



2021 Annual Groundwater Monitoring Report

**Phillips 66 Facility No. 6880
Geiger Corrections Facility –
USAAC Geiger Field GF003
Spokane, Washington
Facility/Site No 663
VCP Project No. EA0263**

Phillips 66 Company

April 26, 2022

→ The Power of Commitment

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

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

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1. Introduction

GHD Services Inc. (GHD) is submitting this *2021 Annual Groundwater Monitoring Report* on behalf of Phillips 66 Company (P66) for the P66 Geiger Corrections Facility (No. 6880) located at the southeast corner of South Spotted Road and Alton Road in Spokane, Washington (Site, Figure 1).

The purpose of this annual report is to present the results of the semi-annual groundwater monitoring events conducted at the Site. Due to a change in the sampling frequency and schedule, first and fourth quarter activities were completed in 2021. The Property is currently in the Washington State Department of Ecology Voluntary Cleanup Program (VCP) under the VCP Project Number EA0263 and Facility Site ID number 663.

2. Site Activities and Findings

2.1 Current Activities

During 2021, the established monitoring program changed from a quarterly groundwater monitoring and sampling frequency to semi-annual. As a result, groundwater monitoring and sampling was completed by GHD in the first and fourth quarter of 2021. Groundwater monitoring and sampling consisted of measuring depth to water in select wells from the surveyed top of casing elevation and collecting a groundwater sample using low-flow sampling procedures. Groundwater samples were placed immediately on ice and shipped under chain of custody to an approved laboratory for analysis of the Site constituents of concern.

GHD prepared a Site Location Map (Figure 1) and Groundwater Contour and Chemical Concentration Maps (Figures 2 through 5). GHD prepared Tables 1A and 1B summarizing groundwater monitoring data and laboratory analytical results. Field forms and the laboratory analytical reports are included as Appendices A and B, respectively.

2.2 Findings

Quarter/Date (Figures 2 and 3)

1st/March 31, 2021

Shallow Zone:

Groundwater Flow Direction	East
Hydraulic Gradient (based on historic data)	0.002 foot/foot
Depth to Water	4.45 to 4.92 feet below top of well casing

Deep Zone:

Groundwater Flow Direction	West
Hydraulic Gradient	0.005 foot/foot
Depth to Water	32.18 to 32.98 feet below top of well casing

Quarter/Date (Figures 4 and 5)

4th/ November 16, 2021

Shallow Zone:

Groundwater Flow Direction	Northeast
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Hydraulic Gradient	0.002 foot/foot
Depth to Water	4.20 to 5.50 feet below top of well casing
<u>Deep Zone:</u>	
Groundwater Flow Direction	Northwest
Hydraulic Gradient	0.01 foot/foot
Depth to Water	36.43 to 37.31 feet below top of well casing

MW-10 and MW-11 were dry at the time sampling during both the first and fourth quarters. As a result, the hydraulic gradient and depth to water for the shallow zone were inferred based on historic data from 2020. As shown in Tables 1A and 1B, laboratory analytical results indicate total petroleum hydrocarbons (TPH) as gasoline (TPHg) and as diesel (TPHd) concentrations were above MTCA Method A cleanup levels (CULs) in shallow zone monitoring wells MP-1R and MW-2. Wells in the intermediate zone were below CULs, except for monitoring well MW-7 where TPHd exceeded the CUL during the fourth quarter event. However, a field duplicate taken at the same time for well MW-7 was below the TPHd CUL. Laboratory analytical results indicated benzene, toluene, ethylbenzene and total xylenes (BTEX) concentrations were below CULs or not detected in every sample collected during both quarters of 2021.

3. 2021 Investigation Derived Waste

All investigation derived waste (IDW) including purge water and decontamination water was stored on-Site in Department of Transportation (DOT)-compliant 55-gallon drum(s) for subsequent disposal. Due to access issues at the Geiger Corrections Facility, personnel were unable to successfully perform a waste pick-up in 2021. Waste derived from the 2021 activities has remained stored on-Site and subsequent transport/disposal will occur during the first half of 2022.

4. Conclusions and Recommendations

Groundwater monitoring events were conducted during two quarters in 2021. Due to a shift from quarterly to semi-annual groundwater monitoring frequency, these events occurred during the first and fourth quarter of 2021. Groundwater monitoring results indicate that groundwater in the shallow zone typically flows toward the east and northeast at an approximate hydraulic gradient of 0.002 foot per foot. Additionally, groundwater in the deep zone typically flows toward the west and northwest at an approximate hydraulic gradient of 0.008 foot per foot. Groundwater sampling analytical results indicate that TPHg and TPHd concentrations in the shallow zone exceed the CULs in wells MP-1R and MW-2. In the intermediate zone, only one well, MW-7, exceeded the TPHd CUL during the fourth quarter sampling event and the field duplicate taken at this time was below the TPHd CUL. BTEX concentrations in both zones remain below CULs. Since Site monitoring began in 2001, TPHg, TPHd, and BTEX concentrations have decreased significantly. BTEX concentrations have been below method reporting limits for several years in all Site wells and as a result, further sampling reductions are warranted.

GHD recommends the following:

- Conduct semi-annual groundwater monitoring and sampling events during the second and fourth quarters of each year.
- Discontinue BTEX analyses

All of Which is Respectfully Submitted,

GHD



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Tables

Table 1A

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Summary of Groundwater Monitoring Data - Shallow Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Screening Levels (Shallow GW)	TPHg 800 ug/L	TPHd 500 ug/L	TPHo 500 ug/L	B 5 ug/L	T 1000 ug/L	E 700 ug/L	X 1000 ug/L
MP-1	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
MP-1	11/30/01	N	--	--	--	--	--	50,300	<750	<0.50	<2.0	<1.0	<1.5	990
MP-1	03/25/02	N	--	--	--	--	--	9,650	<750	<0.50	<2.0	1.9	23	599
MP-1	06/04/02	N	--	--	--	--	--	39,700	<500	<0.50	<2.0	1.9	<1.5	353
MP-1	08/20/02	N	--	--	--	--	--	19,100	<500	<0.50	<2.0	1.1	13	223
MP-1	10/29/02	N	--	--	--	--	--	20,900	<500	<0.50	<2.0	1.2	13	413
MP-1	02/19/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	4.2	62
MP-1	06/05/03	N	--	--	--	--	--	9,950	<500	<0.50	<2.0	<1.0	<1.5	268
MP-1	09/09/03	N	--	--	--	--	--	8,430	<500	<0.50	<2.0	<1.0	17	459
MP-1	12/10/03	N	--	--	--	--	--	13,600	<500	<0.50	<2.0	<1.0	5.9	184
MP-1	06/03/04	N	--	--	--	--	--	16,800	<500	<0.50	<2.0	<1.0	9.5	246
MP-1	12/01/04	N	--	--	--	--	--	14,800	<500	<0.50	<2.0	1.7	16	246
MP-1	06/03/05	N	--	--	--	--	--	17,400	<500	<0.50	<2.0	3.1	29	178
MP-1	11/21/05	N	--	--	--	--	--	9,900	500	<0.50	<2.0	<1.0	17	32
MP-1	06/15/06	N	--	--	--	--	--	11,200	<500	<0.50	<2.0	<1.0	18	<20
MP-1	12/19/06	N	--	--	--	--	--	2,700	<500	<0.50	<2.0	<1.0	7.2	114
MP-1	05/30/07	N	--	--	--	--	--	6,100	<500	<0.50	<2.0	<1.0	19	120
MP-1	10/30/07	removed from sampling schedule due to well obstruction					--	--	--	--	--	--	--	--
MP-1	02/02/11	--	2,354.90	3.96	--	2350.94	--	--	--	--	--	--	--	--
MP-1	04/26/11	--	2,354.90	4.20	--	2350.70	--	--	--	--	--	--	--	--
MP-1	07/12/11	--	2,354.90	DRY	--	--	--	--	--	--	--	--	--	--
MP-1	10/28/11	--	2,354.90	Obstruction in Well at 4.59 Feet					--	--	--	--	--	--
MP-1	10/09/13	--	2,354.90	Well Decommissioned					--	--	--	--	--	--
MP-1R	10/12/13	N	2,354.78	4.86	--	2349.92	3,210	1,200	<400	<1.0	<1.0	<1.0	13.9	16.3
MP-1R	03/11/14	N	2,354.78	2.15	--	2352.63	1,260	500	500	<1.0	<1.0	<1.0	<3.0	<4.0
MP-1R	03/11/14	FD	--	--	--	--	1,300	520	640	<1.0	<1.0	<1.0	<3.0	<4.0
MP-1R	06/03/14	N	2,354.78	4.95	--	2349.83	3,890	1,400	<420	<1.0	<1.0	<1.0	13.5	10.6
MP-1R	04/06/17	N	2,354.78	3.58	--	2351.20	430	290	110 J	<0.5	<0.5	<0.5	<0.5	<1.0
MP-1R	04/06/17	FD	--	--	--	--	450	250	80 J	<0.5	<0.5	<0.5	<0.5	<1.0
MP-1R	09/14/17	N	2,354.78	4.79	--	2,349.99	2,200	1,400	140 J	<1	<1	<1	<1	5
MP-1R	03/21/18	N	2354.78	3.88	--	2350.90	540	280	<260	--	--	--	--	--
MP-1R	06/21/18	N	2354.78	4.79	--	2349.99	1,900	1,500	<270	--	--	--	--	--
MP-1R	06/21/18	FD	--	--	--	--	1,900	1,400	<260	--	--	--	--	--
MP-1R	09/21/18	N	2354.78	4.91	--	2349.87	1,600	1,400	<270	--	--	--	--	--
MP-1R	12/06/18	N	2354.78	4.27	--	2350.51	2,800	1,400	<260	--	--	--	--	--
MP-1R	03/06/19	N	2354.78	4.31	--	2350.47	700	360	<260	--	--	--	--	--
MP-1R	03/06/19	FD	2354.78	4.31	--	2350.47	710	380	<260	--	--	--	--	--
MP-1R	05/21/19	N	2354.78	4.20	--	2350.58	1,200	1,200	<250	--	--	--	--	--

Table 1A

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Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							TPHg 800 ug/L	TPHd 500 ug/L	TPHo 500 ug/L	B 5 ug/L	T 1000 ug/L	E 700 ug/L	X 1000 ug/L	Naph 160 ug/L
				MTCA Method A Screening Levels (Shallow GW)										
MP-1R	05/21/19	FD	2354.78	4.20	--	2350.58	1,300	1,300	<270	--	--	--	--	--
MP-1R	08/21/19	N	2354.78	4.61	--	2350.17	2,700	1,200	<270	--	--	--	--	--
MP-1R	10/30/19	N	2354.78	4.42	--	2350.36	2,900	1,600	<260	--	--	--	--	--
MP-1R	03/05/20	N	2354.78	4.21	--	2350.57	550	350	<250	<1	<1	<1	<6	--
MP-1R	06/03/20	N	2354.78	4.12	--	2350.66	2,000	2,200	170 J	<1.0	<1.0	<1.0	<6.0	--
MP-1R	09/03/20	N	2354.78	4.76	--	2350.02	2,200	630	<1,300	<1.0	<1.0	<1.0	<6.0	--
MP-1R	03/31/21	N	2357.78	4.45	--	2353.33	2,100	2,400	<260	<1.0	<1.0	<1.0	<6.0	--
MP-1R	11/16/21	N	2354.78	4.20	--	2350.58	1,500	1,600	<250	<1.0	<1.0	<1.0	<1.0	--
MW-2	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	03/25/02	N	--	--	--	--	--	19,800	<750	<0.50	<2.0	<1.0	11	216
MW-2	06/04/02	N	--	--	--	--	--	22,100	<500	<0.50	<2.0	<1.0	8.2	1,320
MW-2	08/20/02	N	--	--	--	--	--	4,970	<500	<0.50	<2.0	<1.0	6.7	156
MW-2	10/29/02	N	--	--	--	--	--	13,700	<500	<0.50	<2.0	<1.0	6.1	199
MW-2	10/29/02	FD	--	--	--	--	--	15,400	<500	<0.50	<2.0	<1.0	9.3	328
MW-2	02/19/03	N	--	--	--	--	--	10,400	<500	<0.50	<2.0	<1.0	<1.5	140
MW-2	06/05/03	N	--	--	--	--	--	4,570	<500	<0.50	<2.0	<1.0	2.0	134
MW-2	06/05/03	FD	--	--	--	--	--	4,320	<500	<0.50	<2.0	<1.0	2.4	182
MW-2	09/09/03	N	--	--	--	--	--	2,560	<500	<0.50	<2.0	<1.0	<1.5	203
MW-2	09/09/03	FD	--	--	--	--	--	2,440	<500	<0.50	<2.0	<1.0	<1.5	204
MW-2	12/10/03	N	--	--	--	--	--	42,100	<500	<0.50	<2.0	<1.0	<1.5	282
MW-2	06/03/04	N	--	--	--	--	--	6,000	<500	<0.50	2.6	<1.0	6.0	162
MW-2	06/03/04	FD	--	--	--	--	--	6,500	<500	<0.50	2.1	<1.0	5.4	170
MW-2	12/01/04	N	--	--	--	--	--	2,410	<500	<0.50	<2.0	<1.0	5.2	38
MW-2	06/03/05	N	--	--	--	--	--	2,810	<500	<0.50	<2.0	<1.0	<1.5	129
MW-2	06/03/05	FD	--	--	--	--	--	2,910	<500	<0.50	<2.0	<1.0	5.2	129
MW-2	11/21/05	N	--	--	--	--	--	3,440	<500	<0.50	<2.0	<1.0	<1.5	24
MW-2	11/21/05	FD	--	--	--	--	--	3,680	500	<0.50	<2.0	<1.0	<1.5	23
MW-2	06/15/06	N	--	--	--	--	--	2,750	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-2	06/16/06	FD	--	--	--	--	--	11,200	<500	<0.50	<2.0	<1.0	18	<20
MW-2	12/19/06	N	--	--	--	--	--	2,340	<500	<0.50	<2.0	<1.0	2.6	95
MW-2	05/30/07	N	--	--	--	--	--	2,790	<500	<0.50	<2.0	<1.0	1.7	98
MW-2	10/30/07	N	--	--	--	--	2,600	1,800	140	<0.50	<0.70	<0.80	<0.80	<1.0
MW-2	06/24/08	N	--	--	--	--	1,600	830	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-2	12/03/08	N	--	--	--	--	1,800	700	<69	<0.50	<0.70	<0.80	<0.80	<1.0
MW-2	06/03/09	N	--	--	--	--	1,730	620	<58	<0.12	<0.21	<0.20	<0.15	--
MW-2	11/10/09	N	--	--	--	--	2,230	821	<379	<1.0	<1.0	<1.0	<3.0	3.2
MW-2	02/02/10	N	--	--	--	--	1,450	940	<388	<1.0	<1.0	<1.0	<3.0	3.9
MW-2	05/18/10	N	--	--	--	--	1,330	1,870	<392	<1.0	<1.0	<1.0	<3.0	<1.0

Table 1A

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Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							TPHg 800 ug/L	TPHd 500 ug/L	TPHo 500 ug/L	B 5 ug/L	T 1000 ug/L	E 700 ug/L	X 1000 ug/L	Naph 160 ug/L
MW-2	08/09/10	N	--	--	--	--	1,200	831	<396	<1.0	<1.0	<1.0	<3.0	--
MW-2	11/01/10	N	--	--	--	--	1,680	2,080	<388	<1.0	<1.0	<1.0	<3.0	--
MW-2	02/02/11	N	--	--	--	--	1,700	1,170	<385	<1.0	<1.0	<1.0	<3.0	--
MW-2	04/26/11	N	--	--	--	--	3,280	562	<392	<1.0	<1.0	<1.0	<3.0	--
MW-2	07/12/11	N	--	--	--	--	1,020	700	<408	<1.0	<1.0	<1.0	<3.0	--
MW-2	10/27/11	N	--	--	--	--	2,000	920	<410	<1.0	<1.0	<1.0	<3.0	--
MW-2	07/02/12	N	2,354.55	4.83	--	2349.72	1,960	580	<380	<1.0	<1.0	<1.0	<3.0	<1.0
MW-2	10/10/12	N	2,354.55	5.06	--	2349.49	1,500	680	<840	<1.0	<1.0	<1.0	<3.0	7.4
MW-2	03/13/13	N	2,354.55	4.61	--	2349.94	1,060	620	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	05/15/13	N	2,354.55	5.09	--	2349.46	1,220	990	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	08/06/13	N	2,354.55	4.68	--	2350.51	924	560	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	10/11/13	N	2,355.19	5.19	--	2350.00	833	910	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	03/11/14	N	2,355.19	3.21	--	2351.98	1,900	910	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	06/03/14	N	2,355.19	5.10	--	2350.09	1,870	610	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	04/06/17	N	2,355.19	4.18	--	2351.01	1,500	1,200	<73	<0.5	<0.5	<0.5	<0.5	2.0
MW-2	09/14/17	N	2,355.19	4.89	--	2,350.30	1,200	720	<260	<1	<1	<1	<1	<4
MW-2	03/21/18	N	2355.19	4.45	--	2350.74	940	380	<250	--	--	--	--	--
MW-2	06/21/18	N	2355.19	4.78	--	2350.41	1,000	540	<280	--	--	--	--	--
MW-2	09/21/18	N	2355.19	5.02	--	2350.17	810	740	<270	--	--	--	--	--
MW-2	12/06/18	N	2355.19	4.57	--	2350.62	1,400	510	<250	--	--	--	--	--
MW-2	12/06/18	FD	2355.19	4.57	--	2350.62	1,400	400	<260	--	--	--	--	--
MW-2	03/06/19	N	2355.19	4.70	--	2350.49	1,300	410	<270	--	--	--	--	--
MW-2	05/21/19	N	2355.19	4.36	--	2350.83	1,200	620	<260	--	--	--	--	--
MW-2	08/21/19	N	2355.19	4.55	--	2350.64	1,500	540	<260	--	--	--	--	--
MW-2	10/30/19	N	2355.19	4.49	--	2350.70	1,800	700	<310	--	--	--	--	--
MW-2	10/30/19	FD	2355.19	4.49	--	2350.70	1,700	690	<280	--	--	--	--	--
MW-2	03/05/20	N	2355.19	4.65	--	2350.54	1,200	410	<260	<1	<1	<1	<6	--
MW-2	03/05/20	FD	2355.19	4.65	--	2350.54	1,100	460	<260	<1	<1	<1	<6	--
MW-2	06/03/20	N	2355.19	4.33	--	2350.86	780	710	<260	<1.0	<1.0	<1.0	<6.0	--
MW-2	09/03/20	N	2355.19	4.70	--	2350.49	1,100	630	<270	<1.0	<1.0	<1.0	<6.0	--
MW-2	03/31/21	N	2355.19	4.92	--	2350.27	990	720	<260	<1.0	<1.0	<1.0	<6.0	--
MW-2	11/16/21	N	2355.19	4.50	--	2350.69	1,300	730	<250	<1.0	<1.0	<1.0	<1.0	--
MW-3	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	03/25/02	N	--	--	--	--	--	<250	<750	<0.50	<2.0	<1.0	<1.5	<20
MW-3	06/04/02	N	--	--	--	--	--	267	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	08/02/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	10/29/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	02/19/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20

Table 1A

Summary of Groundwater Monitoring Data - Shallow Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							TPHg 800 ug/L	TPHd 500 ug/L	TPHo 500 ug/L	B 5 ug/L	T 1000 ug/L	E 700 ug/L	X 1000 ug/L	Naph 160 ug/L
MW-3	06/05/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	09/09/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	12/10/03	N	--	--	--	--	--	<250	<500	<1.5	<2.0	<1.0	<1.5	<20
MW-3	06/03/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	12/01/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	06/03/05	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	11/21/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	06/15/06	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	12/19/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/30/07	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	10/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	06/24/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	12/03/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	06/03/09	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/10/09	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	02/02/10	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/18/10	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	08/09/10	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/01/10	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	02/02/11	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	04/26/11	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	07/12/11	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	10/27/11	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	07/02/12	N	2,355.18	4.92	--	2350.26	NS	--	--	--	--	--	--	--
MW-3	10/11/12	N	2,355.18	5.17	--	2350.01	<50	<160	<820	<1.0	<1.0	<1.0	<3.0	<1.0
MW-3	03/13/13	NS	2,355.18	4.68	--	2350.50	--	--	--	--	--	--	--	--
MW-3	05/15/13	N	2,355.18	5.16	--	2350.02	<100	<390	<390	<1.0	<1.0	<1.0	<3.0	<4.0
MW-3	08/06/13	NS	2,355.18	4.64	--	2350.80	--	--	--	--	--	--	--	--
MW-3	10/11/13	N	2,355.44	5.28	--	2350.16	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-3	03/11/14	NS	2,355.44	3.52	--	2351.92	--	--	--	--	--	--	--	--
MW-3	06/03/14	N	2,355.44	4.98	--	2350.46	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-3	04/06/17	N	2,355.44	4.28	--	2351.16	<50	<28	<66	<0.5	<0.5	<0.5	<0.5	<1.0
MW-3	09/14/17	N	2,355.44	4.89	--	2,350.55	<250	<100	<260	<1	<1	<1	<1	<4
MW-3	12/06/18	NS	2355.44	--	--	--	--	--	--	--	--	--	--	--
MW-3	03/06/19	NS	2355.44	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/21/19	NS	2355.44	--	--	--	--	--	--	--	--	--	--	--
MW-3	08/21/19	NS	2355.44	--	--	--	--	--	--	--	--	--	--	--
MW-3	10/30/19	NS	2355.44	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/16/21	N	2355.44	4.56	--	2350.88	--	--	--	--	--	--	--	--

Table 1A

Summary of Groundwater Monitoring Data - Shallow Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW MTCA Method A Screening Levels (Shallow GW)	HYDROCARBONS			PRIMARY VOCs					
					SPH 800	GWE 500 ug/L	TPHg 500 ug/L	TPHd 500 ug/L	TPHo 5 ug/L	B 1000 ug/L	T 700 ug/L	E 1000 ug/L	X 160 ug/L
					--	--	--	--	--	--	--	--	--
MW-4	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--
MW-4	03/25/02	N	--	--	--	--	10,600	<750	1.1	3.2	<1.0	1.9	526
MW-4	03/26/02	N	--	--	--	--	5,770	<750	<0.50	<2.0	<1.0	<1.5	344
MW-4	06/04/02	N	--	--	--	--	11,400	<500	<0.50	<2.0	<1.0	<1.5	432
MW-4	06/05/02	N	--	--	--	--	12,500	<500	<0.50	<2.0	1.1	1.6	278
MW-4	08/20/02	N	--	--	--	--	1,500	<500	<0.50	<2.0	<1.0	<1.5	43
MW-4	10/29/02	N	--	--	--	--	2,220	<500	<0.50	<2.0	<1.0	<1.5	72
MW-4	02/19/03	N	--	--	--	--	1,570	<500	<0.50	<2.0	<1.0	<1.5	22
MW-4	06/05/03	N	--	--	--	--	720	<500	<0.50	<2.0	<1.0	<1.5	40
MW-4	09/09/03	N	--	--	--	--	890	<500	<0.50	<2.0	<1.0	<1.5	61
MW-4	12/10/03	N	--	--	--	--	2,750	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-4	06/03/04	N	--	--	--	--	710	<500	<0.50	<2.0	<1.0	<1.5	41
MW-4	12/01/04	N	--	--	--	--	620	<500	0.69	<2.0	<1.0	<1.5	22
MW-4	06/03/05	N	--	--	--	--	370	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-4	11/21/05	N	--	--	--	--	920	<500	<0.50	<2.0	<1.0	<1.5	27
MW-4	06/15/06	N	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-4	12/19/06	N	--	--	--	--	360	<500	<0.50	<2.0	<1.0	<1.5	31
MW-4	12/19/06	FD	--	--	--	--	380	<500	<0.50	<2.0	<1.0	<1.5	27
MW-4	05/30/07	N	--	--	--	--	449	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-4	05/30/07	FD	--	--	--	--	445	<500	<0.50	<2.0	<1.0	<1.5	27
MW-4	10/30/07	N	--	--	--	700	--	--	<0.50	<0.70	<0.80	<0.80	1.0
MW-4	10/30/07	FD	--	--	--	660	650	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-4	06/24/08	N	--	--	--	190	200	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-4	12/03/08	N	--	--	--	330	200	<66	<0.50	<0.70	<0.80	<0.80	<1.0
MW-4	06/03/09	N	--	--	--	193	120	<59	<0.12	<0.21	<0.20	<0.15	--
MW-4	11/10/09	N	--	--	--	380	363	<381	<1.0	<1.0	<1.0	<3.0	2.9
MW-4	02/02/10	N	--	--	--	162	286	<388	<1.0	<1.0	<1.0	<3.0	2.7
MW-4	05/18/10	N	--	--	--	227	650	<392	<1.0	<1.0	<1.0	<3.0	<1.0
MW-4	08/09/10	N	--	--	--	156	123	<385	<1.0	<1.0	<1.0	<3.0	--
MW-4	11/01/10	N	--	--	--	374	277	<388	<1.0	<1.0	<1.0	<3.0	--
MW-4	02/02/11	N	--	--	--	137	201	<392	<1.0	<1.0	<1.0	<3.0	--
MW-4	04/26/11	N	--	--	--	1,010	185	<392	<1.0	<1.0	<1.0	<3.0	--
MW-4	07/12/11	N	--	--	--	510	210 J	<392	<1.0	<1.0	<1.0	<3.0	--
MW-4	10/27/11	N	--	--	--	173	340	<380	<1.0	<1.0	<1.0	<3.0	--
MW-4	07/02/12	N	2,356.37	5.85	--	2350.52	241	180	<380	<1.0	<1.0	<1.0	<3.0
MW-4	10/09/12	N	2,356.37	6.15	--	2350.22	113	<160	<810	<1.0	<1.0	<1.0	5.1
MW-4	03/13/13	N	2,356.37	5.62	--	2350.75	<100	<410	<410	<1.0	<1.0	<1.0	<4.0
MW-4	05/15/13	N	2,356.37	6.05	--	2350.32	136	<390	<390	<1.0	<1.0	<1.0	<4.0

Table 1A

Summary of Groundwater Monitoring Data - Shallow Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							TPHg 800 ug/L	TPHd 500 ug/L	TPHo 500 ug/L	B 5 ug/L	T 1000 ug/L	E 700 ug/L	X 1000 ug/L	Naph 160 ug/L
MTCA Method A Screening Levels (Shallow GW)														
MW-4	08/06/13	N	2,356.37	5.68	--	2350.76	120	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	10/09/13	N	2,356.44	6.17	--	2350.27	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	03/11/14	N	2,356.44	4.70	--	2351.74	192	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	06/03/14	N	2,356.44	5.93	--	2350.51	277	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	04/03/17	N	2,356.44	5.09	--	2351.35	J200	190	<75	<0.5	<0.5	<0.5	<0.5	<1.0
MW-4	09/14/17	N	2,356.44	6.27	--	2,350.17	270	260	<260	<1	<1	<1	<1	<4
MW-4	03/21/18	NS	2356.44	5.47	--	2350.97	--	--	--	--	--	--	--	--
MW-4	06/21/18	NS	2356.44	5.80	--	2350.64	--	--	--	--	--	--	--	--
MW-4	09/21/18	NS	2356.44	6.07	--	2350.37	--	--	--	--	--	--	--	--
MW-4	12/06/18	NS	2356.44	5.61	--	2350.83	--	--	--	--	--	--	--	--
MW-4	03/06/19	NS	2356.44	5.76	--	2350.68	--	--	--	--	--	--	--	--
MW-4	05/21/19	NS	2356.44	5.47	--	2350.97	--	--	--	--	--	--	--	--
MW-4	08/21/19	NS	2356.44	5.69	--	2350.75	--	--	--	--	--	--	--	--
MW-4	10/30/19	NS	2356.44	5.75	--	2350.69	--	--	--	--	--	--	--	--
MW-4	03/05/20	NS	2356.44	5.69	--	2350.75	--	--	--	--	--	--	--	--
MW-4	06/03/20	NS	2356.44	5.44	--	2351.00	--	--	--	--	--	--	--	--
MW-4	09/03/20	NS	2356.44	5.75	--	2350.69	--	--	--	--	--	--	--	--
MW-4	11/16/21	N	2356.44	5.50	--	2350.94	--	--	--	--	--	--	--	--
MW-5	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	03/25/02	N	--	--	--	--	--	1,360	<750	19.1	121	16	123	27
MW-5	06/04/02	N	--	--	--	--	--	2,720	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	08/20/02	N	--	--	--	--	--	774	<500	<0.50	<2.0	<1.0	1.6	<20
MW-5	10/29/02	N	--	--	--	--	--	2,580	<500	<0.50	<2.0	<1.0	<1.5	56
MW-5	02/19/03	N	--	--	--	--	--	1,510	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	06/05/03	N	--	--	--	--	--	596	<500	<0.50	<2.0	<1.0	<1.5	28
MW-5	09/09/03	N	--	--	--	--	--	--	--	<0.50	<2.0	<1.0	<1.5	40
MW-5	12/10/03	N	--	--	--	--	--	5,040	800	<0.50	<2.0	<1.0	<1.5	<20
MW-5	06/03/04	N	--	--	--	--	--	360	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	12/01/04	N	--	--	--	--	--	4,600	<500	1.8	<2.0	<1.0	<1.5	28
MW-5	06/03/05	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	11/21/05	N	--	--	--	--	--	2,150	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	06/15/06	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	12/19/06	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	05/30/07	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	10/30/07	N	--	--	--	--	--	250	2,500	<94	<0.50	<0.70	<0.80	<1.0
MW-5	06/24/08	N	--	--	--	--	--	<50	170	<94	<0.50	<0.70	<0.80	<1.0
MW-5	12/03/08	N	--	--	--	--	--	240	73	<68	<0.50	<0.70	<0.80	<1.0
MW-5	06/03/09	N	--	--	--	--	--	<13	<36	<59	<0.12	<0.21	<0.20	<0.15

Table 1A

Summary of Groundwater Monitoring Data - Shallow Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							TPHg 800 ug/L	TPHd 500 ug/L	TPHo 500 ug/L	B 5 ug/L	T 1000 ug/L	E 700 ug/L	X 1000 ug/L	Naph 160 ug/L
				MTCA Method A Screening Levels (Shallow GW)										
MW-5	11/10/09	N	--	--	--	--	<50	315	<381	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	02/02/10	N	--	--	--	--	<50	81	<388	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	05/18/10	N	--	--	--	--	<50	126	<396	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	08/09/10	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	11/01/10	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	--
MW-5	02/02/11	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	--
MW-5	04/26/11	N	--	--	--	--	<50	<77	<385	<1.0	<1.0	<1.0	<3.0	--
MW-5	07/12/11	N	--	--	--	--	<50	<78	<392	<1.0 UJ	<1.0 UJ	<1.0 UJ	<3.0 UJ	--
MW-5	10/27/11	N	--	--	--	--	<50	990	<400	<1.0	<1.0	<1.0	<3.0	--
MW-5	07/02/12	N	2,354.81	4.73	--	2350.08	<50	<78	<390	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	10/09/12	N	2,354.81	5.06	--	2349.75	<50	<170	<830	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	03/13/13	N	2,354.81	4.51	--	2350.30	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	05/15/13	N	2,354.81	5.01	--	2349.80	<100	<390	<390	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	08/06/13	N	2,354.81	4.67	--	2350.44	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	10/09/13	N	2355.11	5.05	--	2350.06	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	03/11/14	N	2355.11	3.40	--	2351.71	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	06/03/14	N	2355.11	5.05	--	2350.06	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	04/03/17	N	2355.11	3.95	--	2351.16	<50	<30	<69	<0.5	<0.5	<0.5	<0.5	<1.0
MW-5	09/14/17	N	2355.11	4.89	--	2350.22	<250	<100	<260	<1	<1	<1	<1	<4
MW-5	03/21/18	NS	2355.11	4.39	--	2350.72	--	--	--	--	--	--	--	--
MW-5	06/21/18	NS	2355.11	4.84	--	2350.27	--	--	--	--	--	--	--	--
MW-5	09/21/18	NS	2355.11	4.97	--	2350.14	--	--	--	--	--	--	--	--
MW-5	12/06/18	NS	2355.11	4.55	--	2350.56	--	--	--	--	--	--	--	--
MW-5	03/06/19	NS	2355.11	--	--	--	--	--	--	--	--	--	--	--
MW-5	05/21/19	NS	2355.11	4.47	--	2350.64	--	--	--	--	--	--	--	--
MW-5	08/21/19	NS	2355.11	4.66	--	2350.45	--	--	--	--	--	--	--	--
MW-5	10/30/19	NS	2355.11	4.69	--	2350.42	--	--	--	--	--	--	--	--
MW-5	03/05/20	NS	2355.11	4.62	--	2350.49	--	--	--	--	--	--	--	--
MW-5	06/03/20	NS	2355.11	4.44	--	2350.67	--	--	--	--	--	--	--	--
MW-5	09/03/20	NS	2355.11	4.72	--	2350.39	--	--	--	--	--	--	--	--
MW-5	11/16/21	N	2355.11	4.45	--	2350.66	--	--	--	--	--	--	--	--
MW-10	10/30/19	NS	2354.38	Dry	--	--	--	--	--	--	--	--	--	--
MW-10	03/05/20	NS	2354.38	Dry	--	--	--	--	--	--	--	--	--	--
MW-10	06/03/20	NS	2354.38	Dry	--	--	--	--	--	--	--	--	--	--
MW-10	09/03/20	NS	2354.38	Dry	--	--	--	--	--	--	--	--	--	--
MW-10	03/31/21	NS	2354.38	Dry	--	--	--	--	--	--	--	--	--	--
MW-10	11/16/21	N	2354.38	Dry	--	--	--	--	--	--	--	--	--	--

Table 1A

Summary of Groundwater Monitoring Data - Shallow Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW MTCA Method A Screening Levels (Shallow GW)	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							TPHg 800 ug/L	TPHd 500 ug/L	TPHo 500 ug/L	B 5 ug/L	T 1000 ug/L	E 700 ug/L	X 1000 ug/L	Naph 160 ug/L
MW-11	10/30/19	NS	--	Dry	--	--	--	--	--	--	--	--	--	--
MW-11	03/05/20	N	2354.19	11.73	--	2342.46	<250	<100	<260	<1	<1	<1	<6	--
MW-11	06/03/20	N	2354.19	12.00	--	2342.19	26 J	71 J	<260	<1.0	<1.0	<1.0	<6.0	--
MW-11	09/03/20	NS	2354.19	Dry	--	--	--	--	--	--	--	--	--	--
MW-11	03/31/21	NS	2354.19	Dry	--	--	--	--	--	--	--	--	--	--
MW-11	11/16/21	N	2354.19	Dry	--	--	--	--	--	--	--	--	--	--

Notes:

DTW = Depth to Water in feet

GWE = Groundwater Elevation in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

TOC = Top of Casing in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

All results are in micrograms per liter ($\mu\text{g}/\text{L}$) unless otherwise indicated

TPHg = Total petroleum hydrocarbons as gasoline analyzed by NWTPH-Gx unless otherwise noted. The higher value is based on the assumption that no benzene is present in the groundwater sample. If any detectable amount of benzene is present in the groundwater sample, then the lower TPHg cleanup level is applicable.

TPHd = Total petroleum hydrocarbons as diesel, analyzed by NWTPH-Dx with silica gel cleanup unless otherwise noted.

TPHo = Total petroleum hydrocarbons as oil, analyzed by NWTPH-Dx with silica gel cleanup unless otherwise noted.

VOCs = Volatile organic compounds

BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted.

Total Xylenes = o--xylene + m,p--xylene

<x = Not detected at laboratory reporting limit x

FD = Field duplicate

N = Normal

NS = Not sampled

NM = Not measured

----- = Not analyzed

Concentrations in bold type indicate the analyte was detected above the Site-specific cleanup level.

J = Concentration is between the method detection limit (MDL) and the limit of quantitation (LOQ) and is therefore estimated.

>S = The cleanup level exceeds the saturation level; therefore, the absence of separate phase hydrocarbons (SPH) indicates compliance with the TPH cleanup level.

Table 1B

Page 1 of 14

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			800	500	500	B	T
								ug/L	ug/L	ug/L	ug/L	ug/L	E	X
													ug/L	Naph
MW-1	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	03/25/02	N	--	--	--	--	--	274	<750	<0.50	<2.0	<1.0	<1.5	<20
MW-1	06/04/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	08/20/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	10/29/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	02/19/03	N	--	--	--	--	--	9,310	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	02/19/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	06/05/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	09/09/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	12/10/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	06/03/04	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	12/01/04	N	--	--	--	--	--	<250	<500	3.6	<2.0	1.5	2.0	<20
MW-1	06/03/05	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	11/21/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	06/15/06	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	12/19/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	05/30/07	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	10/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	06/24/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	12/03/08	N	--	--	--	--	<50	<29	<68	<0.50	<0.7	<0.80	<0.80	<1.0
MW-1	06/03/09	N	--	--	--	--	<13	<35	<58	<0.12	<0.21	<0.20	<0.15	--
MW-1	11/10/09	N	--	--	--	--	<50	80	<383	<1.0M0	<1.0	<1.0	<3.0	<1.0
MW-1	02/02/10	N	--	--	--	--	<50	<77	<385	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	05/18/10	N	--	--	--	--	<50	<76	<379	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	08/09/10	N	--	--	--	--	<50	<78	<392	<1.0	<1.0	<1.0	<3.0	--
MW-1	11/01/10	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	--
MW-1	02/02/11	N	--	--	--	--	<50	<77	<385	<1.0	<1.0	<1.0	<3.0	--
MW-1	04/26/11	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	--
MW-1	07/12/11	N	--	--	--	--	<50	<78	<392	<1.0	<1.0	<1.0	<3.0	--

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			TPHg	TPHd	TPHo	B	T
							800	500	500	ug/L	ug/L	ug/L	ug/L	ug/L
MW-1	10/27/11	N	--	--	--	--	<50	<78	<390	<1.0	<1.0	<1.0	<3.0	--
MW-1	10/27/11	FD	--	--	--	--	<50	<78	<390	<1.0	<1.0	<1.0	<3.0	--
MW-1	07/02/12	N	2,354.55	31.90	--	2322.65	<50	<86	<430	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	07/02/12	FD	--	--	--	--	<50	<82	<410	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	10/10/12	N	2,354.55	36.02	--	2318.53	<50	<160	<810	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	10/10/12	FD	--	--	--	--	<50	<160	<800	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	03/13/13	FD	--	--	--	--	<100	<460	<460	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	05/15/13	N	2,354.55	32.62	--	2321.93	<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	05/15/13	FD	--	--	--	--	<100	<390	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	08/06/13	N	2,354.55	34.22	--	2320.38	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	08/06/13	FD	--	--	--	--	<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	10/11/13	N	2,354.60	35.79	--	2318.81	<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	10/11/13	FD	--	--	--	--	<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	03/11/14	N	2,354.60	35.45	--	2319.15	<100	<400	500	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	06/03/14	N	2,354.60	33.90	--	2320.70	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	06/03/14	FD	--	--	--	--	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	04/06/17	N	2,354.60	27.10	--	2327.50	<50	<29	<68	<0.5	<0.5	<0.5	<0.5	<1.0
MW-1	09/14/17	N	2,354.60	33.15	--	2,321.45	<250	<110	<270	<1	<1	<1	<1	<4
MW-1	03/21/18	NS	2354.60	29.56	--	2325.04	--	--	--	--	--	--	--	--
MW-1	06/21/18	NS	2354.60	30.57	--	2324.03	--	--	--	--	--	--	--	--
MW-1	09/21/18	NS	2354.60	33.80	--	2320.80	--	--	--	--	--	--	--	--
MW-1	12/06/18	NS	2354.60	35.37	--	2319.23	--	--	--	--	--	--	--	--
MW-1	03/06/19	NS	2354.60	32.63	--	2321.97	--	--	--	--	--	--	--	--
MW-1	05/21/19	NS	2354.60	30.75	--	2323.85	--	--	--	--	--	--	--	--
MW-1	08/21/19	NS	2354.60	33.25	--	2321.35	--	--	--	--	--	--	--	--
MW-1	10/30/19	NS	2354.60	34.69	--	2319.91	--	--	--	--	--	--	--	--
MW-1	03/05/20	NS	2354.60	31.13	--	2323.47	--	--	--	--	--	--	--	--
MW-1	06/03/20	NS	2354.60	31.99	--	2322.61	--	--	--	--	--	--	--	--
MW-1	09/03/20	NS	2354.60	33.80	--	2320.80	--	--	--	--	--	--	--	--

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			800	500	500	B	T
								ug/L	ug/L	ug/L	ug/L	ug/L	E	X
													160	Naph
MW-1	11/16/21	N	2354.60	36.52	--	2318.08	--	--	--	--	--	--	--	--
MW-5D	10/11/13	N	2,355.03	35.57	--	2319.46	614	1,100	<450	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5D	03/11/14	N	2,355.03	35.48	--	2319.55	<100	<400	700	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5D	06/03/14	N	2,355.03	33.73	--	2321.30	128	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5D	09/14/17	N	2,355.03	32.48	--	2,322.55	<250	560	<250	<1	<1	<1	<1	<4
MW-5D	03/21/18	N	2355.03	29.02	--	2326.01	69 J	370	<260	--	--	--	--	--
MW-5D	03/21/18	FD	2355.03	29.02	--	2326.01	57 J	1,600 *	2,400 *	--	--	--	--	--
MW-5D	06/21/18	N	2355.03	30.01	--	2325.02	<250	670	<260	--	--	--	--	--
MW-5D	09/21/18	N	2355.03	33.51	--	2321.52	81 J	160	<280	--	--	--	--	--
MW-5D	09/21/18	FD	2355.03	33.51	--	2321.52	<250	220	<270	--	--	--	--	--
MW-5D	12/06/18	N	2355.03	35.21	--	2319.82	<250	72 J	<260	--	--	--	--	--
MW-5D	03/06/19	N	2355.03	32.46	--	2322.57	<250	110	<260	--	--	--	--	--
MW-5D	05/21/19	N	2355.03	30.46	--	2324.57	--	--	--	--	--	--	--	--
MW-5D	08/21/19	N	2355.03	32.94	--	2322.09	<250	220	<260	--	--	--	--	--
MW-5D	08/21/19	FD	2355.03	32.94	--	2322.09	<250	250	<260	--	--	--	--	--
MW-5D	10/30/19	N	2355.03	34.50	--	2320.53	<250	130	<270	--	--	--	--	--
MW-5D	03/05/20	N	2355.03	30.94	--	2324.09	<250	78 J	<260	<1	<1	<1	<6	--
MW-5D	06/03/20	N	2355.03	31.80	--	2323.23	<250	390	120 J	<1.0	<1.0	<1.0	<6.0	--
MW-5D	09/03/20	N	2355.03	33.52	--	2321.51	45 J	250	<260	<1.0	<1.0	<1.0	<6.0	--
MW-5D Dup	09/03/20	FD	2355.03	33.52	--	2321.51	33 J	240	<270	<1.0	<1.0	<1.0	<6.0	--
MW-5D	03/31/21	N	2355.03	32.21	--	2322.82	<250	290	<260	<1.0	<1.0	<1.0	<6.0	--
MW-5D Dup	03/31/21	FD	2355.03	32.21	--	2322.82	<250	230	<250	<1.0	<1.0	<1.0	<6.0	--
MW-5D	11/16/21	N	2355.03	36.54	--	2318.49	<250	<110	<270	<1.0	<1.0	<1.0	<1.0	--
MW-6	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	03/25/02	N	--	--	--	--	--	<250	<750	<0.50	<2.0	<1.0	<1.5	<20
MW-6	06/04/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	08/20/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	10/29/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			800	500	500	B	T
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	Naph
MW-6	02/19/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	06/05/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	09/09/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	12/10/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	06/03/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	12/01/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	06/03/05	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	11/21/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	06/15/06	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	12/19/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	05/30/07	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	10/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	06/24/08	N	--	--	--	--	<50	<75	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-6	12/03/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	06/03/09	N	--	--	--	--	<13	<35	<58	<0.12	<0.21	<0.20	<0.15	--
MW-6	11/10/09	N	--	--	--	--	<50	135	<396	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	02/02/10	N	--	--	--	--	<50	<78	<392	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	05/18/10	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	08/09/10	N	--	--	--	--	<50	<78	<392	<1.0	<1.0	<1.0	<3.0	--
MW-6	11/01/10	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	--
MW-6	02/02/11	N	--	--	--	--	<50	<78	<392	<1.0	<1.0	<1.0	<3.0	--
MW-6	04/26/11	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	--
MW-6	07/12/11	N	--	--	--	--	<50	<78	<392	<1.0	<1.0	<1.0	<3.0	--
MW-6	10/27/11	N	--	--	--	--	<50	<78	<390	<1.0	<1.0	<1.0	<3.0	--
MW-6	07/02/12	N	2,355.87	32.83	--	2323.04	<50	<82	<410	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	10/09/12	N	2,355.87	35.71	--	2320.16	<50	<160	<800	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	03/13/13	N	2,355.87	32.45	--	2323.42	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-6	05/15/13	N	2,355.87	33.07	--	2322.80	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0 UJ
MW-6	08/06/13	N	2,355.87	34.91	--	2321.02	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			800	500	500	B	T
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	Naph
MW-6	10/11/13	N	2,355.93	38.50	--	2317.43	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0
MW-6	03/11/14	N	2,355.93	36.59	--	2319.34	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-6	06/03/14	N	2,355.93	34.65	--	2321.28	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-6	04/03/17	N	2,355.93	27.98	--	2327.95	<50	<30	<70	<0.5	<0.5	<0.5	<0.5	<1.0
MW-6	09/14/17	N	2,355.93	33.26	--	2,322.67	<250	<110	<260	<1	<1	<1	<1	<4
MW-6	03/21/18	NS	2355.93	30.08	--	2325.85	--	--	--	--	--	--	--	--
MW-6	06/21/18	NS	2355.93	30.93	--	2325.00	--	--	--	--	--	--	--	--
MW-6	09/21/18	NS	2355.93	34.40	--	2321.53	--	--	--	--	--	--	--	--
MW-6	12/06/18	NS	2355.93	36.13	--	2319.80	--	--	--	--	--	--	--	--
MW-6	03/06/19	NS	2355.93	33.36	--	2322.57	--	--	--	--	--	--	--	--
MW-6	05/21/19	NS	2355.93	31.18	--	2324.75	--	--	--	--	--	--	--	--
MW-6	08/21/19	NS	2355.93	33.84	--	2322.09	--	--	--	--	--	--	--	--
MW-6	10/30/19	NS	2355.93	35.45	--	2320.48	--	--	--	--	--	--	--	--
MW-6	03/05/20	NS	2355.93	31.70	--	2324.23	--	--	--	--	--	--	--	--
MW-6	06/03/20	NS	2355.93	32.64	--	2323.29	--	--	--	--	--	--	--	--
MW-6	09/03/20	NS	2355.93	34.43	--	2321.50	--	--	--	--	--	--	--	--
MW-6	11/16/21	N	2355.93	37.31	--	2318.62	--	--	--	--	--	--	--	--
MW-7	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	03/25/02	N	--	--	--	--	6,280	<750	<0.50	<2.0	<1.0	25	154	
MW-7	06/04/02	N	--	--	--	--	13,100	<500	<0.50	<2.0	<1.0	14	221	
MW-7	08/21/02	N	--	--	--	--	6,850	<500	<0.50	<2.0	<1.0	<1.5	65	
MW-7	08/21/02	N	--	--	--	--	6,100	<500	0.82	4.0	1.9	13	92	
MW-7	10/29/02	N	--	--	--	--	5,460	<500	0.70	<2.0	<1.0	9	172	
MW-7	02/19/03	N	--	--	--	--	7,390	<500	<0.50	<2.0	<1.0	6	<20	
MW-7	06/05/03	N	--	--	--	--	770	<500	0.99	<2.0	<1.0	<1.5	<20	
MW-7	09/09/03	NS	--	--	--	--	--	--	--	--	--	--	--	
MW-7	09/11/03	N	--	--	--	--	1,250	<500	<0.50	<2.0	4.7	30	81	
MW-7	12/10/03	N	--	--	--	--	7,120	<500	<0.50	<2.0	1.2	15	114	

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			800	500	500	B	T
								ug/L	ug/L	ug/L	ug/L	ug/L	E	X
													ug/L	Naph
MW-7	06/03/04	N	--	--	--	--	--	1,000	<500	<0.50	<2.0	<1.0	<1.5	48
MW-7	12/01/04	N	--	--	--	--	--	1540	<500	<0.50	<2.0	<1.0	<1.5	21
MW-7	06/03/05	N	--	--	--	--	--	830	<500	<0.50	<2.0	<1.0	<1.5	24
MW-7	11/21/05	N	--	--	--	--	--	2,970	<500	<0.50	<2.0	<1.0	<1.5	48
MW-7	06/15/06	N	--	--	--	--	--	1,410	<500	<0.50	<2.0	<1.0	<1.5	23
MW-7	12/19/06	N	--	--	--	--	--	1,300	<500	<0.50	6.42	2.74	9.43	24
MW-7	05/30/07	N	--	--	--	--	--	961	<500	0.71	<2.0	<1.0	<1.5	<20
MW-7	10/30/07	N	--	--	--	--	--	2,700	14,000	<4,700	<0.50	<0.70	<0.80	<0.80
MW-7	06/24/08	N	--	--	--	--	--	1,600	1,200	<95	<0.50	<0.70	<0.80	<1.0
MW-7	12/04/08	N	--	--	--	--	--	1,400	<29	<68	<0.50	<0.70	<0.80	<1.0
MW-7	06/04/09	N	--	--	--	--	--	155	560	<58	<0.12	<0.21	<0.20	<0.15
MW-7	11/10/09	N	--	--	--	--	--	577	7,600	<388	<1.0	<1.0	<1.0	2.7
MW-7	02/02/10	N	--	--	--	--	--	214	2,000	<377	<1.0	<1.0	<1.0	2.4
MW-7	05/18/10	N	--	--	--	--	--	717	16,900	<400	<1.0	<1.0	<1.0	<1.0
MW-7	08/09/10	N	--	--	--	--	--	928	22,100	<388	<1.0	<1.0	<1.0	--
MW-7	11/01/10	N	--	--	--	--	--	3,130	28,300	<388	<1.0	<1.0	<1.0	--
MW-7	02/02/11	N	--	--	--	--	--	704	10,700	<392	<1.0	<1.0	<1.0	--
MW-7	04/26/11	N	--	--	--	--	--	5,710	3,690	<400	<1.0	<1.0	<1.0	--
MW-7	07/12/11	N	--	--	--	--	--	278	2,540	<392	<1.0	<1.0	<1.0	--
MW-7	10/26/11	N	--	--	--	--	--	2,420	37,200	<380	<1.0	<1.0	<1.0	--
MW-7	07/02/12	N	2,356.25	31.84	--	2324.41	<50	78	<380	<1.0	<1.0	<1.0	<3.0	<1.0
MW-7	10/10/12	N	2,356.25	35.24	--	2321.01	207	350	<820	<1.0	<1.0	<1.0	<3.0	5.4
MW-7	03/13/13	N	2,356.25	31.94	--	2324.31	104	<440	<440	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	05/14/13	N	2,356.25	32.74	--	2323.51	<100	<390	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	08/06/13	N	2,356.25	34.54	--	2321.77	250	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	10/12/13	N	2,356.31	36.11	--	2320.20	410	600	<450	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	03/11/14	N	2,356.31	35.62	--	2320.69	448	430	550	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	06/04/14	N	2,356.31	34.37	--	2321.94	201	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	04/05/17	NS	2,356.31	26.25	--	2330.06	ORC sock stuck in well - unable to sample			--	--	--	--	--

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			800	500	500	B	T
								ug/L	ug/L	ug/L	ug/L	ug/L	E	X
													ug/L	Naph
MW-7	09/14/17	NS	2,356.31	33.17	--	2,323.14	ORC sock stuck in well - unable to sample			--	--	--	--	--
MW-7	03/21/18	NS	2356.31	29.59	--	2326.72	ORC sock stuck in well - unable to sample			--	--	--	--	--
MW-7	06/21/18	NS	2356.31	30.76	--	2325.55	ORC sock stuck in well - unable to sample			--	--	--	--	--
MW-7	09/21/18	NS	2356.31	34.13	--	2322.18	ORC sock stuck in well - unable to sample			--	--	--	--	--
MW-7	12/06/18	NS	2356.31	36.09	--	2320.22	--	--	--	--	--	--	--	--
MW-7	03/06/19	NS	2356.31	33.05	--	2323.26	--	--	--	--	--	--	--	--
MW-7	05/21/19	NS	2356.31	31.00	--	2325.31	--	--	--	--	--	--	--	--
MW-7	08/21/19	N	2356.31	33.67	--	2322.64	180 J	240	<310	--	--	--	--	--
MW-7	10/30/19	N	2356.31	35.36	--	2320.95	190 J	1,000	<260	--	--	--	--	--
MW-7	03/05/20	N	2356.31	31.54	--	2324.77	51 J	190	<270	<1	<1	<1	<6	--
MW-7	06/03/20	N	2356.31	32.67	--	2323.64	95 J	400	<300	<1.0	<1.0	<1.0	<6.0	--
MW-7	06/03/20	FD	2356.31	32.67	--	2323.64	60 J	270	<250	<1.0	<1.0	<1.0	<6.0	--
MW-7	09/03/20	N	2356.31	34.33	--	2321.98	89 J	570	<270	<1.0	<1.0	<1.0	<6.0	--
MW-7	03/31/21	N	2356.31	32.98	--	2323.33	<250	110	<250	<1.0	<1.0	<1.0	<6.0	--
MW-7Dup	11/16/21	N	2356.31	37.12	--	2319.19	<250	530	<260	<1.0	<1.0	<1.0	<1.0	--
MW-7Dup	11/16/21	FD	2356.31	37.12	--	2319.19	<250	290	<250	<1.0	<1.0	<1.0	<1.0	--
MW-8	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	03/25/02	N	--	--	--	--	--	<250	<750	<0.50	<2.0	<1.0	<1.5	<20
MW-8	06/04/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	08/21/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	10/29/02	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	02/19/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	06/05/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	09/09/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	09/11/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	12/10/03	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	06/03/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	12/01/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	06/03/05	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			800	500	500	B	T
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-8	11/21/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	06/15/06	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	12/19/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	05/30/07	N	--	--	--	--	--	<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	10/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	06/24/08	N	--	--	--	--	<50	<75	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-8	12/04/08	N	--	--	--	--	<50	35,000	<3,500	<0.50	<0.70	<0.80	<0.80	<1.0
MW-8	06/04/09	N	--	--	--	--	<13.4	<36	<59	<0.12	<0.21	<0.20	<0.15	--
MW-8	11/10/09	N	--	--	--	--	<50	<79	<396	<1.0	<1.0	<1.0	<3.0	<1.0
MW-8	02/02/10	N	--	--	--	--	<50	<76	<381	<1.0	<1.0	<1.0	<3.0	<1.0
MW-8	05/18/10	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	<1.0
MW-8	08/09/10	N	--	--	--	--	<50	<79	<396	<1.0	<1.0	<1.0	<3.0	--
MW-8	11/01/10	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	--
MW-8	02/02/11	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	--
MW-8	04/26/11	N	--	--	--	--	<50	<80	<400	<1.0	<1.0	<1.0	<3.0	--
MW-8	07/12/11	N	--	--	--	--	<50	<77	<385	<1.0	<1.0	<1.0	<3.0	--
MW-8	10/26/11	N	--	--	--	--	<50	<76	<380	<1.0	<1.0	<1.0	<3.0	--
MW-8	07/02/12	N	2,356.57	32.36	--	2324.21	<50	<86	<430	<1.0	<1.0	<1.0	<3.0	<1.0
MW-8	10/10/12	N	2,356.57	35.56	--	2321.01	<50	<170	<830	<1.0	<1.0	<1.0	<3.0	<1.0
MW-8	03/13/13	N	2,356.57	32.66	--	2323.91	<100	<440	<440	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	05/14/13	N	2,356.57	33.12	--	2323.45	<100	<390	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	08/06/13	N	2,356.57	34.83	--	2321.77	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	10/12/13	N	2,356.60	36.36	--	2320.24	<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	03/11/14	N	2,356.60	36.98	--	2319.62	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	06/04/14	N	2,356.60	34.75	--	2321.85	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	04/05/17	N	2,356.60	29.20	--	2327.40	<50	<30	<69	<0.5	<0.5	<0.5	<0.5	<1.0
MW-8	09/14/17	N	2,356.60	33.04	--	2,323.56	<250	<100	<250	<1	<1	<1	<1	<4
MW-8	03/21/18	NS	2356.60	30.79	--	2325.81	--	--	--	--	--	--	--	--
MW-8	06/21/18	NS	2356.60	31.11	--	2325.49	--	--	--	--	--	--	--	--

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			800	500	500	B	T
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-8	09/21/18	NS	2356.60	34.24	--	2322.36	--	--	--	--	--	--	--	--
MW-8	12/06/18	NS	2356.60	36.15	--	2320.45	--	--	--	--	--	--	--	--
MW-8	03/06/19	NS	2356.60	33.58	--	2323.02	--	--	--	--	--	--	--	--
MW-8	05/21/19	NS	2356.60	31.44	--	2325.16	--	--	--	--	--	--	--	--
MW-8	08/21/19	NS	2356.60	33.42	--	2323.18	--	--	--	--	--	--	--	--
MW-8	10/30/19	NS	2356.60	35.39	--	2321.21	--	--	--	--	--	--	--	--
MW-8	03/05/20	NS	2356.60	31.98	--	2324.62	--	--	--	--	--	--	--	--
MW-8	06/03/20	NS	2356.60	33.18	--	2323.42	--	--	--	--	--	--	--	--
MW-8	09/03/20	NS	2356.60	35.20	--	2321.40	--	--	--	--	--	--	--	--
MW-8	11/16/21	N	2356.60	37.19	--	2319.41	--	--	--	--	--	--	--	--
95-MW-11A							removed from sampling schedule due to well obstruction							
95-MW-11A	02/02/11	NS	2,357.25				Obstruction in Well at 3.25 Feet	--	--	--	--	--	--	--
95-MW-11A	04/26/11	NS	2,357.25				Obstruction in Well at 3.25 Feet	--	--	--	--	--	--	--
95-MW-11A	09/14/17	NS	2,357.25	34.47	--	2,322.78	--	--	--	--	--	--	--	--
95-MW-11A	03/21/18	NS	2357.25	30.76	--	2326.49	--	--	--	--	--	--	--	--
95-MW-11A	06/21/18	NS	2357.25	31.98	--	2325.27	--	--	--	--	--	--	--	--
95-MW-11A	09/21/18	NS	2357.25	35.48	--	2321.77	--	--	--	--	--	--	--	--
95-MW-11A	12/06/18	NS	2357.25	37.18	--	2320.07	--	--	--	--	--	--	--	--
95-MW-11A	03/06/19	NS	2357.25	34.11	--	2323.14	--	--	--	--	--	--	--	--
95-MW-11A	05/21/19	NS	2357.25	32.07	--	2325.18	--	--	--	--	--	--	--	--
95-MW-11A	08/21/19	NS	2357.25	34.87	--	2322.38	--	--	--	--	--	--	--	--
95-MW-11A	10/30/19	NS	2357.25	36.47	--	2320.78	--	--	--	--	--	--	--	--
95-MW-11B	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	03/25/02	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	06/04/02	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	10/29/02	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	02/19/03	NS	--	--	--	--	--	--	--	--	--	--	--	--

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			TPHg	TPHd	TPHo	B	T
							800	500	500	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-11B	06/05/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	09/09/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	12/10/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	06/03/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	12/01/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	06/03/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	11/21/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	06/15/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	12/19/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	05/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	10/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	06/24/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	12/03/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-11B	06/03/09	N	--	--	--	--	<13	<35	<58	<0.12	<0.21	<0.20	<0.15	--
95-MW-11B	11/10/09	N	--	--	--	--	<50	144	<381	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	02/02/10	N	--	--	--	--	<50	<76	<381	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	05/18/10	N	--	--	--	--	<50	<77	<385	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	08/09/10	N	--	--	--	--	<50	<78	<392	<1.0	<1.0	<1.0	<3.0	--
95-MW-11B	11/01/10	N	--	--	--	--	<50	<78	<388	<1.0	<1.0	<1.0	<3.0	--
95-MW-11B	02/02/11	N	--	--	--	--	<50	<79	<396	<1.0	<1.0	<1.0	<3.0	--
95-MW-11B	04/26/11	N	--	--	--	--	<50	<80	<400	<1.0	<1.0	<1.0	<3.0	--
95-MW-11B	07/12/11	N	--	--	--	--	<50	<78	<392	<1.0	<1.0	<1.0	<3.0	--
95-MW-11B	10/26/11	N	--	--	--	--	<50	<75	<380	<1.0	<1.0	<1.0	<3.0	--
95-MW-11B	07/02/12	N	2,357.78	33.82	--	2323.96	<50	<77	<380	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	10/10/12	N	2,357.78	37.18	--	2320.60	<50	<160	<810	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	03/13/13	N	2,357.78	33.67	--	2324.11	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	05/14/13	N	2,357.78	34.52	--	2323.26	<100	<450	<450	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	08/06/13	N	2,357.78	36.34	--	2321.51	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	10/12/13	N	2,357.85	37.96	--	2319.89	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<4.0

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			TPHg	TPHd	TPHo	B	T
							800	500	500	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-11B	03/12/14	N	2,357.85	38.10	--	2319.75	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	06/04/14	N	2,357.85	35.97	--	2321.88	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	04/05/17	N	2,357.85	28.38	--	2329.47	<50	<30	<70	<0.5	<0.5	<0.5	<0.5	<1.0
95-MW-11B	09/14/17	N	2,357.85	34.78	--	2,323.07	<250	<110	<260	<1	<1	<1	<1	<4
95-MW-11B	03/21/18	NS	2357.85	31.19	--	2326.66	--	--	--	--	--	--	--	--
95-MW-11B	06/21/18	NS	2357.85	32.27	--	2325.58	--	--	--	--	--	--	--	--
95-MW-11B	09/21/18	NS	2357.85	34.76	--	2323.09	--	--	--	--	--	--	--	--
95-MW-11B	12/06/18	NS	2356.71	36.51	--	2320.20	--	--	--	--	--	--	--	--
95-MW-11B	03/06/19	NS	2356.71	33.42	--	2323.29	--	--	--	--	--	--	--	--
95-MW-11B	05/21/19	NS	2356.71	31.40	--	2325.31	--	--	--	--	--	--	--	--
95-MW-11B	08/21/19	NS	2356.71	34.13	--	2322.58	--	--	--	--	--	--	--	--
95-MW-11B	10/30/19	NS	2356.71	35.92	--	2320.79	--	--	--	--	--	--	--	--
MW-12	10/30/19	NS	--	34.46	--	--	--	--	--	--	--	--	--	--
MW-12	03/05/20	N	2354.82	10.30	--	2344.52	<250	<100	<260	<1	<1	<1	<6	--
MW-12	06/03/20	N	2354.82	31.94	--	2322.88	<250	<110	<270	<1.0	<1.0	<1.0	<6.0	--
MW-12	09/03/20	N	2354.82	33.57	--	2321.25	24 J	<110	<290	<1.0	<1.0	<1.0	<6.0	--
MW-12	03/31/21	N	2354.82	32.18	--	2322.64	<250	<100	<260	<1.0	<1.0	<1.0	<6.0	--
MW-12	11/16/21	N	2354.82	36.43	--	2318.39	<250	<100	<250	<1.0	<1.0	<1.0	<1.0	--
95-MW-12A	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	03/25/02	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	06/04/02	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	10/29/02	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	02/19/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	06/05/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	09/09/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	12/10/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	06/03/04	NS	--	--	--	--	--	--	--	--	--	--	--	--

Table 1B

Page12 of 14

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			TPHg	TPHd	TPHo	B	T
							800	500	500	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-12A	12/01/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	06/03/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	11/21/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	06/15/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	12/19/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	05/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	10/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	06/24/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	12/03/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12A	06/03/09	N	--	--	--	--	<13	<35	<58	<0.12	<0.21	<0.20	<0.15	--
95-MW-12A	07/02/12	NS	2,355.12	31.23	--	2323.89	--	--	--	--	--	--	--	--
95-MW-12A	10/09/12	NS	2,355.12	34.66	--	2320.46	--	--	--	--	--	--	--	--
95-MW-12A	03/12/13	NS	2,355.12	30.97	--	2324.15	--	--	--	--	--	--	--	--
95-MW-12A	05/14/13	NS	2,355.12	32.00	--	2323.12	--	--	--	--	--	--	--	--
95-MW-12A	08/05/13	NS	2,355.12	33.74	--	2321.48	--	--	--	--	--	--	--	--
95-MW-12A	10/18/13	NS	2,355.22	35.36	--	2319.86	--	--	--	--	--	--	--	--
95-MW-12A	03/11/14	NS	2,355.22	35.02	--	2320.20	--	--	--	--	--	--	--	--
95-MW-12A	06/02/14	NS	2,355.22	33.38	--	2321.84	--	--	--	--	--	--	--	--
95-MW-12A	04/03/17	NS	2,355.22	25.76	--	2329.46	--	--	--	--	--	--	--	--
95-MW-12A	09/14/17	NS	2,355.22	32.27	--	2,322.95	--	--	--	--	--	--	--	--
95-MW-12A	03/21/18	NS	2355.22	23.53	--	2331.69	--	--	--	--	--	--	--	--
95-MW-12A	06/21/18	NS	2355.22	29.80	--	2325.42	--	--	--	--	--	--	--	--
95-MW-12A	09/21/18	NS	2355.22	33.28	--	2321.94	--	--	--	--	--	--	--	--
95-MW-12A	12/06/18	NS	2355.22	34.91	--	2320.31	--	--	--	--	--	--	--	--
95-MW-12A	03/06/19	NS	2355.22	31.85	--	2323.37	--	--	--	--	--	--	--	--
95-MW-12A	05/21/19	NS	2355.22	29.86	--	2325.36	--	--	--	--	--	--	--	--
95-MW-12A	08/21/19	NS	2355.22	32.66	--	2322.56	--	--	--	--	--	--	--	--
95-MW-12A	10/30/19	NS	2355.22	34.36	--	2320.86	--	--	--	--	--	--	--	--

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			TPHg ug/L	TPHd ug/L	TPHo ug/L	B ug/L	T ug/L
							800	500	500	5	1000	700	1000	160
95-MW-12B	08/20/01	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	03/25/02	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	06/04/02	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	10/29/02	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	02/19/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	06/05/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	09/09/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	12/10/03	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	06/03/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	12/01/04	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	06/03/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	11/21/05	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	06/15/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	12/19/06	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	05/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	10/30/07	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	06/24/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	12/03/08	NS	--	--	--	--	--	--	--	--	--	--	--	--
95-MW-12B	06/03/09	N	--	--	--	--	<13	<35	<58	<0.12	<0.21	<0.20	<0.15	--
95-MW-12B	07/02/12	NS	2,355.02	30.85	--	2324.17	--	--	--	--	--	--	--	--
95-MW-12B	10/09/12	NS	2,355.02	34.24	--	2320.78	--	--	--	--	--	--	--	--
95-MW-12B	03/12/13	NS	2,355.02	30.72	--	2324.30	--	--	--	--	--	--	--	--
95-MW-12B	05/14/13	NS	2,355.02	31.56	--	2323.46	--	--	--	--	--	--	--	--
95-MW-12B	08/05/13	NS	2,355.02	33.36	--	2321.73	--	--	--	--	--	--	--	--
95-MW-12B	10/18/13	NS	2,355.09	35.00	--	2320.09	--	--	--	--	--	--	--	--
95-MW-12B	03/11/14	NS	2,355.09	34.99	--	2320.10	--	--	--	--	--	--	--	--
95-MW-12B	06/02/14	NS	2,355.09	33.03	--	2322.06	--	--	--	--	--	--	--	--
95-MW-12B	04/03/17	NS	2,355.09	26.35	--	2328.74	--	--	--	--	--	--	--	--
95-MW-12B	09/14/17	NS	2,355.09	31.76	--	2,323.33	--	--	--	--	--	--	--	--

Table 1B

Summary of Groundwater Monitoring Data - Deep Wells
Phillips 66 Facility No. 6880
Geiger Correctional Facility
Spokane, Washington

Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	HYDROCARBONS			PRIMARY VOCs				
							MTCA Method A Cleanup Levels (Deep GW)			TPHg	TPHd	TPHo	B	T
							800	500	500	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-12B	03/21/18	NS	2355.09	28.18	--	2327.91	--	--	--	--	--	--	--	--
95-MW-12B	06/21/18	NS	2355.09	29.22	--	2325.87	--	--	--	--	--	--	--	--
95-MW-12B	09/21/18	NS	2355.09	32.81	--	2322.28	--	--	--	--	--	--	--	--
95-MW-12B	12/06/18	NS	2355.09	34.55	--	2320.54	--	--	--	--	--	--	--	--
95-MW-12B	03/06/19	NS	2355.09	32.62	--	2322.47	--	--	--	--	--	--	--	--
95-MW-12B	05/21/19	NS	2355.09	29.45	--	2325.64	--	--	--	--	--	--	--	--
95-MW-12B	08/21/19	NS	2355.09	32.15	--	2322.94	--	--	--	--	--	--	--	--
95-MW-12B	10/30/19	NS	2355.09	33.87	--	2321.22	--	--	--	--	--	--	--	--

Notes:

DTW = Depth to Water in feet

GWE = Groundwater Elevation in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

TOC = Top of Casing in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

All results are in micrograms per liter (ug/L) unless otherwise indicated

TPHg = Total petroleum hydrocarbons as gasoline analyzed by NWTPH--Gx unless otherwise noted. The higher value is based on the assumption that

no benzene is present in the groundwater sample. If any detectable amount of benzene is present in the groundwater sample, then the lower TPHg cleanup level is applicable.

TPHd = Total petroleum hydrocarbons as diesel, analyzed by NWTPH--Dx with silica gel cleanup unless otherwise noted.

TPHo = Total petroleum hydrocarbons as oil, analyzed by NWTPH--Dx with silica gel cleanup unless otherwise noted.

VOCs = Volatile organic compounds

BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted.

Total Xylenes = o--xylene + m,p--xylene

<x = Not detected at laboratory reporting limit x

FD = Field duplicate

N = Normal

NS = Not sampled

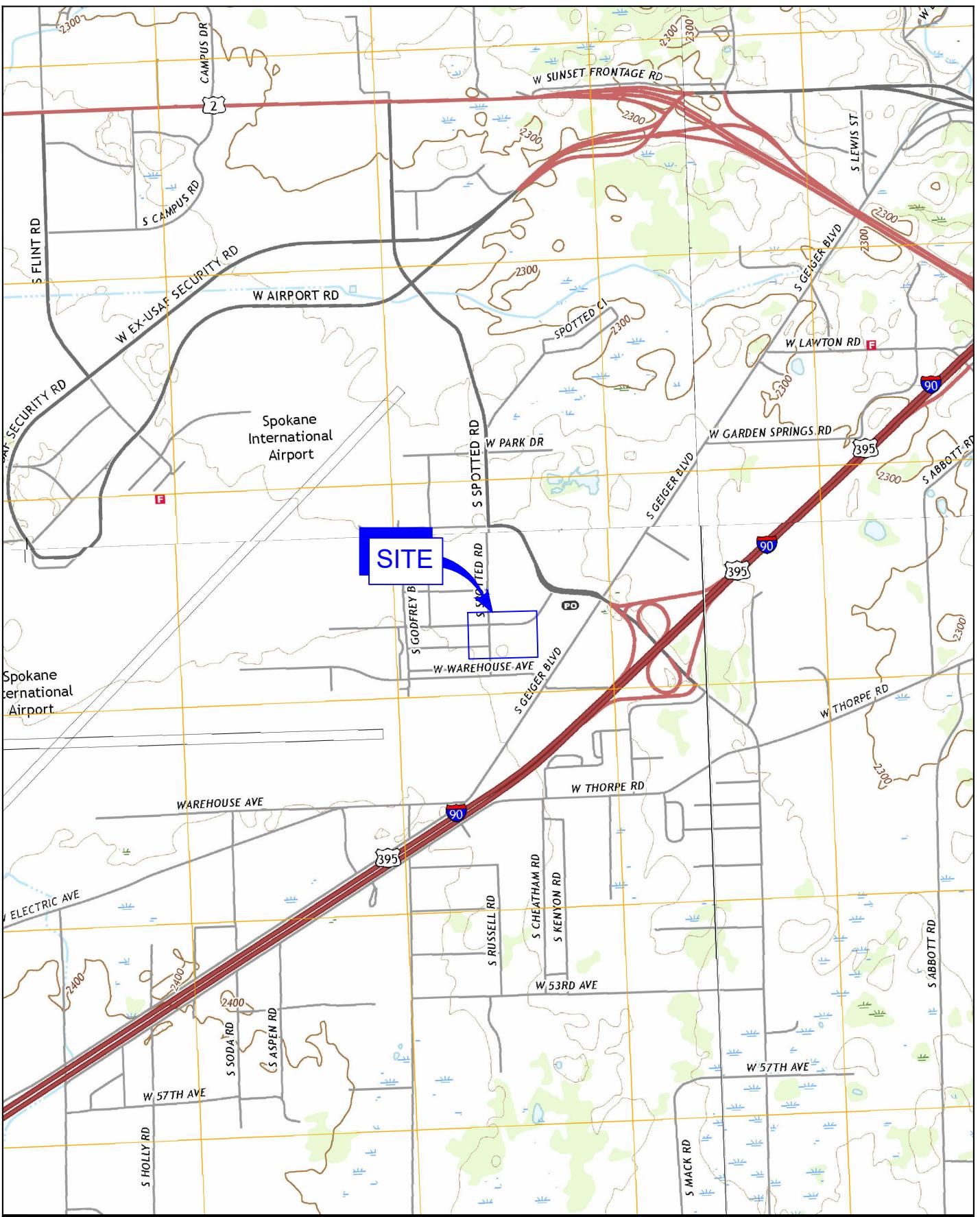
NM = Not measured

-- = Not analyzed

Concentrations in bold type indicate the analyte was detected above the Model Toxics Control Act (MTCA) Method A cleanup level

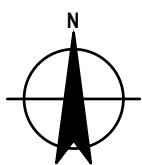
* = Field duplicate concentration is not consistent with the "parent" sample; therefore, this data is considered anomalous.

Figures



0
1000
2000 ft
1" = 2000 ft

Coordinate System:
WASHINGTON NORTH
STATE PLANE NAD83 FEET

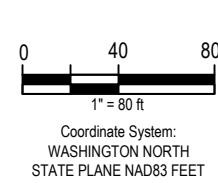
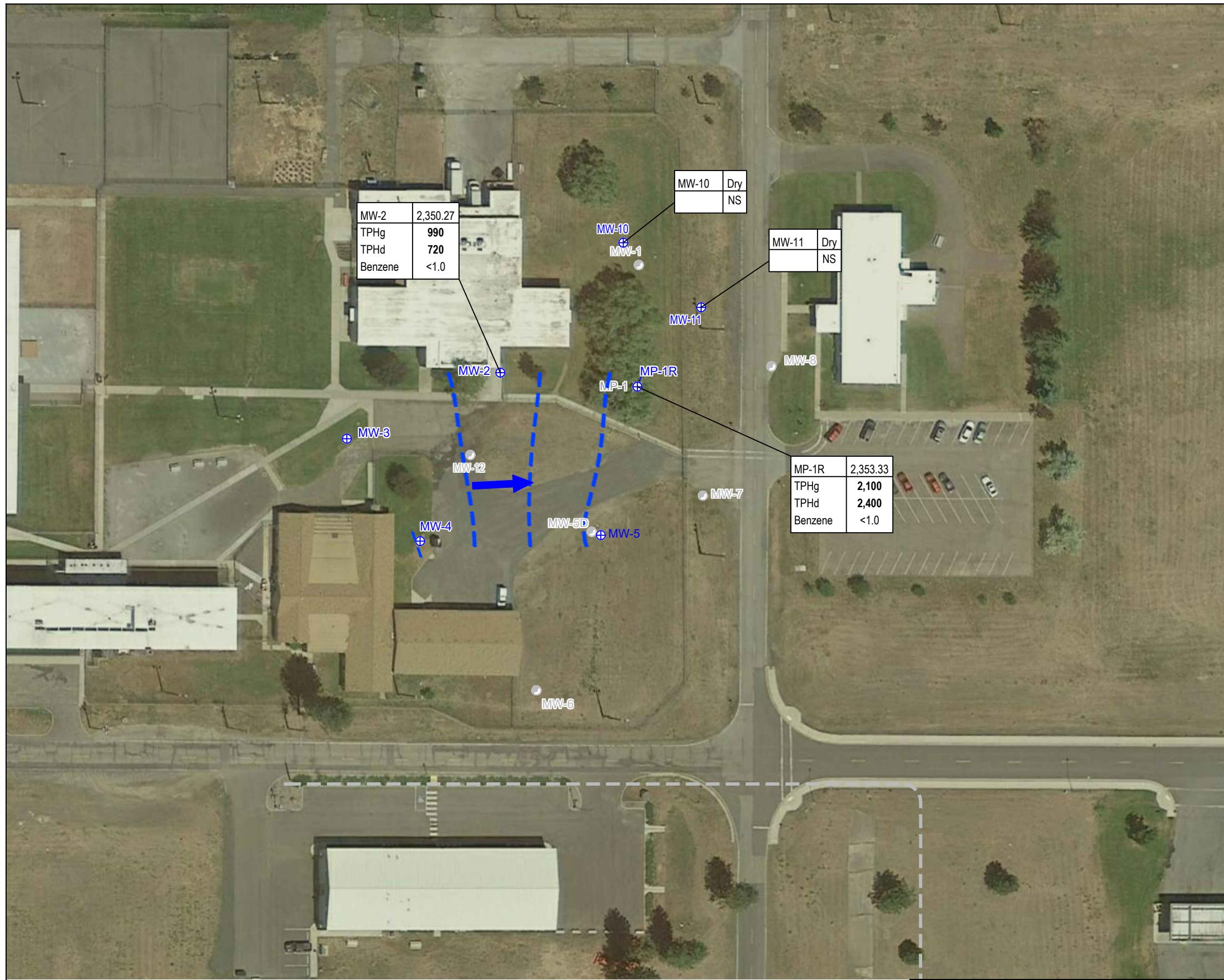


PHILLIPS 66 FACILITY NO. 6880
GEIGER CORRECTIONS FACILITY
SPOKANE, WASHINGTON

SITE LOCATION MAP

Project No. 12568368
Date March 2022

FIGURE 1

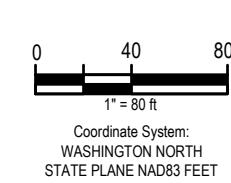
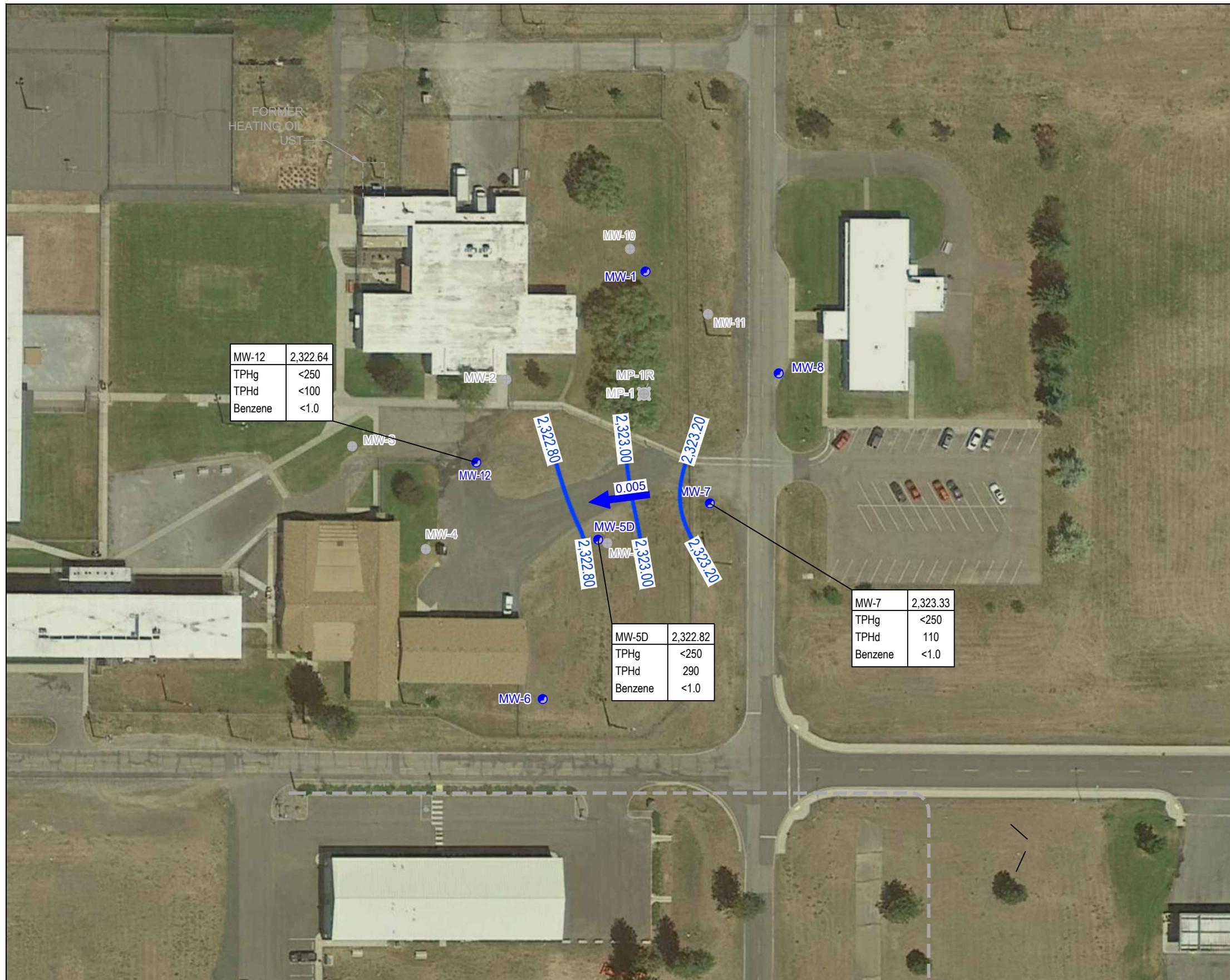


PHILLIPS 66 FACILITY NO. 6880
GEIGER CORRECTIONS FACILITY
SPOKANE, WASHINGTON

GROUNDWATER CONTOUR AND
CHEMICAL CONCENTRATION MAP
SHALLOW ZONE - MARCH 31, 2021

Project No. 12568368
Date March 2022

FIGURE 2



PHILLIPS 66 FACILITY NO. 6880
GEIGER CORRECTIONS FACILITY
SPOKANE, WASHINGTON

GROUNDWATER AND CHEMICAL CONCENTRATION MAP
DEEP ZONE - MARCH 31, 2021

Project No. 12568368
Date March 2022

FIGURE 3



LEGEND

- + MONITORING WELL LOCATION - SHALLOW
- MONITORING WELL LOCATION - DEEP
- ABANDONED MONITORING WELL LOCATION
- ABANDONED 8-INCH DOD PIPELINE

2,350.70 GROUNDWATER ELEVATION CONTOUR,
IN FEET REFERENCED TO MEAN SEA LEVEL (ft. MSL),
DASHED WHERE INFERRED

0.002 GROUNDWATER FLOW DIRECTION
AND GRADIENT

SAMPLE LOCATION
MW-2 GROUNDWATER ELEVATION (MSL)

RESULT
TPHg

730
Benzene

<1.0

PARAMETER

NOTES:

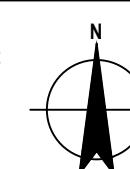
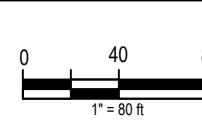
1. ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER ($\mu\text{g/L}$).
2. BOLD = EXCEEDANCE ABOVE MODEL TOXICS CONTROL ACT (MTCA) METHOD A CLEANUP LEVEL.
3. TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
4. TPHd = TOTAL PETROLEUM HYDROCARBONS AS DIESEL
5. NS = NOT SAMPLED

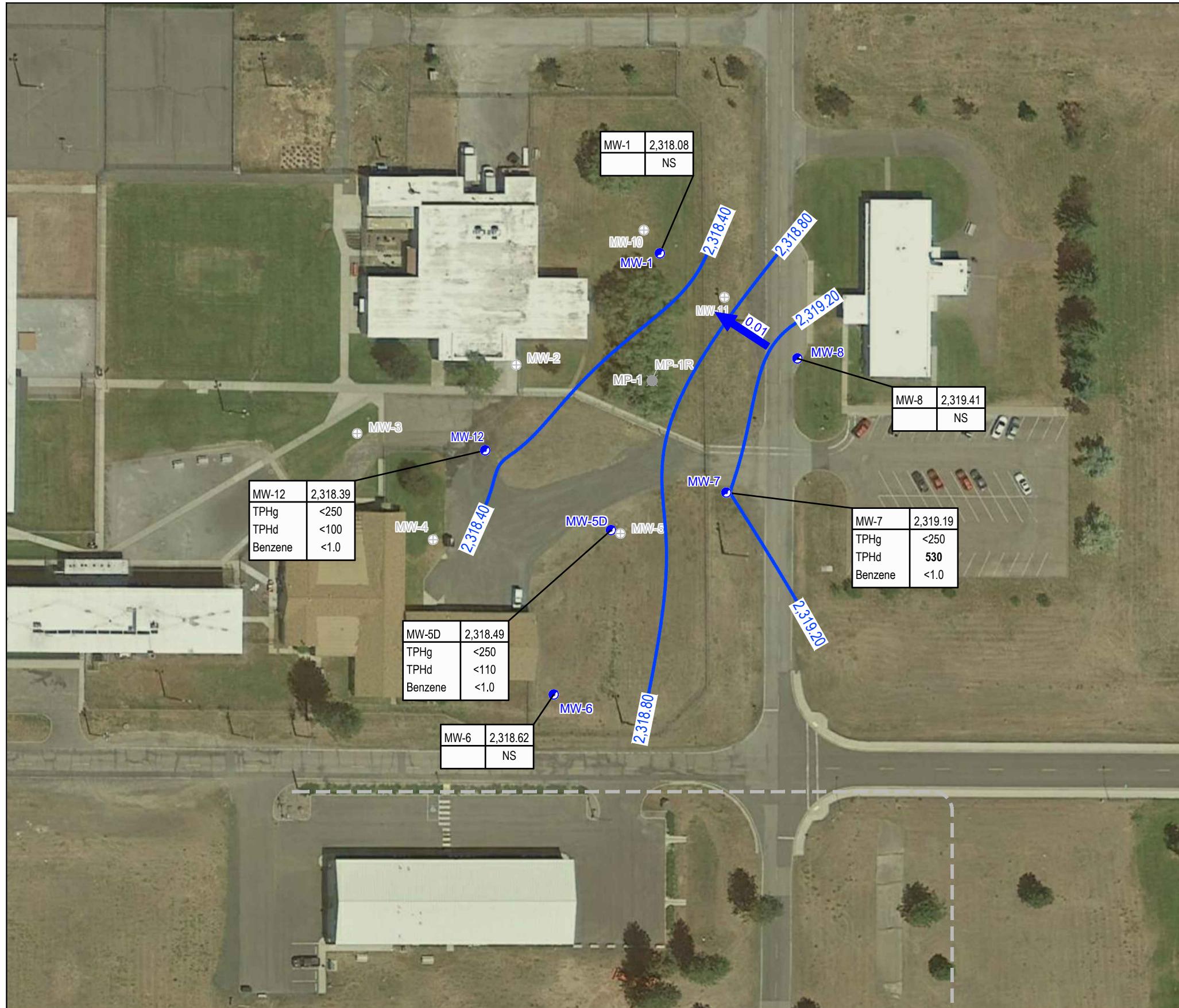
Project No. 12568368
Date March 2022

PHILLIPS 66 FACILITY NO. 6880
GEIGER CORRECTIONS FACILITY
SPOKANE, WASHINGTON



GROUNDWATER CONTOUR AND
CHEMICAL CONCENTRATION MAP -
SHALLOW ZONE - NOVEMBER 16, 2021

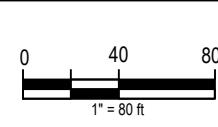




PHILLIPS 66 FACILITY NO. 6880
GEIGER CORRECTIONS FACILITY
SPOKANE, WASHINGTON

GROUNDWATER CONTOUR AND
CHEMICAL CONCENTRATION MAP -
DEEP ZONE - NOVEMBER 16, 2021

Project No. 12568368
Date March 2022



Appendices

Appendix A

Field Data Sheets



DAILY FIELD REPORT

Submit copy to Company Safety Officer

Project Name: Geiger Corrections Spokane	GHD Mgr: MO Mansoor.	Field Rep: N. Adamowski
Project Number: 11219714	Date: 3-31-21	Site Address:
General Tasks: Groundwater Sampling		
Emergency Drill Conducted:		
HASP Meeting Conducted (Y/N):	Equipment Checked (Y/N):	PID Calibrated (Y/N):

Time	Activity/Comments	SWA
0700	NA arrives on site	
	T6SM performed	
0730	Geiger Corrections grants access to site	
0830	MP-1R Sampled	
1000	MW-50 Sampled + DUP	
1015	DT/JL exit site	
1115	MW 12 Sampled	
1215	MW 7 Sampled approx 8 gal of water purged, drum stored on south portion of site near shipping container	
1300	NA exits site to ship samples / access NMS to continue sampling	

SWA Key:	1: SPSA/Task Change	2: Pedestrian in Proximity	3: Unauthorized Personnel	4: Review Work Process
5: Inspection	6: Safety Orientation	7: Uncontrollable Factor	8: Minor First Aid	9: Major (explain in notes)

Hours _____ Miles _____ Other _____ Shared _____



Tailgate Safety Meeting Form

Small Group Format - Multiple Days

Date:	3-30-21	Time:	6700	Project No.:	11221597
Presenter:	N.Adamowksi	Project Name:	NMS Spokane		

Safety topics/items discussed:

Slips trips falls, nitrile gloves when sampling Cut resistant gloves, Lee spray, watch for Spiders, highviz vests/cones near road

Emergency preparedness:

First Aid Provider(s):	EMT(911) GHD	Muster Point:	Holly facility Cell phones
AED Responder:	EMT	Method of Communication:	GHD Truck
First Aid Kit Location:	GHD Truck	Fire Extinguisher Location:	GHD Truck

Print Name	Signature	Company
A. Adamowksi Dave Trudeau	NO SIGNATURE COVID	GHD GHD

Date:	3-31-21	Time:	6700	Project No.:	11221597 / 11219714
Presenter:	N.Adamowksi	Project Name:	NMS Spokane / Geiger Corrections		

Safety topics/items discussed:

Slips trips falls, Barbed wire fence, cut resistant gloves, road traffic, pedestrian traffic,

Emergency preparedness:

First Aid Provider(s):	EMT(911) GHD	Muster Point:	Entrance/Holly facility Cell phones
AED Responder:	EMT	Fire Extinguisher Location:	GHD Truck
First Aid Kit Location:	GHD	Eye Wash Location:	GHD Truck

Print Name	Signature	Company
A. Adamowksi Lewandowski D. Trudeau	NO SIGNATURES COVID	GHD GHD GHD



FIELD NOTES REPORT

Project Number:
P66 11210714 & P66 11210717

Site Location: P66 Geiger Corrections and P66 Geiger Delivery

Date:	Arrival Time:	Departure Time:	Personnel On Site:
3/31/2021	9:00:46 AM		Joe Lewandowski

Field Notes:

0900 - Mob to the site, TGSM and calibrate equipment.

- Starting the day at Geiger corrections facility. Gauge wells and sample using low flow.

- Move over to Geiger Delivery and finish low flow sampling.

1700 - sign COC, pack samples and ship them at FedEx at the airport facility. Mob back the hotel and complete notes and charge equipment.

Well No.: MW-2

Sampling Event: 2021Q1-GW

SSOW Code:

Monitoring Well Record for Low-Flow Purging

Project Name:

Ref. No.:

Personnel: Joe Lewandowski

GHD

Date: 3/31/2021 7:24:55 AM

Monitoring Well Data

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length: User Entry

Screen Start Depth:

Ref Point Elev: 2355.19

Screen End Depth:

Static Water Depth: 4.92

Measurement Type:

Screen Length:

Static Water Elev: 2350.27

Sampling Method: Low flow

Time	Pumping Rate (ml/min)	Depth to Water (ft BREF)	Drawdown from Initial Water Level (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (gal)	No. of Well Screen Volumes Purged
			Precision Required								
3/31 7:47	120	4.92	0.00							0.0	
3/31 7:55	120	4.96	0.04	7.77	1.138	7.14	1.10	6.82	-57.2	0.26	
3/31 8:00	120	4.96	0.04	7.85	1.152	5.88	.92	6.84	-60.1	0.4	
3/31 8:05	120	4.96	0.04	8.19	1.162	6.00	.64	6.84	-61.3	0.59	
3/31 8:10	120	4.96	0.04	8.33	1.168	4.16	.56	6.85	-63.0	0.75	
3/31 8:15	120	4.96	0.04	8.15	1.171	3.43	.51	6.85	-63.7	0.91	
3/31 8:20	120	4.96	0.04	8.27	1.175	3.33	.48	6.85	-62.1	1.07	
Field Parameters:		Primary:								Total Volume Purged (gal)	1.07

Field Parameters:

Primary:

Total Volume
Purged (gal):

1.07

Iron:

Sulfide-

Secondary:

Sample ID	Type	Matrix	Comp/Grab	DateTime	Filtered	Analysis	Container #
2	N	WG	G	3/31 8:25			8

Well No.: MP-1RSampling Event: 2021-Q1

SSOW Code:

Monitoring Well Record for Low-Flow Purgung

Project Name:

Ref. No.:

Personnel: Nick AdamowskiGHDDate: 3/31/2021 8:20:19 AM**Monitoring Well Data**

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length:

Screen Start Depth:

Ref Point Elev: 2354.78

Screen End Depth:

Static Water Depth:

Measurement Type:

Screen Length:

Static Water Elev:

Sampling Method:

Time	Pumping Rate (ml/min)	Depth to Water ()	Drawdown from Initial Water Level (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (gal)	No. of Well Screen Volumes Purged
			Precision Required								
3/31 8:21	150	4.45	4.45	7.1	2.17	6.59	0.42	6.87	-210.3	0	
3/31 8:28	150	4.45	4.45	7.1	2.18	6.83	0.31	6.86	-208.9	.31	
3/31 8:33	150	4.45	4.45	7.1	2.17	6.89	0.31	6.86	-207.8	.48	

Field Parameters:	Primary:									Total Volume Purged (gal):	.48
Iron:											
Sulfide:	Secondary:										

Sample ID			Type	Matrix	Comp/Grab	Datetime	Filtered	Analysis		Container #
GW-11219714-033121-NA-MP1R			N	WG	G	3/31 8:35				8

Time	Pumping Rate (ml/min)	Depth to Water ()	Drawdown from Initial Water Level (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (gal)	No. of Well Screen Volumes Purged
3/31 8:21	150	4.45	4.45	7.1	2.17	6.59	0.42	6.87	-210.3	0	

Well No.: MW-12Sampling Event: 2021-Q1

SSOW Code:

Monitoring Well Record for Low-Flow Purgung

Project Name:

Ref. No.:

Personnel: Nick AdamowskiGHDDate: 3/31/2021 10:38:03

Monitoring Well Data

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length:

Screen Start Depth:

Ref Point Elev: 2354.82

Screen End Depth:

Static Water Depth:

Measurement Type:

Screen Length:

Static Water Elev:

Sampling Method: Bladder pump

Time	Pumping Rate (ml/min)	Depth to Water ()	Drawdown from Initial Water Level (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (gal)	No. of Well Screen Volumes Purged
			Precision Required								
3/31 10:49	150	32.18	32.18	12.2	0.85	193	1.71	6.94	-3.5	0	
3/31 10:54	150	32.18	32.18	12.2	0.84	103	1.70	6.91	-2.4	.2	
3/31 10:59	150	32.18	32.18	12.0	0.84	77.2	1.55	6.90	-2.7	.4	
3/31 11:07	150	32.18	32.18	12.1	0.83	46.9	1.38	6.90	-2.5	.7	
3/31 11:13	150	32.18	32.18	12.1	0.82	47.0	1.36	6.90	-2.4	.95	

Field Parameters:

Primary:

Total Volume Purged (gal): .95

Iron:

Sulfide:

Secondary:

Sample ID			Type	Matrix	Comp/Grab	Datetime	Filtered	Analysis		Container #
GW-11210714-033121-NA-MW12			N	WG	G	3/31 11:16				8

Time	Pumping Rate (ml/min)	Depth to Water ()	Drawdown from Initial Water Level (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (gal)	No. of Well Screen Volumes Purged
3/31 10:49	150	32.18	32.18	12.2	0.85	193	1.71	6.94	-3.5		

Well No.: MW-5DSampling Event: 2021-Q1

SSOW Code:

Monitoring Well Record for Low-Flow Puring

Project Name:

Ref. No.:

Personnel: Nick Adamowski

GHD

Date: 3/31/2021 9:27:27 AM**Monitoring Well Data**

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length:

Screen Start Depth:

Ref Point Elev: 2355.03

Screen End Depth:

Static Water Depth:

Measurement Type:

Screen Length:

Static Water Elev:

Sampling Method: Bladder pump

Time	Pumping Rate (ml/min)	Depth to Water ()	Drawdown from Initial Water Level (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (gal)	No. of Well Screen Volumes Purged
			Precision Required								
3/31 9:44	150	32.21	32.21	11.6	0.64	77.7	0.38	7.02	-58.6	0	
3/31 9:49	150	32.21	32.21	11.6	0.64	77.7	0.36	7.03	-59.3	.19	
3/31 9:54	150	32.21	32.21	11.7	0.63	75.0	0.35	7.03	-59.6	.38	

Field Parameters:

Primary:

Total Volume Purged (gal): .38

Iron:

Sulfide:

Secondary:

Sample ID	Type	Matrix	Comp/Grab	Datetime	Filtered	Analysis	Container #
-----------	------	--------	-----------	----------	----------	----------	-------------

GW-11210714-033121-NA-MW5D	N	WG	G	3/31 9:57				8

Time	Pumping Rate (ml/min)	Depth to Water ()	Drawdown from Initial Water Level (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (gal)	No. of Well Screen Volumes Purged
3/31 9:44	150	32.21	32.21	11.6	0.64	77.7	0.38	7.02	-58.6		

Well No.: MW-7Sampling Event: 2021-Q1

SSOW Code:

Monitoring Well Record for Low-Flow Purgung

Project Name:

Ref. No.:

Personnel: Nick AdamowskiGHDDate: 3/31/2021 12:05:28**Monitoring Well Data**

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length:

Screen Start Depth:

Ref Point Elev: 2356.31

Screen End Depth:

Static Water Depth:

Measurement Type:

Screen Length:

Static Water Elev:

Sampling Method: Bladder pump

Time	Pumping Rate (ml/min)	Depth to Water ()	Drawdown from Initial Water Level (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (gal)	No. of Well Screen Volumes Purged
			Precision Required								
3/31 12:05	150	32.98	32.98	11.9	5.85	22.6	0.44	6.74	-34.9	0	
3/31 12:10	150	32.98	32.98	11.9	5.82	20.5	0.46	6.74	-35.1	.18	
3/31 12:15	150	32.98	32.98	11.8	5.84	23.4	0.44	6.74	-36.7	.41	

Field Parameters:

Primary:

Total Volume Purged (gal):

.41

Iron:

Sulfide:

Secondary:

Sample ID	Type	Matrix	Comp/Grab	Datetime	Filtered	Analysis	Container #
-----------	------	--------	-----------	----------	----------	----------	-------------

GW-11210714-033121-NA-MW7	N	WG	G	3/31 12:17				8

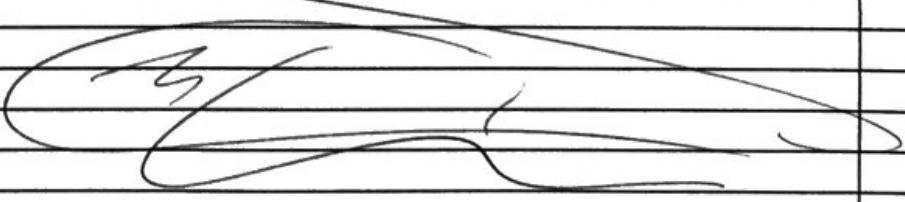
Time	Pumping Rate (ml/min)	Depth to Water ()	Drawdown from Initial Water Level (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (gal)	No. of Well Screen Volumes Purged
3/31 12:05	150	32.98	32.98	11.9	5.85	22.6	0.44	6.74	-34.9		



DAILY FIELD REPORT

Submit copy to Company Safety Officer

Project Name:	Pbb Geiger Corrections	GHD Mgr:	N. Abramowski AC	Field Rep:	N Abramowski
Project Number:	11226610	Date:	11/16/21	Site Address:	Spokane, WA
General Tasks:	Gauge / GWM				
Emergency Drill Conducted: <input checked="" type="checkbox"/>					
HASP Meeting Conducted (Y/N):	<input checked="" type="checkbox"/>	Equipment Checked (Y/N):	<input checked="" type="checkbox"/>	PID Calibrated (Y/N):	<input checked="" type="checkbox"/>

Time	Activity/Comments	SWA
0720	NA / KLM arrive on site	
0730	TGSM	
	Site walk w/ KLM	
0750	NA / KLM begin gauging / sampling wells	
0930	NA samples MW 12	
1000	NA begins sampling MW 5D	
1100	NA samples MW 5 D	
1130	NA begins sampling MW 7	
1300	NA samples MW 7	
1330	KLM / NA begin gauging remaining wells	
1400	NA completes waste sample	
	WB - 11226610 - 111621 - NA - WC	
1500	NA / KLM exit site	
		

SWA Key:	1: SPSA/Task Change	2: Pedestrian in Proximity	3: Unauthorized Personnel	4: Review Work Process
5: Inspection	6: Safety Orientation	7: Uncontrollable Factor	8: Minor First Aid	9: Major (explain in notes)

Hours _____ Miles _____ Other _____ Shared _____



Tailgate Safety Meeting Form

Small Group Format - Multiple Days

Date:	M. 16. 21	Time:	0730	Project No.:	11226610
Presenter:	N. Adamowski	Project Name:	Pbb Geiger Corrections		

Safety topics/items discussed:

STF, 360 awareness, nitrile gloves, hand tools, CK gloves, cell phones, communication, drum handling

Emergency preparedness:

First Aid Provider(s):	GFD /EMT 911	Muster Point:	Main Gate Cell phones
AED Responder:	EMT (911)	Fire Extinguisher Location:	GFD truck
First Aid Kit Location:	GFD trucks	Eye Wash Location:	GFD truck

Print Name	Signature	Company
N. Adamowski		GFD
KLM	NO 516 (David)	GFD

Date:		Time:		Project No.:	
Presenter:		Project Name:			

Safety topics/items discussed:

Emergency preparedness:

First Aid Provider(s):		Muster Point:	
		Emergency Communication:	
AED Responder:		Fire Extinguisher Location:	
First Aid Kit Location:		Eye Wash Location:	

Print Name	Signature	Company



Daily Observation Report

11/16/2021

Site Name:	6880	Project Number:	11226610
P66 Site Number:	6880	Address: 3507 S Spotted Road Spokane WA	
Client:	Phillips 66	Inspector(s): Klees Loembet-Makaya	
Inspection Date:	11/16/2021	Time: 08:11 - 15:39	
Weather:	Clear; 43-27°F Ground Conditions: Dry		

This inspection/observation report does not alleviate the contractor from the responsibilities or obligations provided in the contract documents and does not approve the performance or completion of any additional effort or cost implied by the content of this memo. The contractor is responsible for confirming and correlating all quantities and dimensions, and fabrication processes and construction techniques which may change based on the clarification provided within.

Summary of Observations/Inspections

Meetings

Meeting	Yes	No
Was a Morning Huddle Held:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Was a Health and Safety Meeting Held:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Health and Safety Meeting Topics Covered:		
PPE, COVID-19, Master point, First Aid Kit, Fire extinguisher, biological hazards, Weather.		
Other Meeting Topics Covered:		

Equipment On Site

Equipment Type	Model/ Serial #	Controlled By	Quantity	Units	Rental	Comments
Interface Probe	07582	GHD	1	Day	No	
Turbidity Meter		Other	1	Day	Yes	
Peristaltic Pump	04436	GHD	1	Day	No	
YSI unit		GHD	1	Day	Yes	

Work Day Note

Time	Activity
08:28	HASP and safety meeting
08:29	Start gauging wells and sampling
10:18	Sampled WG-11226610-111621-KLM-MP1R

GHD

www.ghd.com

REGISTERED COMPANY FOR
ISO 9001
ENGINEERING DESIGN



Daily Observation Report

11/16/2021

10:50	Well MW-10 is dry. Well depth: 15.5ft to bottom.
12:06	Sampled WG-11226610-111621-KLM-MW2
13:59	MW-11 was dry. Total depth 14.56ft to bottom
15:40	GHD out of site
Overall Daily Work Notes	

Personnel Onsite

Company	Name	Time Onsite	Hours Onsite
GHD	Klees Loembet-Makaya	07:30 -	
Notes:			

Production Delays

Production Delays	Severity	Comments
No		
Weather Delays	Cause	
No		

Out of Scope Requests

Out of Scope Request	Notes
No	



Daily Observation Report

11/16/2021

General Observation Photos

Photo 1 -

Well No.: MP-1R

Sampling Event: 2021Q4-WG

SSOW Code:

Monitoring Well Record for Low-Flow Purging

Project Name: P66 Gieger Corrections

Ref. No.: 11226610

Personnel: Kleesbatner loembe

GHD

Date: 11/12/2021 3:22:30

Monitoring Well Data

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length: User Entry

Screen Start Depth:

Ref Point Elev: 2354.78

Screen End Depth:

Static Water Depth: 4.2

Measurement Type:

Screen Length:

Static Water Elev: 2350.58

Sampling Method: Peristaltic pump

Field Parameters:

Comments:

Total Volume
Purged (gal):

2.3

Iron:

Sulfide:

Sample ID	Type	Matrix	Comp/Grab	DateTime	Filtered	Analysis	Container #
WG-11226610-111621-KLM-MP1R	N	WG	G	11/16 10:18			

Well No.: MW-2

Sampling Event: 2021Q4-WG

SSOW Code:

Monitoring Well Record for Low-Flow Purging

Project Name: P66 Gieger Corrections

Ref. No.: 11226610

Personnel: Kleesbatner loembe

GHD

Date: 11/16/2021 11:30:52

Monitoring Well Data

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length: User Entry

Screen Start Depth:

Ref Point Elev: 2355.19

Screen End Depth:

Static Water Depth: 4.5

Measurement Type:

Screen Length:

Static Water Elev: 2350.69

Sampling Method: Peristaltic pump

Field Parameters:

Comments:

Total Volume
Purged (gal):

1.27

Iron:

Sulfide:

Sample ID Type Matrix Comp/Grab DateTime Filtered Analysis Container #

WG-11226610-111621-KLM-MW2	N	WG	G	11/16 12:06			

Well No.: MW-5D

Sampling Event: 2021Q4-WG

SSOW Code:

Monitoring Well Record for Low-Flow Purging

Project Name: P66 Gieger Corrections

Ref. No.: 11226610

Personnel: Nick Adamowski

GHD

Date: 11/16/2021 10:04:27

Monitoring Well Data

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length:

Screen Start Depth:

Ref Point Elev: 2355.03

Screen End Depth:

Static Water Depth:

Measurement Type:

Screen Length:

Static Water Elev:

Sampling Method: Bladder pump

Field Parameters:

Comments:

Total Volume
Purged (gal):

1.41

Iron-

Sulfide:

Sample ID	Type	Matrix	Comp/Grab	DateTime	Filtered	Analysis	Container #
WG-11226610-111621-NA-MW5D	N	WG	G	11/16 11:00			9

Well No.: MW-7

Sampling Event: 2021Q4-WG

SSOW Code:

Monitoring Well Record for Low-Flow Purging

Project Name: P66 Gieger Corrections

Ref. No.: 11226610

Personnel: Nick Adamowski

GHD

Date: 11/16/2021 11:26:19

Monitoring Well Data

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length:

Screen Start Depth:

Ref Point Elev: 2356.31

Screen End Depth:

Static Water Depth:

Measurement Type:

Screen Length:

Static Water Elev:

Sampling Method: Bladder pump

Field Parameters:

Comments:

Total Volume
Purged (gal):

1.34

Iron:

Sulfide:

Sample ID	Type	Matrix	Comp/Grab	DateTime	Filtered	Analysis	Container #
WG-11226610-111621-NA-MW7	N	WG	G	11/16 12:42			9
WG-11226610-111621-NA-DUP1	N	WG	G	11/16 12:42			9

Well No.: MW-12

Sampling Event: 2021Q4-WG

SSOW Code:

Monitoring Well Record for Low-Flow Purging

Project Name: P66 Gieger Corrections

Ref. No.: 11226610

Personnel: Nick Adamowski

GHD

Date: 11/16/2021 8:19:28

Monitoring Well Data

Well Diameter:

Constructed Well Depth:

Measured Well Depth:

Screen Material:

Water Column Length:

Screen Start Depth:

Ref Point Elev: 2354.82

Screen End Depth:

Static Water Depth:

Measurement Type:

Screen Length:

Static Water Elev:

Sampling Method: Bladder pump

Field Parameters:

Comments:

Total Volume
Purged (gal):

1.7

Iron:

Sulfide:

Sample ID	Type	Matrix	Comp/Grab	DateTime	Filtered	Analysis	Container #
WG-11226610-111621-NA-MW12	N	WG	G	11/16 10:03			9

Appendix B

Laboratory Analytical Reports



Environment Testing America



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-34344-1

Client Project/Site: Geiger Corrections Center

For:

GHD Inc.
4550 Kruse Way
Suite 300
Lake Oswego, Oregon 97035

Attn: Jeffrey Cloud

Authorized for release by:

4/9/2021 7:52:42 AM

Megan Moeller, Client Services Group Leader

(717)556-7261

Megan.Moeller@eurofinset.com

LINKS

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results through

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Ask
The
Expert

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
- 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 is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Megan Moeller
Client Services Group Leader
4/9/2021 7:52:42 AM

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Definitions/Glossary

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

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
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Case Narrative

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Job ID: 410-34344-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative

410-34344-1

Receipt

The samples were received on 4/1/2021 11:56 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C

Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

GC/MS VOA

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

GC VOA

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

GC Semi VOA

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

Detection Summary

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Client Sample ID: GW-11210714-033121-NA-MP1R

Lab Sample ID: 410-34344-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C7-C12 (1C)	2100		250	ug/L	1		NWTPH-Gx	Total/NA
C12-C24	2400		100	ug/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-11210714-033121-NA-DUP1

Lab Sample ID: 410-34344-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C12-C24	230		100	ug/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-11210714-033121-NA-MW5D

Lab Sample ID: 410-34344-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C12-C24	290		100	ug/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-11210714-033121-JL-MW2

Lab Sample ID: 410-34344-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C7-C12 (1C)	990		250	ug/L	1		NWTPH-Gx	Total/NA
C12-C24	720		100	ug/L	1		NWTPH-Dx	Total/NA

Client Sample ID: GW-11210714-033121-NA-MW12

Lab Sample ID: 410-34344-5

No Detections.

Client Sample ID: GW-11210714-033121-NA-MW7

Lab Sample ID: 410-34344-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C12-C24	110		100	ug/L	1		NWTPH-Dx	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 410-34344-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Client Sample ID: GW-11210714-033121-NA-MP1R**Lab Sample ID: 410-34344-1**

Date Collected: 03/31/21 08:35

Matrix: Groundwater

Date Received: 04/01/21 11:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			04/07/21 13:40	1
Ethylbenzene	<1.0		1.0	ug/L			04/07/21 13:40	1
Toluene	<1.0		1.0	ug/L			04/07/21 13:40	1
Xylenes, Total	<6.0		6.0	ug/L			04/07/21 13:40	1

Surrogate

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		04/07/21 13:40	1
4-Bromofluorobenzene (Surr)	95		80 - 120		04/07/21 13:40	1
Dibromofluoromethane (Surr)	98		80 - 120		04/07/21 13:40	1
Toluene-d8 (Surr)	99		80 - 120		04/07/21 13:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	2100		250	ug/L			04/08/21 01:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	95		50 - 150		04/08/21 01:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	2400		100	ug/L		04/06/21 08:55	04/06/21 18:09	1
C24-C40	<260		260	ug/L		04/06/21 08:55	04/06/21 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
o-terphenyl (Surr)	89		50 - 150		04/06/21 08:55	04/06/21 18:09	1

Client Sample ID: GW-11210714-033121-NA-DUP1**Lab Sample ID: 410-34344-2**

Date Collected: 03/31/21 09:58

Matrix: Groundwater

Date Received: 04/01/21 11:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			04/07/21 14:02	1
Ethylbenzene	<1.0		1.0	ug/L			04/07/21 14:02	1
Toluene	<1.0		1.0	ug/L			04/07/21 14:02	1
Xylenes, Total	<6.0		6.0	ug/L			04/07/21 14:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		04/07/21 14:02	1
4-Bromofluorobenzene (Surr)	94		80 - 120		04/07/21 14:02	1
Dibromofluoromethane (Surr)	98		80 - 120		04/07/21 14:02	1
Toluene-d8 (Surr)	99		80 - 120		04/07/21 14:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L			04/07/21 20:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	95		50 - 150		04/07/21 20:15	1

Client Sample Results

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Client Sample ID: GW-11210714-033121-NA-DUP1

Lab Sample ID: 410-34344-2

Matrix: Groundwater

Date Collected: 03/31/21 09:58

Date Received: 04/01/21 11:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	230		100	ug/L	04/06/21 08:55	04/06/21 18:55		1
C24-C40	<250		250	ug/L	04/06/21 08:55	04/06/21 18:55		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-terphenyl (Surr)	91		50 - 150			04/06/21 08:55	04/06/21 18:55	1

Client Sample ID: GW-11210714-033121-NA-MW5D

Lab Sample ID: 410-34344-3

Matrix: Groundwater

Date Collected: 03/31/21 09:57

Date Received: 04/01/21 11:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			04/07/21 14:25	1
Ethylbenzene	<1.0		1.0	ug/L			04/07/21 14:25	1
Toluene	<1.0		1.0	ug/L			04/07/21 14:25	1
Xylenes, Total	<6.0		6.0	ug/L			04/07/21 14:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120				04/07/21 14:25	1
4-Bromofluorobenzene (Surr)	95		80 - 120				04/07/21 14:25	1
Dibromofluoromethane (Surr)	98		80 - 120				04/07/21 14:25	1
Toluene-d8 (Surr)	99		80 - 120				04/07/21 14:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L			04/07/21 20:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	94		50 - 150				04/07/21 20:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	290		100	ug/L	04/06/21 08:55	04/06/21 19:40		1
C24-C40	<260		260	ug/L	04/06/21 08:55	04/06/21 19:40		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-terphenyl (Surr)	86		50 - 150			04/06/21 08:55	04/06/21 19:40	1

Client Sample ID: GW-11210714-033121-JL-MW2

Lab Sample ID: 410-34344-4

Matrix: Groundwater

Date Collected: 03/31/21 08:25

Date Received: 04/01/21 11:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			04/07/21 17:44	1
Ethylbenzene	<1.0		1.0	ug/L			04/07/21 17:44	1
Toluene	<1.0		1.0	ug/L			04/07/21 17:44	1
Xylenes, Total	<6.0		6.0	ug/L			04/07/21 17:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120				04/07/21 17:44	1
4-Bromofluorobenzene (Surr)	96		80 - 120				04/07/21 17:44	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Client Sample ID: GW-11210714-033121-JL-MW2

Lab Sample ID: 410-34344-4

Matrix: Groundwater

Date Collected: 03/31/21 08:25

Date Received: 04/01/21 11:56

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	97		80 - 120		04/07/21 17:44	1
Toluene-d8 (Surr)	100		80 - 120		04/07/21 17:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	990		250	ug/L			04/07/21 21:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	95		50 - 150				04/07/21 21:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	720		100	ug/L		04/06/21 08:55	04/06/21 20:03	1
C24-C40	<260		260	ug/L		04/06/21 08:55	04/06/21 20:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-terphenyl (Surr)	90		50 - 150			04/06/21 08:55	04/06/21 20:03	1

Client Sample ID: GW-11210714-033121-NA-MW12

Lab Sample ID: 410-34344-5

Matrix: Groundwater

Date Collected: 03/31/21 11:16

Date Received: 04/01/21 11:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			04/07/21 14:47	1
Ethylbenzene	<1.0		1.0	ug/L			04/07/21 14:47	1
Toluene	<1.0		1.0	ug/L			04/07/21 14:47	1
Xylenes, Total	<6.0		6.0	ug/L			04/07/21 14:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120				04/07/21 14:47	1
4-Bromofluorobenzene (Surr)	95		80 - 120				04/07/21 14:47	1
Dibromofluoromethane (Surr)	98		80 - 120				04/07/21 14:47	1
Toluene-d8 (Surr)	99		80 - 120				04/07/21 14:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L			04/07/21 21:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	95		50 - 150				04/07/21 21:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	<100		100	ug/L		04/06/21 08:55	04/06/21 20:26	1
C24-C40	<260		260	ug/L		04/06/21 08:55	04/06/21 20:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-terphenyl (Surr)	81		50 - 150			04/06/21 08:55	04/06/21 20:26	1

Client Sample Results

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Client Sample ID: GW-11210714-033121-NA-MW7**Lab Sample ID: 410-34344-6**

Date Collected: 03/31/21 12:17

Matrix: Groundwater

Date Received: 04/01/21 11:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			04/07/21 15:09	1
Ethylbenzene	<1.0		1.0	ug/L			04/07/21 15:09	1
Toluene	<1.0		1.0	ug/L			04/07/21 15:09	1
Xylenes, Total	<6.0		6.0	ug/L			04/07/21 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		04/07/21 15:09	1
4-Bromofluorobenzene (Surr)	95		80 - 120		04/07/21 15:09	1
Dibromofluoromethane (Surr)	99		80 - 120		04/07/21 15:09	1
Toluene-d8 (Surr)	99		80 - 120		04/07/21 15:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L			04/07/21 21:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	94		50 - 150		04/07/21 21:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	110		100	ug/L		04/06/21 08:55	04/06/21 21:11	1
C24-C40	<250		250	ug/L		04/06/21 08:55	04/06/21 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
o-terphenyl (Surr)	83		50 - 150		04/06/21 08:55	04/06/21 21:11	1

Client Sample ID: Trip Blank**Lab Sample ID: 410-34344-7**

Date Collected: 03/31/21 00:00

Matrix: Water

Date Received: 04/01/21 11:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			04/07/21 11:50	1
Ethylbenzene	<1.0		1.0	ug/L			04/07/21 11:50	1
Toluene	<1.0		1.0	ug/L			04/07/21 11:50	1
Xylenes, Total	<6.0		6.0	ug/L			04/07/21 11:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		04/07/21 11:50	1
4-Bromofluorobenzene (Surr)	95		80 - 120		04/07/21 11:50	1
Dibromofluoromethane (Surr)	98		80 - 120		04/07/21 11:50	1
Toluene-d8 (Surr)	99		80 - 120		04/07/21 11:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L			04/07/21 17:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	95		50 - 150		04/07/21 17:37	1

Surrogate Summary

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

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

Matrix: Groundwater

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-34344-1	GW-11210714-033121-NA-MP1R	101	95	98	99
410-34344-2	GW-11210714-033121-NA-DUP	100	94	98	99
410-34344-3	GW-11210714-033121-NA-MW 5D	101	95	98	99
410-34344-4	GW-11210714-033121-JL-MW2	101	96	97	100
410-34344-5	GW-11210714-033121-NA-MW 12	101	95	98	99
410-34344-6	GW-11210714-033121-NA-MW 7	100	95	99	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-34344-7	Trip Blank	100	95	98	99
LCS 410-111634/4	Lab Control Sample	101	96	99	99
LCSD 410-111634/5	Lab Control Sample Dup	101	98	98	100
MB 410-111634/7	Method Blank	100	95	97	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Groundwater

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TFT-F1 (50-150)			
410-34344-1	GW-11210714-033121-NA-MP1R	95			
410-34344-2	GW-11210714-033121-NA-DUP	95			
410-34344-3	GW-11210714-033121-NA-MW 5D	94			
410-34344-4	GW-11210714-033121-JL-MW2	95			
410-34344-5	GW-11210714-033121-NA-MW 12	95			
410-34344-6	GW-11210714-033121-NA-MW 7	94			

Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

Surrogate Summary

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT-F1 (50-150)											
410-34344-7	Trip Blank	95											
LCS 410-111882/5	Lab Control Sample	87											
LCSD 410-111882/6	Lab Control Sample Dup	86											
MB 410-111882/4	Method Blank	95											

Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

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

Matrix: Groundwater

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTP (50-150)											
410-34344-1	GW-11210714-033121-NA-MP1R	89											
410-34344-1 DU	GW-11210714-033121-NA-MP1	89											
R													
410-34344-2	GW-11210714-033121-NA-DUP	91											
1													
410-34344-2 DU	GW-11210714-033121-NA-DUP	88											
1													
410-34344-3	GW-11210714-033121-NA-MW	86											
5D													
410-34344-4	GW-11210714-033121-JL-MW2	90											
410-34344-5	GW-11210714-033121-NA-MW	81											
12													
410-34344-6	GW-11210714-033121-NA-MW	83											
7													

Surrogate Legend

OTP = o- terphenyl (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTP (50-150)											
LCS 410-111086/2-A	Lab Control Sample	83											
LCSD 410-111086/3-A	Lab Control Sample Dup	92											
MB 410-111086/1-A	Method Blank	81											

Surrogate Legend

OTP = o- terphenyl (Surr)

QC Sample Results

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

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

Lab Sample ID: MB 410-111634/7

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 111634

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<1.0				1.0	ug/L			04/07/21 10:43	1
Ethylbenzene	<1.0				1.0	ug/L			04/07/21 10:43	1
Toluene	<1.0				1.0	ug/L			04/07/21 10:43	1
Xylenes, Total	<6.0				6.0	ug/L			04/07/21 10:43	1

Surrogate MB MB

Surrogate	%Recovery	MB	Result	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	MB						
1,2-Dichloroethane-d4 (Surr)	100		80 - 120				04/07/21 10:43	1
4-Bromofluorobenzene (Surr)	95		80 - 120				04/07/21 10:43	1
Dibromofluoromethane (Surr)	97		80 - 120				04/07/21 10:43	1
Toluene-d8 (Surr)	99		80 - 120				04/07/21 10:43	1

Lab Sample ID: LCS 410-111634/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 111634

Analyte	Spike Added	LCS	LCS	Result	Qualifier	Unit	D	%Rec	%Rec.
		Result	Qualifier						
Benzene	20.0			19.0		ug/L		95	80 - 120
Ethylbenzene	20.0			19.4		ug/L		97	80 - 120
Toluene	20.0			19.6		ug/L		98	80 - 120
Xylenes, Total	60.0			58.9		ug/L		98	80 - 120

Surrogate LCS LCS

Surrogate	%Recovery	LCS	LCS	Result	Qualifier	Limits
	%Recovery	Qualifer	Limits			
1,2-Dichloroethane-d4 (Surr)	101			80 - 120		
4-Bromofluorobenzene (Surr)	96			80 - 120		
Dibromofluoromethane (Surr)	99			80 - 120		
Toluene-d8 (Surr)	99			80 - 120		

Lab Sample ID: LCSD 410-111634/5

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 111634

Analyte	Spike Added	LCS	LCS	Result	Qualifier	Unit	D	%Rec	%Rec.
		Result	Qualifier						
Benzene	20.0			19.0		ug/L		95	80 - 120
Ethylbenzene	20.0			19.6		ug/L		98	80 - 120
Toluene	20.0			19.7		ug/L		99	80 - 120
Xylenes, Total	60.0			59.2		ug/L		99	80 - 120

Surrogate LCSD LCSD

Surrogate	%Recovery	LCSD	LCSD	Result	Qualifier	Limits
	%Recovery	Qualifer	Limits			
1,2-Dichloroethane-d4 (Surr)	101			80 - 120		
4-Bromofluorobenzene (Surr)	98			80 - 120		
Dibromofluoromethane (Surr)	98			80 - 120		
Toluene-d8 (Surr)	100			80 - 120		

QC Sample Results

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

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

Lab Sample ID: MB 410-111882/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 111882

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
C7-C12 (1C)	<250				250	ug/L			04/07/21 16:19	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier								
a,a,a-Trifluorotoluene (fid) (1C)	95				50 - 150				04/07/21 16:19	1

Lab Sample ID: LCS 410-111882/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 111882

Analyte	MB	MB	Spike	LCS	LCS	Unit	D	%Rec.	Limits	
	Result	Qualifier								
C7-C12 (1C)			1100	1070		ug/L		98	64 - 131	
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	%Rec.	Limits	
	%Recovery	Qualifier								
a,a,a-Trifluorotoluene (fid) (1C)	87				50 - 150					

Lab Sample ID: LCSD 410-111882/6

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 111882

Analyte	MB	MB	Spike	LCSD	LCSD	Unit	D	%Rec.	Limits	RPD
	Result	Qualifier								
C7-C12 (1C)			1100	1090		ug/L		99	64 - 131	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	%Rec.	Limits	RPD
	%Recovery	Qualifier								
a,a,a-Trifluorotoluene (fid) (1C)	86				50 - 150					

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

Lab Sample ID: MB 410-111086/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 111377

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
C12-C24	<100				100	ug/L		04/06/21 08:55	04/06/21 17:01	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier								
o-terphenyl (Surr)	81				50 - 150			04/06/21 08:55	04/06/21 17:01	1

Lab Sample ID: LCS 410-111086/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 111377

Analyte	MB	MB	Spike	LCS	LCS	Unit	D	%Rec.	Limits	
	Result	Qualifier								
C12-C24			602	248		ug/L		41	14 - 115	
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	%Rec.	Limits	
	%Recovery	Qualifier								
o-terphenyl (Surr)	83				50 - 150					

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

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

Lab Sample ID: LCSD 410-111086/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 111377

Prep Batch: 111086

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec.	Limits	RPD	RPD
		Added	Result	Qualifier						
C12-C24		602	275		ug/L		46	14 - 115	10	20
Surrogate		LCSD	LCSD							
		%Recovery	Qualifier							
<i>o-terphenyl (Surr)</i>		92		50 - 150						

Lab Sample ID: 410-34344-1 DU

Client Sample ID: GW-11210714-033121-NA-MP1R

Matrix: Groundwater

Prep Type: Total/NA

Analysis Batch: 111377

Prep Batch: 111086

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				
C12-C24	2400		2530		ug/L		4	20
C24-C40	<260		<260		ug/L		NC	20
Surrogate								
<i>o-terphenyl (Surr)</i>	89	%Recovery	Qualifier	Limits				
				50 - 150				

Lab Sample ID: 410-34344-2 DU

Client Sample ID: GW-11210714-033121-NA-DUP1

Matrix: Groundwater

Prep Type: Total/NA

Analysis Batch: 111377

Prep Batch: 111086

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				
C12-C24	230		210		ug/L		7	20
C24-C40	<250		<250		ug/L		NC	20
Surrogate								
<i>o-terphenyl (Surr)</i>	88	%Recovery	Qualifier	Limits				
				50 - 150				

QC Association Summary

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

GC/MS VOA

Analysis Batch: 111634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-34344-1	GW-11210714-033121-NA-MP1R	Total/NA	Groundwater	8260C	
410-34344-2	GW-11210714-033121-NA-DUP1	Total/NA	Groundwater	8260C	
410-34344-3	GW-11210714-033121-NA-MW5D	Total/NA	Groundwater	8260C	
410-34344-4	GW-11210714-033121-JL-MW2	Total/NA	Groundwater	8260C	
410-34344-5	GW-11210714-033121-NA-MW12	Total/NA	Groundwater	8260C	
410-34344-6	GW-11210714-033121-NA-MW7	Total/NA	Groundwater	8260C	
410-34344-7	Trip Blank	Total/NA	Water	8260C	
MB 410-111634/7	Method Blank	Total/NA	Water	8260C	
LCS 410-111634/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 410-111634/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 111882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-34344-1	GW-11210714-033121-NA-MP1R	Total/NA	Groundwater	NWTPH-Gx	
410-34344-2	GW-11210714-033121-NA-DUP1	Total/NA	Groundwater	NWTPH-Gx	
410-34344-3	GW-11210714-033121-NA-MW5D	Total/NA	Groundwater	NWTPH-Gx	
410-34344-4	GW-11210714-033121-JL-MW2	Total/NA	Groundwater	NWTPH-Gx	
410-34344-5	GW-11210714-033121-NA-MW12	Total/NA	Groundwater	NWTPH-Gx	
410-34344-6	GW-11210714-033121-NA-MW7	Total/NA	Groundwater	NWTPH-Gx	
410-34344-7	Trip Blank	Total/NA	Water	NWTPH-Gx	
MB 410-111882/4	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 410-111882/5	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 410-111882/6	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 111086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-34344-1	GW-11210714-033121-NA-MP1R	Total/NA	Groundwater	3510C	
410-34344-2	GW-11210714-033121-NA-DUP1	Total/NA	Groundwater	3510C	
410-34344-3	GW-11210714-033121-NA-MW5D	Total/NA	Groundwater	3510C	
410-34344-4	GW-11210714-033121-JL-MW2	Total/NA	Groundwater	3510C	
410-34344-5	GW-11210714-033121-NA-MW12	Total/NA	Groundwater	3510C	
410-34344-6	GW-11210714-033121-NA-MW7	Total/NA	Groundwater	3510C	
MB 410-111086/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-111086/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-111086/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
410-34344-1 DU	GW-11210714-033121-NA-MP1R	Total/NA	Groundwater	3510C	
410-34344-2 DU	GW-11210714-033121-NA-DUP1	Total/NA	Groundwater	3510C	

Analysis Batch: 111377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-34344-1	GW-11210714-033121-NA-MP1R	Total/NA	Groundwater	NWTPH-Dx	111086
410-34344-2	GW-11210714-033121-NA-DUP1	Total/NA	Groundwater	NWTPH-Dx	111086
410-34344-3	GW-11210714-033121-NA-MW5D	Total/NA	Groundwater	NWTPH-Dx	111086
410-34344-4	GW-11210714-033121-JL-MW2	Total/NA	Groundwater	NWTPH-Dx	111086
410-34344-5	GW-11210714-033121-NA-MW12	Total/NA	Groundwater	NWTPH-Dx	111086
410-34344-6	GW-11210714-033121-NA-MW7	Total/NA	Groundwater	NWTPH-Dx	111086
MB 410-111086/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	111086
LCS 410-111086/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	111086

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

GC Semi VOA (Continued)

Analysis Batch: 111377 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-111086/3-A	Lab Control Sample Dup	Total/NA	Water	NWTPH-Dx	111086
410-34344-1 DU	GW-11210714-033121-NA-MP1R	Total/NA	Groundwater	NWTPH-Dx	111086
410-34344-2 DU	GW-11210714-033121-NA-DUP1	Total/NA	Groundwater	NWTPH-Dx	111086

Lab Chronicle

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Client Sample ID: GW-11210714-033121-NA-MP1R

Lab Sample ID: 410-34344-1

Matrix: Groundwater

Date Collected: 03/31/21 08:35

Date Received: 04/01/21 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	111634	04/07/21 13:40	LCW8	ELLE
Total/NA	Analysis	NWTPH-Gx		1	111882	04/08/21 01:50	UMDJ	ELLE
Total/NA	Prep	3510C			111086	04/06/21 08:55	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	111377	04/06/21 18:09	KP5X	ELLE

Client Sample ID: GW-11210714-033121-NA-DUP1

Lab Sample ID: 410-34344-2

Matrix: Groundwater

Date Collected: 03/31/21 09:58

Date Received: 04/01/21 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	111634	04/07/21 14:02	LCW8	ELLE
Total/NA	Analysis	NWTPH-Gx		1	111882	04/07/21 20:15	UMDJ	ELLE
Total/NA	Prep	3510C			111086	04/06/21 08:55	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	111377	04/06/21 18:55	KP5X	ELLE

Client Sample ID: GW-11210714-033121-NA-MW5D

Lab Sample ID: 410-34344-3

Matrix: Groundwater

Date Collected: 03/31/21 09:57

Date Received: 04/01/21 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	111634	04/07/21 14:25	LCW8	ELLE
Total/NA	Analysis	NWTPH-Gx		1	111882	04/07/21 20:41	UMDJ	ELLE
Total/NA	Prep	3510C			111086	04/06/21 08:55	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	111377	04/06/21 19:40	KP5X	ELLE

Client Sample ID: GW-11210714-033121-JL-MW2

Lab Sample ID: 410-34344-4

Matrix: Groundwater

Date Collected: 03/31/21 08:25

Date Received: 04/01/21 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	111634	04/07/21 17:44	LCW8	ELLE
Total/NA	Analysis	NWTPH-Gx		1	111882	04/07/21 21:06	UMDJ	ELLE
Total/NA	Prep	3510C			111086	04/06/21 08:55	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	111377	04/06/21 20:03	KP5X	ELLE

Client Sample ID: GW-11210714-033121-NA-MW12

Lab Sample ID: 410-34344-5

Matrix: Groundwater

Date Collected: 03/31/21 11:16

Date Received: 04/01/21 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	111634	04/07/21 14:47	LCW8	ELLE
Total/NA	Analysis	NWTPH-Gx		1	111882	04/07/21 21:32	UMDJ	ELLE
Total/NA	Prep	3510C			111086	04/06/21 08:55	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	111377	04/06/21 20:26	KP5X	ELLE

Eurofins Lancaster Laboratories Env, LLC

Lab Chronicle

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Client Sample ID: GW-11210714-033121-NA-MW7

Lab Sample ID: 410-34344-6

Matrix: Groundwater

Date Collected: 03/31/21 12:17

Date Received: 04/01/21 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	111634	04/07/21 15:09	LCW8	ELLE
Total/NA	Analysis	NWTPH-Gx		1	111882	04/07/21 21:58	UMDJ	ELLE
Total/NA	Prep	3510C			111086	04/06/21 08:55	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	111377	04/06/21 21:11	KP5X	ELLE

Client Sample ID: Trip Blank

Lab Sample ID: 410-34344-7

Matrix: Water

Date Collected: 03/31/21 00:00

Date Received: 04/01/21 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	111634	04/07/21 11:50	LCW8	ELLE
Total/NA	Analysis	NWTPH-Gx		1	111882	04/07/21 17:37	UMDJ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C457	04-11-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Groundwater	Benzene
8260C		Groundwater	Ethylbenzene
8260C		Groundwater	Toluene
8260C		Groundwater	Xylenes, Total
8260C		Water	Benzene
8260C		Water	Ethylbenzene
8260C		Water	Toluene
8260C		Water	Xylenes, Total
NWTPH-Dx	3510C	Groundwater	C12-C24
NWTPH-Gx		Groundwater	C7-C12 (1C)
NWTPH-Gx		Water	C7-C12 (1C)

Method Summary

Client: GHD Inc.

Project/Site: Geiger Corrections Center

Job ID: 410-34344-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	ELLE
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: GHD Inc.

Job ID: 410-34344-1

Project/Site: Geiger Corrections Center

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-34344-1	GW-11210714-033121-NA-MP1R	Groundwater	03/31/21 08:35	04/01/21 11:56	
410-34344-2	GW-11210714-033121-NA-DUP1	Groundwater	03/31/21 09:58	04/01/21 11:56	
410-34344-3	GW-11210714-033121-NA-MW5D	Groundwater	03/31/21 09:57	04/01/21 11:56	
410-34344-4	GW-11210714-033121-JL-MW2	Groundwater	03/31/21 08:25	04/01/21 11:56	
410-34344-5	GW-11210714-033121-NA-MW12	Groundwater	03/31/21 11:16	04/01/21 11:56	
410-34344-6	GW-11210714-033121-NA-MW7	Groundwater	03/31/21 12:17	04/01/21 11:56	
410-34344-7	Trip Blank	Water	03/31/21 00:00	04/01/21 11:56	

Chain of Custody Re

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Environment Testing
America

Client Information		Sampler: <u>N. Adamowski</u>	Lab PM: Moeller	Barcode:		COC No: 410-16968-6001.1	
Client Contact: <u>Moshghan Mansoori</u>		Phone: <u>425-563-6516</u>	E-Mail: Megan.Moeller@eurofinset.com			Page: Page 1 of 1	
Company: GHD Services Inc.		PWSID:			Job #: <u>11210714</u>		
Address: 20818 44th Ave W Suite 190		Due Date Requested:				Analysis Requested	
City: Lynnwood		TAT Requested (days): <u>Standard</u>				Preservation Codes:	
State, Zip: WA, 98036		Compliance Project: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				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)	
Phone: <u>425-563-6516</u>		PO #:				Other:	
Email: Moshghan.Mansoori@ghd.com		Purchase Order Requested					
Project Name: Geiger Corrections Center		WO #:					
Site: <u>Geiger Corrections</u>		Project #:					
SSOW#:							
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Total Number of Containers
GW-11210714-033121-NA-MPIR		<u>3/31/21</u>	<u>0835</u>	<u>G</u>	Water	<input checked="" type="checkbox"/> Perform MSI/MSD (Yes or No)	Special Instructions/Note:
- DVPI		<u>0958</u>		Water	<input checked="" type="checkbox"/> NWTPH_Dx - NWTPH-Dx	<input checked="" type="checkbox"/> A	
↓ -MW5D		<u>0957</u>		Water	<input checked="" type="checkbox"/> 8260C - BTEX Volatiles (Total Xylenes)	<input checked="" type="checkbox"/> A	
↓ -JL -MW2		<u>0825</u>		Water	<input checked="" type="checkbox"/> NWTPH_Cx - NWTPH-Cx	<input checked="" type="checkbox"/> A	
↓ -NA -MIN12		<u>1116</u>		Water			
↓ -NA -MIN7		<u>1217</u>		Water			
				Water			
				Water			
				Water			
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months					
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
<u>Relinquished by:</u> <u>JGD</u>		<u>Date/Time:</u> <u>3/31/21 1230</u>	<u>Company:</u> <u>GHD</u>	<u>Received by:</u> <u>ME</u>		Date/Time:	Company
<u>Relinquished by:</u>		<u>Date/Time:</u> <u>_____</u>	<u>Company:</u> <u>_____</u>	<u>Received by:</u> <u>_____</u>		Date/Time: <u>_____</u>	Company <u>_____</u>
<u>Relinquished by:</u>		<u>Date/Time:</u> <u>_____</u>	<u>Company:</u> <u>_____</u>	<u>Received by:</u> <u>ME</u>		Date/Time: <u>7/1/21 1150</u>	Company <u>EWS</u>
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: <u>89305</u>		Cooler Temperature(s) °C and Other Remarks: <u>2+4</u>			

Login Sample Receipt Checklist

Client: GHD Inc.

Job Number: 410-34344-1

Login Number: 34344

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Colon Martinez, Jessenia C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is 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 (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
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	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	



Environment Testing America



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-64466-1
Client Project/Site: Geiger Corrections Center

For:
GHD Inc.
4550 Kruse Way
Suite 300
Lake Oswego, Oregon 97035

Attn: Jeffrey Cloud

Authorized for release by:
3/7/2022 4:31:42 PM

Megan Moeller, Client Services Group Leader
(717)556-7261
Megan.Moeller@eurofinset.com

LINKS

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results through

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
- 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 is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Megan Moeller
Client Services Manager
3/7/2022 4:31:42 PM

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Definitions/Glossary

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

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
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Case Narrative

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

Job ID: 410-64466-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative

410-64466-1

Receipt

The samples were received on 11/23/2021 11:28 AM. 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 3.4°C and 4.3°C

Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

GC/MS VOA

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

GC VOA

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

GC Semi VOA

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

Detection Summary

Client: GHD Inc.
Project/Site: Geiger Corrections Center

Job ID: 410-64466-1

Client Sample ID: WG-11226610-111621-NA-MW12

Lab Sample ID: 410-64466-1

No Detections.

Client Sample ID: WG-11226610-111621-NA-MW5D

Lab Sample ID: 410-64466-2

No Detections.

Client Sample ID: WG-11226610-111621-NA-MW7

Lab Sample ID: 410-64466-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C12-C24	530		100	ug/L	1		NWTPH-Dx	Total/NA

Client Sample ID: WG-11226610-111621-NA-DUP1

Lab Sample ID: 410-64466-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C12-C24	290		100	ug/L	1		NWTPH-Dx	Total/NA

Client Sample ID: WG-11226610-111621-KLM-MP-1R

Lab Sample ID: 410-64466-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C7-C12 (1C)	1500		250	ug/L	1		NWTPH-Gx	Total/NA
C12-C24	1600		100	ug/L	1		NWTPH-Dx	Total/NA

Client Sample ID: WG-11226610-111621-NA-MW2

Lab Sample ID: 410-64466-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C7-C12 (1C)	1300		250	ug/L	1		NWTPH-Gx	Total/NA
C12-C24	730		100	ug/L	1		NWTPH-Dx	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 410-64466-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

Client Sample ID: WG-11226610-111621-NA-MW12**Lab Sample ID: 410-64466-1**

Date Collected: 11/16/21 10:03

Matrix: Groundwater

Date Received: 11/23/21 11:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			11/24/21 17:03	1
Ethylbenzene	<1.0		1.0	ug/L			11/24/21 17:03	1
Toluene	<1.0		1.0	ug/L			11/24/21 17:03	1
Xylenes, Total	<1.0		1.0	ug/L			11/24/21 17:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		11/24/21 17:03	1
4-Bromofluorobenzene (Surr)	103		80 - 120		11/24/21 17:03	1
Dibromofluoromethane (Surr)	106		80 - 120		11/24/21 17:03	1
Toluene-d8 (Surr)	103		80 - 120		11/24/21 17:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L			11/24/21 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	95		50 - 150		11/24/21 17:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	<100		100	ug/L		11/24/21 16:00	11/25/21 05:14	1
C24-C40	<250		250	ug/L		11/24/21 16:00	11/25/21 05:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
o-terphenyl (Surr)	80		50 - 150		11/24/21 16:00	11/25/21 05:14	1

Client Sample ID: WG-11226610-111621-NA-MW5D**Lab Sample ID: 410-64466-2**

Matrix: Groundwater

Date Received: 11/23/21 11:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			11/24/21 17:24	1
Ethylbenzene	<1.0		1.0	ug/L			11/24/21 17:24	1
Toluene	<1.0		1.0	ug/L			11/24/21 17:24	1
Xylenes, Total	<1.0		1.0	ug/L			11/24/21 17:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		11/24/21 17:24	1
4-Bromofluorobenzene (Surr)	102		80 - 120		11/24/21 17:24	1
Dibromofluoromethane (Surr)	107		80 - 120		11/24/21 17:24	1
Toluene-d8 (Surr)	102		80 - 120		11/24/21 17:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L			11/24/21 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	95		50 - 150		11/24/21 18:09	1

Client Sample Results

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

Client Sample ID: WG-11226610-111621-NA-MW5D

Lab Sample ID: 410-64466-2

Matrix: Groundwater

Date Collected: 11/16/21 11:00

Date Received: 11/23/21 11:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	<110		110	ug/L		11/24/21 16:00	11/25/21 06:00	1
C24-C40	<270		270	ug/L		11/24/21 16:00	11/25/21 06:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>o-terphenyl (Surr)</i>	89		50 - 150			11/24/21 16:00	11/25/21 06:00	1

Client Sample ID: WG-11226610-111621-NA-MW7

Lab Sample ID: 410-64466-3

Matrix: Groundwater

Date Collected: 11/16/21 12:42

Date Received: 11/23/21 11:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L		11/24/21 17:44		1
Ethylbenzene	<1.0		1.0	ug/L		11/24/21 17:44		1
Toluene	<1.0		1.0	ug/L		11/24/21 17:44		1
Xylenes, Total	<1.0		1.0	ug/L		11/24/21 17:44		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>1,2-Dichloroethane-d4 (Surr)</i>	103		80 - 120				11/24/21 17:44	1
<i>4-Bromofluorobenzene (Surr)</i>	102		80 - 120				11/24/21 17:44	1
<i>Dibromofluoromethane (Surr)</i>	107		80 - 120				11/24/21 17:44	1
<i>Toluene-d8 (Surr)</i>	102		80 - 120				11/24/21 17:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L		11/24/21 18:33		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene (fid) (1C)</i>	95		50 - 150				11/24/21 18:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	530		100	ug/L		11/24/21 16:00	11/25/21 06:22	1
C24-C40	<260		260	ug/L		11/24/21 16:00	11/25/21 06:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>o-terphenyl (Surr)</i>	96		50 - 150			11/24/21 16:00	11/25/21 06:22	1

Client Sample ID: WG-11226610-111621-NA-DUP1

Lab Sample ID: 410-64466-4

Matrix: Groundwater

Date Collected: 11/16/21 12:42

Date Received: 11/23/21 11:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L		11/24/21 18:04		1
Ethylbenzene	<1.0		1.0	ug/L		11/24/21 18:04		1
Toluene	<1.0		1.0	ug/L		11/24/21 18:04		1
Xylenes, Total	<1.0		1.0	ug/L		11/24/21 18:04		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>1,2-Dichloroethane-d4 (Surr)</i>	101		80 - 120				11/24/21 18:04	1
<i>4-Bromofluorobenzene (Surr)</i>	102		80 - 120				11/24/21 18:04	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

Client Sample ID: WG-11226610-111621-NA-DUP1

Lab Sample ID: 410-64466-4

Matrix: Groundwater

Date Collected: 11/16/21 12:42

Date Received: 11/23/21 11:28

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		80 - 120		11/24/21 18:04	1
Toluene-d8 (Surr)	102		80 - 120		11/24/21 18:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L			11/24/21 18:57	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
a,a,a-Trifluorotoluene (fid) (1C)	94		50 - 150			11/24/21 18:57	1	

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	290		100	ug/L		11/24/21 16:00	11/25/21 06:45	1
C24-C40	<250		250	ug/L		11/24/21 16:00	11/25/21 06:45	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
o-terphenyl (Surr)	88		50 - 150			11/24/21 16:00	11/25/21 06:45	1

Client Sample ID: WG-11226610-111621-KLM-MP-1R

Lab Sample ID: 410-64466-5

Matrix: Groundwater

Date Collected: 11/16/21 10:18

Date Received: 11/23/21 11:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			11/24/21 18:24	1
Ethylbenzene	<1.0		1.0	ug/L			11/24/21 18:24	1
Toluene	<1.0		1.0	ug/L			11/24/21 18:24	1
Xylenes, Total	<1.0		1.0	ug/L			11/24/21 18:24	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	103		80 - 120			11/24/21 18:24	1	
4-Bromofluorobenzene (Surr)	104		80 - 120			11/24/21 18:24	1	
Dibromofluoromethane (Surr)	107		80 - 120			11/24/21 18:24	1	
Toluene-d8 (Surr)	102		80 - 120			11/24/21 18:24	1	

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	1500		250	ug/L			11/25/21 01:15	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
a,a,a-Trifluorotoluene (fid) (1C)	94		50 - 150			11/25/21 01:15	1	

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	1600		100	ug/L		11/24/21 16:00	11/25/21 07:08	1
C24-C40	<250		250	ug/L		11/24/21 16:00	11/25/21 07:08	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
o-terphenyl (Surr)	91		50 - 150			11/24/21 16:00	11/25/21 07:08	1

Client Sample Results

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

Client Sample ID: WG-11226610-111621-NA-MW2

Lab Sample ID: 410-64466-6

Matrix: Groundwater

Date Collected: 11/16/21 12:06

Date Received: 11/23/21 11:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			11/24/21 18:44	1
Ethylbenzene	<1.0		1.0	ug/L			11/24/21 18:44	1
Toluene	<1.0		1.0	ug/L			11/24/21 18:44	1
Xylenes, Total	<1.0		1.0	ug/L			11/24/21 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		11/24/21 18:44	1
4-Bromofluorobenzene (Surr)	104		80 - 120		11/24/21 18:44	1
Dibromofluoromethane (Surr)	107		80 - 120		11/24/21 18:44	1
Toluene-d8 (Surr)	102		80 - 120		11/24/21 18:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	1300		250	ug/L			11/24/21 19:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	94		50 - 150				11/24/21 19:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	730		100	ug/L		11/24/21 16:00	11/25/21 07:30	1
C24-C40	<250		250	ug/L		11/24/21 16:00	11/25/21 07:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-terphenyl (Surr)	87		50 - 150			11/24/21 16:00	11/25/21 07:30	1

Client Sample ID: Trip Blank

Lab Sample ID: 410-64466-7

Matrix: Water

Date Collected: 11/16/21 00:00

Date Received: 11/23/21 11:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	ug/L			11/24/21 13:20	1
Ethylbenzene	<1.0		1.0	ug/L			11/24/21 13:20	1
Toluene	<1.0		1.0	ug/L			11/24/21 13:20	1
Xylenes, Total	<1.0		1.0	ug/L			11/24/21 13:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120				11/24/21 13:20	1
4-Bromofluorobenzene (Surr)	102		80 - 120				11/24/21 13:20	1
Dibromofluoromethane (Surr)	108		80 - 120				11/24/21 13:20	1
Toluene-d8 (Surr)	103		80 - 120				11/24/21 13:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	<250		250	ug/L			11/29/21 15:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	91		50 - 150				11/29/21 15:57	1

Surrogate Summary

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

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

Matrix: Groundwater

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-64466-1	WG-11226610-111621-NA-MW12	101	103	106	103
410-64466-2	WG-11226610-111621-NA-MW 5D	101	102	107	102
410-64466-3	WG-11226610-111621-NA-MW 7	103	102	107	102
410-64466-4	WG-11226610-111621-NA-DUP 1	101	102	106	102
410-64466-5	WG-11226610-111621-KLM-MP -1R	103	104	107	102
410-64466-6	WG-11226610-111621-NA-MW 2	105	104	107	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-64466-7	Trip Blank	104	102	108	103
LCS 410-198472/5	Lab Control Sample	103	105	106	104
LCSD 410-198472/6	Lab Control Sample Dup	100	104	106	104
MB 410-198472/9	Method Blank	104	102	107	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Groundwater

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TFT-F1 (50-150)			
410-64466-1	WG-11226610-111621-NA-MW12	95			
410-64466-2	WG-11226610-111621-NA-MW 5D	95			
410-64466-3	WG-11226610-111621-NA-MW 7	95			
410-64466-4	WG-11226610-111621-NA-DUP 1	94			
410-64466-5	WG-11226610-111621-KLM-MP -1R	94			
410-64466-6	WG-11226610-111621-NA-MW 2	94			

Surrogate Legend

Surrogate Summary

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

TFT-F = a,a,a-Trifluorotoluene (fid)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TFT-F1 (50-150)	
410-64466-7	Trip Blank	91	
LCS 410-198637/5	Lab Control Sample	91	
LCS 410-199099/5	Lab Control Sample	93	
LCSD 410-198637/6	Lab Control Sample Dup	91	
LCSD 410-199099/6	Lab Control Sample Dup	93	
MB 410-198637/4	Method Blank	95	
MB 410-199099/4	Method Blank	96	

Surrogate Legend
TFT-F = a,a,a-Trifluorotoluene (fid)

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

Matrix: Groundwater

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		OTP (50-150)	
410-64466-1	WG-11226610-111621-NA-MW12	80	
410-64466-1 DU	WG-11226610-111621-NA-MW 12	79	
410-64466-2	WG-11226610-111621-NA-MW 5D	89	
410-64466-3	WG-11226610-111621-NA-MW 7	96	
410-64466-4	WG-11226610-111621-NA-DUP 1	88	
410-64466-5	WG-11226610-111621-KLM-MP -1R	91	
410-64466-6	WG-11226610-111621-NA-MW 2	87	

Surrogate Legend
OTP = o- terphenyl (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		OTP (50-150)	
LCS 410-198663/2-A	Lab Control Sample	86	
LCSD 410-198663/3-A	Lab Control Sample Dup	89	
MB 410-198663/1-A	Method Blank	73	

Surrogate Legend
OTP = o- terphenyl (Surr)

QC Sample Results

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

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

Lab Sample ID: MB 410-198472/9

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 198472

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<1.0				1.0	ug/L			11/24/21 12:00	1
Ethylbenzene	<1.0				1.0	ug/L			11/24/21 12:00	1
Toluene	<1.0				1.0	ug/L			11/24/21 12:00	1
Xylenes, Total	<1.0				1.0	ug/L			11/24/21 12:00	1

Surrogate MB MB

Surrogate	%Recovery	MB	Result	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	MB						
1,2-Dichloroethane-d4 (Surr)	104		80 - 120				11/24/21 12:00	1
4-Bromofluorobenzene (Surr)	102		80 - 120				11/24/21 12:00	1
Dibromofluoromethane (Surr)	107		80 - 120				11/24/21 12:00	1
Toluene-d8 (Surr)	103		80 - 120				11/24/21 12:00	1

Lab Sample ID: LCS 410-198472/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 198472

Analyte	Spike Added	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier							
Benzene	20.0		18.3			ug/L		92	80 - 120	
Ethylbenzene	20.0		17.8			ug/L		89	80 - 120	
Toluene	20.0		17.9			ug/L		89	80 - 120	
Xylenes, Total	60.0		52.2			ug/L		87	80 - 120	

Surrogate LCS LCS

Surrogate	%Recovery	LCS	LCS	Result	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	LCS	LCS						
1,2-Dichloroethane-d4 (Surr)	103		80 - 120						
4-Bromofluorobenzene (Surr)	105		80 - 120						
Dibromofluoromethane (Surr)	106		80 - 120						
Toluene-d8 (Surr)	104		80 - 120						

Lab Sample ID: LCSD 410-198472/6

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 198472

Analyte	Spike Added	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier								
Benzene	20.0		20.1			ug/L		100	80 - 120	9	30
Ethylbenzene	20.0		19.7			ug/L		98	80 - 120	10	30
Toluene	20.0		19.7			ug/L		98	80 - 120	9	30
Xylenes, Total	60.0		58.3			ug/L		97	80 - 120	11	30

Surrogate LCSD LCSD

Surrogate	%Recovery	LCSD	LCSD	Result	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	LCSD	LCSD						
1,2-Dichloroethane-d4 (Surr)	100		80 - 120						
4-Bromofluorobenzene (Surr)	104		80 - 120						
Dibromofluoromethane (Surr)	106		80 - 120						
Toluene-d8 (Surr)	104		80 - 120						

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QC Sample Results

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

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

Lab Sample ID: MB 410-198637/4

Client Sample ID: Method Blank

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198637

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
C7-C12 (1C)	<250		250		ug/L				11/24/21 16:10	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier								
a,a,a-Trifluorotoluene (fid) (1C)	95		50 - 150						11/24/21 16:10	1

Lab Sample ID: LCS 410-198637/5

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198637

Analyte	MB	MB	Spike	LCS	LCS	Unit	D	%Rec.	Limits	
	Result	Qualifier								
C7-C12 (1C)			1100	1120		ug/L		102	64 - 131	
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	%Rec.	Limits	
	%Recovery	Qualifier								
a,a,a-Trifluorotoluene (fid) (1C)	91		50 - 150							

Lab Sample ID: LCSD 410-198637/6

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198637

Analyte	MB	MB	Spike	LCSD	LCSD	Unit	D	%Rec.	Limits	RPD
	Result	Qualifier								
C7-C12 (1C)			1100	1080		ug/L		98	64 - 131	4
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	%Rec.	Limits	RPD
	%Recovery	Qualifier								
a,a,a-Trifluorotoluene (fid) (1C)	91		50 - 150							

Lab Sample ID: MB 410-199099/4

Client Sample ID: Method Blank

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 199099

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
C7-C12 (1C)	<250		250		ug/L				11/29/21 12:48	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier								
a,a,a-Trifluorotoluene (fid) (1C)	96		50 - 150						11/29/21 12:48	1

Lab Sample ID: LCS 410-199099/5

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 199099

Analyte	MB	MB	Spike	LCS	LCS	Unit	D	%Rec.	Limits	
	Result	Qualifier								
C7-C12 (1C)			1100	1120		ug/L		102	64 - 131	
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	%Rec.	Limits	
	%Recovery	Qualifier								
a,a,a-Trifluorotoluene (fid) (1C)	93		50 - 150							

QC Sample Results

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

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

Lab Sample ID: LCSD 410-199099/6

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 199099

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	RPD Limit
C7-C12 (1C)	1100	1110		ug/L		101	64 - 131	0 30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits					
a,a,a-Trifluorotoluene (fid) (1C)	93		50 - 150					

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

Lab Sample ID: MB 410-198663/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 198804

Prep Batch: 198663

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	<100		100	ug/L		11/24/21 16:00	11/25/21 04:06	1
C24-C40	<250		250	ug/L		11/24/21 16:00	11/25/21 04:06	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
o-terphenyl (Surr)	73		50 - 150			11/24/21 16:00	11/25/21 04:06	1

Lab Sample ID: LCS 410-198663/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 198804

Prep Batch: 198663

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD
C12-C24	600	297		ug/L		49	14 - 115
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits				
o-terphenyl (Surr)	86		50 - 150				

Lab Sample ID: LCSD 410-198663/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 198804

Prep Batch: 198663

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD
C12-C24	600	310		ug/L		52	14 - 115
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits				
o-terphenyl (Surr)	89		50 - 150				

Lab Sample ID: 410-64466-1 DU

Client Sample ID: WG-11226610-111621-NA-MW12

Matrix: Groundwater

Prep Type: Total/NA

Analysis Batch: 198804

Prep Batch: 198663

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
C12-C24	<100		<100		ug/L		NC	20
C24-C40	<250		<250		ug/L		NC	20

QC Sample Results

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

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

Lab Sample ID: 410-64466-1 DU

Client Sample ID: WG-11226610-111621-NA-MW12

Matrix: Groundwater

Prep Type: Total/NA

Analysis Batch: 198604

Prep Batch: 198663

Surrogate	DU	DU	
	%Recovery	Qualifier	Limits
o-terphenyl (Sur)	79		50 - 150

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QC Association Summary

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

GC/MS VOA

Analysis Batch: 198472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-64466-1	WG-11226610-111621-NA-MW12	Total/NA	Groundwater	8260C	
410-64466-2	WG-11226610-111621-NA-MW5D	Total/NA	Groundwater	8260C	
410-64466-3	WG-11226610-111621-NA-MW7	Total/NA	Groundwater	8260C	
410-64466-4	WG-11226610-111621-NA-DUP1	Total/NA	Groundwater	8260C	
410-64466-5	WG-11226610-111621-KLM-MP-1R	Total/NA	Groundwater	8260C	
410-64466-6	WG-11226610-111621-NA-MW2	Total/NA	Groundwater	8260C	
410-64466-7	Trip Blank	Total/NA	Water	8260C	
MB 410-198472/9	Method Blank	Total/NA	Water	8260C	
LCS 410-198472/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 410-198472/6	Lab Control Sample Dup	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 198637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-64466-1	WG-11226610-111621-NA-MW12	Total/NA	Groundwater	NWTPH-Gx	
410-64466-2	WG-11226610-111621-NA-MW5D	Total/NA	Groundwater	NWTPH-Gx	
410-64466-3	WG-11226610-111621-NA-MW7	Total/NA	Groundwater	NWTPH-Gx	
410-64466-4	WG-11226610-111621-NA-DUP1	Total/NA	Groundwater	NWTPH-Gx	
410-64466-5	WG-11226610-111621-KLM-MP-1R	Total/NA	Groundwater	NWTPH-Gx	
410-64466-6	WG-11226610-111621-NA-MW2	Total/NA	Groundwater	NWTPH-Gx	
MB 410-198637/4	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 410-198637/5	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 410-198637/6	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	

Analysis Batch: 199099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-64466-7	Trip Blank	Total/NA	Water	NWTPH-Gx	
MB 410-199099/4	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 410-199099/5	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 410-199099/6	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 198663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-64466-1	WG-11226610-111621-NA-MW12	Total/NA	Groundwater	3510C	
410-64466-2	WG-11226610-111621-NA-MW5D	Total/NA	Groundwater	3510C	
410-64466-3	WG-11226610-111621-NA-MW7	Total/NA	Groundwater	3510C	
410-64466-4	WG-11226610-111621-NA-DUP1	Total/NA	Groundwater	3510C	
410-64466-5	WG-11226610-111621-KLM-MP-1R	Total/NA	Groundwater	3510C	
410-64466-6	WG-11226610-111621-NA-MW2	Total/NA	Groundwater	3510C	
MB 410-198663/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-198663/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-198663/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
410-64466-1 DU	WG-11226610-111621-NA-MW12	Total/NA	Groundwater	3510C	

Analysis Batch: 198804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-64466-1	WG-11226610-111621-NA-MW12	Total/NA	Groundwater	NWTPH-Dx	198663
410-64466-2	WG-11226610-111621-NA-MW5D	Total/NA	Groundwater	NWTPH-Dx	198663
410-64466-3	WG-11226610-111621-NA-MW7	Total/NA	Groundwater	NWTPH-Dx	198663

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QC Association Summary

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

GC Semi VOA (Continued)

Analysis Batch: 198804 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-64466-4	WG-11226610-111621-NA-DUP1	Total/NA	Groundwater	NWTPH-Dx	198663
410-64466-5	WG-11226610-111621-KLM-MP-1R	Total/NA	Groundwater	NWTPH-Dx	198663
410-64466-6	WG-11226610-111621-NA-MW2	Total/NA	Groundwater	NWTPH-Dx	198663
MB 410-198663/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	198663
LCS 410-198663/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	198663
LCSD 410-198663/3-A	Lab Control Sample Dup	Total/NA	Water	NWTPH-Dx	198663
410-64466-1 DU	WG-11226610-111621-NA-MW12	Total/NA	Groundwater	NWTPH-Dx	198663

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Lab Chronicle

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

Client Sample ID: WG-11226610-111621-NA-MW12

Lab Sample ID: 410-64466-1

Matrix: Groundwater

Date Collected: 11/16/21 10:03

Date Received: 11/23/21 11:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	198472	11/24/21 17:03	UKAD	ELLE
Total/NA	Analysis	NWTPH-Gx		1	198637	11/24/21 17:46	JJT8	ELLE
Total/NA	Prep	3510C			198663	11/24/21 16:00	MD4W	ELLE
Total/NA	Analysis	NWTPH-Dx		1	198804	11/25/21 05:14	KP5X	ELLE

Client Sample ID: WG-11226610-111621-NA-MW5D

Lab Sample ID: 410-64466-2

Matrix: Groundwater

Date Collected: 11/16/21 11:00

Date Received: 11/23/21 11:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	198472	11/24/21 17:24	UKAD	ELLE
Total/NA	Analysis	NWTPH-Gx		1	198637	11/24/21 18:09	JJT8	ELLE
Total/NA	Prep	3510C			198663	11/24/21 16:00	MD4W	ELLE
Total/NA	Analysis	NWTPH-Dx		1	198804	11/25/21 06:00	KP5X	ELLE

Client Sample ID: WG-11226610-111621-NA-MW7

Lab Sample ID: 410-64466-3

Matrix: Groundwater

Date Collected: 11/16/21 12:42

Date Received: 11/23/21 11:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	198472	11/24/21 17:44	UKAD	ELLE
Total/NA	Analysis	NWTPH-Gx		1	198637	11/24/21 18:33	JJT8	ELLE
Total/NA	Prep	3510C			198663	11/24/21 16:00	MD4W	ELLE
Total/NA	Analysis	NWTPH-Dx		1	198804	11/25/21 06:22	KP5X	ELLE

Client Sample ID: WG-11226610-111621-NA-DUP1

Lab Sample ID: 410-64466-4

Matrix: Groundwater

Date Collected: 11/16/21 12:42

Date Received: 11/23/21 11:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	198472	11/24/21 18:04	UKAD	ELLE
Total/NA	Analysis	NWTPH-Gx		1	198637	11/24/21 18:57	JJT8	ELLE
Total/NA	Prep	3510C			198663	11/24/21 16:00	MD4W	ELLE
Total/NA	Analysis	NWTPH-Dx		1	198804	11/25/21 06:45	KP5X	ELLE

Client Sample ID: WG-11226610-111621-KLM-MP-1R

Lab Sample ID: 410-64466-5

Matrix: Groundwater

Date Collected: 11/16/21 10:18

Date Received: 11/23/21 11:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	198472	11/24/21 18:24	UKAD	ELLE
Total/NA	Analysis	NWTPH-Gx		1	198637	11/25/21 01:15	JJT8	ELLE
Total/NA	Prep	3510C			198663	11/24/21 16:00	MD4W	ELLE
Total/NA	Analysis	NWTPH-Dx		1	198804	11/25/21 07:08	KP5X	ELLE

Lab Chronicle

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

Client Sample ID: WG-11226610-111621-NA-MW2

Lab Sample ID: 410-64466-6

Matrix: Groundwater

Date Collected: 11/16/21 12:06

Date Received: 11/23/21 11:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	198472	11/24/21 18:44	UKAD	ELLE
Total/NA	Analysis	NWTPH-Gx		1	198637	11/24/21 19:21	JJT8	ELLE
Total/NA	Prep	3510C			198663	11/24/21 16:00	MD4W	ELLE
Total/NA	Analysis	NWTPH-Dx		1	198804	11/25/21 07:30	KP5X	ELLE

Client Sample ID: Trip Blank

Lab Sample ID: 410-64466-7

Matrix: Water

Date Collected: 11/16/21 00:00

Date Received: 11/23/21 11:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	198472	11/24/21 13:20	UKAD	ELLE
Total/NA	Analysis	NWTPH-Gx		1	199099	11/29/21 15:57	JJT8	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C457	04-12-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Groundwater	Benzene
8260C		Groundwater	Ethylbenzene
8260C		Groundwater	Toluene
8260C		Groundwater	Xylenes, Total
8260C		Water	Benzene
8260C		Water	Ethylbenzene
8260C		Water	Toluene
8260C		Water	Xylenes, Total
NWTPH-Dx	3510C	Groundwater	C12-C24
NWTPH-Gx		Groundwater	C7-C12 (1C)
NWTPH-Gx		Water	C7-C12 (1C)

Method Summary

Client: GHD Inc.

Project/Site: Geiger Corrections Center

Job ID: 410-64466-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	ELLE
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: GHD Inc.

Job ID: 410-64466-1

Project/Site: Geiger Corrections Center

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-64466-1	WG-11226610-111621-NA-MW12	Groundwater	11/16/21 10:03	11/23/21 11:28
410-64466-2	WG-11226610-111621-NA-MW5D	Groundwater	11/16/21 11:00	11/23/21 11:28
410-64466-3	WG-11226610-111621-NA-MW7	Groundwater	11/16/21 12:42	11/23/21 11:28
410-64466-4	WG-11226610-111621-NA-DUP1	Groundwater	11/16/21 12:42	11/23/21 11:28
410-64466-5	WG-11226610-111621-KLM-MP-1R	Groundwater	11/16/21 10:18	11/23/21 11:28
410-64466-6	WG-11226610-111621-NA-MW2	Groundwater	11/16/21 12:06	11/23/21 11:28
410-64466-7	Trip Blank	Water	11/16/21 00:00	11/23/21 11:28



nv, LLC

Chain of Custody Record

410-64466 Chain of Custody

Client Contact
Moshghan MansooriCompany
GHD Services IncAddress
20818 44th Ave W Suite 190City
LynnwoodState, Zip
WA, 98036Phone
*MASHA*Email
Moshghan Mansoori@ghd.comProject Name
Geiger Corrections Center

Site:

Geiger Corrections SSO# *11226610-2021-03*

Sample Identification

	Sample Date	Sample Time	Sample Type (C=comp, G=grab) BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH_Dx - NWTPH-Dx	8260C - BTEx Volatiles (Total Xylenes)	NWTPH_Gx - NWTPH-Gx	8260C - VOCs	6010D, 7470A	Total Number of containers	Special Instructions/Note:
W6-11226610-111621-NA-MW12	11-16-21	1003	G	Water	X	X	X					9	
				Water									
MW50		1100		Water									
MW7		1243		Water									
b QVPI		1242		Water									
KLM-MP-IR		1018		Water									
↓	↓	b MW2	↓	Water	↓	↓	↓						
				Water									
				Water									
				Water									

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: <i>[Signature]</i>	Date/Time: 11-30-21 / 1200	Company: <i>6700</i>	Received by: <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>	Date/Time: <i>[Signature]</i>	Company: <i>[Signature]</i>	Received by: <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>	Date/Time: <i>[Signature]</i>	Company: <i>[Signature]</i>	Received by: <i>[Signature]</i>
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Custody Seal No.: <i>[Signature]</i>		Cooler Temperature(s) °C and Other Remarks: <i>3, 41, 413</i>

Ver: 06/08/2021

3/7/2022

Login Sample Receipt Checklist

Client: GHD Inc.

Job Number: 410-64466-1

Login Number: 64466

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Hess, Anna

Question	Answer	Comment
The cooler's custody seal is 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 (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	



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→ The Power of Commitment