6.32</u>
Depth to Free Product: <u>   </u>	Thickness of Free Product (feet): <u>   </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other      
 Start Purge Time: 1332      Flow Rate: 100ml/m      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1335	15.75	7.38	0.367	34	1.48	-32.6	300	6.32
1338	15.68	7.33	0.363	32	1.33	-34.8	600	6.32
1341	15.58	7.32	0.364	30	1.24	-37.0	900	6.32
1344	15.55	7.30	0.360	29	1.22	-39.1	1200	6.32
1347	15.47	7.30	0.360	28	1.17	-41.6	1500	6.32

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Amount actually evacuated: <u>1500ml</u>
Sampling Time: <u>1348</u>	Sampling Date: <u>06/13/23</u>
Sample I.D.: <u>MW-302</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see COC</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u>   </u>

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-J01</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>06/14/23</u>
Well I.D.: <u>MW-303</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.75</u>	Depth to Water (ft.): <u>6.02</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>FS-556</u>

Purge Method: <u>2" Grundfos Pump</u>	<u>Peristaltic Pump</u>	Bladder Pump
Sampling Method: <u>Dedicated Tubing</u>	New Tubing	Other _____
Start Purge Time: <u>1338</u>	Flow Rate: <u>100ml/m</u>	Pump Depth: <u>11ft</u>

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1341	16.17	7.68	0.357	34	1.38	-36.1	300	6.02
1344	16.04	7.66	0.355	31	1.29	-38.7	600	6.02
1347	15.92	7.62	0.351	30	1.24	-40.2	900	6.02
1350	15.88	7.60	0.349	30	1.20	-40.9	1200	6.02
1353	15.83	7.59	0.348	29	1.17	-42.4	1500	6.02

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1500ml</u>
Sampling Time: <u>1354</u>	Sampling Date: <u>06/14/23</u>
Sample I.D.: <u>MW-303</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>see COC</u>
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-J01</u>	Client: <u>G #10</u>
Sampler: <u>J0</u>	Gauging Date: <u>06/14/23</u>
Well I.D.: <u>MW-304</u>	Well Diameter (in.): <u>②</u> 3 4 6 8 <u>    </u>
Total Well Depth (ft.): <u>14.65</u>	Depth to Water (ft.): <u>6.05</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump                      Peristaltic Pump                      Bladder Pump  
 Sampling Method: Dedicated Tubing                      New Tubing                      Other       
 Start Purge Time: 1223                      Flow Rate: 100 ml/m                      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1226	17.02	7.16	0.301	22	0.93	-67.1	300	6.09
1229	17.95	7.11	0.289	20	0.76	-62.3	600	6.13
1232	18.03	7.10	0.284	18	0.71	-60.9	900	6.13
1235	18.15	7.07	0.284	18	0.69	-58.2	1200	6.13
1238	18.16	7.11	0.281	17	0.67	-59.3	1500	6.13

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1500m<sup>3</sup></u>
Sampling Time: <u>1239</u>	Sampling Date: <u>06/14/23</u>
Sample I.D.: <u>MW-304</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>Sec COC</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>    </u>

**Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555**

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-JD1</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>06/13/23</u>
Well I.D.: <u>MW-307</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8 _____
Total Well Depth (ft.): <u>17.40</u>	Depth to Water (ft.): <u>8.46</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method:  2" Grundfos Pump       Peristaltic Pump       Bladder Pump  
 Sampling Method:  Dedicated Tubing       New Tubing       Other \_\_\_\_\_  
 Start Purge Time: 0920      Flow Rate: 100ml/m      Pump Depth: 14ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0823	12.40	6.75	0.415	24	1.29	74.5	300	8.46
0826	12.38	6.74	0.411	21	1.26	78.6	600	8.46
0829	12.23	6.69	0.406	20	1.22	80.0	900	8.46
0832	12.16	6.67	0.405	18	1.19	81.5	1200	8.46
0835	12.14	6.64	0.403	18	1.16	83.9	1500	8.46

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Amount actually evacuated: <u>1500ml</u>
Sampling Time: <u>0836</u>	Sampling Date: <u>06/13/23</u>
Sample I.D.: <u>MW-307</u>	Laboratory: <u>JA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D	Other: <u>SLE COC</u>
Equipment Blank I.D.: <u>@</u> _____	Duplicate I.D.: _____



### LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612 - J01	Client: GHD
Sampler: J0	Gauging Date: 06/13/23
Well I.D.: MW-308	Well Diameter (in.): (2) 3 4 6 8
Total Well Depth (ft.): 17.30	Depth to Water (ft.): 7.73
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: 751-556

Purge Method: 2" Grundfos Pump	Peristaltic Pump	Bladder Pump
Sampling Method: Dedicated Tubing	New Tubing	Other _____
Start Purge Time: 0749	Flow Rate: 100ml/min	Pump Depth: 14ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0752	17.55	6.73	0.323	33	0.84	-29.4	300	7.73
0755	12.48	6.70	0.320	28	0.76	-34.1	600	7.73
0758	12.40	6.64	0.317	25	0.67	-36.0	900	7.73
0801	12.34	6.62	0.317	25	0.65	-38.2	1200	7.73
0804	12.31	6.59	0.316	24	0.64	-41.6	1500	7.73

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 1500ml
Sampling Time: 0805	Sampling Date: 06/13/23
Sample I.D.: MW-308	Laboratory: JA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: (circled) See COE
Equipment Blank I.D.: @ _____ <small>Time</small>	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-J01	Client: GAD
Sampler: J0	Gauging Date: 06/14/23
Well I.D.: MW-304	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 14.62	Depth to Water (ft.): 5.95
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVE Grade	Flow Cell Type: YSI-556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1333      Flow Rate: 100ml/m      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1316	17.45	7.32	0.381	60	1.17	-59.3	300	5.95
1319	17.36	7.29	0.380	57	0.95	-60.7	600	5.95
1322	17.35	7.26	0.380	54	0.89	-62.1	900	5.95
1325	17.28	7.25	0.380	51	0.88	-64.8	1200	5.95
1328	17.21	7.23	0.379	51	0.86	-66.5	1500	5.95

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 1500ml
Sampling Time: 1329	Sampling Date: 06/14/23
Sample I.D.: MW-304	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____ <small>Time</small>	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-J01	Client: GHD
Sampler: JD	Gauging Date: 06/13/23
Well I.D.: MW-310	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 14.55	Depth to Water (ft.): 6.17
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: YSI-556

Purge Method: 2" Grundfos Pump                      Peristaltic Pump                      Bladder Pump  
 Sampling Method: Dedicated Tubing                      New Tubing                      Other \_\_\_\_\_  
 Start Purge Time: 1304                      Flow Rate: 100ml/m                      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1307	16.38	7.18	0.773	40	1.71	-71.7	300	6.22
1310	16.21	7.24	0.770	36	1.64	-77.4	600	6.28
1313	16.13	7.27	0.769	37	1.59	-79.6	900	6.28
1316	16.11	7.27	0.769	37	1.55	-81.0	1200	6.28
1319	16.15	7.29	0.767	35	1.53	-83.0	1500	6.28

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 1500ml
Sampling Time: 1320	Sampling Date: 06/13/23
Sample I.D.: MW-310	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-J01	Client: GHO
Sampler: JO	Gauging Date: 06/14/23
Well I.D.: MW-311	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): 15.00	Depth to Water (ft.): 7.62
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0954      Flow Rate: 100 ml/m      Pump Depth: 12 ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0957	15.65	7.67	0.765	21	5.14	17.9	300	7.62
1000	15.46	7.70	0.763	19	5.32	14.2	600	7.62
1003	15.40	7.73	0.756	17	5.38	10.2	900	7.62
1006	15.32	7.74	0.753	16	5.40	6.8	1200	7.62
1009	15.28	7.78	0.751	16	5.49	5.3	1500	7.62

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 1500ml
Sampling Time: 1010	Sampling Date: 06/14/23
Sample I.D.: MW-311	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-JD1</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <del>06/12/23</del> <sup>50</sup> <u>06/14/23</u>
Well I.D.: <u>MW-3/2</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8
Total Well Depth (ft.): <u>14.86</u>	Depth to Water (ft.): <u>5.78</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVE</u> Grade	Flow Cell Type: <u>Y61-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1022      Flow Rate: 100ml/m      Pump Depth: 11ft

Time	Temp. ( <u>C</u> or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1025	15.95	7.98	0.563	18	2.36	-40.1	300	5.84
1028	16.11	7.95	0.559	17	2.24	-43.5	600	5.84
1031	16.27	7.92	0.555	17	2.21	-46.0	900	5.84
1034	16.33	7.88	0.554	17	2.18	-42.1	1200	5.84
1037	16.46	7.90	0.552	17	2.13	-49.8	1500	5.84

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1500ml</u>
Sampling Time: <u>1038</u>	Sampling Date: <u>06/14/23</u>
Sample I.D.: <u>MW-312</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see COC</u>	
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>_____</u>

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-J01	Client: GHD
Sampler: JO	Gauging Date: 06/14/23
Well I.D.: MW-313	Well Diameter (in.): 2 3 4 6 8 _____
Total Well Depth (ft.): 13.63	Depth to Water (ft.): 6.15
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	Flow Cell Type: 751-550

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1050      Flow Rate: 100ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1053	16.73	7.90	0.642	65	0.41	-43.8	300	6.15
1056	16.80	7.96	0.637	62	0.36	-46.0	600	6.15
1059	16.85	7.99	0.633	60	0.34	-47.1	900	6.15
1102	16.93	8.01	0.633	58	0.33	-48.7	1200	6.15
1105	16.96	8.03	0.632	56	0.32	-50.7	1500	6.15

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 1500ml/m
Sampling Time: 1106	Sampling Date: 06/14/23
Sample I.D.: MW-313	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612-501</u>	Client: <u>G+H</u>
Sampler: <u>JD</u>	Gauging Date: <u>06/14/23</u>
Well I.D.: <u>MW-314</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.66</u>	Depth to Water (ft.): <u>7.00</u>
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1149      Flow Rate: 100 ml/min      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1152	16.45	7.69	0.723	27	2.84	-47.6	300	7.00
1155	16.42	7.68	0.722	28	2.73	-50.2	600	7.00
1158	16.39	7.65	0.720	26	2.66	-51.6	900	7.00
1201	16.35	7.66	0.720	25	2.64	-54.5	1200	7.00
1204	16.38	7.63	0.720	25	2.60	-56.9	1500	7.00

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1500 ml</u>
Sampling Time: <u>1205</u>	Sampling Date: <u>06/14/23</u>
Sample I.D.: <u>MW-314</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see COC</u>	
Equipment Blank I.D.: _____ @ _____	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230612 - J01</u>	Client: <u>GAD</u>
Sampler: <u>SD</u>	Gauging Date: <u>06/14/23</u>
Well I.D.: <u>MW-315</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8
Total Well Depth (ft.): <u>14.94</u>	Depth to Water (ft.): <u>7.61</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI-556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1118      Flow Rate: 100ml/m      Pump Depth: 12 ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1121	14.41	7.30	0.671	24	1.55	-36.7	300	7.69
1124	14.31	7.32	0.668	23	1.49	-39.3	600	7.69
1127	14.19	7.33	0.667	21	1.44	-40.9	900	7.69
1130	14.26	7.33	0.664	20	1.41	-42.1	1200	7.69
1133	14.23	7.34	0.663	20	1.36	-43.0	1500	7.69

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1500ml</u>
Sampling Time: <u>1134</u>	Sampling Date: <u>06/14/23</u>
Sample I.D.: <u>MW-315</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u>_____</u>

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230612-J01	Client: G+H
Sampler: JD	Gauging Date: 06/13/23
Well I.D.: AA <sup>JD</sup> SH-04	Well Diameter (in.): <input checked="" type="radio"/> 2   3   4   6   8   ___
Total Well Depth (ft.): 18.02	Depth to Water (ft.): 8.95
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <input checked="" type="radio"/> PVC   Grade	Flow Cell Type: YSI-556

Purge Method: 2" Grundfos Pump                      Peristaltic Pump                      Bladder Pump  
 Sampling Method: Dedicated Tubing                      New Tubing                      Other \_\_\_\_\_  
 Start Purge Time: 1200                      Flow Rate: 100ml/m                      Pump Depth: 14ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1203	15.51	7.33	0.150	24	4.91	-58.2	300	8.95
1206	15.62	7.30	0.149	20	4.63	-56.9	600	8.95
1209	15.40	7.30	0.148	19	4.56	-53.1	900	8.95
1212	15.34	7.33	0.150	18	4.48	-50.6	1200	8.95
1215	15.31	7.32	0.149	18	4.44	-48.1	1500	8.95

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 1500ml
Sampling Time: 1216	Sampling Date: 06/13/23
Sample I.D.: SH-04	Laboratory: TA
Analyzed for: TPH-G   BTEX   MTBE   TPH-D	Other: See COC
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____



LAB (LOCATION)

- ACCUTEST ( )
- CALSCIENCE ( )
- TESTAMERICA ( )
- Other ( )



Shell Oil Products US Chain Of Custody Record

**Please Check Appropriate Box:**

SGW FDG  PIPELINE  RETAIL

CHEMICALS  CONSULTANT  LUBES

TRANSPORTATION  OTHER

**Print Bill To Contact Name:**

PO # \_\_\_\_\_

GSAP Project ID \_\_\_\_\_

**PlanNet Site or Project ID**

DATE: 06/14/23

PAGE: 1 of 3

CHECK IF NO INCIDENT # APPLIES

**SAMPLING COMPANY:**  
Blaine Tech Services, Inc

**Lab Vendor #** \_\_\_\_\_ **Droptown** \_\_\_\_\_

**ADDRESS:** 1680 Rogers Ave, San Jose, CA, 95112

**TELEPHONE:** (707)523-1010 **FAX:** \_\_\_\_\_

**PROJECT CONTACT (Hardcopy or PDF Report to):** Jacquelyn England

**EDP DELIVERABLE TO (Name, Company, Office Location):** Jacquelyn England, GHD, Santa Rosa

**STATE:** WVA **State** \_\_\_\_\_

**PHONE NO.:** (707)523-1010 **E-MAIL:** jacquelyn.england@ghd.com

**SHIPLER NAME(S) (Print):** *Jonah Davis*

**SHIPPER NAME(S) (Print):** \_\_\_\_\_

**GHD Project / Task Number:** 11218519

**LAB USE ONLY**

**TURNAROUND TIME (CALENDAR DAYS):**  
 STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT  UST AGENCY:

**DELIVERABLES:**  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_

**TEMPERATURE ON RECEIPT C°:** \_\_\_\_\_ **Cooler #1** \_\_\_\_\_ **Cooler #2** \_\_\_\_\_ **Cooler #3** \_\_\_\_\_

**SPECIAL INSTRUCTIONS OR NOTES:**

SHELL CONTRACT RATE APPLIES

STATE REIMBURSEMENT RATE APPLIES

EDD NOT NEEDED

RECEIPT VERIFICATION REQUESTED

PROVIDE LEDD DISK

LAB USE ONLY	Field Sample Identification		SAMPLING		MATRIX	PRESERVATIVE				NO. OF CONT.	UNIT COST	NON-UNIT COST	FIELD NOTES:	
	DATE	TIME	DATE	TIME		HCL	HN03	H2SO4	NONE					OTHER
	TB-1		06/14/23	0900	WT	X					2			
	MW-202			1339		X					6			
	MW-203			1409		X					6			
	MW-213			1233		X			X		8			
	MW-214			1303		X			X		8			
	MW-308		06/14/23	0805		X					4			
	MW-302			0836		X					6			
	MW-104			0910		X			X		7			
	MW-05			0942		X					6			
	MW-111			1015		X					6			

**Requested Analysis:**

300.0 Sulfate

8270D SIM P-As

8260C BTEX

NWTFP-Dx

300.0 Chloride

6020A Diss. Iron & Manganese (lab filter)

353.2 Nitrate & Nitrite

6020A Total Lead

NWTFP-Gx

300.0 Chloride

2320B Alkalinity

**Requested Analysis:**

UNIT COST

NON-UNIT COST

**Field Notes:**

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes

**Relinquished by (Signature):** *[Signature]*

**Relinquished by (Signature):** \_\_\_\_\_

**Relinquished by (Signature):** \_\_\_\_\_





# Shell Oil Products US Chain of Custody Record

## LAB (LOCATION)

- ACQUITEST (
- CALSCIENCE (
- TESTAMERICA (
- Other (

## Please Check Appropriate Box:

- SCW FDG
- PIPELINE
- RETAIL
- CHEMICALS
- CONSULTANT
- LUBES
- TRANSPORTATION
- OTHER

## Print Bill To Contact Name:

PlatNet Site or Project ID: \_\_\_\_\_  
 GSAP Project ID: \_\_\_\_\_

CHECK IF NO INCIDENT # APPLIES

DATE: 09/14/23  
 PAGE: 3 of 3

**SAMPLING COMPANY:**  
 Blaine Tech Services, Inc  
 ADDRESS: 1880 Rogers Ave, San Jose, CA, 95112

**LOG CODE:** BTSS

**SITE ADDRESS:** Street and City: 2555 13th Avenue  
 STATE: WA

**PHONE NO.:** (707) 523-1010  
**E-MAIL:** jacquelyn.england@ghd.com

**PROJECT CONTACT (Handcopy or PDF Report to):** Jacquelyn England, GHD, Santa Rosa  
**SAMPLER NAME(S) (Print):** Jonah Davis

**TELEPHONE:** (707) 523-1010  
**FAX:** jacquelyn.england@ghd.com

**TURNAROUND TIME (CALENDAR DAYS):**  
 STANDARD (1-5 DAY)  5 DAYS  3 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT  UST AGENCY: \_\_\_\_\_

**DELIVERABLES:**  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_

**TEMPERATURE ON RECEIPT C°:** Cooler #1: \_\_\_\_\_ Cooler #2: \_\_\_\_\_ Cooler #3: \_\_\_\_\_

**SPECIAL INSTRUCTIONS OR NOTES:**  
 SHELL CONTRACT RATE APPLIES  
 STATE REIMBURSEMENT RATE APPLIES  
 EDD NOT NEEDED  
 RECEIPT VERIFICATION REQUESTED  
 PROVIDE LEDO DISK

LAB USE ONLY	Field Sample Identification		PRESERVATIVE			NO. OF CONT.	UNIT COST	NON-UNIT COST	FIELD NOTES:
	DATE	TIME	HCL	HNO3	H2SO4				
	MW-315	09/14/23	1134	X					
	MW-314		1205	X					
	MW-304		1239	X					
	MW-301		1305	X					
	MW-309		1324	X					
	MW-303		1354	X					
	TX-03A		1458	X					

**TEMPERATURE ON RECEIPT C°:** \_\_\_\_\_

**Container PID Readings or Laboratory Notes:** \_\_\_\_\_

Received by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 230612-JD1  
 DATE: 06/03/06  
 ADDRESS 2555 13th Ave SW  
 CITY & STATE Seattle, WA

06/03/06 06/12/23

Well ID	Manway Cover, Type, Condition & Size		Observations Upon Arrival		Well Lock Condition		Well Pad / Surface Condition	Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials									
	Standpipe	Flush	Size (inch)	Well Labeled / Painted Properly	Well Cap (Gripper) Condition	Well Lock Condition					Well Pad / Surface Condition								
MW-201	Standpipe	Flush	2	Y	G	R	G		Y	N									
MW-202	Standpipe	Flush	2	Y	G	R	G		Y	N									
MW-203	Standpipe	Flush		Y	G	R	G		Y	N									
MW-204	Standpipe	Flush	2	Y	G	R	G		Y	N									
MW-206A	Standpipe	Flush	2	Y	G	R	G		Y	N									
MW-101	Standpipe	Flush	2	Y	G	R	G		Y	N									
MW-102	Standpipe	Flush	2	Y	G	R	G		Y	N									
MW-301	Standpipe	Flush	2	Y	G	R	G		Y	N									
MW-302	Standpipe	Flush	2	Y	G	R	G		Y	N									
MW-303	Standpipe	Flush	2	Y	G	R	G		Y	N									
MW-304	Standpipe	Flush	2	Y	G	R	G		Y	N									
TOTAL # CAPS REPLACED = 0										TOTAL # OF LOCKS REPLACED = 0									

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure	Condition of Area Inside Enclosure	Compound Security	Emergency Contact Info Visible	Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials
NA							
Building							
Building w/ Fence Comp.							
Fenced Compound							
Trailer							
Does the Label Reveal the Source of the Contents	Y	N	N/A	Y	N	Y	N
Number of Drums On-site	0	0	0	0	0	0	0
Detailed Explanation of Any Issues Resolved							

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Jonathan Davis / RS

Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
 P = Poor (needs attention) NL = No Lock Required  
 Note: All repairs other than locks and grippers require Shell PM approval prior to repair.  
 \* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
 Version 2.4, March 2008



ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 230612-5A1

ADDRESS 2555 131st Ave SW

CITY & STATE Seattle, WA

DATE: 06/12/23

Well ID	Manway Cover, Type, Condition, & Size				Observations Upon Arrival			Well Pad / Surface Condition		Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials
	Manway Cover	Type	Condition	Size (inch)	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition	Well Lock Condition	Well Pad / Surface Condition				
MW-307	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
MW-308	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
MW-309	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
MW-310	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
MW-311	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
MW-312	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
MW-313	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
MW-314	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
MW-315	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
TES-MW	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
TX-03A	Standpipe	Flush	G	2	Y	R	G	NL	P		Y	N
TOTAL # CAPS REPLACED = 0											TOTAL # OF LOCKS REPLACED = 0	
Condition of Soil Boring Patches or Abandoned Monitoring Wells												
Remediation Compound Type (Check boxes that apply)												
NA												
Building												
Building w/ Fence Comp.												
Fenced Compound												
Trailer												
Condition of Enclosure												
G P N/A												
Condition of Area Inside Enclosure												
G P N/A												
Compound Security												
G P N/A												
Emergency Contact Info Visible												
Y N N/A												
Cleaning / Repairs Recommended and Conducted												
Y N												
Photos of Condition												
Y N												
Date Drums Removed from Site and PM Initials												
Detailed Explanation of Any Issues Resolved												
Drums Located to Min Business Interference												
Drum Condition												
G P N/A												
Confirm Drums Related to Environmental												
Y N N/A												
Does the Label Reveal the Source of the Contents												
Y N N/A												
Labeled Correctly and Writing Legible												
Y N N/A												

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Torch Davis / BS

Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
 P = Poor (needs attention) NL = No Lock Required  
 Note: All repairs other than locks and grippers require Shell PM approval prior to repair.  
 \* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
 Version 2.4, March 2008

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 230612-JDI  
 DATE: 06/12/23

ADDRESS 2555 13th Ave SW  
 CITY & STATE Seattle, WA

Well ID	Observations Upon Arrival				Well Pad / Surface Condition	Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials	
	Manway Cover, Type, Condition & Size	Well Labeled / Painted Property*	Well Cap (Gripper) Condition	Well Lock Condition					
MW-05	Standpipe Flush G P 2	Y	G	R	G		Y	N	
MW-111	Standpipe Flush G P 2	Y	G	R	G		Y	N	
MW-12A	Standpipe Flush G P 2	Y	G	R	G		Y	N	
<del>MW-12B</del>									
MW-104	Standpipe Flush G P 2	Y	G	R	G		Y	N	
MW-113	Standpipe Flush G P 2	Y	G	R	G		Y	N	
MW-114	Standpipe Flush G P 2	Y	G	R	G		Y	N	
MW-115	Standpipe Flush G P 2	Y	G	R	G		Y	N	
MW-213	Standpipe Flush G P 2	Y	G	R	G		Y	N	
MW-214	Standpipe Flush G P 2	Y	G	R	G		Y	N	
MW-208	Standpipe Flush G P 2	Y	G	R	G		Y	N	
TOTAL # CAPS REPLACED = 28								TOTAL # OF LOCKS REPLACED = 0	

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure		Condition of Area Inside Enclosure		Compound Security		Emergency Contact Info Visible		Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials
	Condition of Enclosure	Condition of Area Inside Enclosure	Condition of Area Inside Enclosure	Compound Security	Emergency Contact Info Visible	Emergency Contact Info Visible					
NA											
Building											
Building w/ Fence Comp.											
Fenced Compound											
Trailer											
Number of Drums On-site	Does the Label Reveal the Source of the Contents	Labeled Correctly and Writing Legible	Drum Condition	Confirm Drums Related to Environmental	Drums Located to Min Business Interference	Detailed Explanation of Any Issues Resolved					
0	Y	N	N/A	Y	N	Y	N	N/A		Y	N

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Jonah Davis BBS

Print or type Name of Field Personnel & Consultant Company

\* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
 Version 2.4, March 2008

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 230612-101

ADDRESS 2555 13th Ave SW

DATE: 06/12/23

CITY & STATE Seattle, WA

Well ID	Manway Cover, Type, Condition & Size				Observations Upon Arrival		Well Pad / Surface Condition	Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials
	Manway Cover	Type	Condition	Size (inch)	Well Labeled / Painted Properly	Well Cap (Gripper) Condition				
MW-210	Standpipe	Flush	G	2	Y	R	G		Y	N
MW-211	Standpipe	Flush	G	4	Y	R	G		Y	N
MW-212	Standpipe	Flush	G	4	Y	R	G		Y	N
TX-03A	Standpipe	Flush	G	2	Y	R	G		Y	N
	Standpipe	Flush	G		Y	R	G		Y	N
	Standpipe	Flush	G		Y	R	G		Y	N
	Standpipe	Flush	G		Y	R	G		Y	N
	Standpipe	Flush	G		Y	R	G		Y	N
	Standpipe	Flush	G		Y	R	G		Y	N
	Standpipe	Flush	G		Y	R	G		Y	N
	Standpipe	Flush	G		Y	R	G		Y	N
	Standpipe	Flush	G		Y	R	G		Y	N
	Standpipe	Flush	G		Y	R	G		Y	N
TOTAL # CAPS REPLACED =				0					= TOTAL # OF LOCKS REPLACED	
Condition of Soil Boring Patches of Abandoned Monitoring Wells		G	P	N/A					Y	N
Remediation Compound Type (Check boxes that apply)		Condition of Enclosure		Condition of Area Inside Enclosure	Compound Security	Emergency Contact Info Visible	Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials	
NA		G	P	G	P	N/A		Y	N	
Building										
Building w/ Fence Comp.										
Fenced Compound										
Trailer										
Number of Drums On-site		Does the Label Reveal the Source of the Contents		Labeled Correctly and Writing Legible	Drum Condition	Confirm Drums Related to Environmental	Detailed Explanation of Any Issues Resolved	Photos of Drum Condition	Date Drums Removed from Site and PM Initials	
0	Y	N	N/A	Y	P	Y		Y	N	

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

G = Good (Acceptable) R = Replaced  
P = Poor (needs attention) NL = No Lock Required  
Note: All repairs other than locks and grippers require Shell P.M. approval prior to repair.  
\* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
Version 2.4, March 2008

Joseph Davis / BDS  
Print or type Name of Field Personnel & Consultant Company

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME		PROJECT NUMBER			INITIALS		
2555 13th Ave SW Seattle, WA		236612-JD1			JD		
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI-556	071C101592	06/12/23 @ 0540	PH 4 7.6	4.05 3.03 10.11	—	14.57	JD
			cond 3900	3993	—	14.66	JD
			ORP 248	251	—	14.62	JD
			DO 100%	104%	—	—	JD
YSI-556	071C101592	06/13/23 @ 0600	PH 4 7.6	4.08 6.97 10.14	—	13.74	JD
			cond 3900	3944	—	13.77	JD
			ORP 246	249	—	13.71	JD
			DO 100%	106%	—	—	JD
YSI-556	071C101592	06/14/23 @ 0820	PH 4 7.6	4.05 7.10 10.15	—	13.46	JD
			cond 3900	3997	—	13.44	JD
			ORP 245	250	—	13.37	JD
			DO 100%	104%	—	—	JD



**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	2555 13th Ave SW Seattle	Date:	06/12/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	

List activities to be performed today:	GW Monitoring & Sampling		
Permitted Activities (specific permit to be competed):	<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> Confined Space Entry	<input type="checkbox"/> Excavation/Trenching
	<input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs)	<input type="checkbox"/> Hot Work	<input type="checkbox"/> Natural Gas System Maintenance

The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.

Muster Point:	Shell Sign by Safety	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Truck
Emergency cut-off switches:	NA	Designated cell phone use area(s):	Cab of Truck

Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work sitewalk?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Have all personnel reviewed and understand the site specific HASP?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each activity have a Job Safety Analysis (JSA)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each subcontractor have JSAs for their activities?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Per our lone worker procedure, is each employee either accompanied by or in communications with another?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? If yes, discuss modifications.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
If permits are required, have they been reviewed and permit conditions understood by the Team?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:		Title of Subcontractor's JSAs reviewed today:	GW Monitoring & Shell
-----------------------------------	--	---	-----------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Safety Glasses	<input checked="" type="checkbox"/> Safety Vest	<input checked="" type="checkbox"/> Steel-Toed Boots	<input checked="" type="checkbox"/> Gloves (appropriate for task)
---	--	--	---	--	---

See JSA for additional task specific PPE requirements.

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule Icons that are applicable to the work/activities that will take place today:





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty,
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jonah Davis eBS		JD In & Fit 0700	JD Out & Fit 1430
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jonah Davis	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No Site Rep		No Site Rep

**TWILIGHT TOOL BOX TALK (Complete the following once field activities for the day have been concluded):**

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature:





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	2555 13th Ave SW Seattle, WA	Date:	06/13/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	—

List activities to be performed today:	GW Monitoring		
Permitted Activities (specific permit to be competed):	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Excavation/Trenching <input type="checkbox"/> Hot Work <input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs) <input type="checkbox"/> Natural Gas System Maintenance		
The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.			

Muster Point:	Shell Sign by Safety	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Truck
Emergency cut-off switches:	N/A	Designated cell phone use area(s):	Cab of Truck

Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work sitewalk?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Have all personnel reviewed and understand the site specific HASP?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each activity have a Job Safety Analysis (JSA)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each subcontractor have JSAs for their activities?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Per our lone worker procedure, is each employee either accompanied by or in communications with another?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? If yes, discuss modifications.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
If permits are required, have they been reviewed and permit conditions understood by the Team?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:	_____	Title of Subcontractor's JSAs reviewed today:	GW Monitoring @ Shell
-----------------------------------	-------	---	-----------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Safety Vest <input checked="" type="checkbox"/> Steel-Toed Boots <input checked="" type="checkbox"/> Gloves (appropriate for task) See JSA for additional task specific PPE requirements.
---	--

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule icons that are applicable to the work/activities that will take place today:







**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty.
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jonah Davis / BBS		JD In & Fit 0700	JD Out & Fit 1430
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jonah Davis	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No site Rep		No Site Rep

**TWILIGHT TOOL BOX TALK (Complete the following once field activities for the day have been concluded):**

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature:



**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	2555 13th Ave SW Seattle, WA	Date:	06/14/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	—

List activities to be performed today:	GW Monitoring		
Permitted Activities (specific permit to be competed):	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Excavation/Trenching <input type="checkbox"/> Hot Work <input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs) <input type="checkbox"/> Natural Gas System Maintenance		
The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.			

Muster Point:	Shell safety office	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Truck
Emergency cut-off switches:	NA	Designated cell phone use area(s):	Cab of Truck

Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work sitewalk?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Have all personnel reviewed and understand the site specific HASP?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each activity have a Job Safety Analysis (JSA)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each subcontractor have JSAs for their activities?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Per our lone worker procedure, is each employee either accompanied by or in communications with another?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? If yes, discuss modifications.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
If permits are required, have they been reviewed and permit conditions understood by the Team?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:	—	Title of Subcontractor's JSAs reviewed today:	GW Monitoring @ Shell
-----------------------------------	---	---	-----------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Safety Vest <input checked="" type="checkbox"/> Steel-Toed Boots <input checked="" type="checkbox"/> Gloves (appropriate for task) See JSA for additional task specific PPE requirements.
---	--

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule icons that are applicable to the work/activities that will take place today:





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty.
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jonah Davis / BJS		JO In & Fit 0940	JO Out & Fit 1500
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jonah Davis	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No site Rep		No site Rep

**TWILIGHT TOOL BOX TALK (Complete the following once field activities for the day have been concluded):**

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature:

Monitoring Well Gauging Field Log - Shoreline

Project No: 11218519  
 SAP: 357032  
 PlaNet ID: MIGUS357032  
 Location: 2555 13th Avenue SW Seattle (Harbor Island Terminal)

Personnel: Michael Cyrrier

Date: 07 / 20 / 2023

Well ID	Time Gauged	Depth to Product	Depth to Water	Comments
MW-208	0940	—	5.32'	
NW-210	1026	6.27	6.32'	Sorbent saturated w/ product and replaced
MW-211	0955	—	5.60'	
MW-212	1005	—	6.01'	Sorbent had heavy oxidation staining <del>areas</del> saturated w/ product @ bottom. ↑ and Sorbent changed.





Monitoring Well Gauging Field Log - Shoreline

Project No: 11218519  
SAP: 357032  
PlaNet ID: MIGUS357032  
Location: 2555 13th Avenue SW Seattle (Harbor Island Terminal)

Personnel: N. Adamowski

Date: 8/17/23

Well ID	Time Gauged	Depth to Product	Depth to Water	Comments
MW-208	0820	-	5.37	
NW-210	0830	6.41	6.42	Absorbent Saturated - Replaced
MW-211	0755	-	5.50	
MW-212	0810	-	5.99	



### WELL GAUGING DATA

Project # 230911-JOC Date 09/11/23 Client GHD

Site Seattle Shell Harbor Island Terminal

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-201	0832	2	—	—	—	—	14.07	21.49		
MW-202	0827	2	—	—	—	—	13.69	21.66		
MW-203	1304	2	—	—	—	—	7.24	13.97		* 09/12/23
MW-204	0821	2	—	—	—	—	11.33	17.36		
MW-206A	0841	2	—	—	—	—	9.84	16.18		
MW-101	1009	2	—	—	—	—	10.96	17.04		
MW-102	0944	2	—	—	—	—	9.00	17.33		
MW-301	0914	2	—	—	—	—	6.17	14.57		
MW-302	1222	2	—	—	—	—	6.80	14.98		* 09/12/23
MW-303	0918	2	—	—	—	—	6.36	14.79		
MW-304	0926	2	—	—	—	—	6.39	14.42		
MW-307	1024	2	—	—	—	—	8.50	17.46		
MW-308	1053	2	—	—	—	—	8.22	17.21		
MW-309	0910	2	—	—	—	—	6.86	14.60		
MW-310	0931	2	—	—	—	—	7.15	14.53		
MW-311	0856	2	—	—	—	—	8.58	14.90		
MW-312	0903	2	—	—	—	—	7.96	14.75		

\* parked over during initial gauging

## WELL GAUGING DATA

Project # 230911-SPA Date 09/11/23 Client GHD

Site Seattle Shell Harbor Island

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>FOC</u>	Notes
MW-313	0851	2	—	—	—	—	6.73	13.22	↓	
MW-314	—	—	unable	to access		—	—			X
MW-315	0848	2	odor	—	—	—	8.10	14.62		
PFS-MW-1	1015	4	—	—	—	—	9.36	15.63		
TX-03A	1440	2	—	—	—	—	6.84	14.69		↑ 09/12/23



### Monitoring Well Gauging Field Log - Shoreline

Date: 09/11/23

Job No: 230911-301

SAP:

Incident No 300036

Location: 2555 13th Ave SW, Seattle (Harbor Island Terminal)

Personnel: Jonah Davis

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-208	0801	5.62	—	
MW-210	0757	6.81	—	Absorbant sock replaced
MW-211	0810	5.94	—	
MW-212	0806	6.39	—	Absorbant sock replaced

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230911-J01</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>09/12/23</u>
Well I.D.: <u>TX-03A</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.69</u>	Depth to Water (ft.): <u>6.84</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1441      Flow Rate: 100 ml/m      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1444	17.63	6.61	0.376	1	0.35	-95.2	300	6.84
1447	17.99	6.57	0.383	1	0.22	-98.6	600	6.84
1450	18.18	6.54	0.378	1	0.17	-103.5	900	6.84
1453	18.26	6.53	0.377	1	0.17	-108.0	1200	6.84
1456	18.21	6.50	0.372	1	0.16	-109.7	1500	6.84

Did well dewater? Yes  No

Amount actually evacuated: 1500 ml

Sampling Time: 1457      Sampling Date: 09/12/23

Sample I.D.: TX-03A      Laboratory: TA

Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: see COC

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time      Duplicate I.D.: \_\_\_\_\_

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230911-301	Client: GHO
Sampler: JD	Gauging Date: 09/11/23
Well I.D.: MW-301	Well Diameter (in.): <input checked="" type="radio"/> 2    3    4    6    8    ___
Total Well Depth (ft.): 14.57	Depth to Water (ft.): 6.17
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <input checked="" type="radio"/> Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump                      Peristaltic Pump                      Bladder Pump  
 Sampling Method: Dedicated Tubing                      New Tubing                      Other \_\_\_\_\_  
 Start Purge Time: 1211                      Flow Rate: 100ml/m                      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1214	19.91	6.47	0.552	14	0.36	-159.9	300	6.30
1217	19.73	6.50	0.546	12	0.15	-166.3	600	6.30
1220	19.70	6.52	0.539	10	0.10	-169.0	900	6.30
1223	19.66	6.53	0.538	10	0.09	-171.9	1200	6.30
1226	19.59	6.55	0.534	10	0.09	-176.6	1500	6.30

Did well dewater? Yes  No                       Amount actually evacuated: 1500ml

Sampling Time: 1227                      Sampling Date: 09/11/23

Sample I.D.: MW-301                      Laboratory: TA

Analyzed for: TPH-G    BTEX    MTBE    TPH-D                      Other:  see COC

Equipment Blank I.D.: @ \_\_\_\_\_                      Duplicate I.D.: \_\_\_\_\_

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230911-501</u>	Client: <u>GHD</u>
Sampler: <u>50</u>	Gauging Date: <u>09/12/23</u>
Well I.D.: <u>MW-302</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.98</u>	Depth to Water (ft.): <u>6.80</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1225      Flow Rate: 100 ml/m      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1228	19.01	6.30	0.349	4	0.38	-86.5	300	6.80
1231	19.26	6.27	0.346	2	0.26	-91.3	600	6.80
1234	19.35	6.23	0.344	2	0.23	-95.0	900	6.80
1237	19.42	6.22	0.340	2	0.22	-98.3	1200	6.80
1240	19.37	6.19	0.342	2	0.21	-96.2	1500	6.80

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1580m<sup>3</sup></u>
Sampling Time: <u>1241</u>	Sampling Date: <u>09/12/23</u>
Sample I.D.: <u>MW-302</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>See COC</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230911-J01</u>	Client: <u>GHD</u>
Sampler: <u>J0</u>	Gauging Date: <u>09/11/23</u>
Well I.D.: <u>MW-303</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>6.36</u>	Depth to Water (ft.): <u>14.79</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1146      Flow Rate: 100 ml/m      Pump Depth: 11ft

Time	Temp. ( <u>C</u> or °F)	pH	Cond. ( <u>mS/cm</u> or <u>µS/cm</u> )	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>ml</u> )	Depth to Water (ft.)
1149	18.22	6.40	0.633	18	0.25	-115.2	300	6.47
1152	18.13	6.34	0.624	17	0.18	-118.4	600	6.47
1155	18.04	6.32	0.616	17	0.13	-123.6	900	6.47
1158	17.96	6.29	0.613	16	0.13	-128.0	1200	6.47
1201	17.83	6.27	0.611	17	0.13	-130.9	1500	6.47

Did well dewater? Yes  No       Amount actually evacuated: 1500ml

Sampling Time: 1202      Sampling Date: 09/11/23

Sample I.D.: MW-303      Laboratory: TA

Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other See cd

Equipment Blank I.D.: @      Duplicate I.D.: —

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230901-001</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>09/11/23</u>
Well I.D.: <u>MW-304</u>	Well Diameter (in.): <u>②</u> 3 4 6 8 _____
Total Well Depth (ft.): <u>14.42</u>	Depth to Water (ft.): <u>6.39</u>
Depth to Free Product: <u>-</u>	Thickness of Free Product (feet): <u>-</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1240      Flow Rate: 100 ml/min      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1243	18.73	6.27	0.383	4	5.49	-81.3	300	6.39
1246	18.95	6.30	0.370	5	5.66	-76.9	600	6.39
1249	19.11	6.33	0.364	3	5.73	-74.7	900	6.39
1252	19.16	6.38	0.358	3	5.80	-71.3	1200	6.39
1255	19.23	6.35	0.356	3	5.84	-69.5	1500	6.39

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1500ml</u>
Sampling Time: <u>1256</u>	Sampling Date: <u>09/11/23</u>
Sample I.D.: <u>MW-304</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see COC</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230911-J01</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>09/11/23</u>
Well I.D.: <u>MW-307</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>17.46</u>	Depth to Water (ft.): <u>8.50</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1029      Flow Rate: 100 ml/m      Pump Depth: 14ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1032	17.34	7.03	0.715	26	1.09	174.6	300	8.63
1035	17.26	6.95	0.704	21	0.82	173.9	600	8.71
1038	17.11	6.92	0.699	20	0.74	180.9	900	8.77
1041	17.02	6.91	0.695	18	0.73	184.0	1200	8.82
1044	16.93	6.88	0.693	<del>18</del> 18	0.71	186.7	1500	8.84

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: <u>1500 ml</u>
Sampling Time: <u>1045</u>	Sampling Date: <u>09/11/23</u>
Sample I.D.: <u>MW-307</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see COC</u>	
Equipment Blank I.D.: <u>@</u> Time _____	Duplicate I.D.: <u>—</u>



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230911-JD1	Client: GHO
Sampler: JD	Gauging Date: 09/11/23
Well I.D.: MW-308	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 17.21	Depth to Water (ft.): 8.22
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: HA/NA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1100      Flow Rate: 100ml/min      Pump Depth: 14ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1103	16.91	7.18	0.768	44	0.57	161.7	300	8.33
1106	16.75	7.11	0.760	41	0.49	156.0	600	8.38
1109	16.62	7.07	0.753	37	0.46	151.2	900	8.38
1112	16.55	7.03	0.751	34	0.45	149.3	1200	8.38
1115	16.49	7.01	0.746	36	0.43	147.9	1500	8.38

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 1500ml
Sampling Time: 1116	Sampling Date: 09/11/23
Sample I.D.: MW-308	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @	Duplicate I.D.: —

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230911-J01</u>	Client: <u>GHO</u>
Sampler: <u>J0</u>	Gauging Date: <u>09/11/23</u>
Well I.D.: <u>MW-310</u>	Well Diameter (in.): <u>2</u> 3 4 6 8 ___
Total Well Depth (ft.): <u>14.53</u>	Depth to Water (ft.): <u>7.15</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>(PVC) Grade</u>	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1307      Flow Rate: 100ml/m      Pump Depth: 11ft

Time	Temp. (C or F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1310	20.03	6.47	0.483	25	0.30	-138.2	300	7.20
1313	20.25	6.44	0.480	28	0.16	-141.3	600	7.20
1316	20.38	6.40	0.476	22	0.11	-144.9	900	7.20
1319	20.44	6.38	0.473	20	0.10	-147.3	1200	7.20
1322	20.58	6.34	0.473	21	0.10	-148.0	1500	7.20

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1500ml</u>
Sampling Time: <u>1323</u>	Sampling Date: <u>09/11/23</u>
Sample I.D.: <u>MW-310</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see CAC</u>	
Equipment Blank I.D.: <u>@</u> Duplicate I.D.: <u>_____</u>	

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230911-501	Client: GHD
Sampler: 50	Gauging Date: 09/12/23
Well I.D.: MW-311	Well Diameter (in.): <input checked="" type="radio"/> 2   3   4   6   8   ___
Total Well Depth (ft.): 14.90	Depth to Water (ft.): 8.58
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <input checked="" type="radio"/> PVC   Grade	Flow Cell Type: HANNA

Purge Method:      2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method:    Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1155      Flow Rate: 100 ml/min      Pump Depth: 12 ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1158	19.33	6.53	0.615	16	0.19	-138.0	300	8.62
1201	19.09	6.50	0.608	14	0.15	-134.1	600	8.62
1204	18.93	6.48	0.603	13	0.12	-131.6	900	8.62
1207	18.91	6.47	0.604	14	0.11	-129.0	1200	8.62
1210	18.95	6.47	0.601	14	0.11	-127.5	1500	8.62

Did well dewater?    Yes <input checked="" type="radio"/> No	Amount actually evacuated: 1500 ml
Sampling Time: 1211	Sampling Date: 09/12/23
Sample I.D.: MW-311	Laboratory: TA
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: See COC	
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230911-501	Client: GHD
Sampler: 50	Gauging Date: 09/12/23
Well I.D.: MW-312	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 14.75	Depth to Water (ft.): 7.96
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1127      Flow Rate: 100 ml/min      Pump Depth: 11.5ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1130	18.68	6.61	0.553	1	0.41	-116.4	300	7.96
1133	18.75	6.58	0.551	1	0.26	-118.6	600	7.96
1136	18.93	6.56	0.547	1	0.20	-122.9	900	7.96
1139	19.04	6.55	0.544	1	0.19	-127.0	1200	7.96
1142	18.90	6.52	0.543	1	0.19	-128.2	1500	7.96

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 1500ml
Sampling Time: 1143	Sampling Date: 09/12/23
Sample I.D.: MW-312	Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 230911-501	Client: GHD
Sampler: 50	Gauging Date: 09/12/23
Well I.D.: MW-313	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): 13.22	Depth to Water (ft.): 6.73
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1025      Flow Rate: 100 ml/m      Pump Depth: 11ft

Time	Temp. ( <u>C</u> or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1028	19.91	6.82	0.458	73	0.31	41.2	300	6.83
1031	20.31	6.80	0.449	49	0.26	34.0	600	6.91
1034	20.44	6.74	0.447	43	0.24	31.6	900	7.03
1037	20.58	6.73	0.440	41	0.23	29.9	1200	7.16
1040	20.47	6.70	0.440	41	0.22	28.4	1500	7.22

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 1500ml
Sampling Time: 1041	Sampling Date: 09/12/23
Sample I.D.: MW-313	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>232911-J01</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>09/12/23</u>
Well I.D.: <u>MW, 3/4</u>	Well Diameter (in.): 2 3 4 6 8 <u>    </u>
Total Well Depth (ft.): <u>    </u>	Depth to Water (ft.): <u>    </u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PVC</u> <u>Grade</u>	Flow Cell Type: <u>    </u>

Purge Method: 2" Grundfos Pump      ~~Peristaltic Pump~~      ~~Bladder Pump~~  
 Sampling Method: Dedicated Tubing      ~~New Tubing~~      ~~Other~~  
 Start Purge Time:           Flow Rate:           Pump Depth:     

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
			unable to access					
			well was parked over					
			all day on 9/11/23 : 9/12/23					

Did well dewater? Yes    No	Amount actually evacuated: <u>    </u>
Sampling Time: <u>    </u>	Sampling Date: <u>    </u>
Sample I.D.: <u>    </u>	Laboratory: <u>    </u>
Analyzed for:    TPH-G    BTEX    MTBE    TPH-D    Other: <u>    </u>	
Equipment Blank I.D.: <u>    </u> @ <u>    </u> Time	Duplicate I.D.: <u>    </u>

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>230911-501</u>	Client: <u>GHD</u>
Sampler: <u>50</u>	Gauging Date: <u>09/12/23</u>
Well I.D.: <u>MW-315</u>	Well Diameter (in.): 2 3 4 6 8 <u>    </u>
Total Well Depth (ft.): <u>19.62</u>	Depth to Water (ft.): <u>8.10</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PTD</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump                      Peristaltic Pump                      Bladder Pump  
 Sampling Method: Dedicated Tubing                      New Tubing                      Other \_\_\_\_\_  
 Start Purge Time: 1059                      Flow Rate: 100ml/m                      Pump Depth: 12ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)
1102	17.73	6.50	0.558	11	0.26	-128.4	300	8.10
1105	17.56	6.46	0.555	10	0.13	-121.3	600	8.10
1108	17.49	6.41	0.554	8	0.09	-116.9	900	8.10
1111	17.42	6.38	0.555	8	0.09	-114.8	1200	8.10
1114	17.38	6.37	0.553	8	0.09	-112.0	1500	8.10

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>500ml</u>
Sampling Time: <u>1115</u>	Sampling Date: <u>09/12/23</u>
Sample I.D.: <u>MW-315</u>	Laboratory: <u>Pace</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>see COC</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>    </u>



LAB (LOCATION)  
 ACCUTEST ( )  
 CALSCIENCE ( )  
 TESTAMERICA ( )  
 Other ( )



# Shell Oil Products US Chain Of Custody Record

Lab Vendor # \_\_\_\_\_ Dropdown  
 Please Check Appropriate Box:  
 SGW FDG  PIPELINE  RETAIL  
 CHEMICALS  CONSULTANT  LUBES  
 TRANSPORTATION  OTHER

Print Bill To Contact Name: \_\_\_\_\_  
 PO # \_\_\_\_\_  
 GHD Project / Task Number: \_\_\_\_\_  
 DATE: 09/12/23  
 PAGE: 1 of 2

SAMPLING COMPANY:  
 Blaine Tech Services, Inc  
 ADDRESS: 1680 Rogers Ave, San Jose, CA, 95112  
 PROJECT CONTACT (hardcopy or PDF Report to):  
 Emilly Blakeway  
 TELEPHONE: (425) 327-4585  
 FAX: emilly.blakeway@ghd.com  
 TURNAROUND TIME (CALENDAR DAYS):  
 STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND  
 LA - RWQCB REPORT FORMAT  UST AGENCY:  
 LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_  
 DELIVERABLES: \_\_\_\_\_  
 TEMPERATURE ON RECEIPT C° \_\_\_\_\_ Cooler #1 \_\_\_\_\_ Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_  
 SPECIAL INSTRUCTIONS OR NOTES : \_\_\_\_\_

SITE ADDRESS: Street and City  
 2555 13th Avenue  
 EDP DELIVERABLE TO (Name, Company, Office Location):  
 Emilly Blakeway, GHD, WA  
 STATE: WA  
 PHONE NO.: (425) 327-4585  
 E-MAIL: emilly.blakeway@ghd.com  
 GHD Other ID: 11218519  
 LAB USE ONLY

LAB USE ONLY	Field Sample Identification		SAMPLING DATE	TIME	MATRIX	PRESERVATIVE			NO. OF CONT.	REQUESTED ANALYSIS	UNIT COST	NON-UNIT COST	FIELD NOTES: TEMPERATURE ON RECEIPT C°
	DATE	TIME				HCL	HNO3	H2SO4					
	TB-1		09/11/23	0900	GLV	X			7				
	MW-301			1227		X			6				
	MW-303			1202		X			6				
	MW-304			1256		X			6				
	MW-307			1045		X			6				
	MW-308			1116		X			6				
	MW-310			1323		X			6				
	MW-302		09/10/23	1241		X			6				
	MW-311			1211		X			6				
	MW-312			1143		X			6				
Relinquished by: (Signature) <i>[Signature]</i> Date: 09/12/23 Time: 1628													
Relinquished by: (Signature) <i>[Signature]</i> Date: 9/12/23 Time: 1628													
Relinquished by: (Signature) _____ Date: _____ Time: _____													



INCIDENT # 230911-001 DATE: 09/11/23 ADDRESS 2555 13th Ave SW CITY & STATE Seattle, WA

Well ID	Manway Cover, Type, Condition & Size		Observations Upon Arrival			Well Lock Condition	Well Pad / Surface Condition	Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials	
	Standpipe	Flush	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition	Size (inch)						
MW-201	Standpipe	Flush	Y	R	2	G	G		Y		
MW-202	Standpipe	Flush	Y	R	2	G	G		Y		
MW-203	Standpipe	Flush	Y	R	2	G	G		Y		
MW-204	Standpipe	Flush	Y	R	2	G	G		Y		
MW-206A	Standpipe	Flush	Y	R	2	G	G		Y		
MW-101	Standpipe	Flush	Y	R	2	G	G		Y		
MW-102	Standpipe	Flush	Y	R	2	G	G		Y		
MW-301	Standpipe	Flush	Y	R	2	G	G		Y		
MW-302	Standpipe	Flush	Y	R	2	G	G		Y		
MW-303	Standpipe	Flush	Y	R	2	G	G		Y		
MW-304	Standpipe	Flush	Y	R	2	G	G		Y		
TOTAL # CAPS REPLACED =					TOTAL # OF LOCKS REPLACED =						

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure	Condition of Area Inside Enclosure	Compound Security		Emergency Contact Info Visible	Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials
			Confirm Drums Related to Environmental	Compound Security				
NA								
Building								
Building w/ Fence Comp.								
Fenced Compound								
Trailer								
Number of Drums On-site	Does the Label Reveal the Source of the Contents	Labeled Correctly and Writing Legible	Drum Condition	Confirm Drums Related to Environmental	Drums Located to Min Business Interference	Detailed Explanation of Any Issues Resolved	Photos of Drum Condition	Date Drums Removed from Site and PM Initials
0	Y N N	Y N N	G P N/A	Y N	Y N		Y	

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).  
 Joseph Davis @ B1S  
 Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
 P = Poor (needs attention) NL = No Lock Required  
 Notes: All repairs other than locks and grippers require Shell PM approval prior to repair.  
 \* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
 Version 2.4, March 2008

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 230911-J01 ADDRESS 2555 13th Ave SW CITY & STATE Seattle, WA  
 DATE: 09/11/23

Well ID	Manway Cover, Type, Condition & Size		Observations Upon Arrival				Well Pad / Surface Condition	Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials									
	Standpipe	Flush	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition	Well Lock Condition	Well Pad / Surface Condition													
MW-307	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
MW-308	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
MW-309	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
MW-310	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
MW-311	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
MW-312	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
MW-313	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
MW-314	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
MW-315	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
TES-MW-1	Standpipe	Flush	G	P	4	N	G	R	G	NL	R	Y	N						
TX-03A	Standpipe	Flush	G	P	2	N	G	R	G	NL	R	Y	N						
TOTAL # CAPS REPLACED = 0										TOTAL # OF LOCKS REPLACED = 0									

Condition of Soil Boring Patches of Abandoned Monitoring Wells		If POOR, Borings/Well IDs or Location Description	
Remediation Compound Type (Check boxes that apply)	Condition of Enclosure	Condition of Area Inside Enclosure	Compound Security
NA			
Building			
Building w/ Fence Comp.			
Fenced Compound			
Trailer			
Does the Label Reveal the Source of the Contents		Drum Condition	
Y	N	G	P
Labeled Correctly and Writing Legible		Drum Condition	
Y	N	G	P
Condition of Enclosure		Compound Security	
G	P	G	P
Condition of Area Inside Enclosure		Compound Security	
G	P	G	P
Emergency Contact Info Visible		Drums Located to Min Business Interference	
Y	N	Y	N
Cleaning / Repairs Recommended and Conducted		Detailed Explanation of Any Issues Resolved	
		unable to access	
Photos of Condition		Photos of Drum Condition	
Y	N	Y	N
Repair Date and PM Initials		Date Drums Removed from Site and PM Initials	

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Print or type Name of Field Personnel & Consultant Company  
Jonah Davis e.BTS

Version 2.4, March 2008  
 \* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 230911-501

ADDRESS 2555 13th Ave SW

CITY & STATE Seattle, WA

DATE: 09/11/23

Well ID	Manway Cover, Type, Condition & Size		Observations Upon Arrival			Well Pad / Surface Condition	Well Lock Condition	Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials						
	Standpipe	Flush	Size (inch)	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition											
MW-208	Standpipe	Flush	2	Y	G	R	G		Y							
MW-210	Standpipe	Flush	2	Y	G	R	G		Y							
MW-211	Standpipe	Flush	4	Y	G	R	G		Y							
MW-212	Standpipe	Flush	4	Y	G	R	G		Y							
	Standpipe	Flush		Y	G	R	G		Y							
	Standpipe	Flush		Y	G	R	G		Y							
	Standpipe	Flush		Y	G	R	G		Y							
	Standpipe	Flush		Y	G	R	G		Y							
	Standpipe	Flush		Y	G	R	G		Y							
	Standpipe	Flush		Y	G	R	G		Y							
	Standpipe	Flush		Y	G	R	G		Y							
	Standpipe	Flush		Y	G	R	G		Y							
	Standpipe	Flush		Y	G	R	G		Y							
				TOTAL # CAPS REPLACED = 0		TOTAL # OF LOCKS REPLACED = 0										
Condition of Soil Boring Patches or Abandoned Monitoring Wells		G	P	N/A	If POOR, Borings/Well IDs or Location Description											
Remediation Compound Type (Check boxes that apply)		Condition of Enclosure			Condition of Area Inside Enclosure		Compound Security		Emergency Contact Info Visible		Cleaning / Repairs Recommended and Conducted		Photos of Condition		Repair Date and PM Initials	
MA	Building	G	P	N/A	G	P	N/A	G	P	N/A	Y	N	N/A	Y	N	
Building w/ Fence Comp.	Fenced Compound	G	P	N/A	G	P	N/A	G	P	N/A	Y	N	N/A	Y	N	
Trailer																
Number of Drums On-site		Does the Label Reveal the Source of the Contents		Labeled Correctly and Writing Legible		Drum Condition		Confirm Drums Related to Environmental		Drums Located to Min Business Interference		Detailed Explanation of Any Issues Resolved				
0	Y	N	N/A	Y	N	G	P	Y	N	Y	N	N/A	Y	N		

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Jonah Davis @ BIS  
Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
P = Poor (needs attention) NL = No Lock Required  
Note: All repairs other than locks and grippers require Shell P.M approval prior to repair.  
\* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
Version 2.4, March 2008







**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	Seattle Harbor Island Terminal	Date:	09/11/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	

List activities to be performed today:	GW Sampling
Permitted Activities (specific permit to be completed):	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Excavation/Trenching <input type="checkbox"/> Hot Work <input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs) <input type="checkbox"/> Natural Gas System Maintenance
The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.	

Muster Point:	Shell safety office	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Truck
Emergency cut-off switches:	NA	Designated cell phone use area(s):	Cab of TRUCK

Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work site walk?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Have all personnel reviewed and understand the site specific HASP?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each activity have a Job Safety Analysis (JSA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each subcontractor have JSAs for their activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Per our lone worker procedure, is each employee either accompanied by or in communications with another?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?	<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? Is yes, discuss modifications.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
If permits are required, have they been reviewed and permit conditions understood by the Team?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?	<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?	<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:		Title of Subcontractor's JSAs reviewed today:	GW Monitoring @ Shell TC @ Shell
-----------------------------------	--	---	----------------------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Safety Vest <input checked="" type="checkbox"/> Steel-Toed Boots <input checked="" type="checkbox"/> Gloves (appropriate for task) See JSA for additional task specific PPE requirements.
---	--

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule icons that are applicable to the work/activities that will take place today:

BYPASSING SAFETY CONTROLS	CONFINED SPACE	DRIVING	ENERGY ISOLATION	HOT WORK	LINE OF FIRE	SAFE MECHANICAL LIFTS	WORK AUTHORIZATION	WORKING AT HEIGHTS





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty.
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jonah Davis / BIS		JD In & Fit 0700	JD Out & Fit 1345
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jonah Davis	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No site Rep		No site Rep

**TWILIGHT TOOL BOX TALK (Complete the following once field activities for the day have been concluded):**

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature:



**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	Seattle Harbor Island Terminal	Date:	09/12/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	

List activities to be performed today:	GW Sampling
Permitted Activities (specific permit to be completed):	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Excavation/Trenching <input type="checkbox"/> Hot Work <input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs) <input type="checkbox"/> Natural Gas System Maintenance
The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.	

Muster Point:	Shell safety office	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Trucks
Emergency cut-off switches:	NA	Designated cell phone use area(s):	Cab of Truck

Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work sitewalk?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	
Have all personnel reviewed and understand the site specific HASP?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each activity have a Job Safety Analysis (JSA)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each subcontractor have JSAs for their activities?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Per our lone worker procedure, is each employee either accompanied by or in communications with another?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? If yes, discuss modifications.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
If permits are required, have they been reviewed and permit conditions understood by the Team?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:		Title of Subcontractor's JSAs reviewed today:	GW Monitoring @ Shell IC @ site
-----------------------------------	--	---	---------------------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Safety Vest <input checked="" type="checkbox"/> Steel-Toed Boots <input checked="" type="checkbox"/> Gloves (appropriate for task) See JSA for additional task specific PPE requirements.
---	--

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule Icons that are applicable to the work/activities that will take place today:





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty.
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jonah Davis		JD In & Fit 1015	JD Out & Fit 1730
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jonah Davis	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No site Rep		No site Rep

**TWILIGHT TOOL BOX TALK (Complete the following once field activities for the day have been concluded):**

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature:

Monitoring Well Gauging Field Log - Shoreline

Project No: 11218519  
 SAP: 357032  
 PlaNet ID: MIGUS357032  
 Location: 2555 13th Avenue SW Seattle (Harbor Island Terminal)

Personnel: Michael Cyrier

Date: 11 / 16 / 2023

Well ID	Time Gauged	Depth to Product	Depth to Water	Comments
MW-208	0840	—	4.52'	
NW-210	0925	5.55'	5.66'	Sorbent sock completely saturated w/ product and replaced w/ new one. Strong petroleum odor when opening well.
MW-211	0855	—	4.68'	slight
MW-212	0910	—	5.43'	MC some petroleum stains + oxidation on sorbent sock; replaced w/ new one



WELL GAUGING DATA

Project # 231218-501 Date 12/18/23 Client GHO

Site 2555 13th Ave SW Seattle, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <del>TOB</del>	Notes
MW-201	0955	2	—	—	—	—	12.91	21.33		
MW-202	0948	2	—	—	—	—	12.62	21.62		
MW-203	1416	2	—	—	—	—	5.16	14.02		* 12/20/23
MW-204	0955	2	—	—	—	—	9.89	17.70		
MW-206A	0938	2	—	—	—	—	9.24	16.50		
MW-101	0813	2	—	—	—	—	9.31	20.18		
MW-102	0911	2	—	—	—	—	6.84	17.40		
MW-301	0910	2	—	—	—	—	4.49	14.60		
MW-302	1140	2	—	—	—	—	4.38	14.96		* 12/20/23
MW-303	0914	2	—	—	—	—	4.58	14.66		
MW-304	0904	2	—	—	—	—	4.57	14.68		
MW-307	0818	2	—	—	—	—	7.23	17.36		
MW-308	0619	2	—	—	—	—	7.09	17.38		
MW-309	0414	2	—	—	—	—	4.71	14.59		
MW-310	0859	2	—	—	✓	—	5.43	14.65		
MW-311	0921	2	—	—	—	—	6.92	15.08		
MW-312	0922	2	—	—	—	—	6.58	14.80		

\* well parked over during initial gauging



## WELL GAUGING DATA

Project # 231218-J01 Date 12/18/23 Client GHDSite 2555 13th Ave SW Seattle, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>TOO</u>	Notes
MW-313	0930	2	-	-	-	-	5.58	13.75		
MW-314	1455	2	-	-	-	-	5.60	14.75		* 12/20/23
MW-315	0928	2	-	-	-	-	6.74	14.62		
IES-MW-1	0804	4	-	-	-	-	7.92	15.64		
TX-03A	1424	2	-	-	-	-	4.45	14.73		* 12/20/23
MW-05	0833	2	-	-	-	-	4.85	18.90		
MW-111	0846	2	-	-	-	-	3.95	14.70		
MW-112A	0907	2	-	-	-	-	5.52	14.60		
SH-04	0903	2	-	-	-	-	8.05	18.02		
MW-104	0837	2	-	-	-	-	4.78	14.73		
MW-113	0842	2	-	-	-	-	3.95	14.80		
MW-114	0838	2	-	-	-	-	4.22	14.89		
MW-115	0835	2	-	-	-	-	3.98	14.60		
MW-105	0845	2	-	-	-	-	3.94	13.89		
TX-04	0859	2	-	-	-	-	8.07	18.00		
TX-06A	1144	2	-	-	-	-	2.45	14.55		* 12/19/23
MW-213	1032	2	-	-	-	-	4.00	38.71		

\* Well parked over during initial gauging





### Monitoring Well Gauging Field Log - Shoreline

Date:

Job No:

SAP:

Incident No 300036

Location: 2555 13th Ave SW, Seattle (Harbor Island Terminal)

Personnel:

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-208	1029	4.25	—	
MW-210	1022	5.11	—	odor Absorbant sock /replaced
MW-211	1018	4.82	—	
MW-212	1026	5.13	—	Absorbant sock /replaced

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-J01	Client: GHD
Sampler: AW	Gauging Date: 12/18/23
Well I.D.: MW- <del>204</del> 201	Well Diameter (in.): (2) 3 4 6 8
Total Well Depth (ft.): 21.33	Depth to Water (ft.): 12.91
Depth to Free Product: -	Thickness of Free Product (feet): -
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1306      Flow Rate: 100 ml/min      Pump Depth: 17 ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1309	11.15	6.31	0.053	99	10.51	52.1	300	12.91
1312	11.13	6.30	0.052	82	10.92	67.6	600	12.91
1315	11.14	6.24	0.052	77	10.94	82.0	900	12.91
1318	11.19	6.24	0.051	33	10.95	87.9	1200	12.91
1321	11.21	6.24	0.051	32	10.94	92.7	1500	12.91
1324	11.19	6.27	0.051	31	11.03	97.2	1800	12.91

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 1800
Sampling Time: 1330	Sampling Date: 12/18/23
Sample I.D.: MW-201	Laboratory: JA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ <small>Time</small>	Duplicate I.D.: ✓



### LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-J01</u>	Client: <u>GHD</u>
Sampler: <u>AW</u>	Gauging Date: <u>12/18/23</u>
Well I.D.: <u>MW-202</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8
Total Well Depth (ft.): <u>21.62</u>	Depth to Water (ft.): <u>12.62</u>
Depth to Free Product: <u>-</u>	Thickness of Free Product (feet): <u>-</u>
Referenced to: <u>(PVC)</u> Grade	Flow Cell Type: <u>YSI 556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1146      Flow Rate: 100 ml/min      Pump Depth: 17ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1149	12.58	6.12	0.514	37	0.98	-84.2	300	12.72
1152	12.57	6.07	0.519	24	0.97	-81.3	600	12.40
1155	12.52	6.06	0.520	18	0.97	-80.7	900	12.63
1158	12.52	6.00	0.538	17	0.96	-76.9	1200	12.83
1201	12.52	5.97	0.532	17	0.95	-77.7	1500	12.83

Did well dewater? Yes  No       Amount actually evacuated: 1500

Sampling Time: 1205      Sampling Date: 12/18/23

Sample I.D.: MW-202      Laboratory: TA

Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: See C6C

Equipment Blank I.D.:      @ \_\_\_\_\_      Duplicate I.D.:      \_\_\_\_\_



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-501	Client: GHD
Sampler: JD	Gauging Date: 12/20/23
Well I.D.: MW-203	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 14.02	Depth to Water (ft.): 5.16
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVO Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump                      Peristaltic Pump                      Bladder Pump  
 Sampling Method: Dedicated Tubing                      New Tubing                      Other \_\_\_\_\_  
 Start Purge Time: 1419                      Flow Rate: 200 mL/min                      Pump Depth: 10ft

Time	Temp. °C or °F	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1422	13.67	6.29	0.421	46	0.71	-51.3	600	5.16
1425	13.64	6.35	0.417	31	0.73	-47.1	1200	5.16
1428	13.58	6.38	0.415	39	0.77	-44.8	1800	5.16
1431	13.51	6.39	0.412	40	0.80	-43.6	2400	5.16
1434	13.46	6.41	0.413	37	0.82	-40.2	3000	5.16

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Amount actually evacuated: 3000 mL
Sampling Time: 1435	Sampling Date: 12/20/23
Sample I.D.: MW-203	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SOL COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-JD1</u>	Client: <u>GHD</u>
Sampler: <u>AW</u>	Gauging Date: <u>12/18/23</u>
Well I.D.: <u>MW-204</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8 <u>   </u>
Total Well Depth (ft.): <u>17.70</u>	Depth to Water (ft.): <u>9.89</u>
Depth to Free Product: <u>-</u>	Thickness of Free Product (feet): <u>-</u>
Referenced to: <u>PVC</u> <u>Grade</u>	Flow Cell Type: <u>YSI 556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other                       
 Start Purge Time: 1042      Flow Rate: 100 mL/min      Pump Depth: 19ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1045	14.56	5.79	0.178	12	1.25	65.2	300	9.89
1048	14.58	5.80	0.179	10	1.27	87.8	600	9.89
1051	14.54	5.84	0.180	10	1.26	100.9	900	9.89
1054	14.49	5.86	0.181	9	1.19	103.6	1200	9.89
1057	14.45	5.82	0.179	9	1.11	104.7	1500	9.89
1100	14.43	5.80	0.177	8	1.00	105.3	1800	9.89

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>1800</u>
Sampling Time: <u>1109</u>	Sampling Date: <u>12/18/23</u>
Sample I.D.: <u>MW-204</u>	Laboratory: <u>TA</u>
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u> <u>Other</u> <u>see COC</u>	
Equipment Blank I.D.: <u>@</u> <u>Time</u>	Duplicate I.D.: <u>                    </u>



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>2312 18-301</u>	Client: <u>GHO</u>
Sampler: <u>SD</u>	Gauging Date: <u>12/18/23</u>
Well I.D.: <u>MW-206A</u>	Well Diameter (in.): <u>2</u> 3 4 6 8 <u>   </u>
Total Well Depth (ft.): <u>16.50</u>	Depth to Water (ft.): <u>9.24</u>
Depth to Free Product: <u>   </u>	Thickness of Free Product (feet): <u>   </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other      
 Start Purge Time: 1134      Flow Rate: 200m<sup>3</sup>/m      Pump Depth: 13ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1137	13.40	7.11	0.8516	116	0.48	-148.3	600	9.45
1140	13.33	7.19	0.509	104	0.43	-156.2	1700	9.57
1143	13.26	7.24	0.503	98	0.39	-159.7	1900	9.64
1146	13.19	7.26	0.500	95	0.38	-164.2	2400	9.71
1149	13.15	7.23	0.499	93	0.36	-166.2	3000	9.73

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>1150</u>	Sampling Date: <u>12/19/23</u>
Sample I.D.: <u>MW-206A</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>see COL</u>	
Equipment Blank I.D.: <u>   </u> @ <u>   </u> Time	Duplicate I.D.: <u>   </u>



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-501</u>	Client: <u>GHO</u>
Sampler: <u>AW</u>	Gauging Date: <u>12/18/23</u>
Well I.D.: <u>MW-101</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8 <u>    </u>
Total Well Depth (ft.): <u>20.10</u>	Depth to Water (ft.): <u>9.31</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI 556</u>

Purge Method: <u>2" Grundfos Pump</u>	<u>Peristaltic Pump</u>	Bladder Pump
Sampling Method: <u>Dedicated Tubing</u>	<u>New Tubing</u>	Other <u>    </u>
Start Purge Time: <u>0758</u>	Flow Rate: <u>200 ml/min</u>	Pump Depth: <u>15ft</u>

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0801	13.51	6.77	0.236	23	4.53	-109.3	600	9.47
0804	13.50	6.78	0.240	20	4.29	-112.6	1200	9.47
0807	13.50	6.78	0.241	19	4.01	-114.5	<del>1800</del>	9.47
0810	13.50	6.79	0.242	19	3.92	-116.1	<del>2400</del>	9.47
0813	13.49	6.79	0.242	18	3.87	-116.6	3000	9.47

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000</u>
Sampling Time: <u>0815</u>	Sampling Date: <u>12/19/23</u>
Sample I.D.: <u>MW-101</u>	Laboratory: <u>TA</u>
Analyzed for: <input checked="" type="checkbox"/> TPH-G <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input checked="" type="checkbox"/> TPH-D	Other: <u>see COC</u>
Equipment Blank I.D.: <u>    </u> @ <u>    </u> Time	Duplicate I.D.: <u>    </u>



### LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-501</u>	Client: <u>GHD</u>
Sampler: <u>AW</u>	Gauging Date: <u>12/14/23</u>
Well I.D.: <u>mw-102</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8
Total Well Depth (ft.): <u>17.40</u>	Depth to Water (ft.): <u>6.84</u>
Depth to Free Product: <u>-</u>	Thickness of Free Product (feet): <u>-</u>
Referenced to: <u>(PVC)</u> Grade	Flow Cell Type: <u>Hanna HI98124</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1357      Flow Rate: 200 mL/min      Pump Depth: 13ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1400	12.32	6.62	374	18	0.60	-12.7	600	6.84
1403	12.72	6.58	374	17	0.53	-11.7	1200	6.84
1406	12.82	6.56	375	18	0.49	-11.4	1400	6.84
1409	13.10	6.54	374	19	0.47	-11.6	2400	6.84
1412	13.18	6.54	373	19	0.46	-11.7	3000	6.84

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000</u>
Sampling Time: <u>1415</u>	Sampling Date: <u>12/18/23</u>
Sample I.D.: <u>mw-102</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D <u>(Other) see CDC</u>	
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-501	Client: GHD
Sampler: JO	Gauging Date: 12/20/23
Well I.D.: MV-301	Well Diameter (in.): $\varnothing$ 3 4 6 8
Total Well Depth (ft.): 14.60	Depth to Water (ft.): 4.49
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1255      Flow Rate: 200 ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1258	12.54	6.25	0.495	40	1.25	-53.7	600	4.57
1301	12.74	6.26	0.495	44	1.07	-49.2	1200	4.62
1304	12.79	6.30	0.495	41	0.97	-43.6	1800	4.64
1307	12.86	6.33	0.495	39	0.86	-41.2	2400	4.64
1310	12.88	6.31	0.495	34	0.92	-38.6	3000	4.64

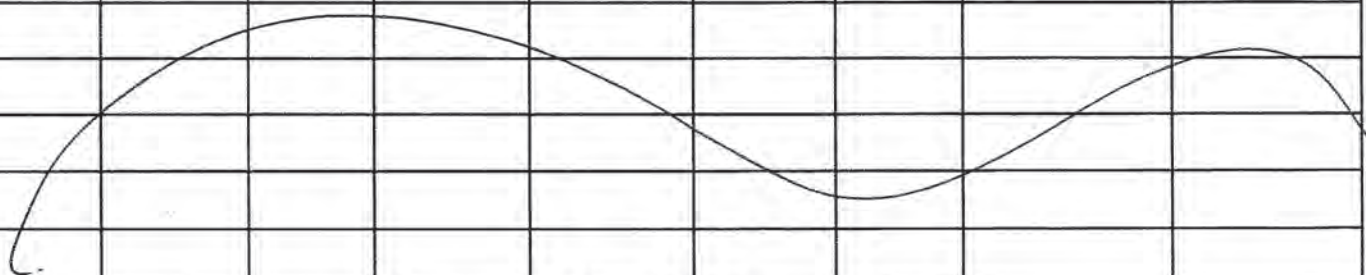
Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Amount actually evacuated: 3000 ml
Sampling Time: 1311	Sampling Date: 12/20/23
Sample I.D.: MW-301	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <input checked="" type="checkbox"/> See CG
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-501</u>	Client: <u>GHD</u>
Sampler: <u>TD</u>	Gauging Date: <u>12/20/23</u>
Well I.D.: <u>MW.302</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.96</u>	Depth to Water (ft.): <u>4.38</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1143      Flow Rate: 200ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1146	14.25	6.27	0.802	27	0.97	-46.9	600	4.38
1149	14.33	6.32	0.786	24	0.79	-51.2	1200	4.38
1152	14.39	6.35	0.763	21	0.84	-55.5	1800	4.38
1155	14.43	6.38	0.779	20	0.86	-58.2	2400	4.38
1158	14.46	6.40	0.776	20	0.83	-59.6	3000	4.38
								
			Fe <sup>2+</sup> = 6.0 mg/L					

Did well dewater? Yes  No       Amount actually evacuated: 3000m<sup>3</sup>

Sampling Time: 1159      Sampling Date: 12/20/23

Sample I.D.: MW.302      Laboratory: TA

Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: SeC CO

Equipment Blank I.D.: @      Duplicate I.D.: —



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-501</u>	Client: <u>GHD</u>
Sampler: <u>JO</u>	Gauging Date: <u>12/20/23</u>
Well I.D.: <u>MW-303</u>	Well Diameter (in.): <u>(2) 3 4 6 8</u>
Total Well Depth (ft.): <u>14.66</u>	Depth to Water (ft.): <u>4.58</u>
Depth to Free Product: <u>-</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1319      Flow Rate: 200 ml/min      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1322	11.84	6.30	0.309	27	0.51	-10.5	600	4.58
1325	11.69	6.24	0.301	24	0.44	-19.9	1200	4.58
1328	11.65	6.17	0.297	23	0.39	-24.3	1800	4.58
1331	11.62	6.15	0.295	21	0.36	-27.0	2400	4.58
1334	11.55	6.12	0.295	22	0.37	-28.5	3000	4.58

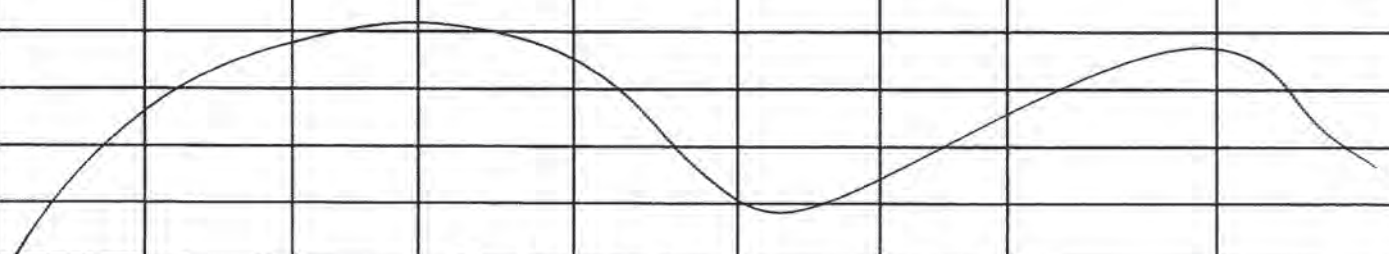
Did well dewater? Yes <u>No</u>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>1335</u>	Sampling Date: <u>12/20/23</u>
Sample I.D.: <u>MW-303</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>see COC</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>—</u>



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-J01</u>	Client: <u>H2SO GHD</u>
Sampler: <u>SD</u>	Gauging Date: <u>12/20/23</u>
Well I.D.: <u>MW-304</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8
Total Well Depth (ft.): <u>14.68</u>	Depth to Water (ft.): <u>4.57</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1213      Flow Rate: 200ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1216	12.84	6.42	0.364	20	0.69	-63.7	600	4.57
1219	12.71	6.41	0.367	20	0.54	-58.9	1200	4.57
1222	12.64	6.39	0.370	20	0.51	-54.3	1400	4.57
1225	12.62	6.37	0.374	20	0.50	-51.2	2400	4.57
1228	12.56	6.36	0.371	20	0.48	-49.4	3000	4.57
								
			$Fe^{2+} = 5.5 \text{ mg/L}$					

Did well dewater? Yes  No       Amount actually evacuated: 3000ml

Sampling Time: 1229      Sampling Date: 12/20/23

Sample I.D.: MW-304      Laboratory: TA

Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: SCC CCE

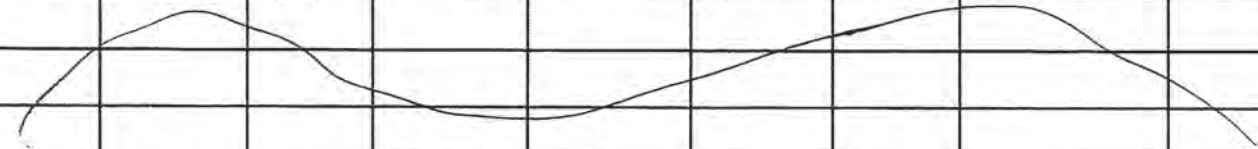
Equipment Blank I.D.: — @ \_\_\_\_\_ Time      Duplicate I.D.: —



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-501</u>	Client: <u>GHD</u>
Sampler: <u>AW</u>	Gauging Date: <u>12/18/23</u>
Well I.D.: <u>MW-307</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8
Total Well Depth (ft.): <u>17.40</u>	Depth to Water (ft.): <u>7.29</u>
Depth to Free Product: <u>-</u>	Thickness of Free Product (feet): <u>-</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>457 556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0956      Flow Rate: 100 mL/min      Pump Depth: 13ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0959	12.17	6.50	0.536	32	2.63	-104.2	300	7.38
1002	12.32	6.49	0.535	34	1.14	-98.4	600	7.38
1005	12.19	6.48	0.531	35	0.82	-95.6	900	7.38
1006	12.99	6.44	0.519	33	0.78	-96.9	1200	7.38
1011	13.10	6.48	0.503	31	0.72	-94.6	1500	7.38
1014	13.15	6.48	0.495	29	0.71	-92.8	1800	7.38
1017	13.22	6.49	0.483	29	0.68	-104.2	2100	7.38
								
<u>Fe<sup>2+</sup> : 7.0 mg/L</u>								

Did well dewater? Yes  No       Amount actually evacuated: 2100

Sampling Time: 1020      Sampling Date: 12/19/23

Sample I.D.: MW-307      Laboratory: \_\_\_\_\_

Analyzed for:  TPH-G     BTEX     MTBE     TPH-D    Other: \_\_\_\_\_

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time      Duplicate I.D.: \_\_\_\_\_



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-501</u>	Client: <u>GHD</u>
Sampler: <u>AW</u>	Gauging Date: <u>12/18/23</u>
Well I.D.: <u>mw-308</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8
Total Well Depth (ft.): <u>17.38</u>	Depth to Water (ft.): <u>7.09</u>
Depth to Free Product: <u>-</u>	Thickness of Free Product (feet): <u>-</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI 556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0851      Flow Rate: 200 mL/min      Pump Depth: 14 ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0854	11.38	6.99	0.619	16	3.05	9.4	600	7.09
0857	11.42	7.02	0.634	15	1.44	-3.5	1200	7.09
0900	11.34	7.03	0.649	9	1.03	-11.7	1800	7.09
0903	11.22	7.03	0.666	8	0.79	-17.9	2400	7.09
0906	11.23	7.02	0.673	8	0.71	-22.1	3000	7.09
0909	11.23	7.02	0.680	8	0.69	-24.4	3600	7.09
— Fe <sup>2+</sup> :				0 mg/L				

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3600</u>
Sampling Time: <u>0915</u>	Sampling Date: <u>12/19/23</u>
Sample I.D.: <u>mw-308</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: <u>See LOC</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u>✓</u>



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 2312B-501	Client: GHD
Sampler: JD	Gauging Date: 12/20/23
Well I.D.: MW-309	Well Diameter (in.): <u>(2)</u> 3 4 6 8
Total Well Depth (ft.): 14.59	Depth to Water (ft.): 4.71
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVE</u> Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1346      Flow Rate: 200ml/min      Pump Depth: 10ft

Time	Temp. (C or F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1349	13.21	6.31	0.242	28	0.37	-21.7	600	4.71
1352	13.32	6.29	0.240	26	0.31	-25.6	1200	4.71
1355	13.38	6.26	0.238	25	0.26	-29.2	1800	4.71
1358	13.44	6.25	0.240	25	0.27	-36.0	2400	4.71
1401	13.50	6.24	0.240	25	0.25	-37.8	3000	4.71

Did well dewater? Yes <u>No</u>	Amount actually evacuated: 3000ml
Sampling Time: 1402	Sampling Date: 12/20/23
Sample I.D.: MW-309	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>see COC</u>
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____







## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-501</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>12/20/23</u>
Well I.D.: <u>MW-311</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>15.00</u>	Depth to Water (ft.): <u>6.92</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1111      Flow Rate: 200ml/m      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1114	14.59	6.32	0.657	7	0.20	-46.7	600	6.99
1117	14.68	6.30	0.651	10	0.26	-43.9	1200	6.99
1120	14.71	6.27	0.647	9	0.30	-41.2	1800	6.99
1123	14.73	6.30	0.644	9	0.31	-37.0	2400	7.02
1126	14.74	6.30	0.641	4	0.29	-38.3	3000	7.02
$Fe^{2+} = 1.0 \text{ mg/L}$								

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>1127</u>	Sampling Date: <u>12/20/23</u>
Sample I.D.: <u>MW-311</u>	Laboratory: <u>TA</u>
Analyzed for:      TPH-G    BTEX    MTBE    TPH-D <input checked="" type="radio"/> Other <u>See CGC</u>	
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-501	Client: GHD
Sampler: JD	Gauging Date: 12/20/23
Well I.D.: MW-312	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 14.80	Depth to Water (ft.): 6.58
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1041      Flow Rate: 200 ml/min      Pump Depth: 11ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1044	14.92	6.42	0.615	21	0.18	-11.9	600	6.62
1047	15.04	6.39	0.615	18	0.13	-16.3	1200	6.62
1050	15.09	6.38	0.615	17	0.07	-17.5	1800	6.62
1053	15.18	6.36	0.615	17	0.08	-20.0	2400	6.62
1056	15.16	6.37	0.614	17	0.08	-21.5	3000	6.62
<p style="font-size: 2em; font-weight: bold; margin-top: 10px;">Fe<sup>2+</sup> = 3.0 mg/L</p>								

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Amount actually evacuated: 3000ml
Sampling Time: 1057	Sampling Date: 12/20/23
Sample I.D.: MW-312	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-501</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>12/20/23</u>
Well I.D.: <u>MW-313</u>	Well Diameter (in.): <u>(2)</u> 3 4 6 8 <u>   </u>
Total Well Depth (ft.): <u>13.75</u>	Depth to Water (ft.): <u>5.58</u>
Depth to Free Product: <u>   </u>	Thickness of Free Product (feet): <u>   </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other      
 Start Purge Time: 1013      Flow Rate: 200ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. ( <del>ns/cm</del> or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1016	13.46	6.60	0.772	38	0.06	5.2	600	5.58
1014	13.29	6.58	0.765	31	0.11	10.1	1200	5.58
1022	13.21	6.55	0.763	33	0.13	12.3	1800	5.58
1025	13.12	6.54	0.768	33	0.14	11.6	2400	5.58
1028	13.07	6.53	0.769	32	0.13	9.0	3000	5.58

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>2000ml</u>
Sampling Time: <u>1029</u>	Sampling Date: <u>12/20/23</u>
Sample I.D.: <u>MW-313</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>see cbc</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u>   </u>











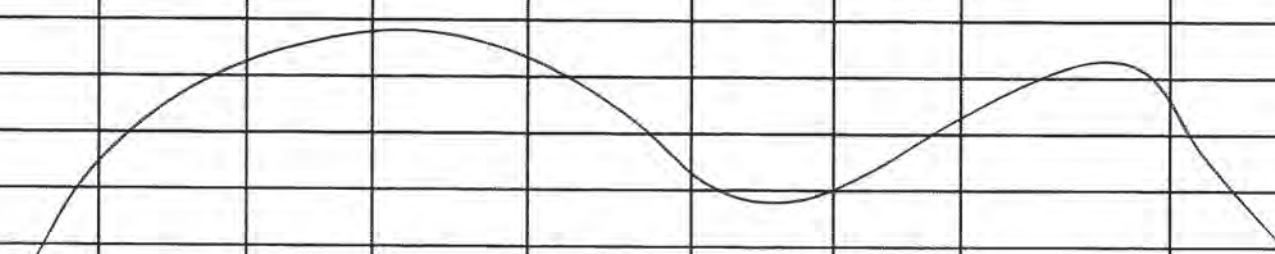




## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-J01	Client: GHD
Sampler: JD	Gauging Date: 12/20/23
Well I.D.: TX-03A	Well Diameter (in.): (2) 3 4 6 8
Total Well Depth (ft.): 14.73	Depth to Water (ft.): 4.45
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: (PVC) Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1525      Flow Rate: 200 ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)
1528	14.51	6.52	0.333	19	0.49	-15.1	600	4.45
1531	14.47	6.49	0.336	20	0.84	-18.6	1200	4.45
1534	14.43	6.45	0.340	18	0.82	-21.3	1800	4.45
1537	14.38	6.44	0.342	17	0.81	-22.9	2400	4.45
1540	14.33	6.42	0.339	17	0.79	-24.3	3000	4.45
 <p style="font-size: 2em; margin-top: 20px;"><math>Fe^{2+} = 2.0 \text{ mg/L}</math></p>								

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Amount actually evacuated: 3000ml
Sampling Time: 1541	Sampling Date: 12/20/23
Sample I.D.: AA-J0 TX-03A	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	(Other) see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-501	Client: GHD
Sampler: JD	Gauging Date: 12/18/23
Well I.D.: MW 05	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 18.90	Depth to Water (ft.): 4.85
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1244      Flow Rate: 200 ml/m      Pump Depth: 15ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1247	14.72	6.49	0.244	18	0.44	-67.1	600	4.85
1250	14.79	6.45	0.247	11	0.41	-60.3	1200	4.85
1253	14.83	6.43	0.245	14	0.35	-57.6	1800	4.85
1256	14.88	6.42	0.245	15	0.33	-51.2	2400	4.85
1259	14.82	6.41	0.245	14	0.32	-53.4	3000	4.85

Did well dewater? Yes  No       Amount actually evacuated: 3000ml

Sampling Time: 1300      Sampling Date: 12/18/23

Sample I.D.: MW-05      Laboratory: TA Tacoma

Analyzed for: TPH-G BTEX MTBE TPH-D      Other: see COC

Equipment Blank I.D.: @ \_\_\_\_\_      Duplicate I.D.: \_\_\_\_\_



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-J01	Client: GHD
Sampler: J0 AA-J0	Gauging Date: 12/19/23
Well I.D.: J0 <sup>3</sup> MW-III	Well Diameter (in.): <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8
Total Well Depth (ft.): 14.70	Depth to Water (ft.): 3.95
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump	Peristaltic Pump	Bladder Pump
Sampling Method: Dedicated Tubing	New Tubing	Other _____
Start Purge Time: 0819	Flow Rate: 200ml/min	Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0822	14.90	6.29	0.360	34	0.15	47.0	600	3.95
0825	15.02	6.24	0.360	31	0.11	43.8	1200	3.95
0828	15.05	6.21	0.354	29	0.07	41.6	1400	3.95
0831	15.16	6.18	0.356	29	0.07	39.9	2400	3.95
0834	15.09	6.17	0.360	28	0.07	37.5	3000	3.95

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 3000ml
Sampling Time: 0835	Sampling Date: 12/19/23
Sample I.D.: MW-III	Laboratory: TA
Analyzed for: TPH-G    BTEX    MTBE    TPH-D	Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-501	Client: GHD
Sampler: SD	Gauging Date: 12/19/23
Well I.D.: MW-112A	Well Diameter (in.): (2) 3 4 6 8
Total Well Depth (ft.): 14.60	Depth to Water (ft.): 5.52
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0916      Flow Rate: 200ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0919	10.36	6.20	0.364	17	1.13	31.6	600	5.52
0922	10.50	6.19	0.362	20	0.99	27.3	1200	5.52
0925	10.58	6.19	0.365	18	0.94	25.2	1800	5.52
0928	10.64	6.18	0.365	18	0.92	24.8	2400	5.52
0931	10.57	6.16	0.363	17	0.89	22.1	3000	5.52

Did well dewater? Yes (No)	Amount actually evacuated: 3000ml
Sampling Time: 0932	Sampling Date: 12/19/23
Sample I.D.: MW-112A	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see CGC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-J01	Client: GAD
Sampler: J0	Gauging Date: 12/19/23
Well I.D.: <del>AW</del> <sup>IS</sup> SH-04	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): 18.02	Depth to Water (ft.): 8.05
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	Flow Cell Type: HANA

Purge Method: 2" Grundfos Pump	Peristaltic Pump	Bladder Pump
Sampling Method: <u>Dedicated</u> Tubing	New Tubing	Other _____
Start Purge Time: 0845	Flow Rate: 200 ml/min	Pump Depth: 15ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)
0848	10.52	6.27	0.233	23	0.75	38.6	600	8.13
0851	10.36	6.15	0.237	21	0.74	31.3	1200	8.13
0854	10.23	6.11	0.242	19	0.69	26.7	1800	8.13
0857	10.18	6.13	0.244	18	0.68	22.9	2400	8.13
0900	10.14	6.14	0.243	18	0.66	24.3	3000	8.13

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 3000ml
Sampling Time: 0901	Sampling Date: 12/19/23
Sample I.D.: <del>AW</del> SH-04	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>See COC</u>
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-501	Client: GHO
Sampler: JO	Gauging Date: 12/19/23
Well I.D.: MW-104	Well Diameter (in.): <input checked="" type="radio"/> 2    3    4    6    8    ___
Total Well Depth (ft.): 14.73	Depth to Water (ft.): 4.78
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <input checked="" type="radio"/> PVC    Grade	Flow Cell Type: HANNA

Purge Method:	<input checked="" type="radio"/> 2" Grundfos Pump	<input type="radio"/> Peristaltic Pump	<input type="radio"/> Bladder Pump
Sampling Method:	<input checked="" type="radio"/> Dedicated Tubing	<input type="radio"/> New Tubing	<input type="radio"/> Other _____
Start Purge Time: 0749	Flow Rate: 200 ml/min	Pump Depth: 10ft+	

Time	Temp. (C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0752	14.75	6.18	0.257	27	0.84	54.3	600	4.85
0755	14.92	6.21	0.261	23	0.90	58.5	1200	4.93
0758	14.99	6.24	0.264	23	0.76	61.7	1800	5.00
0801	15.06	6.25	0.266	23	0.75	63.9	2400	5.06
0804	15.13	6.27	0.263	23	0.73	66.3	3000	5.12

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 3000ml
Sampling Time: 0805	Sampling Date: 12/19/23
Sample I.D.: MW-104	Laboratory: TA
Analyzed for: TPH-G    BTEX    MTBE    TPH-D	<input checked="" type="radio"/> Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____







## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-501	Client: GHO
Sampler: 50	Gauging Date: 12/19/23
Well I.D.: MW-114	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 14.89	Depth to Water (ft.): 4.22
Depth to Free Product: ✓	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1045      Flow Rate: 200ml/min      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1048	13.65	6.31	0.133	42	1.27	71.6	600	4.22
1051	13.69	6.31	0.129	40	1.04	70.0	1200	4.22
1054	13.74	6.30	0.127	39	0.96	66.8	1800	4.22
1057	13.78	6.29	0.127	38	0.95	62.3	2400	4.22
1100	13.83	6.29	0.126	36	0.92	60.2	3000	4.22

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 3000ml
Sampling Time: 1101	Sampling Date: 12/19/23
Sample I.D.: MW-114	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____



### LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>2312 18-501</u>	Client: <u>G HD</u>
Sampler: <u>JD</u>	Gauging Date: <u>12/19/23</u>
Well I.D.: <u>MW-115</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>14.60</u>	Depth to Water (ft.): <u>3.98</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump  
 Sampling Method: Dedicated Tubing New Tubing Other \_\_\_\_\_  
 Start Purge Time: 1110 Flow Rate: 200 ml/m Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1113	13.71	6.28	0.290	14	0.52	14.6	600	3.98
1116	13.76	6.27	0.290	17	0.58	13.9	1200	3.98
1119	13.81	6.23	0.290	16	0.63	11.1	1400	3.98
1122	13.84	6.22	0.290	15	0.63	7.8	2400	3.98
1125	13.88	6.1	0.290	15	0.62	6.3	3000	3.98

Did well dewater? Yes  No  Amount actually evacuated: 3000ml

Sampling Time: 1126 Sampling Date: 12/19/23

Sample I.D.: MW-115 Laboratory: TA

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

Equipment Blank I.D.: @ Duplicate I.D.: \_\_\_\_\_







## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-501</u>	Client: <u>GHD</u>
Sampler: <u>JD</u>	Gauging Date: <u>12/19/23</u>
Well I.D.: <u>TX-04</u>	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): <u>1800</u>	Depth to Water (ft.): <u>8.07</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0949      Flow Rate: 200ml/m      Pump Depth: 14ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0952	14.28	6.62	0.185	58	0.13	-5.5	600	8.21
0955	14.20	6.59	0.185	44	0.15	-7.9	1200	8.35
0958	14.04	6.57	0.185	43	0.12	-9.5	1800	8.48
1001	13.98	6.55	0.185	43	0.12	-10.0	2400	8.59
1004	13.95	6.53	0.185	42	0.11	-11.2	3000	8.65


Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: <u>3000m</u>
Sampling Time: <u>1005</u>	Sampling Date: <u>12/19/23</u>
Sample I.D.: <u>AA50 TX-04</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	<u>Other see col</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: _____



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 231218-501	Client: GHD
Sampler: JD	Gauging Date: 12/19/23
Well I.D.: TX-06A	Well Diameter (in.): (2) 3 4 6 8
Total Well Depth (ft.): 14.55	Depth to Water (ft.): 2.45
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: PVC Grade	Flow Cell Type: HANNA

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1146      Flow Rate: 200 ml/m      Pump Depth: 10ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1149	13.05	6.28	1.164	75	0.22	10.3	600	2.45
1152	12.83	6.27	1.157	71	0.17	7.1	1200	2.45
1155	12.72	6.25	1.153	68	0.09	6.4	1800	2.45
1158	12.64	6.24	1.151	66	0.06	4.8	2400	2.45
1201	12.61	6.22	1.147	64	0.07	3.6	3000	2.45
								
					Fe <sup>2+</sup> = 2.0 mg/L			

Did well dewater? Yes <input checked="" type="radio"/> No <input type="radio"/>	Amount actually evacuated: 3000ml
Sampling Time: 1202	Sampling Date: 12/19/23
Sample I.D.: TX-06A	Laboratory: TA
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC
Equipment Blank I.D.: @ _____ <small>Time</small>	Duplicate I.D.: _____







## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>231218-JD1</u>	Client: <u>GAD</u>
Sampler: <u>JD</u>	Gauging Date: <u>12/18/23</u>
Well I.D.: <u>MW-214</u>	Well Diameter (in.): <u>②</u> 3 4 6 8 <u>    </u>
Total Well Depth (ft.): <u>39.77</u>	Depth to Water (ft.): <u>3.86</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PVO</u> Grade	Flow Cell Type: <u>HANNA</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other       
 Start Purge Time: 1102      Flow Rate: 200ml/m      Pump Depth: 35ft

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1105	13.45	8.31	1.547	33	0.26	-169.3	600	3.94
1108	13.50	8.35	1.536	29	0.17	-175.6	1200	4.16
<del>1111</del> <u>1110</u>	13.34	8.40	1.527	27	0.13	-178.2	1800	4.27
<del>1114</del> <u>1113</u>	13.29	8.44	1.522	25	0.12	-181.3	2400	4.36
1117	13.20	8.47	1.519	25	0.12	-185.7	3000	4.45

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: <u>3000ml</u>
Sampling Time: <u>1118</u>	Sampling Date: <u>12/18/23</u>
Sample I.D.: <u>MW-214</u>	Laboratory: <u>TA</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>see COC</u>
Equipment Blank I.D.: <u>@</u>	Duplicate I.D.: <u>    </u>





# Shell Oil Products US Chain of Custody Record

LAB (LOCATION)

- ACCUTEST ( )
- CALSCIENCE ( )
- TESTAMERICA ( )
- Other ( )

### Please Check Appropriate Box:

- SGW FDG
- PIPELINE
- RETAIL
- CHEMICALS
- CONSULTANT
- LUBES
- TRANSPORTATION
- OTHER

Lab Vendor # Dropdown

SAMPLING COMPANY:

Blaine Tech Services, Inc

ADDRESS:

1680 Rogers Ave, San Jose, CA, 95112

PROJECT CONTACT (Hierarchy or PDF Report to):

Emily Blakeway

TELEPHONE: (425) 327-4585

FAX:

BT To Contact E-MAIL: emily.blakeway@ghd.com

TURNAROUND TIME (CALENDAR DAYS):

STANDARD (14 DAY)  5 DAYS  3 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT  UST AGENCY:

DELIVERABLES:  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_

TEMPERATURE ON RECEIPT C° Cooler #1: Cooler #2: Cooler #3:

### SPECIAL INSTRUCTIONS OR NOTES :

- SHELL CONTRACT RATE APPLIES
- STATE REIMBURSEMENT RATE APPLIES
- EDD NOT NEEDED
- RECEIPT VERIFICATION REQUESTED
- PROVIDE LEDD DISK

Print Bill To Contact Name:

PO #

GSSAP Project ID

PlanNet Site or Project ID

DATE: 12/18/23

PAGE: 1 of 4

CHECK IF NO INCIDENT # APPLIES

DATE: 12/18/23

PAGE: 1 of 4

SITE ADDRESS: Street and City

2555 13th Avenue

EDF DELIVERABLE TO (Name, Company, Office Location):

Emily Blakeway, GHD, WA

PHONE NO. (425) 327-4585

STATE WA

E-MAIL: emily.blakeway@ghd.com

GHD Project / Task Number: 11218519

LAB USE ONLY

*Jarah Davis*

### REQUESTED ANALYSIS

UNIT COST	NON-UNIT COST	FIELD NOTES:
6290C BTEX		
NWTFH-DX		
8270D SIML PAHS		
300.0 Sulfate		
6020A Total Lead		
35.2 Nitrate & Nitrite		
6020A Dis. Iron & Manganese (lab filter)		
300.0 Chloride		

LAB USE ONLY	DATE	TIME	MATRIX	NO. OF CONT.	PRESERVATIVE	RESULTS NEEDED ON WEEKEND	TEMPERATURE ON RECEIPT C°	FIELD NOTES:
	12/18/23	0900	W	2	HCL			
	1300			6	H2SO4			
	1229			7	NONE			
	1330			6	OTHER			
	1705			9				
	1105			6				
	1150			6				
	1050			8				
	1118			8				
	1415			6				

Requested by (Signature)	Date	Time
<i>Jarah Davis</i>	12/21/23	1135
<i>Blaine</i>	12/21/23	1135



# Shell Oil Products US Chain Of Custody Record



LAB (LOCATION) \_\_\_\_\_

- ACCUTEST ( \_\_\_\_\_ )
- CALSCIENCE ( \_\_\_\_\_ )
- TESTAMERICA ( \_\_\_\_\_ )
- Other ( \_\_\_\_\_ )

Lab Vendor # \_\_\_\_\_ Dropdown

**Please Check Appropriate Box:**

- SGW FDG  PIPELINE  RETAIL
- CHEMICALS  CONSULTANT  LUBES
- TRANSPORTATION  OTHER \_\_\_\_\_

Print Bill To Contact Name: \_\_\_\_\_

PlanNet Site or Project ID \_\_\_\_\_

CHECK IF NO INCIDENT # APPLIES

DATE: 12/19/23  
PAGE: 2 of 4

GSSAP Project ID \_\_\_\_\_

Blaine Tech Services, Inc 1680 Rogers Ave, San Jose, CA, 95112 ADDRESS: _____ PROJECT CONTACT (Name, Company, Office Location): _____ PHONE NO.: _____ E-MAIL: _____ BTSS LOG CODE: _____		SITE ADDRESS: Street and City _____ State _____ Zip _____ 2555 13th Avenue WA EBP DELIVERABLE TO (Name, Company, Office Location): _____ PHONE NO.: _____ (425) 327-4585 E-MAIL: _____ emily.blakeway@ghd.com GHD Project / Task Number: _____ 11218519 GHD Other ID _____	
Emily Blakeway BIL To Contact E-MAIL: _____ emily.blakeway@ghd.com (425) 327-4585 FAX: _____		Sarah Davis LAB USE ONLY E-MAIL: _____ emily.blakeway@ghd.com	
TURNAROUND TIME (CALENDAR DAYS): <input checked="" type="checkbox"/> STANDARD (14 DAY) <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 3 DAYS <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> RESULTS NEEDED ON WEEKEND		UNIT COST NON-UNIT COST	
SPECIAL INSTRUCTIONS OR NOTES : <input type="checkbox"/> LA - RWQCB REPORT FORMAT <input type="checkbox"/> UST AGENCY: <input type="checkbox"/> LEVEL 1 <input type="checkbox"/> LEVEL 2 <input type="checkbox"/> LEVEL 3 <input type="checkbox"/> LEVEL 4 <input type="checkbox"/> OTHER (SPECIFY) _____ DELIVERABLES: _____ Cooler #1 _____ Cooler #2 _____ Cooler #3 _____ TEMPERATURE ON RECEIPT C° _____ SPECIAL INSTRUCTIONS OR NOTES : <input type="checkbox"/> SHELL CONTRACT RATE APPLIES <input type="checkbox"/> STATE REIMBURSEMENT RATE APPLIES <input type="checkbox"/> EDD NOT NEEDED <input type="checkbox"/> RECEIPT VERIFICATION REQUESTED <input type="checkbox"/> PROVIDE LEDD DISK		FIELD NOTES: TEMPERATURE ON RECEIPT C° _____ Container PID Readings or Laboratory Notes _____	
FIELD SAMPLE IDENTIFICATION LAB USE ONLY MW-104 MW-111 MW-112A MW-113 MW-114 MW-115 MW-307 MW-308 MW-310 SH-04		REQUESTED ANALYSIS 8260C BTEX NWTPH-Dx 9270D SIM PAKs 300.0 Sulfate NWTPH-GX 6020A Total Lead 353.2 Nitrate & Nitrite 6020A Dis. from 6 Manganese (pb filter) 300.0 Chloride	
SAMPLING DATE TIME 12/19/23 0805 0835 0932 1035 1101 1126 1020 0915 1230 0901		NO. OF CONT. 7 6 6 6 6 6 9 7 9 6	
PRESERVATIVE HCL HNO3 H2SO4 NONE OTHER X		MATRIX W W W W W W W W W W	
RECEIVED BY (SIGNATURE) 		RECEIVED BY (SIGNATURE) 	
RECEIVED BY (SIGNATURE) 		RECEIVED BY (SIGNATURE) 	
DATE: _____ TIME: _____		DATE: <u>12/21/23</u> TIME: <u>1135</u>	
DATE: _____ TIME: _____		DATE: <u>12/21/23</u> TIME: <u>1135</u>	



LAB (LOCATION)

- ACQUITEST ( )
- CALSCIENCE ( )
- TESTAMERICA ( )
- Other ( )

Lab Vendor # Dropdown



Shell Oil Products US Chain Of Custody Record

Please Check Appropriate Box:

- SOG W FOG
- PIPELINE
- RETAIL
- CHEMICALS
- CONSULTANT
- LUBES
- TRANSPORTATION
- OTHER

Print Bill To Contact Name:

PlanNet Site or Project ID  
PO #  
GSAP Project ID

CHECK IF NO INCIDENT # APPLIES

DATE: 12/19/23  
PAGE: 3 of 4

SAMPLING COMPANY: **Blaine Tech Services, Inc**  
 ADDRESS: **1880 Rogers Ave, San Jose, CA, 95112**  
 PROJECT CONTACT (Hierarchy or PDF Report to):  
 TELEPHONE: **(425) 327-4685** FAX:                       
 TURNAROUND TIME (CALENDAR DAYS):  
 STANDARD (1-4 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND  
 LA - RWQCB REPORT FORMAT  UST AGENCY:  
 DELIVERABLES:  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY)                       
 TEMPERATURE ON RECEIPT C° Cooler #1                      Cooler #2                      Cooler #3                     

SITE ADDRESS: Street and City                      State WA  
**2555 13th Avenue**  
 ED DELIVERABLE TO (Name, Company, Office Location):  
 Emily Blakeway, GHD, WA (425) 327-4685  
 SAMPLER NAME(S) (Print):                       
 BTSS  
 BT To Contact E-MAIL: emily.blakeway@ghd.com  
 GHD Project / Task Number: 11218519  
 GHD ORG# ID:                       
 E-MAIL: emily.blakeway@ghd.com  
**LAB USE ONLY**

*Jonah Davis*

LAB USE ONLY	Field Sample Identification		SAMPLING		MATRIX	PRESERVATIVE			NO. OF CONT.	REQUESTED ANALYSIS					UNIT COST	NON-UNIT COST	FIELD NOTES:
	DATE	TIME	DATE	TIME		HCL	HN03	H2SO4		NONE	OTHER	6020A Total Lead	352 Nitrate & Nitrite	6020A Dis. Iron & Manganese (lab filter)			
	JES-MW-1	12/19/23	1145		W	X				6	X	X	X				
	JX-04	12/19/23	1005			X				6	X	X	X				
	JX-06A	12/19/23	1202			X				6	X	X	X				
	MW-101	12/19/23	0815			X				6	X	X	X				
	MW-203	12/19/23	1435			X	X	X		9	X	X	X				
	MW-301	12/19/23	1311			X				4	X	X	X				
	MW-302	12/19/23	1159			X	X	X		9	X	X	X				
	MW-303	12/19/23	1335			X				6	X	X	X				
	MW-304	12/19/23	1229			X	X	X		9	X	X	X				
	MW-309	12/19/23	1402			X				6	X	X	X				

SPECIAL INSTRUCTIONS OR NOTES :  
 SHELL CONTRACT RATE APPLIES  
 STATE REIMBURSEMENT RATE APPLIES  
 EDD NOT NEEDED  
 RECEIPT VERIFICATION REQUESTED  
 PROVIDE LEDD DISK

Reinquired by (Signature) *[Signature]* Date: 12/21/23 Time: 1135  
 Received by (Signature) *[Signature]* Date: 12/21/23 Time: 1135  
 Reinquired by (Signature) *[Signature]* Date: 12/21/23 Time: 1135



LAB (LOCATION)

ACCUTEST ( )  
 CALSCIENCE ( )  
 TESTAMERICA ( )  
 Other ( )



Shell Oil Products US Chain Of Custody Record

**Please Check Appropriate Box:**  
 SCW FDG  PIPELINE  RETAIL  
 CHEMICALS  CONSULTANT  LUBES  
 TRANSPORTATION  OTHER

**Print Bill To Contact Name:** \_\_\_\_\_  
**PlaNNet Site or Project ID** \_\_\_\_\_  
**PO #** \_\_\_\_\_  
**GSAP Project ID** \_\_\_\_\_  
 DATE: 12/20/23  
 PAGE: 4 of 4

**SAMPLING COMPANY:**  
 Blaine Tech Services, Inc  
 ADDRESS: 1680 Rogers Ave, San Jose, CA, 95112  
 PHONE: (425) 327-4585  
 FAX: \_\_\_\_\_  
 BIT To Contact E-MAIL: emily.blakeway@gthd.com  
 TURNAROUND TIME (CALENDAR DAYS):  
 STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND  
 LA - RWQCB REPORT FORMAT  UST AGENCY: \_\_\_\_\_  
 DELIVERABLES:  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_  
 TEMPERATURE ON RECEIPT C° Cooler #1 \_\_\_\_\_ Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_

**SPECIAL INSTRUCTIONS OR NOTES :**  
 SHELL CONTRACT RATE APPLIES  
 STATE REIMBURSEMENT RATE APPLIES  
 LEDD NOT NEEDED  
 RECEIPT VERIFICATION REQUESTED  
 PROVIDE LEDD DISK

LAB USE ONLY	Field Sample Identification		PRESERVATIVE			MATRIX	NO. OF CONT.
	DATE	TIME	HCL	HNO3/H2SO4	NONE OTHER		
MW-311	12/20/23	1127	X	X		W	7
MW-312	1057		X	X			7
MW-313	1029		X	X			6
MW-314	1513		X				6
MW-315	1002		X				6
TX-03A	1541		X	X			9

LAB USE ONLY	Field Sample Identification		PRESERVATIVE			MATRIX	NO. OF CONT.	REQUESTED ANALYSIS					UNIT COST	NON-UNIT COST	FIELD NOTES:	
	DATE	TIME	HCL	HNO3/H2SO4	NONE OTHER			689C BTEX	NWTP-HX	8270D SIM PAHs	300.0 Sulfate	6020A Total Lead				353.2 Nitrate & Nitrite
MW-311	12/20/23	1127	X	X		W	7	X	X		X	X	X			
MW-312	1057		X	X			7	X	X		X	X	X			
MW-313	1029		X	X			6	X	X		X	X	X			
MW-314	1513		X				6	X			X					
MW-315	1002		X				6	X			X					
TX-03A	1541		X	X			9	X	X		X	X	X			

RECEIVED BY (SIGNATURE): \_\_\_\_\_  
 RECEIVED BY (SIGNATURE): \_\_\_\_\_  
 RECEIVED BY (SIGNATURE): \_\_\_\_\_  
 DATE: 12/21/23  
 TIME: 1135  
 DATE: 12/21/23  
 TIME: 1135



ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 231218-501

ADDRESS 2555 13th Ave SW

DATE: 12/18/23

CITY & STATE Seattle, WA

Well ID	Manway Cover, Type, Condition & Size				Observations Upon Arrival			Well Pad / Surface Condition	Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials	
	Standpipe	Flush	Size (inch)	Condition	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition	Well Lock Condition					
MW-201	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-202	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-203	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-204	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-206A	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-101	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-102	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-301	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-302	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-303	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
MW-304	Standpipe	Flush	2	P	Y	G	R	NL		Y N		
TOTAL # CAPS REPLACED =								0	TOTAL # OF LOCKS REPLACED =			0

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure		Condition of Area Inside Enclosure		Compound Security		Emergency Contact Info Visible		Photos of Condition	Repair Date and PM Initials
	Condition of Enclosure	Condition of Area Inside Enclosure	Condition of Area Inside Enclosure	Compound Security	Emergency Contact Info Visible	Emergency Contact Info Visible				
NA										
Building										
Building w/ Fence Comp.										
Fenced Compound										
Trailer										
Number of Drums On-site	Does the Label Reveal the Source of the Contents	Labeled Correctly and Writing Legible	Drum Condition	Confirm Drums Related to Environmental	Drums Located to Min Business Interference	Detailed Explanation of Any Issues Resolved				
0	Y N N N/A	Y N N N/A	G P G P N/A	P P N/A	Y N N N/A					

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Sonah Davis @ B19

Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
P = Poor (needs attention) NL = No Lock Required

Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

\* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.

Version 2.4, March 2008



ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 231218-301  
 ADDRESS 2555 13th Ave SW  
 CITY & STATE Seattle, WA

DATE: 12/16/23

Well ID	Observations Upon Arrival				Well Lock Condition				Well Pad / Surface Condition	Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials
	Manway Cover, Type, Condition & Size	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition	Well Lock Condition	Well Pad / Surface Condition	Well Lock Condition	Well Pad / Surface Condition	Well Lock Condition				
MW-307	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
MW-308	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
MW-309	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
MW-310	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
MW-311	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
MW-312	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
MW-313	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
MW-314	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
MW-315	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
JES-MW-1	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
TX-03A	Standpipe Flush G	Y	R	G	R	G	R	G	P		Y	N
TOTAL # CAPS REPLACED = <u>0</u>											TOTAL # OF LOCKS REPLACED = <u>0</u>	

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure		Condition of Area Inside Enclosure		Compound Security		Emergency Contact Info Visible		Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials
	Condition of Enclosure	Condition of Area Inside Enclosure	Compound Security	Emergency Contact Info Visible	Emergency Contact Info Visible	Emergency Contact Info Visible	Emergency Contact Info Visible	Emergency Contact Info Visible			
NA											
Building											
Building w/ Fence Comp.											
Fenced Compound											
Trailer											
Number of Drums On-site	Does the Label Reveal the Source of the Contents	Labeled Correctly and Writing Legible	Drum Condition	Confirm Drums Related to Environmental	Drums Located to Min Business Interference	Detailed Explanation of Any Issues Resolved		Photos of Drum Condition	Date Drums Removed from Site and PM Initials		
0	Y	N	N/A	Y	N	Y	N	Y	N		

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

John Davis @ BIS  
 Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
 P = Poor (needs attention) NL = No Lock Required  
 Note: All repairs other than locks and grippers require Shell PM approval prior to repair.  
 \* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
 Version 2.4, March 2008



ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 2312 18 JRI  
DATE: 12/14/23

ADDRESS 255 8th Ave SW  
CITY & STATE Seattle, WA

Well ID	Manway Cover, Type, Condition & Size				Observations Upon Arrival			Well Lock Condition	Well Pad / Surface Condition	Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials			
	Standpipe	Flush	Condition	Size (inch)	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition	Well Pad / Surface Condition								
MW-05	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
MW-111	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
MW-112A	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
SH-04	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
MW-164	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
MW-113	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
MW-114	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
MW-115	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
MW-105	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
TX-04	Standpipe	Flush	G	2	Y	N	R	G	R	NL	G	P	Y	N	
TOTAL # CAPS REPLACED = 0										TOTAL # OF LOCKS REPLACED					

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure	Condition of Area Inside Enclosure	Compound Security		Emergency Contact Info Visible	Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials
			Confirm Drums Related to Environmental	Drum Condition				
NA								
Building								
Building w/ Fence Comp.	G	G	P	N/A	Y	N	N/A	Y
Fenced Compound								
Trailer								
Number of Drums On-site	Y	N	N/A	Y	Y	N	N/A	Y
Detailed Explanation of Any Issues Resolved							Date Drums Removed from Site and PM Initials	

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

*South Davis @ BIS*  
Print or type Name of Field Personnel & Consultant Company

\* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.



ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 231218-J01

ADDRESS 2555 13th Ave SW

DATE: 12/18/23

CITY & STATE Seattle WA

Well ID	Manway Cover, Type, Condition & Size				Observations Upon Arrival			Well Pad / Surface Condition	Well Lock Condition	Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials
	Standpipe	Flush	Condition	Size (inch)	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition	Well Lock Condition					
TX-06A	Standpipe	Flush	G	2	Y	G	R	G	R		Y	N
MV-213	Standpipe	Flush	G	2	Y	G	R	G	R		Y	N
MW-214	Standpipe	Flush	G	2	Y	G	R	G	R		Y	N
MW-208	Standpipe	Flush	G	2	Y	G	R	G	R		Y	N
MW-210	Standpipe	Flush	G	2	Y	G	R	G	R		Y	N
MW-211	Standpipe	Flush	G	4	Y	G	R	G	R		Y	N
MW-212	Standpipe	Flush	G	4	Y	G	R	G	R		Y	N
ASV-1	Standpipe	Flush	G	2	Y	G	R	G	R		Y	N
PSV-1	Standpipe	Flush	G	2	Y	G	R	G	R		Y	N
PSV-2	Standpipe	Flush	G	2	Y	G	R	G	R		Y	N
SVE-1	Standpipe	Flush	G	2	Y	G	R	G	R		Y	N
TOTAL # CAPS REPLACED = 0											TOTAL # OF LOCKS REPLACED	

Remediation Compound Type (Check boxes that apply)	Condition of Enclosure	Condition of Area Inside Enclosure	Compound Security		Emergency Contact Info Visible	Photos of Condition	Repair Date and PM Initials
			Condition of Enclosure	Condition of Area Inside Enclosure			
NA							
Building							
Building w/ Fence Comp.							
Fenced Compound							
Trailer							
Number of Drums On-site	Does the Label Reveal the Source of the Contents	Labeled Correctly and Writing Legible	Drum Condition	Confirm Drums Related to Environmental	Drums Located to Min Business Interference	Detailed Explanation of Any Issues Resolved	Date Drums Removed from Site and PM Initials
0	Y N N	Y N N	G P N	Y N	Y N		Y N

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Tonah Davis e BT

Print or type Name of Field Personnel & Consultant Company

G = Good (Acceptable) R = Replaced  
P = Poor (needs attention) NL = No Lock Required

Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

\* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.



ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 231213-101  
DATE: 12/18/23

ADDRESS 2555 13th Ave SW  
CITY & STATE Seattle, WA

Well ID	Manway Cover, Type, Condition & Size			Observations Upon Arrival			Well Lock Condition			Well Pad / Surface Condition			Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition	Repair Date and PM Initials
	Standpipe	Flush	Size (inch)	Well Labeled / Painted Properly*	Well Cap (Gripper) Condition	Well Lock Condition	Well Pad / Surface Condition	Well Lock Condition	Well Pad / Surface Condition	Well Lock Condition	Well Pad / Surface Condition				
TW-01	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
DP-06	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
MW-06	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
MW-103	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
MW-106	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
MW-107	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
MW-108	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
MW-109	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
MW-110	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P	Well concrete pad cracked	Y	N	
MW-205	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
MW-209	Standpipe	Flush	2	Y	G	R	G	R	NL	G	P		Y	N	
TOTAL # CAPS REPLACED = 0													TOTAL # OF LOCKS REPLACED		

Condition of Soil Boring Patches or Abandoned Monitoring Wells		P	N/A	if POOR, Borings/Well IDs or Location Description			
Remediation Compound Type (Check boxes that apply)	Condition of Enclosure	Condition of Area Inside Enclosure	Compound Security	Emergency Contact Info Visible	Cleaning / Repairs Recommended and Conducted	Photos of Condition	Repair Date and PM Initials
NA							
Building							
Building w/ Fence Comp.							
Fenced Compound							
Trailer							
Does the Label Reveal the Source of the Contents	Labeled Correctly and Writing Legible	Drum Condition	Confirm Drums Related to Environmental	Drums Located to Min Business Interference	Detailed Explanation of Any Issues Resolved	Photos of Drum Condition	Date Drums Removed from Site and PM Initials
Y	Y	G	Y	Y		Y	

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

Print or type Name of Field Personnel & Consultant Company  
Joah Davis @ JDS

G = Good (Acceptable) R = Replaced  
P = Poor (needs attention) NL = No Lock Required  
Note: All repairs other than locks and grippers require Shell PM approval prior to repair.  
\* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
Version 2.4, March 2008







TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME		PROJECT NUMBER					
SHELL Harbor Island		231218-J01					
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
HANNA	07460003101	21/12/23 @ 0545	PH 4, 7, 10 Cond 3900 ORP 243 DO 100%	3.96, 6.99, 9.94 3947 245 103%	—	13.29 13.45 13.52 —	JD
HANNA	07460003101	12/11/23 @ 0545	PH 4, 7, 10 Cond 3905 ORP 243 DO 100%	3.98, 6.99, 10.00 3962 245	—	13.60 13.47 13.26	JD
HANNA	07460003101	12/09/23 @ 0830	PH 4, 7, 10 Cond 3905 ORP 243 DO 100%	3.96, 6.95, 9.97 3927 243 102%	—	13.25 13.17 13.29 —	JD





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	2555 13th Ave SW Seattle, WA	Date:	12/18/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	Emily Aikaway

List activities to be performed today:	GW Monitoring / Sampling		
Permitted Activities (specific permit to be completed):	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Excavation/Trenching <input type="checkbox"/> Hot Work <input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs) <input type="checkbox"/> Natural Gas System Maintenance		
The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.			

Muster Point:	Shell safety office	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Truck
Emergency cut-off switches:	Front door to Permit office	Designated cell phone use area(s):	Cab of Truck

Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work sitewalk?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Have all personnel reviewed and understand the site specific HASP?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each activity have a Job Safety Analysis (JSA)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Does each subcontractor have JSAs for their activities?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Per our lone worker procedure, is each employee either accompanied by or in communications with another?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? If yes, discuss modifications.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	
If permits are required, have they been reviewed and permit conditions understood by the Team?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No*	<input type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?	<input type="checkbox"/> Yes	<input type="checkbox"/> No*	<input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:		Title of Subcontractor's JSAs reviewed today:	GW Sampling @ Shell TL @ Shell
-----------------------------------	--	---	-----------------------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Safety Vest <input checked="" type="checkbox"/> Steel-Toed Boots <input checked="" type="checkbox"/> Gloves (appropriate for task) See JSA for additional task specific PPE requirements.
---	--

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule Icons that are applicable to the work/activities that will take place today:







**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty.
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jonah Davis @ BTB		JD In & Fit 0650	JD Out & Fit 1436
Amer Williams		AW In & Fit 0650	AW Out & Fit 1430
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jonah Davis	I will wear correct PPE
Amer Williams	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No site Rep		No site Rep

**TWILIGHT TOOL BOX TALK** (Complete the following once field activities for the day have been concluded):

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature:





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	2555 13th Ave SW Seattle, WA	Date:	12/19/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	Emily Blateway

List activities to be performed today:	GW Monitoring
Permitted Activities (specific permit to be competed):	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Excavation/Trenching <input type="checkbox"/> Hot Work <input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs) <input type="checkbox"/> Natural Gas System Maintenance
The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.	

Muster Point:	Shell safety office	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Truck
Emergency cut-off switches:	Front Door of Permit office	Designated cell phone use area(s):	Cab of Truck

Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work sitewalk?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Have all personnel reviewed and understand the site specific HASP?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each activity have a Job Safety Analysis (JSA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each subcontractor have JSAs for their activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Per our lone worker procedure, is each employee either accompanied by or in communications with another?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?	<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? If yes, discuss modifications.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
If permits are required, have they been reviewed and permit conditions understood by the Team?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?	<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?	<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:	_____	Title of Subcontractor's JSAs reviewed today:	GW Monitoring @ Shell TC @ Shell
-----------------------------------	-------	---	-------------------------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Safety Vest <input checked="" type="checkbox"/> Steel-Toed Boots <input checked="" type="checkbox"/> Gloves (appropriate for task) See JSA for additional task specific PPE requirements.
---	--

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule Icons that are applicable to the work/activities that will take place today:







**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty,
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jorah Davis @ BTS		JD In & Fit 0655	JD Out & Fit 1345
Amer Williams @ BTS		AW In & Fit 0655	AW Out & Fit 1345
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jorah Davis	I will wear correct PPE
Amer Williams	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No site Rep		No site Rep

**TWILIGHT TOOL BOX TALK (Complete the following once field activities for the day have been concluded):**

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature:





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: 1/2/2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

Job Location:	2555 13th Ave SW Seattle, WA	Date:	12/20/23
GHD Site Supervisor:	Jonah Davis	GHD PM:	Emily Blakeway

List activities to be performed today:	GW sampling		
Permitted Activities (specific permit to be competed):	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Confined Space Entry <input type="checkbox"/> Excavation/Trenching <input type="checkbox"/> Hot Work <input type="checkbox"/> Hoisting/Rigging (any lifting with equipment, excluding drill rigs) <input type="checkbox"/> Natural Gas System Maintenance		
The above Permit-required activities require onsite GHD supervision unless approved by Regional Operations.			

Muster Point:	Shell safety office	Spill Kit Location:	Truck
First Aid Kit Location:	Truck	Fire Extinguisher Location:	Truck
Emergency cut-off switches:	NA	Designated cell phone use area(s):	Cab of Truck
Has the Site Manager/Owner been notified of the work activities and/or participated in a pre-work sitewalk?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Is a fuel delivery scheduled for today? If yes, plan to Stop Work during fuel delivery.			<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Has a site walk been performed to identify additional hazards?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Have all personnel reviewed and understand the site specific HASP?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each activity have a Job Safety Analysis (JSA)?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each subcontractor have JSAs for their activities?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have JSAs been reviewed by the work team and newly identified hazards been added to the JSA?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Per our lone worker procedure, is each employee either accompanied by or in communications with another?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Has a Safe Lift Plan been completed and reviewed/approved by a GHD Subject Matter Expert?			<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Has each person on the work team discussed all hazards and mitigation measures associated with any task which will require their feet to leave the ground?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have work areas been properly cordoned-off to protect workers, site staff, and the public?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have there been any equipment modifications made by subcontractor(s)? If yes, discuss modifications.			<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Do all members of the work team have API Safety Keys (GHD excluded)?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Do all members of the work team have a Shell "Life Saving Rules" Training card?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the GHD Site Supervisor of any injury, near miss, unsafe condition, hazard observation, or release?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
If permits are required, have they been reviewed and permit conditions understood by the Team?			<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A
If drilling, did driller physically point out all pinch points to entire team (GHD and all subs)?			<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A
If drilling, has the driller & crew agreed the audible and visible signals for "all clear" prior to engaging controls?			<input type="checkbox"/> Yes <input type="checkbox"/> No* <input checked="" type="checkbox"/> N/A

\* If No, then work cannot be performed until corrective action is completed and documented.

Title of GHD JSAs reviewed today:		Title of Subcontractor's JSAs reviewed today:	GW Monitoring @ Shell TC @ Shell
-----------------------------------	--	---	-------------------------------------

All personnel are wearing (regardless of activity):	<input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Safety Vest <input checked="" type="checkbox"/> Steel-Toed Boots <input checked="" type="checkbox"/> Gloves (appropriate for task) See JSA for additional task specific PPE requirements.
---	--

**Stop Work Authority & Obligation**

- \* All employees will stop the job any time anyone is concerned or uncertain about safety.
- \* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the JSA.
- \* All employees will be alerted to any changes in personnel or conditions at the worksite.
- \* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.

**Other Items Discussed Today:**

Circle the Life Saving Rule Icons that are applicable to the work/activities that will take place today:

BYPASSING SAFETY CONTROLS	CONFINED SPACE	DRIVING	ENERGY ISOLATION	HOT WORK	LINE OF FIRE	SAFE MECHANICAL LIFTS	WORK AUTHORIZATION	WORKING AT HEIGHTS





**GHD Shell SGW (US)**  
**Daily Tailgate Meeting & Job Clearance Form**

Issue: January 2, 2011  
Revision 11: October 2016  
Do NOT pre-populate any field.

**SITE WORKERS (including GHD Contractors and Subcontractors): By signing here, you are stating the following:**

- \* You understand that compliance with Shell's Life Saving Rules is mandatory and that failing to follow to them may result in termination.
- \* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
- \* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
- \* You understand the Shell Life Saving Rules and are aware that tasks or work that is not risk-assessed shall not be performed.
- \* You are aware of your authority and obligation to 'Stop Work'.

**I arrived and departed fit for duty:**

- \* You are physically and mentally fit for duty,
- \* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
- \* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the GHD Site Supervisor.
- \* You will sign-out uninjured unless you have otherwise informed the GHD Site Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
Jorah Davis @ BTB		JD In & Fit 0945	JD Out & Fit 1600
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed)

**PERSONAL SAFETY COMMITMENT** (Attach additional Personal Safety Commitment sheets, if needed)

Print Name	"I will personally commit to do the following to positively improve site safety today":
Jorah Davis	I will wear correct PPE

**SITE VISITORS** (attach additional Site Visitor sign-in/out sheets if needed)

Print Name	Company Name	Arrival Time	Departure Time	Signature

**SITE REPRESENTATIVE Sign In/Out** (operating sites only, and signature must be requested. If the operator refuses to sign, note this on the Form)

Sign In: I have discussed this Job Clearance Form with the contractor		Sign Out: I have discussed this Job Clearance Form with the contractor	
Site Representative Name	Site Representative Signature	Site Representative Name	Site Representative Signature
	No site Rep		No site Rep

**TWILIGHT TOOL BOX TALK (Complete the following once field activities for the day have been concluded):**

Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any 'Stop Work' interventions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Were there any areas for improvement noted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, provide details:
Is the Site Manager/Owner happy with the way you left the site (including the location of waste drums and/or equipment)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, provide details:
I certify that the above information is true and the job site is being left in a safe condition	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	GHD Site Supervisor Signature:

# **Appendix C**

**Laboratory Analytical Results**

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Jacquelyn England  
GHD Services Inc.  
2235 Mercury Way  
Suite 150  
Santa Rosa, California 95407

Generated 4/13/2023 4:15:20 PM

**JOB DESCRIPTION**

2555 13th Avenue

**JOB NUMBER**

590-20136-1

# Eurofins Spokane

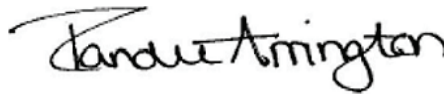
## Job Notes

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender and destroy this report immediately. This report shall not be reproduced except in full, without prior express written approval by the laboratory.

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

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

## Authorization



Generated  
4/13/2023 4:15:20 PM

Authorized for release by  
Randee Arrington, Business Unit Manager  
[Randee.Arrington@et.eurofinsus.com](mailto:Randee.Arrington@et.eurofinsus.com)  
(509)924-9200





# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Sample Summary . . . . .	5
Definitions . . . . .	6
Client Sample Results . . . . .	7
QC Sample Results . . . . .	21
Chronicle . . . . .	27
Certification Summary . . . . .	30
Method Summary . . . . .	31
Chain of Custody . . . . .	32
Receipt Checklists . . . . .	34

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

---

## Job ID: 590-20136-1

---

### Laboratory: Eurofins Spokane

#### Narrative

---

##### Receipt

The samples were received on 3/30/2023 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.5° C.

##### GC/MS VOA

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

##### GC Semi VOA

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to gasoline overlap in the following samples: MW-314 (590-20136-7) and MW-315 (590-20136-14).

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

##### Organic Prep

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

##### VOA Prep

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

1

2

3

4

5

6

7

8

9

10

11

12

# Sample Summary

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20136-1	TB-1	Water	03/27/23 09:00	03/30/23 09:15
590-20136-2	MW-302	Water	03/27/23 13:41	03/30/23 09:15
590-20136-3	MW-304	Water	03/27/23 14:10	03/30/23 09:15
590-20136-4	MW-307	Water	03/27/23 12:29	03/30/23 09:15
590-20136-5	MW-308	Water	03/27/23 13:01	03/30/23 09:15
590-20136-6	MW-310	Water	03/27/23 14:45	03/30/23 09:15
590-20136-7	MW-314	Water	03/27/23 10:17	03/30/23 09:15
590-20136-8	TX-03A	Water	03/27/23 15:09	03/30/23 09:15
590-20136-9	MW-301	Water	03/28/23 10:19	03/30/23 09:15
590-20136-10	MW-303	Water	03/28/23 09:51	03/30/23 09:15
590-20136-11	MW-311	Water	03/28/23 07:52	03/30/23 09:15
590-20136-12	MW-312	Water	03/28/23 08:17	03/30/23 09:15
590-20136-13	MW-313	Water	03/28/23 08:46	03/30/23 09:15
590-20136-14	MW-315	Water	03/28/23 09:16	03/30/23 09:15

1

2

3

4

5

6

7

8

9

10

11

12

# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

## Qualifiers

### GC/MS VOA

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

### GC Semi VOA

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⌘	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: TB-1**

**Lab Sample ID: 590-20136-1**

**Date Collected: 03/27/23 09:00**

**Matrix: Water**

**Date Received: 03/30/23 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			03/30/23 20:12	1
Ethylbenzene	ND		1.00	0.198	ug/L			03/30/23 20:12	1
<b>Toluene</b>	<b>0.394</b>	<b>J</b>	1.00	0.312	ug/L			03/30/23 20:12	1
<b>Xylenes, Total</b>	<b>0.512</b>	<b>J</b>	3.00	0.442	ug/L			03/30/23 20:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		03/30/23 20:12	1
Dibromofluoromethane (Surr)	104		80 - 120		03/30/23 20:12	1
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		03/30/23 20:12	1
Toluene-d8 (Surr)	101		80 - 120		03/30/23 20:12	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			03/30/23 20:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		68.7 - 141		03/30/23 20:12	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-302**

**Lab Sample ID: 590-20136-2**

Date Collected: 03/27/23 13:41

Matrix: Water

Date Received: 03/30/23 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>5.57</b>		0.400	0.0930	ug/L			03/30/23 20:34	1
Ethylbenzene	ND		1.00	0.198	ug/L			03/30/23 20:34	1
<b>Toluene</b>	<b>0.980</b>	<b>J</b>	1.00	0.312	ug/L			03/30/23 20:34	1
<b>Xylenes, Total</b>	<b>3.69</b>		3.00	0.442	ug/L			03/30/23 20:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		03/30/23 20:34	1
Dibromofluoromethane (Surr)	102		80 - 120		03/30/23 20:34	1
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		03/30/23 20:34	1
Toluene-d8 (Surr)	97		80 - 120		03/30/23 20:34	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH as Gasoline</b>	<b>508</b>		150	30.5	ug/L			03/30/23 20:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		68.7 - 141		03/30/23 20:34	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-304**  
Date Collected: 03/27/23 14:10  
Date Received: 03/30/23 09:15

**Lab Sample ID: 590-20136-3**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	69.2		0.400	0.0930	ug/L			03/30/23 21:18	1
Ethylbenzene	0.721	J	1.00	0.198	ug/L			03/30/23 21:18	1
Toluene	3.00		1.00	0.312	ug/L			03/30/23 21:18	1
<b>Xylenes, Total</b>	<b>5.85</b>		3.00	0.442	ug/L			03/30/23 21:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		03/30/23 21:18	1
Dibromofluoromethane (Surr)	101		80 - 120		03/30/23 21:18	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		03/30/23 21:18	1
Toluene-d8 (Surr)	96		80 - 120		03/30/23 21:18	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	609		150	30.5	ug/L			03/30/23 21:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		68.7 - 141		03/30/23 21:18	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-307**  
Date Collected: 03/27/23 12:29  
Date Received: 03/30/23 09:15

**Lab Sample ID: 590-20136-4**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	69.8		0.400	0.0930	ug/L			03/30/23 21:40	1
Ethylbenzene	0.735	J	1.00	0.198	ug/L			03/30/23 21:40	1
Toluene	3.05		1.00	0.312	ug/L			03/30/23 21:40	1
Xylenes, Total	5.71		3.00	0.442	ug/L			03/30/23 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		03/30/23 21:40	1
Dibromofluoromethane (Surr)	100		80 - 120		03/30/23 21:40	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		03/30/23 21:40	1
Toluene-d8 (Surr)	97		80 - 120		03/30/23 21:40	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	569		150	30.5	ug/L			03/30/23 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		68.7 - 141		03/30/23 21:40	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-308**  
Date Collected: 03/27/23 13:01  
Date Received: 03/30/23 09:15

**Lab Sample ID: 590-20136-5**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	41.8		0.400	0.0930	ug/L			03/30/23 22:02	1
Ethylbenzene	25.4		1.00	0.198	ug/L			03/30/23 22:02	1
Toluene	2.57		1.00	0.312	ug/L			03/30/23 22:02	1
<b>Xylenes, Total</b>	<b>10.0</b>		3.00	0.442	ug/L			03/30/23 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		03/30/23 22:02	1
Dibromofluoromethane (Surr)	105		80 - 120		03/30/23 22:02	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		03/30/23 22:02	1
Toluene-d8 (Surr)	99		80 - 120		03/30/23 22:02	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	854		150	30.5	ug/L			03/30/23 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		68.7 - 141		03/30/23 22:02	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-310**  
Date Collected: 03/27/23 14:45  
Date Received: 03/30/23 09:15

**Lab Sample ID: 590-20136-6**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	36.9		0.400	0.0930	ug/L			03/30/23 22:24	1
Ethylbenzene	21.6		1.00	0.198	ug/L			03/30/23 22:24	1
Toluene	2.37		1.00	0.312	ug/L			03/30/23 22:24	1
<b>Xylenes, Total</b>	<b>8.90</b>		<b>3.00</b>	<b>0.442</b>	<b>ug/L</b>			<b>03/30/23 22:24</b>	<b>1</b>

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		80 - 120		03/30/23 22:24	1
Dibromofluoromethane (Surr)	102		80 - 120		03/30/23 22:24	1
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		03/30/23 22:24	1
Toluene-d8 (Surr)	99		80 - 120		03/30/23 22:24	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	879		150	30.5	ug/L			03/30/23 22:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		68.7 - 141		03/30/23 22:24	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-314**

**Lab Sample ID: 590-20136-7**

Date Collected: 03/27/23 10:17

Matrix: Water

Date Received: 03/30/23 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.964		0.400	0.0930	ug/L			03/30/23 22:46	1
Ethylbenzene	ND		1.00	0.198	ug/L			03/30/23 22:46	1
Toluene	0.514	J	1.00	0.312	ug/L			03/30/23 22:46	1
Xylenes, Total	0.621	J	3.00	0.442	ug/L			03/30/23 22:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		03/30/23 22:46	1
Dibromofluoromethane (Surr)	101		80 - 120		03/30/23 22:46	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		03/30/23 22:46	1
Toluene-d8 (Surr)	98		80 - 120		03/30/23 22:46	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	150		150	30.5	ug/L			03/30/23 22:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		68.7 - 141		03/30/23 22:46	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	664		236	108	ug/L		04/04/23 08:38	04/04/23 14:34	1
RRO (C25-C36)	ND		393	118	ug/L		04/04/23 08:38	04/04/23 14:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150	04/04/23 08:38	04/04/23 14:34	1
n-Triacontane-d62	96		50 - 150	04/04/23 08:38	04/04/23 14:34	1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	221	J	236	108	ug/L		04/04/23 08:38	04/07/23 20:36	1
RRO (C25-C36)	ND		393	118	ug/L		04/04/23 08:38	04/07/23 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	86		50 - 150	04/04/23 08:38	04/07/23 20:36	1
n-Triacontane-d62	99		50 - 150	04/04/23 08:38	04/07/23 20:36	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: TX-03A**

**Lab Sample ID: 590-20136-8**

Date Collected: 03/27/23 15:09

Matrix: Water

Date Received: 03/30/23 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	165		4.00	0.930	ug/L			04/04/23 16:13	10
Ethylbenzene	5.32		1.00	0.198	ug/L			03/30/23 23:08	1
Toluene	8.07		1.00	0.312	ug/L			03/30/23 23:08	1
Xylenes, Total	9.04		3.00	0.442	ug/L			03/30/23 23:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		03/30/23 23:08	1
4-Bromofluorobenzene (Surr)	98		80 - 120		04/04/23 16:13	10
Dibromofluoromethane (Surr)	101		80 - 120		03/30/23 23:08	1
Dibromofluoromethane (Surr)	102		80 - 120		04/04/23 16:13	10
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		03/30/23 23:08	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		04/04/23 16:13	10
Toluene-d8 (Surr)	95		80 - 120		03/30/23 23:08	1
Toluene-d8 (Surr)	98		80 - 120		04/04/23 16:13	10

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1500		150	30.5	ug/L			03/30/23 23:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		68.7 - 141		03/30/23 23:08	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-301**  
Date Collected: 03/28/23 10:19  
Date Received: 03/30/23 09:15

**Lab Sample ID: 590-20136-9**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	78.2		0.400	0.0930	ug/L			03/30/23 23:52	1
Ethylbenzene	12.9		1.00	0.198	ug/L			03/30/23 23:52	1
Toluene	5.02		1.00	0.312	ug/L			03/30/23 23:52	1
<b>Xylenes, Total</b>	<b>3.96</b>		3.00	0.442	ug/L			03/30/23 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		03/30/23 23:52	1
Dibromofluoromethane (Surr)	102		80 - 120		03/30/23 23:52	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		03/30/23 23:52	1
Toluene-d8 (Surr)	99		80 - 120		03/30/23 23:52	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	952		150	30.5	ug/L			03/30/23 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		68.7 - 141		03/30/23 23:52	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-303**

**Lab Sample ID: 590-20136-10**

Date Collected: 03/28/23 09:51

Matrix: Water

Date Received: 03/30/23 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	28.2		0.400	0.0930	ug/L			03/31/23 00:13	1
Ethylbenzene	140		10.0	1.98	ug/L			04/04/23 16:35	10
Toluene	2.81		1.00	0.312	ug/L			03/31/23 00:13	1
Xylenes, Total	12.2		3.00	0.442	ug/L			03/31/23 00:13	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		80 - 120			03/31/23 00:13	1
4-Bromofluorobenzene (Surr)	98		80 - 120			04/04/23 16:35	10
Dibromofluoromethane (Surr)	99		80 - 120			03/31/23 00:13	1
Dibromofluoromethane (Surr)	106		80 - 120			04/04/23 16:35	10
1,2-Dichloroethane-d4 (Surr)	103		80 - 120			03/31/23 00:13	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 120			04/04/23 16:35	10
Toluene-d8 (Surr)	96		80 - 120			03/31/23 00:13	1
Toluene-d8 (Surr)	99		80 - 120			04/04/23 16:35	10

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1140		150	30.5	ug/L			03/31/23 00:13	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		68.7 - 141			03/31/23 00:13	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-311**  
Date Collected: 03/28/23 07:52  
Date Received: 03/30/23 09:15

**Lab Sample ID: 590-20136-11**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.91		0.400	0.0930	ug/L			03/31/23 00:35	1
Ethylbenzene	0.746	J	1.00	0.198	ug/L			03/31/23 00:35	1
Toluene	2.33		1.00	0.312	ug/L			03/31/23 00:35	1
Xylenes, Total	1.49	J	3.00	0.442	ug/L			03/31/23 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		03/31/23 00:35	1
Dibromofluoromethane (Surr)	101		80 - 120		03/31/23 00:35	1
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		03/31/23 00:35	1
Toluene-d8 (Surr)	97		80 - 120		03/31/23 00:35	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1640		150	30.5	ug/L			03/31/23 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		68.7 - 141		03/31/23 00:35	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-312**  
Date Collected: 03/28/23 08:17  
Date Received: 03/30/23 09:15

**Lab Sample ID: 590-20136-12**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.91		0.400	0.0930	ug/L			03/31/23 00:57	1
Ethylbenzene	1.01		1.00	0.198	ug/L			03/31/23 00:57	1
Toluene	2.05		1.00	0.312	ug/L			03/31/23 00:57	1
Xylenes, Total	2.15	J	3.00	0.442	ug/L			03/31/23 00:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		03/31/23 00:57	1
Dibromofluoromethane (Surr)	101		80 - 120		03/31/23 00:57	1
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		03/31/23 00:57	1
Toluene-d8 (Surr)	98		80 - 120		03/31/23 00:57	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1320		150	30.5	ug/L			03/31/23 00:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		68.7 - 141		03/31/23 00:57	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-313**

**Lab Sample ID: 590-20136-13**

**Date Collected: 03/28/23 08:46**

**Matrix: Water**

**Date Received: 03/30/23 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			04/04/23 17:18	1
Ethylbenzene	ND		1.00	0.198	ug/L			04/04/23 17:18	1
Toluene	ND		1.00	0.312	ug/L			04/04/23 17:18	1
Xylenes, Total	ND		3.00	0.442	ug/L			04/04/23 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		04/04/23 17:18	1
Dibromofluoromethane (Surr)	105		80 - 120		04/04/23 17:18	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		04/04/23 17:18	1
Toluene-d8 (Surr)	97		80 - 120		04/04/23 17:18	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			04/04/23 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		68.7 - 141		04/04/23 17:18	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		224	103	ug/L		04/04/23 08:38	04/04/23 14:54	1
RRO (C25-C36)	ND		373	112	ug/L		04/04/23 08:38	04/04/23 14:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150	04/04/23 08:38	04/04/23 14:54	1
n-Triacontane-d62	85		50 - 150	04/04/23 08:38	04/04/23 14:54	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-315**

**Lab Sample ID: 590-20136-14**

Date Collected: 03/28/23 09:16

Matrix: Water

Date Received: 03/30/23 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	27.3		0.400	0.0930	ug/L			04/04/23 17:40	1
Ethylbenzene	1.02		1.00	0.198	ug/L			04/04/23 17:40	1
Toluene	4.10		1.00	0.312	ug/L			04/04/23 17:40	1
Xylenes, Total	3.84		3.00	0.442	ug/L			04/04/23 17:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		04/04/23 17:40	1
Dibromofluoromethane (Surr)	97		80 - 120		04/04/23 17:40	1
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		04/04/23 17:40	1
Toluene-d8 (Surr)	96		80 - 120		04/04/23 17:40	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1720		150	30.5	ug/L			04/04/23 17:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		68.7 - 141		04/04/23 17:40	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	2010		221	101	ug/L		04/04/23 08:38	04/04/23 15:14	1
RRO (C25-C36)	ND		368	110	ug/L		04/04/23 08:38	04/04/23 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	84		50 - 150	04/04/23 08:38	04/04/23 15:14	1
n-Triacontane-d62	90		50 - 150	04/04/23 08:38	04/04/23 15:14	1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	1280		221	101	ug/L		04/04/23 08:38	04/07/23 20:56	1
RRO (C25-C36)	ND		368	110	ug/L		04/04/23 08:38	04/07/23 20:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150	04/04/23 08:38	04/07/23 20:56	1
n-Triacontane-d62	97		50 - 150	04/04/23 08:38	04/07/23 20:56	1

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 590-40831/17**  
**Matrix: Water**  
**Analysis Batch: 40831**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.400	0.0930	ug/L			03/30/23 15:49	1
Ethylbenzene	ND		1.00	0.198	ug/L			03/30/23 15:49	1
Toluene	ND		1.00	0.312	ug/L			03/30/23 15:49	1
Xylenes, Total	ND		3.00	0.442	ug/L			03/30/23 15:49	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	980		18 - 908		823832 9/:4D	9
i bromofluorometa, ne (Surr)	982		18 - 908		823832 9/:4D	9
9d-i talaroeta, ne-74 (Surr)	989		18 - 908		823832 9/:4D	9
Toluene-71 (Surr)	DD		18 - 908		823832 9/:4D	9

**Lab Sample ID: LCS 590-40831/1015**  
**Matrix: Water**  
**Analysis Batch: 40831**

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	10.0	10.79		ug/L		108	80 - 126
Ethylbenzene	10.0	10.57		ug/L		106	80 - 128
m-Xylene & p-Xylene	10.0	10.51		ug/L		105	80 - 127
o-Xylene	10.0	10.38		ug/L		104	80 - 126
Toluene	10.0	10.47		ug/L		105	80 - 129

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	D1		18 - 908
i bromofluorometa, ne (Surr)	988		18 - 908
9d-i talaroeta, ne-74 (Surr)	988		18 - 908
Toluene-71 (Surr)	D1		18 - 908

**Lab Sample ID: 590-20050-A-6 MSD**  
**Matrix: Water**  
**Analysis Batch: 40831**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
	Result	Qualifier		Result	Qualifier						
Benzene	ND		10.0	10.24		ug/L		102	80 - 126	4	18
Ethylbenzene	ND		10.0	9.784		ug/L		98	80 - 128	5	18
m-Xylene & p-Xylene	ND		10.0	9.710		ug/L		97	80 - 127	3	18
o-Xylene	ND		10.0	10.05		ug/L		100	80 - 126	3	17
Toluene	ND		10.0	9.927		ug/L		99	80 - 129	1	18

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	D1		18 - 908
i bromofluorometa, ne (Surr)	980		18 - 908
9d-i talaroeta, ne-74 (Surr)	980		18 - 908
Toluene-71 (Surr)	DD		18 - 908



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

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

**Lab Sample ID: 590-20050-B-6 MS**

**Matrix: Water**

**Analysis Batch: 40831**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Benzene	ND		10.0	10.65		ug/L		106	80 - 126
Ethylbenzene	ND		10.0	10.29		ug/L		103	80 - 128
m-Xylene & p-Xylene	ND		10.0	10.05		ug/L		100	80 - 127
o-Xylene	ND		10.0	10.39		ug/L		104	80 - 126
Toluene	ND		10.0	10.01		ug/L		100	80 - 129

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	D2		18 - 908
i tbromofluorometā, ne (Surr)	980		18 - 908
9d-i tđaloroetā, ne-74 (Surr)	989		18 - 908
Toluene-71 (Surr)	D6		18 - 908

**Lab Sample ID: 590-20136-2 DU**

**Matrix: Water**

**Analysis Batch: 40831**

**Client Sample ID: MW-302**

**Prep Type: Total/NA**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Benzene	5.57		5.692		ug/L		2	18	
Ethylbenzene	ND		ND		ug/L		NC	18	
Toluene	0.980	J	0.9955	J	ug/L		2	18	
Xylenes, Total	3.69		3.847		ug/L		4	18	

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	982		18 - 908
i tbromofluorometā, ne (Surr)	980		18 - 908
9d-i tđaloroetā, ne-74 (Surr)	989		18 - 908
Toluene-71 (Surr)	D6		18 - 908

**Lab Sample ID: MB 590-40894/6**

**Matrix: Water**

**Analysis Batch: 40894**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.400	0.0930	ug/L			04/04/23 13:18	1
Ethylbenzene	ND		1.00	0.198	ug/L			04/04/23 13:18	1
Toluene	ND		1.00	0.312	ug/L			04/04/23 13:18	1
Xylenes, Total	ND		3.00	0.442	ug/L			04/04/23 13:18	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	DD		18 - 908		<del>843432</del> 92:91	9
i tbromofluorometā, ne (Surr)	98/		18 - 908		<del>843432</del> 92:91	9
9d-i tđaloroetā, ne-74 (Surr)	982		18 - 908		<del>843432</del> 92:91	9
Toluene-71 (Surr)	D1		18 - 908		<del>843432</del> 92:91	9

Eurofins Spokane

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

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

**Lab Sample ID: LCS 590-40894/1003**  
**Matrix: Water**  
**Analysis Batch: 40894**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	10.0	10.67		ug/L		107	80 - 126
Ethylbenzene	10.0	10.38		ug/L		104	80 - 128
m-Xylene & p-Xylene	10.0	10.54		ug/L		105	80 - 127
o-Xylene	10.0	10.89		ug/L		109	80 - 126
Toluene	10.0	10.22		ug/L		102	80 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	D1		18 - 908
i-bromofluorobenzene (Surr)	984		18 - 908
90-i-toluenesulfonate, ne-74 (Surr)	984		18 - 908
Toluene-71 (Surr)	988		18 - 908

**Lab Sample ID: LCSD 590-40894/4**  
**Matrix: Water**  
**Analysis Batch: 40894**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	10.0	10.10		ug/L		101	80 - 126	6	18
Ethylbenzene	10.0	9.759		ug/L		98	80 - 128	6	18
m-Xylene & p-Xylene	10.0	9.679		ug/L		97	80 - 127	9	18
o-Xylene	10.0	10.20		ug/L		102	80 - 126	6	17
Toluene	10.0	9.643		ug/L		96	80 - 129	6	18

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	988		18 - 908
i-bromofluorobenzene (Surr)	980		18 - 908
90-i-toluenesulfonate, ne-74 (Surr)	989		18 - 908
Toluene-71 (Surr)	D1		18 - 908

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

**Lab Sample ID: MB 590-40832/17**  
**Matrix: Water**  
**Analysis Batch: 40832**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			03/30/23 15:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	980		61.5 - 949		8232832 9/ :4D	9

**Lab Sample ID: LCS 590-40832/1016**  
**Matrix: Water**  
**Analysis Batch: 40832**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TPH as Gasoline	1000	935.6		ug/L		94	80 - 120

Eurofins Spokane

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

**Lab Sample ID: LCS 590-40832/1016**  
**Matrix: Water**  
**Analysis Batch: 40832**

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	D4		61.5 - 949

**Lab Sample ID: LCSD 590-40832/1027**  
**Matrix: Water**  
**Analysis Batch: 40832**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Gasoline	1000	909.6		ug/L		91	80 - 120	3	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	D1		61.5 - 949						

**Lab Sample ID: 590-20136-2 DU**  
**Matrix: Water**  
**Analysis Batch: 40832**

**Client Sample ID: MW-302**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
TPH as Gasoline	508		502.9		ug/L		1	35
Surrogate	DU %Recovery	DU Qualifier	Limits					
4-Bromofluorobenzene (Surr)	982		61.5 - 949					

**Lab Sample ID: MB 590-40895/6**  
**Matrix: Water**  
**Analysis Batch: 40895**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			04/04/23 13:18	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	DD		61.5 - 949		8434302 92:91	9			

**Lab Sample ID: LCS 590-40895/1005**  
**Matrix: Water**  
**Analysis Batch: 40895**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Gasoline	1000	900.7		ug/L		90	80 - 120		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	D5		61.5 - 949						

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

**Lab Sample ID: LCSD 590-40895/1016**  
**Matrix: Water**  
**Analysis Batch: 40895**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Gasoline	1000	898.5		ug/L		90	80 - 120	0	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>LCSD Limits</b>						
4-Bromofluorobenzene (Surr)	DD		61.5 - 949						

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID: MB 590-40888/1-A**  
**Matrix: Water**  
**Analysis Batch: 40893**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 40888**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		240	110	ug/L		04/04/23 08:38	04/04/23 12:25	1
RRO (C25-C36)	ND		400	120	ug/L		04/04/23 08:38	04/04/23 12:25	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>MB Qualifier</b>	<b>MB Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terpaenyl	55		/ 8 - 9/ 8				<del>843432</del> 81:21	<del>843432</del> 90:0/	9
n-Trt, donh ne-760	11		/ 8 - 9/ 8				<del>843432</del> 81:21	<del>843432</del> 90:0/	9

**Lab Sample ID: LCS 590-40888/2-A**  
**Matrix: Water**  
**Analysis Batch: 40893**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 40888**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
DRO (C10-C25)	1600	1288		ug/L		81	50 - 150
RRO (C25-C36)	1600	1485		ug/L		93	50 - 150
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>LCS Limits</b>				
o-Terpaenyl	12		/ 8 - 9/ 8				
n-Trt, donh ne-760	D8		/ 8 - 9/ 8				

**Lab Sample ID: LCSD 590-40888/3-A**  
**Matrix: Water**  
**Analysis Batch: 40893**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 40888**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
DRO (C10-C25)	1600	1263		ug/L		79	50 - 150	2	25
RRO (C25-C36)	1600	1540		ug/L		96	50 - 150	4	25
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>LCSD Limits</b>						
o-Terpaenyl	1D		/ 8 - 9/ 8						
n-Trt, donh ne-760	D/		/ 8 - 9/ 8						

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

**Lab Sample ID: MB 590-40888/1-B**  
**Matrix: Water**  
**Analysis Batch: 40893**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 40888**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		240	110	ug/L		04/04/23 08:38	04/04/23 16:34	1
RRO (C25-C36)	ND		400	120	ug/L		04/04/23 08:38	04/04/23 16:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terpaenyl	65		/ 8 - 9/ 8	<del>843432</del> 81:21	<del>843432</del> 96:24	9
<i>n</i> -Trt, donh ne-760	12		/ 8 - 9/ 8	<del>843432</del> 81:21	<del>843432</del> 96:24	9

**Lab Sample ID: LCS 590-40888/2-B**  
**Matrix: Water**  
**Analysis Batch: 40893**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 40888**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
DRO (C10-C25)	1600	1090		ug/L		68	50 - 150
RRO (C25-C36)	1600	1357		ug/L		85	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>o</i> -Terpaenyl	50		/ 8 - 9/ 8
<i>n</i> -Trt, donh ne-760	15		/ 8 - 9/ 8

**Lab Sample ID: LCSD 590-40888/3-B**  
**Matrix: Water**  
**Analysis Batch: 40893**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 40888**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
DRO (C10-C25)	1600	1073		ug/L		67	50 - 150	2	25
RRO (C25-C36)	1600	1321		ug/L		83	50 - 150	3	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>o</i> -Terpaenyl	52		/ 8 - 9/ 8
<i>n</i> -Trt, donh ne-760	1/		/ 8 - 9/ 8



# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

## Client Sample ID: TB-1

Date Collected: 03/27/23 09:00

Date Received: 03/30/23 09:15

## Lab Sample ID: 590-20136-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/30/23 20:12	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/30/23 20:12	JSP	EET SPK

## Client Sample ID: MW-302

Date Collected: 03/27/23 13:41

Date Received: 03/30/23 09:15

## Lab Sample ID: 590-20136-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/30/23 20:34	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/30/23 20:34	JSP	EET SPK

## Client Sample ID: MW-304

Date Collected: 03/27/23 14:10

Date Received: 03/30/23 09:15

## Lab Sample ID: 590-20136-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/30/23 21:18	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/30/23 21:18	JSP	EET SPK

## Client Sample ID: MW-307

Date Collected: 03/27/23 12:29

Date Received: 03/30/23 09:15

## Lab Sample ID: 590-20136-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/30/23 21:40	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/30/23 21:40	JSP	EET SPK

## Client Sample ID: MW-308

Date Collected: 03/27/23 13:01

Date Received: 03/30/23 09:15

## Lab Sample ID: 590-20136-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/30/23 22:02	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/30/23 22:02	JSP	EET SPK

## Client Sample ID: MW-310

Date Collected: 03/27/23 14:45

Date Received: 03/30/23 09:15

## Lab Sample ID: 590-20136-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/30/23 22:24	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/30/23 22:24	JSP	EET SPK

Eurofins Spokane

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-314**  
**Date Collected: 03/27/23 10:17**  
**Date Received: 03/30/23 09:15**

**Lab Sample ID: 590-20136-7**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/30/23 22:46	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/30/23 22:46	JSP	EET SPK
Total/NA	Prep	3510C			254.3 mL	2 mL	40888	04/04/23 08:38	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	40893	04/04/23 14:34	NMI	EET SPK
Total/NA	Prep	3510C			254.3 mL	2 mL	40888	04/04/23 08:38	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	40892	04/07/23 11:36	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	40950	04/07/23 20:36	NMI	EET SPK

**Client Sample ID: TX-03A**  
**Date Collected: 03/27/23 15:09**  
**Date Received: 03/30/23 09:15**

**Lab Sample ID: 590-20136-8**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/30/23 23:08	JSP	EET SPK
Total/NA	Analysis	8260D		10	43 mL	43 mL	40894	04/04/23 16:13	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/30/23 23:08	JSP	EET SPK

**Client Sample ID: MW-301**  
**Date Collected: 03/28/23 10:19**  
**Date Received: 03/30/23 09:15**

**Lab Sample ID: 590-20136-9**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/30/23 23:52	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/30/23 23:52	JSP	EET SPK

**Client Sample ID: MW-303**  
**Date Collected: 03/28/23 09:51**  
**Date Received: 03/30/23 09:15**

**Lab Sample ID: 590-20136-10**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/31/23 00:13	JSP	EET SPK
Total/NA	Analysis	8260D		10	43 mL	43 mL	40894	04/04/23 16:35	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/31/23 00:13	JSP	EET SPK

**Client Sample ID: MW-311**  
**Date Collected: 03/28/23 07:52**  
**Date Received: 03/30/23 09:15**

**Lab Sample ID: 590-20136-11**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/31/23 00:35	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/31/23 00:35	JSP	EET SPK

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

**Client Sample ID: MW-312**

**Lab Sample ID: 590-20136-12**

Date Collected: 03/28/23 08:17

Matrix: Water

Date Received: 03/30/23 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40831	03/31/23 00:57	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40832	03/31/23 00:57	JSP	EET SPK

**Client Sample ID: MW-313**

**Lab Sample ID: 590-20136-13**

Date Collected: 03/28/23 08:46

Matrix: Water

Date Received: 03/30/23 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40894	04/04/23 17:18	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40895	04/04/23 17:18	JSP	EET SPK
Total/NA	Prep	3510C			268 mL	2 mL	40888	04/04/23 08:38	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	40893	04/04/23 14:54	NMI	EET SPK

**Client Sample ID: MW-315**

**Lab Sample ID: 590-20136-14**

Date Collected: 03/28/23 09:16

Matrix: Water

Date Received: 03/30/23 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	40894	04/04/23 17:40	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	40895	04/04/23 17:40	JSP	EET SPK
Total/NA	Prep	3510C			271.9 mL	2 mL	40888	04/04/23 08:38	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	40893	04/04/23 15:14	NMI	EET SPK
Total/NA	Prep	3510C			271.9 mL	2 mL	40888	04/04/23 08:38	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	40892	04/07/23 11:36	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	40950	04/07/23 20:56	NMI	EET SPK

**Laboratory References:**

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

# Accreditation/Certification Summary

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

## Laboratory: Eurofins Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4137	12-07-23
Washington	State	C569	01-07-24

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

# Method Summary

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20136-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC/MS)	NWTPH	EET SPK
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	EET SPK
NWTPH-Dx	Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup	NWTPH	EET SPK
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SPK
3630C	Silica Gel Cleanup	SW846	EET SPK
5030C	Purge and Trap	SW846	EET SPK

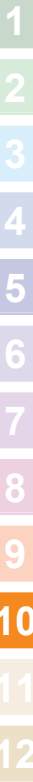
**Protocol References:**

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200





# Shell Oil Products US Chain of Custody Record



LAB (LOCATION)

ACCUTEST ( )  
 CALSCIENCE ( )  
 TESTAMERICA ( )  
 Other ( )

SOW FDG  
 CHEMICALS  
 TRANSPORTATION  
 PIPELINE  
 CONSULTANT  
 OTHER  
 RETAIL  
 LUBES

Print Bill To Contact Name' \_\_\_\_\_  
 PO # \_\_\_\_\_  
 GSAP Project ID \_\_\_\_\_

CHECK IF NO INCIDENT # APPLIES  
 DATE: 03/28/23  
 PAGE: 1 of 2

Blaine Tech Services, Inc  
 1680 Rogers Ave, San Jose, CA, 95112  
 PROJECT CONTRACT (History or PDF Report) \_\_\_\_\_  
 TELEPHONE: (707) 523-1010  
 TURNAROUND TIME (CALENDAR DAYS):  
 STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND

STATE: WA  
 CITY: \_\_\_\_\_  
 ADDRESS: 2555 13th Avenue  
 PHONE NO: (707) 523-1010  
 E-MAIL: jacquelyn.england@ghd.com  
 GHD Project/Task Number: 11218519  
 AECOM Other ID: \_\_\_\_\_

SENDER NAME(S) (Print): *Jonah Davis*  
 REQUESTED ANALYSIS: \_\_\_\_\_  
 UNIT COST: \_\_\_\_\_  
 NON-UNIT COST: \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES:  
 SHELL CONTRACT RATE APPLIES  
 STATE REIMBURSEMENT RATE APPLIES  
 EDD NOT NEEDED  
 RECEIPT VERIFICATION REQUESTED  
 PROVIDE TEDD DISK

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE			NO. OF CONT	FIELD NOTES
		DATE	TIME		HCL	HNO3	H2SO4		
	TB-1	03/27/23	0900	UT	X			2	
	MU-302		1341		X			4	
	MU-304		1410		X			4	
	MU-307		1229		X			4	
	MU-308		1301		X			4	
	MU-310		1445		X			4	
	MU-314		1017		X			6	
	TX-03A		1509		X			4	
	MU 301	03/28/23	1019		X			4	
	MU-303		0951		X			4	

8200C BTEX  
 82700 SIM PAHs  
 300.0 Sulfides  
 6020A Dis. Iron & Manganese (lab filter)  
 353.2 Nitrate & Nitrite  
 6020A Total Lead  
 NWTPH-GX  
 300.0 Chloride  
 2220B Alkalinity  
 Container PID Readings or Laboratory Notes

590-20136 Chain of Custody

Requisitioned by: (Signature) *[Signature]*  
 Received by: (Signature) *[Signature]*  
 Date: 03/28/23  
 Time: 1400

Requisitioned by: (Signature) *[Signature]*  
 Received by: (Signature) *[Signature]*  
 Date: 3/30/23  
 Time: 915

Requisitioned by: (Signature) *[Signature]*  
 Received by: (Signature) *[Signature]*  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

# Shell Oil Products US Chain of Custody Record



LAB (LOCATION)

ACCURACY  
 CALSCIENCE  
 TEST/AMERICA  
 Other

SCW FOG  
 PIPELINE  
 RETAIL  
 CHEMICALS  
 CONSULTANT  
 LUBES  
 TRANSPORTATION  
 OTHER

Print Bill To Contact Name:  
 PO #  
 GSAP Project ID

CHECK IF NO INCIDENT # APPLIES  
 DATE: 03/28/23  
 PAGE: 2 of 2

BILLING COMPANY: Blaine Tech Services, Inc  
 ADDRESS: 1880 Rogers Ave, San Jose, CA, 95112  
 TELEPHONE: (707)523-1010  
 FAX: \_\_\_\_\_  
 PROJECT CONTACT (Hardcopy or PDF Report): \_\_\_\_\_  
 TURNAROUND TIME (CALENDAR DAYS):  
 STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  RESULTS NEEDED ON WEEKEND  
 LA RIWQCB REPORT FORMAT  UST AGENCY  
 DELIVERABLES:  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_  
 TEMPERATURE ON RECEIPT C° Cooler #1 \_\_\_\_\_ Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_

SAMPUNG COMPANY: Jacquelyn England  
 ADDRESS: 1680 Rogers Ave, San Jose, CA, 95112  
 TELEPHONE: (707)523-1010  
 FAX: \_\_\_\_\_  
 PROJECT CONTACT (Hardcopy or PDF Report): \_\_\_\_\_  
 TURNAROUND TIME (CALENDAR DAYS):  
 STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  RESULTS NEEDED ON WEEKEND  
 LA RIWQCB REPORT FORMAT  UST AGENCY  
 DELIVERABLES:  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_  
 TEMPERATURE ON RECEIPT C° Cooler #1 \_\_\_\_\_ Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_

SITES: STATE: WA  
 ADDRESS: 2555 13th Avenue  
 PHONE NO.: (707)523-1010  
 E-MAIL: jacquelyn\_england@ghd.com  
 GHD Project/Task Number: 11218519  
 AECOM Other ID: \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES  
 SHELL CONTRACT RATE APPLIES  
 STATE REIMBURSEMENT RATE APPLIES  
 EDD NOT NEEDED  
 RECEIPT VERIFICATION REQUESTED  
 PROVIDE LEAD DISK

LAB USE ONLY	Field Sample Identification	SAMPLING		PRESERVATIVE			NO. OF CONT.	TEMPERATURE ON RECEIPT C°	Container PID Readings or Laboratory Notes
		DATE	TIME	HCL	HHO3	H2SO4			
	MW-311	03/28	0752	X			4		
	MW-312		0817	X			4		
	MW-313		0816	X			6		
	MW-315		0914	X			6		

REQUESTED ANALYSIS  
 UNIT COST  
 NON-UNIT COST  
 TEMPERATURE ON RECEIPT C°  
 Container PID Readings or Laboratory Notes

RECEIVED BY (SIGNATURE): *Shipped Via Fed Ex*  
 RECEIVED BY (SIGNATURE):  
 RECEIVED BY (SIGNATURE):

DATE: 03/28/23  
 TIME: 1400

# Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 590-20136-1

**Login Number: 20136**

**List Source: Eurofins Spokane**

**List Number: 1**

**Creator: Fettig, Riley**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Jacquelyn England  
GHD Services Inc.  
2235 Mercury Way  
Suite 150  
Santa Rosa, California 95407

Generated 6/30/2023 4:30:21 PM

**JOB DESCRIPTION**

2555 13th Avenue

**JOB NUMBER**

590-20829-1

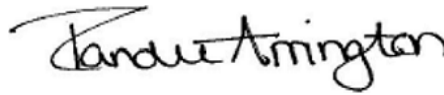
# Eurofins Spokane

## Job Notes

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

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

## Authorization



Generated  
6/30/2023 4:30:21 PM

Authorized for release by  
Randee Arrington, Business Unit Manager  
[Randee.Arrington@et.eurofinsus.com](mailto:Randee.Arrington@et.eurofinsus.com)  
(509)924-9200





# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Sample Summary . . . . .	5
Definitions . . . . .	6
Client Sample Results . . . . .	7
QC Sample Results . . . . .	34
Chronicle . . . . .	49
Certification Summary . . . . .	56
Method Summary . . . . .	57
Chain of Custody . . . . .	58
Receipt Checklists . . . . .	61

# Case Narrative

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

---

## Job ID: 590-20829-1

---

### Laboratory: Eurofins Spokane

---

#### Narrative

---

##### Receipt

The samples were received on 6/16/2023 3:35 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.9° C, 1.1° C and 2.7° C.

##### GC/MS VOA

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

##### GC/MS Semi VOA

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

##### GC Semi VOA

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to heavily weathered diesel as well as gasoline overlap in the following samples: MW-202 (590-20829-39), MW-203 (590-20829-40) and MW-315 (590-20829-58).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to gasoline overlap in the following samples: MW-104 (590-20829-45), SH-04 (590-20829-51) and MW-112A (590-20829-52).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to heavily weathered diesel in the following samples: MW-113 (590-20829-48) and MW-115 (590-20829-49).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to heavily weathered diesel. Detected hydrocarbons in the oil range appear to be due to a non-typical hydrocarbon in the following samples: MW-202 (590-20829-39) and MW-203 (590-20829-40).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to gasoline overlap in the following samples: MW-104 (590-20829-45), SH-04 (590-20829-51), MW-112A (590-20829-52), MW-315 (590-20829-58) and MW-314 (590-20829-59).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to heavily weathered diesel in the following samples: MW-113 (590-20829-48) and MW-115 (590-20829-49).

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

##### Metals

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

##### Organic Prep

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

##### VOA Prep

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

# Sample Summary

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20829-38	TB-1	Water	06/12/23 09:00	06/16/23 15:35
590-20829-39	MW-202	Water	06/12/23 13:39	06/16/23 15:35
590-20829-40	MW-203	Water	06/12/23 14:09	06/16/23 15:35
590-20829-41	MW-213	Water	06/12/23 12:33	06/16/23 15:35
590-20829-42	MW-214	Water	06/12/23 13:03	06/16/23 15:35
590-20829-43	MW-308	Water	06/13/23 08:05	06/16/23 15:35
590-20829-44	MW-307	Water	06/13/23 08:36	06/16/23 15:35
590-20829-45	MW-104	Water	06/13/23 09:10	06/16/23 15:35
590-20829-46	MW-05	Water	06/13/23 09:42	06/16/23 15:35
590-20829-47	MW-111	Water	06/13/23 10:15	06/16/23 15:35
590-20829-48	MW-113	Water	06/13/23 10:45	06/16/23 15:35
590-20829-49	MW-115	Water	06/13/23 11:15	06/16/23 15:35
590-20829-50	MW-114	Water	06/13/23 11:43	06/16/23 15:35
590-20829-51	SH-04	Water	06/13/23 12:16	06/16/23 15:35
590-20829-52	MW-112A	Water	06/13/23 12:46	06/16/23 15:35
590-20829-53	MW-310	Water	06/13/23 13:20	06/16/23 15:35
590-20829-54	MW-302	Water	06/13/23 13:48	06/16/23 15:35
590-20829-55	MW-311	Water	06/14/23 10:10	06/16/23 15:35
590-20829-56	MW-312	Water	06/14/23 10:38	06/16/23 15:35
590-20829-57	MW-313	Water	06/14/23 11:06	06/16/23 15:35
590-20829-58	MW-315	Water	06/14/23 11:34	06/16/23 15:35
590-20829-59	MW-314	Water	06/14/23 12:05	06/16/23 15:35
590-20829-60	MW-304	Water	06/14/23 12:39	06/16/23 15:35
590-20829-61	MW-301	Water	06/14/23 13:05	06/16/23 15:35
590-20829-62	MW-309	Water	06/14/23 13:29	06/16/23 15:35
590-20829-63	MW-303	Water	06/14/23 13:54	06/16/23 15:35
590-20829-64	TX-03A	Water	06/14/23 14:58	06/16/23 15:35

# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA

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

### GC Semi VOA

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

### Metals

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: TB-1**

**Lab Sample ID: 590-20829-38**

Date Collected: 06/12/23 09:00

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/21/23 03:45	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/21/23 03:45	1
Toluene	ND		1.00	0.312	ug/L			06/21/23 03:45	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/21/23 03:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		76 - 120		06/21/23 03:45	1
Dibromofluoromethane (Surr)	105		80 - 123		06/21/23 03:45	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		06/21/23 03:45	1
Toluene-d8 (Surr)	105		80 - 120		06/21/23 03:45	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			06/21/23 03:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		68.7 - 141		06/21/23 03:45	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-202**

**Lab Sample ID: 590-20829-39**

Date Collected: 06/12/23 13:39

Matrix: Water

Date Received: 06/16/23 15:35

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	947		150	30.5	ug/L			06/20/23 05:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		68.7 - 141					06/20/23 05:58	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	2180		239	110	ug/L		06/23/23 09:14	06/23/23 14:15	1
RRO (C25-C36)	365	J	399	120	ug/L		06/23/23 09:14	06/23/23 14:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	63		50 - 150				06/23/23 09:14	06/23/23 14:15	1
n-Triacontane-d62	60		50 - 150				06/23/23 09:14	06/23/23 14:15	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	622		239	110	ug/L		06/23/23 09:14	06/28/23 13:27	1
RRO (C25-C36)	378	J	399	120	ug/L		06/23/23 09:14	06/28/23 13:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	52		50 - 150				06/23/23 09:14	06/28/23 13:27	1
n-Triacontane-d62	65		50 - 150				06/23/23 09:14	06/28/23 13:27	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-203**

**Lab Sample ID: 590-20829-40**

Date Collected: 06/12/23 14:09

Matrix: Water

Date Received: 06/16/23 15:35

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	944		150	30.5	ug/L			06/20/23 07:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		68.7 - 141					06/20/23 07:03	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	2910		224	103	ug/L		06/23/23 09:14	06/23/23 14:37	1
RRO (C25-C36)	383		373	112	ug/L		06/23/23 09:14	06/23/23 14:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	78		50 - 150				06/23/23 09:14	06/23/23 14:37	1
n-Triacontane-d62	74		50 - 150				06/23/23 09:14	06/23/23 14:37	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	764		224	103	ug/L		06/23/23 09:14	06/28/23 13:49	1
RRO (C25-C36)	263	J	373	112	ug/L		06/23/23 09:14	06/28/23 13:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	71		50 - 150				06/23/23 09:14	06/28/23 13:49	1
n-Triacontane-d62	76		50 - 150				06/23/23 09:14	06/28/23 13:49	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-213**

**Lab Sample ID: 590-20829-41**

Date Collected: 06/12/23 12:33

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/20/23 08:09	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/20/23 08:09	1
Toluene	ND		1.00	0.312	ug/L			06/20/23 08:09	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/20/23 08:09	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	99		76 - 120					06/20/23 08:09	1
Dibromofluoromethane (Surr)	104		80 - 123					06/20/23 08:09	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120					06/20/23 08:09	1
Toluene-d8 (Surr)	100		80 - 120					06/20/23 08:09	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH as Gasoline</b>	<b>42.6</b>	<b>J</b>	150	30.5	ug/L			06/20/23 08:09	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	99		68.7 - 141					06/20/23 08:09	1

**Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.0907	0.0121	ug/L		06/19/23 10:32	06/20/23 11:24	1
Benzo[a]pyrene	ND		0.0907	0.0121	ug/L		06/19/23 10:32	06/20/23 11:24	1
Benzo[b]fluoranthene	ND		0.0907	0.0252	ug/L		06/19/23 10:32	06/20/23 11:24	1
Benzo[k]fluoranthene	ND		0.0907	0.0151	ug/L		06/19/23 10:32	06/20/23 11:24	1
Chrysene	ND		0.0907	0.0101	ug/L		06/19/23 10:32	06/20/23 11:24	1
Dibenz(a,h)anthracene	ND		0.0907	0.0131	ug/L		06/19/23 10:32	06/20/23 11:24	1
Indeno[1,2,3-cd]pyrene	ND		0.0907	0.0222	ug/L		06/19/23 10:32	06/20/23 11:24	1
1-Methylnaphthalene	ND		0.0907	0.0232	ug/L		06/19/23 10:32	06/20/23 11:24	1
2-Methylnaphthalene	ND		0.0907	0.0443	ug/L		06/19/23 10:32	06/20/23 11:24	1
Naphthalene	ND		0.0907	0.0534	ug/L		06/19/23 10:32	06/20/23 11:24	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	79		32 - 120				06/19/23 10:32	06/20/23 11:24	1
p-Terphenyl-d14	77		39 - 120				06/19/23 10:32	06/20/23 11:24	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		224	103	ug/L		06/23/23 09:14	06/23/23 14:59	1
RRO (C25-C36)	ND		373	112	ug/L		06/23/23 09:14	06/23/23 14:59	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	85		50 - 150				06/23/23 09:14	06/23/23 14:59	1
n-Triacontane-d62	78		50 - 150				06/23/23 09:14	06/23/23 14:59	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-214**

**Lab Sample ID: 590-20829-42**

Date Collected: 06/12/23 13:03

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/20/23 08:31	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/20/23 08:31	1
Toluene	ND		1.00	0.312	ug/L			06/20/23 08:31	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/20/23 08:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		76 - 120					06/20/23 08:31	1
Dibromofluoromethane (Surr)	106		80 - 123					06/20/23 08:31	1
1,2-Dichloroethane-d4 (Surr)	107		80 - 120					06/20/23 08:31	1
Toluene-d8 (Surr)	103		80 - 120					06/20/23 08:31	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			06/20/23 08:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		68.7 - 141					06/20/23 08:31	1

**Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.0224	J	0.0903	0.0120	ug/L		06/19/23 10:32	06/20/23 11:47	1
Benzo[a]pyrene	ND		0.0903	0.0120	ug/L		06/19/23 10:32	06/20/23 11:47	1
Benzo[b]fluoranthene	ND		0.0903	0.0251	ug/L		06/19/23 10:32	06/20/23 11:47	1
Benzo[k]fluoranthene	ND		0.0903	0.0150	ug/L		06/19/23 10:32	06/20/23 11:47	1
Chrysene	ND		0.0903	0.0100	ug/L		06/19/23 10:32	06/20/23 11:47	1
Dibenz(a,h)anthracene	ND		0.0903	0.0130	ug/L		06/19/23 10:32	06/20/23 11:47	1
Indeno[1,2,3-cd]pyrene	ND		0.0903	0.0221	ug/L		06/19/23 10:32	06/20/23 11:47	1
1-Methylnaphthalene	ND		0.0903	0.0231	ug/L		06/19/23 10:32	06/20/23 11:47	1
2-Methylnaphthalene	ND		0.0903	0.0441	ug/L		06/19/23 10:32	06/20/23 11:47	1
Naphthalene	ND		0.0903	0.0532	ug/L		06/19/23 10:32	06/20/23 11:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		32 - 120				06/19/23 10:32	06/20/23 11:47	1
p-Terphenyl-d14	81		39 - 120				06/19/23 10:32	06/20/23 11:47	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		233	107	ug/L		06/23/23 09:14	06/23/23 15:21	1
RRO (C25-C36)	ND		389	117	ug/L		06/23/23 09:14	06/23/23 15:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	92		50 - 150				06/23/23 09:14	06/23/23 15:21	1
n-Triacontane-d62	82		50 - 150				06/23/23 09:14	06/23/23 15:21	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-308**

**Lab Sample ID: 590-20829-43**

Date Collected: 06/13/23 08:05

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/20/23 08:53	1
<b>Ethylbenzene</b>	<b>0.368</b>	<b>J</b>	1.00	0.198	ug/L			06/20/23 08:53	1
Toluene	ND		1.00	0.312	ug/L			06/20/23 08:53	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/20/23 08:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		76 - 120		06/20/23 08:53	1
Dibromofluoromethane (Surr)	109		80 - 123		06/20/23 08:53	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		06/20/23 08:53	1
Toluene-d8 (Surr)	99		80 - 120		06/20/23 08:53	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH as Gasoline</b>	<b>175</b>		150	30.5	ug/L			06/20/23 08:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		68.7 - 141		06/20/23 08:53	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-307**

**Lab Sample ID: 590-20829-44**

Date Collected: 06/13/23 08:36

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/21/23 04:06	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/21/23 04:06	1
Toluene	ND		1.00	0.312	ug/L			06/21/23 04:06	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/21/23 04:06	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		76 - 120					06/21/23 04:06	1
Dibromofluoromethane (Surr)	105		80 - 123					06/21/23 04:06	1
1,2-Dichloroethane-d4 (Surr)	108		80 - 120					06/21/23 04:06	1
Toluene-d8 (Surr)	101		80 - 120					06/21/23 04:06	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			06/21/23 04:06	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		68.7 - 141					06/21/23 04:06	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		247	113	ug/L		06/23/23 09:14	06/23/23 15:43	1
RRO (C25-C36)	ND		412	124	ug/L		06/23/23 09:14	06/23/23 15:43	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	87		50 - 150				06/23/23 09:14	06/23/23 15:43	1
n-Triacontane-d62	78		50 - 150				06/23/23 09:14	06/23/23 15:43	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-104**

**Lab Sample ID: 590-20829-45**

Date Collected: 06/13/23 09:10

Matrix: Water

Date Received: 06/16/23 15:35

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	160		150	30.5	ug/L			06/21/23 04:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		68.7 - 141					06/21/23 04:50	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	261		236	108	ug/L		06/23/23 09:14	06/23/23 16:05	1
RRO (C25-C36)	ND		393	118	ug/L		06/23/23 09:14	06/23/23 16:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150				06/23/23 09:14	06/23/23 16:05	1
n-Triacontane-d62	80		50 - 150				06/23/23 09:14	06/23/23 16:05	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	176	J	236	108	ug/L		06/23/23 09:14	06/28/23 14:11	1
RRO (C25-C36)	ND		393	118	ug/L		06/23/23 09:14	06/28/23 14:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150				06/23/23 09:14	06/28/23 14:11	1
n-Triacontane-d62	74		50 - 150				06/23/23 09:14	06/28/23 14:11	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.95	J	2.00	0.200	ug/L		06/21/23 17:44	06/22/23 14:34	5

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-05**

**Lab Sample ID: 590-20829-46**

Date Collected: 06/13/23 09:42

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/21/23 05:55	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/21/23 05:55	1
Toluene	ND		1.00	0.312	ug/L			06/21/23 05:55	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/21/23 05:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		76 - 120		06/21/23 05:55	1
Dibromofluoromethane (Surr)	104		80 - 123		06/21/23 05:55	1
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		06/21/23 05:55	1
Toluene-d8 (Surr)	100		80 - 120		06/21/23 05:55	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			06/21/23 05:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		68.7 - 141		06/21/23 05:55	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		241	110	ug/L		06/23/23 09:14	06/23/23 16:48	1
RRO (C25-C36)	ND		401	120	ug/L		06/23/23 09:14	06/23/23 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	87		50 - 150	06/23/23 09:14	06/23/23 16:48	1
n-Triacontane-d62	79		50 - 150	06/23/23 09:14	06/23/23 16:48	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-111**

**Lab Sample ID: 590-20829-47**

Date Collected: 06/13/23 10:15

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>1.32</b>		0.400	0.0930	ug/L			06/21/23 06:17	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/21/23 06:17	1
Toluene	ND		1.00	0.312	ug/L			06/21/23 06:17	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/21/23 06:17	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	102		76 - 120					06/21/23 06:17	1
Dibromofluoromethane (Surr)	107		80 - 123					06/21/23 06:17	1
1,2-Dichloroethane-d4 (Surr)	107		80 - 120					06/21/23 06:17	1
Toluene-d8 (Surr)	99		80 - 120					06/21/23 06:17	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			06/21/23 06:17	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	102		68.7 - 141					06/21/23 06:17	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		232	107	ug/L		06/23/23 09:14	06/23/23 17:10	1
RRO (C25-C36)	ND		387	116	ug/L		06/23/23 09:14	06/23/23 17:10	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	86		50 - 150				06/23/23 09:14	06/23/23 17:10	1
n-Triacontane-d62	76		50 - 150				06/23/23 09:14	06/23/23 17:10	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-113**

**Lab Sample ID: 590-20829-48**

Date Collected: 06/13/23 10:45

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	396		40.0	9.30	ug/L			06/22/23 20:25	100
Ethylbenzene	5.72		1.00	0.198	ug/L			06/21/23 06:38	1
Toluene	32.2		1.00	0.312	ug/L			06/21/23 06:38	1
Xylenes, Total	4.76		3.00	0.442	ug/L			06/21/23 06:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		76 - 120		06/21/23 06:38	1
4-Bromofluorobenzene (Surr)	105		76 - 120		06/22/23 20:25	100
Dibromofluoromethane (Surr)	109		80 - 123		06/21/23 06:38	1
Dibromofluoromethane (Surr)	102		80 - 123		06/22/23 20:25	100
1,2-Dichloroethane-d4 (Surr)	96		80 - 120		06/21/23 06:38	1
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		06/22/23 20:25	100
Toluene-d8 (Surr)	96		80 - 120		06/21/23 06:38	1
Toluene-d8 (Surr)	98		80 - 120		06/22/23 20:25	100

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	488		150	30.5	ug/L			06/21/23 06:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		68.7 - 141		06/21/23 06:38	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	1300		234	107	ug/L		06/23/23 09:14	06/23/23 17:32	1
RRO (C25-C36)	ND		389	117	ug/L		06/23/23 09:14	06/23/23 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150	06/23/23 09:14	06/23/23 17:32	1
n-Triacontane-d62	81		50 - 150	06/23/23 09:14	06/23/23 17:32	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	547		234	107	ug/L		06/23/23 09:14	06/28/23 14:33	1
RRO (C25-C36)	ND		389	117	ug/L		06/23/23 09:14	06/28/23 14:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	83		50 - 150	06/23/23 09:14	06/28/23 14:33	1
n-Triacontane-d62	74		50 - 150	06/23/23 09:14	06/28/23 14:33	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-115**

**Lab Sample ID: 590-20829-49**

Date Collected: 06/13/23 11:15

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/21/23 07:22	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/21/23 07:22	1
Toluene	ND		1.00	0.312	ug/L			06/21/23 07:22	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/21/23 07:22	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	98		76 - 120					06/21/23 07:22	1
Dibromofluoromethane (Surr)	106		80 - 123					06/21/23 07:22	1
1,2-Dichloroethane-d4 (Surr)	108		80 - 120					06/21/23 07:22	1
Toluene-d8 (Surr)	95		80 - 120					06/21/23 07:22	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH as Gasoline</b>	<b>328</b>		150	30.5	ug/L			06/21/23 07:22	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	98		68.7 - 141					06/21/23 07:22	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (C10-C25)</b>	<b>2770</b>		234	107	ug/L		06/23/23 09:14	06/23/23 17:54	1
RRO (C25-C36)	ND		390	117	ug/L		06/23/23 09:14	06/23/23 17:54	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	91		50 - 150				06/23/23 09:14	06/23/23 17:54	1
n-Triacontane-d62	82		50 - 150				06/23/23 09:14	06/23/23 17:54	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (C10-C25)</b>	<b>1630</b>		234	107	ug/L		06/23/23 09:14	06/28/23 14:55	1
RRO (C25-C36)	ND		390	117	ug/L		06/23/23 09:14	06/28/23 14:55	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	82		50 - 150				06/23/23 09:14	06/28/23 14:55	1
n-Triacontane-d62	80		50 - 150				06/23/23 09:14	06/28/23 14:55	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-114**

**Lab Sample ID: 590-20829-50**

Date Collected: 06/13/23 11:43

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/21/23 07:44	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/21/23 07:44	1
Toluene	ND		1.00	0.312	ug/L			06/21/23 07:44	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/21/23 07:44	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		76 - 120					06/21/23 07:44	1
Dibromofluoromethane (Surr)	103		80 - 123					06/21/23 07:44	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120					06/21/23 07:44	1
Toluene-d8 (Surr)	98		80 - 120					06/21/23 07:44	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			06/21/23 07:44	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		68.7 - 141					06/21/23 07:44	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		246	113	ug/L		06/23/23 09:14	06/23/23 18:16	1
RRO (C25-C36)	ND		411	123	ug/L		06/23/23 09:14	06/23/23 18:16	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				06/23/23 09:14	06/23/23 18:16	1
n-Triacontane-d62	80		50 - 150				06/23/23 09:14	06/23/23 18:16	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: SH-04**

**Lab Sample ID: 590-20829-51**

Date Collected: 06/13/23 12:16

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.65		0.400	0.0930	ug/L			06/21/23 08:06	1
Ethylbenzene	1.75		1.00	0.198	ug/L			06/21/23 08:06	1
Toluene	0.486	J	1.00	0.312	ug/L			06/21/23 08:06	1
Xylenes, Total	1.92	J	3.00	0.442	ug/L			06/21/23 08:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		76 - 120		06/21/23 08:06	1
Dibromofluoromethane (Surr)	97		80 - 123		06/21/23 08:06	1
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		06/21/23 08:06	1
Toluene-d8 (Surr)	93		80 - 120		06/21/23 08:06	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	367		150	30.5	ug/L			06/21/23 08:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		68.7 - 141		06/21/23 08:06	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	231	J	239	110	ug/L		06/23/23 09:14	06/23/23 18:38	1
RRO (C25-C36)	ND		398	120	ug/L		06/23/23 09:14	06/23/23 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	86		50 - 150	06/23/23 09:14	06/23/23 18:38	1
n-Triacontane-d62	79		50 - 150	06/23/23 09:14	06/23/23 18:38	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	199	J	239	110	ug/L		06/23/23 09:14	06/28/23 15:17	1
RRO (C25-C36)	ND		398	120	ug/L		06/23/23 09:14	06/28/23 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	70		50 - 150	06/23/23 09:14	06/28/23 15:17	1
n-Triacontane-d62	71		50 - 150	06/23/23 09:14	06/28/23 15:17	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-112A**

**Lab Sample ID: 590-20829-52**

Date Collected: 06/13/23 12:46

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.46		0.400	0.0930	ug/L			06/21/23 08:28	1
Ethylbenzene	28.9		1.00	0.198	ug/L			06/21/23 08:28	1
Toluene	1.25		1.00	0.312	ug/L			06/21/23 08:28	1
Xylenes, Total	3.17		3.00	0.442	ug/L			06/21/23 08:28	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		76 - 120					06/21/23 08:28	1
Dibromofluoromethane (Surr)	101		80 - 123					06/21/23 08:28	1
1,2-Dichloroethane-d4 (Surr)	105		80 - 120					06/21/23 08:28	1
Toluene-d8 (Surr)	97		80 - 120					06/21/23 08:28	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1290		150	30.5	ug/L			06/21/23 08:28	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		68.7 - 141					06/21/23 08:28	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	2560		233	107	ug/L		06/23/23 09:14	06/23/23 19:00	1
RRO (C25-C36)	ND		389	117	ug/L		06/23/23 09:14	06/23/23 19:00	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	83		50 - 150				06/23/23 09:14	06/23/23 19:00	1
n-Triacontane-d62	77		50 - 150				06/23/23 09:14	06/23/23 19:00	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	658		233	107	ug/L		06/23/23 09:14	06/28/23 15:39	1
RRO (C25-C36)	ND		389	117	ug/L		06/23/23 09:14	06/28/23 15:39	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150				06/23/23 09:14	06/28/23 15:39	1
n-Triacontane-d62	74		50 - 150				06/23/23 09:14	06/28/23 15:39	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-310**

**Lab Sample ID: 590-20829-53**

Date Collected: 06/13/23 13:20

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	27.5		0.400	0.0930	ug/L			06/22/23 20:47	1
Ethylbenzene	7.61		1.00	0.198	ug/L			06/22/23 20:47	1
Toluene	1.53		1.00	0.312	ug/L			06/22/23 20:47	1
Xylenes, Total	1.48	J	3.00	0.442	ug/L			06/22/23 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		76 - 120		06/22/23 20:47	1
Dibromofluoromethane (Surr)	103		80 - 123		06/22/23 20:47	1
1,2-Dichloroethane-d4 (Surr)	109		80 - 120		06/22/23 20:47	1
Toluene-d8 (Surr)	98		80 - 120		06/22/23 20:47	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	474		150	30.5	ug/L			06/22/23 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		68.7 - 141		06/22/23 20:47	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-302**

**Lab Sample ID: 590-20829-54**

Date Collected: 06/13/23 13:48

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	29.8		0.400	0.0930	ug/L			06/22/23 21:09	1
Ethylbenzene	8.16		1.00	0.198	ug/L			06/22/23 21:09	1
Toluene	1.62		1.00	0.312	ug/L			06/22/23 21:09	1
Xylenes, Total	1.70	J	3.00	0.442	ug/L			06/22/23 21:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		76 - 120		06/22/23 21:09	1
Dibromofluoromethane (Surr)	101		80 - 123		06/22/23 21:09	1
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		06/22/23 21:09	1
Toluene-d8 (Surr)	96		80 - 120		06/22/23 21:09	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	554		150	30.5	ug/L			06/22/23 21:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		68.7 - 141		06/22/23 21:09	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-311**

**Lab Sample ID: 590-20829-55**

Date Collected: 06/14/23 10:10

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.39		0.400	0.0930	ug/L			06/22/23 21:30	1
Ethylbenzene	0.568	J	1.00	0.198	ug/L			06/22/23 21:30	1
Toluene	2.81		1.00	0.312	ug/L			06/22/23 21:30	1
Xylenes, Total	1.15	J	3.00	0.442	ug/L			06/22/23 21:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		76 - 120		06/22/23 21:30	1
Dibromofluoromethane (Surr)	98		80 - 123		06/22/23 21:30	1
1,2-Dichloroethane-d4 (Surr)	110		80 - 120		06/22/23 21:30	1
Toluene-d8 (Surr)	98		80 - 120		06/22/23 21:30	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1530		150	30.5	ug/L			06/22/23 21:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		68.7 - 141		06/22/23 21:30	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-312**

**Lab Sample ID: 590-20829-56**

Date Collected: 06/14/23 10:38

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.88		0.400	0.0930	ug/L			06/22/23 22:14	1
Ethylbenzene	1.04		1.00	0.198	ug/L			06/22/23 22:14	1
Toluene	1.96		1.00	0.312	ug/L			06/22/23 22:14	1
Xylenes, Total	1.79	J	3.00	0.442	ug/L			06/22/23 22:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		76 - 120		06/22/23 22:14	1
Dibromofluoromethane (Surr)	98		80 - 123		06/22/23 22:14	1
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		06/22/23 22:14	1
Toluene-d8 (Surr)	96		80 - 120		06/22/23 22:14	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1230		150	30.5	ug/L			06/22/23 22:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		68.7 - 141		06/22/23 22:14	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-313**

**Lab Sample ID: 590-20829-57**

Date Collected: 06/14/23 11:06

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/22/23 23:20	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/22/23 23:20	1
Toluene	ND		1.00	0.312	ug/L			06/22/23 23:20	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/22/23 23:20	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		76 - 120					06/22/23 23:20	1
Dibromofluoromethane (Surr)	105		80 - 123					06/22/23 23:20	1
1,2-Dichloroethane-d4 (Surr)	107		80 - 120					06/22/23 23:20	1
Toluene-d8 (Surr)	100		80 - 120					06/22/23 23:20	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH as Gasoline</b>	<b>32.5</b>	<b>J</b>	150	30.5	ug/L			06/22/23 23:20	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		68.7 - 141					06/22/23 23:20	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	ND		244	112	ug/L		06/23/23 09:14	06/23/23 19:22	1
RRO (C25-C36)	ND		407	122	ug/L		06/23/23 09:14	06/23/23 19:22	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150				06/23/23 09:14	06/23/23 19:22	1
n-Triacontane-d62	77		50 - 150				06/23/23 09:14	06/23/23 19:22	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-315**

**Lab Sample ID: 590-20829-58**

Date Collected: 06/14/23 11:34

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	16.9		0.400	0.0930	ug/L			06/23/23 00:04	1
Ethylbenzene	1.18		1.00	0.198	ug/L			06/23/23 00:04	1
Toluene	4.27		1.00	0.312	ug/L			06/23/23 00:04	1
Xylenes, Total	2.92	J	3.00	0.442	ug/L			06/23/23 00:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		76 - 120		06/23/23 00:04	1
Dibromofluoromethane (Surr)	98		80 - 123		06/23/23 00:04	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		06/23/23 00:04	1
Toluene-d8 (Surr)	97		80 - 120		06/23/23 00:04	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1650		150	30.5	ug/L			06/23/23 00:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		68.7 - 141		06/23/23 00:04	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	2500		236	108	ug/L		06/23/23 09:14	06/23/23 19:44	1
RRO (C25-C36)	ND		394	118	ug/L		06/23/23 09:14	06/23/23 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150	06/23/23 09:14	06/23/23 19:44	1
n-Triacontane-d62	82		50 - 150	06/23/23 09:14	06/23/23 19:44	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C25)	1360		236	108	ug/L		06/23/23 09:14	06/28/23 16:23	1
RRO (C25-C36)	ND		394	118	ug/L		06/23/23 09:14	06/28/23 16:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	73		50 - 150	06/23/23 09:14	06/28/23 16:23	1
n-Triacontane-d62	75		50 - 150	06/23/23 09:14	06/28/23 16:23	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-314**

**Lab Sample ID: 590-20829-59**

Date Collected: 06/14/23 12:05

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/23/23 00:26	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/23/23 00:26	1
Toluene	ND		1.00	0.312	ug/L			06/23/23 00:26	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/23/23 00:26	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		76 - 120					06/23/23 00:26	1
Dibromofluoromethane (Surr)	105		80 - 123					06/23/23 00:26	1
1,2-Dichloroethane-d4 (Surr)	107		80 - 120					06/23/23 00:26	1
Toluene-d8 (Surr)	101		80 - 120					06/23/23 00:26	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH as Gasoline</b>	<b>123</b>	<b>J</b>	150	30.5	ug/L			06/23/23 00:26	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		68.7 - 141					06/23/23 00:26	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (C10-C25)</b>	<b>666</b>		243	111	ug/L		06/23/23 09:14	06/23/23 20:06	1
RRO (C25-C36)	ND		405	121	ug/L		06/23/23 09:14	06/23/23 20:06	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	89		50 - 150				06/23/23 09:14	06/23/23 20:06	1
n-Triacontane-d62	81		50 - 150				06/23/23 09:14	06/23/23 20:06	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DRO (C10-C25)</b>	<b>165</b>	<b>J</b>	243	111	ug/L		06/23/23 09:14	06/28/23 16:45	1
RRO (C25-C36)	ND		405	121	ug/L		06/23/23 09:14	06/28/23 16:45	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	63		50 - 150				06/23/23 09:14	06/28/23 16:45	1
n-Triacontane-d62	55		50 - 150				06/23/23 09:14	06/28/23 16:45	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-304**

**Lab Sample ID: 590-20829-60**

Date Collected: 06/14/23 12:39

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	116		4.00	0.930	ug/L			06/23/23 13:30	10
Ethylbenzene	0.506	J	1.00	0.198	ug/L			06/23/23 00:48	1
Toluene	5.02		1.00	0.312	ug/L			06/23/23 00:48	1
Xylenes, Total	8.15		3.00	0.442	ug/L			06/23/23 00:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		76 - 120		06/23/23 00:48	1
4-Bromofluorobenzene (Surr)	101		76 - 120		06/23/23 13:30	10
Dibromofluoromethane (Surr)	105		80 - 123		06/23/23 00:48	1
Dibromofluoromethane (Surr)	106		80 - 123		06/23/23 13:30	10
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		06/23/23 00:48	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		06/23/23 13:30	10
Toluene-d8 (Surr)	95		80 - 120		06/23/23 00:48	1
Toluene-d8 (Surr)	98		80 - 120		06/23/23 13:30	10

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	734		150	30.5	ug/L			06/23/23 00:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		68.7 - 141		06/23/23 00:48	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-301**

**Lab Sample ID: 590-20829-61**

Date Collected: 06/14/23 13:05

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	110		4.00	0.930	ug/L			06/23/23 13:52	10
Ethylbenzene	6.09		1.00	0.198	ug/L			06/23/23 01:09	1
Toluene	4.08		1.00	0.312	ug/L			06/23/23 01:09	1
Xylenes, Total	3.15		3.00	0.442	ug/L			06/23/23 01:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		76 - 120		06/23/23 01:09	1
4-Bromofluorobenzene (Surr)	99		76 - 120		06/23/23 13:52	10
Dibromofluoromethane (Surr)	103		80 - 123		06/23/23 01:09	1
Dibromofluoromethane (Surr)	106		80 - 123		06/23/23 13:52	10
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		06/23/23 01:09	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		06/23/23 13:52	10
Toluene-d8 (Surr)	98		80 - 120		06/23/23 01:09	1
Toluene-d8 (Surr)	101		80 - 120		06/23/23 13:52	10

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	794		150	30.5	ug/L			06/23/23 01:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		68.7 - 141		06/23/23 01:09	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-309**

**Lab Sample ID: 590-20829-62**

Date Collected: 06/14/23 13:29

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.400	0.0930	ug/L			06/23/23 01:31	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/23/23 01:31	1
Toluene	ND		1.00	0.312	ug/L			06/23/23 01:31	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/23/23 01:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		76 - 120		06/23/23 01:31	1
Dibromofluoromethane (Surr)	105		80 - 123		06/23/23 01:31	1
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		06/23/23 01:31	1
Toluene-d8 (Surr)	98		80 - 120		06/23/23 01:31	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	51.4	J	150	30.5	ug/L			06/23/23 01:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		68.7 - 141		06/23/23 01:31	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-303**

**Lab Sample ID: 590-20829-63**

Date Collected: 06/14/23 13:54

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	99.9		0.400	0.0930	ug/L			06/23/23 01:53	1
Ethylbenzene	39.9		1.00	0.198	ug/L			06/23/23 01:53	1
Toluene	4.03		1.00	0.312	ug/L			06/23/23 01:53	1
Xylenes, Total	8.13		3.00	0.442	ug/L			06/23/23 01:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		76 - 120		06/23/23 01:53	1
Dibromofluoromethane (Surr)	105		80 - 123		06/23/23 01:53	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		06/23/23 01:53	1
Toluene-d8 (Surr)	98		80 - 120		06/23/23 01:53	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1260		150	30.5	ug/L			06/23/23 01:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		68.7 - 141		06/23/23 01:53	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: TX-03A**

**Lab Sample ID: 590-20829-64**

Date Collected: 06/14/23 14:58

Matrix: Water

Date Received: 06/16/23 15:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	241		40.0	9.30	ug/L			06/23/23 14:14	100
Ethylbenzene	4.97		1.00	0.198	ug/L			06/23/23 02:15	1
Toluene	8.80		1.00	0.312	ug/L			06/23/23 02:15	1
Xylenes, Total	7.91		3.00	0.442	ug/L			06/23/23 02:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		76 - 120		06/23/23 02:15	1
4-Bromofluorobenzene (Surr)	101		76 - 120		06/23/23 14:14	100
Dibromofluoromethane (Surr)	105		80 - 123		06/23/23 02:15	1
Dibromofluoromethane (Surr)	105		80 - 123		06/23/23 14:14	100
1,2-Dichloroethane-d4 (Surr)	96		80 - 120		06/23/23 02:15	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		06/23/23 14:14	100
Toluene-d8 (Surr)	96		80 - 120		06/23/23 02:15	1
Toluene-d8 (Surr)	100		80 - 120		06/23/23 14:14	100

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1370		150	30.5	ug/L			06/23/23 02:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		68.7 - 141		06/23/23 02:15	1

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-42070/5

Matrix: Water

Analysis Batch: 42070

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.400	0.0930	ug/L			06/19/23 23:45	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/19/23 23:45	1
Toluene	ND		1.00	0.312	ug/L			06/19/23 23:45	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/19/23 23:45	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	107		76 - 120		06/19/23 23:45	1
Dibromofluoromethane (Surr)	104		80 - 123		06/19/23 23:45	1
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		06/19/23 23:45	1
Toluene-d8 (Surr)	98		80 - 120		06/19/23 23:45	1

Lab Sample ID: LCS 590-42070/1002

Matrix: Water

Analysis Batch: 42070

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	10.0	10.78		ug/L		108	80 - 120
Ethylbenzene	10.0	9.565		ug/L		96	80 - 122
m-Xylene & p-Xylene	10.0	9.668		ug/L		97	80 - 125
o-Xylene	10.0	9.901		ug/L		99	80 - 130
Toluene	10.0	9.839		ug/L		98	80 - 129

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	102		76 - 120
Dibromofluoromethane (Surr)	99		80 - 123
1,2-Dichloroethane-d4 (Surr)	105		80 - 120
Toluene-d8 (Surr)	95		80 - 120

Lab Sample ID: LCSD 590-42070/3

Matrix: Water

Analysis Batch: 42070

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
Benzene	10.0	10.33		ug/L		103	80 - 120	4	15
Ethylbenzene	10.0	9.028		ug/L		90	80 - 122	6	35
m-Xylene & p-Xylene	10.0	8.974		ug/L		90	80 - 125	7	35
o-Xylene	10.0	9.922		ug/L		99	80 - 130	0	35
Toluene	10.0	9.325		ug/L		93	80 - 129	5	35

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		76 - 120
Dibromofluoromethane (Surr)	101		80 - 123
1,2-Dichloroethane-d4 (Surr)	103		80 - 120
Toluene-d8 (Surr)	93		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

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

Lab Sample ID: 590-20829-D-39 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42070

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Benzene	2.03		10.0	11.33		ug/L		93		80 - 120
Ethylbenzene	1.32		10.0	10.80		ug/L		95		80 - 122
m-Xylene & p-Xylene	1.67	J	10.0	10.97		ug/L		93		80 - 125
o-Xylene	0.772	J	10.0	11.22		ug/L		104		80 - 130
Toluene	1.99		10.0	11.08		ug/L		91		80 - 129

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		76 - 120
Dibromofluoromethane (Surr)	102		80 - 123
1,2-Dichloroethane-d4 (Surr)	103		80 - 120
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: 590-20829-E-39 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42070

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						Limit	
Benzene	2.03		10.0	11.18		ug/L		92		80 - 120	1	15
Ethylbenzene	1.32		10.0	10.67		ug/L		94		80 - 122	1	35
m-Xylene & p-Xylene	1.67	J	10.0	10.53		ug/L		89		80 - 125	4	35
o-Xylene	0.772	J	10.0	10.81		ug/L		100		80 - 130	4	35
Toluene	1.99		10.0	10.42		ug/L		84		80 - 129	6	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		76 - 120
Dibromofluoromethane (Surr)	103		80 - 123
1,2-Dichloroethane-d4 (Surr)	104		80 - 120
Toluene-d8 (Surr)	95		80 - 120

Lab Sample ID: 590-20829-D-40 DU

Client Sample ID: Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42070

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Benzene	1.96		1.875		ug/L		4	15
Ethylbenzene	1.09		1.191		ug/L		8	35
Toluene	1.17		1.462		ug/L		22	35
Xylenes, Total	1.05	J	1.581	J F5	ug/L		40	18

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	99		76 - 120
Dibromofluoromethane (Surr)	107		80 - 123
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
Toluene-d8 (Surr)	98		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

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

**Lab Sample ID: MB 590-42088/5**  
**Matrix: Water**  
**Analysis Batch: 42088**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.400	0.0930	ug/L			06/20/23 23:23	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/20/23 23:23	1
Toluene	ND		1.00	0.312	ug/L			06/20/23 23:23	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/20/23 23:23	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	102		76 - 120		06/20/23 23:23	1
Dibromofluoromethane (Surr)	106		80 - 123		06/20/23 23:23	1
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		06/20/23 23:23	1
Toluene-d8 (Surr)	105		80 - 120		06/20/23 23:23	1

**Lab Sample ID: LCS 590-42088/1002**  
**Matrix: Water**  
**Analysis Batch: 42088**

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	10.0	10.20		ug/L		102	80 - 120
Ethylbenzene	10.0	10.39		ug/L		104	80 - 122
m-Xylene & p-Xylene	10.0	10.45		ug/L		104	80 - 125
o-Xylene	10.0	10.84		ug/L		108	80 - 130
Toluene	10.0	10.37		ug/L		104	80 - 129

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	95		76 - 120
Dibromofluoromethane (Surr)	100		80 - 123
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
Toluene-d8 (Surr)	100		80 - 120

**Lab Sample ID: LCSD 590-42088/3**  
**Matrix: Water**  
**Analysis Batch: 42088**

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

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzene	10.0	10.86		ug/L		109	80 - 120	6	15
Ethylbenzene	10.0	10.88		ug/L		109	80 - 122	5	35
m-Xylene & p-Xylene	10.0	10.77		ug/L		108	80 - 125	3	35
o-Xylene	10.0	11.54		ug/L		115	80 - 130	6	35
Toluene	10.0	10.90		ug/L		109	80 - 129	5	35

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	96		76 - 120
Dibromofluoromethane (Surr)	100		80 - 123
1,2-Dichloroethane-d4 (Surr)	100		80 - 120
Toluene-d8 (Surr)	98		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

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

Lab Sample ID: 590-20829-E-45 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42088

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Benzene	ND		10.0	10.69		ug/L		107		80 - 120
Ethylbenzene	0.241	J	10.0	9.705		ug/L		95		80 - 122
m-Xylene & p-Xylene	ND		10.0	8.268		ug/L		83		80 - 125
o-Xylene	ND		10.0	8.961		ug/L		90		80 - 130
Toluene	ND		10.0	9.595		ug/L		96		80 - 129
<b>MS MS</b>										
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
4-Bromofluorobenzene (Surr)	96		76 - 120							
Dibromofluoromethane (Surr)	100		80 - 123							
1,2-Dichloroethane-d4 (Surr)	105		80 - 120							
Toluene-d8 (Surr)	96		80 - 120							

Lab Sample ID: 590-20829-F-45 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42088

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						RPD	Limit
Benzene	ND		10.0	10.69		ug/L		107		80 - 120	0	15
Ethylbenzene	0.241	J	10.0	10.08		ug/L		98		80 - 122	4	35
m-Xylene & p-Xylene	ND		10.0	8.244		ug/L		82		80 - 125	0	35
o-Xylene	ND		10.0	9.050		ug/L		91		80 - 130	1	35
Toluene	ND		10.0	9.861		ug/L		99		80 - 129	3	35
<b>MSD MSD</b>												
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>									
4-Bromofluorobenzene (Surr)	94		76 - 120									
Dibromofluoromethane (Surr)	100		80 - 123									
1,2-Dichloroethane-d4 (Surr)	102		80 - 120									
Toluene-d8 (Surr)	96		80 - 120									

Lab Sample ID: 590-20829-44 DU

Client Sample ID: MW-307

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42088

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Benzene	ND		ND		ug/L		NC	15
Ethylbenzene	ND		ND		ug/L		NC	35
Toluene	ND		ND		ug/L		NC	35
Xylenes, Total	ND		ND		ug/L		NC	18
<b>DU DU</b>								
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>					
4-Bromofluorobenzene (Surr)	100		76 - 120					
Dibromofluoromethane (Surr)	102		80 - 123					
1,2-Dichloroethane-d4 (Surr)	102		80 - 120					
Toluene-d8 (Surr)	104		80 - 120					



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

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

**Lab Sample ID: MB 590-42138/6**  
**Matrix: Water**  
**Analysis Batch: 42138**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.400	0.0930	ug/L			06/22/23 20:03	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/22/23 20:03	1
Toluene	ND		1.00	0.312	ug/L			06/22/23 20:03	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/22/23 20:03	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	110		76 - 120		06/22/23 20:03	1
Dibromofluoromethane (Surr)	105		80 - 123		06/22/23 20:03	1
1,2-Dichloroethane-d4 (Surr)	110		80 - 120		06/22/23 20:03	1
Toluene-d8 (Surr)	101		80 - 120		06/22/23 20:03	1

**Lab Sample ID: LCS 590-42138/1003**  
**Matrix: Water**  
**Analysis Batch: 42138**

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	10.0	11.34		ug/L		113	80 - 120
Ethylbenzene	10.0	10.28		ug/L		103	80 - 122
m-Xylene & p-Xylene	10.0	10.43		ug/L		104	80 - 125
o-Xylene	10.0	11.31		ug/L		113	80 - 130
Toluene	10.0	10.77		ug/L		108	80 - 129

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		76 - 120
Dibromofluoromethane (Surr)	102		80 - 123
1,2-Dichloroethane-d4 (Surr)	110		80 - 120
Toluene-d8 (Surr)	99		80 - 120

**Lab Sample ID: LCSD 590-42138/4**  
**Matrix: Water**  
**Analysis Batch: 42138**

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

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
Benzene	10.0	11.06		ug/L		111	80 - 120	2	15
Ethylbenzene	10.0	10.12		ug/L		101	80 - 122	2	35
m-Xylene & p-Xylene	10.0	10.17		ug/L		102	80 - 125	3	35
o-Xylene	10.0	10.85		ug/L		108	80 - 130	4	35
Toluene	10.0	10.59		ug/L		106	80 - 129	2	35

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		76 - 120
Dibromofluoromethane (Surr)	99		80 - 123
1,2-Dichloroethane-d4 (Surr)	108		80 - 120
Toluene-d8 (Surr)	98		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

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

Lab Sample ID: 590-20829-56 MS

Client Sample ID: MW-312

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42138

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Benzene	4.88		10.0	15.06		ug/L		102	80 - 120
Ethylbenzene	1.04		10.0	10.70		ug/L		97	80 - 122
m-Xylene & p-Xylene	1.30	J	10.0	10.95		ug/L		97	80 - 125
o-Xylene	0.490	J	10.0	10.80		ug/L		103	80 - 130
Toluene	1.96		10.0	11.76		ug/L		98	80 - 129

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		76 - 120
Dibromofluoromethane (Surr)	96		80 - 123
1,2-Dichloroethane-d4 (Surr)	107		80 - 120
Toluene-d8 (Surr)	96		80 - 120

Lab Sample ID: 590-20829-56 MSD

Client Sample ID: MW-312

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42138

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier					Limit	Limit
Benzene	4.88		10.0	15.63		ug/L		108	80 - 120	4	15
Ethylbenzene	1.04		10.0	11.02		ug/L		100	80 - 122	3	35
m-Xylene & p-Xylene	1.30	J	10.0	10.75		ug/L		94	80 - 125	2	35
o-Xylene	0.490	J	10.0	10.70		ug/L		102	80 - 130	1	35
Toluene	1.96		10.0	12.56		ug/L		106	80 - 129	7	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	109		76 - 120
Dibromofluoromethane (Surr)	96		80 - 123
1,2-Dichloroethane-d4 (Surr)	107		80 - 120
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: 590-20829-55 DU

Client Sample ID: MW-311

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42138

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Benzene	2.39		2.157		ug/L		10	15
Ethylbenzene	0.568	J	0.5537	J	ug/L		3	35
Toluene	2.81		2.563		ug/L		9	35
Xylenes, Total	1.15	J	1.049	J	ug/L		9	18

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	106		76 - 120
Dibromofluoromethane (Surr)	93		80 - 123
1,2-Dichloroethane-d4 (Surr)	107		80 - 120
Toluene-d8 (Surr)	96		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

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

**Lab Sample ID: MB 590-42147/6**  
**Matrix: Water**  
**Analysis Batch: 42147**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.400	0.0930	ug/L			06/23/23 13:09	1
Ethylbenzene	ND		1.00	0.198	ug/L			06/23/23 13:09	1
Toluene	ND		1.00	0.312	ug/L			06/23/23 13:09	1
Xylenes, Total	ND		3.00	0.442	ug/L			06/23/23 13:09	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	100		76 - 120		06/23/23 13:09	1
Dibromofluoromethane (Surr)	108		80 - 123		06/23/23 13:09	1
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		06/23/23 13:09	1
Toluene-d8 (Surr)	100		80 - 120		06/23/23 13:09	1

**Lab Sample ID: LCS 590-42147/1003**  
**Matrix: Water**  
**Analysis Batch: 42147**

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	10.0	10.00		ug/L		100	80 - 120
Ethylbenzene	10.0	9.916		ug/L		99	80 - 122
m-Xylene & p-Xylene	10.0	9.970		ug/L		100	80 - 125
o-Xylene	10.0	10.95		ug/L		109	80 - 130
Toluene	10.0	9.821		ug/L		98	80 - 129

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	91		76 - 120
Dibromofluoromethane (Surr)	103		80 - 123
1,2-Dichloroethane-d4 (Surr)	103		80 - 120
Toluene-d8 (Surr)	99		80 - 120

**Lab Sample ID: LCSD 590-42147/4**  
**Matrix: Water**  
**Analysis Batch: 42147**

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

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzene	10.0	9.430		ug/L		94	80 - 120	6	15
Ethylbenzene	10.0	9.199		ug/L		92	80 - 122	8	35
m-Xylene & p-Xylene	10.0	9.639		ug/L		96	80 - 125	3	35
o-Xylene	10.0	10.44		ug/L		104	80 - 130	5	35
Toluene	10.0	9.309		ug/L		93	80 - 129	5	35

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		76 - 120
Dibromofluoromethane (Surr)	104		80 - 123
1,2-Dichloroethane-d4 (Surr)	105		80 - 120
Toluene-d8 (Surr)	98		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

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

Lab Sample ID: 590-20839-F-14 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42147

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Benzene	ND		10.0	11.12		ug/L		111		80 - 120
Ethylbenzene	ND		10.0	10.07		ug/L		101		80 - 122
m-Xylene & p-Xylene	ND		10.0	8.612		ug/L		86		80 - 125
o-Xylene	ND		10.0	9.129		ug/L		91		80 - 130
Toluene	ND		10.0	10.09		ug/L		101		80 - 129

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	96		76 - 120
Dibromofluoromethane (Surr)	100		80 - 123
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
Toluene-d8 (Surr)	95		80 - 120

Lab Sample ID: 590-20839-G-14 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42147

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						RPD	Limit
Benzene	ND		10.0	10.55		ug/L		106		80 - 120	5	15
Ethylbenzene	ND		10.0	9.778		ug/L		98		80 - 122	3	35
m-Xylene & p-Xylene	ND		10.0	8.679		ug/L		87		80 - 125	1	35
o-Xylene	ND		10.0	9.314		ug/L		93		80 - 130	2	35
Toluene	ND		10.0	9.929		ug/L		99		80 - 129	2	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		76 - 120
Dibromofluoromethane (Surr)	102		80 - 123
1,2-Dichloroethane-d4 (Surr)	104		80 - 120
Toluene-d8 (Surr)	96		80 - 120

Lab Sample ID: 590-20839-F-11 DU

Client Sample ID: Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 42147

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Benzene	ND		ND		ug/L		NC	15
Ethylbenzene	ND		ND		ug/L		NC	35
Toluene	ND		ND		ug/L		NC	35
Xylenes, Total	ND		ND		ug/L		NC	18

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	103		76 - 120
Dibromofluoromethane (Surr)	104		80 - 123
1,2-Dichloroethane-d4 (Surr)	104		80 - 120
Toluene-d8 (Surr)	97		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

**Lab Sample ID: MB 590-42071/5**  
**Matrix: Water**  
**Analysis Batch: 42071**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			06/19/23 23:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		68.7 - 141					06/19/23 23:45	1

**Lab Sample ID: LCS 590-42071/1004**  
**Matrix: Water**  
**Analysis Batch: 42071**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
TPH as Gasoline	1000	905.3		ug/L		91	80 - 120	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	101		68.7 - 141					

**Lab Sample ID: LCSD 590-42071/1015**  
**Matrix: Water**  
**Analysis Batch: 42071**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Gasoline	1000	847.0		ug/L		85	80 - 120	7	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	103		68.7 - 141						

**Lab Sample ID: 590-20829-D-40 DU**  
**Matrix: Water**  
**Analysis Batch: 42071**

**Client Sample ID: MW-203**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
TPH as Gasoline	944		942.1		ug/L		0.2	35
Surrogate	DU %Recovery	DU Qualifier	Limits					
4-Bromofluorobenzene (Surr)	99		68.7 - 141					

**Lab Sample ID: MB 590-42089/5**  
**Matrix: Water**  
**Analysis Batch: 42089**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			06/20/23 23:23	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		68.7 - 141					06/20/23 23:23	1

Eurofins Spokane



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

**Lab Sample ID: LCS 590-42089/1004**  
**Matrix: Water**  
**Analysis Batch: 42089**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TPH as Gasoline	1000	927.7		ug/L		93	80 - 120
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
4-Bromofluorobenzene (Surr)	95		68.7 - 141				

**Lab Sample ID: LCSD 590-42089/1015**  
**Matrix: Water**  
**Analysis Batch: 42089**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Gasoline	1000	882.9		ug/L		88	80 - 120	5	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	97		68.7 - 141						

**Lab Sample ID: 590-20829-44 DU**  
**Matrix: Water**  
**Analysis Batch: 42089**

**Client Sample ID: MW-307**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
TPH as Gasoline	ND		ND		ug/L		NC	35
<b>Surrogate</b>	<b>%Recovery</b>	<b>DU Qualifier</b>	<b>Limits</b>					
4-Bromofluorobenzene (Surr)	100		68.7 - 141					

**Lab Sample ID: MB 590-42139/6**  
**Matrix: Water**  
**Analysis Batch: 42139**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		150	30.5	ug/L			06/22/23 20:03	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>MB Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	110		68.7 - 141					06/22/23 20:03	1

**Lab Sample ID: LCS 590-42139/1005**  
**Matrix: Water**  
**Analysis Batch: 42139**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TPH as Gasoline	1000	972.8		ug/L		97	80 - 120
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
4-Bromofluorobenzene (Surr)	101		68.7 - 141				

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

**Lab Sample ID: LCSD 590-42139/1016**  
**Matrix: Water**  
**Analysis Batch: 42139**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Gasoline	1000	912.5		ug/L		91	80 - 120	6	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	100		68.7 - 141						

**Lab Sample ID: 590-20829-55 DU**  
**Matrix: Water**  
**Analysis Batch: 42139**

**Client Sample ID: MW-311**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
TPH as Gasoline	1530		1588		ug/L		4	35
<b>Surrogate</b>	<b>%Recovery</b>	<b>DU Qualifier</b>	<b>Limits</b>					
4-Bromofluorobenzene (Surr)	106		68.7 - 141					

## Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

**Lab Sample ID: MB 590-42045/1-A**  
**Matrix: Water**  
**Analysis Batch: 42063**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 42045**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.0900	0.0120	ug/L		06/19/23 10:32	06/20/23 10:15	1
Benzo[a]pyrene	ND		0.0900	0.0120	ug/L		06/19/23 10:32	06/20/23 10:15	1
Benzo[b]fluoranthene	ND		0.0900	0.0250	ug/L		06/19/23 10:32	06/20/23 10:15	1
Benzo[k]fluoranthene	ND		0.0900	0.0150	ug/L		06/19/23 10:32	06/20/23 10:15	1
Chrysene	ND		0.0900	0.0100	ug/L		06/19/23 10:32	06/20/23 10:15	1
Dibenz(a,h)anthracene	ND		0.0900	0.0130	ug/L		06/19/23 10:32	06/20/23 10:15	1
Indeno[1,2,3-cd]pyrene	ND		0.0900	0.0220	ug/L		06/19/23 10:32	06/20/23 10:15	1
1-Methylnaphthalene	ND		0.0900	0.0230	ug/L		06/19/23 10:32	06/20/23 10:15	1
2-Methylnaphthalene	ND		0.0900	0.0440	ug/L		06/19/23 10:32	06/20/23 10:15	1
Naphthalene	ND		0.0900	0.0530	ug/L		06/19/23 10:32	06/20/23 10:15	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>MB Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	80		32 - 120				06/19/23 10:32	06/20/23 10:15	1
p-Terphenyl-d14	89		39 - 120				06/19/23 10:32	06/20/23 10:15	1

**Lab Sample ID: LCS 590-42045/2-A**  
**Matrix: Water**  
**Analysis Batch: 42063**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 42045**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[a]anthracene	1.60	1.474		ug/L		92	62 - 130
Benzo[a]pyrene	1.60	1.414		ug/L		88	57 - 130
Benzo[b]fluoranthene	1.60	1.159		ug/L		72	47 - 136
Benzo[k]fluoranthene	1.60	1.684		ug/L		105	55 - 131
Chrysene	1.60	1.420		ug/L		89	57 - 135
Dibenz(a,h)anthracene	1.60	1.348		ug/L		84	59 - 127

Eurofins Spokane

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: LCS 590-42045/2-A**  
**Matrix: Water**  
**Analysis Batch: 42063**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 42045**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Indeno[1,2,3-cd]pyrene	1.60	1.258		ug/L		79	61 - 121	
1-Methylnaphthalene	1.60	0.9738		ug/L		61	49 - 120	
2-Methylnaphthalene	1.60	1.021		ug/L		64	46 - 120	
Naphthalene	1.60	1.039		ug/L		65	47 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	81		32 - 120
p-Terphenyl-d14	78		39 - 120

**Lab Sample ID: LCSD 590-42045/3-A**  
**Matrix: Water**  
**Analysis Batch: 42063**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 42045**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits		RPD	Limit
Benzo[a]anthracene	1.60	1.471		ug/L		92	62 - 130		0	21
Benzo[a]pyrene	1.60	1.447		ug/L		90	57 - 130		2	19
Benzo[b]fluoranthene	1.60	1.458		ug/L		91	47 - 136		23	27
Benzo[k]fluoranthene	1.60	1.465		ug/L		92	55 - 131		14	28
Chrysene	1.60	1.454		ug/L		91	57 - 135		2	20
Dibenz(a,h)anthracene	1.60	1.430		ug/L		89	59 - 127		6	20
Indeno[1,2,3-cd]pyrene	1.60	1.317		ug/L		82	61 - 121		5	20
1-Methylnaphthalene	1.60	0.9322		ug/L		58	49 - 120		4	32
2-Methylnaphthalene	1.60	0.9309		ug/L		58	46 - 120		9	34
Naphthalene	1.60	0.9549		ug/L		60	47 - 120		8	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	79		32 - 120
p-Terphenyl-d14	79		39 - 120

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID: MB 590-42142/1-A**  
**Matrix: Water**  
**Analysis Batch: 42145**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 42142**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
DRO (C10-C25)	ND		240	110	ug/L		06/23/23 09:14	06/23/23 12:47	1
RRO (C25-C36)	ND		400	120	ug/L		06/23/23 09:14	06/23/23 12:47	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
o-Terphenyl	81		50 - 150	06/23/23 09:14	06/23/23 12:47	1
n-Triacontane-d62	71		50 - 150	06/23/23 09:14	06/23/23 12:47	1

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: LCS 590-42142/2-A**  
**Matrix: Water**  
**Analysis Batch: 42145**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 42142**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
DRO (C10-C25)	1600	1344		ug/L		84	50 - 150	
RRO (C25-C36)	1600	1388		ug/L		87	50 - 150	
		<b>LCS</b>	<b>LCS</b>					
Surrogate	%Recovery	Qualifier	Limits					
<i>o</i> -Terphenyl	91		50 - 150					
<i>n</i> -Triacontane-d62	84		50 - 150					

**Lab Sample ID: LCSD 590-42142/3-A**  
**Matrix: Water**  
**Analysis Batch: 42145**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 42142**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD Limit	
									RPD	Limit
DRO (C10-C25)	1600	1382		ug/L		86	50 - 150	3	25	
RRO (C25-C36)	1600	1493		ug/L		93	50 - 150	7	25	
		<b>LCSD</b>	<b>LCSD</b>							
Surrogate	%Recovery	Qualifier	Limits							
<i>o</i> -Terphenyl	97		50 - 150							
<i>n</i> -Triacontane-d62	91		50 - 150							

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

**Lab Sample ID: MB 590-42142/1-B**  
**Matrix: Water**  
**Analysis Batch: 42211**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 42142**

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
DRO (C10-C25)	ND		240	110	ug/L		06/23/23 09:14	06/28/23 12:22		1	
RRO (C25-C36)	ND		400	120	ug/L		06/23/23 09:14	06/28/23 12:22		1	
		<b>MB</b>	<b>MB</b>								
Surrogate	%Recovery	Qualifier	Limits	Prepared		Analyzed		Dil Fac			
<i>o</i> -Terphenyl	76		50 - 150	06/23/23 09:14	06/28/23 12:22				1		
<i>n</i> -Triacontane-d62	72		50 - 150	06/23/23 09:14	06/28/23 12:22				1		

**Lab Sample ID: LCS 590-42142/2-B**  
**Matrix: Water**  
**Analysis Batch: 42211**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 42142**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
DRO (C10-C25)	1600	1279		ug/L		80	50 - 150	
RRO (C25-C36)	1600	1476		ug/L		92	50 - 150	
		<b>LCS</b>	<b>LCS</b>					
Surrogate	%Recovery	Qualifier	Limits					
<i>o</i> -Terphenyl	81		50 - 150					
<i>n</i> -Triacontane-d62	87		50 - 150					

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

(Continued)

Lab Sample ID: LCSD 590-42142/3-B

Matrix: Water

Analysis Batch: 42211

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42142

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
DRO (C10-C25)	1600	1312		ug/L		82	50 - 150	3	25
RRO (C25-C36)	1600	1573		ug/L		98	50 - 150	6	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>o</i> -Terphenyl	85		50 - 150
<i>n</i> -Triacontane-d62	93		50 - 150

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-429571/26-A

Matrix: Water

Analysis Batch: 429702

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 429571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.400	0.0400	ug/L		06/21/23 17:44	06/22/23 13:02	1

Lab Sample ID: LCS 580-429571/27-A

Matrix: Water

Analysis Batch: 429702

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 429571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	1000	1011		ug/L		101	80 - 120

Lab Sample ID: LCSD 580-429571/28-A

Matrix: Water

Analysis Batch: 429702

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 429571

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	1000	996.3		ug/L		100	80 - 120	1	20

Lab Sample ID: 580-128029-A-3-B MS

Matrix: Water

Analysis Batch: 429702

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 429571

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.502		1000	999.2		ug/L		100	80 - 120

Lab Sample ID: 580-128029-A-3-C MSD

Matrix: Water

Analysis Batch: 429702

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 429571

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.502		1000	990.2		ug/L		99	80 - 120	1	20

Eurofins Spokane



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-128029-A-1-B DU  
Matrix: Water  
Analysis Batch: 429702

Client Sample ID: Duplicate  
Prep Type: Total Recoverable  
Prep Batch: 429571

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Lead	ND		ND		ug/L		NC	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: TB-1**

**Lab Sample ID: 590-20829-38**

Date Collected: 06/12/23 09:00

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42088	06/21/23 03:45	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 03:45	JSP	EET SPK

**Client Sample ID: MW-202**

**Lab Sample ID: 590-20829-39**

Date Collected: 06/12/23 13:39

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42071	06/20/23 05:58	JSP	EET SPK
Total/NA	Prep	3510C			250.7 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 14:15	NMI	EET SPK
Total/NA	Prep	3510C			250.7 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	42208	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42211	06/28/23 13:27	NMI	EET SPK

**Client Sample ID: MW-203**

**Lab Sample ID: 590-20829-40**

Date Collected: 06/12/23 14:09

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42071	06/20/23 07:03	JSP	EET SPK
Total/NA	Prep	3510C			267.8 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 14:37	NMI	EET SPK
Total/NA	Prep	3510C			267.8 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	42208	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42211	06/28/23 13:49	NMI	EET SPK

**Client Sample ID: MW-213**

**Lab Sample ID: 590-20829-41**

Date Collected: 06/12/23 12:33

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42070	06/20/23 08:09	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42071	06/20/23 08:09	JSP	EET SPK
Total/NA	Prep	3510C			248.2 mL	2 mL	42045	06/19/23 10:32	M1V	EET SPK
Total/NA	Analysis	8270E SIM		1	1 uL	1 uL	42063	06/20/23 11:24	NMI	EET SPK
Total/NA	Prep	3510C			268.1 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 14:59	NMI	EET SPK

**Client Sample ID: MW-214**

**Lab Sample ID: 590-20829-42**

Date Collected: 06/12/23 13:03

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42070	06/20/23 08:31	JSP	EET SPK

Eurofins Spokane

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-214**

**Lab Sample ID: 590-20829-42**

Date Collected: 06/12/23 13:03

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42071	06/20/23 08:31	JSP	EET SPK
Total/NA	Prep	3510C			249.2 mL	2 mL	42045	06/19/23 10:32	M1V	EET SPK
Total/NA	Analysis	8270E SIM		1	1 uL	1 uL	42063	06/20/23 11:47	NMI	EET SPK
Total/NA	Prep	3510C			257.3 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 15:21	NMI	EET SPK

**Client Sample ID: MW-308**

**Lab Sample ID: 590-20829-43**

Date Collected: 06/13/23 08:05

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42070	06/20/23 08:53	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42071	06/20/23 08:53	JSP	EET SPK

**Client Sample ID: MW-307**

**Lab Sample ID: 590-20829-44**

Date Collected: 06/13/23 08:36

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42088	06/21/23 04:06	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 04:06	JSP	EET SPK
Total/NA	Prep	3510C			242.6 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 15:43	NMI	EET SPK

**Client Sample ID: MW-104**

**Lab Sample ID: 590-20829-45**

Date Collected: 06/13/23 09:10

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 04:50	JSP	EET SPK
Total/NA	Prep	3510C			254.5 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 16:05	NMI	EET SPK
Total/NA	Prep	3510C			254.5 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	42208	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42211	06/28/23 14:11	NMI	EET SPK
Total Recoverable	Prep	3005A			50 mL	50 mL	429571	06/21/23 17:44	TMH	EET SEA
Total Recoverable	Analysis	6020B		5	50 mL	50 mL	429702	06/22/23 14:34	TMH	EET SEA

**Client Sample ID: MW-05**

**Lab Sample ID: 590-20829-46**

Date Collected: 06/13/23 09:42

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42088	06/21/23 05:55	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 05:55	JSP	EET SPK

Eurofins Spokane

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Client Sample ID: MW-05

Lab Sample ID: 590-20829-46

Date Collected: 06/13/23 09:42

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			249.2 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 16:48	NMI	EET SPK

## Client Sample ID: MW-111

Lab Sample ID: 590-20829-47

Date Collected: 06/13/23 10:15

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42088	06/21/23 06:17	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 06:17	JSP	EET SPK
Total/NA	Prep	3510C			258.2 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 17:10	NMI	EET SPK

## Client Sample ID: MW-113

Lab Sample ID: 590-20829-48

Date Collected: 06/13/23 10:45

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42088	06/21/23 06:38	JSP	EET SPK
Total/NA	Analysis	8260D		100	43 mL	43 mL	42138	06/22/23 20:25	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 06:38	JSP	EET SPK
Total/NA	Prep	3510C			256.9 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 17:32	NMI	EET SPK
Total/NA	Prep	3510C			256.9 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	42208	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42211	06/28/23 14:33	NMI	EET SPK

## Client Sample ID: MW-115

Lab Sample ID: 590-20829-49

Date Collected: 06/13/23 11:15

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42088	06/21/23 07:22	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 07:22	JSP	EET SPK
Total/NA	Prep	3510C			256.2 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 17:54	NMI	EET SPK
Total/NA	Prep	3510C			256.2 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	42208	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42211	06/28/23 14:55	NMI	EET SPK

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-114**  
Date Collected: 06/13/23 11:43  
Date Received: 06/16/23 15:35

**Lab Sample ID: 590-20829-50**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42088	06/21/23 07:44	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 07:44	JSP	EET SPK
Total/NA	Prep	3510C			243.5 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 18:16	NMI	EET SPK

**Client Sample ID: SH-04**  
Date Collected: 06/13/23 12:16  
Date Received: 06/16/23 15:35

**Lab Sample ID: 590-20829-51**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42088	06/21/23 08:06	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 08:06	JSP	EET SPK
Total/NA	Prep	3510C			251 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 18:38	NMI	EET SPK
Total/NA	Prep	3510C			251 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	42208	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42211	06/28/23 15:17	NMI	EET SPK

**Client Sample ID: MW-112A**  
Date Collected: 06/13/23 12:46  
Date Received: 06/16/23 15:35

**Lab Sample ID: 590-20829-52**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42088	06/21/23 08:28	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42089	06/21/23 08:28	JSP	EET SPK
Total/NA	Prep	3510C			257.4 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 19:00	NMI	EET SPK
Total/NA	Prep	3510C			257.4 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	42208	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42211	06/28/23 15:39	NMI	EET SPK

**Client Sample ID: MW-310**  
Date Collected: 06/13/23 13:20  
Date Received: 06/16/23 15:35

**Lab Sample ID: 590-20829-53**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/22/23 20:47	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/22/23 20:47	JSP	EET SPK

**Client Sample ID: MW-302**  
Date Collected: 06/13/23 13:48  
Date Received: 06/16/23 15:35

**Lab Sample ID: 590-20829-54**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/22/23 21:09	JSP	EET SPK

Eurofins Spokane



# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: MW-302**

**Lab Sample ID: 590-20829-54**

Date Collected: 06/13/23 13:48

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/22/23 21:09	JSP	EET SPK

**Client Sample ID: MW-311**

**Lab Sample ID: 590-20829-55**

Date Collected: 06/14/23 10:10

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/22/23 21:30	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/22/23 21:30	JSP	EET SPK

**Client Sample ID: MW-312**

**Lab Sample ID: 590-20829-56**

Date Collected: 06/14/23 10:38

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/22/23 22:14	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/22/23 22:14	JSP	EET SPK

**Client Sample ID: MW-313**

**Lab Sample ID: 590-20829-57**

Date Collected: 06/14/23 11:06

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/22/23 23:20	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/22/23 23:20	JSP	EET SPK
Total/NA	Prep	3510C			245.7 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 19:22	NMI	EET SPK

**Client Sample ID: MW-315**

**Lab Sample ID: 590-20829-58**

Date Collected: 06/14/23 11:34

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/23/23 00:04	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/23/23 00:04	JSP	EET SPK
Total/NA	Prep	3510C			253.7 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 19:44	NMI	EET SPK
Total/NA	Prep	3510C			253.7 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	42208	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42211	06/28/23 16:23	NMI	EET SPK

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Client Sample ID: MW-314

## Lab Sample ID: 590-20829-59

Date Collected: 06/14/23 12:05

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/23/23 00:26	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/23/23 00:26	JSP	EET SPK
Total/NA	Prep	3510C			247.1 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42145	06/23/23 20:06	NMI	EET SPK
Total/NA	Prep	3510C			247.1 mL	2 mL	42142	06/23/23 09:14	M1V	EET SPK
Total/NA	Cleanup	3630C			1 mL	1 mL	42208	06/23/23 09:14	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	42211	06/28/23 16:45	NMI	EET SPK

## Client Sample ID: MW-304

## Lab Sample ID: 590-20829-60

Date Collected: 06/14/23 12:39

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/23/23 00:48	JSP	EET SPK
Total/NA	Analysis	8260D		10	43 mL	43 mL	42147	06/23/23 13:30	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/23/23 00:48	JSP	EET SPK

## Client Sample ID: MW-301

## Lab Sample ID: 590-20829-61

Date Collected: 06/14/23 13:05

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/23/23 01:09	JSP	EET SPK
Total/NA	Analysis	8260D		10	43 mL	43 mL	42147	06/23/23 13:52	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/23/23 01:09	JSP	EET SPK

## Client Sample ID: MW-309

## Lab Sample ID: 590-20829-62

Date Collected: 06/14/23 13:29

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/23/23 01:31	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/23/23 01:31	JSP	EET SPK

## Client Sample ID: MW-303

## Lab Sample ID: 590-20829-63

Date Collected: 06/14/23 13:54

Matrix: Water

Date Received: 06/16/23 15:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/23/23 01:53	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/23/23 01:53	JSP	EET SPK

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

**Client Sample ID: TX-03A**

**Lab Sample ID: 590-20829-64**

**Date Collected: 06/14/23 14:58**

**Matrix: Water**

**Date Received: 06/16/23 15:35**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42138	06/23/23 02:15	JSP	EET SPK
Total/NA	Analysis	8260D		100	43 mL	43 mL	42147	06/23/23 14:14	JSP	EET SPK
Total/NA	Analysis	NWTPH-Gx		1	43 mL	43 mL	42139	06/23/23 02:15	JSP	EET SPK

**Laboratory References:**

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



# Accreditation/Certification Summary

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

## Laboratory: Eurofins Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4137	12-07-23
Washington	State	C569	01-07-24

## Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4167	07-07-23
Washington	State	C788	07-13-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

# Method Summary

Client: GHD Services Inc.  
Project/Site: 2555 13th Avenue

Job ID: 590-20829-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC/MS)	NWTPH	EET SPK
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET SPK
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	EET SPK
NWTPH-Dx	Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup	NWTPH	EET SPK
6020B	Metals (ICP/MS)	SW846	EET SEA
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SEA
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SPK
3630C	Silica Gel Cleanup	SW846	EET SPK
5030C	Purge and Trap	SW846	EET SPK

**Protocol References:**

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200







LAB (LOCATION)

- ACCUTEST ( )
- CALSCIENCE ( )
- TESTAMERICA ( )
- Other ( )

Lab Vendor #      Dropdown



Shell Oil Products US Chain Of Custody Record

**Please Check Appropriate Box:**

<input type="checkbox"/> SGW FDG	<input type="checkbox"/> PIPELINE	<input type="checkbox"/> RETAIL
<input type="checkbox"/> CHEMICALS	<input type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> TRANSPORTATION	<input type="checkbox"/> OTHER _____	

<b>Print Bill To Contact Name:</b>	<b>PlaNet Site or Project ID</b>	<input type="checkbox"/> CHECK IF NO INCIDENT # APPLIES
<b>PO #</b>	<b>GSAP Project ID</b>	DATE: 08/14/23
		PAGE: 3 of 3

SAMPLING COMPANY: **Blaine Tech Services, Inc**      LOG CODE: **BTSS**

ADDRESS: **1680 Rogers Ave, San Jose, CA, 95112**

PROJECT CONTACT (Hardcopy or PDF Report to): **Jacquelyn England**

TELEPHONE: **(707)523-1010**      FAX:      Bill To Contact E-MAIL: **jacquelyn\_england@ghd.com**

TURNAROUND TIME (CALENDAR DAYS):  
 STANDARD (14 DAY)     5 DAYS     3 DAYS     2 DAYS     24 HOURS     RESULTS NEEDED ON WEEKEND

LA RWQCB REPORT FORMAT     UST AGENCY

DELIVERABLES:     LEVEL 1     LEVEL 2     LEVEL 3     LEVEL 4     OTHER (SPECIFY) \_\_\_\_\_

TEMPERATURE ON RECEIPT C°    Cooler #1    Cooler #2    Cooler #3

**SPECIAL INSTRUCTIONS OR NOTES**

- SHELL CONTRACT RATE APPLIES
- STATE REIMBURSEMENT RATE APPLIES
- EDD NOT NEEDED
- RECEIPT VERIFICATION REQUESTED
- PROVIDE LEDD DISK

SITE ADDRESS: Street and City      State

**2555 13th Avenue**      WA

EDF DELIVERABLE TO (Name, Company, Office Location)      PHONE NO.      E-MAIL      AECOM Other ID

**Jacquelyn England, GHD, Santa Rosa**      **(707)523-1010**      **jacquelyn\_england@ghd.com**

SAMPLER NAME(S) (Print): **Jonah Davis**      LAB USE ONLY

REQUESTED ANALYSIS		UNIT COST	NON-UNIT COST	FIELD NOTES:
8260C DTEX				TEMPERATURE ON RECEIPT C°  Container PID Readings or Laboratory Notes
NWTPH-Dx				
8270D SIM PAIRs				
300.0 Sulfide				
NWTPH-Gx				
8020A Total Lead				
353.2 Nitrate & Nitrite				
8020A Diss. Iron & Manganese (as filter)				
300.0 Chloride				
2320B Alkalinity				

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT	REQUESTED ANALYSIS										FIELD NOTES:				
		DATE	TIME		HCL	HNO3	H2SO4	NONE	OTHER		8260C DTEX	NWTPH-Dx	8270D SIM PAIRs	300.0 Sulfide	NWTPH-Gx	8020A Total Lead	353.2 Nitrate & Nitrite	8020A Diss. Iron & Manganese (as filter)	300.0 Chloride	2320B Alkalinity					
	MW 315	08/14/23	1134	WT	X					6	X	X													
	MW 314		1205		X					6	X	X													
	MW-304		1239		X					4	X														
	MW-301		1305		X					4	X														
	MW 309		1324		X					4	X														
	MW-303		1354		X					4	X														
	TX 03A		1458		X					4	X														

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: 08/15/23	Time: 1600
Relinquished by: (Signature)	Received by: (Signature) <i>[Signature]</i>	Date: 08/16/23	Time: 1535
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 14Dec15

## Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 590-20829-1

**Login Number: 20829**

**List Number: 1**

**Creator: Morris, Mackenzie 1**

**List Source: Eurofins Spokane**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 590-20829-1

**Login Number: 20829**

**List Number: 2**

**Creator: Prigge, Madison**

**List Source: Eurofins Seattle**

**List Creation: 06/21/23 11:41 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	IR9 14.1/14.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Emily Blakeway  
GHD Services Inc.  
20818 44th Ave W  
Suite 190  
Lynnwood, Washington 98036

Generated 9/26/2023 9:41:28 AM

**JOB DESCRIPTION**

Shell - Washington  
SDG NUMBER 13th ave

**JOB NUMBER**

580-131444-1

# Eurofins Seattle

## Job Notes

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

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

## Authorization



Authorized for release by  
Katie Grant, Project Manager I  
[Katie.Grant@et.eurofinsus.com](mailto:Katie.Grant@et.eurofinsus.com)  
(253)922-2310

Generated  
9/26/2023 9:41:28 AM



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Definitions . . . . .	5
Client Sample Results . . . . .	6
QC Sample Results . . . . .	19
Chronicle . . . . .	26
Certification Summary . . . . .	29
Sample Summary . . . . .	30
Chain of Custody . . . . .	31
Receipt Checklists . . . . .	33

# Case Narrative

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Job ID: 580-131444-1**

**Laboratory: Eurofins Seattle**

## Narrative

**Job Narrative  
580-131444-1**

### Comments

No additional comments.

### Receipt

The samples were received on 9/12/2023 4:28 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

### GC/MS VOA

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

### GC Semi VOA

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

### Organic Prep

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

### VOA Prep

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

**Job Narrative  
580-131444-1**

### Receipt

The samples were received on 9/12/2023 4:28 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

### GC/MS VOA

Method 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-303 (580-131444-3). Elevated reporting limits (RLs) are provided.

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

### GC Semi VOA

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

### Organic Prep

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

### VOA Prep

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

# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

## Qualifiers

### GC/MS VOA

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

### GC Semi VOA

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: TB-1**

**Lab Sample ID: 580-131444-1**

**Date Collected: 09/11/23 09:00**

**Matrix: Water**

**Date Received: 09/12/23 16:28**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			09/14/23 04:49	1
Toluene	ND		1.00	0.390	ug/L			09/14/23 04:49	1
Ethylbenzene	ND		1.00	0.500	ug/L			09/14/23 04:49	1
Xylenes, Total	ND		2.00	0.530	ug/L			09/14/23 04:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	96		80 - 120		09/14/23 04:49	1
<i>4-Bromofluorobenzene (Surr)</i>	92		80 - 120		09/14/23 04:49	1
<i>Dibromofluoromethane (Surr)</i>	107		80 - 120		09/14/23 04:49	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	112		80 - 120		09/14/23 04:49	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		50.0	14.0	ug/L			09/14/23 04:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene (Surr)</i>	92		77 - 123		09/14/23 04:49	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-301**

**Lab Sample ID: 580-131444-2**

Date Collected: 09/11/23 12:27

Matrix: Water

Date Received: 09/12/23 16:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	70.4		1.00	0.240	ug/L			09/14/23 09:38	1
Toluene	5.26		1.00	0.390	ug/L			09/14/23 09:38	1
Ethylbenzene	0.846	J	1.00	0.500	ug/L			09/14/23 09:38	1
Xylenes, Total	3.00		2.00	0.530	ug/L			09/14/23 09:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		80 - 120		09/14/23 09:38	1
4-Bromofluorobenzene (Surr)	97		80 - 120		09/14/23 09:38	1
Dibromofluoromethane (Surr)	100		80 - 120		09/14/23 09:38	1
1,2-Dichloroethane-d4 (Surr)	110		80 - 120		09/14/23 09:38	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	590		50.0	14.0	ug/L			09/14/23 09:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		77 - 123		09/14/23 09:38	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-303**

**Lab Sample ID: 580-131444-3**

Date Collected: 09/11/23 12:02

Matrix: Water

Date Received: 09/12/23 16:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	11.9		1.00	0.390	ug/L			09/14/23 10:02	1
Ethylbenzene	67.4		1.00	0.500	ug/L			09/14/23 10:02	1
Xylenes, Total	17.9		2.00	0.530	ug/L			09/14/23 10:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		09/14/23 10:02	1
4-Bromofluorobenzene (Surr)	100		80 - 120		09/14/23 10:02	1
Dibromofluoromethane (Surr)	100		80 - 120		09/14/23 10:02	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		09/14/23 10:02	1

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	366		10.0	2.40	ug/L			09/17/23 23:11	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		09/17/23 23:11	10
4-Bromofluorobenzene (Surr)	99		80 - 120		09/17/23 23:11	10
Dibromofluoromethane (Surr)	101		80 - 120		09/17/23 23:11	10
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		09/17/23 23:11	10

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	2220		50.0	14.0	ug/L			09/14/23 10:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		77 - 123		09/14/23 10:02	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-304**

**Lab Sample ID: 580-131444-4**

Date Collected: 09/11/23 12:56

Matrix: Water

Date Received: 09/12/23 16:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	91.1		1.00	0.240	ug/L			09/14/23 10:26	1
Toluene	6.48		1.00	0.390	ug/L			09/14/23 10:26	1
Ethylbenzene	1.67		1.00	0.500	ug/L			09/14/23 10:26	1
Xylenes, Total	14.7		2.00	0.530	ug/L			09/14/23 10:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		09/14/23 10:26	1
4-Bromofluorobenzene (Surr)	101		80 - 120		09/14/23 10:26	1
Dibromofluoromethane (Surr)	104		80 - 120		09/14/23 10:26	1
1,2-Dichloroethane-d4 (Surr)	111		80 - 120		09/14/23 10:26	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	938		50.0	14.0	ug/L			09/14/23 10:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		77 - 123		09/14/23 10:26	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-307**  
Date Collected: 09/11/23 10:45  
Date Received: 09/12/23 16:28

**Lab Sample ID: 580-131444-5**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	54.5		1.00	0.240	ug/L			09/14/23 10:50	1
Toluene	21.6		1.00	0.390	ug/L			09/14/23 10:50	1
Ethylbenzene	85.6		1.00	0.500	ug/L			09/14/23 10:50	1
Xylenes, Total	92.8		2.00	0.530	ug/L			09/14/23 10:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		09/14/23 10:50	1
4-Bromofluorobenzene (Surr)	99		80 - 120		09/14/23 10:50	1
Dibromofluoromethane (Surr)	102		80 - 120		09/14/23 10:50	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		09/14/23 10:50	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	2870		50.0	14.0	ug/L			09/14/23 10:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		77 - 123		09/14/23 10:50	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-308**

**Lab Sample ID: 580-131444-6**

Date Collected: 09/11/23 11:16

Matrix: Water

Date Received: 09/12/23 16:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.979	J	1.00	0.240	ug/L			09/17/23 16:46	1
Toluene	0.845	J	1.00	0.390	ug/L			09/17/23 16:46	1
Ethylbenzene	ND		1.00	0.500	ug/L			09/17/23 16:46	1
Xylenes, Total	ND		2.00	0.530	ug/L			09/17/23 16:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		09/17/23 16:46	1
4-Bromofluorobenzene (Surr)	98		80 - 120		09/17/23 16:46	1
Dibromofluoromethane (Surr)	100		80 - 120		09/17/23 16:46	1
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		09/17/23 16:46	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	154		50.0	14.0	ug/L			09/17/23 16:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		77 - 123		09/17/23 16:46	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-310**

**Lab Sample ID: 580-131444-7**

Date Collected: 09/11/23 13:23

Matrix: Water

Date Received: 09/12/23 16:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	16.3		1.00	0.240	ug/L			09/14/23 22:24	1
Toluene	1.12		1.00	0.390	ug/L			09/14/23 22:24	1
Ethylbenzene	ND		1.00	0.500	ug/L			09/14/23 22:24	1
<b>Xylenes, Total</b>	<b>1.63</b>	<b>J</b>	2.00	0.530	ug/L			09/14/23 22:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		80 - 120		09/14/23 22:24	1
4-Bromofluorobenzene (Surr)	101		80 - 120		09/14/23 22:24	1
Dibromofluoromethane (Surr)	104		80 - 120		09/14/23 22:24	1
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		09/14/23 22:24	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	872		50.0	14.0	ug/L			09/20/23 20:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		77 - 123		09/20/23 20:15	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-302**

**Lab Sample ID: 580-131444-8**

Date Collected: 09/12/23 12:41

Matrix: Water

Date Received: 09/12/23 16:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	37.3		1.00	0.240	ug/L			09/14/23 22:48	1
Toluene	4.80		1.00	0.390	ug/L			09/14/23 22:48	1
Ethylbenzene	ND		1.00	0.500	ug/L			09/14/23 22:48	1
<b>Xylenes, Total</b>	<b>6.94</b>		2.00	0.530	ug/L			09/14/23 22:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		09/14/23 22:48	1
4-Bromofluorobenzene (Surr)	100		80 - 120		09/14/23 22:48	1
Dibromofluoromethane (Surr)	103		80 - 120		09/14/23 22:48	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		09/14/23 22:48	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1260		50.0	14.0	ug/L			09/20/23 20:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		77 - 123		09/20/23 20:37	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-311**

**Lab Sample ID: 580-131444-9**

Date Collected: 09/12/23 12:11

Matrix: Water

Date Received: 09/12/23 16:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.17		1.00	0.240	ug/L			09/17/23 19:10	1
Toluene	3.12		1.00	0.390	ug/L			09/17/23 19:10	1
Ethylbenzene	0.520	J	1.00	0.500	ug/L			09/17/23 19:10	1
Xylenes, Total	0.984	J	2.00	0.530	ug/L			09/17/23 19:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		09/17/23 19:10	1
4-Bromofluorobenzene (Surr)	105		80 - 120		09/17/23 19:10	1
Dibromofluoromethane (Surr)	105		80 - 120		09/17/23 19:10	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		09/17/23 19:10	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	2490		50.0	14.0	ug/L			09/20/23 20:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		77 - 123		09/20/23 20:58	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-312**  
Date Collected: 09/12/23 11:43  
Date Received: 09/12/23 16:28

**Lab Sample ID: 580-131444-10**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11.0		1.00	0.240	ug/L			09/14/23 20:48	1
Toluene	2.27		1.00	0.390	ug/L			09/14/23 20:48	1
Ethylbenzene	1.18		1.00	0.500	ug/L			09/14/23 20:48	1
Xylenes, Total	2.08		2.00	0.530	ug/L			09/14/23 20:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		09/14/23 20:48	1
4-Bromofluorobenzene (Surr)	95		80 - 120		09/14/23 20:48	1
Dibromofluoromethane (Surr)	102		80 - 120		09/14/23 20:48	1
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		09/14/23 20:48	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	2580		50.0	14.0	ug/L			09/20/23 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		77 - 123		09/20/23 21:19	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-313**

**Lab Sample ID: 580-131444-11**

Date Collected: 09/12/23 10:41

Matrix: Water

Date Received: 09/12/23 16:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			09/14/23 21:59	1
Toluene	ND		1.00	0.390	ug/L			09/14/23 21:59	1
Ethylbenzene	ND		1.00	0.500	ug/L			09/14/23 21:59	1
Xylenes, Total	ND		2.00	0.530	ug/L			09/14/23 21:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		80 - 120		09/14/23 21:59	1
4-Bromofluorobenzene (Surr)	96		80 - 120		09/14/23 21:59	1
Dibromofluoromethane (Surr)	101		80 - 120		09/14/23 21:59	1
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		09/14/23 21:59	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		50.0	14.0	ug/L			09/17/23 17:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		77 - 123		09/17/23 17:34	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	ND		113	66.7	ug/L		09/14/23 08:40	09/15/23 17:44	1
Motor Oil (>C24-C36)	ND		359	98.4	ug/L		09/14/23 08:40	09/15/23 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	91		50 - 150	09/14/23 08:40	09/15/23 17:44	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	157		113	66.7	ug/L		09/14/23 08:40	09/15/23 01:44	1
Motor Oil (>C24-C36)	140	J	359	98.4	ug/L		09/14/23 08:40	09/15/23 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94		50 - 150	09/14/23 08:40	09/15/23 01:44	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-315**

**Lab Sample ID: 580-131444-12**

Date Collected: 09/12/23 11:15

Matrix: Water

Date Received: 09/12/23 16:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.01		1.00	0.240	ug/L			09/14/23 21:11	1
Toluene	3.54		1.00	0.390	ug/L			09/14/23 21:11	1
Ethylbenzene	ND		1.00	0.500	ug/L			09/14/23 21:11	1
<b>Xylenes, Total</b>	<b>2.96</b>		2.00	0.530	ug/L			09/14/23 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		09/14/23 21:11	1
4-Bromofluorobenzene (Surr)	102		80 - 120		09/14/23 21:11	1
Dibromofluoromethane (Surr)	102		80 - 120		09/14/23 21:11	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		09/14/23 21:11	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	3020		50.0	14.0	ug/L			09/20/23 21:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		77 - 123		09/20/23 21:41	1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	1600		113	67.0	ug/L		09/14/23 08:40	09/15/23 18:04	1
Motor Oil (>C24-C36)	ND		361	99.0	ug/L		09/14/23 08:40	09/15/23 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150	09/14/23 08:40	09/15/23 18:04	1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	4170		113	67.0	ug/L		09/14/23 08:40	09/15/23 02:05	1
Motor Oil (>C24-C36)	290	J	361	99.0	ug/L		09/14/23 08:40	09/15/23 02:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	83		50 - 150	09/14/23 08:40	09/15/23 02:05	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: TX-03A**  
Date Collected: 09/12/23 14:57  
Date Received: 09/12/23 16:28

**Lab Sample ID: 580-131444-13**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	89.0		1.00	0.240	ug/L			09/14/23 21:35	1
Toluene	7.60		1.00	0.390	ug/L			09/14/23 21:35	1
Ethylbenzene	0.770	J	1.00	0.500	ug/L			09/14/23 21:35	1
Xylenes, Total	8.60		2.00	0.530	ug/L			09/14/23 21:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		09/14/23 21:35	1
4-Bromofluorobenzene (Surr)	100		80 - 120		09/14/23 21:35	1
Dibromofluoromethane (Surr)	99		80 - 120		09/14/23 21:35	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		09/14/23 21:35	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1980		50.0	14.0	ug/L			09/20/23 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		77 - 123		09/20/23 22:02	1

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 580-437419/11**  
**Matrix: Water**  
**Analysis Batch: 437419**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			09/14/23 04:01	1
Toluene	ND		1.00	0.390	ug/L			09/14/23 04:01	1
Ethylbenzene	ND		1.00	0.500	ug/L			09/14/23 04:01	1
Xylenes, Total	ND		2.00	0.530	ug/L			09/14/23 04:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	96		80 - 120		09/14/23 04:01	1
<i>4-Bromofluorobenzene (Surr)</i>	93		80 - 120		09/14/23 04:01	1
<i>Dibromofluoromethane (Surr)</i>	109		80 - 120		09/14/23 04:01	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	109		80 - 120		09/14/23 04:01	1

**Lab Sample ID: LCS 580-437419/6**  
**Matrix: Water**  
**Analysis Batch: 437419**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	10.0	9.711		ug/L		97	80 - 122
Toluene	10.0	9.967		ug/L		100	80 - 120
Ethylbenzene	10.0	9.677		ug/L		97	80 - 120
Xylenes, Total	20.0	20.19		ug/L		101	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>Toluene-d8 (Surr)</i>	100		80 - 120
<i>4-Bromofluorobenzene (Surr)</i>	98		80 - 120
<i>Dibromofluoromethane (Surr)</i>	107		80 - 120
<i>1,2-Dichloroethane-d4 (Surr)</i>	105		80 - 120

**Lab Sample ID: LCSD 580-437419/7**  
**Matrix: Water**  
**Analysis Batch: 437419**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	10.0	9.562		ug/L		96	80 - 122	2	14
Toluene	10.0	9.866		ug/L		99	80 - 120	1	13
Ethylbenzene	10.0	9.786		ug/L		98	80 - 120	1	14
Xylenes, Total	20.0	19.69		ug/L		98	80 - 120	2	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>Toluene-d8 (Surr)</i>	103		80 - 120
<i>4-Bromofluorobenzene (Surr)</i>	97		80 - 120
<i>Dibromofluoromethane (Surr)</i>	100		80 - 120
<i>1,2-Dichloroethane-d4 (Surr)</i>	101		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

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

**Lab Sample ID: MB 580-437552/11**  
**Matrix: Water**  
**Analysis Batch: 437552**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.00	0.240	ug/L			09/14/23 17:11	1
Toluene	ND		1.00	0.390	ug/L			09/14/23 17:11	1
Ethylbenzene	ND		1.00	0.500	ug/L			09/14/23 17:11	1
Xylenes, Total	ND		2.00	0.530	ug/L			09/14/23 17:11	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	98		80 - 120		09/14/23 17:11	1
4-Bromofluorobenzene (Surr)	97		80 - 120		09/14/23 17:11	1
Dibromofluoromethane (Surr)	106		80 - 120		09/14/23 17:11	1
1,2-Dichloroethane-d4 (Surr)	111		80 - 120		09/14/23 17:11	1

**Lab Sample ID: LCS 580-437552/6**  
**Matrix: Water**  
**Analysis Batch: 437552**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	10.0	9.940		ug/L		99	80 - 120
Ethylbenzene	10.0	9.698		ug/L		97	80 - 120
Xylenes, Total	20.0	21.27		ug/L		106	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	104		80 - 120
1,2-Dichloroethane-d4 (Surr)	108		80 - 120

**Lab Sample ID: LCSD 580-437552/7**  
**Matrix: Water**  
**Analysis Batch: 437552**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	10.0	9.283		ug/L		93	80 - 120	7	13
Ethylbenzene	10.0	9.642		ug/L		96	80 - 120	1	14
Xylenes, Total	20.0	20.11		ug/L		101	80 - 120	6	16

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	104		80 - 120
1,2-Dichloroethane-d4 (Surr)	106		80 - 120



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

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

**Lab Sample ID: MB 580-437726/11**  
**Matrix: Water**  
**Analysis Batch: 437726**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			09/17/23 14:58	1
Toluene	ND		1.00	0.390	ug/L			09/17/23 14:58	1
Ethylbenzene	ND		1.00	0.500	ug/L			09/17/23 14:58	1
Xylenes, Total	ND		2.00	0.530	ug/L			09/17/23 14:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		09/17/23 14:58	1
4-Bromofluorobenzene (Surr)	95		80 - 120		09/17/23 14:58	1
Dibromofluoromethane (Surr)	109		80 - 120		09/17/23 14:58	1
1,2-Dichloroethane-d4 (Surr)	110		80 - 120		09/17/23 14:58	1

**Lab Sample ID: LCS 580-437726/6**  
**Matrix: Water**  
**Analysis Batch: 437726**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	10.0	9.990		ug/L		100	80 - 122
Toluene	10.0	10.23		ug/L		102	80 - 120
Ethylbenzene	10.0	9.926		ug/L		99	80 - 120
Xylenes, Total	20.0	20.37		ug/L		102	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	100		80 - 120
1,2-Dichloroethane-d4 (Surr)	104		80 - 120

**Lab Sample ID: LCSD 580-437726/7**  
**Matrix: Water**  
**Analysis Batch: 437726**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	10.0	9.733		ug/L		97	80 - 122	3	14
Toluene	10.0	9.640		ug/L		96	80 - 120	6	13
Ethylbenzene	10.0	10.10		ug/L		101	80 - 120	2	14
Xylenes, Total	20.0	20.43		ug/L		102	80 - 120	0	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	104		80 - 120
1,2-Dichloroethane-d4 (Surr)	102		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

**Lab Sample ID: MB 580-437420/11**  
**Matrix: Water**  
**Analysis Batch: 437420**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		50.0	14.0	ug/L			09/14/23 04:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		77 - 123					09/14/23 04:01	1

**Lab Sample ID: LCS 580-437420/8**  
**Matrix: Water**  
**Analysis Batch: 437420**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Gasoline	1000	954.9		ug/L		95	55 - 148		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	100		77 - 123						

**Lab Sample ID: LCSD 580-437420/9**  
**Matrix: Water**  
**Analysis Batch: 437420**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
TPH as Gasoline	1000	964.8		ug/L		96	55 - 148	1	10
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	98		77 - 123						

**Lab Sample ID: MB 580-437727/11**  
**Matrix: Water**  
**Analysis Batch: 437727**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		50.0	14.0	ug/L			09/17/23 14:58	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		77 - 123					09/17/23 14:58	1

**Lab Sample ID: LCS 580-437727/8**  
**Matrix: Water**  
**Analysis Batch: 437727**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Gasoline	1000	956.5		ug/L		96	55 - 148		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	105		77 - 123						

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

**Lab Sample ID: LCSD 580-437727/9**  
**Matrix: Water**  
**Analysis Batch: 437727**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Gasoline	1000	965.4		ug/L		97	55 - 148	1	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	104		77 - 123						

**Lab Sample ID: MB 580-438136/8**  
**Matrix: Water**  
**Analysis Batch: 438136**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		50.0	14.0	ug/L			09/20/23 18:50	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	101		77 - 123					09/20/23 18:50	1

**Lab Sample ID: LCS 580-438136/4**  
**Matrix: Water**  
**Analysis Batch: 438136**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TPH as Gasoline	1000	994.0		ug/L		99	55 - 148
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
4-Bromofluorobenzene (Surr)	101		77 - 123				

**Lab Sample ID: LCSD 580-438136/5**  
**Matrix: Water**  
**Analysis Batch: 438136**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Gasoline	1000	1026		ug/L		103	55 - 148	3	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	101		77 - 123						

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup

**Lab Sample ID: MB 580-437469/1-B**  
**Matrix: Water**  
**Analysis Batch: 437654**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 437469**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	ND		110	65.0	ug/L		09/14/23 08:40	09/15/23 16:44	1
Motor Oil (>C24-C36)	ND		350	96.0	ug/L		09/14/23 08:40	09/15/23 16:44	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-Terphenyl	87		50 - 150				09/14/23 08:40	09/15/23 16:44	1

Eurofins Seattle

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH with Silica Gel Cleanup (Continued)

**Lab Sample ID: LCS 580-437469/2-B**  
**Matrix: Water**  
**Analysis Batch: 437654**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 437469**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (C10-C24)	4000	3550		ug/L		89	50 - 120
Motor Oil (>C24-C36)	4000	3530		ug/L		88	64 - 120
<b>LCS LCS</b>							
Surrogate	%Recovery	Qualifier	Limits				
<i>o</i> -Terphenyl	78		50 - 150				

**Lab Sample ID: LCSD 580-437469/3-B**  
**Matrix: Water**  
**Analysis Batch: 437654**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 437469**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Diesel Range Organics (C10-C24)	4000	3399		ug/L		85	50 - 120	4	26
Motor Oil (>C24-C36)	4000	3370		ug/L		84	64 - 120	5	24
<b>LCSD LCSD</b>									
Surrogate	%Recovery	Qualifier	Limits						
<i>o</i> -Terphenyl	78		50 - 150						

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

**Lab Sample ID: MB 580-437469/1-A**  
**Matrix: Water**  
**Analysis Batch: 437491**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 437469**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	ND		110	65.0	ug/L		09/14/23 08:40	09/15/23 00:44	1
Motor Oil (>C24-C36)	ND		350	96.0	ug/L		09/14/23 08:40	09/15/23 00:44	1
<b>MB MB</b>									
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
<i>o</i> -Terphenyl	86		50 - 150	09/14/23 08:40	09/15/23 00:44	1			

**Lab Sample ID: LCS 580-437469/2-A**  
**Matrix: Water**  
**Analysis Batch: 437491**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 437469**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (C10-C24)	4000	3512		ug/L		88	50 - 120
Motor Oil (>C24-C36)	4000	3514		ug/L		88	64 - 120
<b>LCS LCS</b>							
Surrogate	%Recovery	Qualifier	Limits				
<i>o</i> -Terphenyl	77		50 - 150				

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx (Continued)

**Lab Sample ID: LCSD 580-437469/3-A**  
**Matrix: Water**  
**Analysis Batch: 437491**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 437469**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD
							Limits	RPD	
Diesel Range Organics (C10-C24)	4000	3375		ug/L		84	50 - 120	4	26
Motor Oil (>C24-C36)	4000	3394		ug/L		85	64 - 120	3	24
<b>Surrogate</b>		<b>LCSD</b>	<b>LCSD</b>				<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>
<i>o</i> -Terphenyl							78		50 - 150

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

## Client Sample ID: TB-1

Date Collected: 09/11/23 09:00

Date Received: 09/12/23 16:28

## Lab Sample ID: 580-131444-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437419	JBT	EET SEA	09/14/23 04:49
Total/NA	Analysis	NWTPH-Gx		1	437420	JBT	EET SEA	09/14/23 04:49

## Client Sample ID: MW-301

Date Collected: 09/11/23 12:27

Date Received: 09/12/23 16:28

## Lab Sample ID: 580-131444-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437419	JBT	EET SEA	09/14/23 09:38
Total/NA	Analysis	NWTPH-Gx		1	437420	JBT	EET SEA	09/14/23 09:38

## Client Sample ID: MW-303

Date Collected: 09/11/23 12:02

Date Received: 09/12/23 16:28

## Lab Sample ID: 580-131444-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437419	JBT	EET SEA	09/14/23 10:02
Total/NA	Analysis	8260D	DL	10	437726	JBT	EET SEA	09/17/23 23:11
Total/NA	Analysis	NWTPH-Gx		1	437420	JBT	EET SEA	09/14/23 10:02

## Client Sample ID: MW-304

Date Collected: 09/11/23 12:56

Date Received: 09/12/23 16:28

## Lab Sample ID: 580-131444-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437419	JBT	EET SEA	09/14/23 10:26
Total/NA	Analysis	NWTPH-Gx		1	437420	JBT	EET SEA	09/14/23 10:26

## Client Sample ID: MW-307

Date Collected: 09/11/23 10:45

Date Received: 09/12/23 16:28

## Lab Sample ID: 580-131444-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437419	JBT	EET SEA	09/14/23 10:50
Total/NA	Analysis	NWTPH-Gx		1	437420	JBT	EET SEA	09/14/23 10:50

## Client Sample ID: MW-308

Date Collected: 09/11/23 11:16

Date Received: 09/12/23 16:28

## Lab Sample ID: 580-131444-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437726	JBT	EET SEA	09/17/23 16:46
Total/NA	Analysis	NWTPH-Gx		1	437727	JBT	EET SEA	09/17/23 16:46

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-310**  
**Date Collected: 09/11/23 13:23**  
**Date Received: 09/12/23 16:28**

**Lab Sample ID: 580-131444-7**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437552	JBT	EET SEA	09/14/23 22:24
Total/NA	Analysis	NWTPH-Gx		1	438136	JBT	EET SEA	09/20/23 20:15

**Client Sample ID: MW-302**  
**Date Collected: 09/12/23 12:41**  
**Date Received: 09/12/23 16:28**

**Lab Sample ID: 580-131444-8**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437552	JBT	EET SEA	09/14/23 22:48
Total/NA	Analysis	NWTPH-Gx		1	438136	JBT	EET SEA	09/20/23 20:37

**Client Sample ID: MW-311**  
**Date Collected: 09/12/23 12:11**  
**Date Received: 09/12/23 16:28**

**Lab Sample ID: 580-131444-9**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437726	JBT	EET SEA	09/17/23 19:10
Total/NA	Analysis	NWTPH-Gx		1	438136	JBT	EET SEA	09/20/23 20:58

**Client Sample ID: MW-312**  
**Date Collected: 09/12/23 11:43**  
**Date Received: 09/12/23 16:28**

**Lab Sample ID: 580-131444-10**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437552	JBT	EET SEA	09/14/23 20:48
Total/NA	Analysis	NWTPH-Gx		1	438136	JBT	EET SEA	09/20/23 21:19

**Client Sample ID: MW-313**  
**Date Collected: 09/12/23 10:41**  
**Date Received: 09/12/23 16:28**

**Lab Sample ID: 580-131444-11**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437552	JBT	EET SEA	09/14/23 21:59
Total/NA	Analysis	NWTPH-Gx		1	437727	JBT	EET SEA	09/17/23 17:34
Total/NA	Prep	3510C			437469	SL	EET SEA	09/14/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	437491	KLW	EET SEA	09/15/23 01:44
Total/NA	Prep	3510C			437469	SL	EET SEA	09/14/23 08:40
Total/NA	Cleanup	3630C			437637	KLW	EET SEA	09/15/23 11:09
Total/NA	Analysis	NWTPH-Dx		1	437654	KLW	EET SEA	09/15/23 17:44

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

**Client Sample ID: MW-315**  
**Date Collected: 09/12/23 11:15**  
**Date Received: 09/12/23 16:28**

**Lab Sample ID: 580-131444-12**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437552	JBT	EET SEA	09/14/23 21:11
Total/NA	Analysis	NWTPH-Gx		1	438136	JBT	EET SEA	09/20/23 21:41
Total/NA	Prep	3510C			437469	SL	EET SEA	09/14/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	437491	KLW	EET SEA	09/15/23 02:05
Total/NA	Prep	3510C			437469	SL	EET SEA	09/14/23 08:40
Total/NA	Cleanup	3630C			437637	KLW	EET SEA	09/15/23 11:09
Total/NA	Analysis	NWTPH-Dx		1	437654	KLW	EET SEA	09/15/23 18:04

**Client Sample ID: TX-03A**  
**Date Collected: 09/12/23 14:57**  
**Date Received: 09/12/23 16:28**

**Lab Sample ID: 580-131444-13**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	437552	JBT	EET SEA	09/14/23 21:35
Total/NA	Analysis	NWTPH-Gx		1	438136	JBT	EET SEA	09/20/23 22:02

**Laboratory References:**

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

# Accreditation/Certification Summary

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

## Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4167	07-07-24
Washington	State	C788	07-13-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260D		Water	Benzene
8260D		Water	Ethylbenzene
8260D		Water	Toluene
8260D		Water	Xylenes, Total
NWTPH-Dx	3510C	Water	Diesel Range Organics (C10-C24)
NWTPH-Gx		Water	TPH as Gasoline

# Sample Summary

Client: GHD Services Inc.  
Project/Site: Shell - Washington

Job ID: 580-131444-1  
SDG: 13th ave

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-131444-1	TB-1	Water	09/11/23 09:00	09/12/23 16:28
580-131444-2	MW-301	Water	09/11/23 12:27	09/12/23 16:28
580-131444-3	MW-303	Water	09/11/23 12:02	09/12/23 16:28
580-131444-4	MW-304	Water	09/11/23 12:56	09/12/23 16:28
580-131444-5	MW-307	Water	09/11/23 10:45	09/12/23 16:28
580-131444-6	MW-308	Water	09/11/23 11:16	09/12/23 16:28
580-131444-7	MW-310	Water	09/11/23 13:23	09/12/23 16:28
580-131444-8	MW-302	Water	09/12/23 12:41	09/12/23 16:28
580-131444-9	MW-311	Water	09/12/23 12:11	09/12/23 16:28
580-131444-10	MW-312	Water	09/12/23 11:43	09/12/23 16:28
580-131444-11	MW-313	Water	09/12/23 10:41	09/12/23 16:28
580-131444-12	MW-315	Water	09/12/23 11:15	09/12/23 16:28
580-131444-13	TX-03A	Water	09/12/23 14:57	09/12/23 16:28







# Shell Oil Products US Chain Of Custody Record

### LAB (LOCATION)

- ACCUTEST (\_\_\_\_\_)
- CALSCIENCE (\_\_\_\_\_)
- TESTAMERICA (\_\_\_\_\_)
- Other (\_\_\_\_\_)

Lab Vendor # \_\_\_\_\_ Dropdown \_\_\_\_\_

**Please Check Appropriate Box:**

<input type="checkbox"/> SGW FDG	<input type="checkbox"/> PIPELINE	<input type="checkbox"/> RETAIL
<input type="checkbox"/> CHEMICALS	<input type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> TRANSPORTATION	<input type="checkbox"/> OTHER _____	

**Print Bill To Contact Name:** \_\_\_\_\_

**PO #** \_\_\_\_\_

**PlaNet Site or Project ID** \_\_\_\_\_

**GSAP Project ID** \_\_\_\_\_

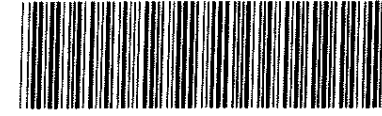
CHECK IF NO INCIDENT # APPLIES

DATE: **09/12/23**

PAGE: **1** of **2**

SAMPLING COMPANY: <b>Blaine Tech Services, Inc</b>		LOG CODE: <b>BTSS</b>	SITE ADDRESS: Street and City <b>2555 13th Avenue</b>	State <b>WA</b>	GHD Project / Task Number: <b>11218519</b>
ADDRESS: <b>1680 Rogers Ave, San Jose, CA, 95112</b>		EDF DELIVERABLE TO (Name, Company, Office Location): <b>Emily Blakeway, GHD, WA</b>	PHONE NO: <b>(425) 327-4585</b>	E-MAIL: <b>emily.blakeway@ghd.com</b>	GHD Other ID
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Emily Blakeway</b>		SAMPLER NAME(S) (Print): <b>Jonah Davis</b>			LAB USE ONLY
TELEPHONE: <b>(425) 327-4585</b>	FAX:	Bill To Contact E-MAIL: <b>emily.blakeway@ghd.com</b>			
TURNAROUND TIME (CALENDAR DAYS): <input checked="" type="checkbox"/> STANDARD (14 DAY) <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 3 DAYS <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> RESULTS NEEDED ON WEEKEND		REQUESTED ANALYSIS			FIELD NOTES:
<input type="checkbox"/> LA - RWQCB REPORT FORMAT <input type="checkbox"/> UST AGENCY:		UNIT COST			TEMPERATURE ON RECEIPT C°
DELIVERABLES: <input type="checkbox"/> LEVEL 1 <input type="checkbox"/> LEVEL 2 <input type="checkbox"/> LEVEL 3 <input type="checkbox"/> LEVEL 4 <input type="checkbox"/> OTHER (SPECIFY) _____		NON-UNIT COST			
TEMPERATURE ON RECEIPT C° Cooler #1 _____ Cooler #2 _____ Cooler #3 _____		SPECIAL INSTRUCTIONS OR NOTES: <input type="checkbox"/> SHELL CONTRACT RATE APPLIES <input type="checkbox"/> STATE REIMBURSEMENT RATE APPLIES <input type="checkbox"/> EDD NOT NEEDED <input type="checkbox"/> RECEIPT VERIFICATION REQUESTED <input type="checkbox"/> PROVIDE LEDD DISK			Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification		SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	REQUESTED ANALYSIS							FIELD NOTES				
			DATE	TIME		HCL	HNO3	H2SO4	NONE	OTHER		8280C BTEX	8467PH-CX	8270D SIM PATHS	3000 Sulfate	8467PH-GX	6020A Total Lead	353.2 Nitrate & Nitrite		6020A Diss. Iron & Manganese (lab filter)	300.0 Chloride	2320B Alkalinity	
	TB-1		09/11/23	0900	GW	X					2	X											
	MW-301			1227		X					6	X											
	MW-303			1202		X					6	X											
	MW-304			1256		X					6	X											
	MW-307			1045		X					6	X											
	MW-308			1116		X					6	X											
	MW-310			1323		X					6	X											
	MW-302		09/10/23	1241		X					6	X											
	MW-311			1211		X					6	X											
	MW-312			1143		X					6	X											



580-131444 Chain of Custody

Relinquished by (Signature):	Received by (Signature): _____	Date:	09/12/23	Time:	1628
Relinquished by (Signature):	Received by (Signature): _____	Date:	9/12/23	Time:	1628
Relinquished by (Signature): _____	Received by (Signature): _____	Date:		Time:	

lg blue/wet/none client dropoff  
IB11 2.2/2.4  
9/26/2023





# Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 580-131444-1

SDG Number: 13th ave

**Login Number: 131444**

**List Number: 1**

**Creator: Prigge, Madison**

**List Source: Eurofins Seattle**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# ANALYTICAL REPORT

## PREPARED FOR

Attn: Emily Blakeway  
GHD Services Inc.  
9725 3rd Avenue NE, Suite 204  
Seattle, Washington 98115

Generated 1/26/2024 11:05:23 AM Revision 1

## JOB DESCRIPTION

Shell - Triton West Consent Decree

## JOB NUMBER

580-135195-1

# Eurofins Seattle

## Job Notes

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

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

## Authorization



Authorized for release by  
Katie Grant, Project Manager I  
[Katie.Grant@et.eurofinsus.com](mailto:Katie.Grant@et.eurofinsus.com)  
(253)922-2310

Generated  
1/26/2024 11:05:23 AM  
Revision 1





# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Definitions . . . . .	5
Client Sample Results . . . . .	6
QC Sample Results . . . . .	42
Chronicle . . . . .	55
Certification Summary . . . . .	64
Sample Summary . . . . .	65
Chain of Custody . . . . .	66
Receipt Checklists . . . . .	71

# Case Narrative

Client: GHD Services Inc.  
Project: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Job ID: 580-135195-1**

**Eurofins Seattle**

## Job Narrative 580-135195-1

### REVISION

NWTPH\_DX QC from analytical batch 580-447213 was added to report.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

### Receipt

The samples were received on 12/21/2023 11:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.0°C, 0.4°C, 0.8°C and 1.1°C

### Receipt Exceptions

Client did not provide a bottle for Anions. One unpreserved plastic bottle was received but was consumed for dissolved metals. MW-202 (580-135195-5)

### GC/MS VOA

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

### GC/MS Semi VOA

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

### GC Semi VOA

Method NWTPH\_Dx: The following sample formed emulsions during the extraction procedure: MW-307 (580-135195-17). The emulsions were broken up using additional methylene chloride rinses and sodium sulfate filtration. Fuels.

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

### Metals

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

### General Chemistry

Method 300.0\_28D: A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Two Initial Calibration Verification (ICV) standards were prepared and analyzed using an aliquot different than outlined in the SOP in order to meet the correct concentrations of each anion. This is due to the availability of the custom mix of analytes in the second source standard.

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

Eurofins Seattle

# Definitions/Glossary

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Qualifiers

### GC/MS VOA

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

### GC/MS Semi VOA

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

### GC Semi VOA

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

## Metals

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

## General Chemistry

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

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: TB-1**

**Lab Sample ID: 580-135195-1**

**Date Collected: 12/18/23 09:00**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 15:55	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 15:55	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 15:55	1
<b>Xylenes, Total</b>	<b>0.536</b>	<b>J</b>	2.00	0.530	ug/L			12/21/23 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		12/21/23 15:55	1
4-Bromofluorobenzene (Surr)	96		80 - 120		12/21/23 15:55	1
Dibromofluoromethane (Surr)	96		80 - 120		12/21/23 15:55	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		12/21/23 15:55	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		77 - 123		12/21/23 15:55	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-05**

**Lab Sample ID: 580-135195-2**

**Date Collected: 12/18/23 13:00**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 16:16	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 16:16	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 16:16	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 16:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		12/21/23 16:16	1
4-Bromofluorobenzene (Surr)	97		80 - 120		12/21/23 16:16	1
Dibromofluoromethane (Surr)	98		80 - 120		12/21/23 16:16	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		12/21/23 16:16	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 16:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		77 - 123		12/21/23 16:16	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>238</b>		116	68.6	ug/L		12/27/23 08:40	12/28/23 21:06	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>680</b>		369	101	ug/L		12/27/23 08:40	12/28/23 21:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	84		50 - 150	12/27/23 08:40	12/28/23 21:06	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-105**

**Lab Sample ID: 580-135195-3**

**Date Collected: 12/18/23 12:29**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 16:37	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 16:37	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 16:37	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		12/21/23 16:37	1
4-Bromofluorobenzene (Surr)	98		80 - 120		12/21/23 16:37	1
Dibromofluoromethane (Surr)	99		80 - 120		12/21/23 16:37	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		12/21/23 16:37	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		77 - 123		12/21/23 16:37	1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>1470</b>		110	65.2	ug/L		12/27/23 08:40	12/28/23 21:25	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>1290</b>		351	96.3	ug/L		12/27/23 08:40	12/28/23 21:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	81		50 - 150	12/27/23 08:40	12/28/23 21:25	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>33.6</b>		2.00	0.200	ug/L		12/22/23 16:44	12/27/23 14:26	5

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-201**

**Lab Sample ID: 580-135195-4**

**Date Collected: 12/18/23 13:30**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 16:58	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 16:58	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 16:58	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		12/21/23 16:58	1
4-Bromofluorobenzene (Surr)	97		80 - 120		12/21/23 16:58	1
Dibromofluoromethane (Surr)	96		80 - 120		12/21/23 16:58	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		12/21/23 16:58	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		77 - 123		12/21/23 16:58	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>255</b>		111	65.7	ug/L		12/27/23 08:40	12/28/23 21:46	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>551</b>		354	97.0	ug/L		12/27/23 08:40	12/28/23 21:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150	12/27/23 08:40	12/28/23 21:46	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-202**

**Lab Sample ID: 580-135195-5**

Date Collected: 12/18/23 12:05

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.76		1.00	0.240	ug/L			12/21/23 21:55	1
Toluene	0.818	J	1.00	0.390	ug/L			12/21/23 21:55	1
Ethylbenzene	0.989	J	1.00	0.500	ug/L			12/21/23 21:55	1
Xylenes, Total	0.672	J	2.00	0.530	ug/L			12/21/23 21:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		80 - 120		12/21/23 21:55	1
4-Bromofluorobenzene (Surr)	92		80 - 120		12/21/23 21:55	1
Dibromofluoromethane (Surr)	97		80 - 120		12/21/23 21:55	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		12/21/23 21:55	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1050		100	14.0	ug/L			12/21/23 21:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		77 - 123		12/21/23 21:55	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	14500		111	65.5	ug/L		12/27/23 08:40	12/28/23 22:05	1
Motor Oil (>C24-C36)	990		353	96.8	ug/L		12/27/23 08:40	12/28/23 22:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	65		50 - 150	12/27/23 08:40	12/28/23 22:05	1

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	14500		500	66.7	ug/L		12/28/23 16:16	12/29/23 18:07	5
Manganese	1210		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 18:07	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N (EPA 353.2)	111	J	150	60.0	ug/L			01/03/24 21:47	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-204**

**Lab Sample ID: 580-135195-6**

**Date Collected: 12/18/23 11:05**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 17:41	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 17:41	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 17:41	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120		12/21/23 17:41	1
4-Bromofluorobenzene (Surr)	98		80 - 120		12/21/23 17:41	1
Dibromofluoromethane (Surr)	96		80 - 120		12/21/23 17:41	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		12/21/23 17:41	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		77 - 123		12/21/23 17:41	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>364</b>		111	65.9	ug/L		12/27/23 08:40	12/28/23 22:25	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>601</b>		355	97.3	ug/L		12/27/23 08:40	12/28/23 22:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	78		50 - 150	12/27/23 08:40	12/28/23 22:25	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-206A**

**Lab Sample ID: 580-135195-7**

**Date Collected: 12/18/23 11:50**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 18:02	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 18:02	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 18:02	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		12/21/23 18:02	1
4-Bromofluorobenzene (Surr)	98		80 - 120		12/21/23 18:02	1
Dibromofluoromethane (Surr)	98		80 - 120		12/21/23 18:02	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		12/21/23 18:02	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		77 - 123		12/21/23 18:02	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>246</b>		110	64.8	ug/L		12/27/23 08:40	12/28/23 22:45	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>783</b>		349	95.7	ug/L		12/27/23 08:40	12/28/23 22:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150	12/27/23 08:40	12/28/23 22:45	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-213**

**Lab Sample ID: 580-135195-8**

**Date Collected: 12/18/23 10:50**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 22:16	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 22:16	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 22:16	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120		12/21/23 22:16	1
4-Bromofluorobenzene (Surr)	92		80 - 120		12/21/23 22:16	1
Dibromofluoromethane (Surr)	98		80 - 120		12/21/23 22:16	1
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		12/21/23 22:16	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		77 - 123		12/21/23 22:16	1

## Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.0530	0.0148	ug/L		12/22/23 11:37	12/22/23 20:29	1
Benzo[a]pyrene	ND		0.106	0.0233	ug/L		12/22/23 11:37	12/22/23 20:29	1
Benzo[b]fluoranthene	ND		0.106	0.0233	ug/L		12/22/23 11:37	12/22/23 20:29	1
Benzo[k]fluoranthene	ND		0.0530	0.0127	ug/L		12/22/23 11:37	12/22/23 20:29	1
Chrysene	ND		0.106	0.0392	ug/L		12/22/23 11:37	12/22/23 20:29	1
Dibenz(a,h)anthracene	ND		0.106	0.0159	ug/L		12/22/23 11:37	12/22/23 20:29	1
Indeno[1,2,3-cd]pyrene	ND		0.0530	0.0148	ug/L		12/22/23 11:37	12/22/23 20:29	1
1-Methylnaphthalene	ND		0.106	0.0350	ug/L		12/22/23 11:37	12/22/23 20:29	1
2-Methylnaphthalene	ND		0.212	0.0413	ug/L		12/22/23 11:37	12/22/23 20:29	1
Naphthalene	ND		0.530	0.173	ug/L		12/22/23 11:37	12/22/23 20:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	88		29 - 150	12/22/23 11:37	12/22/23 20:29	1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>271</b>		111	65.6	ug/L		12/27/23 08:40	12/28/23 23:05	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>396</b>		353	96.9	ug/L		12/27/23 08:40	12/28/23 23:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	80		50 - 150	12/27/23 08:40	12/28/23 23:05	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-214**

**Lab Sample ID: 580-135195-9**

**Date Collected: 12/18/23 11:18**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 22:37	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 22:37	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 22:37	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 22:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120		12/21/23 22:37	1
4-Bromofluorobenzene (Surr)	94		80 - 120		12/21/23 22:37	1
Dibromofluoromethane (Surr)	100		80 - 120		12/21/23 22:37	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		12/21/23 22:37	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 22:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		77 - 123		12/21/23 22:37	1

## Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.0275	J	0.0492	0.0138	ug/L		12/22/23 11:37	12/22/23 20:54	1
Benzo[a]pyrene	0.0243	J	0.0984	0.0216	ug/L		12/22/23 11:37	12/22/23 20:54	1
Benzo[b]fluoranthene	0.0275	J	0.0984	0.0216	ug/L		12/22/23 11:37	12/22/23 20:54	1
Benzo[k]fluoranthene	0.0243	J	0.0492	0.0118	ug/L		12/22/23 11:37	12/22/23 20:54	1
Chrysene	ND		0.0984	0.0364	ug/L		12/22/23 11:37	12/22/23 20:54	1
Dibenz(a,h)anthracene	ND		0.0984	0.0148	ug/L		12/22/23 11:37	12/22/23 20:54	1
Indeno[1,2,3-cd]pyrene	0.0228	J	0.0492	0.0138	ug/L		12/22/23 11:37	12/22/23 20:54	1
1-Methylnaphthalene	ND		0.0984	0.0325	ug/L		12/22/23 11:37	12/22/23 20:54	1
2-Methylnaphthalene	ND		0.197	0.0384	ug/L		12/22/23 11:37	12/22/23 20:54	1
Naphthalene	ND		0.492	0.160	ug/L		12/22/23 11:37	12/22/23 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	90		29 - 150	12/22/23 11:37	12/22/23 20:54	1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	293		110	65.0	ug/L		12/27/23 08:40	12/28/23 23:25	1
Motor Oil (>C24-C36)	398		350	96.0	ug/L		12/27/23 08:40	12/28/23 23:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	70		50 - 150	12/27/23 08:40	12/28/23 23:25	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-102**

**Lab Sample ID: 580-135195-10**

Date Collected: 12/18/23 14:15

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 18:23	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 18:23	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 18:23	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		12/21/23 18:23	1
4-Bromofluorobenzene (Surr)	98		80 - 120		12/21/23 18:23	1
Dibromofluoromethane (Surr)	97		80 - 120		12/21/23 18:23	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		12/21/23 18:23	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		77 - 123		12/21/23 18:23	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>86.9</b>	<b>J</b>	110	64.8	ug/L		12/27/23 08:40	12/28/23 23:45	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>133</b>	<b>J</b>	349	95.7	ug/L		12/27/23 08:40	12/28/23 23:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	76		50 - 150	12/27/23 08:40	12/28/23 23:45	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-104**  
 Date Collected: 12/19/23 08:05  
 Date Received: 12/21/23 11:35

**Lab Sample ID: 580-135195-11**  
 Matrix: Water

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	466		100	14.0	ug/L			12/21/23 18:44	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene (Surr)	95		77 - 123					12/21/23 18:44	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	1680		110	65.3	ug/L		12/27/23 08:40	12/29/23 00:25	1
Motor Oil (>C24-C36)	1140		352	96.4	ug/L		12/27/23 08:40	12/29/23 00:25	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
o-Terphenyl	80		50 - 150				12/27/23 08:40	12/29/23 00:25	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.18	J	2.00	0.200	ug/L		12/22/23 16:44	12/27/23 14:29	5

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-111**

**Lab Sample ID: 580-135195-12**

Date Collected: 12/19/23 08:35

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	42.4		1.00	0.240	ug/L			12/21/23 19:05	1
Toluene	1.91		1.00	0.390	ug/L			12/21/23 19:05	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 19:05	1
<b>Xylenes, Total</b>	<b>1.87</b>	<b>J</b>	2.00	0.530	ug/L			12/21/23 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120		12/21/23 19:05	1
4-Bromofluorobenzene (Surr)	99		80 - 120		12/21/23 19:05	1
Dibromofluoromethane (Surr)	98		80 - 120		12/21/23 19:05	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		12/21/23 19:05	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	129		100	14.0	ug/L			12/21/23 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		77 - 123		12/21/23 19:05	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	616		120	70.6	ug/L		12/27/23 08:40	12/29/23 00:44	1
Motor Oil (>C24-C36)	445		380	104	ug/L		12/27/23 08:40	12/29/23 00:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	81		50 - 150	12/27/23 08:40	12/29/23 00:44	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-112A**

**Lab Sample ID: 580-135195-13**

Date Collected: 12/19/23 09:32

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.44		1.00	0.240	ug/L			12/21/23 19:26	1
Toluene	2.45		1.00	0.390	ug/L			12/21/23 19:26	1
Ethylbenzene	1.29		1.00	0.500	ug/L			12/21/23 19:26	1
Xylenes, Total	4.23		2.00	0.530	ug/L			12/21/23 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120		12/21/23 19:26	1
4-Bromofluorobenzene (Surr)	93		80 - 120		12/21/23 19:26	1
Dibromofluoromethane (Surr)	96		80 - 120		12/21/23 19:26	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		12/21/23 19:26	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1090		100	14.0	ug/L			12/21/23 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		77 - 123		12/21/23 19:26	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	3220		116	68.8	ug/L		12/27/23 08:40	12/29/23 01:04	1
Motor Oil (>C24-C36)	883		370	102	ug/L		12/27/23 08:40	12/29/23 01:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	76		50 - 150	12/27/23 08:40	12/29/23 01:04	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-113**

**Lab Sample ID: 580-135195-14**

Date Collected: 12/19/23 10:35

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>51.3</b>		1.00	0.240	ug/L			12/21/23 19:48	1
<b>Toluene</b>	<b>15.6</b>		1.00	0.390	ug/L			12/21/23 19:48	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 19:48	1
<b>Xylenes, Total</b>	<b>0.649</b>	<b>J</b>	2.00	0.530	ug/L			12/21/23 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	105		80 - 120		12/21/23 19:48	1
<i>4-Bromofluorobenzene (Surr)</i>	91		80 - 120		12/21/23 19:48	1
<i>Dibromofluoromethane (Surr)</i>	97		80 - 120		12/21/23 19:48	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	104		80 - 120		12/21/23 19:48	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH as Gasoline</b>	<b>153</b>		100	14.0	ug/L			12/21/23 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene (Surr)</i>	91		77 - 123		12/21/23 19:48	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>868</b>		113	66.7	ug/L		12/27/23 08:40	12/29/23 01:24	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>481</b>		359	98.4	ug/L		12/27/23 08:40	12/29/23 01:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	74		50 - 150	12/27/23 08:40	12/29/23 01:24	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-114**

**Lab Sample ID: 580-135195-15**

**Date Collected: 12/19/23 11:01**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 20:09	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 20:09	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 20:09	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 20:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120		12/21/23 20:09	1
4-Bromofluorobenzene (Surr)	96		80 - 120		12/21/23 20:09	1
Dibromofluoromethane (Surr)	98		80 - 120		12/21/23 20:09	1
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		12/21/23 20:09	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 20:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		77 - 123		12/21/23 20:09	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>144</b>		111	65.5	ug/L		12/27/23 08:40	12/29/23 01:44	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>447</b>		353	96.7	ug/L		12/27/23 08:40	12/29/23 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	75		50 - 150	12/27/23 08:40	12/29/23 01:44	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-115**

**Lab Sample ID: 580-135195-16**

**Date Collected: 12/19/23 11:26**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/21/23 20:30	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 20:30	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 20:30	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 20:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		80 - 120		12/21/23 20:30	1
4-Bromofluorobenzene (Surr)	92		80 - 120		12/21/23 20:30	1
Dibromofluoromethane (Surr)	97		80 - 120		12/21/23 20:30	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		12/21/23 20:30	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH as Gasoline</b>	<b>334</b>		100	14.0	ug/L			12/21/23 20:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		77 - 123		12/21/23 20:30	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>2460</b>		111	65.6	ug/L		12/27/23 08:40	12/29/23 02:04	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>872</b>		353	96.8	ug/L		12/27/23 08:40	12/29/23 02:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	78		50 - 150	12/27/23 08:40	12/29/23 02:04	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-307**

**Lab Sample ID: 580-135195-17**

Date Collected: 12/19/23 10:20

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	30.3		1.00	0.240	ug/L			12/21/23 21:34	1
Toluene	10.1		1.00	0.390	ug/L			12/21/23 21:34	1
Ethylbenzene	26.0		1.00	0.500	ug/L			12/21/23 21:34	1
Xylenes, Total	43.1		2.00	0.530	ug/L			12/21/23 21:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120		12/21/23 21:34	1
4-Bromofluorobenzene (Surr)	92		80 - 120		12/21/23 21:34	1
Dibromofluoromethane (Surr)	96		80 - 120		12/21/23 21:34	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		12/21/23 21:34	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	2000		100	14.0	ug/L			12/21/23 21:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		77 - 123		12/21/23 21:34	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	6730		114	67.1	ug/L		12/27/23 08:40	12/29/23 02:23	1
Motor Oil (>C24-C36)	923		361	99.1	ug/L		12/27/23 08:40	12/29/23 02:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	66		50 - 150	12/27/23 08:40	12/29/23 02:23	1

### Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	21700		500	66.7	ug/L		12/28/23 16:16	12/29/23 18:04	5
Manganese	695		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 18:04	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (EPA 300.0)	23600		1500	800	ug/L			12/28/23 12:57	1
Nitrate Nitrite as N (EPA 353.2)	96.9	J	150	60.0	ug/L			01/03/24 21:49	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-308**

**Lab Sample ID: 580-135195-18**

Date Collected: 12/19/23 09:15

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>4.26</b>		1.00	0.240	ug/L			12/21/23 20:51	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 20:51	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 20:51	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 20:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	103		80 - 120		12/21/23 20:51	1
<i>4-Bromofluorobenzene (Surr)</i>	96		80 - 120		12/21/23 20:51	1
<i>Dibromofluoromethane (Surr)</i>	98		80 - 120		12/21/23 20:51	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	100		80 - 120		12/21/23 20:51	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 20:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene (Surr)</i>	96		77 - 123		12/21/23 20:51	1

## Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Iron</b>	<b>110</b>	<b>J</b>	500	66.7	ug/L		12/28/23 16:16	12/29/23 17:17	5
<b>Manganese</b>	<b>118</b>		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 17:17	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Sulfate (EPA 300.0)</b>	<b>128000</b>		7500	4000	ug/L			12/28/23 18:01	5
Nitrate Nitrite as N (EPA 353.2)	ND		150	60.0	ug/L			01/03/24 21:51	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-310**

**Lab Sample ID: 580-135195-19**

Date Collected: 12/19/23 12:30

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	10.4		1.00	0.240	ug/L			12/21/23 22:59	1
Toluene	1.50		1.00	0.390	ug/L			12/21/23 22:59	1
Ethylbenzene	3.44		1.00	0.500	ug/L			12/21/23 22:59	1
Xylenes, Total	3.39		2.00	0.530	ug/L			12/21/23 22:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		80 - 120		12/21/23 22:59	1
4-Bromofluorobenzene (Surr)	94		80 - 120		12/21/23 22:59	1
Dibromofluoromethane (Surr)	96		80 - 120		12/21/23 22:59	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		12/21/23 22:59	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	987		100	14.0	ug/L			12/21/23 22:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		77 - 123		12/21/23 22:59	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	5560		113	66.8	ug/L		12/27/23 08:46	12/29/23 04:02	1
Motor Oil (>C24-C36)	2420		360	98.7	ug/L		12/27/23 08:46	12/29/23 04:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	61		50 - 150	12/27/23 08:46	12/29/23 04:02	1

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	10800		500	66.7	ug/L		12/28/23 16:16	12/29/23 18:12	5
Manganese	1490		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 18:12	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (EPA 300.0)	22200		1500	800	ug/L			12/28/23 13:20	1
Nitrate Nitrite as N (EPA 353.2)	107	J	150	60.0	ug/L			01/03/24 21:53	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: SH-04**  
Date Collected: 12/19/23 09:01  
Date Received: 12/21/23 11:35

**Lab Sample ID: 580-135195-20**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.23		1.00	0.240	ug/L			12/26/23 23:34	1
Toluene	0.787	J	1.00	0.390	ug/L			12/26/23 23:34	1
Ethylbenzene	3.29		1.00	0.500	ug/L			12/26/23 23:34	1
Xylenes, Total	4.58		2.00	0.530	ug/L			12/26/23 23:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		12/26/23 23:34	1
4-Bromofluorobenzene (Surr)	103		80 - 120		12/26/23 23:34	1
Dibromofluoromethane (Surr)	97		80 - 120		12/26/23 23:34	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		12/26/23 23:34	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	363		100	14.0	ug/L			12/26/23 23:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		77 - 123		12/26/23 23:34	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	573		110	65.3	ug/L		12/27/23 08:46	12/29/23 04:22	1
Motor Oil (>C24-C36)	279	J	352	96.4	ug/L		12/27/23 08:46	12/29/23 04:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	72		50 - 150	12/27/23 08:46	12/29/23 04:22	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: TES-MW-1**

**Lab Sample ID: 580-135195-21**

Date Collected: 12/19/23 11:45

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/26/23 18:33	1
Toluene	ND		1.00	0.390	ug/L			12/26/23 18:33	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 18:33	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/26/23 18:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		12/26/23 18:33	1
4-Bromofluorobenzene (Surr)	102		80 - 120		12/26/23 18:33	1
Dibromofluoromethane (Surr)	99		80 - 120		12/26/23 18:33	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		12/26/23 18:33	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/26/23 18:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		77 - 123		12/26/23 18:33	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	ND		110	65.3	ug/L		12/27/23 08:46	12/29/23 04:42	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>115</b>	<b>J</b>	352	96.4	ug/L		12/27/23 08:46	12/29/23 04:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150	12/27/23 08:46	12/29/23 04:42	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: TX-04**

**Lab Sample ID: 580-135195-22**

Date Collected: 12/19/23 10:05

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/26/23 18:55	1
Toluene	ND		1.00	0.390	ug/L			12/26/23 18:55	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 18:55	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/26/23 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		12/26/23 18:55	1
4-Bromofluorobenzene (Surr)	102		80 - 120		12/26/23 18:55	1
Dibromofluoromethane (Surr)	98		80 - 120		12/26/23 18:55	1
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		12/26/23 18:55	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/26/23 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		77 - 123		12/26/23 18:55	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	ND		120	70.9	ug/L		12/27/23 08:46	12/29/23 05:01	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>125</b>	<b>J</b>	382	105	ug/L		12/27/23 08:46	12/29/23 05:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150	12/27/23 08:46	12/29/23 05:01	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: TX-06A**

**Lab Sample ID: 580-135195-23**

**Date Collected: 12/19/23 12:02**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/26/23 19:17	1
Toluene	ND		1.00	0.390	ug/L			12/26/23 19:17	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 19:17	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/26/23 19:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		12/26/23 19:17	1
4-Bromofluorobenzene (Surr)	105		80 - 120		12/26/23 19:17	1
Dibromofluoromethane (Surr)	100		80 - 120		12/26/23 19:17	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		12/26/23 19:17	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/26/23 19:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		77 - 123		12/26/23 19:17	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>816</b>		111	65.7	ug/L		12/27/23 08:46	12/29/23 05:21	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>483</b>		354	97.1	ug/L		12/27/23 08:46	12/29/23 05:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	78		50 - 150	12/27/23 08:46	12/29/23 05:21	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-101**

**Lab Sample ID: 580-135195-24**

**Date Collected: 12/19/23 08:15**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/26/23 19:38	1
Toluene	ND		1.00	0.390	ug/L			12/26/23 19:38	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 19:38	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/26/23 19:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		12/26/23 19:38	1
4-Bromofluorobenzene (Surr)	104		80 - 120		12/26/23 19:38	1
Dibromofluoromethane (Surr)	97		80 - 120		12/26/23 19:38	1
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		12/26/23 19:38	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>TPH as Gasoline</b>	<b>208</b>		100	14.0	ug/L			12/26/23 19:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		77 - 123		12/26/23 19:38	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>139</b>		110	65.2	ug/L		12/27/23 08:46	12/29/23 05:41	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>127 J</b>		351	96.2	ug/L		12/27/23 08:46	12/29/23 05:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150	12/27/23 08:46	12/29/23 05:41	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-203**

**Lab Sample ID: 580-135195-25**

Date Collected: 12/20/23 14:35

Matrix: Water

Date Received: 12/21/23 11:35

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/26/23 20:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		77 - 123		12/26/23 20:00	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	75.0	J	118	69.6	ug/L		12/27/23 08:46	12/29/23 06:01	1
Motor Oil (>C24-C36)	226	J	375	103	ug/L		12/27/23 08:46	12/29/23 06:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	80		50 - 150	12/27/23 08:46	12/29/23 06:01	1

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		500	66.7	ug/L		12/28/23 16:16	12/29/23 17:53	5
Manganese	ND		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 17:53	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (EPA 300.0)	1010	J	1500	800	ug/L			12/28/23 13:32	1
Nitrate Nitrite as N (EPA 353.2)	73.7	J	150	60.0	ug/L			01/03/24 21:55	1

# Client Sample Results

Client: GHD Services Inc.  
 Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-301**

**Lab Sample ID: 580-135195-26**

Date Collected: 12/20/23 13:11

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	28.9		1.00	0.240	ug/L			12/26/23 23:12	1
Toluene	4.80		1.00	0.390	ug/L			12/26/23 23:12	1
Ethylbenzene	3.80		1.00	0.500	ug/L			12/26/23 23:12	1
Xylenes, Total	3.84		2.00	0.530	ug/L			12/26/23 23:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		12/26/23 23:12	1
4-Bromofluorobenzene (Surr)	99		80 - 120		12/26/23 23:12	1
Dibromofluoromethane (Surr)	98		80 - 120		12/26/23 23:12	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		12/26/23 23:12	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	804		100	14.0	ug/L			12/26/23 23:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		77 - 123		12/26/23 23:12	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-302**

**Lab Sample ID: 580-135195-27**

Date Collected: 12/20/23 11:59

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.29		1.00	0.240	ug/L			12/26/23 22:51	1
Toluene	0.795	J	1.00	0.390	ug/L			12/26/23 22:51	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 22:51	1
<b>Xylenes, Total</b>	<b>1.54</b>	<b>J</b>	<b>2.00</b>	<b>0.530</b>	<b>ug/L</b>			<b>12/26/23 22:51</b>	<b>1</b>
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120					12/26/23 22:51	1
4-Bromofluorobenzene (Surr)	101		80 - 120					12/26/23 22:51	1
Dibromofluoromethane (Surr)	97		80 - 120					12/26/23 22:51	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 120					12/26/23 22:51	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	680		100	14.0	ug/L			12/26/23 22:51	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		77 - 123					12/26/23 22:51	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	2900		114	67.1	ug/L		12/27/23 08:46	12/28/23 20:46	1
Motor Oil (>C24-C36)	878		361	99.1	ug/L		12/27/23 08:46	12/28/23 20:46	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	62		50 - 150				12/27/23 08:46	12/28/23 20:46	1

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	326	J	500	66.7	ug/L		12/28/23 16:16	12/29/23 18:01	5
Manganese	1820		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 18:01	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (EPA 300.0)	49000		1500	800	ug/L			12/28/23 13:43	1
Nitrate Nitrite as N (EPA 353.2)	208		150	60.0	ug/L			01/03/24 21:56	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-303**

**Lab Sample ID: 580-135195-28**

Date Collected: 12/20/23 13:35

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	27.1		1.00	0.240	ug/L			12/26/23 22:29	1
Toluene	1.14		1.00	0.390	ug/L			12/26/23 22:29	1
Ethylbenzene	13.3		1.00	0.500	ug/L			12/26/23 22:29	1
Xylenes, Total	3.44		2.00	0.530	ug/L			12/26/23 22:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		12/26/23 22:29	1
4-Bromofluorobenzene (Surr)	100		80 - 120		12/26/23 22:29	1
Dibromofluoromethane (Surr)	96		80 - 120		12/26/23 22:29	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		12/26/23 22:29	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	924		100	14.0	ug/L			12/26/23 22:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		77 - 123		12/26/23 22:29	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	3470		111	65.6	ug/L		12/27/23 08:46	12/28/23 21:06	1
Motor Oil (>C24-C36)	600		353	96.9	ug/L		12/27/23 08:46	12/28/23 21:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	66		50 - 150	12/27/23 08:46	12/28/23 21:06	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-304**

**Lab Sample ID: 580-135195-29**

Date Collected: 12/20/23 12:29

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	24.9		1.00	0.240	ug/L			12/26/23 20:21	1
Toluene	1.86		1.00	0.390	ug/L			12/26/23 20:21	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 20:21	1
<b>Xylenes, Total</b>	<b>5.58</b>		2.00	0.530	ug/L			12/26/23 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		12/26/23 20:21	1
4-Bromofluorobenzene (Surr)	105		80 - 120		12/26/23 20:21	1
Dibromofluoromethane (Surr)	96		80 - 120		12/26/23 20:21	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		12/26/23 20:21	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	613		100	14.0	ug/L			12/26/23 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		77 - 123		12/26/23 20:21	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	2230		113	66.5	ug/L		12/27/23 08:46	12/28/23 21:25	1
Motor Oil (>C24-C36)	692		358	98.3	ug/L		12/27/23 08:46	12/28/23 21:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	67		50 - 150	12/27/23 08:46	12/28/23 21:25	1

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	6600		500	66.7	ug/L		12/28/23 16:16	12/29/23 18:09	5
Manganese	1060		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 18:09	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (EPA 300.0)	7220		1500	800	ug/L			12/28/23 13:55	1
Nitrate Nitrite as N (EPA 353.2)	211		150	60.0	ug/L			01/03/24 21:56	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-309**

**Lab Sample ID: 580-135195-30**

**Date Collected: 12/20/23 14:02**

**Matrix: Water**

**Date Received: 12/21/23 11:35**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/26/23 20:43	1
Toluene	ND		1.00	0.390	ug/L			12/26/23 20:43	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 20:43	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/26/23 20:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		12/26/23 20:43	1
4-Bromofluorobenzene (Surr)	103		80 - 120		12/26/23 20:43	1
Dibromofluoromethane (Surr)	97		80 - 120		12/26/23 20:43	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		12/26/23 20:43	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/26/23 20:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		77 - 123		12/26/23 20:43	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>149</b>		115	67.7	ug/L		12/27/23 08:46	12/28/23 21:46	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>144 J</b>		365	100	ug/L		12/27/23 08:46	12/28/23 21:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	75		50 - 150	12/27/23 08:46	12/28/23 21:46	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-311**

**Lab Sample ID: 580-135195-31**

Date Collected: 12/20/23 11:27

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.89		1.00	0.240	ug/L			12/26/23 21:04	1
Toluene	2.06		1.00	0.390	ug/L			12/26/23 21:04	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 21:04	1
<b>Xylenes, Total</b>	<b>1.05</b>	<b>J</b>	2.00	0.530	ug/L			12/26/23 21:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		12/26/23 21:04	1
4-Bromofluorobenzene (Surr)	102		80 - 120		12/26/23 21:04	1
Dibromofluoromethane (Surr)	97		80 - 120		12/26/23 21:04	1
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		12/26/23 21:04	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1840		100	14.0	ug/L			12/26/23 21:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		77 - 123		12/26/23 21:04	1

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	3100		500	66.7	ug/L		12/28/23 16:16	12/29/23 17:14	5
Manganese	1580		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 17:14	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (EPA 300.0)	ND		1500	800	ug/L			12/28/23 14:07	1
Nitrate Nitrite as N (EPA 353.2)	ND		150	60.0	ug/L			01/04/24 20:36	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-312**

**Lab Sample ID: 580-135195-32**

Date Collected: 12/20/23 10:57

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11.0		1.00	0.240	ug/L			12/26/23 21:25	1
Toluene	2.46		1.00	0.390	ug/L			12/26/23 21:25	1
Ethylbenzene	1.27		1.00	0.500	ug/L			12/26/23 21:25	1
Xylenes, Total	2.36		2.00	0.530	ug/L			12/26/23 21:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		12/26/23 21:25	1
4-Bromofluorobenzene (Surr)	99		80 - 120		12/26/23 21:25	1
Dibromofluoromethane (Surr)	96		80 - 120		12/26/23 21:25	1
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		12/26/23 21:25	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	2150		100	14.0	ug/L			12/26/23 21:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		77 - 123		12/26/23 21:25	1

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1700		500	66.7	ug/L		12/28/23 16:16	12/29/23 18:15	5
Manganese	1040		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 18:15	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (EPA 300.0)	ND		1500	800	ug/L			12/28/23 14:19	1
Nitrate Nitrite as N (EPA 353.2)	97.4	J	150	60.0	ug/L			01/04/24 20:44	1



# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-313**

**Lab Sample ID: 580-135195-33**

Date Collected: 12/20/23 10:29

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	0.240	ug/L			12/26/23 21:47	1
Toluene	ND		1.00	0.390	ug/L			12/26/23 21:47	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 21:47	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/26/23 21:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		12/26/23 21:47	1
4-Bromofluorobenzene (Surr)	105		80 - 120		12/26/23 21:47	1
Dibromofluoromethane (Surr)	96		80 - 120		12/26/23 21:47	1
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		12/26/23 21:47	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/26/23 21:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		77 - 123		12/26/23 21:47	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (C10-C24)</b>	<b>627</b>		114	67.4	ug/L		12/27/23 08:46	12/28/23 22:05	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>517</b>		363	99.5	ug/L		12/27/23 08:46	12/28/23 22:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	83		50 - 150	12/27/23 08:46	12/28/23 22:05	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-314**

**Lab Sample ID: 580-135195-34**

Date Collected: 12/20/23 15:13

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.47		1.00	0.240	ug/L			12/28/23 18:16	1
Toluene	0.584	J	1.00	0.390	ug/L			12/28/23 18:16	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/28/23 18:16	1
<b>Xylenes, Total</b>	<b>0.741</b>	<b>J</b>	2.00	0.530	ug/L			12/28/23 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		12/28/23 18:16	1
4-Bromofluorobenzene (Surr)	99		80 - 120		12/28/23 18:16	1
Dibromofluoromethane (Surr)	97		80 - 120		12/28/23 18:16	1
1,2-Dichloroethane-d4 (Surr)	96		80 - 120		12/28/23 18:16	1

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	331		100	14.0	ug/L			12/27/23 21:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		77 - 123		12/27/23 21:45	1

### Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	1280		118	69.8	ug/L		12/27/23 08:46	12/28/23 22:25	1
Motor Oil (>C24-C36)	466		376	103	ug/L		12/27/23 08:46	12/28/23 22:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	73		50 - 150	12/27/23 08:46	12/28/23 22:25	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-315**

**Lab Sample ID: 580-135195-35**

Date Collected: 12/20/23 10:02

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	6.58		1.00	0.240	ug/L			12/27/23 21:02	1
Toluene	4.66		1.00	0.390	ug/L			12/27/23 21:02	1
Ethylbenzene	0.664	J	1.00	0.500	ug/L			12/27/23 21:02	1
Xylenes, Total	3.62		2.00	0.530	ug/L			12/27/23 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		12/27/23 21:02	1
4-Bromofluorobenzene (Surr)	96		80 - 120		12/27/23 21:02	1
Dibromofluoromethane (Surr)	94		80 - 120		12/27/23 21:02	1
1,2-Dichloroethane-d4 (Surr)	96		80 - 120		12/27/23 21:02	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	2740		100	14.0	ug/L			12/27/23 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		77 - 123		12/27/23 21:02	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	3020		111	65.8	ug/L		12/27/23 08:46	12/28/23 22:45	1
Motor Oil (>C24-C36)	399		354	97.2	ug/L		12/27/23 08:46	12/28/23 22:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	73		50 - 150	12/27/23 08:46	12/28/23 22:45	1

# Client Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: TX-03A**

**Lab Sample ID: 580-135195-36**

Date Collected: 12/20/23 15:41

Matrix: Water

Date Received: 12/21/23 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	88.6		1.00	0.240	ug/L			12/27/23 21:23	1
Toluene	8.46		1.00	0.390	ug/L			12/27/23 21:23	1
Ethylbenzene	1.65		1.00	0.500	ug/L			12/27/23 21:23	1
Xylenes, Total	10.8		2.00	0.530	ug/L			12/27/23 21:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120		12/27/23 21:23	1
4-Bromofluorobenzene (Surr)	97		80 - 120		12/27/23 21:23	1
Dibromofluoromethane (Surr)	97		80 - 120		12/27/23 21:23	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		12/27/23 21:23	1

**Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	1990		100	14.0	ug/L			12/27/23 21:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		77 - 123		12/27/23 21:23	1

**Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	1200		115	68.2	ug/L		12/27/23 08:46	12/28/23 23:05	1
Motor Oil (>C24-C36)	374		367	101	ug/L		12/27/23 08:46	12/28/23 23:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	83		50 - 150	12/27/23 08:46	12/28/23 23:05	1

**Method: SW846 6020B - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	360	J	500	66.7	ug/L		12/28/23 16:16	12/29/23 18:17	5
Manganese	803		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 18:17	5

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (EPA 300.0)	ND		1500	800	ug/L			12/28/23 14:30	1
Nitrate Nitrite as N (EPA 353.2)	121	J	150	60.0	ug/L			01/04/24 20:45	1

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 580-446845/11**  
**Matrix: Water**  
**Analysis Batch: 446845**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.00	0.240	ug/L			12/21/23 15:34	1
Toluene	ND		1.00	0.390	ug/L			12/21/23 15:34	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/21/23 15:34	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/21/23 15:34	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	102		80 - 120		12/21/23 15:34	1
4-Bromofluorobenzene (Surr)	95		80 - 120		12/21/23 15:34	1
Dibromofluoromethane (Surr)	98		80 - 120		12/21/23 15:34	1
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		12/21/23 15:34	1

**Lab Sample ID: LCS 580-446845/6**  
**Matrix: Water**  
**Analysis Batch: 446845**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	10.0	8.892		ug/L		89	80 - 120
Ethylbenzene	10.0	8.961		ug/L		90	80 - 120
Xylenes, Total	20.0	17.74		ug/L		89	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	104		80 - 120
4-Bromofluorobenzene (Surr)	92		80 - 120
Dibromofluoromethane (Surr)	98		80 - 120
1,2-Dichloroethane-d4 (Surr)	100		80 - 120

**Lab Sample ID: LCSD 580-446845/7**  
**Matrix: Water**  
**Analysis Batch: 446845**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	10.0	8.810		ug/L		88	80 - 120	1	13
Ethylbenzene	10.0	8.983		ug/L		90	80 - 120	0	14
Xylenes, Total	20.0	17.63		ug/L		88	80 - 120	1	16

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	105		80 - 120
4-Bromofluorobenzene (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	97		80 - 120
1,2-Dichloroethane-d4 (Surr)	101		80 - 120



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

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

**Lab Sample ID: MB 580-447066/11**  
**Matrix: Water**  
**Analysis Batch: 447066**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.00	0.240	ug/L			12/26/23 16:46	1
Toluene	ND		1.00	0.390	ug/L			12/26/23 16:46	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/26/23 16:46	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/26/23 16:46	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	97		80 - 120		12/26/23 16:46	1
4-Bromofluorobenzene (Surr)	106		80 - 120		12/26/23 16:46	1
Dibromofluoromethane (Surr)	98		80 - 120		12/26/23 16:46	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		12/26/23 16:46	1

**Lab Sample ID: LCS 580-447066/6**  
**Matrix: Water**  
**Analysis Batch: 447066**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	10.0	9.560		ug/L		96	80 - 120
Ethylbenzene	10.0	9.893		ug/L		99	80 - 120
Xylenes, Total	20.0	19.76		ug/L		99	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	98		80 - 120
1,2-Dichloroethane-d4 (Surr)	96		80 - 120

**Lab Sample ID: LCSD 580-447066/7**  
**Matrix: Water**  
**Analysis Batch: 447066**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	10.0	9.326		ug/L		93	80 - 120	2	13
Ethylbenzene	10.0	9.721		ug/L		97	80 - 120	2	14
Xylenes, Total	20.0	19.53		ug/L		98	80 - 120	1	16

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	98		80 - 120
1,2-Dichloroethane-d4 (Surr)	95		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

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

**Lab Sample ID: MB 580-447143/11**  
**Matrix: Water**  
**Analysis Batch: 447143**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.00	0.240	ug/L			12/27/23 17:26	1
Toluene	ND		1.00	0.390	ug/L			12/27/23 17:26	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/27/23 17:26	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/27/23 17:26	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	100		80 - 120		12/27/23 17:26	1
4-Bromofluorobenzene (Surr)	103		80 - 120		12/27/23 17:26	1
Dibromofluoromethane (Surr)	98		80 - 120		12/27/23 17:26	1
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		12/27/23 17:26	1

**Lab Sample ID: LCS 580-447143/6**  
**Matrix: Water**  
**Analysis Batch: 447143**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	10.0	9.723		ug/L		97	80 - 120
Ethylbenzene	10.0	10.20		ug/L		102	80 - 120
Xylenes, Total	20.0	20.17		ug/L		101	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	98		80 - 120
1,2-Dichloroethane-d4 (Surr)	97		80 - 120

**Lab Sample ID: LCSD 580-447143/7**  
**Matrix: Water**  
**Analysis Batch: 447143**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	10.0	9.625		ug/L		96	80 - 120	1	13
Ethylbenzene	10.0	10.11		ug/L		101	80 - 120	1	14
Xylenes, Total	20.0	20.19		ug/L		101	80 - 120	0	16

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	98		80 - 120
1,2-Dichloroethane-d4 (Surr)	97		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

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

**Lab Sample ID: MB 580-447233/11**  
**Matrix: Water**  
**Analysis Batch: 447233**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.00	0.240	ug/L			12/28/23 14:20	1
Toluene	ND		1.00	0.390	ug/L			12/28/23 14:20	1
Ethylbenzene	ND		1.00	0.500	ug/L			12/28/23 14:20	1
Xylenes, Total	ND		2.00	0.530	ug/L			12/28/23 14:20	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	102		80 - 120		12/28/23 14:20	1
4-Bromofluorobenzene (Surr)	97		80 - 120		12/28/23 14:20	1
Dibromofluoromethane (Surr)	97		80 - 120		12/28/23 14:20	1
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		12/28/23 14:20	1

**Lab Sample ID: LCS 580-447233/6**  
**Matrix: Water**  
**Analysis Batch: 447233**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	10.0	9.850		ug/L		99	80 - 120
Ethylbenzene	10.0	9.536		ug/L		95	80 - 120
Xylenes, Total	20.0	19.03		ug/L		95	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	95		80 - 120
1,2-Dichloroethane-d4 (Surr)	98		80 - 120

**Lab Sample ID: LCSD 580-447233/7**  
**Matrix: Water**  
**Analysis Batch: 447233**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	10.0	10.29		ug/L		103	80 - 120	4	13
Ethylbenzene	10.0	9.961		ug/L		100	80 - 120	4	14
Xylenes, Total	20.0	20.07		ug/L		100	80 - 120	5	16

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	98		80 - 120
1,2-Dichloroethane-d4 (Surr)	97		80 - 120

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

**Lab Sample ID: MB 580-446839/11**  
**Matrix: Water**  
**Analysis Batch: 446839**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/21/23 15:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		77 - 123					12/21/23 15:34	1

**Lab Sample ID: LCS 580-446839/8**  
**Matrix: Water**  
**Analysis Batch: 446839**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Gasoline	1000	907.6		ug/L		91	55 - 148		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	94		77 - 123						

**Lab Sample ID: LCSD 580-446839/9**  
**Matrix: Water**  
**Analysis Batch: 446839**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
TPH as Gasoline	1000	891.3		ug/L		89	55 - 148	2	10
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	93		77 - 123						

**Lab Sample ID: MB 580-447060/11**  
**Matrix: Water**  
**Analysis Batch: 447060**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/26/23 16:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		77 - 123					12/26/23 16:46	1

**Lab Sample ID: LCS 580-447060/8**  
**Matrix: Water**  
**Analysis Batch: 447060**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TPH as Gasoline	1000	917.9		ug/L		92	55 - 148		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	103		77 - 123						

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

**Lab Sample ID: LCSD 580-447060/9**  
**Matrix: Water**  
**Analysis Batch: 447060**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Gasoline	1000	891.5		ug/L		89	55 - 148	3	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	101		77 - 123						

**Lab Sample ID: MB 580-447137/11**  
**Matrix: Water**  
**Analysis Batch: 447137**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline	ND		100	14.0	ug/L			12/27/23 17:26	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	103		77 - 123					12/27/23 17:26	1

**Lab Sample ID: LCS 580-447137/8**  
**Matrix: Water**  
**Analysis Batch: 447137**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TPH as Gasoline	1000	1009		ug/L		101	55 - 148
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
4-Bromofluorobenzene (Surr)	99		77 - 123				

**Lab Sample ID: LCSD 580-447137/9**  
**Matrix: Water**  
**Analysis Batch: 447137**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TPH as Gasoline	1000	991.4		ug/L		99	55 - 148	2	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)	102		77 - 123						

## Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

**Lab Sample ID: MB 580-446964/1-A**  
**Matrix: Water**  
**Analysis Batch: 446971**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 446964**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.0500	0.0140	ug/L		12/22/23 08:43	12/22/23 17:38	1
Benzo[a]pyrene	ND		0.100	0.0220	ug/L		12/22/23 08:43	12/22/23 17:38	1
Benzo[b]fluoranthene	ND		0.100	0.0220	ug/L		12/22/23 08:43	12/22/23 17:38	1
Benzo[k]fluoranthene	ND		0.0500	0.0120	ug/L		12/22/23 08:43	12/22/23 17:38	1
Chrysene	ND		0.100	0.0370	ug/L		12/22/23 08:43	12/22/23 17:38	1
Dibenz(a,h)anthracene	ND		0.100	0.0150	ug/L		12/22/23 08:43	12/22/23 17:38	1

Eurofins Seattle



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: MB 580-446964/1-A**  
**Matrix: Water**  
**Analysis Batch: 446971**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 446964**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Indeno[1,2,3-cd]pyrene	ND		0.0500	0.0140	ug/L		12/22/23 08:43	12/22/23 17:38	1
1-Methylnaphthalene	ND		0.100	0.0330	ug/L		12/22/23 08:43	12/22/23 17:38	1
2-Methylnaphthalene	ND		0.200	0.0390	ug/L		12/22/23 08:43	12/22/23 17:38	1
Naphthalene	ND		0.500	0.163	ug/L		12/22/23 08:43	12/22/23 17:38	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Terphenyl-d14	88		29 - 150	12/22/23 08:43	12/22/23 17:38	1

**Lab Sample ID: LCS 580-446964/2-A**  
**Matrix: Water**  
**Analysis Batch: 446971**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 446964**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzo[a]anthracene	8.00	6.748		ug/L		84	55 - 123
Benzo[a]pyrene	8.00	6.800		ug/L		85	51 - 120
Benzo[b]fluoranthene	8.00	7.349		ug/L		92	43 - 120
Benzo[k]fluoranthene	8.00	6.692		ug/L		84	41 - 121
Chrysene	8.00	6.363		ug/L		80	47 - 120
Dibenz(a,h)anthracene	8.00	7.358		ug/L		92	54 - 123
Indeno[1,2,3-cd]pyrene	8.00	7.098		ug/L		89	45 - 123
1-Methylnaphthalene	8.00	4.445		ug/L		56	29 - 120
2-Methylnaphthalene	8.00	4.330		ug/L		54	33 - 120
Naphthalene	8.00	4.084		ug/L		51	34 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Terphenyl-d14	81		29 - 150

**Lab Sample ID: LCSD 580-446964/3-A**  
**Matrix: Water**  
**Analysis Batch: 446971**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 446964**

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzo[a]anthracene	8.00	6.984		ug/L		87	55 - 123	3	31
Benzo[a]pyrene	8.00	7.027		ug/L		88	51 - 120	3	31
Benzo[b]fluoranthene	8.00	7.735		ug/L		97	43 - 120	5	35
Benzo[k]fluoranthene	8.00	6.764		ug/L		85	41 - 121	1	35
Chrysene	8.00	6.588		ug/L		82	47 - 120	3	30
Dibenz(a,h)anthracene	8.00	7.543		ug/L		94	54 - 123	2	35
Indeno[1,2,3-cd]pyrene	8.00	7.443		ug/L		93	45 - 123	5	35
1-Methylnaphthalene	8.00	3.516		ug/L		44	29 - 120	23	35
2-Methylnaphthalene	8.00	3.383		ug/L		42	33 - 120	25	35
Naphthalene	8.00	3.349		ug/L		42	34 - 120	20	35

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Terphenyl-d14	82		29 - 150

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx

**Lab Sample ID: MB 580-446590/1-B**  
**Matrix: Water**  
**Analysis Batch: 447213**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 446590**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (C10-C24)	ND		110	65.0	ug/L		12/19/23 08:44	12/28/23 15:16	1
Motor Oil (>C24-C36)	ND		350	96.0	ug/L		12/19/23 08:44	12/28/23 15:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
<i>o</i> -Terphenyl	68		50 - 150			12/19/23 08:44	12/28/23 15:16	1	

**Lab Sample ID: LCS 580-446590/2-B**  
**Matrix: Water**  
**Analysis Batch: 447213**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 446590**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Diesel Range Organics (C10-C24)	4000	3109		ug/L		78	50 - 120
Motor Oil (>C24-C36)	4000	3392		ug/L		85	64 - 120
Surrogate	%Recovery	Qualifier	Limits				
<i>o</i> -Terphenyl	79		50 - 150				

**Lab Sample ID: LCSD 580-446590/3-B**  
**Matrix: Water**  
**Analysis Batch: 447213**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 446590**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
Diesel Range Organics (C10-C24)	4000	2593		ug/L		65	50 - 120	18	26
Motor Oil (>C24-C36)	4000	2848		ug/L		71	64 - 120	17	24
Surrogate	%Recovery	Qualifier	Limits						
<i>o</i> -Terphenyl	66		50 - 150						

**Lab Sample ID: MB 580-447088/1-A**  
**Matrix: Water**  
**Analysis Batch: 447332**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 447088**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (C10-C24)	ND		110	65.0	ug/L		12/27/23 08:46	12/29/23 02:43	1
Motor Oil (>C24-C36)	ND		350	96.0	ug/L		12/27/23 08:46	12/29/23 02:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
<i>o</i> -Terphenyl	77		50 - 150			12/27/23 08:46	12/29/23 02:43	1	

**Lab Sample ID: LCS 580-447088/2-A**  
**Matrix: Water**  
**Analysis Batch: 447332**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 447088**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Diesel Range Organics (C10-C24)	4000	2792		ug/L		70	50 - 120

Eurofins Seattle

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: NWTPH-Dx - Semi-Volatile Petroleum Products by NWTPH-Dx (Continued)

**Lab Sample ID: LCS 580-447088/2-A**  
**Matrix: Water**  
**Analysis Batch: 447332**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 447088**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Motor Oil (>C24-C36)	4000	2869		ug/L		72	64 - 120
<b>Surrogate</b>		<b>LCS %Recovery</b>	<b>LCS Qualifier</b>				<b>Limits</b>
<i>o</i> -Terphenyl		69					50 - 150

**Lab Sample ID: LCSD 580-447088/3-A**  
**Matrix: Water**  
**Analysis Batch: 447332**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 447088**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (C10-C24)	4000	2872		ug/L		72	50 - 120	3	26
Motor Oil (>C24-C36)	4000	2949		ug/L		74	64 - 120	3	24
<b>Surrogate</b>		<b>LCSD %Recovery</b>	<b>LCSD Qualifier</b>				<b>Limits</b>		
<i>o</i> -Terphenyl		71					50 - 150		

## Method: 6020B - Metals (ICP/MS)

**Lab Sample ID: MB 580-447009/15-A**  
**Matrix: Water**  
**Analysis Batch: 447200**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 447009**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.400	0.0400	ug/L		12/22/23 16:44	12/27/23 13:53	1

**Lab Sample ID: LCS 580-447009/16-A**  
**Matrix: Water**  
**Analysis Batch: 447200**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 447009**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	1000	1059		ug/L		106	80 - 120

**Lab Sample ID: LCSD 580-447009/17-A**  
**Matrix: Water**  
**Analysis Batch: 447200**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 447009**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	1000	1046		ug/L		105	80 - 120	1	20

**Lab Sample ID: 580-135104-B-1-C MS**  
**Matrix: Water**  
**Analysis Batch: 447200**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 447009**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.949	J	1000	1089		ug/L		109	80 - 120

Eurofins Seattle

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: 6020B - Metals (ICP/MS) (Continued)

**Lab Sample ID: 580-135104-B-1-D MSD**  
**Matrix: Water**  
**Analysis Batch: 447200**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 447009**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.949	J	1000	1094		ug/L		109	80 - 120	0	20

**Lab Sample ID: 580-135104-B-1-B DU**  
**Matrix: Water**  
**Analysis Batch: 447200**

**Client Sample ID: Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 447009**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	0.949	J	ND		ug/L		NC	20

**Lab Sample ID: MB 580-447171/11-B**  
**Matrix: Water**  
**Analysis Batch: 447515**

**Client Sample ID: Method Blank**  
**Prep Type: Dissolved**  
**Prep Batch: 447298**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		500	66.7	ug/L		12/28/23 16:16	12/29/23 17:12	5
Manganese	ND		10.0	2.30	ug/L		12/28/23 16:16	12/29/23 17:12	5

**Lab Sample ID: LCS 580-447171/12-B**  
**Matrix: Water**  
**Analysis Batch: 447515**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Dissolved**  
**Prep Batch: 447298**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	20000	21430		ug/L		107	80 - 120
Manganese	1000	1042		ug/L		104	80 - 120

**Lab Sample ID: LCSD 580-447171/13-B**  
**Matrix: Water**  
**Analysis Batch: 447515**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Dissolved**  
**Prep Batch: 447298**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	20000	21870		ug/L		109	80 - 120	2	20
Manganese	1000	1060		ug/L		106	80 - 120	2	20

**Lab Sample ID: 580-135195-18 MS**  
**Matrix: Water**  
**Analysis Batch: 447515**

**Client Sample ID: MW-308**  
**Prep Type: Dissolved**  
**Prep Batch: 447298**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	110	J	20000	22240		ug/L		111	80 - 120
Manganese	118		1000	1203		ug/L		109	80 - 120

**Lab Sample ID: 580-135195-18 MSD**  
**Matrix: Water**  
**Analysis Batch: 447515**

**Client Sample ID: MW-308**  
**Prep Type: Dissolved**  
**Prep Batch: 447298**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	110	J	20000	22130		ug/L		110	80 - 120	0	20
Manganese	118		1000	1210		ug/L		109	80 - 120	1	20

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-135195-25 MS  
Matrix: Water  
Analysis Batch: 447515

Client Sample ID: MW-203  
Prep Type: Dissolved  
Prep Batch: 447298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	ND		20000	22460		ug/L		112	80 - 120
Manganese	ND		1000	1097		ug/L		110	80 - 120

Lab Sample ID: 580-135195-25 MSD  
Matrix: Water  
Analysis Batch: 447515

Client Sample ID: MW-203  
Prep Type: Dissolved  
Prep Batch: 447298

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	ND		20000	21870		ug/L		109	80 - 120	3	20
Manganese	ND		1000	1096		ug/L		110	80 - 120	0	20

Lab Sample ID: 580-135195-18 DU  
Matrix: Water  
Analysis Batch: 447515

Client Sample ID: MW-308  
Prep Type: Dissolved  
Prep Batch: 447298

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	110	J	109.3	J	ug/L		0.9	20
Manganese	118		121.5		ug/L		3	20

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-447375/3  
Matrix: Water  
Analysis Batch: 447375

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1500	800	ug/L			12/28/23 11:03	1

Lab Sample ID: LCS 580-447375/4  
Matrix: Water  
Analysis Batch: 447375

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	50000	52060		ug/L		104	90 - 110

Lab Sample ID: LCSD 580-447375/5  
Matrix: Water  
Analysis Batch: 447375

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	50000	52090		ug/L		104	90 - 110	0	15

Lab Sample ID: 580-135224-A-1 MS ^1000  
Matrix: Water  
Analysis Batch: 447375

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	2220000		50000000	53370000		ug/L		102	90 - 110

# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 580-135224-A-1 MSD ^1000**  
**Matrix: Water**  
**Analysis Batch: 447375**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	2220000		50000000	53460000		ug/L		102	90 - 110	0	15

**Lab Sample ID: 580-135225-A-1 MS ^1000**  
**Matrix: Water**  
**Analysis Batch: 447375**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	9960000		50000000	62360000		ug/L		105	90 - 110		

**Lab Sample ID: 580-135225-A-1 MSD ^1000**  
**Matrix: Water**  
**Analysis Batch: 447375**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	9960000		50000000	62430000		ug/L		105	90 - 110	0	15

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

**Lab Sample ID: MB 580-447783/14**  
**Matrix: Water**  
**Analysis Batch: 447783**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		150	60.0	ug/L			01/03/24 20:34	1

**Lab Sample ID: LCS 580-447783/15**  
**Matrix: Water**  
**Analysis Batch: 447783**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	2500	2526		ug/L		101	90 - 110		

**Lab Sample ID: LCSD 580-447783/16**  
**Matrix: Water**  
**Analysis Batch: 447783**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	2500	2459		ug/L		98	90 - 110	3	20

**Lab Sample ID: 550-211884-B-5 MS**  
**Matrix: Water**  
**Analysis Batch: 447783**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	88.1	J	2500	2478		ug/L		96	90 - 110		



# QC Sample Results

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

**Lab Sample ID: 550-211884-B-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 447783**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	88.1	J	2500	2564		ug/L		99	90 - 110	3	20

**Lab Sample ID: 550-211884-B-5 DU**  
**Matrix: Water**  
**Analysis Batch: 447783**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	88.1	J	ND		ug/L		NC	20

**Lab Sample ID: MB 580-447875/5**  
**Matrix: Water**  
**Analysis Batch: 447875**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		150	60.0	ug/L			01/04/24 20:27	1

**Lab Sample ID: LCS 580-447875/6**  
**Matrix: Water**  
**Analysis Batch: 447875**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	2500	2449		ug/L		98	90 - 110

**Lab Sample ID: LCSD 580-447875/7**  
**Matrix: Water**  
**Analysis Batch: 447875**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	2500	2331		ug/L		93	90 - 110	5	20

**Lab Sample ID: 580-135195-31 MS**  
**Matrix: Water**  
**Analysis Batch: 447875**

**Client Sample ID: MW-311**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	ND		2500	2345		ug/L		94	90 - 110

**Lab Sample ID: 580-135195-31 MSD**  
**Matrix: Water**  
**Analysis Batch: 447875**

**Client Sample ID: MW-311**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND		2500	2406		ug/L		96	90 - 110	3	20

**Lab Sample ID: 580-135195-31 DU**  
**Matrix: Water**  
**Analysis Batch: 447875**

**Client Sample ID: MW-311**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	ND		ND		ug/L		NC	20

Eurofins Seattle

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Client Sample ID: TB-1

Date Collected: 12/18/23 09:00

Date Received: 12/21/23 11:35

Lab Sample ID: 580-135195-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 15:55
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 15:55

## Client Sample ID: MW-05

Date Collected: 12/18/23 13:00

Date Received: 12/21/23 11:35

Lab Sample ID: 580-135195-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 16:16
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 16:16
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/28/23 21:06

## Client Sample ID: MW-105

Date Collected: 12/18/23 12:29

Date Received: 12/21/23 11:35

Lab Sample ID: 580-135195-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 16:37
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 16:37
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/28/23 21:25
Total Recoverable	Prep	3005A			447009	TMH	EET SEA	12/22/23 16:44
Total Recoverable	Analysis	6020B		5	447200	FCW	EET SEA	12/27/23 14:26

## Client Sample ID: MW-201

Date Collected: 12/18/23 13:30

Date Received: 12/21/23 11:35

Lab Sample ID: 580-135195-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 16:58
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 16:58
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/28/23 21:46

## Client Sample ID: MW-202

Date Collected: 12/18/23 12:05

Date Received: 12/21/23 11:35

Lab Sample ID: 580-135195-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 21:55
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 21:55
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/28/23 22:05

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-202**  
**Date Collected: 12/18/23 12:05**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 18:07
Total/NA	Analysis	353.2		1	447783	FCG	EET SEA	01/03/24 21:47

**Client Sample ID: MW-204**  
**Date Collected: 12/18/23 11:05**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-6**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 17:41
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 17:41
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/28/23 22:25

**Client Sample ID: MW-206A**  
**Date Collected: 12/18/23 11:50**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-7**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 18:02
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 18:02
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/28/23 22:45

**Client Sample ID: MW-213**  
**Date Collected: 12/18/23 10:50**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-8**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 22:16
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 22:16
Total/NA	Prep	3510C			446964	SL	EET SEA	12/22/23 11:37
Total/NA	Analysis	8270E SIM		1	446971	K1K	EET SEA	12/22/23 20:29
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/28/23 23:05

**Client Sample ID: MW-214**  
**Date Collected: 12/18/23 11:18**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-9**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 22:37
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 22:37

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Client Sample ID: MW-214

Date Collected: 12/18/23 11:18

Date Received: 12/21/23 11:35

## Lab Sample ID: 580-135195-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			446964	SL	EET SEA	12/22/23 11:37
Total/NA	Analysis	8270E SIM		1	446971	K1K	EET SEA	12/22/23 20:54
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/28/23 23:25

## Client Sample ID: MW-102

Date Collected: 12/18/23 14:15

Date Received: 12/21/23 11:35

## Lab Sample ID: 580-135195-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 18:23
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 18:23
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/28/23 23:45

## Client Sample ID: MW-104

Date Collected: 12/19/23 08:05

Date Received: 12/21/23 11:35

## Lab Sample ID: 580-135195-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 18:44
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 00:25
Total Recoverable	Prep	3005A			447009	TMH	EET SEA	12/22/23 16:44
Total Recoverable	Analysis	6020B		5	447200	FCW	EET SEA	12/27/23 14:29

## Client Sample ID: MW-111

Date Collected: 12/19/23 08:35

Date Received: 12/21/23 11:35

## Lab Sample ID: 580-135195-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 19:05
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 19:05
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 00:44

## Client Sample ID: MW-112A

Date Collected: 12/19/23 09:32

Date Received: 12/21/23 11:35

## Lab Sample ID: 580-135195-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 19:26
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 19:26
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 01:04

Eurofins Seattle

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-113**  
**Date Collected: 12/19/23 10:35**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-14**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 19:48
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 19:48
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 01:24

**Client Sample ID: MW-114**  
**Date Collected: 12/19/23 11:01**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-15**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 20:09
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 20:09
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 01:44

**Client Sample ID: MW-115**  
**Date Collected: 12/19/23 11:26**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-16**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 20:30
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 20:30
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 02:04

**Client Sample ID: MW-307**  
**Date Collected: 12/19/23 10:20**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-17**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 21:34
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 21:34
Total/NA	Prep	3510C			447087	SL	EET SEA	12/27/23 08:40
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 02:23
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 18:04
Total/NA	Analysis	300.0		1	447375	CA	EET SEA	12/28/23 12:57
Total/NA	Analysis	353.2		1	447783	FCG	EET SEA	01/03/24 21:49

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-308**  
**Date Collected: 12/19/23 09:15**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-18**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 20:51
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 20:51
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 17:17
Total/NA	Analysis	300.0		5	447375	CA	EET SEA	12/28/23 18:01
Total/NA	Analysis	353.2		1	447783	FCG	EET SEA	01/03/24 21:51

**Client Sample ID: MW-310**  
**Date Collected: 12/19/23 12:30**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-19**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446845	K1K	EET SEA	12/21/23 22:59
Total/NA	Analysis	NWTPH-Gx		1	446839	K1K	EET SEA	12/21/23 22:59
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 04:02
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 18:12
Total/NA	Analysis	300.0		1	447375	CA	EET SEA	12/28/23 13:20
Total/NA	Analysis	353.2		1	447783	FCG	EET SEA	01/03/24 21:53

**Client Sample ID: SH-04**  
**Date Collected: 12/19/23 09:01**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-20**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 23:34
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 23:34
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 04:22

**Client Sample ID: TES-MW-1**  
**Date Collected: 12/19/23 11:45**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-21**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 18:33
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 18:33
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 04:42



# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: TX-04**  
**Date Collected: 12/19/23 10:05**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-22**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 18:55
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 18:55
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 05:01

**Client Sample ID: TX-06A**  
**Date Collected: 12/19/23 12:02**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-23**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 19:17
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 19:17
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 05:21

**Client Sample ID: MW-101**  
**Date Collected: 12/19/23 08:15**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-24**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 19:38
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 19:38
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 05:41

**Client Sample ID: MW-203**  
**Date Collected: 12/20/23 14:35**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-25**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 20:00
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447332	KLW	EET SEA	12/29/23 06:01
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 17:53
Total/NA	Analysis	300.0		1	447375	CA	EET SEA	12/28/23 13:32
Total/NA	Analysis	353.2		1	447783	FCG	EET SEA	01/03/24 21:55

**Client Sample ID: MW-301**  
**Date Collected: 12/20/23 13:11**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-26**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 23:12

Eurofins Seattle

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Client Sample ID: MW-301

Date Collected: 12/20/23 13:11

Date Received: 12/21/23 11:35

## Lab Sample ID: 580-135195-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 23:12

## Client Sample ID: MW-302

Date Collected: 12/20/23 11:59

Date Received: 12/21/23 11:35

## Lab Sample ID: 580-135195-27

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 22:51
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 22:51
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447335	KLW	EET SEA	12/28/23 20:46
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 18:01
Total/NA	Analysis	300.0		1	447375	CA	EET SEA	12/28/23 13:43
Total/NA	Analysis	353.2		1	447783	FCG	EET SEA	01/03/24 21:56

## Client Sample ID: MW-303

Date Collected: 12/20/23 13:35

Date Received: 12/21/23 11:35

## Lab Sample ID: 580-135195-28

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 22:29
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 22:29
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447335	KLW	EET SEA	12/28/23 21:06

## Client Sample ID: MW-304

Date Collected: 12/20/23 12:29

Date Received: 12/21/23 11:35

## Lab Sample ID: 580-135195-29

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 20:21
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 20:21
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447335	KLW	EET SEA	12/28/23 21:25
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 18:09
Total/NA	Analysis	300.0		1	447375	CA	EET SEA	12/28/23 13:55
Total/NA	Analysis	353.2		1	447783	FCG	EET SEA	01/03/24 21:56

# Lab Chronicle

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-309**  
**Date Collected: 12/20/23 14:02**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-30**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 20:43
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 20:43
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447335	KLW	EET SEA	12/28/23 21:46

**Client Sample ID: MW-311**  
**Date Collected: 12/20/23 11:27**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-31**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 21:04
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 21:04
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 17:14
Total/NA	Analysis	300.0		1	447375	CA	EET SEA	12/28/23 14:07
Total/NA	Analysis	353.2		1	447875	FCG	EET SEA	01/04/24 20:36

**Client Sample ID: MW-312**  
**Date Collected: 12/20/23 10:57**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-32**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 21:25
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 21:25
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 18:15
Total/NA	Analysis	300.0		1	447375	CA	EET SEA	12/28/23 14:19
Total/NA	Analysis	353.2		1	447875	FCG	EET SEA	01/04/24 20:44

**Client Sample ID: MW-313**  
**Date Collected: 12/20/23 10:29**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-33**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447066	SR	EET SEA	12/26/23 21:47
Total/NA	Analysis	NWTPH-Gx		1	447060	JBT	EET SEA	12/26/23 21:47
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447335	KLW	EET SEA	12/28/23 22:05

# Lab Chronicle

Client: GHD Services Inc.  
 Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

**Client Sample ID: MW-314**  
**Date Collected: 12/20/23 15:13**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-34**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447233	SR	EET SEA	12/28/23 18:16
Total/NA	Analysis	NWTPH-Gx		1	447137	JBT	EET SEA	12/27/23 21:45
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447335	KLW	EET SEA	12/28/23 22:25

**Client Sample ID: MW-315**  
**Date Collected: 12/20/23 10:02**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-35**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447143	JBT	EET SEA	12/27/23 21:02
Total/NA	Analysis	NWTPH-Gx		1	447137	JBT	EET SEA	12/27/23 21:02
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447335	KLW	EET SEA	12/28/23 22:45

**Client Sample ID: TX-03A**  
**Date Collected: 12/20/23 15:41**  
**Date Received: 12/21/23 11:35**

**Lab Sample ID: 580-135195-36**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447143	JBT	EET SEA	12/27/23 21:23
Total/NA	Analysis	NWTPH-Gx		1	447137	JBT	EET SEA	12/27/23 21:23
Total/NA	Prep	3510C			447088	SL	EET SEA	12/27/23 08:46
Total/NA	Analysis	NWTPH-Dx		1	447335	KLW	EET SEA	12/28/23 23:05
Dissolved	Filtration	FILTRATION			447171	JLS	EET SEA	12/27/23 16:15
Dissolved	Prep	3005A			447298	JL	EET SEA	12/28/23 16:16
Dissolved	Analysis	6020B		5	447515	FCW	EET SEA	12/29/23 18:17
Total/NA	Analysis	300.0		1	447375	CA	EET SEA	12/28/23 14:30
Total/NA	Analysis	353.2		1	447875	FCG	EET SEA	01/04/24 20:45

**Laboratory References:**

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

# Accreditation/Certification Summary

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

## Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4167	07-07-24
Washington	State	C788	07-13-24

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Sample Summary

Client: GHD Services Inc.  
Project/Site: Shell - Triton West Consent Decree

Job ID: 580-135195-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-135195-1	TB-1	Water	12/18/23 09:00	12/21/23 11:35
580-135195-2	MW-05	Water	12/18/23 13:00	12/21/23 11:35
580-135195-3	MW-105	Water	12/18/23 12:29	12/21/23 11:35
580-135195-4	MW-201	Water	12/18/23 13:30	12/21/23 11:35
580-135195-5	MW-202	Water	12/18/23 12:05	12/21/23 11:35
580-135195-6	MW-204	Water	12/18/23 11:05	12/21/23 11:35
580-135195-7	MW-206A	Water	12/18/23 11:50	12/21/23 11:35
580-135195-8	MW-213	Water	12/18/23 10:50	12/21/23 11:35
580-135195-9	MW-214	Water	12/18/23 11:18	12/21/23 11:35
580-135195-10	MW-102	Water	12/18/23 14:15	12/21/23 11:35
580-135195-11	MW-104	Water	12/19/23 08:05	12/21/23 11:35
580-135195-12	MW-111	Water	12/19/23 08:35	12/21/23 11:35
580-135195-13	MW-112A	Water	12/19/23 09:32	12/21/23 11:35
580-135195-14	MW-113	Water	12/19/23 10:35	12/21/23 11:35
580-135195-15	MW-114	Water	12/19/23 11:01	12/21/23 11:35
580-135195-16	MW-115	Water	12/19/23 11:26	12/21/23 11:35
580-135195-17	MW-307	Water	12/19/23 10:20	12/21/23 11:35
580-135195-18	MW-308	Water	12/19/23 09:15	12/21/23 11:35
580-135195-19	MW-310	Water	12/19/23 12:30	12/21/23 11:35
580-135195-20	SH-04	Water	12/19/23 09:01	12/21/23 11:35
580-135195-21	TES-MW-1	Water	12/19/23 11:45	12/21/23 11:35
580-135195-22	TX-04	Water	12/19/23 10:05	12/21/23 11:35
580-135195-23	TX-06A	Water	12/19/23 12:02	12/21/23 11:35
580-135195-24	MW-101	Water	12/19/23 08:15	12/21/23 11:35
580-135195-25	MW-203	Water	12/20/23 14:35	12/21/23 11:35
580-135195-26	MW-301	Water	12/20/23 13:11	12/21/23 11:35
580-135195-27	MW-302	Water	12/20/23 11:59	12/21/23 11:35
580-135195-28	MW-303	Water	12/20/23 13:35	12/21/23 11:35
580-135195-29	MW-304	Water	12/20/23 12:29	12/21/23 11:35
580-135195-30	MW-309	Water	12/20/23 14:02	12/21/23 11:35
580-135195-31	MW-311	Water	12/20/23 11:27	12/21/23 11:35
580-135195-32	MW-312	Water	12/20/23 10:57	12/21/23 11:35
580-135195-33	MW-313	Water	12/20/23 10:29	12/21/23 11:35
580-135195-34	MW-314	Water	12/20/23 15:13	12/21/23 11:35
580-135195-35	MW-315	Water	12/20/23 10:02	12/21/23 11:35
580-135195-36	TX-03A	Water	12/20/23 15:41	12/21/23 11:35



**LAB (LOCATION)**

ACQUREST ( )  
 CALSCIENCE ( )  
 TESTAMERICA ( )  
 Other ( )

**Please Check Appropriate Box:**

SGW FDG ( ) PIPELINE ( ) RETAIL ( )  
 CHEMICALS ( ) CONSULTANT ( ) LUBES ( )  
 TRANSPORTATION ( ) OTHER ( )



**Shell Oil Products US Chain Of Custody Record**

**Lab Vendor #** Dropdown

**ADDRESS:** Blaine Tech Services, Inc  
 1880 Rogers Ave, San Jose, CA, 95112

**LOG CODE:** BTSS

**Print Bill To Contact Name:** Planet Site or Project ID

**PO #** GSAP Project ID

**SITE ADDRESS, Street and City:** 2555 13th Avenue  
 EOR DELIVERABLE TO (Name, Company, Office Location):  
 Emily Blakeway, GHD, WA  
 State: WA

**PHONE NO.:** (425) 327-4585  
**EMAIL:** emily.blakeway@ghd.com

**GHD Project Task Number:** 11218519

**PROJECT CONTRACT (History or PDF Report to):** Emily Blakeway

**TELEPHONE:** (425) 327-4585  
**FAX:**

**TURNS/ROUND TIME (CALENDAR DAYS):**  
 STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT  UST AGENCY:

**DELIVERABLES:**  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_

**TEMPERATURE ON RECEIPT C°:** Cooler #1 \_\_\_\_\_ Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_

**REQUESTED ANALYSIS**

**UNIT COST**

**NON-UNIT COST**

**FIELD NOTES:**

**TEMPERATURE ON RECEIPT C°:**

**Container PID Readings or Laboratory Notes**

**SPECIAL INSTRUCTIONS OR NOTES :**

- SHELL CONTRACT RATE APPLIES
- STATE REIMBURSEMENT RATE APPLIES
- ELD NOT NEEDED
- RECEIPT VERIFICATION REQUESTED
- PROVIDE LEDD DISK

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	8260C BTEX	NWTPH-Dx	8270D SIM PAHs	300.0 Sulfate	NWTPH-Gx	6020A Total Lead	353.2 Nitrate & Nitrite	6020A Diss. Iron & Manganese (lab filter)	300.0 Chloride	
		DATE	TIME		HCL	HNO3	H2SO4	NONE	OTHER											
	TB-1	12/18/23	0900	W						2	X									
	MW-05		1300							6	X									
	MW-105		1229							7	X					X				
	MW-201		1330							6	X									
	MW-202		1205					X		9	X						X			
	MW-204		1105							6	X									
	MW-206A		1150							6	X									
	MW-213		1050							8	X									
	MW-214		1118							8	X									
	MW-102		1415							6	X									



**Requested by (Signature):** [Signature] **Date:** 12/21/23 **Time:** 1135

**Requested by (Signature):** [Signature] **Date:** 12/21/23 **Time:** 1135

LAB (LOCATION)

ACURST ( )  
 CALSCIENCE ( )  
 TESTAMERICA ( )  
 Other ( )



Shell Oil Products US Chain Of Custody Record

**Please Check Appropriate Box:**  
 SCW FDG  PIPELINE  RETAIL  
 CHEMICALS  CONSULTANT  LUBES  
 TRANSPORTATION  OTHER

SAMPLING COMPANY: **Blaine Tech Services, Inc**  
 ADDRESS: **1680 Rogers Ave, San Jose, CA, 95112**  
 LOG CODE: **BTSS**

SITE ADDRESS Street and City: **2555 13th Avenue**  
 EGF BELIEVABLE TO (Name, Company, City, Location): **Emily Blakeway, GHD, WA**  
 STATE: **WA**  
 PHONE NO.: **(425) 327-4585**  
 E-MAIL: **emily.blakeway@ghd.com**  
 GHD Project/Task Number: **11218519**  
 GHD Client ID

PROJECT CONTACT (hardcopy or PDF Report to): **Emily Blakeway**  
 TEL: **(425) 327-4585**  
 FAX: **emily.blakeway@ghd.com**  
 TURNAROUND TIME (CALENDAR DAYS):  
 STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND  
 LA - RWQCB REPORT FORMAT  UST AGENCY:

Print Bill To Contact Name: \_\_\_\_\_ Planet Site or Project ID \_\_\_\_\_  
 PO # \_\_\_\_\_ GSAP Project ID \_\_\_\_\_  
 DATE: **12/19/23**  
 PAGE: **2** of **4**

DELIVERABLES:  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY) \_\_\_\_\_  
 TEMPERATURE ON RECEIPT °C \_\_\_\_\_ Cooler #1 \_\_\_\_\_ Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_

**SPECIAL INSTRUCTIONS OR NOTES:**  
 SHELL CONTRACT RATE APPLIES  
 STATE REIMBURSEMENT RATE APPLIES  
 EGD NOT NEEDED  
 RECEIPT VERIFICATION REQUESTED  
 PROVIDE LEAD DISK

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE				NO. OF CONT.	ANALYSIS				DATE	TIME
		DATE	TIME		HCL	HNO3	H2SO4	NONE		OTHER	UNIT COST	REQUESTED ANALYSIS	NON-UNIT COST		
	MW-104	12/19/23	0805	V		X			7						
	MW-111		0835						6	X					
	MW-112A		0932						6	X					
	MW-113		1035						6	X					
	MW-114		1101						6	X					
	MW-115		1126						6	X					
	MW-307		1020						9	X					
	MW-308		0915						7	X					
	MW-310		1230						9	X					
	SH-04		0901						6	X					

Requisitioned by (Signature): \_\_\_\_\_ Received by (Signature): **S. Blakeway**  
 Requisitioned by (Signature): \_\_\_\_\_ Received by (Signature): \_\_\_\_\_  
 DATE: **12/19/23** DATE: **12/21/23**  
 TIME: **1135** TIME: **1135**

FIELD NOTES:  
 TEMPERATURE ON RECEIPT °C \_\_\_\_\_  
 Container PID Readings or Laboratory Notes \_\_\_\_\_



**LAB (LOCATION)**

ACCOUNTS  
 CALSCIENCE  
 TESTAMERICA  
 Other

SWV PDG  
 CHEMICALS  
 TRANSPORTATION  
 PIPELINE  
 CONSULTANT  
 OTHER

RETAIL  
 LUBES  
 RESULTS NEEDED ON WEEKEND



**Shell Oil Products US Chain Of Custody Record**

Print Bill To Contact Name:

PlakNet Site or Project ID

CHECK IF NO INCIDENT # APPLIES  
 DATE: 12/19/23  
 PAGE: 3 of 4

Blaine Tech Services, Inc

1680 Rogers Ave, San Jose, CA, 95112

LOG CODE

2555 13th Avenue

State: WA

GHD Project / Task Number: 11218519

PROJECT CONTACT (Laboratory or RSP Report to):

Emily Blakeway

emily.blakeway@ghd.com

Emily Blakeway, GHD, WA

PHONE NO: (425) 327-4585

E-MAIL: emily.blakeway@ghd.com

GHD Order ID

TELEPHONE: (425) 327-4585

FAX:

emily.blakeway@ghd.com

Call To Contact E-MAIL:

EMF DELIVERABLE TO Name, Company, Order Location

PHONE NO: (425) 327-4585

E-MAIL: emily.blakeway@ghd.com

GHD Order ID

TURNAROUND TIME (CALENDAR DAYS):

STANDARD (14 DAY)  
 5 DAYS  
 3 DAYS  
 2 DAYS  
 24 HOURS

RESULTS NEEDED ON WEEKEND

LA - RVOCB REPORT FORMAT

UNIT COST

REQUESTED ANALYSIS

NON-UNIT COST

FIELD NOTES:

DELIVERABLES: LEVEL 1 LEVEL 2 LEVEL 3 LEVEL 4 OTHER (SPECIFY)

TEMPERATURE ON RECEIPT C°

Cooler #1

Cooler #2

Cooler #3

TEMPERATURE ON RECEIPT C°

**SPECIAL INSTRUCTIONS OR NOTES:**

- SHELL CONTRACT RATE APPLIES
- STATE REMBURSEMENT RATE APPLIES
- EDO NOT NEEDED
- RECEIPT VERIFICATION REQUESTED
- PROVIDE LEAD DISK

Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE				NO. OF CONT.	6260C BTEX	NWTPH-Dx	8270D SIM PAHs	300.0 Sulfate	NWTPH-Gx	6020A Total Lead	353.2 Nitrate & Nitrite	6020A Diss. Iron & Manganese (lab filter)	300.0 Chloride	DATE	TIME
		DATE	TIME		HCL	HNO3	H2SO4	NONE												
	ES-MM-1	12/19/23	1145	M	X				6	X	X	X		X					12/19/23	1135
	IX-04		1205	X	X				6	X	X	X		X						
	IX-06A		1202	X	X				6	X	X	X		X						
	MM-101		0815	X	X				6	X	X	X		X						
	MM-203	12/19/23	1435	X	X				9	X		X		X					12/19/23	1402
	MM-301		1311	X	X				9	X		X		X						
	MM-302		1159	X	X				9	X		X		X						
	MM-303		1335	X	X				6	X		X		X						
	MM-304		1229	X	X				9	X		X		X						
	MM-309		1402	X	X				6	X		X		X						

Relinquished By (Signature): *[Signature]*

Received By (Signature):

*[Signature]*

Date: 12/21/23

Time: 1135

Relinquished By (Signature):

Received By (Signature):

Date: 12/21/23

Time: 1135



# Shell Oil Products US Chain Of Custody Record

LAB (LOCATION)

ACCUTEST  
 QUSCENCE  
 TESTAMERICA  
 Other

**Please Check Appropriate Box:**  
 SCW PDG  
 PIPELINE  
 CHEMICALS  
 TRANSPORTATION  
 RETAIL  
 CONSULTANT  
 OTHER

**Print Bill To Contact Name:**  
**PO #**  
**GSAP Project ID**  
**DATE:** 12/20/23  
**PAGE:** 4 of 4

**SAMPLING COMPANY:** Blaine Tech Services, Inc  
**LOG CODE:** BTSS

**ADDRESS:** 1880 Rogers Ave, San Jose, CA, 95112

**PROJECT CONTACT (If Access to PDF Report to):** Emily Blakeway  
**PHONE NO.:** (429) 327-4585  
**E-MAIL:** emily.blakeway@qind.com

**TURNAROUND TIME (CALENDAR DAYS):**  STANDARD (14 DAY)  
 5 DAYS  
 3 DAYS  
 2 DAYS  
 24 HOURS

**DELIVERABLES:**  LEVEL 1  LEVEL 2  LEVEL 3  LEVEL 4  OTHER (SPECIFY)

**TEMPERATURE ON RECEIPT C°:** Cooler #1: Cooler #2: Cooler #3:

**SPECIAL INSTRUCTIONS OR NOTES:**  
 SHELL CONTRACT RATE APPLIES  
 STATE REMBURSEMENT RATE APPLIES  
 EDD NOT NEEDED  
 RECEIPT VERIFICATION REQUESTED  
 PROVIDE LEAD DISK

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE				NO. OF CONT.	ANALYSIS						FIELD NOTES: TEMPERATURE ON RECEIPT C° Container PID Readings or Laboratory Notes				
		DATE	TIME		HCL	HNO3	H2SO4	NONE		OTHER	UNIT COST	NON-UNIT COST	REQUESTED	ANALYSIS						
	MMW-311	12/20/23	1127	W	X	X	X	X	7	X	X	X	X	X	X					
	MMW-312		1057	X	X	X	X	X	7	X	X	X	X	X	X					
	MMW-313		1029	X	X	X	X	X	6	X	X	X	X	X	X					
	MMW-314		1513	X	X	X	X	X	6	X	X	X	X	X	X					
	MMW-315		1022	X	X	X	X	X	6	X	X	X	X	X	X					
	TX-03A		1541	X	X	X	X	X	9	X	X	X	X	X	X					

**Required by (Signature):** [Signature] **Received by (Signature):** [Signature]

**Required by (Signature):** [Signature] **Received by (Signature):** [Signature]

**Required by (Signature):** [Signature] **Received by (Signature):** [Signature]

**Date:** 12/21/23 **Time:** 1135

**Date:** 12/21/23 **Time:** 1135

Therm. ID: 43 Cor: 1.1 ° Unc: 1.8 °  
Cooler Dsc: 5B FedEx: \_\_\_\_\_  
Packing: None UPS: \_\_\_\_\_  
Cust. Seal: Yes \_\_\_ No  Lab Cour: \_\_\_\_\_  
Blue Ice: Wet, Dry, None Other: Client

1/4

Therm. ID: 43 Cor: 0.8 ° Unc: 1.5 °  
Cooler Dsc: LB FedEx: \_\_\_\_\_  
Packing: None UPS: \_\_\_\_\_  
Cust. Seal: Yes \_\_\_ No  Lab Cour: \_\_\_\_\_  
Blue Ice: Wet, Dry, None Other: Client

2/4

Therm. ID: 43 Cor: 0.4 ° Unc: 1.1 °  
Cooler Dsc: LB FedEx: \_\_\_\_\_  
Packing: None UPS: \_\_\_\_\_  
Cust. Seal: Yes \_\_\_ No  Lab Cour: \_\_\_\_\_  
Blue Ice: Wet, Dry, None Other: Client

3/4

Therm. ID: 43 Cor: 0.0 ° Unc: 0.7 °  
Cooler Dsc: LB FedEx: \_\_\_\_\_  
Packing: None UPS: \_\_\_\_\_  
Cust. Seal: Yes \_\_\_ No  Lab Cour: \_\_\_\_\_  
Blue Ice: Wet, Dry, None Other: Client

4/4

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 580-135195-1

**Login Number: 135195**

**List Source: Eurofins Seattle**

**List Number: 1**

**Creator: Groves, Elizabeth**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# **Appendix 8**

## **Data Validation**

# Technical Memorandum

April 18, 2023

<b>To</b>	Amy Monier	<b>Tel</b>	1 206 914 3141
<b>Copy to</b>	Amber Meslar	<b>Email</b>	Jeffrey.Cloud@ghd.com
<b>From</b>	Jeffrey Cloud/eew/13	<b>Ref. No.</b>	11218519
<b>Subject</b>	<b>Analytical Results and Reduced Validation of Report #590-20136-1            Quarterly Groundwater Sampling            Shell International Petroleum - Triton West Consent Decree            Seattle, Washington            March 2023</b>		

## 1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in support of the Quarterly Groundwater Sampling at the Triton West Consent Decree site in Seattle, Washington during March 2023. Samples were submitted to Eurofins Environment Testing, located in Spokane, Washington. A sample collection and analysis summary is presented in Table 1. A summary of the analytical methodology is presented in Table 2. The validated analytical results are summarized in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The analytical results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, laboratory duplicate data, recovery data from surrogate spikes, laboratory control samples and field QC sample data.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 2 and applicable guidance from the document entitled "National Functional Guidelines for Organic Superfund Methods Data Review", USEPA 540-R-20-005, November 2020.

## 2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in the methods. The sample chain of custody documents and analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All sample containers were properly preserved, delivered on ice and stored by the laboratory at the required temperature (0-6°C).

### **3. Laboratory Blank Analyses**

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

### **4. Surrogate Spike Recoveries**

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC), gasoline range organics (GRO) and diesel range organics (DRO)/motor oil range organics (ORO) analysis were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Surrogate recoveries were assessed against the control limits. All surrogate recoveries met the associated criteria.

### **5. Laboratory Control Sample Analyses**

Laboratory control samples (LCS)/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS or LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS and LCS/LCSD contained all analytes of interest. All LCS and LCS/LCSD recoveries and RPDs were within associated control limits, demonstrating acceptable analytical accuracy and precision (where applicable).

### **6. Duplicate Sample Analyses**

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

### **7. Field QA/QC Samples**

The field QA/QC consisted of one trip blank sample.

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for analysis. All results were non-detect for the analytes of interest with the exception of two analytes present at low concentrations. The associated sample results with concentrations similar to the blank were qualified as non-detect due to contamination as evidenced by the blank (see Table 4).

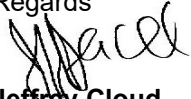
## 8. Analyte Reporting

Data were reported down to the laboratory's quantitation limit (QL), which is defined as the method detection limit (MDL) with sample-specific adjustments for dilutions, aliquot size, volumes, etc. Positive analyte detections less than the reporting limit (RL) but greater than the QL were reported as estimated (J) in Table 3 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 3.

## 9. Conclusion

Based on the assessment detailed in the foregoing, the summarized data are acceptable with the specific qualifications noted herein.

Regards



**Jeffrey Cloud**  
Data Management Team – Data Validator

Table 1

**Sample Collection and Analysis Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**March 2023**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>				Comments
					VOCs	GRO	DRO/ORO	DRO/ORO w/sgc	
MW-301	MW-301	Water	03/28/2023	10:19	X	X			
MW-302	MW-302	Water	03/27/2023	13:41	X	X			DUP
MW-303	MW-303	Water	03/28/2023	09:51	X	X			
MW-304	MW-304	Water	03/27/2023	14:10	X	X			
MW-307	MW-307	Water	03/27/2023	12:29	X	X			
MW-308	MW-308	Water	03/27/2023	13:01	X	X			
MW-310	MW-310	Water	03/27/2023	14:45	X	X			
MW-311	MW-311	Water	03/28/2023	07:52	X	X			
MW-312	MW-312	Water	03/28/2023	08:17	X	X			
MW-313	MW-313	Water	03/28/2023	08:46	X	X	X		
MW-314	MW-314	Water	03/27/2023	10:17	X	X	X	X	
MW-315	MW-315	Water	03/28/2023	09:16	X	X	X	X	
TX-03A	TX-03A	Water	03/27/2023	15:09	X	X			
TB-1	--	Water	03/27/2023	--	X	X			Trip Blank

## Notes:

- DUP - Laboratory Duplicate  
VOCs - Volatile Organic Compounds  
GRO - Gasoline Range Organics  
DRO/ORO - Diesel Range Organics/Motor Oil Range Organics  
w/sgc - With Silica Gel Cleanup  
"--" - Not Applicable

Table 2

**Analytical Methods**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**March 2023**

<b>Parameter</b>	<b>Method</b>	<b>Matrix</b>
Volatile Organic Compounds (VOCs)	SW-846 8260D <sup>(1)</sup>	Water
Gasoline Range Organics (GRO)	NWTPH-Gx <sup>(2)</sup>	Water
Diesel Range Organics (DRO)/Motor Oil Range Organics (ORO)	NWTPH-Dx <sup>(2)</sup>	Water

## Notes:

- (1) - SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
- (2) - NWTPH - Referenced from "Washington State Department of Ecology Analytical Methods for Petroleum Hydrocarbons", Publication No. ECY 97-602, June 1997



Table 3

**Analytical Results Summary  
 Quarterly Groundwater Sampling  
 Shell International Petroleum - Triton West Consent Decree  
 Seattle, Washington  
 March 2023**

<b>Location ID:</b>	<b>MW-301</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-310</b>
<b>Sample Name:</b>	<b>MW-301</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-310</b>
<b>Sample Date:</b>	<b>03/28/2023</b>	<b>03/27/2023</b>	<b>03/28/2023</b>	<b>03/27/2023</b>	<b>03/27/2023</b>	<b>03/27/2023</b>	<b>03/27/2023</b>

<b>Parameters</b>	<b>Unit</b>							
<b>Volatile Organic Compounds</b>								
Benzene	µg/L	78.2	5.57	28.2	69.2	69.8	41.8	36.9
Ethylbenzene	µg/L	12.9	1.00 U	140	0.721 J	0.735 J	25.4	21.6
Toluene	µg/L	5.02	1.00 U	2.81	3.00	3.05	2.57	2.37
Xylenes (total)	µg/L	3.96	3.69	12.2	5.85	5.71	10.0	8.90
<b>Total Petroleum Hydrocarbons</b>								
Gasoline	µg/L	952	508	1140	609	569	854	879
Motor oil	µg/L	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Extractable (DRO) (Silica Gel)	µg/L	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Motor Oil (Silica Gel)	µg/L	--	--	--	--	--	--	--

Table 3

**Analytical Results Summary  
Quarterly Groundwater Sampling  
Shell International Petroleum - Triton West Consent Decree  
Seattle, Washington  
March 2023**

<b>Location ID:</b>	<b>MW-311</b>	<b>MW-312</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>TX-03A</b>
<b>Sample Name:</b>	<b>MW-311</b>	<b>MW-312</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>TX-03A</b>
<b>Sample Date:</b>	<b>03/28/2023</b>	<b>03/28/2023</b>	<b>03/28/2023</b>	<b>03/27/2023</b>	<b>03/28/2023</b>	<b>03/27/2023</b>

<b>Parameters</b>	<b>Unit</b>						
<b>Volatile Organic Compounds</b>							
Benzene	µg/L	1.91	4.91	0.400 U	0.964	27.3	165
Ethylbenzene	µg/L	0.746 J	1.01	1.00 U	1.00 U	1.02	5.32
Toluene	µg/L	2.33	2.05	1.00 U	1.00 U	4.10	8.07
Xylenes (total)	µg/L	3.00 U	3.00 U	3.00 U	3.00 U	3.84	9.04
<b>Total Petroleum Hydrocarbons</b>							
Gasoline	µg/L	1640	1320	150 U	150	1720	1500
Motor oil	µg/L	--	--	373 U	393 U	368 U	--
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	--	--	224 U	664	2010	--
Total Petroleum Hydrocarbons - Extractable (DRO) (Silica Gel)	µg/L	--	--	--	221 J	1280	--
Total Petroleum Hydrocarbons - Motor Oil (Silica Gel)	µg/L	--	--	--	393 U	368 U	--

Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

"--" - Not analyzed

DRO - Diesel Range Organics

Table 4

**Qualified Sample Data Due to Analyte Concentrations in the Trip Blanks**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**March 2023**

Parameter	Blank Date (mm/dd/yyyy)	Analyte	Blank Result *	Associated Sample ID	Original Result	Qualified Result	Units
VOCs	03/27/2023	Toluene	0.394 J	MW-302	0.980 J	1.00 U	µg/L
				MW-314	0.514 J	1.00 U	µg/L
		Xylenes (total)	0.512 J	MW-311	1.49 J	3.00 U	µg/L
				MW-312	2.15 J	3.00 U	µg/L
				MW-314	0.621 J	3.00 U	µg/L

## Notes:

- \* - Blank result adjusted for sample factors where applicable
- U - Not detected at the associated concentration
- J - Estimated concentration
- VOCs - Volatile Organic Compounds

# Data Verification Report

July 19, 2023

<b>To</b>	Emily Blakeway	<b>Project No.</b>	11218519
<b>Copy to</b>	Amber Meslar	<b>DVR No.</b>	N/A
<b>From</b>	Jeffrey Cloud/eew/14	<b>Contact No.</b>	1 971 925 3756
<b>Project Name</b>	Shell International Petroleum	<b>Email</b>	Jeffrey.Cloud@ghd.com
<b>Subject</b>	Analytical Results and Data Verification of Report 590-20829-1 Quarterly Groundwater Sampling Triton West Consent Decree Seattle Washington June 2023		

*The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.*

## 1. Introduction

This document details a data verification of analytical results for groundwater samples collected in support of the Quarterly Groundwater Sampling at the Triton West Consent Decree site in Seattle, Washington during June 2023. Samples were submitted to Eurofins Environment Testing, located in Spokane, Washington. A sample collection and analysis summary is presented in Table 1. A summary of the analytical methodology is presented in Table 2. The validated analytical results are summarized in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The analytical results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, laboratory duplicate data, recovery data from surrogate spikes, laboratory control data, matrix spikes and field QC data.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 2 and applicable guidance from the documents entitled:

1. "National Functional Guidelines for Organic Superfund Methods Data Review", United States Environmental Protection Agency (USEPA) 540-R-20-005, November 2020
2. "National Functional Guidelines for Inorganic Superfund Methods Data Review", United States Environmental Protection Agency (USEPA) 542-R-20-006, November 2020

These items will subsequently be referred to as the "Guidelines" in this Memorandum.

## **2. Sample Holding Time and Preservation**

The sample holding time criteria and sample preservation requirements for the analyses are summarized in the methods. The sample chain of custody documents and analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All sample containers were properly preserved, delivered on ice and stored by the laboratory at the required temperature (0-6°C).

## **3. Laboratory Method Blank Analyses**

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

## **4. Surrogate Spike Recoveries**

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC), semi-volatile organic compound (SVOC), gasoline range organics (GRO) and diesel range organics (DRO)/motor oil range organics (ORO) analysis were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Surrogate recoveries were assessed against the control limits. All surrogate recoveries met the associated criteria.

## **5. Laboratory Control Sample Analyses**

Laboratory control samples (LCS)/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### **5.1 Organic Analyses**

The LCS/LCSD contained all analytes of interest. All LCS/LCSD recoveries and RPDs were within associated control limits, demonstrating acceptable analytical accuracy and precision.

### **5.2 Inorganic Analyses**

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS/LCSD recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

## 6. Matrix Spike Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as matrix spike (MS)/matrix spike duplicate (MSD) samples. The RPD between the MS and MSD is used to assess analytical precision. MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with the analytes of interest. All percent recoveries and RPD values were within the associated control limits, demonstrating acceptable analytical accuracy and precision.

## 7. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

## 8. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample.

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for analysis. All results were non-detect for the analytes of interest.

## 9. Analyte Reporting

Data were reported down to the laboratory's quantitation limit (QL), which is defined as the method detection limit (MDL) with sample-specific adjustments for dilutions, aliquot size, volumes, etc. Positive analyte detections less than the reporting limit (RL) but greater than the QL were reported as estimated (J) in Table 3. Non-detect results were presented as non-detect at the RL in Table 3.

## 10. Conclusion

Based on the assessment detailed in the foregoing, the summarized data are acceptable without qualification.

Regards



**Jeffrey Cloud**

Data Management Team – Data Validator



Table 1

**Sample Collection and Analysis Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**June 2023**

Analysis/Parameters

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters						Comments
					DRO/RRO	DRO/RRO w/sgc	GRO	Lead	VOCs	SVOCs	
MW-05	MW-05	Water	06/13/2023	09:42	X		X		X		
MW-104	MW-104	Water	06/13/2023	09:10	X	X	X	X			
MW-111	MW-111	Water	06/13/2023	10:15	X		X		X		
MW-112A	MW-112A	Water	06/13/2023	12:46	X	X	X		X		
MW-113	MW-113	Water	06/13/2023	10:45	X	X	X		X		
MW-114	MW-114	Water	06/13/2023	11:43	X		X		X		
MW-115	MW-115	Water	06/13/2023	11:15	X	X	X		X		
MW-202	MW-202	Water	06/12/2023	13:39	X	X	X				
MW-203	MW-203	Water	06/12/2023	14:09	X	X	X				DUP
MW-213	MW-213	Water	06/12/2023	12:33	X		X		X	X	
MW-214	MW-214	Water	06/12/2023	13:03	X		X		X	X	
MW-301	MW-301	Water	06/14/2023	13:05			X		X		
MW-302	MW-302	Water	06/13/2023	13:48			X		X		
MW-303	MW-303	Water	06/14/2023	13:54			X		X		
MW-304	MW-304	Water	06/14/2023	12:39			X		X		
MW-307	MW-307	Water	06/13/2023	08:36	X		X		X		DUP
MW-308	MW-308	Water	06/13/2023	08:05			X		X		
MW-309	MW-309	Water	06/14/2023	13:29			X		X		
MW-310	MW-310	Water	06/13/2023	13:20			X		X		
MW-311	MW-311	Water	06/14/2023	10:10			X		X		DUP
MW-312	MW-312	Water	06/14/2023	10:38			X		X		MS/MSD
MW-313	MW-313	Water	06/14/2023	11:06	X		X		X		
MW-314	MW-314	Water	06/14/2023	12:05	X	X	X		X		

Table 1

**Sample Collection and Analysis Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**June 2023**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>					Comments
					DRO/RRO	DRO/RRO w/sgc	GRO	Lead	VOCs	
MW-315	MW-315	Water	06/14/2023	11:34	X	X	X		X	
SH-04	SH-04	Water	06/13/2023	12:16	X	X	X		X	
TX-03A	TX-03A	Water	06/14/2023	14:58			X		X	
TB-1	--	Water	06/12/2023	--			X		X	Trip Blank

Notes:

- DUP - Laboratory Duplicate
- MS/MSD - Matrix Spike/Matrix Spike Duplicate
- VOCs - Volatile Organic Compounds
- SVOCs - Semi-volatile Organic Compounds
- GRO - Gasoline Range Organics
- DRO/RRO - Diesel Range Organics/Residual Range Organics
- w/sgc - With Silica Gel Cleanup
- "--" - Not Applicable

Table 2

**Analytical Methods**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**June 2023**

<b>Parameter</b>	<b>Method</b>	<b>Matrix</b>
Volatile Organic Compounds (VOCs)	SW-846 8260D <sup>(1)</sup>	Water
Semi-volatile Organic Compounds (SVOCs)	SW-846 8270E SIM <sup>(1)</sup>	Water
Gasoline Range Organics (GRO)	NWTPH-Gx <sup>(2)</sup>	Water
Diesel Range Organics (DRO)Residual Range Organics (RRO)	NWTPH-Dx <sup>(2)</sup>	Water
Lead	SW-846 6020B <sup>(1)</sup>	Water

## Notes:

- (1) - SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
- (2) - NWTPH - Referenced from "Washington State Department of Ecology Analytical Methods for Petroleum Hydrocarbons", Publication no. ECY 97-602, June 1997
- SIM - Selective Ion Monitoring

Table 3

**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**June 2023**

<b>Location ID:</b>	<b>MW-05</b>	<b>MW-104</b>	<b>MW-111</b>	<b>MW-112A</b>	<b>MW-113</b>	<b>MW-114</b>	<b>MW-115</b>	<b>MW-202</b>	<b>MW-203</b>
<b>Sample Name:</b>	<b>MW-05</b>	<b>MW-104</b>	<b>MW-111</b>	<b>MW-112A</b>	<b>MW-113</b>	<b>MW-114</b>	<b>MW-115</b>	<b>MW-202</b>	<b>MW-203</b>
<b>Sample Date:</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/12/2023</b>	<b>06/12/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Volatile Organic Compounds</b>										
Benzene	µg/L	0.400 U	--	1.32	2.46	396	0.400 U	0.400 U	--	--
Ethylbenzene	µg/L	1.00 U	--	1.00 U	28.9	5.72	1.00 U	1.00 U	--	--
Toluene	µg/L	1.00 U	--	1.00 U	1.25	32.2	1.00 U	1.00 U	--	--
Xylenes (total)	µg/L	3.00 U	--	3.00 U	3.17	4.76	3.00 U	3.00 U	--	--
<b>Semi-volatile Organic Compounds, SIM</b>										
1-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--
<b>Metals</b>										
Lead	µg/L	--	1.95 J	--	--	--	--	--	--	--

**Table 3**  
**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**June 2023**

<b>Location ID:</b>	<b>MW-05</b>	<b>MW-104</b>	<b>MW-111</b>	<b>MW-112A</b>	<b>MW-113</b>	<b>MW-114</b>	<b>MW-115</b>	<b>MW-202</b>	<b>MW-203</b>
<b>Sample Name:</b>	<b>MW-05</b>	<b>MW-104</b>	<b>MW-111</b>	<b>MW-112A</b>	<b>MW-113</b>	<b>MW-114</b>	<b>MW-115</b>	<b>MW-202</b>	<b>MW-203</b>
<b>Sample Date:</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/12/2023</b>	<b>06/12/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Total Petroleum Hydrocarbons</b>										
Gasoline	µg/L	150 U	160	150 U	1290	488	150 U	328	947	944
Motor oil	µg/L	401 U	393 U	387 U	389 U	389 U	411 U	390 U	365 J	383
Total Petroleum Hydrocarbons (C10-C25) DRO (Silica Gel)	µg/L	--	176 J	--	658	547	--	1630	622	764
Total Petroleum Hydrocarbons (C25-C36) RRO (Silica Gel)	µg/L	--	393 U	--	389 U	389 U	--	390 U	378 J	263 J
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	241 U	261	232 U	2560	1300	246 U	2770	2180	2910

**Table 3**  
**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**June 2023**

<b>Location ID:</b>	<b>MW-213</b>	<b>MW-214</b>	<b>MW-301</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-309</b>
<b>Sample Name:</b>	<b>MW-213</b>	<b>MW-214</b>	<b>MW-301</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-309</b>
<b>Sample Date:</b>	<b>06/12/2023</b>	<b>06/12/2023</b>	<b>06/14/2023</b>	<b>06/13/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/14/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Volatile Organic Compounds</b>										
Benzene	µg/L	0.400 U	0.400 U	110	29.8	99.9	116	0.400 U	0.400 U	0.400 U
Ethylbenzene	µg/L	1.00 U	1.00 U	6.09	8.16	39.9	0.506 J	1.00 U	0.368 J	1.00 U
Toluene	µg/L	1.00 U	1.00 U	4.08	1.62	4.03	5.02	1.00 U	1.00 U	1.00 U
Xylenes (total)	µg/L	3.00 U	3.00 U	3.15	1.70 J	8.13	8.15	3.00 U	3.00 U	3.00 U
<b>Semi-volatile Organic Compounds, SIM</b>										
1-Methylnaphthalene	µg/L	0.0907 U	0.0903 U	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	0.0907 U	0.0903 U	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	0.0907 U	0.0224 J	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	0.0907 U	0.0903 U	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	0.0907 U	0.0903 U	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	0.0907 U	0.0903 U	--	--	--	--	--	--	--
Chrysene	µg/L	0.0907 U	0.0903 U	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	0.0907 U	0.0903 U	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	0.0907 U	0.0903 U	--	--	--	--	--	--	--
Naphthalene	µg/L	0.0907 U	0.0903 U	--	--	--	--	--	--	--
<b>Metals</b>										
Lead	µg/L	--	--	--	--	--	--	--	--	--



**Table 3**  
**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**June 2023**

<b>Location ID:</b>	<b>MW-213</b>	<b>MW-214</b>	<b>MW-301</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-309</b>
<b>Sample Name:</b>	<b>MW-213</b>	<b>MW-214</b>	<b>MW-301</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-309</b>
<b>Sample Date:</b>	<b>06/12/2023</b>	<b>06/12/2023</b>	<b>06/14/2023</b>	<b>06/13/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/13/2023</b>	<b>06/13/2023</b>	<b>06/14/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Total Petroleum Hydrocarbons</b>										
Gasoline	µg/L	42.6 J	150 U	794	554	1260	734	150 U	175	51.4 J
Motor oil	µg/L	373 U	389 U	--	--	--	--	412 U	--	--
Total Petroleum Hydrocarbons (C10-C25) DRO (Silica Gel)	µg/L	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (C25-C36) RRO (Silica Gel)	µg/L	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	224 U	233 U	--	--	--	--	247 U	--	--

Table 3

**Analytical Results Summary  
Quarterly Groundwater Sampling  
Shell International Petroleum - Triton West Consent Decree  
Seattle, Washington  
June 2023**

<b>Location ID:</b>	<b>MW-310</b>	<b>MW-311</b>	<b>MW-312</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>SH-04</b>	<b>TX-03A</b>
<b>Sample Name:</b>	<b>MW-310</b>	<b>MW-311</b>	<b>MW-312</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>SH-04</b>	<b>TX-03A</b>
<b>Sample Date:</b>	<b>06/13/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/13/2023</b>	<b>06/14/2023</b>

**Parameters**

**Unit**

**Volatile Organic Compounds**

Benzene	µg/L	27.5	2.39	4.88	0.400 U	0.400 U	16.9	2.65	241
Ethylbenzene	µg/L	7.61	0.568 J	1.04	1.00 U	1.00 U	1.18	1.75	4.97
Toluene	µg/L	1.53	2.81	1.96	1.00 U	1.00 U	4.27	0.486 J	8.80
Xylenes (total)	µg/L	1.48 J	1.15 J	1.79 J	3.00 U	3.00 U	2.92 J	1.92 J	7.91

**Semi-volatile Organic Compounds, SIM**

1-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--	--

**Metals**

Lead	µg/L	--	--	--	--	--	--	--	--
------	------	----	----	----	----	----	----	----	----

**Table 3**  
**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**June 2023**

<b>Location ID:</b>	<b>MW-310</b>	<b>MW-311</b>	<b>MW-312</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>SH-04</b>	<b>TX-03A</b>
<b>Sample Name:</b>	<b>MW-310</b>	<b>MW-311</b>	<b>MW-312</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>SH-04</b>	<b>TX-03A</b>
<b>Sample Date:</b>	<b>06/13/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/14/2023</b>	<b>06/13/2023</b>	<b>06/14/2023</b>

<b>Parameters</b>	<b>Unit</b>								
<b>Total Petroleum Hydrocarbons</b>									
Gasoline	µg/L	474	1530	1230	32.5 J	123 J	1650	367	1370
Motor oil	µg/L	--	--	--	407 U	405 U	394 U	398 U	--
Total Petroleum Hydrocarbons (C10-C25) DRO (Silica Gel)	µg/L	--	--	--	--	165 J	1360	199 J	--
Total Petroleum Hydrocarbons (C25-C36) RRO (Silica Gel)	µg/L	--	--	--	--	405 U	394 U	398 U	--
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	--	--	--	244 U	666	2500	231 J	--

Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

"--" - Not analyzed

DRO - Diesel Range Organics

RRO - Residual Range Organics

SIM - Selective Ion Monitoring

# Data Verification Report

September 27, 2023

<b>To</b>	Emily Blakeway	<b>Project No.</b>	11218519
<b>Copy to</b>	Amber Meslar	<b>DVR No.</b>	15
<b>From</b>	Jeffrey Cloud/cs/15-NF	<b>Contact No.</b>	1 971 925 3756
<b>Project Name</b>	Shell International Petroleum	<b>Email</b>	Jeffrey.Cloud@ghd.com
<b>Subject</b>	Analytical Results and Data Verification of Report 580-131444-1 Quarterly Groundwater Sampling Triton West Consent Decree Seattle, Washington September 2023		

*The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.*

## 1. Introduction

This document details a data verification of analytical results for groundwater samples collected in support of the Quarterly Groundwater Sampling at the Triton West Consent Decree site in Seattle, Washington during September 2023. Samples were submitted to Eurofins Seattle, located in Tacoma, Washington. A sample collection and analysis summary is presented in Table 1. A summary of the analytical methodology is presented in Table 2. The validated analytical results are summarized in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The analytical results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, recovery data from surrogate spikes, laboratory control data and field QC data.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 2 and applicable guidance from the document entitled "National Functional Guidelines for Organic Superfund Methods Data Review", United States Environmental Protection Agency (USEPA) 540-R-20-005, November 2020.

## 2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in the methods. The sample chain of custody documents and analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All sample containers were properly preserved, delivered on ice and stored by the laboratory at the required temperature (0-6°C).

### **3. Laboratory Method Blank Analyses**

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

### **4. Surrogate Spike Recoveries**

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC), gasoline range organics (GRO) and diesel range organics (DRO)/motor oil range organics (ORO) analysis were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Surrogate recoveries were assessed against the control limits. All surrogate recoveries met the associated criteria.

### **5. Laboratory Control Sample Analyses**

Laboratory control samples (LCS)/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS/LCSD contained all analytes of interest. All LCS/LCSD recoveries and RPDs were within associated control limits, demonstrating acceptable analytical accuracy and precision.

### **6. Field QA/QC Samples**

The field QA/QC consisted of one trip blank sample.

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for analysis. All results were non-detect for the analytes of interest.

### **7. Analyte Reporting**

Data were reported down to the laboratory's quantitation limit (QL), which is defined as the method detection limit (MDL) with sample-specific adjustments for dilutions, aliquot size, volumes, etc. Positive analyte detections less than the reporting limit (RL) but greater than the QL were reported as estimated (J) in Table 3. Non-detect results were presented as non-detect at the RL in Table 3.

## 8. Conclusion

Based on the assessment detailed in the foregoing, the summarized data are acceptable without qualification.

Regards,



**Jeffrey Cloud**  
Data Management Team – Data Validator



Table 1

**Sample Collection and Analysis Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**September 2023**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>				Comments
					DRO/RRO	DRO/RRO w/sgc	GRO	VOCs	
MW-301	MW-301	Water	09/11/2023	12:27			X	X	
MW-302	MW-302	Water	09/12/2023	12:41			X	X	
MW-303	MW-303	Water	09/11/2023	12:02			X	X	
MW-304	MW-304	Water	09/11/2023	12:56			X	X	
MW-307	MW-307	Water	09/11/2023	10:45			X	X	
MW-308	MW-308	Water	09/11/2023	11:16			X	X	
MW-310	MW-310	Water	09/11/2023	13:23			X	X	
MW-311	MW-311	Water	09/12/2023	12:11			X	X	
MW-312	MW-312	Water	09/12/2023	11:43			X	X	
MW-313	MW-313	Water	09/12/2023	10:41	X	X	X	X	
MW-315	MW-315	Water	09/12/2023	11:15	X	X	X	X	
TX-03A	TX-03A	Water	09/12/2023	14:57			X	X	
TB-1	--	Water	09/11/2023	--			X	X	Trip Blank

## Notes:

- VOCs - Volatile Organic Compounds  
GRO - Gasoline Range Organics  
DRO/RRO - Diesel Range Organics/Residual Range Organics  
w/sgc - With Silica Gel Cleanup  
"--" - Not Applicable

Table 2

**Analytical Methods**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**September 2023**

<b>Parameter</b>	<b>Method</b>	<b>Matrix</b>
Volatile Organic Compounds (VOCs)	SW-846 8260D <sup>(1)</sup>	Water
Gasoline Range Organics (GRO)	NWTPH-Gx <sup>(2)</sup>	Water
Diesel Range Organics (DRO)Residual Range Organics (RRO)	NWTPH-Dx <sup>(2)</sup>	Water

## Notes:

- (1) - SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
- (2) - NWTPH - Referenced from "Washington State Department of Ecology Analytical Methods for Petroleum Hydrocarbons", Publication No. ECY 97-602, June 1997.

**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**September 2023**

Location ID:	MW-301	MW-302	MW-303	MW-304	MW-307	MW-308
Sample Name:	MW-301	MW-302	MW-303	MW-304	MW-307	MW-308
Sample Date:	09/11/2023	09/12/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023

**Parameters****Unit****Volatile Organic Compounds**

Benzene	µg/L	70.4	37.3	366	91.1	54.5	0.979 J
Ethylbenzene	µg/L	0.846 J	1.00 U	67.4	1.67	85.6	1.00 U
Toluene	µg/L	5.26	4.80	11.9	6.48	21.6	0.845 J
Xylenes (total)	µg/L	3.00	6.94	17.9	14.7	92.8	2.00 U

**Total Petroleum Hydrocarbons**

Gasoline	µg/L	590	1260	2220	938	2870	154
Motor oil	µg/L	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Extractable (DRO) (Silica Gel)	µg/L	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Motor Oil (Silica Gel)	µg/L	--	--	--	--	--	--

**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**September 2023**

Location ID:	MW-310	MW-311	MW-312	MW-313	MW-315	TX-03A
Sample Name:	MW-310	MW-311	MW-312	MW-313	MW-315	TX-03A
Sample Date:	09/11/2023	09/12/2023	09/12/2023	09/12/2023	09/12/2023	09/12/2023

Parameters	Unit						
<b>Volatile Organic Compounds</b>							
Benzene	µg/L	16.3	2.17	11.0	1.00 U	1.01	89.0
Ethylbenzene	µg/L	1.00 U	0.520 J	1.18	1.00 U	1.00 U	0.770 J
Toluene	µg/L	1.12	3.12	2.27	1.00 U	3.54	7.60
Xylenes (total)	µg/L	1.63 J	0.984 J	2.08	2.00 U	2.96	8.60
<b>Total Petroleum Hydrocarbons</b>							
Gasoline	µg/L	872	2490	2580	50.0 U	3020	1980
Motor oil	µg/L	--	--	--	140 J	290 J	--
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	--	--	--	157	4170	--
Total Petroleum Hydrocarbons - Extractable (DRO) (Silica Gel)	µg/L	--	--	--	113 U	1600	--
Total Petroleum Hydrocarbons - Motor Oil (Silica Gel)	µg/L	--	--	--	359 U	361 U	--

## Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

-- - Not Applicable

DRO - Diesel Range Organics

# Data Verification Report

January 31, 2024

<b>To</b>	Emily Blakeway	<b>Project No.</b>	12631170
<b>Copy to</b>	Amber Meslar	<b>DVR No.</b>	N/A
<b>From</b>	Jeffrey Cloud/eew/1	<b>Contact No.</b>	1 971 925 3756
<b>Project Name</b>	Triton West	<b>Email</b>	Jeffrey.Cloud@ghd.com
<b>Subject</b>	Analytical Results and Data Verification of Report 580-135195-1 Quarterly Groundwater Sampling Triton West Consent Decree Seattle, Washington December 2023		

*The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.*

## 1. Introduction

This document details a data verification of analytical results for groundwater samples collected in support of the Quarterly Groundwater Sampling at the Triton West Consent Decree site in Seattle, Washington during December 2023. Samples were submitted to Eurofins Seattle, located in Tacoma, Washington. A sample collection and analysis summary is presented in Table 1. A summary of the analytical methodology is presented in Table 2. The validated analytical results are summarized in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The analytical results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, laboratory duplicate data, recovery data from surrogate spikes, laboratory control data, matrix spikes and field QC data.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 2 and applicable guidance from the documents entitled:

1. "National Functional Guidelines for Organic Superfund Methods Data Review", United States Environmental Protection Agency (US EPA) 540-R-20-005, November 2020
2. "National Functional Guidelines for Inorganic Superfund Methods Data Review", US EPA 542-R-20-006, November 2020

These items will subsequently be referred to as the "Guidelines" in this report.

## **2. Sample Holding Time and Preservation**

The sample holding time criteria and sample preservation requirements for the requested parameters are summarized in the methods. The sample chain of custody documents and analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All sample containers were properly preserved, delivered on ice and stored by the laboratory at the required temperature (0-6°C).

## **3. Laboratory Method Blank Analyses**

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

## **4. Surrogate Spike Recoveries**

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC), semi-volatile organic compound (SVOC), gasoline range organics (GRO) and diesel range organics (DRO)/motor oil range organics (ORO) analyses were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Surrogate recoveries were assessed against the control limits. All surrogate recoveries met the associated criteria.

## **5. Laboratory Control Sample Analyses**

Laboratory control samples (LCS)/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of one per analytical batch.

### **5.1 Organic Analyses**

The LCS/LCSD contained all analytes of interest. All LCS/LCSD recoveries and RPDs were within associated control limits, demonstrating acceptable analytical accuracy and precision.

### **5.2 Inorganic Analyses**

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS/LCSD recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.



## 6. Matrix Spike Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as matrix spike (MS)/matrix spike duplicate (MSD) samples. The RPD between the MS and MSD is used to assess analytical precision. MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with the analytes of interest and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

## 7. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

## 8. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample.

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for analysis. All results were non-detect for the analytes of interest with the exception of total xylenes present at a low concentration. The associated sample results with concentrations similar to the blank were qualified as non-detect due to contamination as evidenced by the blank (see Table 4).

## 9. Analyte Reporting

Data were reported down to the laboratory's quantitation limit (QL), which is defined as the method detection limit (MDL) with sample-specific adjustments for dilutions, aliquot size, volumes, etc. Positive analyte detections less than the reporting limit (RL) but greater than the QL were reported as estimated (J) in Table 3 unless qualified otherwise in this report. Non-detect results were presented as non-detect at the RL in Table 3.

## 10. Conclusion

Based on the assessment detailed in the foregoing, the summarized data are acceptable with the specific qualifications noted herein.

Regards



**Jeffrey Cloud**

Data Management Team – Data Validator

Table 1

**Sample Collection and Analysis Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**December 2023**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters							Comments
					Anions	DRO/ORO	GRO	Total Lead	Dissolved Metals	VOCs	SVOCs	
MW-05	MW-05	Water	12/18/2023	13:00		X	X			X		
MW-101	MW-101	Water	12/19/2023	08:15		X	X			X		
MW-102	MW-102	Water	12/18/2023	14:15		X	X			X		
MW-104	MW-104	Water	12/19/2023	08:05		X	X	X				
MW-105	MW-105	Water	12/18/2023	12:29		X	X	X		X		
MW-111	MW-111	Water	12/19/2023	08:35		X	X			X		
MW-112A	MW-112A	Water	12/19/2023	09:32		X	X			X		
MW-113	MW-113	Water	12/19/2023	10:35		X	X			X		
MW-114	MW-114	Water	12/19/2023	11:01		X	X			X		
MW-115	MW-115	Water	12/19/2023	11:26		X	X			X		
MW-201	MW-201	Water	12/18/2023	13:30		X	X			X		
MW-202	MW-202	Water	12/18/2023	12:05	X	X	X		X	X		
MW-203	MW-203	Water	12/20/2023	14:35	X	X	X		X			MS/MSD
MW-204	MW-204	Water	12/18/2023	11:05		X	X			X		
MW-206A	MW-206A	Water	12/18/2023	11:50		X	X			X		
MW-213	MW-213	Water	12/18/2023	10:50		X	X			X	X	
MW-214	MW-214	Water	12/18/2023	11:18		X	X			X	X	
MW-301	MW-301	Water	12/20/2023	13:11			X			X		
MW-302	MW-302	Water	12/20/2023	11:59	X	X	X		X	X		
MW-303	MW-303	Water	12/20/2023	13:35		X	X			X		
MW-304	MW-304	Water	12/20/2023	12:29	X	X	X		X	X		
MW-307	MW-307	Water	12/19/2023	10:20	X	X	X		X	X		
MW-308	MW-308	Water	12/19/2023	09:15	X		X		X	X		MS/MSD - DUP
MW-309	MW-309	Water	12/20/2023	14:02		X	X			X		
MW-310	MW-310	Water	12/19/2023	12:30	X	X	X		X	X		
MW-311	MW-311	Water	12/20/2023	11:27	X		X		X	X		MS/MSD - DUP

Table 1

**Sample Collection and Analysis Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**December 2023**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters							Comments
					Anions	DRO/ORO	GRO	Total Lead	Dissolved Metals	VOCs	SVOCs	
MW-312	MW-312	Water	12/20/2023	10:57	X	X		X	X			
MW-313	MW-313	Water	12/20/2023	10:29		X	X			X		
MW-314	MW-314	Water	12/20/2023	15:13		X	X			X		
MW-315	MW-315	Water	12/20/2023	10:02		X	X			X		
SH-04	SH-04	Water	12/19/2023	09:01		X	X			X		
TES-MW-1	TES-MW-1	Water	12/19/2023	11:45		X	X			X		
TX-03A	TX-03A	Water	12/20/2023	15:41	X	X	X		X	X		
TX-04	TX-04	Water	12/19/2023	10:05		X	X			X		
TX-06A	TX-06A	Water	12/19/2023	12:02		X	X			X		
TB-1	--	Water	12/18/2023	--			X			X		Trip Blank

## Notes:

- DUP - Laboratory Duplicate  
MS/MSD - Matrix Spike/Matrix Spike Duplicate  
VOCs - Volatile Organic Compounds  
SVOCs - Semi-volatile Organic Compounds  
GRO - Gasoline Range Organics  
DRO/ORO - Diesel Range Organics/Motor Oil Range Organics  
"--" - Not Applicable

Table 2

**Analytical Methods**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**December 2023**

<b>Parameter</b>	<b>Method</b>	<b>Matrix</b>
Volatile Organic Compounds (VOCs)	SW-846 8260B <sup>(1)</sup>	Water
Semi-volatile Organic Compounds (SVOCs)	SW-8468270E SIM <sup>(1)</sup>	Water
Gasoline Range Organics (GRO)	NWTPH-Dx <sup>(2)</sup>	Water
Diesel Range Organics (DRO)/Motor Oil Range Organics (ORO)	NWTPH-Gx <sup>(2)</sup>	Water
Metals	SW-846 6020B <sup>(1)</sup>	Water
Anions	EPA 300.0 <sup>(3)</sup> EPA 353.2 <sup>(3)</sup>	Water Water

## Notes:

- (1) - SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
- (2) - NWTPH - Referenced from "Washington State Department of Ecology Analytical Methods for Petroleum Hydrocarbons", Publication No. ECY 97-602, June 1997
- (3) - EPA - MCAWW - "Methods for Chemical Analysis of Water and Waste," EPA-600/4-79-020, revised March 1983, with subsequent revisions
- SIM - Selected Ion Monitoring

Table 3

**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**December 2023**

<b>Location ID:</b>	<b>MW-05</b>	<b>MW-101</b>	<b>MW-102</b>	<b>MW-104</b>	<b>MW-105</b>	<b>MW-111</b>	<b>MW-112A</b>	<b>MW-113</b>	<b>MW-114</b>
<b>Sample Name:</b>	<b>MW-05</b>	<b>MW-101</b>	<b>MW-102</b>	<b>MW-104</b>	<b>MW-105</b>	<b>MW-111</b>	<b>MW-112A</b>	<b>MW-113</b>	<b>MW-114</b>
<b>Sample Date:</b>	<b>12/18/2023</b>	<b>12/19/2023</b>	<b>12/18/2023</b>	<b>12/19/2023</b>	<b>12/18/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Volatile Organic Compounds</b>										
Benzene	µg/L	1.00 U	1.00 U	1.00 U	--	1.00 U	42.4	2.44	51.3	1.00 U
Ethylbenzene	µg/L	1.00 U	1.00 U	1.00 U	--	1.00 U	1.00 U	1.29	1.00 U	1.00 U
Toluene	µg/L	1.00 U	1.00 U	1.00 U	--	1.00 U	1.91	2.45	15.6	1.00 U
Xylenes (total)	µg/L	2.00 U	2.00 U	2.00 U	--	2.00 U	2.00 U	4.23	2.00 U	2.00 U
<b>Semi-volatile Organic Compounds, SIM</b>										
1-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--
<b>Metals</b>										
Iron (dissolved)	µg/L	--	--	--	--	--	--	--	--	--
Lead	µg/L	--	--	--	1.18 J	33.6	--	--	--	--
Manganese (dissolved)	µg/L	--	--	--	--	--	--	--	--	--

Table 3

**Analytical Results Summary  
 Quarterly Groundwater Sampling  
 Shell International Petroleum - Triton West Consent Decree  
 Seattle, Washington  
 December 2023**

<b>Location ID:</b>	<b>MW-05</b>	<b>MW-101</b>	<b>MW-102</b>	<b>MW-104</b>	<b>MW-105</b>	<b>MW-111</b>	<b>MW-112A</b>	<b>MW-113</b>	<b>MW-114</b>
<b>Sample Name:</b>	<b>MW-05</b>	<b>MW-101</b>	<b>MW-102</b>	<b>MW-104</b>	<b>MW-105</b>	<b>MW-111</b>	<b>MW-112A</b>	<b>MW-113</b>	<b>MW-114</b>
<b>Sample Date:</b>	<b>12/18/2023</b>	<b>12/19/2023</b>	<b>12/18/2023</b>	<b>12/19/2023</b>	<b>12/18/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Total Petroleum Hydrocarbons</b>										
Gasoline	µg/L	100 U	208	100 U	466	100 U	129	1090	153	100 U
Motor oil	µg/L	680	127 J	133 J	1140	1290	445	883	481	447
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	238	139	86.9 J	1680	1470	616	3220	868	144
<b>General Chemistry</b>										
Nitrite/Nitrate	µg/L	--	--	--	--	--	--	--	--	--
Sulfate	µg/L	--	--	--	--	--	--	--	--	--



Table 3

**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**December 2023**

<b>Location ID:</b>	<b>MW-115</b>	<b>MW-201</b>	<b>MW-202</b>	<b>MW-203</b>	<b>MW-204</b>	<b>MW-206A</b>	<b>MW-213</b>	<b>MW-214</b>	<b>MW-301</b>
<b>Sample Name:</b>	<b>MW-115</b>	<b>MW-201</b>	<b>MW-202</b>	<b>MW-203</b>	<b>MW-204</b>	<b>MW-206A</b>	<b>MW-213</b>	<b>MW-214</b>	<b>MW-301</b>
<b>Sample Date:</b>	<b>12/19/2023</b>	<b>12/18/2023</b>	<b>12/18/2023</b>	<b>12/20/2023</b>	<b>12/18/2023</b>	<b>12/18/2023</b>	<b>12/18/2023</b>	<b>12/18/2023</b>	<b>12/20/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Volatile Organic Compounds</b>										
Benzene	µg/L	1.00 U	1.00 U	2.76	--	1.00 U	1.00 U	1.00 U	1.00 U	28.9
Ethylbenzene	µg/L	1.00 U	1.00 U	0.989 J	--	1.00 U	1.00 U	1.00 U	1.00 U	3.80
Toluene	µg/L	1.00 U	1.00 U	0.818 J	--	1.00 U	1.00 U	1.00 U	1.00 U	4.80
Xylenes (total)	µg/L	2.00 U	2.00 U	2.00 U	--	2.00 U	2.00 U	2.00 U	2.00 U	3.84
<b>Semi-volatile Organic Compounds, SIM</b>										
1-Methylnaphthalene	µg/L	--	--	--	--	--	--	0.106 U	0.0984 U	--
2-Methylnaphthalene	µg/L	--	--	--	--	--	--	0.212 U	0.197 U	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	0.0530 U	0.0275 J	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	0.106 U	0.0243 J	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	0.106 U	0.0275 J	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	0.0530 U	0.0243 J	--
Chrysene	µg/L	--	--	--	--	--	--	0.106 U	0.0984 U	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	0.106 U	0.0984 U	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	0.0530 U	0.0228 J	--
Naphthalene	µg/L	--	--	--	--	--	--	0.530 U	0.492 U	--
<b>Metals</b>										
Iron (dissolved)	µg/L	--	--	14500	500 U	--	--	--	--	--
Lead	µg/L	--	--	--	--	--	--	--	--	--
Manganese (dissolved)	µg/L	--	--	1210	10.0 U	--	--	--	--	--

Table 3

**Analytical Results Summary  
 Quarterly Groundwater Sampling  
 Shell International Petroleum - Triton West Consent Decree  
 Seattle, Washington  
 December 2023**

<b>Location ID:</b>	<b>MW-115</b>	<b>MW-201</b>	<b>MW-202</b>	<b>MW-203</b>	<b>MW-204</b>	<b>MW-206A</b>	<b>MW-213</b>	<b>MW-214</b>	<b>MW-301</b>
<b>Sample Name:</b>	<b>MW-115</b>	<b>MW-201</b>	<b>MW-202</b>	<b>MW-203</b>	<b>MW-204</b>	<b>MW-206A</b>	<b>MW-213</b>	<b>MW-214</b>	<b>MW-301</b>
<b>Sample Date:</b>	<b>12/19/2023</b>	<b>12/18/2023</b>	<b>12/18/2023</b>	<b>12/20/2023</b>	<b>12/18/2023</b>	<b>12/18/2023</b>	<b>12/18/2023</b>	<b>12/18/2023</b>	<b>12/20/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Total Petroleum Hydrocarbons</b>										
Gasoline	µg/L	334	100 U	1050	100 U	100 U	100 U	100 U	100 U	804
Motor oil	µg/L	872	551	990	226 J	601	783	396	398	--
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	2460	255	14500	75.0 J	364	246	271	293	--
<b>General Chemistry</b>										
Nitrite/Nitrate	µg/L	--	--	111 J	73.7 J	--	--	--	--	--
Sulfate	µg/L	--	--	--	1010 J	--	--	--	--	--

Table 3

**Analytical Results Summary**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**December 2023**

<b>Location ID:</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-309</b>	<b>MW-310</b>	<b>MW-311</b>	<b>MW-312</b>
<b>Sample Name:</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-309</b>	<b>MW-310</b>	<b>MW-311</b>	<b>MW-312</b>
<b>Sample Date:</b>	<b>12/20/2023</b>	<b>12/20/2023</b>	<b>12/20/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>	<b>12/20/2023</b>	<b>12/19/2023</b>	<b>12/20/2023</b>	<b>12/20/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Volatile Organic Compounds</b>										
Benzene	µg/L	3.29	27.1	24.9	30.3	4.26	1.00 U	10.4	1.89	11.0
Ethylbenzene	µg/L	1.00 U	13.3	1.00 U	26.0	1.00 U	1.00 U	3.44	1.00 U	1.27
Toluene	µg/L	0.795 J	1.14	1.86	10.1	1.00 U	1.00 U	1.50	2.06	2.46
Xylenes (total)	µg/L	2.00 U	3.44	5.58	43.1	2.00 U	2.00 U	3.39	2.00 U	2.36
<b>Semi-volatile Organic Compounds, SIM</b>										
1-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--
<b>Metals</b>										
Iron (dissolved)	µg/L	326 J	--	6600	21700	110 J	--	10800	3100	1700
Lead	µg/L	--	--	--	--	--	--	--	--	--
Manganese (dissolved)	µg/L	1820	--	1060	695	118	--	1490	1580	1040

Table 3

**Analytical Results Summary  
 Quarterly Groundwater Sampling  
 Shell International Petroleum - Triton West Consent Decree  
 Seattle, Washington  
 December 2023**

<b>Location ID:</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-309</b>	<b>MW-310</b>	<b>MW-311</b>	<b>MW-312</b>
<b>Sample Name:</b>	<b>MW-302</b>	<b>MW-303</b>	<b>MW-304</b>	<b>MW-307</b>	<b>MW-308</b>	<b>MW-309</b>	<b>MW-310</b>	<b>MW-311</b>	<b>MW-312</b>
<b>Sample Date:</b>	<b>12/20/2023</b>	<b>12/20/2023</b>	<b>12/20/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>	<b>12/20/2023</b>	<b>12/19/2023</b>	<b>12/20/2023</b>	<b>12/20/2023</b>

<b>Parameters</b>	<b>Unit</b>									
<b>Total Petroleum Hydrocarbons</b>										
Gasoline	µg/L	680	924	613	2000	100 U	100 U	987	1840	2150
Motor oil	µg/L	878	600	692	923	--	144 J	2420	--	--
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	2900	3470	2230	6730	--	149	5560	--	--
<b>General Chemistry</b>										
Nitrite/Nitrate	µg/L	208	--	211	96.9 J	150 U	--	107 J	150 U	97.4 J
Sulfate	µg/L	49000	--	7220	23600	128000	--	22200	1500 U	1500 U

Table 3

**Analytical Results Summary  
Quarterly Groundwater Sampling  
Shell International Petroleum - Triton West Consent Decree  
Seattle, Washington  
December 2023**

<b>Location ID:</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>SH-04</b>	<b>TES-MW-1</b>	<b>TX-03A</b>	<b>TX-04</b>	<b>TX-06A</b>
<b>Sample Name:</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>SH-04</b>	<b>TES-MW-1</b>	<b>TX-03A</b>	<b>TX-04</b>	<b>TX-06A</b>
<b>Sample Date:</b>	<b>12/20/2023</b>	<b>12/20/2023</b>	<b>12/20/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>	<b>12/20/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>

**Parameters**

**Unit**

**Volatile Organic Compounds**

Benzene	µg/L	1.00 U	1.47	6.58	2.23	1.00 U	88.6	1.00 U	1.00 U
Ethylbenzene	µg/L	1.00 U	1.00 U	0.664 J	3.29	1.00 U	1.65	1.00 U	1.00 U
Toluene	µg/L	1.00 U	0.584 J	4.66	0.787 J	1.00 U	8.46	1.00 U	1.00 U
Xylenes (total)	µg/L	2.00 U	2.00 U	3.62	4.58	2.00 U	10.8	2.00 U	2.00 U

**Semi-volatile Organic Compounds, SIM**

1-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--	--

**Metals**

Iron (dissolved)	µg/L	--	--	--	--	--	360 J	--	--
Lead	µg/L	--	--	--	--	--	--	--	--
Manganese (dissolved)	µg/L	--	--	--	--	--	803	--	--

Table 3

**Analytical Results Summary  
Quarterly Groundwater Sampling  
Shell International Petroleum - Triton West Consent Decree  
Seattle, Washington  
December 2023**

<b>Location ID:</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>SH-04</b>	<b>TES-MW-1</b>	<b>TX-03A</b>	<b>TX-04</b>	<b>TX-06A</b>
<b>Sample Name:</b>	<b>MW-313</b>	<b>MW-314</b>	<b>MW-315</b>	<b>SH-04</b>	<b>TES-MW-1</b>	<b>TX-03A</b>	<b>TX-04</b>	<b>TX-06A</b>
<b>Sample Date:</b>	<b>12/20/2023</b>	<b>12/20/2023</b>	<b>12/20/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>	<b>12/20/2023</b>	<b>12/19/2023</b>	<b>12/19/2023</b>

**Parameters**

**Unit**

**Total Petroleum Hydrocarbons**

Gasoline	µg/L	100 U	331	2740	363	100 U	1990	100 U	100 U
Motor oil	µg/L	517	466	399	279 J	115 J	374	125 J	483
Total Petroleum Hydrocarbons - Extractable (DRO)	µg/L	627	1280	3020	573	110 U	1200	120 U	816

**General Chemistry**

Nitrite/Nitrate	µg/L	--	--	--	--	--	121 J	--	--
Sulfate	µg/L	--	--	--	--	--	1500 U	--	--

Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration
- " - Not analyzed
- SIM - Selected Ion Monitoring
- DRO - Diesel Range Organics



Table 4

**Qualified Sample Data Due to Analyte Concentrations in the Trip Blanks**  
**Quarterly Groundwater Sampling**  
**Shell International Petroleum - Triton West Consent Decree**  
**Seattle, Washington**  
**December 2023**

Parameter	Blank Date (mm/dd/yyyy)	Analyte	Blank Result *	Associated Sample ID	Original Result	Qualified Result	Units
VOCs	12/18/2023	Xylenes (total)	0.536 J	MW-111	1.87 J	2.00 U	µg/L
				MW-113	0.649 J	2.00 U	µg/L
				MW-302	1.54 J	2.00 U	µg/L
				MW-311	1.05 J	2.00 U	µg/L
				MW-314	0.741 J	2.00 U	µg/L
				MW-202	0.672 J	2.00 U	µg/L

## Notes:

- \* - Blank result adjusted for sample factors where applicable
- U - Not detected at the associated concentration
- J - Estimated concentration
- VOCs - Volatile Organic Compounds

