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Portland, OR 97204
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May 10, 2024

AECOM No. 60701804

Thomas Praisewater
Cleanup Project Manager
Toxics Cleanup Program
PO Box 47775
Olympia, Washington 98504-7775

Subject: First Quarter 2024 Groundwater Monitoring Report
Chevron Bulk Plant USA 1348, Facility/Site ID 1234, Cleanup Site ID 3762
1656 E J St., Tacoma, Pierce County, WA 98421

Dear Mr. Praisewater:

Please find enclosed, the First Quarter 2024 Groundwater Monitoring Report (Report) which has been prepared by AECOM Technical Services, Inc (AECOM) on behalf of Chevron Environmental Management Company (CEMC), detailing field activities and analytical results of the first quarter 2024 groundwater monitoring event at the Former Chevron Bulk Terminal in Tacoma, Washington.

Please reach out to Brad Wynne at 214-971-1829 or via email below, if you have any additional questions, comments, or concerns.

Sincerely,

Brad Wynne, PMP
Project Manager
bradley.wynne@aecom.com

Brian Webb, RG, LG
Project Geologist
brian.webb@aecom.com

cc via email: James Kiernan – CEMC
Marian Abbett – Ecology

AECOM

First Quarter 2024 Groundwater Monitoring Report

Former Chevron Bulk Terminal, Facility No. 1001348
Tacoma, Washington
Facility/Site ID 1234, Cleanup Site ID 3762

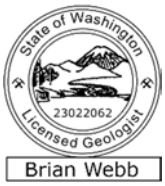
Chevron Environmental Management Company (CEMC)

May 10, 2024

Delivering a better world

Quality information

Prepared by	Checked by	Approved by
		
Brian Webb, RG, LG Project Geologist	Tess Lydick Geologist III	Brad Wynne, PMP Project Manager



Revision History

Revision	Revision date	Details	Authorized	Name	Position

Distribution List

# Hard Copies	PDF Required	Association / Company Name
-	1	Chevron
1	1	Washington State Department of Ecology

Prepared for:

Chevron Environmental Management Company

Prepared by:

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Table of Contents

Figures

Tables

Appendices

1. Introduction

Groundwater monitoring is conducted at the Former Chevron Bulk Terminal (Property) number (No.) 1001348 located in Tacoma, Washington (**Figure 1**), in accordance with the Washington State Department of Ecology (Ecology) Agreed Order (AO) No. DE7111[1] (**Table 1**). This Report includes a description of groundwater monitoring activities completed in the first quarter of 2024 and a summary of corresponding water quality and analytical data. The Site boundary (based on Ecology Administrative Code[2]) is variable and is defined by the estimated horizontal extent of soil and groundwater with petroleum constituent concentrations exceeding Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs).

The Property is located at 1656 E J Street, adjacent to Richlite (formerly Rainier Plywood) to the north, Steeler, Inc. to the west, the Northwest Detention Center to the east, and a Burlington Northern Santa Fe (BNSF) railroad switchyard to the south. The Property and surrounding properties are zoned for heavy industrial, warehousing, and storage purposes[3]. The Property is currently used for vehicle storage for the Northwest Detention Center.

2. Background and Environmental History

The Property operated as a fuel storage and distribution facility from 1905 through 1988 with 13 above-ground storage tanks (ASTs), four underground storage tanks (USTs), two tanker truck-loading racks, two office buildings, several garages, and three pipelines that transported hydrocarbon products to the Wheeler-Osgood Waterway (**Figure 2A** and **2B**)**.** Decommissioning and removal of historical Site infrastructure began in 1989, with underground piping removed by April 27, 1989[4].

Previous activities and investigations provided evidence of petroleum hydrocarbon releases at the Site, including:

- 1984: Visual evidence of hydrocarbon contamination was identified in soil during well installation and test pit digging activities[5].
- 1989: The City of Tacoma identified petroleum product entering the municipal sewer system through a manhole adjacent to the Site[5].
- 2010: Remedial investigation activities indicated remaining gasoline-, diesel-, and oil-range hydrocarbons in soil and groundwater in exceedance of Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) [6].

Thirty-nine (39) groundwater monitoring wells, 25 hand-augered borings, and 103 test pits were dug/drilled/installed on Property between 1984 and 2010[6.] Groundwater monitoring wells were later installed on adjacent properties and nearby streets to determine the extent of groundwater plume migration[7].

[1] Ecology. 2009. Agreed Order No. DE 7111. State of Washington Department of Ecology.
[2] Washington Administrative Code (WAC) 173-340-200
[3] PublicGIS. 2023. Pierce County PublicGIS. https://matterhornwab.co.pierce.wa.us/publicgis/. Visited on June 30.
[4] SAIC. 2006. Current Use and Site Summary for Former Standard Oil Bulk Fuel Terminal #100-1348, Tacoma, Washington. Science Applications International Corporation. Bothell, Washington. October 27.
[5] GeoEngineers. 1989. Report of Geotechnical Services Subsurface Contamination Study, Tacoma Bulk Fuel Terminal, Tacoma, Washington. March 22.
[6] SAIC. 2014. Draft Remedial Investigation. Science Application International Corporation. December, 2015.
[7] Leidos. 2020. Remedial Investigation Work Plan Addendum, Former Chevron Bulk Terminal No. 1001348. January 30, 2020.

3. Geology and Hydrogeology

Site geology consists of well-sorted, fine-to-coarse sand with less than 10 percent (%) silt fill above 10 feet (ft) below ground surface (bgs) that overlies native material alternating between silt and well-sorted sand below 10 ft bgs.

Two groundwater-bearing zones (GWBU) have been identified beneath the Site:

- An upper GWBU herein referred to as the perched GWBU.
- A lower confined to semi-confined GWBU herein referred to as the sand aquifer.

The GWBUs are separated by a discontinuous, approximately 1 to 6 ft thick, semi-permeable to impermeable, organic-rich silt lens that likely represents the original ground surface (tidal flats) prior to infilling and commercial development.

Groundwater within the perched GWBU fluctuates seasonally from approximately 0.5 to 7 ft bgs and may become dry during prolonged periods of drought[8]. Groundwater elevation contours and flow direction determined during the first quarter of 2024 for the perched GWBU is shown in **Figure 3A** and flows radially to the north and northeasterly directions.

Groundwater within the sand aquifer ranges from approximately 7 to 10 ft bgs and is influenced by tidal fluctuations from the Puyallup River and Wheeler-Osgood Waterway, confirming a hydraulic connection[8]. Groundwater elevation contours and flow direction for the fourth quarter of 2023 for the sand aquifer is shown in **Figure 3B** and flows north to northwest/west.

4. First Quarter 2024 Gauging and Sampling

4.1 Groundwater and SPH Gauging

First quarter 2024 groundwater and separate-phase hydrocarbon (SPH) gauging was completed on March 11, 2024 (**Appendix A**) and data are presented in **Table 2**, on **Figure 3A, Figure 3B**, and summarized below:

Perched GWBU

- None of the monitoring wells within the perched GWBU had measurable thicknesses of SPH, including MW-20 which has typically contained measurable SPH.
- Groundwater depths ranged from 1.96 ft below top of casing (BTOC) (MW-32) to 7.66 ft BTOC (MW-18).
- Two wells (MW-34 and MW-38) have an unknown top of casing elevation, and well MW-12 requires a new road box. Unknown top of casing elevations will be surveyed by a professional surveyor licensed in the State of Washington and corrected groundwater elevations will be determined following surveying activities. Efforts to obtain an Occupancy Permit from the City of Tacoma are ongoing and repairs on well MW-12 will be completed once an Occupancy Permit is obtained and will coincide with other planned drilling activities as per the Updated Draft Remedial Investigation and Data Gap Report[9].

Sand Aquifer

- Well D-13 had a measurable SPH thickness of approximately 0.27 ft.

[8] SAIC. 2010. Remedial Investigation Work Plan. Science Applications International Corporation. Bothell, Washington. June 4.
[9] The ***Updated Draft Remedial Investigation and Data Gap Report*** (Updated Draft RI/DG Report) submitted to Ecology on April 22, 2024.

- Groundwater depths ranged from 5.07 feet BTOC (D-17) to 11.07 feet BTOC (D-06).
- One well (D-26) has an unknown top of casing elevation and requires surveying by a professional surveyor licensed in the State of Washington. Corrected groundwater elevations will be determined following additional surveying activities.

4.2 Groundwater Sampling and Analysis

First quarter groundwater monitoring was conducted between March 11 and 15, 2024, at 43 monitoring wells, in accordance with the groundwater monitoring program in **Table 1**. Purging, via low-flow sampling techniques, was completed prior to sampling until water quality parameters (temperature, pH, specific conductance, turbidity, dissolved oxygen [DO], and oxidation-reduction potential [ORP]) stabilized. Water quality data were collected electronically and are presented on **Table 3** and field data sheets are provided in **Appendix A**. A sample was not collected from well D-13 due to the presence of SPH.

Groundwater samples were collected in laboratory-supplied containers, placed on ice, and transported under standard chain-of-custody procedures to Eurofins Laboratories Environment Testing, LLC, in Tacoma, Washington, for the following analyses:

- Gasoline-Range total petroleum hydrocarbons (TPH-g) via the Northwest Total Petroleum Hydrocarbon (NWTPH) Volatile Petroleum Products (NWTPH-Gx) Method.
- Diesel (TPH-d) and Motor Oil-Range (TPH-o) total petroleum hydrocarbons via the NWTPH Semi-Volatile Petroleum Products (NWTPH-Dx) Method.
- Benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX)/Methyl tert-Butyl Ether (MTBE) via United States Environmental Protection Agency (EPA) Method 8260D.

Analytical results for the first quarter 2024 groundwater sampling event were compared to MTCA Method A CULs, in accordance with the *Remedial Investigation Quality Assurance Project Plan*[10], and are summarized as follows:

Perched GWBU

- TPH-g was detected above the MTCA Method A CUL of 800 micrograms per liter (ug/L) in perched GWBU well MW-20, at a concentration of 950 ug/L.
- TPH-d was detected at or above the MTCA Method A CUL of 500 ug/L in perched GWBU wells MW-10, MW-11, MW-12, MW-13, MW-18, MW-19, MW-20, MW-21, MW-22, MW-24, MW-26, MW-29, MW-30, MW-32, MW-38, MW-39, and RMW-01. Concentrations ranged from 510 ug/L (MW-21) to 8,400 ug/L (MW-20).
- TPH-o was detected above the MTCA Method A CUL of 500 ug/L in perched GWBU wells MW-10, MW-11, MW-12, MW-18, MW-19, MW-20, MW-21, MW-22, MW-24, MW-26, MW-29, MW-30, MW-32, MW-38, MW-39, and RMW-01. Concentrations ranged from 700 ug/L (MW-39) to 5,900 ug/L (MW-30).
- Neither BTEX, nor MTBE were detected above MTCA Method A CULs in any sampled perched GWBU wells.

Sand Aquifer

- TPH-d was detected above the MTCA Method A CUL of 500 ug/L in sand aquifer wells D-01, D-02A, D-03A, D-06, D-07 D-08, D-09, D-10, D-12, D-15, D-18, D-19, D-25, and D-27. Concentrations ranged from 530 ug/L (D-07) to 5,800 ug/L (D-01 Duplicate).
- TPH-o was detected above the MTCA Method A CUL of 500 ug/L in sand aquifer wells D-01, D-02A, D-03A, D-06, D-07 D-08, D-09, D-10, D-12, D-15, D-18, D-19, D-25, D-26, and D-27. Concentrations ranged from 650 ug/L (D-07) and 2,300 ug/L (D-03A and D-09).

[10] SAIC. 2010. Remedial Investigation Quality Assurance Project Plan. Science Applications International Corporation, Bothell, Washington. May 25.

- TPH-g, BTEX, and MTBE were not detected above MTCA Method A CULs in any sampled sand aquifer wells.

Analytical data are presented in **Table 2** and on **Figures 4A** and **4B**, and the laboratory analytical report is provided in **Appendix B**. Data quality review was completed for the first quarter 2024 samples and the summary is provided in **Appendix C**.

5. Conclusions and Recommendations

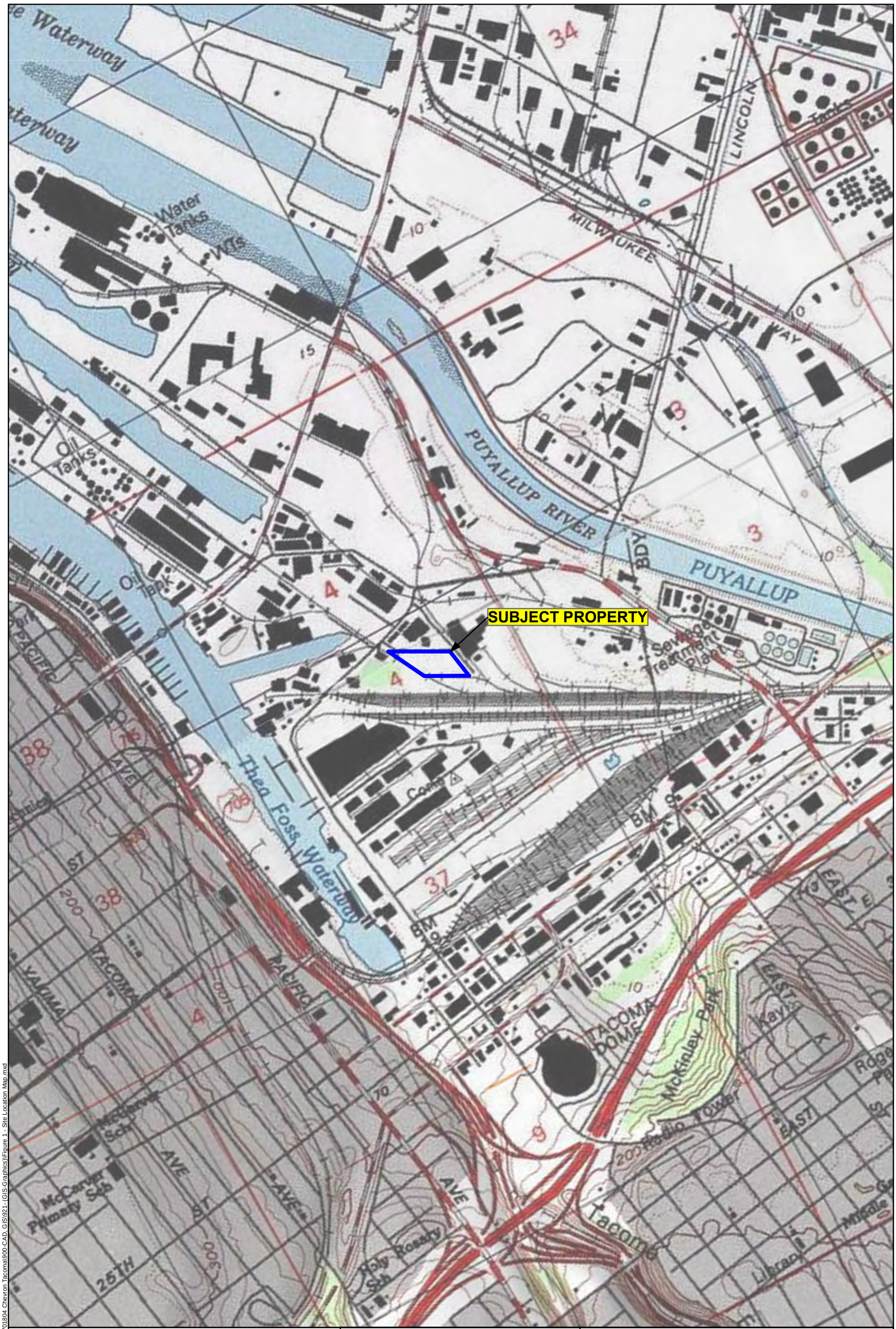
Conclusions from the first quarter 2024 groundwater monitoring event include:

- Gauging data were consistent with previously recorded data. General groundwater elevation trends will be reported once all wells are surveyed.
- SPH presence and thickness in sand aquifer (D-13) is consistent with previously recorded data.
- SPH was not detected in MW-20 for the first time since April 2012.
- Analytical results for perched GWBU and sand aquifer wells are consistent with previously recorded data (**Table 4**).

The following recommendations were developed based on results from the first quarter 2024 groundwater monitoring event:

- Continue quarterly groundwater monitoring per the groundwater monitoring program in **Table 1** with the next event tentatively scheduled for June 2024.
- Complete well surveys and continue pursuing an Occupancy Permit with the City of Tacoma before completing well repair activities for MW-12.
- Install additional groundwater monitoring wells and collect soil samples as proposed in the *Updated Draft RI/DG Report* (April 2024).
- Prepare and submit a Remedial Investigation Work Plan Addendum outlining proposed changes as presented in the *Updated RI/DG Report* (April 2024) for Ecology review and approval prior to conducting additional monitoring well installation and soil sampling.

Figures



C:\Users\Lazarl\AECOM\Chevron - Legacy PNW - 60701804 Chevron Tacoma\900-CAD, GIS\921- (GIS-Graphics)\Figure 1 - Site Location Map.mxd

N

0 500 1,000
Feet

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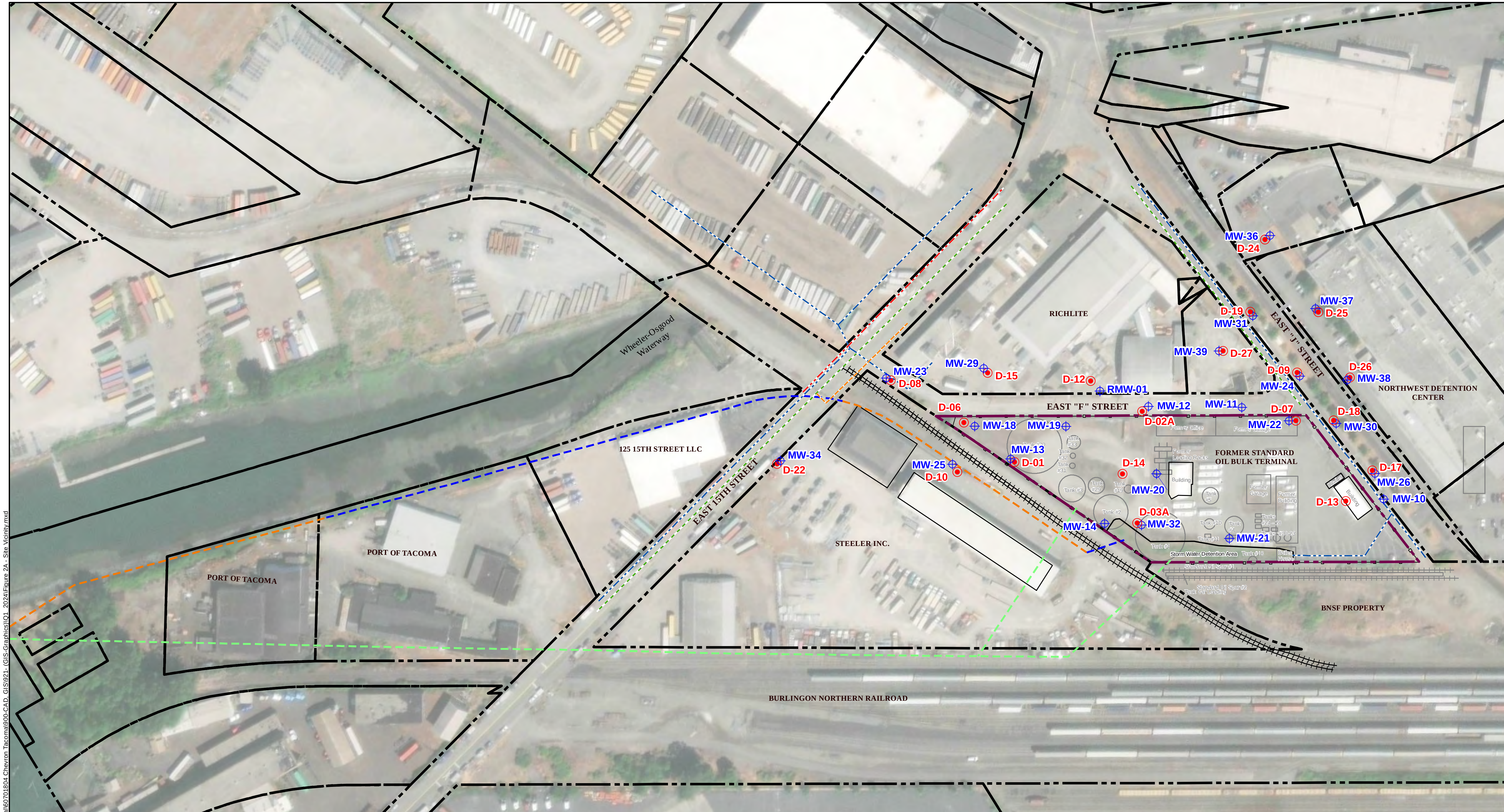
Former Chevron Bulk Terminal
Facility No. 1001348
1656 East J Street
Tacoma, Washington

Figure 1
Site Location Map

Date: April 2024

Project No.: 60701804



LEGEND

- Former Above-Ground Storage Tanks, Buildings, and Structures
- Current Buildings and Structures
- Parcel Boundary
- Property Boundary
- Gas Line
- Overhead Line
- Sanitary Sewer Line
- Storm Sewer Line
- Former Pipeline Shown in 1921 Plan; Disposition Unknown
- Former Pipeline Shown in 1988 Plan; Removed
- Former Pipeline Shown in 1988 Plan; Left in Place
- D-12 Sand Aquifer Monitoring Well
- MW-25 Perched Groundwater-bearing Unit Monitoring Well

0 85 170 Feet

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Former Standard Oil Bulk Terminal/
Chevron Facility No. 1001348
1656 East J Street
Tacoma, Washington

Figure 2A
Site Vicinity Map

Date: April 2024

Project No.: 60701804

RICHLITE

NORTHWEST DETENTION CENTER

EAST "F" STREET

EAST "J" STREET

FORMER STANDARD OIL BULK TERMINAL

STEELER INC.

BNSF PROPERTY

MW-29 D-15 D-12 RMW-1 MW-39 D-27 D-09 MW-24 D-26 MW-38 MW-12 D-02A MW-11 D-6 MW-18 MW-19 MW-22 D-7 D-18 MW-30 MW-13 D-1 MW-25 D-10 D-14 MW-20 D-17 MW-26 MW-10 D-13 MW-14 D-3A MW-32 MW-21

Tank #30 Tank #33 Tank #32 Tank #31 Tank #3 Tank #29 Tank #19 Tank #2 Tank #10 Tank #4 Tank #11 Tank #1 Tank #5 Tank #18

Former Office Former Garage Former Loading Racks Building Former Garage Former Buliding Trailer Building Tanks #24 - 28 Tanks #20-23 Storm Water Detention Area Boiler House Standard Oil Spur #1 Standard Oil Spur #2 Tank Car Loading

LEGEND

- Former Above-Ground Storage Tanks, Buildings, and Structures
- Current Buildings and Structures
- Parcel Boundary
- Property Boundary

D-12 Sand Aquifer Monitoring Well

MW-25 Perched Groundwater-bearing Unit Monitoring Well

- Sanitary Sewer Line
- Storm Sewer Line
- Former Pipeline Shown in 1921 Plan; Disposition Unknown
- Former Pipeline Shown in 1988 Plan; Removed
- Former Pipeline Shown in 1988 Plan; Left in Place

0 30 60 Feet

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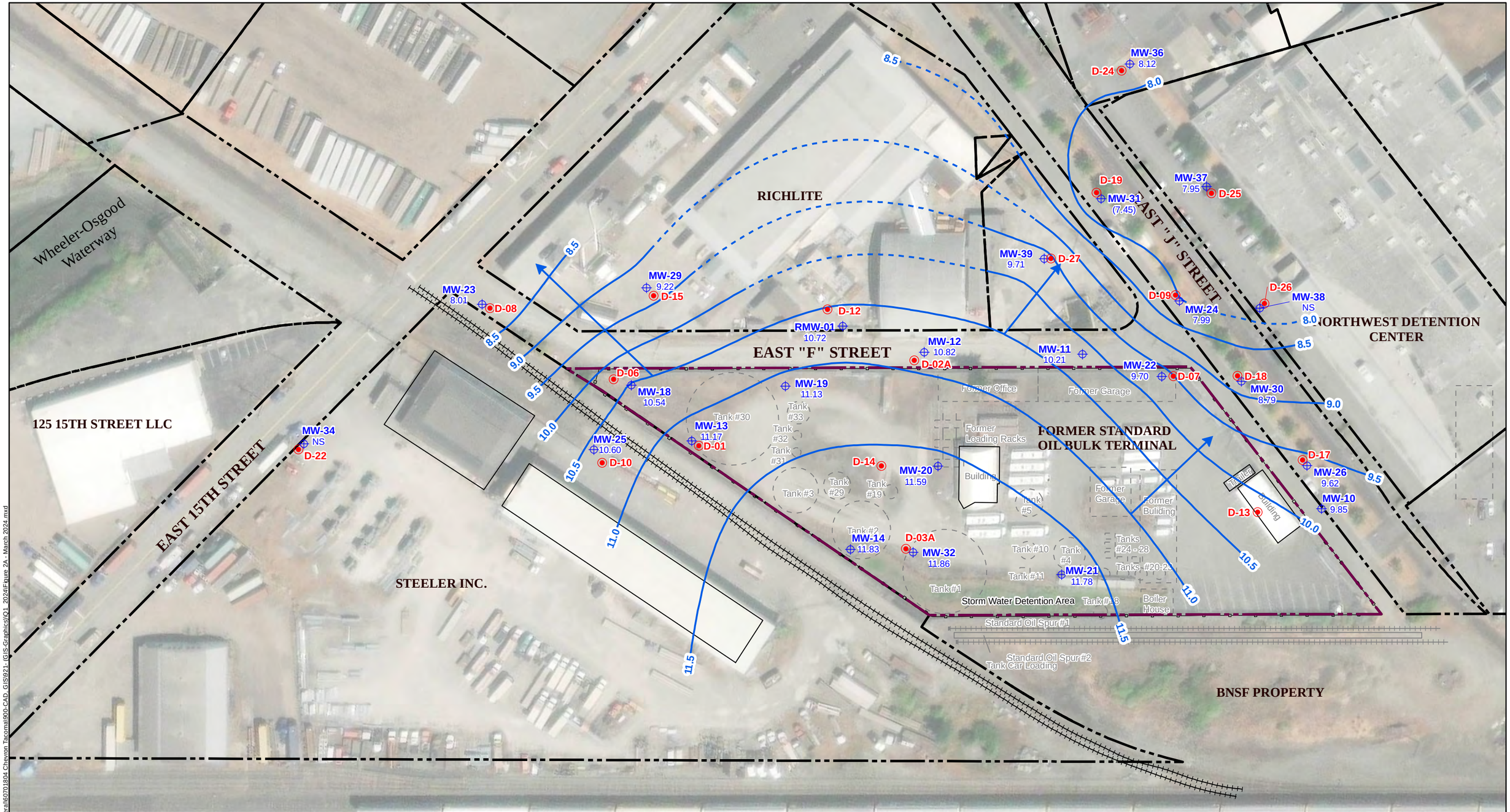
Former Standard Oil Bulk Terminal/
Chevron Facility No. 1001348
1656 East J Street
Tacoma, Washington

Figure 2B
Site Plan

Date: April 2024

Project No.: 60701804

C:\Users\Lazan\AECOM\Chevron - Legacy PNW - General\60701804 Chevron Tacoma\900-CAD, GIS\921- (GIS-Graphics\03.04.2024\Figure 2 - Site Plan.mxd



LEGEND

- Former Above-Ground Storage Tanks, Buildings, and Structures
- Current Buildings and Structures
- Parcel Boundary
- Property Boundary

D-12	Deep Aquifer Monitoring Well
MW-25	Shallow Aquifer Monitoring Well
10.60	Groundwater Elevation in feet NAVD88 (Perched Groundwater-bearing Unit)
(7.45)	Groundwater Elevation in feet NAVD88 Excluded from Contour Lines
NS	Not Surveyed
	Groundwater Elevation Contour in feet NAVD88 (Dashed where inferred)
	Approximate Groundwater Flow Direction
Feet NAVD88	North American Vertical Datum 88 feet

0 50 100 Feet

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Former Chevron Bulk Terminal
Facility No. 1001348
1656 East J Street
Tacoma, Washington

Figure 3A
Groundwater Elevation Contours - Perched Groundwater Bearing Unit - First Quarter, March 11, 2024

Date: April 2024

Project No.: 60701804

C:\Users\Lazat\AECOM\Chevron - Legacy PNW - General\60701804 Chevron Tacoma\900-CAD, GIS\921 - (GIS Graphics)\Q1_2024\Figure 2A - March 2024.mxd

RICHLITE

NORTHWEST DETENTION CENTER

125 15TH STREET LLC

STEELER INC.

BNSF PROPERTY

Wheeler-Osgood Waterway

EAST 15TH STREET

EAST "F" STREET

EAST "J" STREET

FORMER STANDARD OIL BULK TERMINAL

Former Office

Former Loading Racks

Former Garage

Former Building

Building

Tank #30

Tank #33

Tank #32

Tank #31

Tank #3

Tank #29

Tank #19

Tank #2

Tank #10

Tank #4

Tank #5

Tanks #24 - 28

Tanks #20-23

Tank #11

Tank #1

Tank #18

Storm Water Detention Area

Boiler House

Standard Oil Spur #1

Standard Oil Spur #2
Tank Car Loading

D-08 6.57
MW-23
D-15 6.96
MW-29
D-12 7.25
RMW-01
D-06 7.16
MW-18
MW-19
MW-12
D-02A 7.68
MW-39
D-27 7.37
D-24 7.37
MW-36
D-19 7.45
MW-31
MW-37
D-25 7.5
D-09 7.54
MW-24
D-26 NS
MW-38
MW-11
MW-22
D-07 7.92
D-18 7.43
MW-30
D-22 5.78
MW-34
MW-25
MW-13
D-01 6.97
D-10 6.87
D-14 7.58
MW-20
D-17 7.68
MW-26
MW-10
MW-32
D-03A 7.26
MW-14
MW-21
D-13 8.59

LEGEND

- Former Above-Ground Storage Tanks, Buildings, and Structures
- Current Buildings and Structures
- Parcel Boundary
- Property Boundary
- D-12 — Deep Aquifer Monitoring Well
- MW-25 — Shallow Aquifer Monitoring Well
- 7.25 — Groundwater Elevation in feet NAVD88 (Sand Aquifer)
- NS — Not Surveyed
- Groundwater Elevation Contour in feet NAVD88 (Dashed where inferred)
- Approximate Groundwater Flow Direction
- Feet NAVD88 — North American Vertical Datum 88 feet

Notes:
Gauging completed on November 13, 2023 between 8:30 am and 11:00 am
High tide registered at 5:21 am
Low tide registered at 10:41 am
(usharbors.com)

0 50 100 Feet

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Former Chevron Bulk Terminal
Facility No. 1001348
1656 East J Street
Tacoma, Washington

Figure 3B
Groundwater Elevation Contours - Sand Aquifer - First Quarter, March 11, 2024

Date: April 2024

Project No.: 60701804

C:\Users\Lazar\AECOM\Chevron - Legacy PNW - General\60701804 Chevron Tacoma\900-CAD, GIS\921- (GIS Graphics)\Q1_2024\Figure 2B - March 2024.mxd

RMW-01	
DATE	03/13/2024
TPH-g	34 J
TPH-d	**2,100**
TPH-o	**1,800**

MW-29	
DATE	03/13/2024
TPH-g	21 J
TPH-d	**8,200**
TPH-o	**2,800**

MW-19	
DATE	03/15/2024
X	0.53 J
TPH-g	230
TPH-d	**4,800**
TPH-o	**2,900**

MW-23	
DATE	03/12/2024
TPH-d	140 J
TPH-o	360 U

MW-18	
DATE	03/15/2024
TPH-g	160
TPH-d	**3,000**
TPH-o	**1,300**

MW-34	
DATE	03/14/2024
TPH-o	370 U

MW-25	
DATE	03/14/2024
B	0.79 J
E	0.81 J
TPH-g	360 U
TPH-d	380 J
TPH-o	330 J

MW-13	
DATE	03/15/2024
TPH-g	17 J
TPH-d	**560**
TPH-o	370 J

MW-14	
DATE	03/14/2024
TPH-d	220
TPH-o	320 J

MW-32	
DATE	03/14/2024
B	0.46 J
TPH-g	240
TPH-d	**1,800**
TPH-o	**770**

MW-12	
DATE	03/12/2024
TPH-d	**4,700**
TPH-o	**4,000**

MW-39	
DATE	03/13/2024
TPH-d	**1,000**
TPH-o	**700**

MW-36	
DATE	03/13/2024
TPH-d	110
TPH-o	210 J

MW-31	
DATE	03/12/2024
TPH-d	260
TPH-o	360 U

MW-37	
DATE	03/13/2024
TPH-d	230
TPH-o	**570**

MW-24	
DATE	03/12/2024
TPH-d	**2,400**
TPH-o	**1,200**

MW-38	
DATE	03/14/2024
TPH-d	**1,100 U**
TPH-o	**3,500 U**

MW-11	
DATE	03/15/2024
TPH-g	15 J
TPH-d	**2,100**
TPH-o	**1,200**

MW-30	
DATE	03/12/2024
TPH-d	**4,700**
TPH-o	**5,900**

MW-26	
DATE	03/12/2024
TPH-d	**1,200**
TPH-o	**1,300**

MW-10	
DATE	03/11/2024
TPH-d	**2,400**
TPH-o	**1,400**

MW-20	
DATE	03/15/2024
E	1.6
X	0.64 J
TPH-g	**950**
TPH-d	**8,400**
TPH-o	**3,000**

MW-21	
DATE	03/14/2024
TPH-d	**510**
TPH-o	**1,300**

MW-22	FD
03/14/2024	03/14/2024
TPH-g: 16 J	TPH-g: 22 J
TPH-d: **2,100**	TPH-d: **1,900**
TPH-o: **3,400**	TPH-o: **3,200**

Analyte	MTCA Method A Cleanup Level (µg/L)
Benzene	5
Toluene	1000
Ethylbenzene	700
TPH-g	800*
TPH-d	500
TPH-o	500

LEGEND

- Former Above-Ground Storage Tanks, Buildings, and Structures
- Current Buildings and Structures
- Parcel Boundary
- Property Boundary
- TPH MTCA Method A Cleanup Level Exceedance Contour - Based on Q4 Results (dashed where inferred)

D-12 Sand Aquifer Monitoring Well

MW-25 Perched Groundwater-bearing Unit Monitoring Well

FD = Field duplicate
J = The analyte was positively identified; however, the reported sample concentration is estimated.
SPH = separate-phase hydrocarbon
NS = Not Sampled - insufficient water for sample collection
B = Benzene; T = Toluene; E = Ethylbenzene; X= Xylene;
TPH-g = Gasoline-range Total Petroleum Hydrocarbons
TPH-d = Diesel-range Total Petroleum Hydrocarbons
TPH-o = Oil-range Total Petroleum Hydrocarbons

Notes:
1. All concentrations are µg/L (micrograms per liter). Concentrations shown in **BOLD** and highlighted are above MTCA Method A Cleanup Levels.
2.*Two TPH-g cleanup levels exist in MTCA Method A Cleanup Levels. The more conservative cleanup level of 800 µg/L, for use when benzene is detected, is presented on this table. When benzene is not detected, the TPH-g cleanup levels is 1000 µg/L.

0 55 110 Feet

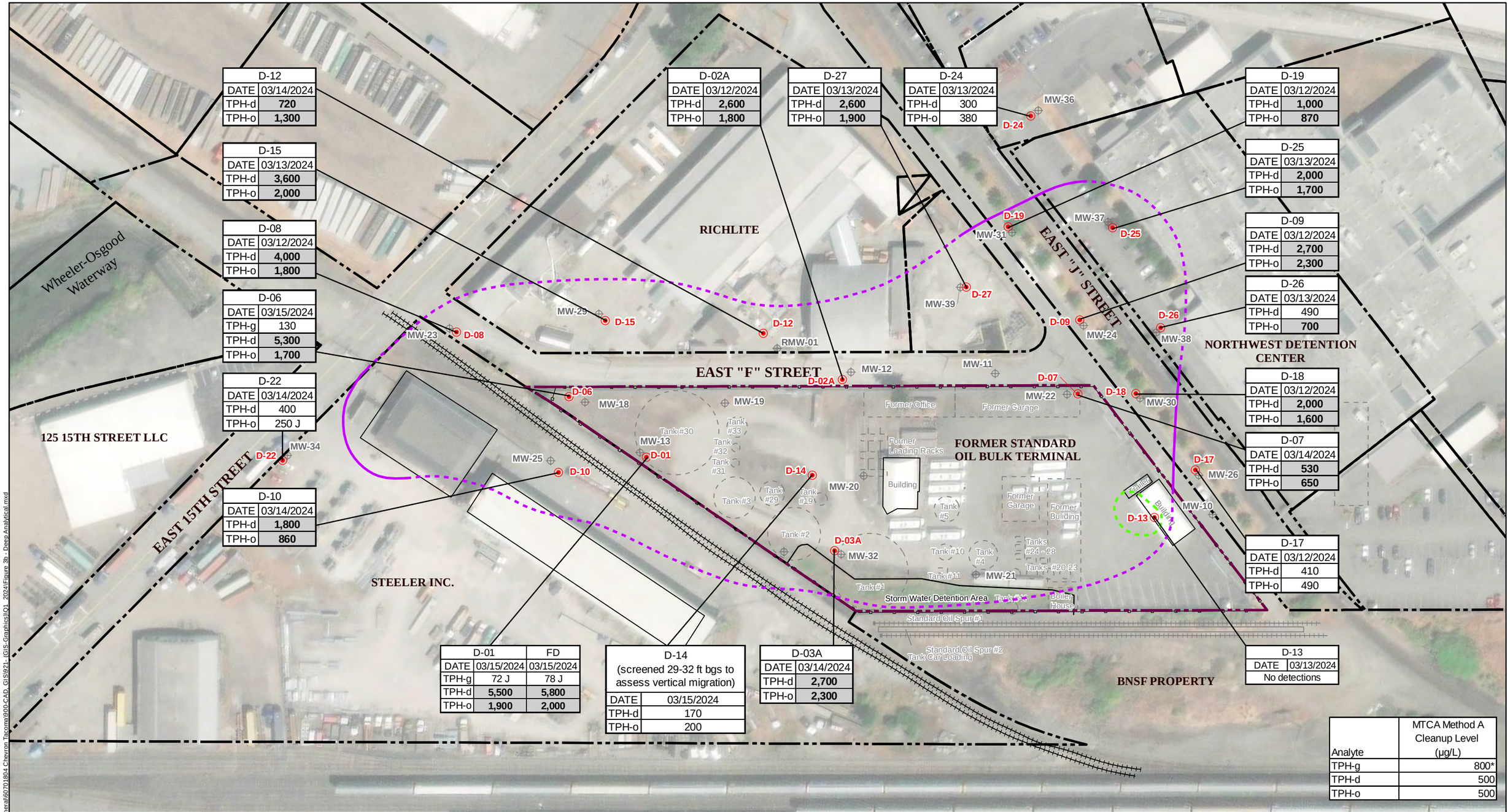
AECOM

Former Chevron Bulk Terminal
Facility No. 1001348
1656 East J Street
Tacoma, Washington

Figure 4A
First Quarter 2024 Groundwater Data - Perched Groundwater Bearing Unit

Date: April 2024 | Project No.: 60701804

C:\Users\Lazar\AECOM\Chevron - Legacy PNW - General\60701804 Chevron Tacoma\900-CAD, GIS\921- (GIS-Graphics)\Q1_2024\Figure 9A - Shallow Analytical.mxd



LEGEND

- Former Above-Ground Storage Tanks, Buildings, and Structures
- Current Buildings and Structures
- Parcel Boundary
- Property Boundary
- TPH MTCA Method A Cleanup Level Exceedance Contour Based on Q1 Results (dashed where inferred)
- Inferred SPH Area (0.01 to 0.5' thickness)

D-12 — Sand Aquifer Monitoring Well Location

MW-25 — Perched Groundwater-bearing Unit Monitoring Well Location

FD = Field duplicate
J = The analyte was positively identified; however, the reported sample concentration is estimated.
SPH = separate-phase hydrocarbon
TPH-g = Gasoline-range Total Petroleum Hydrocarbons
TPH-d = Diesel-range Total Petroleum Hydrocarbons
TPH-o = Oil-range Total Petroleum Hydrocarbons

Notes:
1. All concentrations are µg/L (micrograms per liter). Concentrations shown in **BOLD** and highlighted are above MTCA Method A Cleanup Levels.

0 50 100 Feet

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Former Chevron Bulk Terminal
Facility No. 1001348
1656 East J Street
Tacoma, Washington

Figure 3B
First Quarter 2024 Groundwater Data - Sand Aquifer

Date: April 2024 | Project No.: 60701804

C:\Users\Lazar\AECOM\Chevron - Legacy PNW - General\60701804 Chevron Tacoma\900-CAD, GIS\921-GIS Graphics\01_2024\Figure 3b - Deep Analytical.mxd

Tables

Table 1
Groundwater Monitoring Program
Former Chevron Bulk Terminal, Facility No. 1001348
Tacoma, Washington

Well ID	Work Area	TOC Elevation (feet, NAVD88)	Well Screen Interval (feet, bgs)	Measured Depth to Bottom[a] (feet, BTOC)	Depth to SPH/ Groundwater	Analytical Constituents Method			
						TPH-g NWTPH-Gx	TPH-d NWTPH-Dx	TPH-o NWTPH-Dx	BTEX/MTBE EPA 8260D
Perched Groundwater-bearing Unit Wells									
MW-10	Tacoma City Streets	13.31	2.50 - 8.07	7.60[b]	X	X	X	X	X
MW-11	Chevron Tacoma Site	14.99	2.50 - 7.22	6.95[b]	X	X	X	X	X
MW-12	Tacoma City Streets	15.05	2.50 - 8.28	7.98[b]	X	X	X	X	X
MW-13	Chevron Tacoma Site	16.83	6.00 - 11.00	11.15[b]	X	X	X	X	X
MW-14	Chevron Tacoma Site	17.61	3.50 - 8.80	12.22[b]	X	X	X	X	X
MW-18	Chevron Tacoma Site	18.20	3.00 - 9.00	10.48[b]	X	X	X	X	X
MW-19	Tacoma City Streets	15.46	3.00 - 9.00	9.58	X	X	X	X	X
MW-20	Chevron Tacoma Site	15.01	3.00 - 9.00	9.00[c]	X	X	X	X	X
MW-21	Chevron Tacoma Site	14.60	3.00 - 9.00	9.22[b]	X	X	X	X	X
MW-22	Chevron Tacoma Site	14.67	3.00 - 8.00	7.75	X	X	X	X	X
MW-23	Tacoma City Streets	13.50	4.00 - 9.00	8.90	X	X	X	X	X
MW-24	Tacoma City Streets	13.15	4.00 - 9.00	10.08[b]	X	X	X	X	X
MW-25	Steeler Inc. Property	14.08	5.00 - 10.00	10.22	X	X	X	X	X
MW-26	Tacoma City Streets	12.70	4.00 - 9.00	9.25[b]	X	X	X	X	X
MW-29	Richlite	14.78	4.00 - 9.00	9.24	X	X	X	X	X
MW-30	Tacoma City Streets	13.07	4.00 - 9.00	9.00	X	X	X	X	X
MW-31	Tacoma City Streets	13.09	4.00 - 9.00	9.18[b]	X	X	X	X	X
MW-32	Chevron Tacoma Site	13.82	TBD	9.13	X	X	X	X	X
MW-34	Steeler Inc. Property	TBD	TBD	12.70	X	X	X	X	X
MW-36	Detention Center Property	13.52	TBD	9.51	X	X	X	X	X
MW-37	Detention Center Property	14.54	TBD	9.90	X	X	X	X	X
MW-38	Detention Center Property	TBD	TBD	9.86	X	X	X	X	X
MW-39	Richlite	15.00	5.00 - 10.00	9.93	X	X	X	X	X
RMW-1	Richlite	14.97	TBD	9.85	X	X	X	X	X
Sand Aquifer Wells									
D-1	Chevron Tacoma Site	17.26	15.00 - 20.00	21.35[b]	X	X	X	X	X
D-2A	Tacoma City Streets	15.16	15.00 - 20.00	19.53[b]	X	X	X	X	X
D-3A	Chevron Tacoma Site	14.12	15.00 - 20.00	20.25	X	X	X	X	X
D-6	Chevron Tacoma Site	18.23	15.00 - 20.00	22.50[b]	X	X	X	X	X
D-7	Chevron Tacoma Site	14.82	15.00 - 20.00	20.00	X	X	X	X	X
D-8	Tacoma City Streets	13.73	17.00 - 22.00	21.77	X	X	X	X	X
D-9	Tacoma City Streets	12.90	15.00 - 20.00	19.98	X	X	X	X	X
D-10	Steeler Inc. Property	14.03	14.00 - 24.00	24.50	X	X	X	X	X
D-12	Richlite	14.85	24.00 - 29.00	28.28	X	X	X	X	X
D-13	Chevron Tacoma Site	13.84	TBD	19.89	X	X	X	X	X
D-14	Chevron Tacoma Site	14.82	29.00 - 32.00	31.56[b]	X	X	X	X	X
D-15	Richlite	14.80	16.00 - 21.00	20.82	X	X	X	X	X
D-17	Tacoma City Streets	12.75	14.00 - 19.00	18.86	X	X	X	X	X
D-18	Tacoma City Streets	13.29	14.00 - 19.00	18.87	X	X	X	X	X
D-19	Tacoma City Streets	13.22	17.00 - 22.00	21.99	X	X	X	X	X
D-22	Steeler Inc. Property	15.39	15.00 - 20.00	20.19	X	X	X	X	X
D-24	Detention Center Property	13.53	15.00 - 20.00	19.71[b]	X	X	X	X	X
D-25	Detention Center Property	14.65	TBD	19.90	X	X	X	X	X
D-26	Detention Center Property	TBD	TBD	19.89	X	X	X	X	X
D-27	Richlite	14.99	TBD	19.85	X	X	X	X	X

Notes:

Sampling will be completed on a quarterly basis unless otherwise noted. Monitoring wells with detectable SPH at the time of gauging will not be sampled.

-- = Not measured/ not sampled.

[a] Depth to bottom measured during the first quarter 2023 sampling event, unless noted otherwise.

[b] Depth to bottom measured after well re-development in August 2023.

[c] Depth to bottom reported from historical boring/well construction logs.

X = Collect measurement / collect sample.

bgs = below ground surface

BTEX = benzene, toluene, ethylbenzene, and xylenes

BTOC = below top of casing

EPA = United States Environmental Protection Agency

ID = identification

MTBE = Methyl tert-Butyl Ether

NAVD88 = North American Vertical Datum of 1988, feet

NWTPH-DX = Northwest - Semi-Volatile Petroleum Products Method

NWTPH-GX = Northwest - Volatile Petroleum Products Method

TBD = To be determined - Well screen intervals, depth to bottom, and TOC elevations will be measured at a later date.

TOC = top of casing

TPH-d = diesel-range total petroleum hydrocarbons

TPH-g = gasoline-range total petroleum hydrocarbons

TPH-o = oil-range total petroleum hydrocarbons

Table 2 - First Quarter 2024 Gauging and Groundwater Analytical Data
Former Chevron Bulk Terminal, Facility No. 1001348
Tacoma, Washington

Well ID	Sample ID	Sample Date	TOC Elevation** (ft, NAVD88)	Depth to SPH (ft BTOC)	Depth to Groundwater (ft BTOC)	Groundwater Elevation (ft, NAVD88)	Volatile Organic Compounds (VOCs)					Total Petroleum Hydrocarbons (TPH)		
							Benzene	Toluene	Ethylbenzene	Xylene (total)	MTBE	TPH-g	TPH-d	TPH-o
MTCA Method A Cleanup Levels[a] (µg/L)							5	1000	700	1000	20	800[b]	500	500
Perched Groundwater Unit														
MW-10	MW-10-W-240311	03/11/2024	13.31	ND	3.46	9.85	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**2,400**	**1,400**
MW-11	MW-11-W-240315	03/15/2024	14.99	ND	4.78	10.21	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	15 J	**2,100**	**1,200**
MW-12	MW-12-W-240312	03/12/2024	15.05	ND	4.23	10.82	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**4,700**	**4,000**
MW-13	MW-13-W-240315	03/15/2024	16.83	ND	5.66	11.17	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	17 J	**560**	370 J
MW-14	MW-14-W-240314	03/14/2024	17.61	ND	5.78	11.83	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	220	320 J
MW-18	MW-18-W-240315	03/15/2024	18.20	ND	7.66	10.54	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	160	**3,000**	**1,300**
MW-19	MW-19-W-240315	03/15/2024	15.46	ND	4.33	11.13	< 0.24	< 0.39	< 0.50	0.53 J	< 0.44	230	**4,800**	**2,900**
MW-20	MW-20-W-240315	03/15/2024	15.01	ND	3.42	11.59	< 0.24	< 0.39	1.6	0.64 J	< 0.44	**950**	**8,400**	**3,000**
MW-21	MW-21-W-0240314	03/14/2024	14.60	ND	2.82	11.78	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**510**	**1,300**
MW-22	MW-22-W-240314	03/14/2024	14.67	ND	4.97	9.70	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	16 J	**2,100**	**3,400**
	DUP-1-WD-240314						< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	22 J	**1,900**	**3,200**
MW-23	MW-23-W-240312	03/12/2024	13.50	ND	5.49	8.01	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	140 J	360 U
MW-24	MW-24-W-240312	03/12/2024	13.15	ND	5.16	7.99	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**2,400**	**1,200**
MW-25	MW-25-W-240314	03/14/2024	14.08	ND	3.48	10.6	0.79 J	< 0.39	0.81 J	< 0.53	< 0.44	360	380	360 U
MW-26	MW-26-W-240312	03/12/2024	12.70	ND	3.08	9.62	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**1,200**	**1,300**
MW-29	MW-29-W-240313	03/13/2024	14.78	ND	5.56	9.22	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	21 J	**8,200**	**2,800**
MW-30	MW-30-W-240312	03/12/2024	13.07	ND	4.28	8.79	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**4,700**	**5,900**
MW-31	MW-31-W-240312	03/12/2024	13.09	ND	5.64	7.45	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	260	360 U
MW-32	MW-32-W-240314	03/14/2024	13.82	ND	1.96	11.86	0.46 J	< 0.39	< 0.50	< 0.53	< 0.44	240	**1,800**	**770**
MW-34	MW-34-W-240314	03/14/2024	NS	ND	7.11	NS	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	< 67	370 U
MW-36	MW-36-W-240313	03/13/2024	13.52	ND	5.40	8.12	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	110	210 J
MW-37	MW-37-W-240313	03/13/2024	14.54	ND	6.59	7.95	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	230	570
MW-38	MW-38-W-240314	03/14/2024	NS	ND	7.25	NS	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	***1,100 U***	***3,500 U***
MW-39	MW-39-W-240313	03/13/2024	15.00	ND	5.29	9.71	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**1,000**	**700**
RMW-01	RMW-01-W-240313	03/13/2024	14.97	ND	4.25	10.72	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	34 J	**2,100**	**1,800**
Sand Aquifer Wells														
D-01	D-01-W-240315	03/15/2024	17.26	ND	10.29	6.97	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	72 J	**5,500**	**1,900**
	DUP-2-WD-240315						< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	78 J	**5,800**	**2,000**
D-02A	D-02A-W-240312	03/12/2024	15.16	ND	7.48	7.68	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**2,600**	**1,800**
D-03A	D-03A-W-240314	03/14/2024	14.12	ND	6.86	7.26	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**2,700**	**2,300**
D-06	D-06-W-240315	03/15/2024	18.23	ND	11.07	7.16	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	130	**5,300**	**1,700**
D-07	D-7-W-240314	03/14/2024	14.82	ND	6.90	7.92	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**530**	**650**
D-08	D-08-W-240312	03/12/2024	13.73	ND	7.16	6.57	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**4,000**	**1,800**
D-09	D-09-W-240312	03/12/2024	12.90	ND	5.36	7.54	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**2,700**	**2,300**
D-10	D-10-W-240314	03/14/2024	14.03	ND	7.16	6.87	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**1,800**	**860**
D-12	D-12-W-240314	03/14/2024	14.85	ND	7.60	7.25	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**720**	**1,300**
D-13	N/A	N/A	13.84	5.21	5.48	8.59	Not sampled due to presence of SPH							
D-14	D-14-W-240315	03/15/2024	14.82	ND	7.24	7.58	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	170 J	350 U
D-15	D-15-W-240313	03/13/2024	14.80	ND	7.84	6.96	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**3,600**	**2,000**
D-17	D-17-W-240312	03/12/2024	12.75	ND	5.07	7.68	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	410	490
D-18	D-18-W-240312	03/12/2024	13.29	ND	5.86	7.43	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**2,000**	**1,600**
D-19	D-19-W-240312	03/12/2024	13.22	ND	5.77	7.45	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**1,000**	**870**
D-22	D-22-W-240314	03/14/2024	15.39	ND	9.61	5.78	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	400	360 U
D-24	D-24-W-240313	03/13/2024	13.53	ND	6.16	7.37	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	300	380
D-25	D-25-W-240313	03/13/2024	14.65	ND	7.15	7.5	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**2,000**	**1,700**
D-26	D-26-W-240313	03/13/2024	NS	ND	7.61	NS	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	490	**700**
D-27	D-27-W-240313	03/13/2024	14.99	ND	7.62	7.37	< 0.24	< 0.39	< 0.50	< 0.53	< 0.44	< 14	**2,600**	**1,900**

Notes:

TPH-g (or TPH-GRO) = Total Petroleum Hydrocarbons, Gasoline-Range; reported as (C7-C12) via the NWTPH-Gx Volatile Petroleum Products Method in the laboratory analytical report.
TPH-d (or TPH-DRO) = Total Petroluem Hydrocarbons, Diesel Range; reported as (C12-C24) via the NWTPH-Dx Semi-Volatile Petroleum Products Method in the laboratory analytical report.
TPH-o (or TPH-HRO) = Total Petroleum Hydrocarbons, Oil-Range; reported as (C24-C40) via the NWTPH-Dx Semi-Volatile Petroleum Products Method in the laboratory analytical report.

** Top of Casing (TOC) elevations were (re-)surveyed by Bush, Roed & Hitching, Inc. on October 16-17, 2023.
[a] Department of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Levels

[b] Two TPH-g cleanup levels exist in MTCA Method A Cleanup Levels. The more conservative cleanup level of 800 µg/L, for use when benzene is detected, is presented in this table. When benzene is not detected, however, the cleanup level is 1,000 µg/L.

[c] Corrected groundwater elevation for wells containing SPH: TOC - DTW + (T_{SPH} * SG_{SPH})
TOC = top of casing elevation
DTW = depth to water (ft btoc)
T_{SPH} = SPH thickness (DTW - Depth to SPH)
SG_{SPH} = specific gravity of SPH (assumes an average specific gravity of 0.87)

Abbreviations:

µg/L = micrograms per liter
TOC = top of casing
NAVD88 = North American Vertical Datum of 1988
ft btoc = feet below top of casing
SPH = separate-phase hydrocarbon
NWTPH = Northwest Total Petroleum Hydrocarbons
N/A = not applicable (sample not collected)
NS = not surveyed
NA = not analyzed
ND = SPH not detected in well
DUP = duplicate sample

1. All TPH concentrations are reported in units of µg/L.
2. Reported values not detected above the laboratory Method Detection Limit (MDL) are preceded by "<".
3. Reported values followed by "J" indicate estimated concentrations above the MDL.
4. Reported values followed by "U" indicate analyte is qualified as not detected, based on the data validation review.
5. Reported values followed by "UJ" indicate the analyte was not detected above the MDL, but the MDL is estimated.
6. **Results that are greater than the MTCA Method A Cleanup Levels are indicated by bolded and shaded values.**
7. *Results in Italics indicate non-detect value is greater than CUL*

Table 3 - First Quarter 2024 Water Quality Parameters
Former Chevron Bulk Terminal, Facility No. 1001348
Tacoma, Washington

Well ID	Date	Temperature	pH	Conductivity	Dissolved Oxygen	ORP	Turbidity
Units		°C	su	µS/cm	mg/L	mV	NTU
Perched Groundwater-bearing Unit Wells							
MW-10	03/11/2024	10.50	6.51	0.568	0.58	99.7	2.01
MW-11	03/15/2024	11.30	6.80	0.540	2.66	75.8	3.33
MW-12	03/12/2024	11.00	6.48	0.671	0.30	72.4	8.48
MW-13	03/15/2024	11.60	6.75	0.159	2.68	-18.8	3.97
MW-14	03/14/2024	11.70	6.78	0.170	4.58	33.5	7.92
MW-18	03/15/2024	11.10	6.80	0.261	2.25	-23.5	4.32
MW-19	03/15/2024	12.70	6.69	0.521	0.19	-66.9	29.40
MW-20	03/15/2024	14.90	6.41	0.309	0.00	-66.6	23.70
MW-21	03/14/2024	12.30	6.53	0.260	0.12	75.9	4.47
MW-22	03/14/2024	10.70	6.74	0.691	0.24	-54.2	20.70
MW-23	03/12/2024	10.50	8.35	0.350	8.29	37.6	3.20
MW-24	03/12/2024	9.80	6.67	0.395	0.26	-17.1	45.70
MW-25	03/14/2024	10.70	7.99	0.279	2.26	-93.1	10.30
MW-26	03/12/2024	8.90	6.63	0.523	0.11	6.9	7.13
MW-29	03/13/2024	12.30	6.47	0.621	0.31	31.1	2.29
MW-30	03/12/2024	9.70	6.38	0.900	1.01	48.6	10.10
MW-31	03/12/2024	8.40	6.46	0.529	0.23	-24.5	34.10
MW-32	03/14/2024	12.70	6.58	0.159	0.01	-80.2	20.20
MW-34	03/14/2024	9.30	7.35	0.230	5.78	91.5	4.34
MW-36	03/13/2024	12.10	7.32	0.704	0.88	-199.5	167.00
MW-37	03/13/2024	10.40	6.68	0.991	0.14	-116.3	4.00
MW-38	03/14/2024	9.40	6.17	0.315	0.10	64.4	3.41
MW-39	03/13/2024	10.60	7.06	0.262	1.77	-17.3	3.04
RMW-01	03/13/2024	11.10	6.78	0.483	3.54	45.6	3.49
Sand Aquifer Wells							
D-01	03/15/2024	11.50	6.79	0.561	0.16	-109.0	21.90
D-02A	03/12/2024	12.90	6.69	0.510	0.14	-126.2	15.40
D-03A	03/14/2024	14.30	6.89	0.658	-0.04	-162.2	12.50
D-06	03/15/2024	12.20	6.75	0.412	0.24	-44.7	24.00
D-07	03/14/2024	13.90	6.64	0.562	0.02	-106.5	37.00
D-08	03/12/2024	11.70	6.70	0.609	0.11	-128.0	15.40
D-09	03/12/2024	9.90	6.60	0.648	0.05	-49.0	54.50
D-10	03/14/2024	12.20	6.78	0.604	0.20	-106.6	22.10
D-12	03/14/2024	14.00	6.99	0.578	0.48	-111.9	8.12
D-14	03/15/2024	13.40	7.31	1.343	0.08	-100.6	9.37
D-15	03/13/2024	12.90	6.64	0.559	0.19	-103.9	36.10
D-17	03/12/2024	10.80	6.48	0.456	0.36	-84.7	88.30
D-18	03/12/2024	11.10	6.45	0.710	0.15	-11.8	105.00
D-19	03/12/2024	11.80	6.30	0.639	0.01	-6.6	65.6
D-22	03/14/2024	10.70	6.85	0.354	0.19	-84.4	53.30
D-24	03/13/2024	12.60	6.62	12.330	-0.09	-339.6	2.06
D-25	03/13/2024	12.70	6.45	0.554	0.17	-60.7	6.68
D-26	03/13/2024	12.90	6.56	0.454	0.03	-104.3	34.10
D-27	03/13/2024	12.60	6.53	0.537	0.22	-64.6	42.10

Notes:
°C = degrees Celsius
µS/cm = microSiemens per centimeter
ID = identification
mg/L = milligram per liter
mV = millivolt
NTU = nephelometric turbidity unit
ORP = oxidation reduction potential
su = standard unit

Table 4
Cumulative 2023 Gauging and Groundwater Analytical Data
Former Chevron Bulk Terminal, Facility No. 1001348
Tacoma, Washington

Well ID	Sample ID	Sample Date	TOC Elevation** (ft, NAVD88)	Depth to SPH (ft btoc)	SPH Thickness (ft)	Depth to Water (ft btoc)	Groundwater Elevation (ft, NAVD88)	Volatile Organic Compounds (VOCs)					Total Petroleum Hydrocarbons (TPH)				
								Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	TPH-g	TPH-d	TPH-d (w/ SGT)	TPH-o	TPH-o (w/ SGT)
MTCA Method A Cleanup Levels[a] (µg/L)								5	1000	700	1000	20	800[b]	500		500	
Perched Groundwater-bearing Unit Wells																	
MW-10	MW-10-W-230313	03/13/2023	13.46	ND	0.00	4.19	9.27	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**1,500**	NA	410	NA
	MW-10-W-230522	05/22/2023		ND	0.00	4.64	8.82	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	**1,500**	NA	**540**	NA
	N/A	N/A		ND	0.00	6.15	7.31	Insufficient water to sample									
	MW-10-W-231113	11/13/2023	13.31	ND	0.00	4.47	8.84	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	280	< 46 UJ	240	< 100 UJ
MW-11	MW-11-W-230313	03/13/2023	15.10	ND	0.00	5.13	9.97	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	43 UJ	**1,800 J**	NA	360	NA
	MW-11-W-230522	05/22/2023		ND	0.00	5.47	9.63	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	NA	NA	NA	NA
	N/A	N/A		ND	0.00	6.83	8.27	Insufficient water to sample									
	MW-11-W-231114	11/14/2023	14.99	ND	0.00	5.48	9.51	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	430	< 46 UJ	280	< 100 UJ
MW-12	MW-12-W-230314	03/14/2023	NS	ND	0.00	4.52	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	61 J	**3,200**	NA	**2,000 J**	NA
	DUP-2-WD-230314							< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	53 J	**3,900**	NA	**1,400 J**	NA
	MW-12-W-230523	05/23/2023		ND	0.00	5.09	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	110 J	**5,300**	NA	**1,400**	NA
	MW-12-W-230808	08/08/2023		ND	0.00	6.16	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	580	**5,500**	< 47	**660**	< 100
	MW-12-W-231114	11/14/2023	15.05	ND	0.00	4.77	10.28	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	82 J	**1,500**	< 46	**630**	< 100
MW-13	MW-13-W-230321	03/21/2023	16.88	ND	0.00	6.20	10.68	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	160 J	**790**	NA	170 J	NA
	MW-13-W-230524	05/24/2023		ND	0.00	6.69	10.19	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	270	**740**	NA	< 110	NA
	MW-13-W-230810	08/10/2023		ND	0.00	7.81	9.07	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	660	**1,400**	72 J	180 J	250 U
	MW-13-W-231117	11/17/2023	16.83	ND	0.00	6.43	10.40	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	*1,300 U*	**3,900**	< 46 UJ	440	< 100 UJ
MW-14	MW-14-W-230315	03/15/2023	17.64	ND	0.00	5.66	11.98	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	110	NA	< 100	NA
	MW-14-W-230526	05/26/2023		ND	0.00	6.84	10.80	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20 UJ	< 43	140	NA	< 100	NA
	MW-14-W-230810	08/10/2023		ND	0.00	8.19	9.45	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**510**	77 J	130 J	250 U
	MW-14-W-231116	11/16/2023	17.61	ND	0.00	5.71	11.90	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	170 J	< 46	< 100	< 100
MW-18	MW-18-W-230317	03/17/2023	18.25	ND	0.00	8.23	10.02	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	360	**2,100**	NA	**530**	NA
	MW-18-W-230524	05/24/2023		ND	0.00	8.66	9.59	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	590	**2,600**	NA	380	NA
	MW-18-W-230810	08/10/2023		ND	0.00	9.60	8.65	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	**920[b]**	**2,700**	120	250	< 100
	MW-18-W-231116	11/16/2023	18.20	ND	0.00	8.34	9.86	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	550	**1,300**	59 J	240 J	< 100
MW-19	MW-19-W-230321	03/21/2023	15.53	ND	0.00	4.85	10.68	0.35 J	0.32 J	< 0.40	< 1.4	< 0.20	**1,100**	**6,500**	NA	**1,600**	NA
	MW-19-W-230526	05/26/2023		ND	0.00	5.27	10.26	0.39 J	0.32 J	< 0.40	1.4 J	< 0.20 UJ	**1,300**	**7,100**	NA	**1,200**	NA
	MW-19-W-230810	08/10/2023		ND	0.00	6.39	9.14	0.48 J	0.42 J	< 0.40	1.5 J	< 0.20	**1,400**	**7,800**	85 J	**1,100**	< 100
	MW-19-W-231117	11/17/2023	15.46	ND	0.00	5.06	10.40	0.68 J	0.43 J	0.40 J	1.4 J	< 0.20	**970**	**8,600**	81 J	**1,500**	< 100
MW-20[c]	N/A	N/A	15.09	3.67	0.02	3.69	11.42	Not sampled due to presence of SPH									
	N/A	N/A		4.40	0.01	4.41	10.69	Not sampled due to presence of SPH									
	N/A	N/A		5.71	0.03	5.74	9.38	Not sampled due to presence of SPH									
	N/A	N/A	15.01	4.07	0.01	4.08	10.94	Not sampled due to presence of SPH									
MW-21	MW-21-W-230313	03/13/2023	14.70	ND	0.00	2.86	11.84	< 0.30 UJ	< 0.30 UJ	< 0.40 UJ	< 1.4 UJ	< 0.20 UJ	< 43	200 J	NA	280	NA
	MW-21-W-230526	05/26/2023		ND	0.00	3.95	10.75	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20 UJ	< 43	390	NA	340	NA
	MW-21-W-230807	08/07/2023		ND	0.00	6.37	8.33	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**500**	< 45	280	< 100
	MW-21-W-231116	11/16/2023	14.60	ND	0.00	3.00	11.60	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	250	< 45	340	< 100
MW-22	MW-22-W-230315	03/15/2023	14.72	ND	0.00	5.30	9.42	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	180 J	**1,700**	NA	**1,400**	NA
	MW-22-W-230526	05/26/2023		ND	0.00	5.58	9.14	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20 UJ	190 J	**1,800**	NA	**900**	NA
	DUP-2-WD-230526							< 0.30	< 0.30	< 0.40	< 0.40	< 0.20 UJ	200 J	**1,900**	NA	**1,000**	NA
	MW-22-W-230811	08/11/2023		ND	0.00	6.45	8.27	< 0.30	< 0.30	< 0.40	0.47 J	< 0.20	310	**1,600**	< 46	**890**	< 100
	DUP-2-WD-230811							< 0.30	< 0.30	< 0.40	0.50 J	< 0.20	310	**1,600**	< 45	**960**	< 100
	MW-22-W-231116	11/16/2023	14.67	ND	0.00	6.67	8.00	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	250 U	**4,100**	< 47	**1,200**	< 100
	DUP-1-WD-231116							< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	*2,500 U*	**3,900**	< 47	**1,300**	< 100

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Well ID	Sample ID	Sample Date	TOC Elevation** (ft, NAVD88)	Depth to SPH (ft btoc)	SPH Thickness (ft)	Depth to Water (ft btoc)	Groundwater Elevation (ft, NAVD88)	Volatile Organic Compounds (VOCs)					Total Petroleum Hydrocarbons (TPH)				
								Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	TPH-g	TPH-d	TPH-d (w/ SGT)	TPH-o	TPH-o (w/ SGT)
MTCA Method A Cleanup Levels[a] (µg/L)								5	1000	700	1000	20	800[b]	500		500	
MW-23	MW-23-W-230314	03/14/2023	NS	ND	0.00	6.19	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	< 46	NA	< 100	NA
	MW-23-W-230523	05/23/2023		ND	0.00	6.32	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	< 46	NA	< 100	NA
	MW-23-W-230808	08/08/2023		ND	0.00	7.06	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 47	< 47	< 100	< 100
	MW-23-W-231114	11/14/2023	13.50	ND	0.00	6.29	7.21	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 46	NA	< 100	NA
MW-24	MW-24-W-230314	03/14/2023	NS	ND	0.00	5.56	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**1,000**	NA	220 J	NA
	N/A	N/A		ND	0.00	5.68	NS	Insufficient water to sample									
	MW-24-W-230808	08/08/2023		ND	0.00	6.98	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**870**	< 46	230 J	< 100
	MW-24-W-231114	11/14/2023	13.15	ND	0.00	5.92	7.23	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	400	< 46 UJ	170 J	< 100 UJ
MW-25	MW-25-W-230317	03/17/2023	NS	ND	0.00	3.96	NS	1.10	0.33 J	1.20	< 1.4	< 0.20	720	87 J	NA	< 100	NA
	MW-25-W-230525	05/25/2023		ND	0.00	4.32	NS	1.50	0.51 J	1.80	< 1.4	< 0.20	**1,200**	160	NA	< 100	NA
	MW-25-W-230809	08/09/2023		ND	0.00	5.54	NS	2.40	0.88 J	3.30	< 0.40	< 0.20	**1,700**	340	47 J	< 100	< 100
	MW-25-W-231116	11/16/2023	14.08	ND	0.00	4.34	9.74	1.40	0.46 J	1.50	< 0.40	< 0.20	**900**	150 J	< 46	< 100	< 100
MW-26	MW-26-W-230314	03/14/2023	NS	ND	0.00	3.49	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**990**	NA	360	NA
	MW-26-W-230523	05/23/2023		ND	0.00	3.99	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	**1,400**	NA	470	NA
	MW-26-W-230808	08/08/2023		ND	0.00	5.22	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**1,500**	< 46	470	< 100
	MW-26-W-231114	11/14/2023	12.70	ND	0.00	4.07	8.63	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	470	100 U	270	330 U
MW-29	MW-29-W-230316	03/16/2023	NS	ND	0.00	6.15	NS	< 0.30 UJ	< 0.30 UJ	< 0.40 UJ	< 1.4 UJ	< 0.20 UJ	**1,100**	**4,800**	NA	**930**	NA
	MW-29-W-230524	05/24/2023		ND	0.00	6.41	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	720	**4,500**	NA	420	NA
	MW-29-W-230809	08/09/2023		ND	0.00	6.99	NS	0.35 J	< 0.30	< 0.40	< 0.40	< 0.20	640	**7,000**	< 46	**560**	< 100
	MW-29-W-231115	11/15/2023	14.78	ND	0.00	5.98	8.80	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	580	**3,000**	< 46	470	< 100
MW-30	MW-30-W-230314	03/14/2023	NS	ND	0.00	4.79	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	79 J	**9,000**	NA	**2,000**	NA
	MW-30-W-230523	05/23/2023		ND	0.00	4.97	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	68 J	**4,400 J**	NA	**1,200 J**	NA
	MW-30-W-230808	08/08/2023		ND	0.00	5.95	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	85 J	**6,300**	NA	**2,200**	NA
	MW-30-W-231114	11/14/2023	13.07	ND	0.00	5.13	7.94	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	59 J	**5,300**	< 46 UJ	**1,600**	< 100 UJ
MW-31	MW-31-W-230315	03/15/2023	NS	ND	0.00	6.16	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	NA	NA	NA	NA
	N/A	N/A		ND	0.00	6.03	NS	Insufficient water to sample									
	MW-31-W-230808	08/08/2023		ND	0.00	6.88	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	NA	100 U	< 45	< 100	480
	MW-31-W-231114	11/14/2023	13.09	ND	0.00	6.17	6.92	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 220	100 U	< 46 UJ	< 100 UJ	< 100 UJ
MW-32	MW-32-W-230317	03/17/2023	NS	ND	0.00	2.13	NS	1.40	0.33 J	< 0.40	< 1.4	< 0.20	**1,400**	**1,200**	NA	140 J	NA
	MW-32-W-230526	05/26/2023		ND	0.00	3.00	NS	0.69 J	< 0.30	< 0.40	< 0.40	< 0.20 UJ	**1,000 J**	**660**	NA	< 110	NA
	MW-32-W-230811	08/11/2023		ND	0.00	4.39	NS	0.77 J	< 0.30	< 0.40	< 0.40	< 0.20	670	450	70 J	< 100	< 100
	MW-32-W-231116	11/16/2023	13.82	ND	0.00	1.99	11.83	1.10	0.48 J	< 0.40	< 0.40	< 0.20	**1,300**	**4,900**	73 J	220 J	< 100
MW-34	MW-34-W-230317	03/17/2023	NS	ND	0.00	7.84	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	< 47	NA	< 100	NA
	MW-34-W-230525	05/25/2023		ND	0.00	7.92	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	< 47	NA	< 100	NA
	MW-34-W-230809	08/09/2023		ND	0.00	8.54	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 47	< 47	< 100	< 100
	MW-34-W-231116	11/16/2023		ND	0.00	7.98	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 46	< 46	< 100	< 100
MW-36	MW-36-W-230315	03/15/2023	NS	ND	0.00	6.09	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	< 47	NA	< 100	NA
	MW-36-W-230525	05/25/2023		ND	0.00	6.08	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	< 50	NA	< 110	NA
	MW-36-W-230810	08/10/2023		ND	0.00	6.80	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 46	< 46	< 100	< 100
	MW-36-W-231115	11/15/2023	13.52	ND	0.00	5.80	7.72	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 46	NA	< 100	NA
MW-37	MW-37-W-230315	03/15/2023	NS	ND	0.00	7.13	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	< 46	NA	< 100	NA
	MW-37-W-230525	05/25/2023		ND	0.00	7.12	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	84 J	NA	< 110	NA
	MW-37-W-230810	08/10/2023		ND	0.00	7.82	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	140 J	< 46	< 100	< 100
	MW-37-W-231115	11/15/2023	14.54	ND	0.00	6.92	7.62	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	100 U	< 46	< 100	< 100

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								Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	TPH-g	TPH-d	TPH-d (w/ SGT)	TPH-o	TPH-o (w/ SGT)
MTCA Method A Cleanup Levels[a] (µg/L)								5	1000	700	1000	20	800[b]	500		500	
MW-38	MW-38-W-230315	03/15/2023	NS	ND	0.00	7.62	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	46 UJ	NA	100 UJ	NA
	MW-38-W-230525	05/25/2023		ND	0.00	7.83	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	< 47	NA	< 100	NA
	MW-38-W-230810	08/10/2023		ND	0.00	8.77	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 47	< 47	< 100	< 100
	MW-38-W-231115	11/15/2023		ND	0.00	7.45	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 46	NA	< 100	NA
MW-39	MW-39-W-230316	03/16/2023	NS	ND	0.00	5.62	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	59 J	**1,200**	NA	120 J	NA
	MW-39-W-230525	05/25/2023		ND	0.00	5.91	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	82 J	**2,000**	NA	410	NA
	MW-39-W-230809	08/09/2023		ND	0.00	6.70	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	180 J	**5,200**	< 45	**760**	< 100
	MW-39-W-231115	11/15/2023	15.00	ND	0.00	5.75	9.25	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	63 J	**2,300**	< 46	310	< 100
RMW-01	RMW-01-W-230316	03/16/2023	NS	ND	0.00	4.70	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	110 J	**930**	NA	**550**	NA
	RMW-01-W-230524	05/24/2023		ND	0.00	5.08	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	230 J	**1,600**	NA	320	NA
	RMW-01-W-230809	08/09/2023		ND	0.00	6.11	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	370	**2,900**	< 46	400	< 100
	RWM-01-W-231115	11/15/2023	14.97	ND	0.00	4.86	10.11	< 0.30	< 0.30	< 0.40	<0.40	< 0.20	250	**1,300**	54 J	210 J	*1000 U*
Sand Aquifer Wells																	
D-01	D-01-W-230321	03/21/2023	17.33	ND	0.00	9.96	7.37	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	190 J	**4,600**	NA	**720**	NA
	DUP-1-WD-230321							< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	180 J	**4,800**	NA	**730**	NA
	D-01-W-230524	05/24/2023		ND	0.00	10.17	7.16	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	180 J	**4,200**	NA	**650**	NA
	DUP-1-WD-230524							< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	180 J	**4,400**	NA	**620**	NA
	D-01-W-230811	08/11/2023		ND	0.00	11.46	5.87	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	200 J	**3,400**	< 46	380	< 100
	DUP-1-WD-230811							< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	220 J	**3,300**	< 46	440	< 100
	D-01-W-231117	11/17/2023	17.26	ND	0.00	10.22	7.04	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 430	**4,300**	52 UJ	**780**	**920 J**
	DUP-2-WD-231117							< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 430	**4,500**	< 47 UJ	**850**	< 100 UJ
D-02A	D-02A-W-230314	03/14/2023	14.90	ND	0.00	7.59	7.31	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**1,400**	NA	**580**	NA
	D-02A-W-230523	05/23/2023		ND	0.00	7.77	7.13	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	43 J	**1,400**	NA	**520**	NA
	D-02A-W-230808	08/08/2023		ND	0.00	8.76	6.14	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	75 J	**1,200**	< 45	390	< 100
	D-02A-W-231114	11/14/2023	15.16	ND	0.00	7.78	7.38	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**1,200**	< 46	**540**	< 100
D-03A	D-03A-W-230317	03/17/2023	NS	ND	0.00	6.87	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	74 J	**3,000**	NA	**730**	NA
	D-03A-W-230526	05/26/2023		ND	0.00	6.93	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20 UJ	< 43	**1,900**	NA	460	NA
	D-03A-W-230811	08/11/2023		ND	0.00	8.18	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	59 J	**1,500**	< 46	**520**	< 100
	D-03A-W-231116	11/16/2023	14.12	ND	0.00	7.05	7.07	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	250 U	**1,100**	< 46	290	< 100
D-06	D-06-W-230317	03/17/2023	18.26	ND	0.00	10.90	7.36	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	200 J	**3,300**	NA	420	NA
	D-06-W-230524	05/24/2023		ND	0.00	12.87	5.39	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	210 J	**2,100 J**	NA	220 J	NA
	D-06-W-230810	08/10/2023		ND	0.00	12.54	5.72	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	260	**3,500**	< 45	410	< 100
	D-06-W-231116	11/16/2023	18.23	ND	0.00	11.01	7.22	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	250 J	**2,600**	54 J	280	130 J
D-07	D-07-W-230315	03/15/2023	14.47	ND	0.00	7.24	7.23	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	210	NA	130 J	NA
	D-07-W-230526	05/26/2023		ND	0.00	7.55	6.92	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20 UJ	< 43	290	NA	100 J	NA
	D-07-W-230811	08/11/2023		ND	0.00	8.34	6.13	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	170 J	< 45	< 100	< 100
	D-07-W-231116	11/16/2023	14.82	ND	0.00	7.34	7.48	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	420	< 47	110 J	< 100
D-08	D-08-W-230314	03/14/2023	NS	ND	0.00	6.84	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**1,700**	NA	440	NA
	D-08-W-230523	05/23/2023		ND	0.00	7.57	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	**920**	NA	230 J	NA
	D-08-W-230808	08/08/2023		ND	0.00	7.72	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	62 J	**1,200**	< 45	290	< 100
	D-08-W-231114	11/14/2023	13.73	ND	0.00	7.07	6.66	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	50 J	**1,100**	< 47	360	< 100
D-09	D-09-W-230315	03/15/2023	NS	ND	0.00	5.71	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**2,400**	NA	**1,100**	NA
	D-09-W-230523	05/23/2023		ND	0.00	5.70	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	**1,700**	NA	**520**	NA
	D-09-W-230808	08/08/2023		ND	0.00	6.83	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	51 J	**2,300**	130	**710**	**2000**
	D-09-W-231114	11/14/2023	12.90	ND	0.00	5.81	7.09	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**2,400**	< 46	**1,100**	< 100
D-10	D-10-W-230317	03/17/2023	NS	ND	0.00	7.02	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	43 J	**870**	NA	150 J	NA
	D-10-W-230525	05/25/2023		ND	0.00	7.45	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	43 J	**1,200**	NA	190 J	NA
	D-10-W-230809	08/09/2023		ND	0.00	8.00	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	110 J	**2,200**	< 45	230 J	< 100
	D-10-W-231116	11/16/2023	14.03	ND	0.00	7.26	6.77	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	250 U	**1,900**	< 46	190 J	< 100

Table 4
Cumulative 2023 Gauging and Groundwater Analytical Data
Former Chevron Bulk Terminal, Facility No. 1001348
Tacoma, Washington

AECOM

Well ID	Sample ID	Sample Date	TOC Elevation** (ft, NAVD88)	Depth to SPH (ft btoc)	SPH Thickness (ft)	Depth to Water (ft btoc)	Groundwater Elevation (ft, NAVD88)	Volatile Organic Compounds (VOCs)					Total Petroleum Hydrocarbons (TPH)				
								Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	TPH-g	TPH-d	TPH-d (w/ SGT)	TPH-o	TPH-o (w/ SGT)
MTCA Method A Cleanup Levels[a] (µg/L)								5	1000	700	1000	20	800[b]	500		500	
D-12	D-12-W-230316	03/16/2023	NS	ND	0.00	7.80	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	280	NA	270	NA
	D-12-W-230524	05/24/2023		ND	0.00	8.17	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	330	NA	270	NA
	D-12-W-230809	08/09/2023		ND	0.00	8.79	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	280	< 46	190 J	< 100
	D-12-W-231115	11/15/2023	14.85	ND	0.00	7.93	6.92	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	270	< 46	190 J	< 100
D-13[c]	N/A	N/A	NS	5.68	0.46	6.14	NS	Not sampled due to presence of SPH									
	N/A	N/A		5.90	0.01	5.91	NS	Not sampled due to presence of SPH									
	N/A	N/A		7.39	0.04	7.43	NS	Not sampled due to presence of SPH									
	N/A	N/A	13.84	6.00	0.01	6.01	7.84	Not sampled due to presence of SPH									
D-14	D-14-W-230321	03/21/2023	NS	ND	0.00	8.17	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	71 J	NA	< 110	NA
	D-14-W-230526	05/26/2023		ND	0.00	7.75	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20 UJ	45 J	< 48	NA	< 110	NA
	D-14-W-230810	08/10/2023		ND	0.00	8.94	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 46	< 46	< 100	< 100
	D-14-W-231117	11/17/2023	14.82	ND	0.00	8.01	6.81	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	< 46	< 46	< 100	< 100
D-15	D-15-W-230316	03/16/2023	NS	ND	0.00	7.85	NS	< 0.30 UJ	< 0.30 UJ	< 0.40 UJ	< 1.4 UJ	< 0.20 UJ	< 43	**2,000**	NA	500	NA
	D-15-W-230524	05/24/2023		ND	0.00	8.43	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**1,900**	NA	**800**	NA
	D-15-W-230809	08/09/2023		ND	0.00	8.76	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	67 J	**1,400**	< 45	270	< 100
	D-15-W-231115	11/15/2023	14.80	ND	0.00	7.98	6.82	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**1,300**	< 46	260	< 100
D-17	D-17-W-230314	03/14/2023	NS	ND	0.00	5.50	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	150	NA	< 100	NA
	D-17-W-230523	05/23/2023		ND	0.00	5.43	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	81 J	NA	110 UJ	NA
	D-17-W-230808	08/08/2023		ND	0.00	6.57	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	100 U	< 46	< 100	< 100
	D-17-W-231114	11/14/2023	12.75	ND	0.00	5.58	7.17	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	180 J	< 46	< 100	< 100
D-18	D-18-W-230314	03/14/2023	NS	ND	0.00	6.07	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	500	NA	300	NA
	D-18-W-230523	05/23/2023		ND	0.00	6.04	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	**650**	NA	200 J	NA
	D-18-W-230808	08/08/2023		ND	0.00	7.17	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**870**	< 45	300	< 100
	D-18-W-231114	11/14/2023	13.29	ND	0.00	6.18	7.11	< 0.30	< 0.30	< 0.40	< 0.30	< 0.20	< 43	**640**	< 46	320	< 100
D-19	D-19-W-230314	03/14/2023	NS	ND	0.00	6.04	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	420	NA	160 J	NA
	D-19-W-230523	05/23/2023		ND	0.00	6.10	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20 UJ	< 43	**610**	NA	180 J	NA
	D-19-W-230808	08/08/2023		ND	0.00	7.18	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	380	< 46	130 J	< 100
	D-19-W-231114	11/14/2023	13.22	ND	0.00	6.16	7.06	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	410	< 46 UJ	140 J	< 100 UJ
D-22	D-22-W-230317	03/17/2023	NS	ND	0.00	8.92	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	89 J	NA	< 100	NA
	D-22-W-230525	05/25/2023		ND	0.00	10.27	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	230	NA	< 110	NA
	D-22-W-230809	08/09/2023		ND	0.00	9.27	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	72 J	330	< 46	< 100	< 100
	D-22-W-231116	11/16/2023	15.39	ND	0.00	8.97	6.42	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	250 U	500	< 46 UJ	< 100	< 100 UJ
D-24	D-24-W-230315	03/15/2023	NS	ND	0.00	6.42	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	65 J	NA	< 100	NA
	D-24-W-230525	05/25/2023		ND	0.00	6.66	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	260	NA	< 110	NA
	D-24-W-230810	08/10/2023		ND	0.00	7.49	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	100 J	< 47	< 100	< 100
	D-24-W-231115	11/15/2023	13.53	ND	0.00	6.49	7.04	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	250	< 46	< 100	400 U

Table 4
Cumulative 2023 Gauging and Groundwater Analytical Data
Former Chevron Bulk Terminal, Facility No. 1001348
Tacoma, Washington

Well ID	Sample ID	Sample Date	TOC Elevation** (ft, NAVD88)	Depth to SPH (ft btoc)	SPH Thickness (ft)	Depth to Water (ft btoc)	Groundwater Elevation (ft, NAVD88)	Volatile Organic Compounds (VOCs)					Total Petroleum Hydrocarbons (TPH)				
								Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	TPH-g	TPH-d	TPH-d (w/ SGT)	TPH-o	TPH-o (w/ SGT)
MTCA Method A Cleanup Levels[a] (µg/L)								5	1000	700	1000	20	800[b]	500		500	
D-25	D-25-W-230315	03/15/2023	NS	ND	0.00	7.50	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**960**	NA	360	NA
	D-25-W-230525	05/25/2023		ND	0.00	7.62	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**1,200**	NA	380	NA
	D-25-W-230810	08/10/2023		ND	0.00	8.55	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**900**	< 46	280	< 100
	D-25-W-231115	11/15/2023	14.65	ND	0.00	7.60	7.05	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**1200**	64 U	420	< 100
D-26	D-26-W-230315	03/15/2023	NS	ND	0.00	7.99	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	240	NA	140 J	NA
	D-26-W-230525	05/25/2023		ND	0.00	8.02	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	230	NA	120 J	NA
	D-26-W-230810	08/10/2023		ND	0.00	9.05	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	130 J	< 47 UJ	< 100	< 100
	D-26-W-231115	11/15/2023		ND	0.00	8.12	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	170 J	< 46 UJ	< 100	250 U
D-27	D-27-W-230315	03/15/2023	NS	ND	0.00	7.86	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	< 43	**1,900**	NA	**800**	NA
	D-27-W-230525	05/25/2023		ND	0.00	8.03	NS	< 0.30	< 0.30	< 0.40	< 1.4	< 0.20	47 J	**2,000**	NA	**560**	NA
	D-27-W-230809	08/09/2023		ND	0.00	8.91	NS	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	51 J	**1,700**	< 46	410	< 100
	D-27-W-231115	11/15/2023	14.99	ND	0.00	7.98	7.01	< 0.30	< 0.30	< 0.40	< 0.40	< 0.20	< 43	**1,300**	< 46	360	< 100

Notes:

TPH-g (or TPH-GRO) = Total Petroleum Hydrocarbons, Gasoline-Range; reported as (C7-C12) via the NWTPH-Gx Volatile Petroleum Products Method in the laboratory analytical report.
TPH-d (or TPH-DRO) = Total Petroluem Hydrocarbons, Diesel Range; reported as (C12-C24) via the NWTPH-Dx Semi-Volatile Petroleum Products Method in the laboratory analytical report.
TPH-o (or TPH-HRO) = Total Petroleum Hydrocarbons, Oil-Range; reported as (C24-C40) via the NWTPH-Dx Semi-Volatile Petroleum Products Method in the laboratory analytical report.

** Top of Casing (TOC) elevations were (re-)surveyed by Bush, Roed & Hitching, Inc. on October 16-17, 2023.

[a] Department of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Levels

[b] Two TPH-g cleanup levels exist in MTCA Method A Cleanup Levels. The more conservative cleanup level of 800 µg/L, for use when benzene is detected, is presented in this table. When benzene is not detected, however, the cleanup level is 1,000 µg/L.

[c] Corrected groundwater elevation for wells containing SPH: TOC - DTW + (T_{SPH} * SG_{SPH})
TOC = top of casing elevation
DTW = depth to water (ft btoc)
T_{SPH} = SPH thickness (DTW - Depth to SPH)
SG_{SPH} = specific gravity of SPH (assumes an average specific gravity of 0.87)

1. All TPH concentrations are reported in units of µg/L.
2. Reported values not detected above the laboratory Method Detection Limit (MDL) are preceded by "<".
3. Reported values followed by "J" indicate estimated concentrations above the MDL.
4. Reported values followed by "U" indicate analyte is qualified as not detected, based on the data validation review.
5. Reported values followed by "UJ" indicate the analyte was not detected above the MDL, but the MDL is estimated.
6. **Results that are greater than the MTCA Method A Cleanup Levels are indicated by bolded and shaded values.**
7. *Results in Italics indicate non-detect value is greater than CUL*

Abbreviations:

µg/L = micrograms per liter
TOC = top of casing
NAVD88 = North American Vertical Datum of 1988
ft btoc = feet below top of casing
SPH = separate-phase hydrocarbon
SGT = Silica Gel Treatment
NWTPH = Northwest Total Petroleum Hydrocarbons
N/A = not applicable (sample not collected)
NS = not surveyed
NA = not analyzed
ND = SPH not detected in well
DUP = duplicate sample

Appendix A

Field Data

GROUNDWATER SAMPLING LOG KEY

List of Abbreviations	
uS/cm	microSiemens per centimeter
deg C	degrees Celsius
DNAPL	dense non-aqueous phase liquid
ft	feet
HC	hydrocarbon
l	liter
LNAPL	light non-aqueous phase liquid
mg/L	micrograms per liter
MW	monitoring well
mV	millivolt
N/A	not applicable
NE	not entered – no detectable LNAPL or DNAPL
NM	not measured
NTU	Nephelometric Turbidity unit
su	standard unit
WL	water level

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-01-W-240315	Date:	3/15/2024 9:39:00 AM
Well ID:	D-01	Location Type:	MW
Duplicate ID:	DUP-2-WD-240315	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	DUP-2-WD-240315 @ 11:30		

Water Level			
Date:	3/15/2024 9:02:00 AM	Measured Depth of Well:	21.13 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	9.80 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/15/2024 9:09:00 AM	End Date and Time:	3/15/2024 9:35:00 AM
Initial Pump Depth:	Not Recorded	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
9:15 AM	95		11.00	6.80	0.559	1.68	-80.4	29.80	9.81	No odor	Clear w particles
9:20 AM	95		10.90	6.79	0.558	0.46	-100.0	19.80	9.80	Chemical odors	Clear w particles
9:25 AM	95		11.20	6.79	0.555	0.27	-104.7	20.50	9.78	Chemical odors	Clear w particles
9:30 AM	95		11.20	6.79	0.558	0.20	-107.7	20.70	9.77	Chemical odors	Clear w particles
9:35 AM	95		11.50	6.79	0.561	0.16	-109.0	21.90	9.77	Chemical odors	Clear w particles

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-02A-W-240312	Date:	3/12/2024 2:30:00 PM
Well ID:	D-02A	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Pump died during VOAs collection, manually filled bottles		

Water Level			
Date:	3/12/2024 1:34:00 PM	Measured Depth of Well:	19.52 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.51 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 1:44:00 PM	End Date and Time:	3/12/2024 2:23:00 PM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
1:48 PM	70		12.80	6.75	0.513	0.92	-94.5	27.90	7.55	Slight HC	Light brown
1:53 PM	70		12.80	6.71	0.510	0.62	-107.9	28.20	7.57	"	"
1:58 PM	70		12.90	6.70	0.510	0.36	-115.3	27.40	7.60	"	"
2:03 PM	70		13.00	6.69	0.512	0.25	-119.2	24.50	7.60	"	"
2:08 PM	70		13.30	6.69	0.515	0.20	-123.2	22.70	7.62	"	"
2:11 PM	70		13.20	6.70	0.514	0.19	-123.6	20.30	7.62	"	"
2:14 PM	70		13.20	6.69	0.515	0.18	-124.6	16.30	7.63	"	"
2:17 PM	70		12.90	6.69	0.511	0.18	-125.2	14.70	7.64	"	"
2:20 PM	70		12.90	6.69	0.511	0.16	-125.7	18.10	7.65	"	"
2:23 PM	70		12.90	6.69	0.510	0.14	-126.2	15.40	7.65		

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-03A-W-240314	Date:	3/14/2024 4:09:00 PM
Well ID:	D-03A	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 3:17:00 PM	Measured Depth of Well:	20.44 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.15 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 3:22:00 PM	End Date and Time:	3/14/2024 4:04:00 PM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
3:29 PM	100		14.20	6.83	0.590	1.25	-130.0	11.40	7.20	Chemical odors	Clear
3:34 PM	100		14.20	6.85	0.598	0.36	-145.6	9.65	7.20	Chemical odors	Clear
3:39 PM	100		14.20	6.85	0.602	0.14	-152.6	15.70	7.20	Chemical odors	Clear
3:44 PM	100		14.20	6.87	0.621	0.03	-158.9	14.10	7.22	Chemical odors	Clear
3:49 PM	100		14.20	6.87	0.625	0.01	-159.4	14.20	7.24	Chemical odors	Clear
3:54 PM	100		14.50	6.88	0.639	-0.02	-161.4	11.10	7.25	Chemical odors	Clear
3:59 PM	100		14.40	6.88	0.644	-0.02	-161.8	12.20	7.25	Chemical odors	Clear

AECOM

GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
4:04 PM	100		14.30	6.89	0.658	-0.04	-162.2	12.50	7.26	Chemical odors	Clear

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-06-W-240315	Date:	3/15/2024 11:15:00 AM
Well ID:	D-06	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/15/2024 10:31:00 AM	Measured Depth of Well:	22.44 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	10.59 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Pump depth bgs		

Purge Information			
Begin Date and Time:	3/15/2024 10:41:00 AM	End Date and Time:	3/15/2024 11:09:00 AM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
10:46 AM	90		12.60	6.88	0.418	0.91	59.0	32.80	11.59	Strong HC	Orange cloudy
10:51 AM	90		12.60	6.81	0.416	0.58	9.7	25.20	11.99	"	"
10:56 AM	90		12.30	6.78	0.413	0.43	-17.3	24.30	12.45	"	"
11:01 AM	90		12.30	6.77	0.412	0.32	-31.3	25.80	12.81	"	"
11:06 AM	90		12.20	6.76	0.412	0.30	-39.8	23.60	13.12	"	"
11:09 AM	90	4	12.20	6.75	0.412	0.24	-44.7	24.00	13.33	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-7-W-240314	Date:	3/14/2024 10:41:00 AM
Well ID:	D-07	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 9:43:00 AM	Measured Depth of Well:	20.00 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.04 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 9:50:00 AM	End Date and Time:	3/14/2024 10:37:00 AM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
9:57 AM	95		12.80	6.64	0.568	0.93	-110.8	65.30	7.01	Slight chemical odor	Clear w particles
10:02 AM	95		12.80	6.65	0.558	0.57	-110.7	78.20	7.01	Slight chemical odor	Clear w particles
10:07 AM	95		13.10	6.64	0.537	0.25	-104.0	74.20	7.00	Slight chemical odor	Clear w particles
10:12 AM	95		13.60	6.63	0.681	0.11	-105.9	141.00	7.00	Slight chemical odor	Cloudy w particle
10:17 AM	95		13.50	6.64	0.684	0.11	-107.4	164.00	7.00	Slight chemical odor	Cloudy w particle

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GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
10:22 AM	95		13.50	6.66	0.604	0.10	-109.1	76.50	6.99	Slight chemc al odor	Cloudy w particl e
10:27 AM	95		13.50	6.65	0.573	0.08	-106.1	54.50	6.99	Slight chemc al odor	Clear w particl es
10:32 AM	95		13.90	6.64	0.566	0.07	-105.8	40.70	6.99	Slight chemc al odor	Clear w particl es
10:37 AM	95		13.90	6.64	0.562	0.02	-106.5	37.00	6.99	Slight chemc al odor	Clear w particl es

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-08-W-240312	Date:	3/12/2024 4:10:00 PM
Well ID:	D-08	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 2:54:00 PM	Measured Depth of Well:	21.81 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.46 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 3:07:00 PM	End Date and Time:	3/12/2024 4:02:00 PM
Initial Pump Depth:	19.5 ft btoc	Final Pump Depth:	19.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
3:25 PM	180		12.70	6.83	0.631	0.71	-107.9	63.60	7.44	Slight HC odor	Clear
3:30 PM	180		12.40	6.78	0.624	0.30	-119.1	47.10	7.43	Slight HC odor	Particles
3:35 PM	180		11.80	6.77	0.616	0.71	-114.9	46.50	7.42	"	Particles
3:40 PM	180		10.90	6.78	0.597	0.70	-112.3	35.30	7.41	"	"
3:45 PM	180		11.33	6.71	0.602	0.20	-119.4	30.90	7.40	"	"
3:48 PM	180		11.20	6.71	0.601	0.18	-121.3	24.00	7.40	"'	"
3:51 PM	180		11.30	6.70	0.602	0.16	-122.8	21.30	7.38	"	"
3:54 PM	180		11.40	6.70	0.603	0.13	-124.7	17.70	7.36	"	"
3:59 PM	180		11.50	6.70	0.605	0.11	-126.7	17.10	7.35	"	"
4:02 PM	180	9	11.70	6.70	0.609	0.11	-128.0	15.40	7.34	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-09-240312	Date:	3/12/2024 1:11:00 PM
Well ID:	D-09	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 12:15:00 PM	Measured Depth of Well:	19.94 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.29 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 12:25:00 PM	End Date and Time:	3/12/2024 1:07:00 PM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
12:32 PM	100		10.80	6.59	0.646	1.05	-28.7	81.40	5.32	Petrol odor	Clear w particles
12:37 PM	100		11.10	6.58	0.663	0.45	-32.7	83.60	5.32	Petrol odors	Clear w particles
12:42 PM	100		11.00	6.59	0.661	0.24	-37.7	75.30	5.33	Petrol odors	Clear w particles
12:47 PM	100		10.90	6.59	0.660	0.16	-40.7	65.90	5.34	Petrol odors	Clear w particles
12:52 PM	100		10.90	6.59	0.661	0.12	-42.4	63.20	5.34	Petrol odors	Clear w particles
12:57 PM	100		11.20	6.59	0.666	0.09	-45.2	54.30	5.35	Petrol odors	Clear w

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GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
											particles
1:02 PM	100		11.10	6.59	0.665	0.07	-47.8	50.40	5.37	Petrol odors	Clear w particles
1:07 PM	100		9.90	6.60	0.648	0.05	-49.0	54.50	5.38	Petrol odors	Clear w particles

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-10-W-240314	Date:	3/14/2024 12:05:00 PM
Well ID:	D-10	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 11:20:00 AM	Measured Depth of Well:	24.30 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	6.69 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 11:32:00 AM	End Date and Time:	3/14/2024 11:59:00 AM
Initial Pump Depth:	19 ft btoc	Final Pump Depth:	19 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
11:33 AM	150		12.30	6.77	0.439	1.94	-7.8	35.40	6.77	Slight HC	Particl es
11:38 AM	150		12.60	6.71	0.468	0.54	-52.6	22.90	6.77	"	"
11:43 AM	150		12.40	6.73	0.501	0.37	-72.0	26.60	6.79	"	"
11:48 AM	150		12.40	6.75	0.543	0.26	-87.3	24.30	6.81	"	"
11:53 AM	150		12.50	6.77	0.586	0.21	-99.8	24.90	6.84	"	"
11:56 AM	150		12.30	6.77	0.592	0.21	-102.8	22.90	6.85	"	"
11:59 AM	150	5	12.20	6.78	0.604	0.20	-106.6	22.10	6.86	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-12-W-240314	Date:	3/14/2024 2:40:00 PM
Well ID:	D-12	Location Type:	Not In Database
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 1:39:00 PM	Measured Depth of Well:	28.25 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.84 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 1:48:00 PM	End Date and Time:	3/14/2024 2:36:00 PM
Initial Pump Depth:	26.5 ft btoc	Final Pump Depth:	26.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
1:49 PM	150		13.90	7.03	0.509	6.09	9.2	10.50	7.86	None	Mostly clear
1:54 PM	150		14.00	6.92	0.516	5.24	36.5	9.94	7.86	"	"
1:59 PM	150		14.00	6.92	0.516	5.10	40.8	9.32	7.88	"	"
2:04 PM	150		14.00	6.92	0.516	4.95	41.9	11.60	7.90	"	"
2:09 PM	150		14.10	6.91	0.519	4.30	41.1	15.00	7.92	"	"
2:12 PM	150		14.10	6.91	0.521	4.18	37.5	15.20	7.92	"	"
2:15 PM	150		14.20	6.87	0.537	2.21	13.7	25.30	7.94	"	More cloudy
2:18 PM	150		14.10	6.86	0.559	1.15	-20.1	18.30	7.95	"	"
2:21 PM	150		14.20	6.87	0.568	0.78	-47.4	15.40	7.95	"	More clear
2:24 PM	150		13.90	6.89	0.572	0.64	-74.9	11.50	7.96	"	"
2:27 PM	150		14.00	6.89	0.575	0.55	-89.9	12.10	7.96	"	"
2:30 PM	150		14.00	6.89	0.574	0.50	-98.9	9.43	7.97	"	"
2:33 PM	150		14.10	6.89	0.582	0.48	-107.3	8.53	7.97	"	"
2:36 PM	150		14.00	6.99	0.578	0.48	-111.9	8.12	7.98	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-13-W-240311	Date:	3/11/2024 1:57:00 PM
Well ID:	D-13	Location Type:	Monitoring Well
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	WL/int meter: Solinst 101 # 30234		
Comments:	No sample taken. Product encountered.		

Water Level			
Date:	3/11/2024 1:57:00 PM	Measured Depth of Well:	Not Measured
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.48 ft btoc	Depth to LNAPL:	5.21 ft btoc
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	Not Recorded	End Date and Time:	Not Recorded
Initial Pump Depth:	Not Recorded	Final Pump Depth:	Not Recorded
Purge Method:	Not Recorded	Sample Method:	Not Recorded
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-14-W-240315	Date:	3/15/2024 12:40:00 PM
Well ID:	D-14	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/15/2024 11:37:00 AM	Measured Depth of Well:	31.27 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.12 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/15/2024 11:48:00 AM	End Date and Time:	3/15/2024 12:36:00 PM
Initial Pump Depth:	30 ft btoc	Final Pump Depth:	30 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
11:56 AM	100		13.40	7.41	1.355	1.03	-99.7	7.66	7.85	No odor	Clear
12:01 PM	100		13.30	7.47	1.357	0.40	-124.3	5.63	8.61	No odor	Clear
12:06 PM	100		13.20	7.52	1.349	0.21	-135.9	19.00	9.38	No odor	Clear
12:11 PM	100		13.30	7.47	1.351	0.15	-135.1	9.36	10.08	No odor	Clear
12:16 PM	100		13.30	7.42	1.349	0.13	-129.8	7.01	10.57	No odor	Clear
12:21 PM	100		13.40	7.36	1.347	0.10	-119.1	10.50	11.16	No odor	Clear
12:26 PM	100		13.30	7.33	1.345	0.10	-111.8	7.07	11.60	No odor	Clear
12:31 PM	100		13.40	7.32	1.343	0.08	-104.7	8.41	12.26	No odor	Clear
12:36 PM	100		13.40	7.31	1.343	0.08	-100.6	9.37	12.66	No odor	Clear

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-15-W-240313	Date:	3/13/2024 11:45:00 PM
Well ID:	D-15	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/13/2024 10:57:00 AM	Measured Depth of Well:	20.80 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.36 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/13/2024 11:05:00 AM	End Date and Time:	3/13/2024 11:40:00 AM
Initial Pump Depth:	18.5 ft btoc	Final Pump Depth:	18.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
11:08 AM	100		12.70	6.65	0.567	1.14	-48.0	136.00	7.41	None	Cloudy orange
11:13 AM	100		12.70	6.61	0.569	0.64	-59.4	93.90	7.42	"	"
11:18 AM	100		12.70	6.61	0.569	0.45	-70.6	69.70	7.44	"	"
11:23 AM	100		12.20	6.62	0.559	0.34	-81.3	43.00	7.45	"	"
11:28 AM	100		12.70	6.61	0.563	0.25	-88.5	34.50	7.48	"	Paricles
11:31 AM	100		12.70	6.62	0.561	0.24	-91.7	41.40	7.50	"	"
11:34 AM	100		13.00	6.63	0.563	0.21	-97.0	37.20	7.51	"	"
11:37 AM	100		13.00	6.64	0.561	0.20	-102.1	39.80	7.52	"	"
11:40 AM	100	4	12.90	6.64	0.559	0.19	-103.9	36.10	7.54	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-17-W-240312	Date:	3/12/2024 9:30:00 AM
Well ID:	D-17	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 8:40:00 AM	Measured Depth of Well:	18.71 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.14 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 8:55:00 AM	End Date and Time:	3/12/2024 9:26:00 AM
Initial Pump Depth:	16.5 ft btoc	Final Pump Depth:	16.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
9:00 AM	100		9.70	6.57	0.437	1.41	-105.2	140.00	5.13	None	Brown cloudy
9:05 AM	100		10.10	6.48	0.439	0.50	-82.7	110.00	5.13	"	"
9:10 AM	100		10.30	6.46	0.443	1.01	-77.7	103.00	5.12	"	"
9:15 AM	120		10.50	6.47	0.447	0.68	-79.8	89.10	5.12	"	"
9:20 AM	120		10.70	6.47	0.452	0.47	-82.2	97.70	5.11	"	"
9:23 AM	120		10.80	6.47	0.455	0.41	-84.0	94.10	5.11	"	"
9:26 AM	120	4	10.80	6.48	0.456	0.36	-84.7	88.30	5.11	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-18-W-240312	Date:	3/12/2024 1:00:00 PM
Well ID:	D-18	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 12:12:00 PM	Measured Depth of Well:	18.88 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.69 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 12:24:00 PM	End Date and Time:	3/12/2024 12:57:00 PM
Initial Pump Depth:	16.5 ft btoc	Final Pump Depth:	16.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
12:26 PM	100		11.10	6.50	0.707	1.43	44.7	226.00	5.68	None	Cloudy and btown
12:31 PM	100		11.20	6.46	0.705	0.55	33.8	191.00	5.69	Slight HC odor	"
12:36 PM	100		11.30	6.45	0.709	0.32	22.5	171.00	5.70	"	"
12:41 PM	100		11.10	6.45	0.707	0.24	9.4	163.00	5.70	"	"
12:46 PM	100		11.00	6.44	0.706	0.19	1.7	137.00	5.70	"	"
12:49 PM	100		11.10	6.44	0.710	0.18	-3.0	131.00	5.71	"	"
12:51 PM	100		11.20	6.44	0.711	0.17	-5.9	112.00	5.71	"	"
12:54 PM	100		11.20	6.45	0.711	0.16	-9.3	114.00	5.71	"	"
12:57 PM	100	4	11.10	6.45	0.710	0.15	-11.8	105.00	5.71	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-19-240312	Date:	3/12/2024 9:45:00 AM
Well ID:	D-19	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 8:45:00 AM	Measured Depth of Well:	21.92 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.62 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 8:56:00 AM	End Date and Time:	3/12/2024 9:39:00 AM
Initial Pump Depth:	19.5 ft btoc	Final Pump Depth:	19.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
8:59 AM	170		11.20	6.25	0.617	0.94	36.3	231.00	5.82	No odor	Cloudy yellow
9:04 AM	170		11.30	6.26	0.620	0.39	24.2	182.00	5.82	No odor	Cloudy yellow
9:09 AM	170		11.50	6.28	0.630	0.21	13.4	119.00	5.81	No odor	Cloudy yellow
9:14 AM	170		11.50	6.29	0.633	0.15	7.2	94.20	5.81	No odor	Cloudy
9:19 AM	170		11.60	6.30	0.636	0.09	3.3	85.00	5.81	No odor	Cloudy
9:24 AM	170		11.60	6.30	0.636	0.06	-1.1	71.70	5.80	No odor	Clear w particles
9:29 AM	170		11.70	6.30	0.640	0.05	-3.0	66.30	5.80	No odor	Clear w particles
9:34 AM	170		11.60	6.30	0.639	0.03	-4.6	62.30	5.80	No odors	Clear w particles

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GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
9:39 AM	170		11.80	6.30	0.639	0.01	-6.6	65.60	5.80	No odors	Clear w particles

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-22-W-240314	Date:	3/14/2024 10:45:00 AM
Well ID:	D-22	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 10:00:00 AM	Measured Depth of Well:	20.38 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.69 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 10:09:00 AM	End Date and Time:	3/14/2024 10:43:00 AM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
10:11 AM	175		10.80	6.78	0.338	1.47	73.1	326.00	7.79	HC odor	Cloudy orange
10:16 AM	175		11.00	6.79	0.343	0.55	-9.3	221.00	7.79	"	"
10:21 AM	175		10.80	6.83	0.347	0.36	-41.9	108.00	7.80	"	"
10:26 AM	150		10.90	6.84	0.342	0.27	-60.9	82.60	7.89	Slight HC	Less cloudy
10:31 AM	150		10.60	6.86	0.352	0.25	-71.0	73.70	7.91	"	"
10:34 AM	150		10.70	6.85	0.353	0.23	-74.7	68.00	7.91	"	"
10:37 AM	150		10.70	6.85	0.352	0.21	-78.5	60.60	7.93	"	"
10:40 AM	150		10.80	6.86	0.356	0.20	-82.4	58.70	7.95	"	"
10:43 AM	150		10.70	6.85	0.354	0.19	-84.4	53.30	7.98	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-24-240313	Date:	3/13/2024 12:20:00 PM
Well ID:	D-24	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/13/2024 11:36:00 AM	Measured Depth of Well:	19.79 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	6.10 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/13/2024 11:43:00 AM	End Date and Time:	3/13/2024 12:15:00 PM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
11:50 AM	130		11.90	6.79	13.805	0.55	-252.9	6.30	6.14	Sulfur	Clear
11:55 AM	130		12.50	6.71	13.837	0.11	-296.5	5.31	6.15	Sulfur	Clear with black
12:00 PM	130		12.60	6.64	13.609	0.01	-326.8	5.23	6.15	Sulfur	Clear with black
12:05 PM	130		12.20	6.63	12.924	-0.06	-334.2	3.75	6.16	Sulfur	Clear with black
12:10 PM	130		12.40	6.63	12.597	-0.08	-337.1	2.75	6.17	Sulfur	Clear with black
12:15 PM	130		12.60	6.62	12.330	-0.09	-339.6	2.06	6.18	Sulfur	Clear with black

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-25-240313	Date:	3/13/2024 11:02:00 AM
Well ID:	D-25	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/13/2024 9:57:00 AM	Measured Depth of Well:	19.90 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.24 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/13/2024 10:20:00 AM	End Date and Time:	3/13/2024 10:57:00 AM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
10:27 AM	130		13.00	6.45	0.532	0.58	-53.3	16.60	7.22	Slight hc odor	Clear w particles
10:32 AM	130		13.30	6.45	0.545	0.28	-54.3	12.00	7.22	Slight chemc al odor	Clear w particles
10:37 AM	130		13.30	6.44	0.550	0.17	-54.1	6.95	7.21	Slight chemc al odor	Clear
10:42 AM	130		13.50	6.45	0.556	0.13	-56.2	9.55	7.22	Slight chemc al odor	Clear
10:47 AM	130		13.60	6.45	0.557	0.15	-57.4	6.61	7.21	Slight chemc al odor	Clear
10:52 AM	130		13.60	6.44	0.562	0.17	-60.0	6.16	7.22	Slight chemc al odor	Clear

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GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
10:57 AM	130		12.70	6.45	0.554	0.17	-60.7	6.68	7.21	Slight chemc al odor	Clear

GROUNDWATER SAMPLING LOG

Client: Chevron Environmental Management Company | Project #: 60701804

Site: Chevron Tacoma | Event: 2024-Q1-GW

Sample Information			
Sample ID:	D-26-W-240313	Date:	3/13/2024 2:53:00 PM
Well ID:	D-26	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Ms/msd		

Water Level			
Date:	3/13/2024 1:59:00 PM	Measured Depth of Well:	19.70 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.77 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/13/2024 2:11:00 PM	End Date and Time:	3/13/2024 2:46:00 PM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
2:16 PM	95		13.00	6.59	0.459	1.28	-87.9	64.70	7.79	Slight chemc al odor	Clear w particl es
2:21 PM	95		12.80	6.56	0.453	0.55	-88.4	58.60	7.81	Slight chemc al odor	Clear w particl es
2:26 PM	95		12.70	6.54	0.451	0.24	-89.6	45.60	7.81	Slight chemc al odor	Clear w particl es
2:31 PM	95		12.60	6.56	0.452	0.12	-95.4	40.70	7.81	Slight chemc al odor	Clear w particl es
2:36 PM	95		12.80	6.56	0.453	0.08	-98.9	37.10	7.81	Slight chemc al odor	Clear w particl es

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GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
2:41 PM	95		12.90	6.56	0.454	0.05	-101.8	34.70	7.82	Slight chemc al odor	Clear w particl es
2:46 PM	95		12.90	6.56	0.454	0.03	-104.3	34.10	7.82	Slight chemc al odor	Clear w particl es

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	D-27-W-240313	Date:	3/13/2024 9:25:00 AM
Well ID:	D-27	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/13/2024 8:40:00 AM	Measured Depth of Well:	19.86 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.63 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Assume screen 15-20bgsj		

Purge Information			
Begin Date and Time:	3/13/2024 8:54:00 AM	End Date and Time:	3/13/2024 9:22:00 AM
Initial Pump Depth:	17.5 ft btoc	Final Pump Depth:	17.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
8:56 AM	150		12.80	6.59	0.535	1.48	-46.8	69.90	7.62	Strong HC	Orange cloudy
9:01 AM	150		13.10	6.54	0.542	0.50	-55.7	73.20	7.62	"	"
9:06 AM	150		12.90	6.55	0.541	0.38	-57.7	48.90	7.60	"	Particles
9:11 AM	150		12.50	6.54	0.537	0.31	-60.2	46.90	7.60	"	"
9:16 AM	150		12.60	6.53	0.537	0.26	-62.0	42.00	7.59	"	"
9:19 AM	150		12.60	6.53	0.539	0.23	-64.0	46.00	7.59	"	"
9:22 AM	150	4	12.60	6.53	0.537	0.22	-64.6	42.10	7.59	"	"

GROUNDWATER SAMPLING LOG

Client: Chevron Environmental Management Company | Project #: 60701804

Site: Chevron Tacoma | Event: 2024-Q1-GW

Sample Information			
Sample ID:	MW-10-W-240311	Date:	3/11/2024 3:40:00 PM
Well ID:	MW-10	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/11/2024 2:47:00 PM	Measured Depth of Well:	7.45 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	3.43 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Tubing at 5.43ft		

Purge Information			
Begin Date and Time:	3/11/2024 3:06:00 PM	End Date and Time:	3/11/2024 3:34:00 PM
Initial Pump Depth:	5.43 ft btoc	Final Pump Depth:	5.45 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
3:08 PM	150		10.70	6.59	0.574	1.57	96.2	8.48	3.50	None	None
3:13 PM	150		10.60	6.52	0.576	0.85	103.7	7.84	3.50	"	"
3:18 PM	150		10.60	6.51	0.574	0.65	106.5	6.54	3.51		
3:23 PM	150		10.50	6.51	0.571	0.59	106.0	5.27	3.53	None	Clear
3:28 PM	150		10.50	6.51	0.569	0.57	104.4	3.19	3.53	"	"
3:31 PM	150		10.50	6.51	0.568	0.57	102.2	2.44	3.52	"	"
3:34 PM	150		10.50	6.51	0.568	0.58	99.7	2.01	3.53	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-11-W-240315	Date:	3/15/2024 9:40:00 AM
Well ID:	MW-11	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/15/2024 8:55:00 AM	Measured Depth of Well:	7.91 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	4.82 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/15/2024 9:03:00 AM	End Date and Time:	3/15/2024 9:36:00 AM
Initial Pump Depth:	6.4 ft btoc	Final Pump Depth:	6.4 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
9:07 AM	90		10.80	7.05	0.535	3.88	120.6	10.00	4.91	None	Mostly clear
9:12 AM	90		10.90	6.86	0.546	1.94	115.2	11.80	4.91	"	"
9:17 AM	90		11.20	6.82	0.552	1.48	105.5	13.10	4.92	"	"
9:22 AM	90		11.10	6.81	0.550	1.34	95.9	12.10	4.93	"	"
9:27 AM	90		11.20	6.80	0.550	1.63	86.1	7.94	4.94	"	"
9:30 AM	90		11.20	6.80	0.541	2.47	79.8	4.10	4.94	"	"
9:33 AM	90		11.40	6.80	0.541	2.61	77.8	3.55	4.95	"	"
9:36 AM	90	3	11.30	6.80	0.540	2.66	75.8	3.33	4.95	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-12-240312	Date:	3/12/2024 2:22:00 PM
Well ID:	MW-12	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 1:43:00 PM	Measured Depth of Well:	7.92 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	4.13 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 1:47:00 PM	End Date and Time:	3/12/2024 2:18:00 PM
Initial Pump Depth:	5 ft btoc	Final Pump Depth:	5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
1:53 PM	80		11.00	6.56	0.852	1.90	48.8	16.80	4.14	No odor	Clear w particles
1:58 PM	80		10.70	6.54	0.839	0.58	58.0	7.26	4.15	No odors	Clear
2:03 PM	80		10.60	6.53	0.766	0.30	64.5	8.28	4.15	No odor	Clear
2:08 PM	80		10.70	6.52	0.752	0.32	67.2	7.41	4.15	No odors	Clear
2:13 PM	80		10.80	6.50	0.649	0.27	69.5	8.42	4.15	No odor	Clear
2:18 PM	80		11.00	6.48	0.671	0.30	72.4	8.48	4.15	No odors	Clear

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-13-W-240315	Date:	3/15/2024 11:07:00 AM
Well ID:	MW-13	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/15/2024 10:05:00 AM	Measured Depth of Well:	10.20 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.85 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/15/2024 10:09:00 AM	End Date and Time:	3/15/2024 11:03:00 AM
Initial Pump Depth:	8 ft btoc	Final Pump Depth:	8 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
10:33 AM	100		10.60	6.78	0.162	2.86	7.0	15.20	5.58	No odor	Clear w particles
10:38 AM	100		10.80	6.76	0.162	2.75	-3.2	8.41	5.68	No odor	Clear
10:43 AM	100		10.70	6.77	0.161	2.79	-2.9	8.60	5.69	No odor	Clear
10:48 AM	100		10.80	6.76	0.158	2.91	-7.8	5.89	5.68	No odor	Clear
10:53 AM	100		11.00	6.76	0.158	2.88	-13.2	4.11	5.68	No odor	Clear
10:58 AM	100		11.10	6.75	0.160	2.70	-18.5	4.77	5.68	No odor	Clear
11:03 AM	100		11.60	6.75	0.159	2.68	-18.8	3.97	5.68		Clear

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-14-W-240314	Date:	3/14/2024 4:05:00 PM
Well ID:	MW-14	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 3:20:00 PM	Measured Depth of Well:	12.05 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.72 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Screen assume 7-12 btoc		

Purge Information			
Begin Date and Time:	3/14/2024 3:29:00 PM	End Date and Time:	3/14/2024 3:58:00 PM
Initial Pump Depth:	9.5 ft btoc	Final Pump Depth:	9.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Not Recorded
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
3:32 PM	125		11.40	7.57	0.172	5.40	5.1	10.60	5.72	None	Mostly clear
3:37 PM	125		11.30	6.95	0.169	4.64	19.6	8.59	5.71	"	"
3:42 PM	125		12.20	6.84	0.173	4.55	25.3	8.20	5.71	"	"
3:47 PM	125		11.90	6.81	0.171	4.58	29.2	7.41	5.71	"	"
3:52 PM	125		11.90	6.79	0.171	4.66	31.7	8.86	5.72	"	"
3:55 PM	125		11.70	6.79	0.169	4.70	32.7	8.73	5.72	"	"
3:58 PM	125	2	11.70	6.78	0.170	4.58	33.5	7.92	5.72	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-18-W-240315	Date:	3/15/2024 12:40:00 PM
Well ID:	MW-18	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/15/2024 11:46:00 AM	Measured Depth of Well:	10.86 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.72 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/15/2024 11:56:00 AM	End Date and Time:	3/15/2024 12:34:00 PM
Initial Pump Depth:	9.3 ft btoc	Final Pump Depth:	Not Recorded
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
11:59 AM	100		11.10	6.99	0.372	2.83	18.1	52.30	7.72	Slight HC	Orang epartic es
12:04 PM	100		11.10	6.88	0.370	0.80	-0.6	33.90	7.72	"	"
12:09 PM	100		11.10	6.85	0.360	0.65	-16.8	23.40	7.73	"	"
12:14 PM	100		11.00	6.81	0.316	1.19	-21.9	11.50	7.73	"	"
12:19 PM	100		11.10	6.81	0.294	1.63	-23.3	8.04	7.73	"	More clear
12:22 PM	100		11.00	6.81	0.288	1.80	-23.5	8.56	7.73	"	"
12:25 PM	100		11.10	6.80	0.277	1.97	-23.9	7.08	7.73	"	"
12:28 PM	100		11.00	6.81	0.267	2.14	-25.0	4.57	7.73	"	"
12:31 PM	100		11.10	6.81	0.252	2.32	-24.3	3.44	7.73	"	"
12:34 PM	100	4	11.10	6.80	0.261	2.25	-23.5	4.32	7.73	="	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-19-W-240315	Date:	3/15/2024 1:45:00 PM
Well ID:	MW-19	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/15/2024 1:07:00 PM	Measured Depth of Well:	9.45 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	4.36 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/15/2024 1:17:00 PM	End Date and Time:	3/15/2024 1:42:00 PM
Initial Pump Depth:	6.7 ft btoc	Final Pump Depth:	6.7 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
1:19 PM	100		13.10	6.74	0.505	2.51	-5.4	40.10	4.39	Strong HC	Particl es
1:24 PM	100		13.20	6.68	0.510	0.91	-31.5	38.90	4.39	"	"
1:29 PM	100		13.10	6.68	0.513	0.54	-47.8	36.10	4.39	"	"
1:34 PM	100		13.10	6.69	0.520	0.34	-60.4	34.00	4.39	"	"
1:39 PM	100		12.70	6.70	0.517	0.27	-63.6	31.10	4.39	"	"
1:42 PM	100	4	12.70	6.69	0.521	0.19	-66.9	29.40	4.39	"	"

GROUNDWATER SAMPLING LOG

Client: Chevron Environmental Management Company | Project #: 60701804

Site: Chevron Tacoma | Event: 2024-Q1-GW

Sample Information			
Sample ID:	MW-20-W-240315	Date:	3/15/2024 1:49:00 PM
Well ID:	MW-20	Location Type:	Monitoring Well
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/15/2024 1:05:00 PM	Measured Depth of Well:	9.16 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	3.41 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/15/2024 1:09:00 PM	End Date and Time:	3/15/2024 1:41:00 PM
Initial Pump Depth:	6 ft btoc	Final Pump Depth:	6 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
1:16 PM	125		14.50	6.62	0.302	1.18	-64.9	31.30	3.58	Chemical odors	Clear w particles
1:21 PM	125		14.60	6.46	0.280	0.24	-61.6	25.60	3.65	Chemical odors	Clear w particles
1:26 PM	125		14.70	6.43	0.286	0.10	-61.7	25.80	3.67	Chemical odors	Clear w particles
1:31 PM	125		14.80	6.42	0.293	0.05	-62.9	24.20	3.68	Chemical odors	Clear w particles
1:36 PM	125		14.70	6.41	0.298	0.02	-65.3	22.00	3.69	Chemical odors	Clear w particles

AECOM

GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
1:41 PM	125		14.90	6.41	0.309	0.00	-66.6	23.70	3.68	Chemical odors	Clear w particles

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-21-W-240314	Date:	3/14/2024 1:31:00 PM
Well ID:	MW-21	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 12:33:00 PM	Measured Depth of Well:	9.14 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	2.80 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 12:38:00 PM	End Date and Time:	3/14/2024 1:25:00 PM
Initial Pump Depth:	6 ft btoc	Final Pump Depth:	6 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
12:45 PM	100		10.90	6.69	0.268	1.40	45.0	20.70	2.95	No odor	Clear w particles
12:50 PM	100		10.90	6.58	0.248	0.52	55.7	14.10	2.99	No odor	Clear w particles
12:55 PM	100		11.20	6.54	0.244	0.39	61.9	8.39	3.06	No odor	Clear
1:00 PM	100		11.40	6.53	0.246	0.32	65.5	8.20	3.11	No odor	Clear
1:05 PM	100		11.50	6.53	0.249	0.26	71.2	15.50	3.18	No odor	Clear w particles
1:10 PM	100		11.50	6.53	0.250	0.20	73.0	8.48	3.25	No odor	Clear
1:15 PM	100		11.80	6.52	0.250	0.19	73.6	5.70	3.27	No odor	Clear
1:20 PM	100		12.10	6.52	0.254	0.16	74.4	4.68	3.28	No odor	Clear

AECOM

GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
1:25 PM	100		12.30	6.53	0.260	0.12	75.9	4.47	3.31	No odor	Clear

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-22-W-240314	Date:	3/14/2024 11:55:00 AM
Well ID:	MW-22	Location Type:	MW
Duplicate ID:	DUP-1-WD-240314	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	DUP-1-WD-240314 @ 1230		

Water Level			
Date:	3/14/2024 10:58:00 AM	Measured Depth of Well:	7.73 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	4.97 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 11:03:00 AM	End Date and Time:	3/14/2024 11:50:00 AM
Initial Pump Depth:	6.5 ft btoc	Final Pump Depth:	6.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
11:10 AM	95		10.70	6.86	0.569	3.75	-39.7	395.00	5.00	Chemical odors	Cloudy yelow
11:15 AM	95		10.30	6.79	0.608	3.41	-41.1	174.00	5.01	Chemical odors	Cloudy yellow
11:20 AM	95		10.20	6.77	0.625	2.67	-45.9	107.00	5.01	Chemical odors	Cloudy w particle
11:25 AM	95		10.40	6.76	0.645	2.57	-49.1	80.60	5.01	Chemical odors	Clear w particles
11:30 AM	95		10.40	6.76	0.661	2.16	-51.8	56.20	5.01	Chemical odors	Clear w particles
11:35 AM	95		10.60	6.75	0.667	0.33	-53.0	37.80	5.01	Chemical odors	Clear w particles

AECOM

GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
11:40 AM	95		10.70	6.75	0.680	0.27	-54.1	32.20	5.01	Chemical odors	Clear w particles
11:45 AM	95		10.70	6.74	0.684	0.25	-54.7	26.30	5.01	Chemical odors	Clear w particles
11:50 AM	95		10.70	6.74	0.691	0.24	-54.2	20.70	5.01	Chemical odors	Clear w particles

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-23-240312	Date:	3/12/2024 3:37:00 PM
Well ID:	MW-23	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 2:49:00 PM	Measured Depth of Well:	8.93 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.44 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 2:58:00 PM	End Date and Time:	3/12/2024 3:30:00 PM
Initial Pump Depth:	7 ft btoc	Final Pump Depth:	7 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
3:05 PM	90		10.80	8.45	0.335	8.75	33.5	7.51	5.48	No odor	Clear
3:10 PM	90		10.80	8.46	0.327	8.69	33.9	5.08	5.47	No odor	Clear
3:15 PM	90		10.50	8.39	0.324	8.68	36.5	6.07	5.46	No odor	Clear
3:20 PM	90		10.70	8.37	0.340	8.46	36.0	4.99	5.46	No odor	Clear
3:25 PM	90		10.70	8.35	0.348	8.33	36.1	3.90	5.46	No odor	Clear
3:30 PM	90		10.50	8.35	0.350	8.29	37.6	3.20	5.47	No odor	Clear

Reviewer Comments

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-24-240312	Date:	3/12/2024 11:39:00 AM
Well ID:	MW-24	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 11:07:00 AM	Measured Depth of Well:	10.05 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.14 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 11:09:00 AM	End Date and Time:	3/12/2024 11:33:00 AM
Initial Pump Depth:	6.5 ft btoc	Final Pump Depth:	6.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
11:13 AM	70		9.70	6.72	0.389	1.14	41.0	68.00	5.52	No odor	Clear w particles
11:18 AM	70		9.70	6.70	0.389	0.53	33.4	49.70	5.62	No odor	Clear w particles
11:23 AM	70		9.80	6.67	0.396	0.38	-3.6	42.80	5.70	No odor	Clear w particles
11:28 AM	70		9.80	6.67	0.395	0.40	-16.8	41.50	5.80	No odor	Clear w particles
11:33 AM	70		9.80	6.67	0.395	0.26	-17.1	45.70	5.82	No odor	Clear w particles

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-25-W-240314	Date:	3/14/2024 1:15:00 PM
Well ID:	MW-25	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 12:27:00 PM	Measured Depth of Well:	10.13 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	3.52 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 12:33:00 PM	End Date and Time:	3/14/2024 1:09:00 PM
Initial Pump Depth:	7.5 ft btoc	Final Pump Depth:	Not Recorded
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
12:37 PM	110		10.80	7.69	0.224	1.69	-58.8	20.20	3.63	HC odor	Whit particl es
12:42 PM	110		10.80	7.80	0.221	0.61	-69.5	16.60	3.63	"	"
12:47 PM	150		10.70	7.91	0.231	0.56	-82.6	15.10	3.65	"	"
12:52 PM	150		10.70	7.96	0.248	1.01	-89.7	13.20	3.65	"	More clear
12:57 PM	150		10.70	7.96	0.255	1.27	-93.3	12.40	3.65	"	"
1:00 PM	150		10.80	7.97	0.266	1.71	-94.9	15.20	3.66	"	"
1:03 PM	150		10.80	7.98	0.274	1.98	-93.9	10.70	3.66	"	"
1:06 PM	150		10.70	7.99	0.277	2.15	-93.8	9.87	3.66	"	"
1:09 PM	150	6	10.70	7.99	0.279	2.26	-93.1	10.30	3.66	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-26-W-240312	Date:	3/12/2024 10:40:00 AM
Well ID:	MW-26	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 9:50:00 AM	Measured Depth of Well:	9.21 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	3.02 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 9:51:00 AM	End Date and Time:	3/12/2024 10:34:00 AM
Initial Pump Depth:	6.5 ft btoc	Final Pump Depth:	6.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
9:56 AM	100		9.60	6.74	0.549	1.90	-2.9	47.10	3.10	None	White cloudy
10:01 AM	100		9.70	6.66	0.549	0.57	5.1	40.70	3.12	"	"
10:06 AM	100		9.50	6.65	0.543	0.33	7.6	22.30	3.14	"	"
10:11 AM	100		9.10	6.64	0.536	0.22	7.3	18.60	3.16	"	"
10:16 AM	100		8.80	6.64	0.530	0.18	6.7	13.80	3.16	"	Less cloudy
10:19 AM	100		8.80	6.63	0.529	0.15	7.5	12.80	3.16	"	"
10:22 AM	100		8.80	6.63	0.526	0.14	8.1	10.80	3.17	"	"
10:25 AM	100		8.80	6.63	0.524	0.13	8.6	9.49	3.17	"	"
10:28 AM	100		9.00	6.63	0.525	0.12	7.8	7.23	3.17	"	"
10:31 AM	100	5	9.00	6.63	0.525	0.12	7.6	7.72	3.17	"	"
10:34 AM	100	4	8.90	6.63	0.523	0.11	6.9	7.13	3.17	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-29-W-240313	Date:	3/13/2024 12:50:00 PM
Well ID:	MW-29	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/13/2024 12:07:00 PM	Measured Depth of Well:	9.21 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.46 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/13/2024 12:15:00 PM	End Date and Time:	3/13/2024 12:43:00 PM
Initial Pump Depth:	7.25 ft btoc	Final Pump Depth:	7.25 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
12:20 PM	100		12.20	6.59	0.623	2.14	7.9	5.79	5.53	hC odor	Mostl clear
12:25 PM	100		12.20	6.50	0.624	0.70	18.6	4.26	5.54	"	"
12:30 PM	100		11.90	6.48	0.620	0.45	23.1	5.09	5.54	"	"
12:35 PM	100		12.20	6.47	0.622	0.32	26.8	3.94	5.55	"	"
12:40 PM	100		12.20	6.47	0.620	0.33	30.1	2.47	5.55	"	"
12:43 PM	100	3	12.30	6.47	0.621	0.31	31.1	2.29	5.54	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-30-W-240312	Date:	3/12/2024 11:50:00 PM
Well ID:	MW-30	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 11:02:00 AM	Measured Depth of Well:	8.96 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	4.27 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 11:11:00 AM	End Date and Time:	3/12/2024 11:44:00 AM
Initial Pump Depth:	6.63 ft btoc	Final Pump Depth:	Not Recorded
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
11:15 AM	80		9.50	6.40	0.902	1.81	80.7	65.60	4.45	"	White particles
11:20 AM	80		9.40	6.38	0.902	1.25	80.9	27.20	4.47	"	"
11:25 AM	80		9.40	6.38	0.895	1.12	79.0	20.60	4.49	"	"
11:30 AM	80		9.50	6.38	0.896	1.04	73.9	17.70	4.50	"	"
11:35 AM	80		9.60	6.38	0.900	0.92	65.4	15.20	4.49	"	"
11:38 AM	80		9.60	6.38	0.900	0.99	57.1	10.50	4.49	"	"
11:41 AM	80		9.60	6.38	0.900	0.97	53.1	10.50	4.49	"	"
11:44 AM	80	3	9.70	6.38	0.900	1.01	48.6	10.10	4.45	"	"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-31-240312	Date:	3/12/2024 4:16:00 PM
Well ID:	MW-31	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/12/2024 10:00:00 AM	Measured Depth of Well:	9.10 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.64 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/12/2024 10:06:00 AM	End Date and Time:	3/12/2024 10:38:00 AM
Initial Pump Depth:	6.5 ft btoc	Final Pump Depth:	8 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
4:13 AM	90								6.61		
10:13 AM	100		9.60	6.51	0.573	0.58	-10.6	54.30	6.47	No odor	Cloudy w particle
10:18 AM	100		9.30	6.56	0.565	2.63	-46.5	60.00	6.75	No odor	Cloudy w particle
10:23 AM	90		9.10	6.52	0.562	0.63	-26.2	50.60	7.22	No odors	Cloudy w particle
10:28 AM	90		8.70	6.52	0.558	1.10	-26.7	49.30	7.59	No odors	Cloudy w particle
10:33 AM	90		9.00	6.49	0.554	0.32	-26.3	43.50	8.09	No odors	Cloudy w particle

AECOM

GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
10:38 AM	90		8.40	6.46	0.529	0.23	-24.5	34.10	8.62	No odors	Cloudy w particle

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-32-W-240314	Date:	3/14/2024 2:49:00 PM
Well ID:	MW-32	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 1:53:00 PM	Measured Depth of Well:	9.33 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	1.88 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 1:59:00 PM	End Date and Time:	3/14/2024 2:45:00 PM
Initial Pump Depth:	7 ft btoc	Final Pump Depth:	7 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
2:05 PM	100		13.10	6.51	0.129	0.96	15.0	53.70	1.94	No odor	Clear w particles
2:10 PM	100		12.90	6.44	0.129	0.28	-3.7	59.60	1.94	Slight chemical odor	Clear w particles
2:15 PM	100		12.80	6.44	0.129	0.19	-12.9	60.80	1.95	Slight chemical odor	Clear w particles
2:20 PM	100		12.50	6.45	0.132	0.13	-30.7	44.50	1.95	Slight chemical odor	Clear w particles
2:25 PM	100		12.60	6.49	0.140	0.07	-49.1	30.60	1.95	Slight chemical odor	Clear w particles

AECOM

GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
2:30 PM	100		12.60	6.50	0.143	0.07	-53.7	31.50	1.95	Slight chemc al odor	Clear w particl es
2:35 PM	100		12.60	6.54	0.152	0.04	-66.1	27.00	1.95	Slight chemc al odor	Clear w particl es
2:40 PM	100		12.50	6.57	0.155	0.03	-75.4	21.30	1.95	Slight chemc al odor	Clear w particl es
2:45 PM	100		12.70	6.58	0.159	0.01	-80.2	20.20	1.94	Slight chemc al odor	Clear w particl es

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-34-W-240314	Date:	3/14/2024 9:30:00 AM
Well ID:	MW-34	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	MS/MSD		

Water Level			
Date:	3/14/2024 8:40:00 AM	Measured Depth of Well:	12.87 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.10 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Assume screen 8-13 bgs		

Purge Information			
Begin Date and Time:	3/14/2024 8:48:00 AM	End Date and Time:	3/14/2024 9:25:00 AM
Initial Pump Depth:	10.5 ft btoc	Final Pump Depth:	10.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
8:50 AM	175		8.80	7.58	0.230	8.11	74.2	70.90	7.13	None	Cloudy
8:55 AM	175		8.90	7.42	0.227	6.58	84.4	34.70	7.12	"	"
9:00 AM	175		8.90	7.38	0.226	6.34	87.2	22.90	7.12	"	"
9:05 AM	175		9.00	7.37	0.227	6.24	88.9	16.70	7.13	"	More clear
9:10 AM	175		9.20	7.36	0.230	6.23	90.2	11.60	7.13	"	"
9:13 AM	175		9.10	7.36	0.230	6.38	90.7	8.62	7.13	"	"
9:16 AM	175		9.20	7.35	0.230	6.02	91.1	7.26	7.13	"	"
9:19 AM	175		9.30	7.35	0.230	5.70	91.3	4.98	7.13	"	"
9:22 AM	175		9.30	7.35	0.229	5.78	91.4	4.47	7.13	"	"
9:25 AM	175		9.30	7.35	0.230	5.78	91.5	4.34	7.13	"	"

GROUNDWATER SAMPLING LOG

Client: Chevron Environmental Management Company | Project #: 60701804

Site: Chevron Tacoma | Event: 2024-Q1-GW

Sample Information			
Sample ID:	MW-36-240313	Date:	3/13/2024 1:36:00 PM
Well ID:	MW-36	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/13/2024 12:38:00 PM	Measured Depth of Well:	9.50 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.26 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/13/2024 12:44:00 PM	End Date and Time:	3/13/2024 1:31:00 PM
Initial Pump Depth:	7.5 ft btoc	Final Pump Depth:	9 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
12:51 PM	85		11.60	7.71	0.872	1.27	-223.1	56.20	5.97	No odor	Yellowish cloudy
12:56 PM	85		11.60	7.55	0.744	0.74	-217.2	49.50	6.39	No odor	Cloudy
1:01 PM	85		11.60	7.51	0.646	1.25	-212.0	31.20	6.86	No odor	Clear w particles
1:06 PM	85		11.70	7.50	0.635	1.39	-209.3	25.80	7.20	No odor	Clear w particles
1:11 PM	85		11.60	7.51	0.634	1.38	-207.6	27.40	7.53	No odor	Clear w particles
1:16 PM	85		11.60	7.50	0.638	2.07	-202.2	20.60	7.79	No odor	Clear
1:21 PM	85		11.80	7.50	0.647	2.54	-195.7	18.50	8.03	No odor	Clear

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GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
1:26 PM	85		12.10	7.47	0.658	3.88	-191.5	24.00	8.11	No odor	Clear
1:31 PM	85		12.10	7.32	0.704	0.88	-199.5	167.00	8.30	No odor	Cloudy

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-37-240313	Date:	3/13/2024 9:33:00 AM
Well ID:	MW-37	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/13/2024 8:50:00 AM	Measured Depth of Well:	9.92 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	6.51 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/13/2024 8:57:00 AM	End Date and Time:	3/13/2024 9:28:00 AM
Initial Pump Depth:	8 ft btoc	Final Pump Depth:	8 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
9:03 AM	85		10.00	6.68	0.964	1.34	-89.4	2.89	6.54	Slight hc odor	Clear
9:08 AM	85		10.20	6.66	0.979	0.51	-103.2	3.39	6.54	Slight hc odor	Clear
9:13 AM	85		10.00	6.67	0.979	0.35	-109.2	3.86	6.53	Slight hc odor	Clear
9:18 AM	85		9.80	6.67	0.973	0.27	-111.6	4.56	6.54	Slight hc odor	Clear
9:23 AM	85		10.20	6.68	0.985	0.17	-114.6	3.86	6.53	Slight hc odor	Clear
9:28 AM	85		10.40	6.68	0.991	0.14	-116.3	4.00	6.54	Slight hc odor	Clear

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-38-W-240314	Date:	3/14/2024 9:19:00 AM
Well ID:	MW-38	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Suzanne Catlin
Equipment:	Field param meter: Other # 037573 WL/int meter: Solinst 101 # 801326		
Comments:	Not Recorded		

Water Level			
Date:	3/14/2024 8:30:00 AM	Measured Depth of Well:	9.85 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	7.20 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Not Recorded		

Purge Information			
Begin Date and Time:	3/14/2024 8:36:00 AM	End Date and Time:	3/14/2024 9:17:00 AM
Initial Pump Depth:	8.5 ft btoc	Final Pump Depth:	8.5 ft btoc
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
8:42 AM	95		7.90	6.28	0.328	1.23	16.1	82.80	7.22	No odor	Clear w particles
8:47 AM	95		8.50	6.23	0.332	0.60	40.5	32.00	7.23	No odor	Clear w particles
8:52 AM	95		8.90	6.22	0.331	0.44	57.9	18.10	7.22	No odor	Clear w particles
8:57 AM	95		8.90	6.19	0.323	0.28	69.1	8.48	7.22	No odor	Clear w particles
9:02 AM	95		9.20	6.18	0.319	0.20	69.7	5.72	7.23	No odor	Clear
9:07 AM	95		9.20	6.18	0.317	0.16	68.9	3.27	7.23	No odor	Clear
9:12 AM	95		9.20	6.17	0.315	0.14	67.2	3.47	7.23	No odor	Clear

AECOM

GROUNDWATER SAMPLING LOG

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
9:17 AM	95		9.40	6.17	0.315	0.10	64.4	3.41	7.23	No odor	Clear l

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	MW-39-W-240313	Date:	3/13/2024 10:30:00 AM
Well ID:	MW-39	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/13/2024 9:42:00 AM	Measured Depth of Well:	9.94 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	5.25 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Screen 5-10bgs		

Purge Information			
Begin Date and Time:	3/13/2024 9:50:00 AM	End Date and Time:	3/13/2024 10:25:00 AM
Initial Pump Depth:	7.6 ft btoc	Final Pump Depth:	Not Recorded
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
9:53 AM	120		11.40	7.25	0.291	1.13	-30.3	16.70	5.34	Stron HC	Particl es
9:58 AM	120		11.50	7.08	0.288	0.58	-23.7	10.60	5.35	Sight HC	Some particl es
10:03 AM	120		10.70	7.05	0.283	0.65	-21.6	7.00	5.30	"	"
10:08 AM	120		10.70	7.02	0.281	0.67	-20.6	4.82	5.32	"	Mostly clear
10:13 AM	120		10.70	7.02	0.273	1.06	-20.1	2.95	5.32	"	"
10:16 AM	120		10.70	7.04	0.266	1.33	-20.1	3.51	5.31	"	"
10:19 AM	120		10.60	7.04	0.263	1.59	-19.1	3.13	5.31	"	"
10:22 AM	120		10.60	7.05	0.261	1.69	-18.3	2.15	5.31	"	"
10:25 AM	120	5	10.60	7.06	0.262	1.77	-17.3	3.04	5.31		"

GROUNDWATER SAMPLING LOG

Client:	Chevron Environmental Management Company	Project #:	60701804
Site:	Chevron Tacoma	Event:	2024-Q1-GW

Sample Information			
Sample ID:	RMW-01-W-240313	Date:	3/13/2024 2:50:00 PM
Well ID:	RMW-01	Location Type:	MW
Duplicate ID:	Not Applicable	Sampler:	Lillian Celovsky
Equipment:	Field param meter: Other # 218075 WL/int meter: Solinst 101 # 30234		
Comments:	Not Recorded		

Water Level			
Date:	3/13/2024 1:38:00 PM	Measured Depth of Well:	9.82 ft btoc
Is Well Dry?	No	Depth to DNAPL:	Not Encountered
Depth to Water:	4.26 ft btoc	Depth to LNAPL:	Not Encountered
Notes:	Assume screen 5-10		

Purge Information			
Begin Date and Time:	3/13/2024 2:21:00 PM	End Date and Time:	3/13/2024 2:47:00 PM
Initial Pump Depth:	7.5 ft btoc	Final Pump Depth:	Not Recorded
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:	Not Recorded		

Time	Purge Rate (ml/min)	Purge Volume (l)	Temperature (deg C)	pH (su)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Purge Depth to Water (ft)	Odor (none)	Color (none)
2:21 PM	140		11.90	7.19	0.493	1.22	55.5	9.00	4.30	None	Clear
2:26 PM	140		11.50	6.89	0.484	1.03	54.2	8.26	4.30	"	"
2:31 PM	140		11.40	6.82	0.487	2.42	53.8	4.15	4.31	"	"
2:36 PM	140		11.30	6.80	0.485	2.71	52.1	3.70	4.30	"	"
2:41 PM	140		11.20	6.79	0.483	3.22	50.0	4.14	4.30	"	"
2:44 PM	140		11.10	6.78	0.483	3.41	47.3	3.14	4.30	"	"
2:47 PM	140		11.10	6.78	0.483	3.54	45.6	3.49	4.30		"

Appendix B

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Bradley Wynne
AECOM
13355 Noel Road
Suite 400
Dallas, Texas 75240

Generated 4/11/2024 6:34:10 PM Revision 1

JOB DESCRIPTION

CEMREC Legacy Sites- Tacoma

JOB NUMBER

580-137753-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

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

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Revision 1

Authorized for release by
Tracy Dutton, Client Relations Manager
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Table of Contents

Job Narrative
580-137753-1

Revision

The report was revised in order to change units for all methods to ug/L per client request. Also updated the parameter list for Method 8260D.

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 3/15/2024 4:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 7.8°C and 9.9°C.

GC/MS 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: A continuing calibration verification (CCV) standard associated with batch 580-454084 exceeded %Drift criteria for o-Terphenyl (Surr). The client samples associated with this CCV recovered within, and were not biased into, surrogate acceptance limits. Therefore, the data have been reported."
D-01-W-240315 (580-137753-8), DUP-2-WD-240315 (580-137753-9), MW-13-W-240315 (580-137753-10), D-14-W-240315 (580-137753-11), MW-20-W-240315 (580-137753-12), FB-1-O-240315 (580-137753-13), RB-1-R-240315 (580-137753-14), MW-34-W-240314 (580-137753-15), D-22-W-240314 (580-137753-16), D-10-W-240314 (580-137753-17), MW-25-W-240314 (580-137753-18), D-12-W-240314 (580-137753-19) and (CCV 580-454084/25)

Method NWTPH_Dx: The method blank for preparation batch 580-454018 and analytical batch 580-454084 contained #2 Diesel (C10-C24) and Motor Oil (>C24-C36) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method NWTPH_Dx: The following sample required a dilution due to the nature of the sample matrix: MW-38-W-240314 (580-137753-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

Definitions/Glossary

Client: AECOM
Job ID: 580-137753-1
Project/Site: CEMREC Legacy Sites- Tacoma

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
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

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: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-38-W-240314

Date Collected: 03/14/24 09:19
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 23:45	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 23:45	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 23:45	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 23:45	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/23/24 23:45*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*03/23/24 23:45*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/23/24 23:45*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/23/24 23:45*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*77 - 123*		*03/23/24 23:45*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**1000**	**J B**	1100	650	ug/L		03/18/24 08:47	03/18/24 18:31	10
Motor Oil (>C24-C36)	**2200**	**J B**	3500	960	ug/L		03/18/24 08:47	03/18/24 18:31	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*988*	*S1+*	*50 - 150*	*03/18/24 08:47*	*03/18/24 18:31*	*10*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: D-7-W-240314

Date Collected: 03/14/24 10:41
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/24/24 00:29	1
Toluene	ND		1.0	0.39	ug/L			03/24/24 00:29	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/24/24 00:29	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/24/24 00:29	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/24/24 00:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*03/24/24 00:29*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/24/24 00:29*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/24/24 00:29*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/24/24 00:29*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/24/24 00:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/24/24 00:29*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**530**	**B**	110	66	ug/L		03/18/24 08:47	03/18/24 18:52	1
Motor Oil (>C24-C36)	**650**	**B**	360	98	ug/L		03/18/24 08:47	03/18/24 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*03/18/24 08:47*	*03/18/24 18:52*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-22-W-240314

Date Collected: 03/14/24 11:55
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/24/24 00:51	1
Toluene	ND		1.0	0.39	ug/L			03/24/24 00:51	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/24/24 00:51	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/24/24 00:51	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/24/24 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*03/24/24 00:51*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/24/24 00:51*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/24/24 00:51*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/24/24 00:51*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**16**	**J**	100	14	ug/L			03/24/24 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/24/24 00:51*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2100**	**B**	110	66	ug/L		03/18/24 08:47	03/18/24 19:13	1
Motor Oil (>C24-C36)	**3400**	**B**	350	97	ug/L		03/18/24 08:47	03/18/24 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*03/18/24 08:47*	*03/18/24 19:13*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: DUP-1-WD-240314

Date Collected: 03/14/24 12:30
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 10:37	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 10:37	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 10:37	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 10:37	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 10:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*03/23/24 10:37*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/23/24 10:37*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/23/24 10:37*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*03/23/24 10:37*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**22**	**J**	100	14	ug/L			03/23/24 10:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*		*03/23/24 10:37*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**1900**	**B**	110	67	ug/L		03/18/24 08:47	03/18/24 19:33	1
Motor Oil (>C24-C36)	**3200**	**B**	360	99	ug/L		03/18/24 08:47	03/18/24 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*03/18/24 08:47*	*03/18/24 19:33*	*1*

Client Sample ID: MW-21-W-0240314

Date Collected: 03/14/24 13:31
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 10:59	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 10:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 10:59	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 10:59	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/23/24 10:59*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*03/23/24 10:59*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/24 10:59*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/23/24 10:59*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*77 - 123*		*03/23/24 10:59*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**510**	**B**	110	66	ug/L		03/18/24 08:47	03/18/24 19:54	1
Motor Oil (>C24-C36)	**1300**	**B**	350	97	ug/L		03/18/24 08:47	03/18/24 19:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*03/18/24 08:47*	*03/18/24 19:54*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-32-W-240314

Date Collected: 03/14/24 14:49
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.46**	**J**	1.0	0.24	ug/L			03/23/24 15:21	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 15:21	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 15:21	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 15:21	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*03/23/24 15:21*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/23/24 15:21*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/23/24 15:21*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*03/23/24 15:21*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**240**		100	14	ug/L			03/23/24 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/23/24 15:21*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**1800**	**B**	110	66	ug/L		03/18/24 08:47	03/18/24 20:14	1
Motor Oil (>C24-C36)	**770**	**B**	350	97	ug/L		03/18/24 08:47	03/18/24 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*03/18/24 08:47*	*03/18/24 20:14*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: D-03A-W-240314

Date Collected: 03/14/24 16:09
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 12:05	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 12:05	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 12:05	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 12:05	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 12:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/23/24 12:05*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/23/24 12:05*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/23/24 12:05*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/23/24 12:05*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 12:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/23/24 12:05*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2700**	**B**	110	66	ug/L		03/18/24 08:47	03/18/24 20:34	1
Motor Oil (>C24-C36)	**2300**	**B**	360	98	ug/L		03/18/24 08:47	03/18/24 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*03/18/24 08:47*	*03/18/24 20:34*	*1*

Client Sample ID: D-01-W-240315
Date Collected: 03/15/24 09:39
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/24/24 01:12	1
Toluene	ND		1.0	0.39	ug/L			03/24/24 01:12	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/24/24 01:12	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/24/24 01:12	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/24/24 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*03/24/24 01:12*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*03/24/24 01:12*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/24/24 01:12*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/24/24 01:12*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**72**	**J**	100	14	ug/L			03/24/24 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*77 - 123*		*03/24/24 01:12*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**5500**	**B**	110	66	ug/L		03/18/24 08:47	03/18/24 21:15	1
Motor Oil (>C24-C36)	**1900**	**B**	360	98	ug/L		03/18/24 08:47	03/18/24 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*03/18/24 08:47*	*03/18/24 21:15*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: DUP-2-WD-240315

Date Collected: 03/15/24 11:30
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/24/24 01:34	1
Toluene	ND		1.0	0.39	ug/L			03/24/24 01:34	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/24/24 01:34	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/24/24 01:34	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/24/24 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*03/24/24 01:34*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/24/24 01:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/24/24 01:34*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/24/24 01:34*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**78**	**J**	100	14	ug/L			03/24/24 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/24/24 01:34*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**5800**	**B**	110	66	ug/L		03/18/24 08:47	03/18/24 21:36	1
Motor Oil (>C24-C36)	**2000**	**B**	360	98	ug/L		03/18/24 08:47	03/18/24 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*03/18/24 08:47*	*03/18/24 21:36*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-13-W-240315

Date Collected: 03/15/24 11:07
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/24/24 01:56	1
Toluene	ND		1.0	0.39	ug/L			03/24/24 01:56	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/24/24 01:56	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/24/24 01:56	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/24/24 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/24/24 01:56*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/24/24 01:56*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*03/24/24 01:56*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/24/24 01:56*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**17**	**J**	100	14	ug/L			03/24/24 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/24/24 01:56*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**560**	**B**	110	65	ug/L		03/18/24 08:47	03/18/24 21:56	1
Motor Oil (>C24-C36)	**370**	**B**	350	96	ug/L		03/18/24 08:47	03/18/24 21:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*03/18/24 08:47*	*03/18/24 21:56*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: D-14-W-240315

Date Collected: 03/15/24 12:40
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/24/24 02:18	1
Toluene	ND		1.0	0.39	ug/L			03/24/24 02:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/24/24 02:18	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/24/24 02:18	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/24/24 02:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*03/24/24 02:18*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/24/24 02:18*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/24/24 02:18*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/24/24 02:18*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/24/24 02:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/24/24 02:18*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**170**	**B**	110	65	ug/L		03/18/24 08:47	03/18/24 22:16	1
Motor Oil (>C24-C36)	**200**	**J B**	350	96	ug/L		03/18/24 08:47	03/18/24 22:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*50 - 150*	*03/18/24 08:47*	*03/18/24 22:16*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-20-W-240315

Date Collected: 03/15/24 13:49
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-12

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/24/24 02:39	1
Toluene	ND		1.0	0.39	ug/L			03/24/24 02:39	1
Ethylbenzene	**1.6**		1.0	0.50	ug/L			03/24/24 02:39	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/24/24 02:39	1
Xylenes, Total	**0.64**	**J**	2.0	0.53	ug/L			03/24/24 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*03/24/24 02:39*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*03/24/24 02:39*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/24/24 02:39*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/24/24 02:39*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**950**		100	14	ug/L			03/24/24 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*77 - 123*		*03/24/24 02:39*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**8400**	**B**	110	66	ug/L		03/18/24 08:47	03/18/24 22:36	1
Motor Oil (>C24-C36)	**3000**	**B**	350	97	ug/L		03/18/24 08:47	03/18/24 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*73*		*50 - 150*	*03/18/24 08:47*	*03/18/24 22:36*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: FB-1-O-240315
Date Collected: 03/15/24 15:30
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-13
Matrix: Water

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/25/24 22:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/25/24 22:29*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	66	ug/L		03/18/24 08:47	03/18/24 22:56	1
Motor Oil (>C24-C36)	**110**	**J B**	360	98	ug/L		03/18/24 08:47	03/18/24 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*03/18/24 08:47*	*03/18/24 22:56*	*1*

Client Sample ID: RB-1-R-240315
Lab Sample ID: 580-137753-14

Date Collected: 03/15/24 15:10
Matrix: Water
Date Received: 03/15/24 16:24

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 23:01	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 23:01	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 23:01	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 23:01	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*03/23/24 23:01*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*03/23/24 23:01*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/23/24 23:01*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/23/24 23:01*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*77 - 123*		*03/23/24 23:01*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		120	68	ug/L		03/18/24 08:47	03/18/24 23:16	1
Motor Oil (>C24-C36)	**100**	**J B**	370	100	ug/L		03/18/24 08:47	03/18/24 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*03/18/24 08:47*	*03/18/24 23:16*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-34-W-240314

Date Collected: 03/14/24 09:30
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-15

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 11:43	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 11:43	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 11:43	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 11:43	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*03/23/24 11:43*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/23/24 11:43*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/23/24 11:43*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/23/24 11:43*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*		*03/23/24 11:43*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	67	ug/L		03/18/24 08:47	03/18/24 23:37	1
Motor Oil (>C24-C36)	**100**	**J B**	360	99	ug/L		03/18/24 08:47	03/18/24 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*03/18/24 08:47*	*03/18/24 23:37*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: D-22-W-240314

Date Collected: 03/14/24 10:45
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-16

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 13:33	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 13:33	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 13:33	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 13:33	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*03/23/24 13:33*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*03/23/24 13:33*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/23/24 13:33*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/23/24 13:33*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*77 - 123*		*03/23/24 13:33*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**400**	**B**	110	67	ug/L		03/18/24 08:47	03/19/24 00:57	1
Motor Oil (>C24-C36)	**250**	**J B**	360	99	ug/L		03/18/24 08:47	03/19/24 00:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*03/18/24 08:47*	*03/19/24 00:57*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: D-10-W-240314

Date Collected: 03/14/24 12:05
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-17

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 13:11	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 13:11	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 13:11	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 13:11	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*03/23/24 13:11*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*03/23/24 13:11*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/24 13:11*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/23/24 13:11*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*77 - 123*		*03/23/24 13:11*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**1800**	**B**	110	67	ug/L		03/18/24 08:47	03/19/24 01:17	1
Motor Oil (>C24-C36)	**860**	**B**	360	99	ug/L		03/18/24 08:47	03/19/24 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*03/18/24 08:47*	*03/19/24 01:17*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-25-W-240314

Date Collected: 03/14/24 13:15
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-18

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.79**	**J**	1.0	0.24	ug/L			03/23/24 14:16	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 14:16	1
Ethylbenzene	**0.81**	**J**	1.0	0.50	ug/L			03/23/24 14:16	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 14:16	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*03/23/24 14:16*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*03/23/24 14:16*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/23/24 14:16*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/23/24 14:16*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**360**		100	14	ug/L			03/23/24 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*77 - 123*		*03/23/24 14:16*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**380**	**B**	110	67	ug/L		03/18/24 08:47	03/19/24 01:37	1
Motor Oil (>C24-C36)	**330**	**J B**	360	99	ug/L		03/18/24 08:47	03/19/24 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*03/18/24 08:47*	*03/19/24 01:37*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: D-12-W-240314

Date Collected: 03/14/24 14:40
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-19

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 12:49	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 12:49	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 12:49	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 12:49	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/23/24 12:49*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/23/24 12:49*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/23/24 12:49*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/23/24 12:49*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/23/24 12:49*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**720**	**B**	110	67	ug/L		03/18/24 08:47	03/19/24 01:58	1
Motor Oil (>C24-C36)	**1300**	**B**	360	98	ug/L		03/18/24 08:47	03/19/24 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*101*		*50 - 150*	*03/18/24 08:47*	*03/19/24 01:58*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-14-W-240314

Date Collected: 03/14/24 16:05
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-20

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 23:23	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 23:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 23:23	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 23:23	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*03/23/24 23:23*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*03/23/24 23:23*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/24 23:23*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/23/24 23:23*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*77 - 123*		*03/23/24 23:23*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**220**		110	67	ug/L		03/18/24 08:52	03/19/24 01:58	1
Motor Oil (>C24-C36)	**320**	**J**	360	99	ug/L		03/18/24 08:52	03/19/24 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*03/18/24 08:52*	*03/19/24 01:58*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-11-W-240315

Date Collected: 03/15/24 09:40
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-21

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/24/24 03:01	1
Toluene	ND		1.0	0.39	ug/L			03/24/24 03:01	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/24/24 03:01	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/24/24 03:01	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/24/24 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*03/24/24 03:01*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*03/24/24 03:01*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*03/24/24 03:01*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/24/24 03:01*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**15**	**J**	100	14	ug/L			03/24/24 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*77 - 123*		*03/24/24 03:01*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2100**		110	67	ug/L		03/18/24 08:52	03/19/24 02:18	1
Motor Oil (>C24-C36)	**1200**		360	98	ug/L		03/18/24 08:52	03/19/24 02:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*50 - 150*	*03/18/24 08:52*	*03/19/24 02:18*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: D-06-W-240315

Date Collected: 03/15/24 11:15
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-22

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/24/24 03:23	1
Toluene	ND		1.0	0.39	ug/L			03/24/24 03:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/24/24 03:23	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/24/24 03:23	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/24/24 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*03/24/24 03:23*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/24/24 03:23*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/24/24 03:23*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*03/24/24 03:23*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**130**		100	14	ug/L			03/24/24 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/24/24 03:23*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**5300**		110	67	ug/L		03/18/24 08:52	03/19/24 02:38	1
Motor Oil (>C24-C36)	**1700**		360	99	ug/L		03/18/24 08:52	03/19/24 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*75*		*50 - 150*	*03/18/24 08:52*	*03/19/24 02:38*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137753-1

Client Sample ID: MW-18-W-240315

Date Collected: 03/15/24 12:40
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-23

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/26/24 04:18	1
Toluene	ND		1.0	0.39	ug/L			03/26/24 04:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/26/24 04:18	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/26/24 04:18	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/26/24 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*03/26/24 04:18*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*03/26/24 04:18*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/24 04:18*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/26/24 04:18*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**160**		100	14	ug/L			03/26/24 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*77 - 123*		*03/26/24 04:18*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**3000**		110	67	ug/L		03/18/24 08:52	03/19/24 02:58	1
Motor Oil (>C24-C36)	**1300**		360	99	ug/L		03/18/24 08:52	03/19/24 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*78*		*50 - 150*	*03/18/24 08:52*	*03/19/24 02:58*	*1*

Client Sample ID: TB-2-T-240315
Lab Sample ID: 580-137753-24
Date Collected: 03/15/24 00:00
Matrix: Water
Date Received: 03/15/24 16:24

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/25/24 22:07	1
Toluene	ND		1.0	0.39	ug/L			03/25/24 22:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/25/24 22:07	1
m-Xylene & p-Xylene	ND		2.0	0.53	ug/L			03/25/24 22:07	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/25/24 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*03/25/24 22:07*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*03/25/24 22:07*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/25/24 22:07*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/25/24 22:07*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/25/24 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*77 - 123*		*03/25/24 22:07*	*1*

Client Sample ID: MW-19-W-240315

Date Collected: 03/15/24 13:45
Date Received: 03/15/24 16:24

Lab Sample ID: 580-137753-25

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/26/24 04:40	1
Toluene	ND		1.0	0.39	ug/L			03/26/24 04:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/26/24 04:40	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/26/24 04:40	1
Xylenes, Total	**0.53**	**J**	2.0	0.53	ug/L			03/26/24 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*03/26/24 04:40*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/24 04:40*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*03/26/24 04:40*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/26/24 04:40*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**230**		100	14	ug/L			03/26/24 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/26/24 04:40*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**4800**		110	67	ug/L		03/18/24 08:52	03/19/24 03:18	1
Motor Oil (>C24-C36)	**2900**		360	99	ug/L		03/18/24 08:52	03/19/24 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*67*		*50 - 150*	*03/18/24 08:52*	*03/19/24 03:18*	*1*

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

Lab Sample ID: MB 580-454611/11
Matrix: Water
Analysis Batch: 454611

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 09:32	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 09:32	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 09:32	1
m-Xylene & p-Xylene	ND		2.0	0.53	ug/L			03/23/24 09:32	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 09:32	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 09:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/23/24 09:32*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/23/24 09:32*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/23/24 09:32*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/23/24 09:32*	*1*

Lab Sample ID: LCS 580-454611/6
Matrix: Water
Analysis Batch: 454611

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	10.5		ug/L		105	80 - 122		
Toluene			10.0	10.5		ug/L		105	80 - 120		
Ethylbenzene			10.0	10.3		ug/L		103	80 - 120		
m-Xylene & p-Xylene			10.0	10.3		ug/L		103	80 - 120		
o-Xylene			10.0	10.6		ug/L		106	80 - 120		
Methyl tert-butyl ether			10.0	9.83		ug/L		98	72 - 120		
Xylenes, Total			20.0	20.9		ug/L		105	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 580-454611/7
Matrix: Water
Analysis Batch: 454611

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	10.5		ug/L		105	80 - 122	0	14
Toluene			10.0	10.2		ug/L		102	80 - 120	3	13
Ethylbenzene			10.0	10.4		ug/L		104	80 - 120	0	14
m-Xylene & p-Xylene			10.0	10.3		ug/L		103	80 - 120	0	14
o-Xylene			10.0	10.5		ug/L		105	80 - 120	1	16
Methyl tert-butyl ether			10.0	9.89		ug/L		99	72 - 120	1	18
Xylenes, Total			20.0	20.8		ug/L		104	80 - 120	0	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*

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

Lab Sample ID: LCSD 580-454611/7
Matrix: Water
Analysis Batch: 454611

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*

Lab Sample ID: 580-137753-15 MS
Matrix: Water
Analysis Batch: 454611

Client Sample ID: MW-34-W-240314
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		10.0	11.3		ug/L		113	80 - 122
Toluene	ND		10.0	11.3		ug/L		113	80 - 120
Ethylbenzene	ND		10.0	11.1		ug/L		111	80 - 120
m-Xylene & p-Xylene	ND		10.0	11.1		ug/L		111	80 - 120
o-Xylene	ND		10.0	11.0		ug/L		110	80 - 120
Methyl tert-butyl ether	ND		10.0	9.69		ug/L		97	72 - 120
Xylenes, Total	ND		20.0	22.1		ug/L		111	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*80 - 120*

Lab Sample ID: 580-137753-15 MSD
Matrix: Water
Analysis Batch: 454611

Client Sample ID: MW-34-W-240314
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		10.0	11.2		ug/L		112	80 - 122	0	14
Toluene	ND		10.0	10.9		ug/L		109	80 - 120	3	13
Ethylbenzene	ND		10.0	11.0		ug/L		110	80 - 120	1	14
m-Xylene & p-Xylene	ND		10.0	10.7		ug/L		107	80 - 120	3	14
o-Xylene	ND		10.0	10.9		ug/L		109	80 - 120	2	16
Methyl tert-butyl ether	ND		10.0	10.2		ug/L		102	72 - 120	5	18
Xylenes, Total	ND		20.0	21.6		ug/L		108	80 - 120	2	16

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*

Lab Sample ID: MB 580-454632/11
Matrix: Water
Analysis Batch: 454632

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 22:17	1

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

Lab Sample ID: MB 580-454632/11
Matrix: Water
Analysis Batch: 454632

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.39	ug/L			03/23/24 22:17	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 22:17	1
m-Xylene & p-Xylene	ND		2.0	0.53	ug/L			03/23/24 22:17	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 22:17	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 22:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*03/23/24 22:17*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*03/23/24 22:17*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/24 22:17*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/23/24 22:17*	*1*

Lab Sample ID: LCS 580-454632/6
Matrix: Water
Analysis Batch: 454632

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	10.2		ug/L		102	80 - 122		
Toluene			10.0	10.1		ug/L		101	80 - 120		
Ethylbenzene			10.0	9.97		ug/L		100	80 - 120		
m-Xylene & p-Xylene			10.0	9.62		ug/L		96	80 - 120		
o-Xylene			10.0	9.81		ug/L		98	80 - 120		
Methyl tert-butyl ether			10.0	9.28		ug/L		93	72 - 120		
Xylenes, Total			20.0	19.4		ug/L		97	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*

Lab Sample ID: LCSD 580-454632/7
Matrix: Water
Analysis Batch: 454632

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	9.97		ug/L		100	80 - 122	2	14
Toluene			10.0	9.86		ug/L		99	80 - 120	2	13
Ethylbenzene			10.0	9.77		ug/L		98	80 - 120	2	14
m-Xylene & p-Xylene			10.0	9.40		ug/L		94	80 - 120	2	14
o-Xylene			10.0	9.77		ug/L		98	80 - 120	0	16
Methyl tert-butyl ether			10.0	8.83		ug/L		88	72 - 120	5	18
Xylenes, Total			20.0	19.2		ug/L		96	80 - 120	1	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: LCSD 580-454632/7
Matrix: Water
Analysis Batch: 454632

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*80 - 120*

Lab Sample ID: MB 580-454719/10
Matrix: Water
Analysis Batch: 454719

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/25/24 21:46	1
Toluene	ND		1.0	0.39	ug/L			03/25/24 21:46	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/25/24 21:46	1
m-Xylene & p-Xylene	ND		2.0	0.53	ug/L			03/25/24 21:46	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/25/24 21:46	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/25/24 21:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*03/25/24 21:46*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*03/25/24 21:46*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/25/24 21:46*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*03/25/24 21:46*	*1*

Lab Sample ID: LCS 580-454719/5
Matrix: Water
Analysis Batch: 454719

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	10.4		ug/L		104	80 - 122
Toluene	10.0	10.2		ug/L		102	80 - 120
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120
m-Xylene & p-Xylene	10.0	10.1		ug/L		101	80 - 120
o-Xylene	10.0	10.1		ug/L		101	80 - 120
Methyl tert-butyl ether	10.0	9.19		ug/L		92	72 - 120
Xylenes, Total	20.0	20.2		ug/L		101	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 580-454719/6
Matrix: Water
Analysis Batch: 454719

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	10.1		ug/L		101	80 - 122	3	14
Toluene	10.0	9.59		ug/L		96	80 - 120	6	13
Ethylbenzene	10.0	9.48		ug/L		95	80 - 120	7	14
m-Xylene & p-Xylene	10.0	9.38		ug/L		94	80 - 120	7	14

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

Lab Sample ID: LCSD 580-454719/6
Matrix: Water
Analysis Batch: 454719

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
o-Xylene			10.0	9.40		ug/L		94	80 - 120	7	16
Methyl tert-butyl ether			10.0	8.95		ug/L		89	72 - 120	3	18
Xylenes, Total			20.0	18.8		ug/L		94	80 - 120	7	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Lab Sample ID: MB 580-454607/11
Matrix: Water
Analysis Batch: 454607

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 09:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/23/24 09:32*	*1*

Lab Sample ID: LCS 580-454607/8
Matrix: Water
Analysis Batch: 454607

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline			999	902		ug/L		90	55 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*

Lab Sample ID: LCSD 580-454607/9
Matrix: Water
Analysis Batch: 454607

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
Gasoline			999	863		ug/L		86	55 - 148	4	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*

Lab Sample ID: 580-137753-15 MS
Matrix: Water
Analysis Batch: 454607

Client Sample ID: MW-34-W-240314
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline	ND		999	901		ug/L		90	55 - 148		

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		77 - 123

Lab Sample ID: 580-137753-15 MSD — **Client Sample ID: MW-34-W-240314**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454607

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline	ND		999	971		ug/L		97	55 - 148	8	10

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		77 - 123

Lab Sample ID: MB 580-454628/11 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454628

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 22:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		77 - 123		03/23/24 22:17	1

Lab Sample ID: LCS 580-454628/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454628

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline			999	936		ug/L		94	55 - 148		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		77 - 123

Lab Sample ID: LCSD 580-454628/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454628

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline			999	927		ug/L		93	55 - 148	1	10

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		77 - 123

Lab Sample ID: MB 580-454715/10 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454715

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/25/24 21:46	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

Lab Sample ID: MB 580-454715/10
Matrix: Water
Analysis Batch: 454715

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		77 - 123		03/25/24 21:46	1

Lab Sample ID: LCS 580-454715/7
Matrix: Water
Analysis Batch: 454715

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline	999	913		ug/L		91	55 - 148

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		77 - 123

Lab Sample ID: LCSD 580-454715/8
Matrix: Water
Analysis Batch: 454715

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
Gasoline	999	871		ug/L		87	55 - 148	5	10

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		77 - 123

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-454018/1-A
Matrix: Water
Analysis Batch: 454084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454018

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	69.7	J	110	65	ug/L		03/18/24 08:47	03/18/24 17:29	1
Motor Oil (>C24-C36)	110	J	350	96	ug/L		03/18/24 08:47	03/18/24 17:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	92		50 - 150	03/18/24 08:47	03/18/24 17:29	1

Lab Sample ID: LCS 580-454018/2-A
Matrix: Water
Analysis Batch: 454084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454018

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
#2 Diesel (C10-C24)	4000	3390		ug/L		85	50 - 120
Motor Oil (>C24-C36)	4000	3710		ug/L		93	64 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	91		50 - 150

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCSD 580-454018/3-A
Matrix: Water
Analysis Batch: 454084

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 454018

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			4000	3100		ug/L		78	50 - 120	9	26
Motor Oil (>C24-C36)			4000	3370		ug/L		84	64 - 120	10	24

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*80*		*50 - 150*

Lab Sample ID: 580-137753-15 MS
Matrix: Water
Analysis Batch: 454084

Client Sample ID: MW-34-W-240314
Prep Type: Total/NA
Prep Batch: 454018

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
#2 Diesel (C10-C24)	ND		4090	2950		ug/L		72	50 - 120
Motor Oil (>C24-C36)	100	J B	4090	3510		ug/L		83	64 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*94*		*50 - 150*

Lab Sample ID: 580-137753-15 MSD
Matrix: Water
Analysis Batch: 454084

Client Sample ID: MW-34-W-240314
Prep Type: Total/NA
Prep Batch: 454018

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	ND		4080	2980		ug/L		73	50 - 120	1	26
Motor Oil (>C24-C36)	100	J B	4080	3490		ug/L		83	64 - 120	1	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*97*		*50 - 150*

Lab Sample ID: MB 580-454019/1-A
Matrix: Water
Analysis Batch: 454080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454019

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	65	ug/L		03/18/24 08:52	03/18/24 23:37	1
Motor Oil (>C24-C36)	ND		350	96	ug/L		03/18/24 08:52	03/18/24 23:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*03/18/24 08:52*	*03/18/24 23:37*	*1*

Lab Sample ID: LCS 580-454019/2-A
Matrix: Water
Analysis Batch: 454080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454019

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
#2 Diesel (C10-C24)			4000	3420		ug/L		86	50 - 120
Motor Oil (>C24-C36)			4000	3570		ug/L		89	64 - 120

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 580-454019/2-A
Matrix: Water
Analysis Batch: 454080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454019

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*87*		*50 - 150*

Lab Sample ID: LCSD 580-454019/3-A
Matrix: Water
Analysis Batch: 454080

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 454019

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			4000	3300		ug/L		82	50 - 120	4	26
Motor Oil (>C24-C36)			4000	3470		ug/L		87	64 - 120	3	24

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*86*		*50 - 150*

Lab Chronicle

Client: AECOM
Job ID: 580-137753-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: MW-38-W-240314
Lab Sample ID: 580-137753-1
Date Collected: 03/14/24 09:19
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/23/24 23:45
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/23/24 23:45
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		10	454084	K1K	EET SEA	03/18/24 18:31

Client Sample ID: D-7-W-240314
Lab Sample ID: 580-137753-2
Date Collected: 03/14/24 10:41
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/24/24 00:29
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/24/24 00:29
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 18:52

Client Sample ID: MW-22-W-240314
Lab Sample ID: 580-137753-3
Date Collected: 03/14/24 11:55
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/24/24 00:51
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/24/24 00:51
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 19:13

Client Sample ID: DUP-1-WD-240314
Lab Sample ID: 580-137753-4
Date Collected: 03/14/24 12:30
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 10:37
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 10:37
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 19:33

Client Sample ID: MW-21-W-0240314
Lab Sample ID: 580-137753-5
Date Collected: 03/14/24 13:31
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 10:59
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 10:59
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 19:54

Lab Chronicle

Client: AECOM
Job ID: 580-137753-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: MW-32-W-240314
Lab Sample ID: 580-137753-6
Date Collected: 03/14/24 14:49
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 15:21
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 15:21
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 20:14

Client Sample ID: D-03A-W-240314
Lab Sample ID: 580-137753-7
Date Collected: 03/14/24 16:09
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 12:05
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 12:05
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 20:34

Client Sample ID: D-01-W-240315
Lab Sample ID: 580-137753-8
Date Collected: 03/15/24 09:39
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/24/24 01:12
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/24/24 01:12
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 21:15

Client Sample ID: DUP-2-WD-240315
Lab Sample ID: 580-137753-9
Date Collected: 03/15/24 11:30
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/24/24 01:34
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/24/24 01:34
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 21:36

Client Sample ID: MW-13-W-240315
Lab Sample ID: 580-137753-10
Date Collected: 03/15/24 11:07
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/24/24 01:56
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/24/24 01:56
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 21:56

Lab Chronicle

Client: AECOM
Job ID: 580-137753-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: D-14-W-240315
Lab Sample ID: 580-137753-11
Date Collected: 03/15/24 12:40
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/24/24 02:18
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/24/24 02:18
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 22:16

Client Sample ID: MW-20-W-240315
Lab Sample ID: 580-137753-12
Date Collected: 03/15/24 13:49
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/24/24 02:39
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/24/24 02:39
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 22:36

Client Sample ID: FB-1-O-240315
Lab Sample ID: 580-137753-13
Date Collected: 03/15/24 15:30
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	NWTPH-Gx		1	454715	JBT	EET SEA	03/25/24 22:29
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 22:56

Client Sample ID: RB-1-R-240315
Lab Sample ID: 580-137753-14
Date Collected: 03/15/24 15:10
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/23/24 23:01
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/23/24 23:01
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 23:16

Client Sample ID: MW-34-W-240314
Lab Sample ID: 580-137753-15
Date Collected: 03/14/24 09:30
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 11:43
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 11:43
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/18/24 23:37

Lab Chronicle

Client: AECOM
Job ID: 580-137753-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: D-22-W-240314
Lab Sample ID: 580-137753-16
Date Collected: 03/14/24 10:45
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 13:33
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 13:33
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/19/24 00:57

Client Sample ID: D-10-W-240314
Lab Sample ID: 580-137753-17
Date Collected: 03/14/24 12:05
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 13:11
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 13:11
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/19/24 01:17

Client Sample ID: MW-25-W-240314
Lab Sample ID: 580-137753-18
Date Collected: 03/14/24 13:15
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 14:16
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 14:16
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/19/24 01:37

Client Sample ID: D-12-W-240314
Lab Sample ID: 580-137753-19
Date Collected: 03/14/24 14:40
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 12:49
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 12:49
Total/NA	Prep	3510C			454018	SL	EET SEA	03/18/24 08:47
Total/NA	Analysis	NWTPH-Dx		1	454084	K1K	EET SEA	03/19/24 01:58

Client Sample ID: MW-14-W-240314
Lab Sample ID: 580-137753-20
Date Collected: 03/14/24 16:05
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/23/24 23:23
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/23/24 23:23
Total/NA	Prep	3510C			454019	SL	EET SEA	03/18/24 08:52
Total/NA	Analysis	NWTPH-Dx		1	454080	VLF	EET SEA	03/19/24 01:58

Lab Chronicle

Client: AECOM
Job ID: 580-137753-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: MW-11-W-240315
Lab Sample ID: 580-137753-21
Date Collected: 03/15/24 09:40
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/24/24 03:01
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/24/24 03:01
Total/NA	Prep	3510C			454019	SL	EET SEA	03/18/24 08:52
Total/NA	Analysis	NWTPH-Dx		1	454080	VLF	EET SEA	03/19/24 02:18

Client Sample ID: D-06-W-240315
Lab Sample ID: 580-137753-22
Date Collected: 03/15/24 11:15
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454632	JBT	EET SEA	03/24/24 03:23
Total/NA	Analysis	NWTPH-Gx		1	454628	JBT	EET SEA	03/24/24 03:23
Total/NA	Prep	3510C			454019	SL	EET SEA	03/18/24 08:52
Total/NA	Analysis	NWTPH-Dx		1	454080	VLF	EET SEA	03/19/24 02:38

Client Sample ID: MW-18-W-240315
Lab Sample ID: 580-137753-23
Date Collected: 03/15/24 12:40
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454719	AA	EET SEA	03/26/24 04:18
Total/NA	Analysis	NWTPH-Gx		1	454715	JBT	EET SEA	03/26/24 04:18
Total/NA	Prep	3510C			454019	SL	EET SEA	03/18/24 08:52
Total/NA	Analysis	NWTPH-Dx		1	454080	VLF	EET SEA	03/19/24 02:58

Client Sample ID: TB-2-T-240315
Lab Sample ID: 580-137753-24
Date Collected: 03/15/24 00:00
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454719	AA	EET SEA	03/25/24 22:07
Total/NA	Analysis	NWTPH-Gx		1	454715	JBT	EET SEA	03/25/24 22:07

Client Sample ID: MW-19-W-240315
Lab Sample ID: 580-137753-25
Date Collected: 03/15/24 13:45
Matrix: Water
Date Received: 03/15/24 16:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454719	AA	EET SEA	03/26/24 04:40
Total/NA	Analysis	NWTPH-Gx		1	454715	JBT	EET SEA	03/26/24 04:40
Total/NA	Prep	3510C			454019	SL	EET SEA	03/18/24 08:52
Total/NA	Analysis	NWTPH-Dx		1	454080	VLF	EET SEA	03/19/24 03:18

Laboratory References:
EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: AECOM
Job ID: 580-137753-1
Project/Site: CEMREC Legacy Sites- Tacoma

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

Sample Summary

Client: AECOM
Job ID: 580-137753-1
Project/Site: CEMREC Legacy Sites- Tacoma

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-137753-1	MW-38-W-240314	Water	03/14/24 09:19	03/15/24 16:24
580-137753-2	D-7-W-240314	Water	03/14/24 10:41	03/15/24 16:24
580-137753-3	MW-22-W-240314	Water	03/14/24 11:55	03/15/24 16:24
580-137753-4	DUP-1-WD-240314	Water	03/14/24 12:30	03/15/24 16:24
580-137753-5	MW-21-W-0240314	Water	03/14/24 13:31	03/15/24 16:24
580-137753-6	MW-32-W-240314	Water	03/14/24 14:49	03/15/24 16:24
580-137753-7	D-03A-W-240314	Water	03/14/24 16:09	03/15/24 16:24
580-137753-8	D-01-W-240315	Water	03/15/24 09:39	03/15/24 16:24
580-137753-9	DUP-2-WD-240315	Water	03/15/24 11:30	03/15/24 16:24
580-137753-10	MW-13-W-240315	Water	03/15/24 11:07	03/15/24 16:24
580-137753-11	D-14-W-240315	Water	03/15/24 12:40	03/15/24 16:24
580-137753-12	MW-20-W-240315	Water	03/15/24 13:49	03/15/24 16:24
580-137753-13	FB-1-O-240315	Water	03/15/24 15:30	03/15/24 16:24
580-137753-14	RB-1-R-240315	Water	03/15/24 15:10	03/15/24 16:24
580-137753-15	MW-34-W-240314	Water	03/14/24 09:30	03/15/24 16:24
580-137753-16	D-22-W-240314	Water	03/14/24 10:45	03/15/24 16:24
580-137753-17	D-10-W-240314	Water	03/14/24 12:05	03/15/24 16:24
580-137753-18	MW-25-W-240314	Water	03/14/24 13:15	03/15/24 16:24
580-137753-19	D-12-W-240314	Water	03/14/24 14:40	03/15/24 16:24
580-137753-20	MW-14-W-240314	Water	03/14/24 16:05	03/15/24 16:24
580-137753-21	MW-11-W-240315	Water	03/15/24 09:40	03/15/24 16:24
580-137753-22	D-06-W-240315	Water	03/15/24 11:15	03/15/24 16:24
580-137753-23	MW-18-W-240315	Water	03/15/24 12:40	03/15/24 16:24
580-137753-24	TB-2-T-240315	Water	03/15/24 00:00	03/15/24 16:24
580-137753-25	MW-19-W-240315	Water	03/15/24 13:45	03/15/24 16:24

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: L. Celovsky S. Catlin	Lab PM: Tracy Dutton	Carrier Tracking No(s):	COC No:
Client Contact: Brad Wynne (bradley.wynne@aecom.com) Christina Wheeler (christina.wheeler@aecom.com)	Phone: 972 358 4390 360 608 3212	E-Mail: Tracy.dutton@et.eurofinsus.com	State of Origin:	Page: 1 of 2
Company: AECOM	PWSID:	Analysis Requested		Job #:
Address: 888 SW 5th Ave	Due Date Requested:			
City: Portland	TAT Requested (days): 10 business days			
State, Zip: Oregon 97204	Compliance Project: Δ Yes Δ No			
Phone: 971 323 6262	PO #: 1637400 (new 2024#)			
Email:	WO #:			
Project Name: CEMREC Legacy Sites - Tacoma	Project #:			
AECOM Project # 60701804	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification (example: MW-10-W-YYMMDD)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	NWTPH-Dx	VOCs (EPA 8260) - full list	VOCs w/TCLP (EPA 8260) - full list	SVOCs (EPA 8270) - full list	SVOCs w/TCLP (EPA 8270) - full list	RCRA 8 Metals w/ TCLP (EPA 6010B)	Flash Point by ASTM D-93	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:														
MW-38-W-240314	3/14/24	919	G	W	N		X	X	X	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		
D-7-W-240314	↓	1041	G	W			/	/	/								
MW-22-W-240314		1155	G	W			/	/	/								
DUP-1-WD-240314		1230	G	W			/	/	/								
MW-21-W-240314		1331	G	W			/	/	/								
MW-32-W-240314		1449	G	W			/	/	/								
D-03A-W-240314		1609	G	W			/	/	/								
D-01-W-240315	3/15/24	939	G	W			/	/	/								
DUP-2-WD-240315		1130	G	W			/	/	/								
MW-13-W-240315		1107	G	W			/	/	/								
D-14-W-240315		1240	G	W			/	/	/								
MW-20-W-240315		1349	G	W			/	/	/								
FB-1-240315		1530					/	/									
RB-1-240315		1510					/	/	/								

LC 3/15/24   LC 3/15/24

580-137753 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	3/15/24 1624	AECOM	[signature]	3/15/24 1624	EETN

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: TR12 9.4/9.8 ~~LCR/wet/bob/CD~~

Ver: 01/16/2019

4/11/2024 (Rev. 1)

Chain of Custody Record

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Client Information	Sampler: L. Calloway S. Catlin	Lab PM: Tracy Dutton, Tracy.dutton@et.eurofinsus.com	Carrier Tracking No(s):	COC No:
Client Contact: Brad Wynne (bradley.wynne@aecom.com), Christina Wheeler (christina.wheeler@aecom.com)	Phone: 972 358 4390, 360 608 3212	E-Mail:	State of Origin:	Page: 1 of 2
Company: AECOM	PWSID:	Analysis Requested		Job #:
Address: 888 SW 5th Ave	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify); Other:
City: Portland	TAT Requested (days): 10 business days			
State, Zip: Oregon 97204	Compliance Project: Δ Yes Δ No			
Phone: 971 323 6262	PO #: 1637400 (new 2024#)			
Email:	WO #:			
Project Name: CEMREC Legacy Sites - Tacoma	Project #:			
AECOM Project #: 60701804	SSOW#:			

Sample Identification (example: MW-10-W-YYMMDD)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	NWTPH-Dx	VOCs (EPA 8260) - full list	VOCs w/TCLP (EPA 8260) - full list	SVOCs (EPA 8270) - full list	SVOCs w/TCLP (EPA 8270) - full list	RCRA 8 Metals w/ TCLP (EPA 6010B)	Flash Point by ASTM D-93	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:														
~~MW-34-W-240314~~	~~3/14/24~~	~~0930~~	G	O	N		X	X	X	X	X	X	X	X	X		
MW-34-W-240314	3/14/24	0930	G	W	N	X	X	X	X								MS/MSD2
D-22-W-240314		1045															
D-10-W-240314		1205															
MW-25-W-240314		1315															
D-12-W-240314		1440															
MW-14-W-240314		1605															
MW-11-W-240315	3/15/24	0940															
D-06-W-240315		1115															
MW-18-W-240315		1240															
TB-2-T-240315		0000															
MW-19-W-240315		1345						X									

LC 3/15/24 LC 3/15/24

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 3/15/24 1624	Company: AECOM	Received by:	Date/Time: 3/15/24 1624	Company: EETN		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR T2 1.8/1.7

Ver: 01/16/2019

AECOM

LG B/wet/bub/CD
IR 12 7.8/7.7

#1/2

LG R/wet/bub/CD
IR 12 9.9/9.8

#2/2

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-137753-1

Login Number: 137753
List Number: 1
Creator: Groves, Elizabeth

List Source: Eurofins Seattle

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	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Christina Wheeler
AECOM
888 SW 5th Ave, Ste 600
Portland, Oregon 97204

Generated 4/11/2024 6:22:55 PM Revision 1

JOB DESCRIPTION

CEMREC Legacy Sites- Tacoma

JOB NUMBER

580-137755-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

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

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Revision 1

Authorized for release by
Tracy Dutton, Client Relations Manager
Tracy.Dutton@et.eurofinsus.com
(253)248-4970

Table of Contents

Job ID: 580-137755-1 — Eurofins Seattle

Job Narrative
580-137755-1

Revision

The report was revised in order to change units for all methods to ug/L per client request. Also updated the parameter list for Method 8260D.

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 3/13/2024 4:54 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 7.6°C and 10.5°C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Analyses were listed on COC, but the TB samples were not designated for specific analyses.

GC/MS 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 method blank for preparation batch 580-454151 and analytical batch 580-454306 contained #2 Diesel (C10-C24) above the reporting limit (RL). D-18-W-240312 (580-137755-5), D-02A-W-240312 (580-137755-6), D-08-W-240312 (580-137755-7), MW-24-W-240312 (580-137755-9), D-09-W-240312 (580-137755-10), MW-12-W-240312 (580-137755-11), MW-23-W-240312 (580-137755-12), D-27-W-240313 (580-137755-14), D-15-W-240313 (580-137755-16), RMW-01-W-240313 (580-137755-18), D-25-W-240313 (580-137755-20) and (MB 580-454151/1-A) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank. The other samples were less than 10x, and were sent for re-extraction.

Method NWTPH_Dx: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch 454868 recovered outside control limits for C10-C24.

Method NWTPH_Dx: The following samples were re-prepared outside of preparation holding time due to blank contamination in initial prep: D-19-W-240312 (580-137755-8) and MW-31-W-240312 (580-137755-13).

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

Definitions/Glossary

Client: AECOM
Job ID: 580-137755-1
Project/Site: CEMREC Legacy Sites- Tacoma

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
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-10-W-240311

Date Collected: 03/11/24 15:40
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/20/24 08:32	1
Toluene	ND		1.0	0.39	ug/L			03/20/24 08:32	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/20/24 08:32	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/20/24 08:32	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/20/24 08:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*03/20/24 08:32*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/20/24 08:32*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/20/24 08:32*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/20/24 08:32*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/20/24 08:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*		*03/20/24 08:32*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2400**	**B**	110	67	ug/L		03/19/24 08:27	03/20/24 20:19	1
Motor Oil (>C24-C36)	**1400**	**B**	360	98	ug/L		03/19/24 08:27	03/20/24 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*03/19/24 08:27*	*03/20/24 20:19*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: D-17-W-240312

Date Collected: 03/12/24 09:30
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/20/24 07:27	1
Toluene	ND		1.0	0.39	ug/L			03/20/24 07:27	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/20/24 07:27	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/20/24 07:27	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/20/24 07:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*03/20/24 07:27*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/20/24 07:27*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/20/24 07:27*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*03/20/24 07:27*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/20/24 07:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/20/24 07:27*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**410**	**B**	110	66	ug/L		03/19/24 08:27	03/20/24 20:40	1
Motor Oil (>C24-C36)	**490**	**B**	360	98	ug/L		03/19/24 08:27	03/20/24 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*03/19/24 08:27*	*03/20/24 20:40*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-26-W-240312

Date Collected: 03/12/24 10:40
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/20/24 08:10	1
Toluene	ND		1.0	0.39	ug/L			03/20/24 08:10	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/20/24 08:10	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/20/24 08:10	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/20/24 08:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*03/20/24 08:10*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*03/20/24 08:10*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/20/24 08:10*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*03/20/24 08:10*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/20/24 08:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*77 - 123*		*03/20/24 08:10*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**1200**	**B**	110	66	ug/L		03/19/24 08:27	03/20/24 21:00	1
Motor Oil (>C24-C36)	**1300**	**B**	360	98	ug/L		03/19/24 08:27	03/20/24 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*03/19/24 08:27*	*03/20/24 21:00*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-30-W-240312

Date Collected: 03/12/24 11:50
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 04:54	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 04:54	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 04:54	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 04:54	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*03/21/24 04:54*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/21/24 04:54*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/21/24 04:54*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/21/24 04:54*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*		*03/21/24 04:54*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**4700**	**B**	110	66	ug/L		03/19/24 08:27	03/20/24 21:20	1
Motor Oil (>C24-C36)	**5900**	**B**	360	98	ug/L		03/19/24 08:27	03/20/24 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*03/19/24 08:27*	*03/20/24 21:20*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: D-18-W-240312

Date Collected: 03/12/24 13:00
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 05:16	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 05:16	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 05:16	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 05:16	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 05:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*03/21/24 05:16*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/21/24 05:16*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/21/24 05:16*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*03/21/24 05:16*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 05:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/21/24 05:16*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2000**	**B**	110	67	ug/L		03/19/24 08:22	03/20/24 17:59	1
Motor Oil (>C24-C36)	**1600**	**B**	360	98	ug/L		03/19/24 08:22	03/20/24 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*03/19/24 08:22*	*03/20/24 17:59*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: D-02A-W-240312

Date Collected: 03/12/24 14:30
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 05:38	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 05:38	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 05:38	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 05:38	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 05:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/21/24 05:38*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/21/24 05:38*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/21/24 05:38*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/21/24 05:38*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 05:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/21/24 05:38*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2600**	**B**	110	65	ug/L		03/19/24 08:22	03/20/24 18:19	1
Motor Oil (>C24-C36)	**1800**	**B**	350	96	ug/L		03/19/24 08:22	03/20/24 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*03/19/24 08:22*	*03/20/24 18:19*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: D-08-W-240312

Date Collected: 03/12/24 16:10
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 05:59	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 05:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 05:59	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 05:59	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 05:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/21/24 05:59*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/21/24 05:59*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/21/24 05:59*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/21/24 05:59*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 05:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/21/24 05:59*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**4000**	**B**	110	66	ug/L		03/19/24 08:22	03/20/24 18:39	1
Motor Oil (>C24-C36)	**1800**	**B**	360	97	ug/L		03/19/24 08:22	03/20/24 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*99*		*50 - 150*	*03/19/24 08:22*	*03/20/24 18:39*	*1*

Client Sample ID: D-19-W-240312

Date Collected: 03/12/24 09:45
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 06:21	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 06:21	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 06:21	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 06:21	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 06:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*03/21/24 06:21*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/21/24 06:21*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/21/24 06:21*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/21/24 06:21*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 06:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*		*03/21/24 06:21*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**1000**	**B**	110	65	ug/L		03/19/24 08:22	03/20/24 19:19	1
Motor Oil (>C24-C36)	**870**	**B**	350	97	ug/L		03/19/24 08:22	03/20/24 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*50 - 150*	*03/19/24 08:22*	*03/20/24 19:19*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**900**	**H *1**	110	66	ug/L		03/27/24 08:14	03/27/24 13:13	1
Motor Oil (>C24-C36)	**1100**	**H**	360	98	ug/L		03/27/24 08:14	03/27/24 13:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*03/27/24 08:14*	*03/27/24 13:13*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-24-W-240312

Date Collected: 03/12/24 11:39
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 06:42	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 06:42	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 06:42	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 06:42	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/21/24 06:42*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/21/24 06:42*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/21/24 06:42*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/21/24 06:42*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/21/24 06:42*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2400**	**B**	110	68	ug/L		03/19/24 08:22	03/20/24 19:39	1
Motor Oil (>C24-C36)	**1200**	**B**	370	100	ug/L		03/19/24 08:22	03/20/24 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*03/19/24 08:22*	*03/20/24 19:39*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: D-09-W-240312

Date Collected: 03/12/24 13:11
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 07:04	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 07:04	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 07:04	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 07:04	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 07:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*03/21/24 07:04*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*03/21/24 07:04*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/21/24 07:04*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/21/24 07:04*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 07:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*77 - 123*		*03/21/24 07:04*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2700**	**B**	110	66	ug/L		03/19/24 08:22	03/20/24 19:59	1
Motor Oil (>C24-C36)	**2300**	**B**	360	98	ug/L		03/19/24 08:22	03/20/24 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*03/19/24 08:22*	*03/20/24 19:59*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-12-W-240312

Date Collected: 03/12/24 14:22
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 07:25	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 07:25	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 07:25	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 07:25	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 07:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/21/24 07:25*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/21/24 07:25*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/21/24 07:25*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/21/24 07:25*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 07:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*		*03/21/24 07:25*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**4700**	**B**	110	67	ug/L		03/19/24 08:22	03/20/24 20:19	1
Motor Oil (>C24-C36)	**4000**	**B**	360	99	ug/L		03/19/24 08:22	03/20/24 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*03/19/24 08:22*	*03/20/24 20:19*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-23-W-240312

Date Collected: 03/12/24 15:37
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-12

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 07:47	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 07:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 07:47	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 07:47	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 07:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*03/21/24 07:47*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/21/24 07:47*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/21/24 07:47*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/21/24 07:47*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 07:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*		*03/21/24 07:47*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**140**	**B**	110	66	ug/L		03/19/24 08:22	03/20/24 20:40	1
Motor Oil (>C24-C36)	**240**	**J B**	360	98	ug/L		03/19/24 08:22	03/20/24 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*107*		*50 - 150*	*03/19/24 08:22*	*03/20/24 20:40*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-31-W-240312

Date Collected: 03/12/24 16:16
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 08:08	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 08:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 08:08	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 08:08	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 08:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/21/24 08:08*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*03/21/24 08:08*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/21/24 08:08*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/21/24 08:08*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 08:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*77 - 123*		*03/21/24 08:08*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**260**	**B**	110	67	ug/L		03/19/24 08:22	03/20/24 21:00	1
Motor Oil (>C24-C36)	**210**	**J B**	360	99	ug/L		03/19/24 08:22	03/20/24 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*104*		*50 - 150*	*03/19/24 08:22*	*03/20/24 21:00*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**270**	**H *1**	120	68	ug/L		03/27/24 08:14	03/27/24 13:33	1
Motor Oil (>C24-C36)	**250**	**J H**	370	100	ug/L		03/27/24 08:14	03/27/24 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*03/27/24 08:14*	*03/27/24 13:33*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: D-27-W-240313

Date Collected: 03/13/24 09:25
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-14

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 07:08	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 07:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 07:08	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 07:08	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 07:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*03/22/24 07:08*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/22/24 07:08*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/22/24 07:08*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/22/24 07:08*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/22/24 07:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/22/24 07:08*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2600**	**B**	110	66	ug/L		03/19/24 08:22	03/20/24 21:20	1
Motor Oil (>C24-C36)	**1900**	**B**	350	97	ug/L		03/19/24 08:22	03/20/24 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*50 - 150*	*03/19/24 08:22*	*03/20/24 21:20*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-39-W-240313

Date Collected: 03/13/24 10:30
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-15

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 07:30	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 07:30	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 07:30	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 07:30	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 07:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*03/22/24 07:30*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/22/24 07:30*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/22/24 07:30*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/22/24 07:30*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/22/24 07:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/22/24 07:30*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**1000**	***1**	110	67	ug/L		03/27/24 08:14	03/27/24 13:53	1
Motor Oil (>C24-C36)	**700**		360	99	ug/L		03/27/24 08:14	03/27/24 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*03/27/24 08:14*	*03/27/24 13:53*	*1*

Client Sample ID: D-15-W-240313

Date Collected: 03/13/24 11:45
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-16

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 07:52	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 07:52	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 07:52	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 07:52	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 07:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/22/24 07:52*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/22/24 07:52*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/22/24 07:52*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/22/24 07:52*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/22/24 07:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/22/24 07:52*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**3600**	**B**	110	67	ug/L		03/19/24 08:22	03/20/24 22:01	1
Motor Oil (>C24-C36)	**2000**	**B**	360	98	ug/L		03/19/24 08:22	03/20/24 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*03/19/24 08:22*	*03/20/24 22:01*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-29-W-240313

Date Collected: 03/13/24 12:50
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-17

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 08:14	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 08:14	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 08:14	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 08:14	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*03/22/24 08:14*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*03/22/24 08:14*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/22/24 08:14*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/22/24 08:14*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**21**	**J**	100	14	ug/L			03/22/24 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*77 - 123*		*03/22/24 08:14*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**8200**	**B**	110	66	ug/L		03/19/24 08:22	03/20/24 22:21	1
Motor Oil (>C24-C36)	**2800**	**B**	360	98	ug/L		03/19/24 08:22	03/20/24 22:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*78*		*50 - 150*	*03/19/24 08:22*	*03/20/24 22:21*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: RMW-01-W-240313

Date Collected: 03/13/24 14:50
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-18

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 08:36	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 08:36	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 08:36	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 08:36	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 08:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*03/22/24 08:36*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*03/22/24 08:36*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/22/24 08:36*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/22/24 08:36*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	**34**	**J**	100	14	ug/L			03/22/24 08:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*77 - 123*		*03/22/24 08:36*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2100**	**B**	110	66	ug/L		03/19/24 08:22	03/20/24 23:02	1
Motor Oil (>C24-C36)	**1800**	**B**	360	98	ug/L		03/19/24 08:22	03/20/24 23:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*03/19/24 08:22*	*03/20/24 23:02*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-37-W-240313

Date Collected: 03/13/24 09:33
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-19

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 08:57	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 08:57	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 08:57	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 08:57	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 08:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*03/22/24 08:57*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/22/24 08:57*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/22/24 08:57*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/22/24 08:57*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/22/24 08:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/22/24 08:57*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**230**	***1**	110	66	ug/L		03/27/24 08:14	03/27/24 14:13	1
Motor Oil (>C24-C36)	**570**		350	97	ug/L		03/27/24 08:14	03/27/24 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*03/27/24 08:14*	*03/27/24 14:13*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: D-25-W-240313

Date Collected: 03/13/24 11:02
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-20

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 09:19	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 09:19	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 09:19	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 09:19	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 09:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*03/22/24 09:19*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/22/24 09:19*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/22/24 09:19*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/22/24 09:19*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/22/24 09:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/22/24 09:19*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**2000**	**B**	110	66	ug/L		03/19/24 08:22	03/20/24 23:42	1
Motor Oil (>C24-C36)	**1700**	**B**	350	97	ug/L		03/19/24 08:22	03/20/24 23:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*03/19/24 08:22*	*03/20/24 23:42*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: D-24-W-240313

Date Collected: 03/13/24 12:20
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-21

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 13:54	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 13:54	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 13:54	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 13:54	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/23/24 13:54*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/23/24 13:54*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/23/24 13:54*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/23/24 13:54*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/23/24 13:54*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**300**	***1**	110	66	ug/L		03/27/24 08:14	03/27/24 14:33	1
Motor Oil (>C24-C36)	**380**		360	97	ug/L		03/27/24 08:14	03/27/24 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*03/27/24 08:14*	*03/27/24 14:33*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: MW-36-W-240313

Date Collected: 03/13/24 13:36
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-22

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 10:03	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 10:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 10:03	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 10:03	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 10:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*03/22/24 10:03*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*03/22/24 10:03*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/22/24 10:03*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/22/24 10:03*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/22/24 10:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*77 - 123*		*03/22/24 10:03*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**110**	***1**	110	66	ug/L		03/27/24 08:14	03/27/24 14:54	1
Motor Oil (>C24-C36)	**210**	**J**	360	98	ug/L		03/27/24 08:14	03/27/24 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*03/27/24 08:14*	*03/27/24 14:54*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: D-26-W-240313

Date Collected: 03/13/24 14:53
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-23

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 06:46	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 06:46	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 06:46	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 06:46	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 06:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/22/24 06:46*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/22/24 06:46*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/22/24 06:46*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/22/24 06:46*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/22/24 06:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/22/24 06:46*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	**490**	***1**	110	66	ug/L		03/27/24 08:14	03/27/24 15:14	1
Motor Oil (>C24-C36)	**700**		360	98	ug/L		03/27/24 08:14	03/27/24 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*03/27/24 08:14*	*03/27/24 15:14*	*1*

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Client Sample ID: TB-1-T-240313

Date Collected: 03/13/24 00:00
Date Received: 03/13/24 16:54

Lab Sample ID: 580-137755-24

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 04:15	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 04:15	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 04:15	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 04:15	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*03/22/24 04:15*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/22/24 04:15*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/22/24 04:15*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/22/24 04:15*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/22/24 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*		*03/22/24 04:15*	*1*

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

Lab Sample ID: MB 580-454252/11
Matrix: Water
Analysis Batch: 454252

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/20/24 01:59	1
Toluene	ND		1.0	0.39	ug/L			03/20/24 01:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/20/24 01:59	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/20/24 01:59	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/20/24 01:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*03/20/24 01:59*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*03/20/24 01:59*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/20/24 01:59*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*03/20/24 01:59*	*1*

Lab Sample ID: LCS 580-454252/6
Matrix: Water
Analysis Batch: 454252

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	10.6		ug/L		106	80 - 122		
Toluene			10.0	10.4		ug/L		104	80 - 120		
Ethylbenzene			10.0	10.3		ug/L		103	80 - 120		
m-Xylene & p-Xylene			10.0	10.4		ug/L		104	80 - 120		
o-Xylene			10.0	10.4		ug/L		104	80 - 120		
Methyl tert-butyl ether			10.0	10.1		ug/L		101	72 - 120		
Xylenes, Total			20.0	20.8		ug/L		104	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 580-454252/7
Matrix: Water
Analysis Batch: 454252

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	10.3		ug/L		103	80 - 122	2	14
Toluene			10.0	9.80		ug/L		98	80 - 120	6	13
Ethylbenzene			10.0	10.1		ug/L		101	80 - 120	2	14
m-Xylene & p-Xylene			10.0	9.89		ug/L		99	80 - 120	5	14
o-Xylene			10.0	10.0		ug/L		100	80 - 120	4	16
Methyl tert-butyl ether			10.0	10.1		ug/L		101	72 - 120	0	18
Xylenes, Total			20.0	19.9		ug/L		99	80 - 120	4	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*

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

Lab Sample ID: LCSD 580-454252/7
Matrix: Water
Analysis Batch: 454252

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*

Lab Sample ID: MB 580-454385/11
Matrix: Water
Analysis Batch: 454385

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/21/24 02:44	1
Toluene	ND		1.0	0.39	ug/L			03/21/24 02:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/21/24 02:44	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/21/24 02:44	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/21/24 02:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/21/24 02:44*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/21/24 02:44*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/21/24 02:44*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*03/21/24 02:44*	*1*

Lab Sample ID: LCS 580-454385/6
Matrix: Water
Analysis Batch: 454385

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	10.2		ug/L		102	80 - 122		
Toluene			10.0	10.1		ug/L		101	80 - 120		
Ethylbenzene			10.0	10.1		ug/L		101	80 - 120		
m-Xylene & p-Xylene			10.0	10.3		ug/L		103	80 - 120		
o-Xylene			10.0	10.3		ug/L		103	80 - 120		
Methyl tert-butyl ether			10.0	9.94		ug/L		99	72 - 120		
Xylenes, Total			20.0	20.6		ug/L		103	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*

Lab Sample ID: LCSD 580-454385/7
Matrix: Water
Analysis Batch: 454385

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	10.6		ug/L		106	80 - 122	3	14
Toluene			10.0	10.1		ug/L		101	80 - 120	1	13
Ethylbenzene			10.0	10.3		ug/L		103	80 - 120	2	14
m-Xylene & p-Xylene			10.0	10.0		ug/L		100	80 - 120	2	14

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

Lab Sample ID: LCSD 580-454385/7
Matrix: Water
Analysis Batch: 454385

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
o-Xylene			10.0	10.2		ug/L		102	80 - 120	1	16
Methyl tert-butyl ether			10.0	10.1		ug/L		101	72 - 120	1	18
Xylenes, Total			20.0	20.2		ug/L		101	80 - 120	2	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*

Lab Sample ID: MB 580-454494/11
Matrix: Water
Analysis Batch: 454494

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/22/24 03:54	1
Toluene	ND		1.0	0.39	ug/L			03/22/24 03:54	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/22/24 03:54	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/22/24 03:54	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/22/24 03:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*03/22/24 03:54*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*03/22/24 03:54*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/22/24 03:54*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*03/22/24 03:54*	*1*

Lab Sample ID: LCS 580-454494/6
Matrix: Water
Analysis Batch: 454494

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	10.4		ug/L		104	80 - 122
Toluene			10.0	10.5		ug/L		105	80 - 120
Ethylbenzene			10.0	10.3		ug/L		103	80 - 120
m-Xylene & p-Xylene			10.0	10.3		ug/L		103	80 - 120
o-Xylene			10.0	10.5		ug/L		105	80 - 120
Methyl tert-butyl ether			10.0	9.67		ug/L		97	72 - 120
Xylenes, Total			20.0	20.8		ug/L		104	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*

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

Lab Sample ID: LCSD 580-454494/7
Matrix: Water
Analysis Batch: 454494

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	10.4		ug/L		104	80 - 122	0	14
Toluene			10.0	10.2		ug/L		102	80 - 120	2	13
Ethylbenzene			10.0	10.3		ug/L		103	80 - 120	0	14
m-Xylene & p-Xylene			10.0	10.1		ug/L		101	80 - 120	2	14
o-Xylene			10.0	10.6		ug/L		106	80 - 120	1	16
Methyl tert-butyl ether			10.0	9.97		ug/L		100	72 - 120	3	18
Xylenes, Total			20.0	20.7		ug/L		104	80 - 120	0	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*

Lab Sample ID: 580-137755-23 MS
Matrix: Water
Analysis Batch: 454494

Client Sample ID: D-26-W-240313
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		10.0	11.4		ug/L		114	80 - 122
Toluene	ND		10.0	11.2		ug/L		112	80 - 120
Ethylbenzene	ND		10.0	11.3		ug/L		113	80 - 120
m-Xylene & p-Xylene	ND		10.0	11.0		ug/L		110	80 - 120
o-Xylene	ND		10.0	11.1		ug/L		111	80 - 120
Methyl tert-butyl ether	ND		10.0	10.0		ug/L		100	72 - 120
Xylenes, Total	ND		20.0	22.1		ug/L		111	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*

Lab Sample ID: 580-137755-23 MSD
Matrix: Water
Analysis Batch: 454494

Client Sample ID: D-26-W-240313
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		10.0	11.5		ug/L		115	80 - 122	1	14
Toluene	ND		10.0	11.2		ug/L		112	80 - 120	0	13
Ethylbenzene	ND		10.0	11.0		ug/L		110	80 - 120	2	14
m-Xylene & p-Xylene	ND		10.0	11.0		ug/L		110	80 - 120	0	14
o-Xylene	ND		10.0	11.2		ug/L		112	80 - 120	1	16
Methyl tert-butyl ether	ND		10.0	10.2		ug/L		102	72 - 120	2	18
Xylenes, Total	ND		20.0	22.2		ug/L		111	80 - 120	0	16

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

Lab Sample ID: 580-137755-23 MSD
Matrix: Water
Analysis Batch: 454494

Client Sample ID: D-26-W-240313
Prep Type: Total/NA

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*

Lab Sample ID: MB 580-454611/11
Matrix: Water
Analysis Batch: 454611

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.24	ug/L			03/23/24 09:32	1
Toluene	ND		1.0	0.39	ug/L			03/23/24 09:32	1
Ethylbenzene	ND		1.0	0.50	ug/L			03/23/24 09:32	1
Methyl tert-butyl ether	ND		1.0	0.44	ug/L			03/23/24 09:32	1
Xylenes, Total	ND		2.0	0.53	ug/L			03/23/24 09:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*03/23/24 09:32*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/23/24 09:32*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/23/24 09:32*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*03/23/24 09:32*	*1*

Lab Sample ID: LCS 580-454611/6
Matrix: Water
Analysis Batch: 454611

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	10.5		ug/L		105	80 - 122		
Toluene			10.0	10.5		ug/L		105	80 - 120		
Ethylbenzene			10.0	10.3		ug/L		103	80 - 120		
m-Xylene & p-Xylene			10.0	10.3		ug/L		103	80 - 120		
o-Xylene			10.0	10.6		ug/L		106	80 - 120		
Methyl tert-butyl ether			10.0	9.83		ug/L		98	72 - 120		
Xylenes, Total			20.0	20.9		ug/L		105	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 580-454611/7
Matrix: Water
Analysis Batch: 454611

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	10.5		ug/L		105	80 - 122	0	14
Toluene			10.0	10.2		ug/L		102	80 - 120	3	13

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

Lab Sample ID: LCSD 580-454611/7
Matrix: Water
Analysis Batch: 454611

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
Ethylbenzene			10.0	10.4		ug/L		104	80 - 120	0	14
m-Xylene & p-Xylene			10.0	10.3		ug/L		103	80 - 120	0	14
o-Xylene			10.0	10.5		ug/L		105	80 - 120	1	16
Methyl tert-butyl ether			10.0	9.89		ug/L		99	72 - 120	1	18
Xylenes, Total			20.0	20.8		ug/L		104	80 - 120	0	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS)

Lab Sample ID: MB 580-454248/11
Matrix: Water
Analysis Batch: 454248

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/20/24 01:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*77 - 123*		*03/20/24 01:59*	*1*

Lab Sample ID: LCS 580-454248/8
Matrix: Water
Analysis Batch: 454248

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline			1000	925		ug/L		92	55 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*

Lab Sample ID: LCSD 580-454248/9
Matrix: Water
Analysis Batch: 454248

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
Gasoline			1000	946		ug/L		95	55 - 148	2	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*77 - 123*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

Lab Sample ID: MB 580-454381/11
Matrix: Water
Analysis Batch: 454381

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/21/24 02:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*		*03/21/24 02:44*	*1*

Lab Sample ID: LCS 580-454381/8
Matrix: Water
Analysis Batch: 454381

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline			1000	927		ug/L		93	55 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*

Lab Sample ID: LCSD 580-454381/9
Matrix: Water
Analysis Batch: 454381

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
Gasoline			1000	910		ug/L		91	55 - 148	2	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*

Lab Sample ID: MB 580-454490/11
Matrix: Water
Analysis Batch: 454490

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/22/24 03:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*77 - 123*		*03/22/24 03:54*	*1*

Lab Sample ID: LCS 580-454490/8
Matrix: Water
Analysis Batch: 454490

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline			1000	946		ug/L		95	55 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*77 - 123*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

Lab Sample ID: LCSD 580-454490/9
Matrix: Water
Analysis Batch: 454490

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
Gasoline			1000	900		ug/L		90	55 - 148	5	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*

Lab Sample ID: 580-137755-23 MS
Matrix: Water
Analysis Batch: 454490

Client Sample ID: D-26-W-240313
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline	ND		1000	947		ug/L		95	55 - 148		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*77 - 123*

Lab Sample ID: 580-137755-23 MSD
Matrix: Water
Analysis Batch: 454490

Client Sample ID: D-26-W-240313
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline	ND		1000	918		ug/L		92	55 - 148	3	10

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*

Lab Sample ID: MB 580-454607/11
Matrix: Water
Analysis Batch: 454607

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		100	14	ug/L			03/23/24 09:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*		*03/23/24 09:32*	*1*

Lab Sample ID: LCS 580-454607/8
Matrix: Water
Analysis Batch: 454607

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline			999	902		ug/L		90	55 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*77 - 123*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC/MS) (Continued)

Lab Sample ID: LCSD 580-454607/9
Matrix: Water
Analysis Batch: 454607

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
Gasoline			999	863		ug/L		86	55 - 148	4	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*77 - 123*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-454151/1-A
Matrix: Water
Analysis Batch: 454306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	126		110	65	ug/L		03/19/24 08:22	03/20/24 16:58	1
Motor Oil (>C24-C36)	262	J	350	96	ug/L		03/19/24 08:22	03/20/24 16:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*112*		*50 - 150*	*03/19/24 08:22*	*03/20/24 16:58*	*1*

Lab Sample ID: LCS 580-454151/2-A
Matrix: Water
Analysis Batch: 454306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454151

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
#2 Diesel (C10-C24)			4000	3380		ug/L		85	50 - 120
Motor Oil (>C24-C36)			4000	3720		ug/L		93	64 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*92*		*50 - 150*

Lab Sample ID: LCSD 580-454151/3-A
Matrix: Water
Analysis Batch: 454306

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 454151

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			4000	3500		ug/L		87	50 - 120	3	26
Motor Oil (>C24-C36)			4000	3800		ug/L		95	64 - 120	2	24

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*99*		*50 - 150*

Lab Sample ID: MB 580-454153/1-A
Matrix: Water
Analysis Batch: 454882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454153

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.11	0.065	mg/L		03/19/24 08:27	03/27/24 18:18	1
Motor Oil (>C24-C36)	ND		0.35	0.096	mg/L		03/19/24 08:27	03/27/24 18:18	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: MB 580-454153/1-A
Matrix: Water
Analysis Batch: 454882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454153

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150	03/19/24 08:27	03/27/24 18:18	1

Lab Sample ID: LCS 580-454153/2-A
Matrix: Water
Analysis Batch: 454882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454153

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
#2 Diesel (C10-C24)			4.00	3.06		mg/L		76	50 - 120		
Motor Oil (>C24-C36)			4.00	3.41		mg/L		85	64 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	79		50 - 150

Lab Sample ID: LCSD 580-454153/3-A
Matrix: Water
Analysis Batch: 454882

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 454153

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			4.00	3.02		mg/L		75	50 - 120	1	26
Motor Oil (>C24-C36)			4.00	3.41		mg/L		85	64 - 120	0	24

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	80		50 - 150

Lab Sample ID: MB 580-454868/1-A
Matrix: Water
Analysis Batch: 454879

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	65	ug/L		03/27/24 08:14	03/27/24 12:11	1
Motor Oil (>C24-C36)	ND		350	96	ug/L		03/27/24 08:14	03/27/24 12:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	89		50 - 150	03/27/24 08:14	03/27/24 12:11	1

Lab Sample ID: LCS 580-454868/2-A
Matrix: Water
Analysis Batch: 454879

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454868

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
#2 Diesel (C10-C24)			4000	2540		ug/L		64	50 - 120		
Motor Oil (>C24-C36)			4000	3180		ug/L		80	64 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	76		50 - 150

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCSD 580-454868/3-A
Matrix: Water
Analysis Batch: 454879

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 454868

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			4000	3330	*1	ug/L		83	50 - 120	27	26
Motor Oil (>C24-C36)			4000	3640		ug/L		91	64 - 120	13	24

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*89*		*50 - 150*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - RE

Lab Sample ID: 580-137755-23 MS
Matrix: Water
Analysis Batch: 454879

Client Sample ID: D-26-W-240313
Prep Type: Total/NA
Prep Batch: 454868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
#2 Diesel (C10-C24) - RE	490	*1	4070	3510		ug/L		74	50 - 120		
Motor Oil (>C24-C36) - RE	700		4070	4260		ug/L		87	64 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl - RE	*79*		*50 - 150*

Lab Sample ID: 580-137755-23 MSD
Matrix: Water
Analysis Batch: 454879

Client Sample ID: D-26-W-240313
Prep Type: Total/NA
Prep Batch: 454868

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
#2 Diesel (C10-C24) - RE	490	*1	4050	3640		ug/L		78	50 - 120	4	26
Motor Oil (>C24-C36) - RE	700		4050	4410		ug/L		92	64 - 120	3	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl - RE	*83*		*50 - 150*

Lab Chronicle

Client: AECOM
Job ID: 580-137755-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: MW-10-W-240311
Lab Sample ID: 580-137755-1
Date Collected: 03/11/24 15:40
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454252	JBT	EET SEA	03/20/24 08:32
Total/NA	Analysis	NWTPH-Gx		1	454248	JBT	EET SEA	03/20/24 08:32
Total/NA	Prep	3510C			454153	SL	EET SEA	03/19/24 08:27
Total/NA	Analysis	NWTPH-Dx		1	454309	CB	EET SEA	03/20/24 20:19

Client Sample ID: D-17-W-240312
Lab Sample ID: 580-137755-2
Date Collected: 03/12/24 09:30
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454252	JBT	EET SEA	03/20/24 07:27
Total/NA	Analysis	NWTPH-Gx		1	454248	JBT	EET SEA	03/20/24 07:27
Total/NA	Prep	3510C			454153	SL	EET SEA	03/19/24 08:27
Total/NA	Analysis	NWTPH-Dx		1	454309	CB	EET SEA	03/20/24 20:40

Client Sample ID: MW-26-W-240312
Lab Sample ID: 580-137755-3
Date Collected: 03/12/24 10:40
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454252	JBT	EET SEA	03/20/24 08:10
Total/NA	Analysis	NWTPH-Gx		1	454248	JBT	EET SEA	03/20/24 08:10
Total/NA	Prep	3510C			454153	SL	EET SEA	03/19/24 08:27
Total/NA	Analysis	NWTPH-Dx		1	454309	CB	EET SEA	03/20/24 21:00

Client Sample ID: MW-30-W-240312
Lab Sample ID: 580-137755-4
Date Collected: 03/12/24 11:50
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 04:54
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 04:54
Total/NA	Prep	3510C			454153	SL	EET SEA	03/19/24 08:27
Total/NA	Analysis	NWTPH-Dx		1	454309	CB	EET SEA	03/20/24 21:20

Client Sample ID: D-18-W-240312
Lab Sample ID: 580-137755-5
Date Collected: 03/12/24 13:00
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 05:16
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 05:16
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 17:59

Lab Chronicle

Client: AECOM
Job ID: 580-137755-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: D-02A-W-240312
Lab Sample ID: 580-137755-6
Date Collected: 03/12/24 14:30
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 05:38
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 05:38
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 18:19

Client Sample ID: D-08-W-240312
Lab Sample ID: 580-137755-7
Date Collected: 03/12/24 16:10
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 05:59
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 05:59
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 18:39

Client Sample ID: D-19-W-240312
Lab Sample ID: 580-137755-8
Date Collected: 03/12/24 09:45
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 06:21
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 06:21
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 19:19
Total/NA	Prep	3510C	RE		454868	SL	EET SEA	03/27/24 08:14
Total/NA	Analysis	NWTPH-Dx	RE	1	454879	SW	EET SEA	03/27/24 13:13

Client Sample ID: MW-24-W-240312
Lab Sample ID: 580-137755-9
Date Collected: 03/12/24 11:39
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 06:42
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 06:42
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 19:39

Client Sample ID: D-09-W-240312
Lab Sample ID: 580-137755-10
Date Collected: 03/12/24 13:11
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 07:04
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 07:04

Lab Chronicle

Client: AECOM
Job ID: 580-137755-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: D-09-W-240312
Lab Sample ID: 580-137755-10
Date Collected: 03/12/24 13:11
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 19:59

Client Sample ID: MW-12-W-240312
Lab Sample ID: 580-137755-11
Date Collected: 03/12/24 14:22
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 07:25
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 07:25
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 20:19

Client Sample ID: MW-23-W-240312
Lab Sample ID: 580-137755-12
Date Collected: 03/12/24 15:37
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 07:47
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 07:47
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 20:40

Client Sample ID: MW-31-W-240312
Lab Sample ID: 580-137755-13
Date Collected: 03/12/24 16:16
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454385	JBT	EET SEA	03/21/24 08:08
Total/NA	Analysis	NWTPH-Gx		1	454381	JBT	EET SEA	03/21/24 08:08
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 21:00
Total/NA	Prep	3510C	RE		454868	SL	EET SEA	03/27/24 08:14
Total/NA	Analysis	NWTPH-Dx	RE	1	454879	SW	EET SEA	03/27/24 13:33

Client Sample ID: D-27-W-240313
Lab Sample ID: 580-137755-14
Date Collected: 03/13/24 09:25
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 07:08
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 07:08
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 21:20

Lab Chronicle

Client: AECOM
Job ID: 580-137755-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: MW-39-W-240313
Lab Sample ID: 580-137755-15
Date Collected: 03/13/24 10:30
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 07:30
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 07:30
Total/NA	Prep	3510C	RE		454868	SL	EET SEA	03/27/24 08:14
Total/NA	Analysis	NWTPH-Dx	RE	1	454879	SW	EET SEA	03/27/24 13:53

Client Sample ID: D-15-W-240313
Lab Sample ID: 580-137755-16
Date Collected: 03/13/24 11:45
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 07:52
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 07:52
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 22:01

Client Sample ID: MW-29-W-240313
Lab Sample ID: 580-137755-17
Date Collected: 03/13/24 12:50
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 08:14
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 08:14
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 22:21

Client Sample ID: RMW-01-W-240313
Lab Sample ID: 580-137755-18
Date Collected: 03/13/24 14:50
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 08:36
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 08:36
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 23:02

Client Sample ID: MW-37-W-240313
Lab Sample ID: 580-137755-19
Date Collected: 03/13/24 09:33
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 08:57
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 08:57
Total/NA	Prep	3510C	RE		454868	SL	EET SEA	03/27/24 08:14
Total/NA	Analysis	NWTPH-Dx	RE	1	454879	SW	EET SEA	03/27/24 14:13

Lab Chronicle

Client: AECOM
Job ID: 580-137755-1
Project/Site: CEMREC Legacy Sites- Tacoma

Client Sample ID: D-25-W-240313
Lab Sample ID: 580-137755-20
Date Collected: 03/13/24 11:02
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 09:19
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 09:19
Total/NA	Prep	3510C			454151	SL	EET SEA	03/19/24 08:22
Total/NA	Analysis	NWTPH-Dx		1	454306	CB	EET SEA	03/20/24 23:42

Client Sample ID: D-24-W-240313
Lab Sample ID: 580-137755-21
Date Collected: 03/13/24 12:20
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454611	JBT	EET SEA	03/23/24 13:54
Total/NA	Analysis	NWTPH-Gx		1	454607	JBT	EET SEA	03/23/24 13:54
Total/NA	Prep	3510C	RE		454868	SL	EET SEA	03/27/24 08:14
Total/NA	Analysis	NWTPH-Dx	RE	1	454879	SW	EET SEA	03/27/24 14:33

Client Sample ID: MW-36-W-240313
Lab Sample ID: 580-137755-22
Date Collected: 03/13/24 13:36
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 10:03
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 10:03
Total/NA	Prep	3510C	RE		454868	SL	EET SEA	03/27/24 08:14
Total/NA	Analysis	NWTPH-Dx	RE	1	454879	SW	EET SEA	03/27/24 14:54

Client Sample ID: D-26-W-240313
Lab Sample ID: 580-137755-23
Date Collected: 03/13/24 14:53
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 06:46
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 06:46
Total/NA	Prep	3510C	RE		454868	SL	EET SEA	03/27/24 08:14
Total/NA	Analysis	NWTPH-Dx	RE	1	454879	SW	EET SEA	03/27/24 15:14

Client Sample ID: TB-1-T-240313
Lab Sample ID: 580-137755-24
Date Collected: 03/13/24 00:00
Matrix: Water
Date Received: 03/13/24 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	454494	JBT	EET SEA	03/22/24 04:15
Total/NA	Analysis	NWTPH-Gx		1	454490	JBT	EET SEA	03/22/24 04:15

Laboratory References:
EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: AECOM
Job ID: 580-137755-1
Project/Site: CEMREC Legacy Sites- Tacoma

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

Sample Summary

Client: AECOM
Project/Site: CEMREC Legacy Sites- Tacoma

Job ID: 580-137755-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-137755-1	MW-10-W-240311	Water	03/11/24 15:40	03/13/24 16:54
580-137755-2	D-17-W-240312	Water	03/12/24 09:30	03/13/24 16:54
580-137755-3	MW-26-W-240312	Water	03/12/24 10:40	03/13/24 16:54
580-137755-4	MW-30-W-240312	Water	03/12/24 11:50	03/13/24 16:54
580-137755-5	D-18-W-240312	Water	03/12/24 13:00	03/13/24 16:54
580-137755-6	D-02A-W-240312	Water	03/12/24 14:30	03/13/24 16:54
580-137755-7	D-08-W-240312	Water	03/12/24 16:10	03/13/24 16:54
580-137755-8	D-19-W-240312	Water	03/12/24 09:45	03/13/24 16:54
580-137755-9	MW-24-W-240312	Water	03/12/24 11:39	03/13/24 16:54
580-137755-10	D-09-W-240312	Water	03/12/24 13:11	03/13/24 16:54
580-137755-11	MW-12-W-240312	Water	03/12/24 14:22	03/13/24 16:54
580-137755-12	MW-23-W-240312	Water	03/12/24 15:37	03/13/24 16:54
580-137755-13	MW-31-W-240312	Water	03/12/24 16:16	03/13/24 16:54
580-137755-14	D-27-W-240313	Water	03/13/24 09:25	03/13/24 16:54
580-137755-15	MW-39-W-240313	Water	03/13/24 10:30	03/13/24 16:54
580-137755-16	D-15-W-240313	Water	03/13/24 11:45	03/13/24 16:54
580-137755-17	MW-29-W-240313	Water	03/13/24 12:50	03/13/24 16:54
580-137755-18	RMW-01-W-240313	Water	03/13/24 14:50	03/13/24 16:54
580-137755-19	MW-37-W-240313	Water	03/13/24 09:33	03/13/24 16:54
580-137755-20	D-25-W-240313	Water	03/13/24 11:02	03/13/24 16:54
580-137755-21	D-24-W-240313	Water	03/13/24 12:20	03/13/24 16:54
580-137755-22	MW-36-W-240313	Water	03/13/24 13:36	03/13/24 16:54
580-137755-23	D-26-W-240313	Water	03/13/24 14:53	03/13/24 16:54
580-137755-24	TB-1-T-240313	Water	03/13/24 00:00	03/13/24 16:54

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: L. Celovsky, S Catlin	Lab PM: Tracy Dutton, Tracy.dutton@et.eurofinsus.com	Carrier Tracking No(s):	COC No:
Client Contact: Brad Wynne (bradley.wynne@aecom.com), Christina Wheeler (christina.wheeler@aecom.com)	Phone: 972 358 4390, 360 608 3212	E-Mail:	State of Origin:	Page: 1 of 2
Company: AECOM	PWSID:			Job #:
Address: 888 SW 5th Ave	Due Date Requested:			
City: Portland	TAT Requested (days): 10 business days			
State, Zip: Oregon 97204	Compliance Project: ∆ Yes ∆ No			
Phone: 971 323 6262	PO #: 1637400 (new 2024#)			
Email:	WO #:			
Project Name: CEMREC Legacy Sites - Tacoma	Project #:			
AECOM Project # 60701804	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification (example: MW-10-W-YYMMDD)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	NWTPH-Dx	VOCs (EPA 8260) - full list	VOCs w/TCLP (EPA 8260) - full list	SVOCs (EPA 8270) - full list	SVOCs w/TCLP (EPA 8270) - full list	RCRA 8 Metals w/ TCLP (EPA 6010B)	Flash Point by ASTM D-93	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:														
			G	O	N		X	X	X	X	X	X	X	X	X		
MW-10-W-240311	3/11/24	1540	G	W			X	X	X							8	
D-17-W-240312	3/12/24	0930															
MW-26-W-240312		1040															
MW-30-W-240312		1150															
D-18-W-240312		1300															
D-02A-W-240312		1430															
D-08-W-240312		1610															
D-19-W-240312		0945															
MW-24-W-240312		1139															
D-09-W-240312		1311															
MW-12-W-240312		1422															
MW-23-W-240312		1537															
MW-31-W-240312		1616															
D-27-W-240313	3/13/24	0925															
MW-39-W-240313		1030															
D-15-W-240313		1145															
MW-29-W-240313		1250															
RMW-01-W-240313		1450															

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 3/13/24 1653	Company: AECOM	Received by:	Date/Time: 3/13/24 1654	Company: TSTN		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Tracy Dutton, Tracy.dutton@et.eurofinsus.com	Carrier Tracking No(s):	COC No:
Client Contact: Brad Wynne (bradley.wynne@aecom.com), Christina Wheeler (christina.wheeler@aecom.com)	Phone: 972 358 4390, 360 608 3212	E-Mail:	State of Origin:	Page: 2 of 2
Company: AECOM	PWSID:			Job #:
Address: 888 SW 5th Ave	Due Date Requested:			
City: Portland	TAT Requested (days): 10 business days			
State, Zip: Oregon 97204	Compliance Project: Δ Yes Δ No			
Phone: 971 323 6262	PO #: 1637400 (new 2024#)			
Email:	WO #:			
Project Name: CEMREC Legacy Sites - Tacoma	Project #:			
AECOM Project #: 60701804	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification (example: MW-10-W-YYMMDD)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	NWTPH-Dx	VOCs (EPA 8260) - full list	VOCs w/TCLP (EPA 8260) - full list	SVOCs (EPA 8270) - full list	SVOCs w/TCLP (EPA 8270) - full list	RCRA 8 Metals w/ TCLP (EPA 6010B)	Flash Point by ASTM D-93	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:														
			G	O	N		X	X	X	X	X	X	X	X	X		
MW-37-~~240313~~ W-240313 (LC 3/13/24)	3/13/24	0933	G	W			X	X	X							8	
D-25-W-240313		1102															
D-24-W-240313		1220															
MW-36-~~240313~~ W-240313 (LC 3/13/24)		1336															
D-26-W-240313		1453			X	X										24	MS/MSD
TB-1-T-240313	3/13/24	0000														2	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 3/13/24 1653	Company: AECOM	Received by:	Date/Time: 3/13/24 1654	Company: FEDEX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

LR/Ita/Bub/C.D. IH11 10.5/10.4 #1

LB/Ita/Bub/C.D. IH11 7.6/7.5 #2

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: L. Celovsky, S Catlin	Lab PM: Tracy Dutton, Tracy.dutton@et.eurofinsus.com	Carrier Tracking No(s):	COC No:
Client Contact: Brad Wynne (bradley.wynne@aecom.com), Christina Wheeler (christina.wheeler@aecom.com)	Phone: 972 358 4390, 360 608 3212	E-Mail:	State of Origin:	Page: 1 of 2
Company: AECOM	PWSID:			Job #:
Address: 888 SW 5th Ave	Due Date Requested:			
City: Portland	TAT Requested (days): 10 business days			
State, Zip: Oregon 97204	Compliance Project: ∆ Yes ∆ No			
Phone: 971 323 6262	PO #: 1637400 (new 2024#)			
Email:	WO #:			
Project Name: CEMREC Legacy Sites - Tacoma	Project #:			
AECOM Project # 60701804	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification (example: MW-10-W-YYMMDD)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	NWTPH-Dx	VOCs (EPA 8260) - full list	VOCs w/TCLP (EPA 8260) - full list	SVOCs (EPA 8270) - full list	SVOCs w/TCLP (EPA 8270) - full list	RCRA 8 Metals w/ TCLP (EPA 6010B)	Flash Point by ASTM D-93	pH					Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
			G	O	N		X	X	X	X	X	X	X	X	X						
MW-10-W-240311	3/11/24	1540	G	W			X	X	X											8	
D-17-W-240312	3/12/24	0930																			
MW-26-W-240312		1040																			
MW-30-W-240312		1150																			
D-18-W-240312		1300																			
D-02A-W-240312		1430																			
D-08-W-240312		1610																			
D-19-W-240312		0945																			
MW-24-W-240312		1139																			
D-09-W-240312		1311																			
MW-12-W-240312		1422																			
MW-23-W-240312		1537																			
MW-31-W-240312		1616																			
D-27-W-240313	3/13/24	0925																			
MW-39-W-240313		1030																			
D-15-W-240313		1145																			
MW-29-W-240313		1250																			
RMW-01-W-240313		1450																			

580-137755 Chain of Custody

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 3/13/24 1653	Company: AECOM	Received by:	Date/Time: 3/13/24 1654	Company: TSTN		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Tracy Dutton, Tracy.dutton@et.eurofinsus.com	Carrier Tracking No(s):	COC No:
Client Contact: Brad Wynne (bradley.wynne@aecom.com), Christina Wheeler (christina.wheeler@aecom.com)	Phone: 972 358 4390, 360 608 3212	E-Mail:	State of Origin:	Page: 1 of 2
Company: AECOM	PWSID:			Job #:
Address: 888 SW 5th Ave	Due Date Requested:			
City: Portland	TAT Requested (days): 10 business days			
State, Zip: Oregon 97204	Compliance Project: Δ Yes Δ No			
Phone: 971 323 6262	PO #: 1637400 (new 2024#)			
Email:	WO #:			
Project Name: CEMREC Legacy Sites - Tacoma	Project #:			
AECOM Project #: 60701804	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification (example: MW-10-W-YYMMDD)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Gx	NWTPH-Dx	VOCs (EPA 8260) - full list	VOCs w/TCLP (EPA 8260) - full list	SVOCs (EPA 8270) - full list	SVOCs w/TCLP (EPA 8270) - full list	RCRA 8 Metals w/ TCLP (EPA 6010B)	Flash Point by ASTM D-93	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:														
			G	O	N		X	X	X	X	X	X	X	X	X		
MW-37-~~240313~~ W-240313 (LC 3/13/24)	3/13/24	0933	G	W			X	X	X							8	
D-25-W-240313		1102															
D-24-W-240313		1220															
MW-36-~~240313~~ W-240313 (LC 3/13/24)		1336															
D-26-W-240313		1453			X	X	X	X	X							24	MS/MSD
TB-1-T-240313	3/13/24	0000														2	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 3/13/24 1653	Company: AECOM	Received by:	Date/Time: 3/13/24 1654	Company: FEDEX		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

LR/Ica/Bub/C.D. IH11 10.5/10.4 #1

LB/Ica/Bub/C.D. IH11 7.6/7.5 #2

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-137755-1

Login Number: 137755
List Number: 1
Creator: Groves, Elizabeth

List Source: Eurofins Seattle

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.	False	Analyses listed on COC; individual samples not designated for specific analyses
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 C

Summary Data Quality Review

AECOM
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Suite 1600
Seattle, WA 98101
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206 438 2700 tel
866 495 5288 fax

Memorandum

To	Brad Wynne, Project Manager	Info	FINAL
Subject	Summary Data Quality Review Chevron Environmental Management Company (CEMC) Legacy Sites – Tacoma Terminal 2024 1st Quarter Groundwater Sampling		
From	Christina Wheeler, Chemist Lucy Panteleeff, Chemist		
Date	April 18, 2024		

The summary data quality review of 45 groundwater samples, 2 trip blanks, 1 rinsate blank, and 1 field blank collected between April 11 and April 15, 2024, has been completed. The samples were analyzed at Eurofins Seattle located in Tacoma, Washington, for selected volatile organic compounds (VOCs; benzene, ethylbenzene, toluene, methyl tertiary butyl ether [MTBE], and total xylenes) by EPA Method 8260D; total petroleum hydrocarbons (TPHs) by Washington State Department of Ecology Methods NWTPH-Gx (gasoline-range TPH) and NWTPH-Dx (diesel-range and oil-range TPHs). The laboratory provided summary reports containing sample results and associated quality assurance (QA) and quality control (QC) data for all samples. For this report, the sample identifications (IDs) do not include the sample matrix and date suffixes (e.g. W-240312), unless required for clarity. The following samples are associated with Eurofins Seattle laboratory groups 580-137753-1 and 580-137755-1:

Sample ID	Laboratory Group	Laboratory ID	Analyses
MW-38-W-240314	580-137753-1	580-137753-1	VOCs, TPHs
D-7-W-240314		580-137753-2	VOCs, TPHs
MW-22-W-240314		580-137753-3	VOCs, TPHs
DUP-1-WD-240314 (field duplicate of MW-22-W-240314)		580-137753-4	VOCs, TPHs
MW-21-W-0240314		580-137753-5	VOCs, TPHs
MW-32-W-240314		580-137753-6	VOCs, TPHs
D-03A-W-240314		580-137753-7	VOCs, TPHs
D-01-W-240315		580-137753-8	VOCs, TPHs
DUP-2-WD-240315 (field duplicate of D-01-W-240315)		580-137753-9	VOCs, TPHs
MW-13-W-240315		580-137753-10	VOCs, TPHs
D-14-W-240315		580-137753-11	VOCs, TPHs
MW-20-W-240315		580-137753-12	VOCs, TPHs
FB-1-O-240315 (field blank)		580-137753-13	TPHs
RB-1-R-240315 (rinsate blank)		580-137753-14	VOCs, TPHs
MW-34-W-240314		580-137753-15	VOCs, TPHs
D-22-W-240314		580-137753-16	VOCs, TPHs
D-10-W-240314		580-137753-17	VOCs, TPHs
MW-25-W-240314		580-137753-18	VOCs, TPHs
D-12-W-240314		580-137753-19	VOCs, TPHs
MW-14-W-240314		580-137753-20	VOCs, TPHs
MW-11-W-240315		580-137753-21	VOCs, TPHs
D-06-W-240315		580-137753-22	VOCs, TPHs

Summary Data Quality Review
CEMC Legacy Sites – Tacoma
2024 1st Quarter Groundwater Sampling
Eurofins Laboratory Groups: 580-137753-1 and 580-137755-1

Sample ID	Laboratory Group	Laboratory ID	Analyses
MW-18-W-240315	580-137753-1	580-137753-23	VOCs, TPHs
TB-2-T-240315 (trip blank)		580-137753-24	VOCs, Gasoline-range TPH
MW-19-W-240315		580-137753-25	VOCs, TPHs
MW-10-W-240311	580-137755-1	580-137755-1	VOCs, TPHs
D-17-W-240312		580-137755-2	VOCs, TPHs
MW-26-W-240312		580-137755-3	VOCs, TPHs
MW-30-W-240312		580-137755-4	VOCs, TPHs
D-18-W-240312		580-137755-5	VOCs, TPHs
D-02A-W-240312		580-137755-6	VOCs, TPHs
D-08-W-240312		580-137755-7	VOCs, TPHs
D-19-W-240312		580-137755-8	VOCs, TPHs
MW-24-W-240312		580-137755-9	VOCs, TPHs
D-09-W-240312		580-137755-10	VOCs, TPHs
MW-12-W-240312		580-137755-11	VOCs, TPHs
MW-23-W-240312		580-137755-12	VOCs, TPHs
MW-31-W-240312		580-137755-13	VOCs, TPHs
D-27-W-240313		580-137755-14	VOCs, TPHs
MW-39-W-240313		580-137755-15	VOCs, TPHs
D-15-W-240313		580-137755-16	VOCs, TPHs
MW-29-W-240313		580-137755-17	VOCs, TPHs
RMW-01-W-240313		580-137755-18	VOCs, TPHs
MW-37-W-240313		580-137755-19	VOCs, TPHs
D-25-W-240313		580-137755-20	VOCs, TPHs
D-24-W-240313		580-137755-21	VOCs, TPHs
MW-36-W-240313		580-137755-22	VOCs, TPHs
D-26-W-240313		580-137755-23	VOCs, TPHs
TB-1-T-240313 (trip blank)		580-137755-24	VOCs, Gasoline-range TPH

Data were evaluated based on validation criteria established in the *National Functional Guidelines for Organic Superfund Methods Data Review*, November 2020, as applied to the reported methodology.

The following data components were reviewed during the limited data validation procedure for compliance with method-specific or laboratory control charted criteria where appropriate: chain of custody forms, holding times, method/trip/instrument blanks, surrogate recoveries, matrix spike/matrix spike duplicate recoveries, laboratory and field duplicate results, laboratory control sample/laboratory control sample duplicate recoveries, reporting limits, and electronic data deliverables.

A summary of qualifiers that may be assigned to results in these laboratory groups is included in Table 1. Qualifiers that may be assigned to results include:

- U - The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

- UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

- R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

- DNR - Do Not Report. Another result is available that is more reliable or appropriate.

All QC parameters indicated above were reviewed for all samples, where applicable, and data validation qualifiers were assigned when required.

Sample Receipt

Upon receipt by the laboratory, the cooler temperatures were recorded, and the sample container information was compared to the associated chain-of-custody (COC). The coolers associated with laboratory groups 580-137753-1 (7.8°C, 9.9°C) and 580-137755-1 (7.6°C, 10.5°C) were received at temperatures above the EPA-recommended limits of greater than 0°C and less than 6°C. Data were not qualified based on cooler temperatures. The analysis was not indicated on the COC for Trip Blank (TB-1), at the direction of AECOM, the sample analysis was designated.

Organic Analyses

Samples were analyzed for VOCs and/or TPHs by the methods identified in the introduction of this report.

1. Holding Times – Acceptable except as noted below:

   NWPTH-Dx – D-19 and MW-31 were re-extracted outside the method-recommended holding time of 14 days. The results from the initial analysis were reported, and the results from the re-extraction were flagged 'DNR' for "Do Not Report".

2. Blanks – Acceptable except as noted below:

   NWPTH-Dx – Diesel-range TPH and/or oil-range TPH were detected in the following method blanks.

Batch	Analyte	Detection (ug/L)	Result Flagged 'U' at the RL	Result Flagged 'J'
580-454018	Diesel-range TPH	69.7 J	MW-38	D-14
	Oil-range TPH	110 J	MW-38, D-14, FB-1-O, RB-1-R, MW-34, D-22, MW-25	MW-13
580-454151	Diesel-range TPH	126	None	MW-23
	Oil-range TPH	262 J	MW-23, MW-31	None

J – result between the method detection limit and the RL.

RL – reporting limit

Sample results were flagged as indicated in the table above.

Diesel-range TPH was detected in the field blank (110 ug/L) and the rinsate blank (110 ug/L) at concentrations between the method detection limits (MDLs) and the reporting limits. The results for

diesel-range TPH in these samples were qualified based on method blank detections as noted above; therefore, no further qualification was necessary.

3. Surrogates – Acceptable except as noted below:

   NWPTH-Dx – The percent recovery of o-terphenyl (988%) in MW-38 exceeded the control limits of 50-150%. MW-38 was diluted 10 times due to high concentrations of target analytes; therefore, data were not qualified based on this surrogate recovery.

4. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) – Acceptable except as noted below:

   NWPTH-Dx – The relative percent deviation (RPD) for diesel-range TPH (27%) exceeded the control limit of 26% in the LCS/LCSD pair associated with batch 580-45468. The percent recoveries for the LCS and LCSD were acceptable; therefore, data were not qualified based on this RPD exceedance.

5. Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable

   General – MS/MSDs were performed using MW-34 and D-26 for all organic analyses. Results were acceptable.

6. Field Duplicates – Acceptable

   General – Field duplicates were submitted for MW-22 and D-01 and identified as DUP-1 and DUP-2, respectively. An RPD of 30% was used to evaluate results greater than five times the reporting limit. Results were comparable.

7. Reporting Limits – Acceptable except as noted below:

   General – One or more results in multiple samples were flagged 'J' by the laboratory to indicate the reported concentrations were above the MDLs but below the laboratory reporting limits. Laboratory 'J'-flagged results are considered estimated. As the results are between the MDLs and the reporting limits, there are greater levels of uncertainty associated with the numerical results.

8. Other Items of Note:

   NWPTH-Dx – The percent drift (%D) for the surrogate o-terphenyl in continuing calibration verification (CCV) associated with batch 580-454084 exceeded the method control limit of 15%. Data were not qualified based on surrogate outliers in a CCV.

Overall Assessment of Data

The data reported in these laboratory groups, as qualified, are usable for meeting project objectives. The completeness for Eurofins Lancaster laboratory groups 580-137753-1 and 580-137755-1 is 100%.

Summary Data Quality Review
CEMC Legacy Sites - Tacoma
2024 1st Quarter Groundwater Sampling
Eurofins Seattle Laboratory Groups: 580-137753-1 and 580-137755-1

Table 1 - Summary of Qualified Data

Sample ID	Laboratory ID	Method	Analyte	Laboratory Result	Units	Final Result	Reason Code
MW-38-W-240314	580-137753-1	NWTPH-DX	Diesel C10-C24	1,000 J	ug/L	1,100 U	BL4
MW-38-W-240314	580-137753-1	NWTPH-DX	Motor Oil >C24-C36	2,220 J	ug/L	3,500 U	BL4
MW-13-W-240315	580-137753-10	NWTPH-DX	Motor Oil >C24-C36	370	ug/L	370 J	BL4
D-14-W-240315	580-137753-11	NWTPH-DX	Diesel C10-C24	170	ug/L	170 J	BL4
D-14-W-240315	580-137753-11	NWTPH-DX	Motor Oil >C24-C36	200 J	ug/L	350 U	BL4
FB-1-O-240315	580-137753-13	NWTPH-DX	Motor Oil >C24-C36	110 J	ug/L	360 U	BL4
RB-1-R-240315	580-137753-14	NWTPH-DX	Motor Oil >C24-C36	110 J	ug/L	370 U	BL4
MW-34-W-240314	580-137753-15	NWTPH-DX	Motor Oil >C24-C36	100 J	ug/L	370 U	BL4
D-22-W-240314	580-137753-16	NWTPH-DX	Motor Oil >C24-C36	250 J	ug/L	360 U	BL4
MW-25-W-240314	580-137753-18	NWTPH-DX	Motor Oil >C24-C36	330 J	ug/L	360 U	BL4
D-19-W-240312	580-137755-8	NWTPH-DX	Diesel C10-C24	900	ug/L	DNR	DNR
D-19-W-240312	580-137755-8	NWTPH-DX	Motor Oil >C24-C36	1100	ug/L	DNR	DNR
MW-23-W-240312	580-137755-12	NWTPH-DX	Diesel C10-C24	140	ug/L	140 J	BL4
MW-23-W-240312	580-137755-12	NWTPH-DX	Motor Oil >C24-C36	240 J	ug/L	360 U	BL4
MW-31-W-240312	580-137755-13	NWTPH-DX	Motor Oil >C24-C36	240 J	ug/L	360 U	BL4
MW-31-W-240312	580-137755-13	NWTPH-DX	Diesel C10-C24	270	ug/L	DNR	DNR
MW-31-W-240312	580-137755-13	NWTPH-DX	Motor Oil >C24-C36	250 J	ug/L	DNR	DNR

Notes:

BL4 - method blank contamination
DNR - Do Not Report
J - estimated value
U - analyte was not detected above the quantitation limit shown
ug/L - microgram per liter

AECOM

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