Mr. Frank Winslow
Washington State Department of Ecology – Central Regional Office
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Union Gap, Washington 98903

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ENVIRONMENT

Subject:
Second Quarter 2021 Groundwater Monitoring Report
Former Chevron Station No. 98944
1323 Lee Boulevard
Richland, Washington
Facility Site ID: 27223439
Cleanup Site ID: 5798

Date:
July 8, 2021

Contact:
Ada Hamilton

Phone:
206.413.6430

Email:
Ada.Hamilton@arcadis.com

Our ref:
30064311

Dear Mr. Winslow:

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) has prepared this *Second Quarter 2021 Groundwater Monitoring Report* (Report) to document the sampling of the three remaining groundwater monitoring wells (MW-9, MW-10, and MW-11) at Former Chevron Station No. 98944 (the site; Figures 1 and 2) located at 1323 Lee Boulevard in Richland, Washington.

SITE BACKGROUND

The site was operated as a Standard Oil/Chevron gasoline service station from 1960 until approximately 1976. In 1976, all station features were demolished, and the site was redeveloped in 2003 with a commercial structure and associated parking areas. Currently, the site is occupied by a Subway restaurant. Previous site investigations and the site history were summarized in the *First Quarter 2020 Groundwater Monitoring Report* (Arcadis 2020).

SITE GEOLOGY/HYDROGEOLOGY

The topography of the general site area slopes to the east and southeast (Figure 1). The Yakima and Columbia Rivers intersect south-southeast of the site. The topography to the west contains a high ridge running north-south.

The site is located in Pasco Basin. Regional geology consists of glaciofluvial and glaciolacustrine sediments deposited over basalt bedrock of the Columbia River Group (CRA 2007). Glacial flood sediments (cobbles, gravels, and sands) were deposited on top of this and reworked by local streams and rivers, chiefly the Columbia River in this region (CRA 2007).

The site geology consists of silt and sandy gravels to 20 feet below ground surface (bgs). The soil lithology observed in monitoring well borings (MW-9 through MW-11) were consistent with historical findings; silt was encountered at 5 to 5.5 feet bgs, silt and well graded gravel was encountered at 10 and 15 feet bgs, and poorly- and well-graded gravel was encountered at 17 to 20 feet bgs.

Depth to groundwater beneath the site ranges from approximately 6 to 15 feet bgs. The general groundwater flow beneath the site appears to follow the local topography toward the east-southeast.

GROUNDWATER MONITORING AND SAMPLING

Groundwater monitoring and sampling was completed at the site on May 18, 2021 by Blaine Tech Services, Inc. (Blaine Tech), including measuring depth to groundwater, collection of groundwater samples, and recording of groundwater quality parameters (recorded on field forms; Attachment 1) from monitoring wells MW-9, MW-10, and MW-11.

Depth to Groundwater

Blaine Tech gauged monitoring wells MW-9, MW-10 and MW-11 using a static water level indicator prior to groundwater sample collection. The measured depth to groundwater ranged from 13.78 to 14.19 feet below top of casing (Table 1).

Groundwater Sampling

Monitoring wells MW-9, MW-10, and MW-11 were purged and sampled using a peristaltic pump and dedicated tubing via low-flow methods. During the purging process, the pH, electrical conductivity, turbidity, dissolved oxygen, oxidation reduction potential, and temperature were monitored and recorded on the sampling field forms. Purging continued until these parameters stabilized. Samples were then collected in laboratory-supplied containers, labeled, placed in ice-cooled chests, and shipped under chain-of-custody protocols to Washington certified laboratory Pace Analytical Laboratory in Mount Juliet, Tennessee. Laboratory analytical results and chain-of-custody documentation are included in Attachment 2.

Groundwater samples were analyzed for the following constituents:

- Total petroleum hydrocarbons as gasoline range organics (TPH-GRO) by Northwest Method NWTPH-Gx;
- Total petroleum hydrocarbons as diesel and heavy oil range organics (TPH-DRO/HRO) by Northwest Method NWTPH-Dx both with and without silica-gel cleanup; and
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by United States Environmental Protection Agency (USEPA) Method 8260

QUALITY ASSURANCE/QUALITY CONTROL

One trip blank was submitted to Pace Analytical and analyzed for BTEX by USEPA Method 8260. Analysis of the trip blank for the monitoring event did not indicate any analyte concentrations at or above laboratory reporting limits.

A field duplicate sample was also collected from monitoring well MW-10 during the event and submitted to Pace Analytical for analysis. The parent and duplicate sample results are considered comparable (Table 2).

DATA INTERPRETATION AND CONCLUSIONS

Groundwater depth to water and analytical results for current and historical data are summarized in Table

1. Previous results of geochemical parameter analysis are summarized in Table 2, and results of parameters obtained in the field are summarized in Table 3. In order to establish groundwater elevations and determine the groundwater flow direction, wells MW-9, MW-10, and MW-11 were surveyed on July 1, 2021; the survey results will be included in the third quarter groundwater monitoring report. Based on local topography and historical data, the groundwater flow direction is inferred to be generally to the east-southeast.

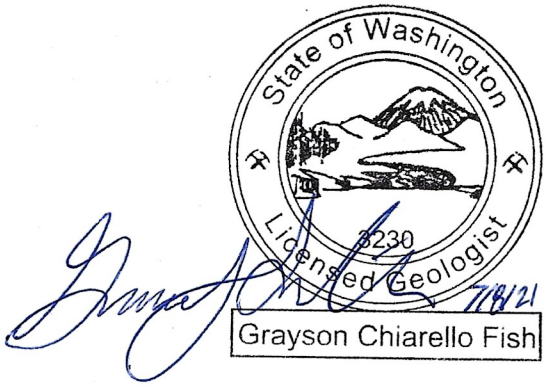
Analytical results reported for the groundwater samples collected on May 18, 2021 are shown on Figure 2. Concentrations of TPH-GRO exceeded the MTCA Method A cleanup level (CUL) in the groundwater samples collected from MW-9, MW-10, and MW-11. TPH-DRO was also detected in all the wells; however, only the concentration in MW-10 exceeded the MTCA Method A CUL. TPH-HRO was not detected in any of the wells. Low concentrations of ethylbenzene and xylenes were detected in the wells but the concentrations did not exceed the respective MTCA Method A CULs. Analytical results obtained during the May 18, 2021 sampling event are consistent with historical sampling events.

Groundwater monitoring will continue occurring on a quarterly basis. The next groundwater monitoring event is currently scheduled for third quarter of 2021. Groundwater will be analyzed for geochemical parameters on a semi-annual basis in the first and third quarter to evaluate seasonal trends for continued MNA analysis in addition to routine quarterly analysis.

Please contact Ada Hamilton at 206.413.6430 if you should have any questions.

Sincerely,

Arcadis U.S., Inc.



Ada Hamilton
Project Manager

Grayson Fish, L.G.
Licensed Geologist

Copies:

James Kiernan, CEMC

REFERENCES

Arcadis, 2020. First Quarter 2020 Groundwater Monitoring Report, Chevron Ste No. 9-8944, 1323 Lee Boulevard, Richland, WA, March17.

Conestoga, Rover, and Associates, 2007. Soil and Groundwater Assessment Report, Former Chevron Service Station No. 9-8944, 1323 Lee Boulevard, Richland, WA, December 11.

Enclosures:

Table

1 Groundwater Monitoring Data and Analytical Results
2 Geochemical Analytical Results
3 Groundwater Field Parameter Results

Figures

1 Site Location Map
2 Groundwater Concentration Map – May 18, 2021

Attachments

1 Field Sampling Forms
2 Laboratory Analytical Report and Chain of Custody Documentation

Tables

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Site No. 9-8944
Richland, Washington

ARCADIS Design & Consultancy for natural and built assets

					HYDROCARBONS					PRIMARY VOCs				LEAD		OXYGENATES		PAHs							
Well ID	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-DRO w/SGC	TPH-HRO	TPH-HRO w/SGC	B	T	E	X	Dissolved Lead	Total Lead	MTBE by SW8020	MTBE by SW8260B	Naphthalene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene
MTCA Method A Cleanup Levels					800/1000	500	500	500	500	5	1,000	700	1,000	NA	15	NA	20	160	NA	NA	NA	NA	NA	NA	NA
	Units	ft	ft	ft-elev.	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	8/11/1994	93.98	7.03	86.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	8/25/1994	93.98	7.00	86.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	9/23/1994	93.98	7.00	86.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	8/12/1996	93.98	7.29	86.69	**14,400**	--	--	--	--	**94.4**	15.5	325	978	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	2/27/2000	93.98	8.58	85.40	**16,200**	--	--	--	--	**11.7**	<8.00	439	504	--	--	<25.0	--	--	--	--	--	--	--	--	--
MW-1	2/21/2001	93.98	8.66	85.32	**6,320**	--	--	--	--	**38.3**	9.30	194	64.1	--	--	15.4	<4.00	--	--	--	--	--	--	--	--
MW-1	05/22/2001[1]	93.98	9.95	84.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	8/11/2001	93.98	9.14	84.84	**8,450**	--	--	--	--	**48.4**	11.8	410	356	--	--	<50.0	<50.0	--	--	--	--	--	--	--	--
MW-1	11/10/2001	93.98	9.85	84.13	**6,650**	--	--	--	--	**49.2**	11.0	340	97.9	--	--	16.8	<5.00	--	--	--	--	--	--	--	--
MW-1	2/4/2002	93.98	10.71	83.27	**1,480**	--	--	--	--	1.81	<1.00	71.6	3.81	--	--	--	<5.00	--	--	--	--	--	--	--	--
MW-1	08/24/2002[2]	93.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	2/20/2003	93.98	10.55	83.43	91	--	--	--	--	<0.50	<0.50	<1.0	<3.0	--	--	<2.5	--	--	--	--	--	--	--	--	--
MW-1	8/21/2003	93.98	11.26	82.72	78	--	--	--	--	<0.5	<0.5	<0.5	<1.5	--	--	<2.5	--	--	--	--	--	--	--	--	--
MW-1	02/19/2004[1]	93.98	11.79	82.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	08/10/2004[1]	93.98	10.97	83.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	12/03/2004[1]	93.98	11.39	82.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	02/21/2006[3]	93.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	10/23/2007[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
							--																		
MW-2	8/11/1994	93.21	6.10	87.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	8/25/1994	93.21	6.11	87.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	9/23/1994	93.21	6.11	87.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	8/12/1996	93.21	6.40	86.81	**17,400**	--	--	--	--	**152**	39.2	306	**1,120**	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	2/27/2000	93.21	7.77	85.44	**7,500**	--	--	--	--	**99.8**	13.0	175	453	--	--	<10.0	--	--	--	--	--	--	--	--	--
MW-2	2/21/2001	93.21	7.84	85.37	**1,510**	--	--	--	--	**20.1**	5.43	31.9	67.2	--	--	<5.00	<2.00	--	--	--	--	--	--	--	--
MW-2	5/22/2001	93.21	8.14	85.07	**4,310**	--	--	--	--	**34.9**	7.91	109	211	--	--	11.6	<5.00	--	--	--	--	--	--	--	--
MW-2	8/11/2001	93.21	8.35	84.86	**1,870**	--	--	--	--	**14.6**	2.90	16.6	20.5	--	--	<25.0	<5.00	--	--	--	--	--	--	--	--
MW-2	11/10/2001	93.21	9.10	84.11	**4,320**	--	--	--	--	**51.0**	6.44	53.0	91.5	--	--	25.1	<5.00	--	--	--	--	--	--	--	--
MW-2	2/4/2002	93.21	9.96	83.25	**4,500**	--	--	--	--	**33.3**	2.80	74.5	97.6	--	--	--	<5.00	--	--	--	--	--	--	--	--
MW-2	8/24/2002	93.21	9.18	84.03	**3,400**	--	--	--	--	**17**	2.10	25	56	--	--	<2.5	--	--	--	--	--	--	--	--	--
MW-2	2/20/2003	93.21	9.78	83.43	**2,600**	--	--	--	--	**7.3**	1.80	47	32	--	--	<2.5	--	--	--	--	--	--	--	--	--
MW-2	8/21/2003	93.21	10.52	82.69	**840**	--	--	--	--	2.1	<2.0	2.9	<3.0	--	--	<2.5	--	--	--	--	--	--	--	--	--
MW-2	2/19/2004	93.21	11.06	82.15	**950**	--	--	--	--	<5.0	<0.5	3.0	<5.0	--	--	<2.5	--	--	--	--	--	--	--	--	--
MW-2	8/10/2004	93.21	10.16	83.05	<50	--	--	--	--	<0.5	<0.5	<0.5	<1.5	--	--	<2.5	--	--	--	--	--	--	--	--	--
MW-2	12/3/2004	93.21	10.68	82.53	<48	--	--	--	--	<0.5	<0.5	<0.5	<1.5	--	--	<2.5	--	--	--	--	--	--	--	--	--
MW-2	02/21/2006[1]	93.21	11.52	81.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/23/2007[4]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/11/1994	94.57	7.63	86.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/25/1994	94.57	7.59	86.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	9/23/1994	94.57	7.59	86.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/12/1996	94.57	7.89	86.68	**37,700**	--	--	--	--	**84.6**	77.1	**1,190**	**3,800**	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	2/27/2000	94.57	9.18	85.39	**30,700**	--	--	--	--	**42.4**	60.1	**1,160**	**3,250**	--	--	<25.0	--	--	--	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Site No. 9-8944
Richland, Washington

					HYDROCARBONS					PRIMARY VOCs				LEAD		OXYGENATES		PAHs							
Well ID	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-DRO w/SGC	TPH-HRO	TPH-HRO w/SGC	B	T	E	X	Dissolved Lead	Total Lead	MTBE by SW8020	MTBE by SW8260B	Naphthalene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene
MTCA Method A Cleanup Levels					800/1000	500	500	500	500	5	1,000	700	1,000	NA	15	NA	20	160	NA	NA	NA	NA	NA	NA	NA
	Units	ft	ft	ft-elev.	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-3	2/21/2001	94.57	9.23	85.34	**6,090**	--	--	--	--	**29.9**	6.07	182	293	--	--	8.75	<4.00	--	--	--	--	--	--	--	--
MW-3	05/22/2001[1]	94.57	9.52	85.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	08/11/2001[5]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/10/2001[2]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	02/04/2002[2]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	08/24/2002[3]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	02/20/2003[2]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	08/21/2003[3]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	02/19/2004[3]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	08/10/2004[3]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	12/03/2004[4]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	02/21/2006[3]	94.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	10/23/2007[2]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	10/23/2007	359.19	12.69	346.50	**2,800**	**610**	--	<250	--	0.17	0.48	78	17.1	<2.0	**20**	--	<0.14	2.3	<0.010	<0.010	<0.010	<0.010	<0.021	<0.010	<0.010
MW-4	3/24/2008	359.19	14.00	345.19	**1,700**	**560**	--	<240	--	<1.0	<1.0	89	28.9	<2.0	**24**	--	<1.0	--	--	--	--	--	--	--	--
MW-4	5/12/2008	359.19	14.21	344.98	570	110	--	<95	--	<0.5	<0.5	46	<0.5	--	0.21	--	<0.5	--	--	--	--	--	--	--	--
MW-4	7/28/2008	359.19	13.02	346.17	460	**570**	--	<96	--	<0.5	<0.5	5	<0.5	--	0.16	--	<0.5	--	--	--	--	--	--	--	--
MW-4	11/3/2008	359.19	13.54	345.65	63	48	--	<74	--	<0.5	<0.5	<0.5	<0.5	--	0.18 J	--	<0.5	--	--	--	--	--	--	--	--
MW-4	2/11/2009	359.19	13.91	345.28	**2,600 J**	**2,600**	--	<150	--	--	--	--	--	--	0.18	--	--	--	--	--	--	--	--	--	--
MW-4	8/11/2010	359.19	13.67	345.52	200	<130	--	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/9/2011	359.19	13.78	345.41	180	<29	--	<67	--	--	--	--	--	--	0.15	--	--	--	--	--	--	--	--	--	--
MW-4	8/27/2012	359.19	13.72	345.47	<50	<30	--	<70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/23/2013	359.19	13.69	345.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	10/23/2007	359.07	12.42	346.65	51	<120	--	<250	--	<0.10	<0.066	0.49	0.799	<2.0	6.9	--	<0.14	0.020	<0.010	<0.010	<0.010	<0.010	<0.020	<0.010	<0.010
MW-5	3/24/2008	359.07	13.73	345.34	<50	<120	--	<240	--	<1.0	<1.0	<1.0	<2.0	<2.0	27	--	<1.0	--	--	--	--	--	--	--	--
MW-5	5/12/2008	359.07	13.93	345.14	110	<77	--	<96	--	<0.5	<0.5	<0.5	<0.5	--	0.11	--	<0.5	--	--	--	--	--	--	--	--
MW-5	7/28/2008	359.07	12.78	333.51	<50	<76	--	<95	--	<0.5	<0.5	<0.5	<0.5	--	0.34	--	<0.5	--	--	--	--	--	--	--	--
MW-5	11/3/2008	359.07	13.30	345.77	<50	<29	--	<67	--	<0.5	<0.5	<0.5	<0.5	--	0.18 J	--	<0.5	--	--	--	--	--	--	--	--
MW-5	2/10/2009	359.07	13.61	345.46	--	--	--	--	--	--	--	--	--	--	0.44	--	--	--	--	--	--	--	--	--	--
MW-5	8/11/2010	359.07	13.35	345.72	--	--	--	--	--	--	--	--	--	--	-	--	--	--	--	--	--	--	--	--	--
MW-5	9/9/2011	359.07	13.35	345.72	--	--	--	--	--	--	--	--	--	--	0.16	--	--	--	--	--	--	--	--	--	--
MW-5	9/23/2013	359.07	13.31	345.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/23/2007	358.85	12.14	346.71	**3,400**	**670**	--	<260	--	<0.10	<0.066	0.41	0.57	3.0	**27**	--	<0.14	2.8	<0.010	<0.010	<0.010	<0.010	<0.020	<0.010	<0.010
MW-6	3/24/2008	358.85	13.42	345.43	**1,100**	**830**	--	<240	--	<1.0	<1.0	<1.0	<2.0	<2.0	**67**	--	<1.0	--	--	--	--	--	--	--	--
MW-6	5/12/2008	358.85	13.69	345.16	500	330	--	<96	--	<0.5	<0.5	<0.5	<0.5	--	2.0	--	<0.5	--	--	--	--	--	--	--	--
MW-6	7/28/2008	358.85	12.53	333.79	700	170	--	<96	--	<0.5	<0.5	<0.5	<0.5	--	1.5	--	<0.5	--	--	--	--	--	--	--	--
MW-6	11/3/2008	358.85	13.03	345.82	790	150	--	<67	--	<0.5	<0.5	<0.5	<0.5	--	0.92	--	<0.5	--	--	--	--	--	--	--	--
MW-6	2/11/2009	358.85	13.34	345.51	470	100	--	<65	--	--	--	--	--	--	0.76	--	--	--	--	--	--	--	--	--	--
MW-6	8/11/2010	358.85	13.20	345.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/9/2011	358.85	13.18	345.67	610	44	--	<68	--	--	--	--	--	--	0.77	--	--	--	--	--	--	--	--	--	--
MW-6	9/23/2013	358.85	13.06	345.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Site No. 9-8944
Richland, Washington

					HYDROCARBONS					PRIMARY VOCs				LEAD		OXYGENATES		PAHs							
Well ID	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-DRO w/SGC	TPH-HRO	TPH-HRO w/SGC	B	T	E	X	Dissolved Lead	Total Lead	MTBE by SW8020	MTBE by SW8260B	Naphthalene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene
MTCA Method A Cleanup Levels					800/1000	500	500	500	500	5	1,000	700	1,000	NA	15	NA	20	160	NA	NA	NA	NA	NA	NA	NA
	Units	ft	ft	ft-elev.	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-7	10/23/2007	359.01	12.63	346.38	73	<130	--	<260	--	<0.10	<0.066	0.14	.26	<2.0	13	--	<0.14	0.031	<0.010	<0.010	<0.010	<0.010	<0.021	<0.010	<0.010
MW-7	3/24/2008	359.01	14.00	345.01	<50	<120	--	<240	--	<1.0	<1.0	<1.0	<2.0	<2.0	**33**	--	<1.0	--	--	--	--	--	--	--	--
MW-7	5/12/2008	359.01	14.19	344.82	<50	<76	--	<95	--	<0.5	<0.5	<0.5	<0.5	--	0.070	--	<0.5	--	--	--	--	--	--	--	--
MW-7	7/28/2008	359.01		333.15	<50	<78	--	<97	--	<0.5	<0.5	<0.5	<0.5	--	11.2	--	<0.5	--	--	--	--	--	--	--	--
MW-7	11/3/2008	359.01	13.54	345.47	<50	<29	--	<67	--	<0.5	<0.5	<0.5	<0.5	--	1.3	--	<0.5	--	--	--	--	--	--	--	--
MW-7	2/10/2009	359.01	13.89	345.12	--	--	--	--	--	--	--	--	--	--	0.49	--	--	--	--	--	--	--	--	--	--
MW-7	8/11/2010	359.01	13.61	345.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	9/9/2011	359.01	13.71	345.30	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--	--
MW-7	9/23/2013	359.01	13.70	345.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	10/23/2007	359.29	12.79	346.50	**33,000**	**4,000**	--	270	--	0.12	16	**1,300**	**2,280**	<2.0	**22**	--	<0.14	**190**	<0.010	<0.010	<0.010	<0.010	<0.021	<0.010	<0.010
MW-8	3/24/2008	359.29	14.01	345.28	**13,000**	**3,000**	--	<240	--	<1.0	15	610	821	<2.0	**54**	--	<1.0	**320**	--	--	--	--	--	--	--
MW-8	5/12/2008	359.29	14.31	344.98	**18,000 J**	**4,600**	--	<970	--	<1	17	640	**1,100**	--	0.44	--	<1	**410**	--	--	--	--	--	--	--
MW-8	7/28/2008	359.29	13.13	346.16	**16,000**	**8,000**	--	<490	--	<0.5	9	**800**	**1,300**	--	1.2	--	<0.5	**500**	--	--	--	--	--	--	--
MW-8	11/3/2008	359.29	13.65	345.64	**15,000**	**6,900**	--	<670	--	<0.5	10	**760**	520	--	1.6	--	<0.5	**410**	--	--	--	--	--	--	--
MW-8	2/11/2009	359.29	13.92	345.37	**4,800**	**550**	--	<66	--	<0.5	0.8	200	70	--	0.24	--	--	110	--	--	--	--	--	--	--
MW-8	8/11/2010	359.29	13.74	345.55	**9,900**	**1,000**	--	<250	--	<2.0	2.9	620	973	--	--	--	--	**300**	--	--	--	--	--	--	--
MW-8	9/9/2011	359.29	13.85	345.44	**2,100 [2,200]**	130 [120]	--	<67 [<67]	--	<0.5 [<0.5]	0.5 [0.6]	45 [46]	4 [4]	--	0.29 [0.31]	--	--	24 [24]	--	--	--	--	--	--	--
MW-8	8/27/2012	359.29	13.83	345.46	**3,000 [2,900]**	200 [360]	--	<67 [<69]	--	<0.5 [<0.5]	<0.5 [0.5]	39 [34]	24 [23]	--	--	--	--	31 [29]	--	--	--	--	--	--	--
MW-8	9/23/2013	359.29	13.60	345.69	**4,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	10/9/2018	--	13.73	--	**7,800**	**960**	420	<100	<70	<1.0	2.0	240	19	<1.1	<1.1	--	--	--	--	--	--	--	--	--	--
MW-9	12/12/2018	--	14.07	--	**7,600**	**760**	330	<100	<67	<0.20	3.0	59	21	<1.1	<1.1	--	--	--	--	--	--	--	--	--	--
MW-9	9/19/2019	--	13.28	--	620	370	--	<350	--	--	--	--	--	--	<4.0	--	--	--	--	--	--	--	--	--	--
MW-9	2/19/2020	--	14.33	--	**4,400**	**1,400**	--	160 J	--	<0.53	1.2J	28	11	--	<1.0	--	--	--	--	--	--	--	--	--	--
MW-9	5/20/2020	--	14.64	--	**2,600**	**1,300**	**1,200**	160 J *	<98 *	<0.24	<0.39	1.5 J	<0.39	--	<1.0	--	--	--	--	--	--	--	--	--	--
MW-9	8/27/2020	--	13.78	--	770	450	--	280 J B	--	<0.24	<0.39	<0.50	<0.39	--	<1.0	--	--	<0.93	--	--	--	--	--	--	--
MW-9	11/5/2020	--	13.75	--	**3,700**	**1,400**	**1,200**	170 J	<92	<0.24	0.69 J	1. 6 J	1.9 J	--	<1.0	--	--	4.1 *	--	--	--	--	--	--	--
MW-9	2/24/2021	--	13.68	--	**4,200**	**1,400**	--	150 J	--	0.24	1.1 J	59	11	--	--	--	--	150 *+	--	--	--	--	--	--	--
MW-9	5/18/2021	--	14.19	--	**1,550**	464	257	<250	<250	<0.941	<0.278	0.631 J	0.490 J	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	10/9/2018	--	13.47	--	**9,500 [9,400]**	**740 [680]**	430 [430]	<110 [<100]	<69 [<68]	<1.0 [<1.0]	<1.0 [<1.0]	91 [86]	<5.0 [<5.0]	8.3 [8.6]	7.6 [8.2]	--	--	--	--	--	--	--	--	--	--
MW-10	12/12/2018	--	13.72	--	**8,000 [7,900]**	**540 [540]**	350 [400]	<100 [<100]	<66 [<66]	<0.20 [<0.20]	0.40 [0.50]	81 [85]	4.0 [4.0]	2.0 [1.8]	2.2 [2.1]	--	--	--	--	--	--	--	--	--	--
MW-10	9/19/2019	--	12.88	--	190 J [250]	290 J [290 J]	--	290 J [320 J]	--	--	--	--	--	--	<1.4 J [1.3 J	--	--	--	--	--	--	--	--	--	--
MW-10	2/19/2020	--	13.98	--	**4,600 [4,500]**	**1,300 [1,200]**	--	150 J [150 J]	--	<0.53 [<0.53]	<0.39 [<0.39]	31 [33]	1.8J [2.0 J]	--	1.1 J	--	--	--	--	--	--	--	--	--	--
MW-10	5/20/2020	--	14.31	--	**4,900 [4,700]**	**2,100 [2,400]**	**1,500 [1,900]**	270 J * [280 J *]	<89 * [98 J *]	<0.24 [<0.24]	0.45 J [0.46 J]	47 [49]	2.5 J [2.4 J]	--	2.0 J [1.9 J]	--	--	--	--	--	--	--	--	--	--
MW-10	8/27/2020	--	13.32	--	**1,100 [1,000]**	**810 [1000]**	--	**670 B [910 B]**	--	<0.24 [<0.24]	<0.39 [0.42 J]	5.4[6.0]	<0.39[<0.39]	--	2.0 J [1.7 J]	--	--	12 [13]	--	--	--	--	--	--	--
MW-10	11/5/2020	--	13.46	--	**3,300[2,900]**	**1,100[1,200]**	**760[800]**	500[**540**]	<89[90 J]	<0.24 [<0.24]	0.88 J[0.88 J]	21[21]	1.2 J[1.2 J]	--	<1.0[<1.0]	--	--	27 *[28 *]	--	--	--	--	--	--	--
MW-10	2/24/2021	--	13.37	--	**3,300[3,400]**	**1,000[1,200]**	--	220 J[240 J]	--	0.24[0.24]	0.65 J[0.63 J]	27[28]	1.7 J[1.6 J]	--	--	--	--	2 *+[46 *+]	--	--	--	--	--	--	--
MW-10	5/18/2021	--	13.78	--	**3,200 [3,780]**	**771 [812]**	215 [343]	<250	<250	<0.941 [<0.0941]	<0.278 [<0.278]	15.1 [21.1]	0.875 J [1.40 J]	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	10/9/2018	--	13.63	--	**7,800**	**740**	450	200	<69	<0.20	<0.20	2.0	<1.0	3.2	3.4	--	--	--	--	--	--	--	--	--	--
MW-11	12/12/2018	--	13.81	--	**4,100**	270	300	<100	<66	<0.20	<0.20	0.70	<1.0	<1.1	<1.1	--	--	--	--	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Site No. 9-8944
Richland, Washington

					HYDROCARBONS					PRIMARY VOCs				LEAD		OXYGENATES		PAHs							
Well ID	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-DRO w/SGC	TPH-HRO	TPH-HRO w/SGC	B	T	E	X	Dissolved Lead	Total Lead	MTBE by SW8020	MTBE by SW8260B	Naphthalene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene
MTCA Method A Cleanup Levels					800/1000	500	500	500	500	5	1,000	700	1,000	NA	15	NA	20	160	NA	NA	NA	NA	NA	NA	NA
	Units	ft	ft	ft-elev.	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-11	9/19/2019	--	12.95	--	470	310	--	120 J	--	--	--	--	--	--	<4.0	--	--	--	--	--	--	--	--	--	--
MW-11	2/19/2020	--	14.09	--	**2,100**	460	--	<110	--	<0.53	<0.39	<0.50	<0.39	--	1.4 J	--	--	--	--	--	--	--	--	--	--
MW-11	5/20/2020	--	14.33	--	**2,100**	**1,600**	**1,400**	130 J *	130 J *	<0.24	0.77 J	<0.50	<0.39	--	<1.0	--	--	--	--	--	--	--	--	--	--
MW-11	8/27/2020	--	13.59	--	**1,600**	**1,100**	--	400 B	--	<0.24	0.88 J	<0.50	<0.39	--	<1.0	--	--	1.9 J	--	--	--	--	--	--	--
MW-11	11/5/2020	--	13.34	--	**1,800**	**920**	**740**	370	140 J	<0.24	0.71 J	<0.50	<0.39	--	<1.0	--	--	<0.93 *	--	--	--	--	--	--	--
MW-11	2/24/2021	--	13.45	--	**1,000**	430	--	120 J	--	0.24	0.39	0.50	0.39	--	--	--	--	6.9 *+	--	--	--	--	--	--	--
MW-11	5/18/2021	--	13.91	--	**1,540**	490	425	<250	<250	<0.0941	<0.278	0.154 J	0.330 J	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	2/27/2000	--	--	--	<50.0	--		--		<0.500	<0.500	<0.500	<1.00	--	--	<5.00	--	--	--	--	--	--	--	--	--
Trip Blank	2/21/2001	--	--	--	<50.0	--		--		<0.500	<0.500	<0.500	<1.00	--	--	<5.00	--	--	--	--	--	--	--	--	--
Trip Blank	5/22/2001	--	--	--	<50.0	--		--		<0.500	<0.500	<0.500	<1.00	--	--	<5.00	--	--	--	--	--	--	--	--	--
Trip Blank	8/11/2001	--	--	--	<50.0	--		--		<0.500	<0.500	<0.500	<1.50	--	--	<5.00	--	--	--	--	--	--	--	--	--
Trip Blank	11/10/2001	--	--	--	<100	--		--		<0.500	<2.00	<1.00	<1.50	--	--	<5.00	--	--	--	--	--	--	--	--	--
Trip Blank	2/4/2002	--	--	--	<50.0	--		--		<0.500	<0.500	<0.500	<1.00	--	--	<5.00	--	--	--	--	--	--	--	--	--
Trip Blank	8/24/2002	--	--	--	<50	--		--		<0.50	<0.50	<0.50	<1.5	--	--	<2.5	--	--	--	--	--	--	--	--	--
Trip Blank	2/20/2003	--	--	--	<50	--		--		<0.50	<0.50	<0.50	<1.5	--	--	<2.5	--	--	--	--	--	--	--	--	--
Trip Blank	8/21/2003	--	--	--	<50	--		--		<0.5	<0.5	<0.5	<1.5	--	--	<2.5	--	--	--	--	--	--	--	--	--
Trip Blank	2/19/2004	--	--	--	<50	--		--		<0.5	<0.5	<0.5	<1.5	--	--	<2.5	--	--	--	--	--	--	--	--	--
Trip Blank	8/10/2004	--	--	--	<50	--		--		<0.5	<0.5	<0.5	<1.5	--	--	<2.5	--	--	--	--	--	--	--	--	--
Trip Blank	12/3/2004	--	--	--	<48	--		--		<0.5	<0.5	<0.5	<1.5	--	--	<2.5	--	--	--	--	--	--	--	--	--
Trip Blank	10/23/2007	--	--	--	<50	--		--		<1.0	<1.0	<1.0	<2.0	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	3/24/2008	--	--	--	<50	--		--		<1.0	<1.0	<1.0	<2.0	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	5/12/2008	--	--	--	<50	--		--		<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	7/28/2008	--	--	--	<50	--		--		<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	11/3/2008	--	--	--	<50	--		--		<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	2/10/2009	--	--	--	<50	--		--		<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	8/11/2010	--	--	--	<50	--		--		<2.0	<2.0	<2.0	-	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	9/9/2011	--	--	--	<50	--		--		<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	8/27/2012	--	--	--	<50	--		--		<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	8/27/2012	--	--	--	<50	--		--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	9/23/2013	--	--	--	<50	--		--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	10/9/2018	--	--	--	--	--	--	--	--	<0.20	<0.20	<0.40	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	9/19/2019	--	--	--	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	8/27/2020	--	--	--	--	--	--	--	--	<0.24	<0.39	<0.50	<0.39	--	--	--	--	0.93	--	--	--	--	--	--	--
Trip Blank	11/5/2020	--	--	--	<70	--	--	--	--	<0.24	<0.39	<0.50	<0.39	--	--	--	--	0.93	--	--	--	--	--	--	--
Trip Blank	02/24/2021	--	--	--	--	--	--	--	--	0.24	0.39	0.50	0.39	--	--	--	--	0.93	--	--	--	--	--	--	--
Trip Blank	05/18/2021	--	--	--	--	--	--	--	--	<0.0941	<0.278	<0.137	0.222 J	--	--	--	--	--	--	--	--	--	--	--	--
Equipment Blank	9/9/2011	--	--	--	<50	<29		<68		<0.5	<0.5	<0.5	<0.5	--	<0.080	--	--	<1	--	--	--	--	--	--	--
Equipment Blank	8/27/2012	--	--	--	<50	<29		<68		<0.5	<0.5	<0.5	<0.5	--	--	--	--	<1	--	--	--	--	--	--	--

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Groundwater Monitoring Data and Analytical Results
Chevron Site No. 9-8944
Richland, Washington

					HYDROCARBONS					PRIMARY VOCs				LEAD		OXYGENATES		PAHs							
Well ID	Date	TOC	DTW	GWE	TPH-GRO	TPH-DRO	TPH-DRO w/SGC	TPH-HRO	TPH-HRO w/SGC	B	T	E	X	Dissolved Lead	Total Lead	MTBE by SW8020	MTBE by SW8260B	Naphthalene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene
MTCA Method A Cleanup Levels					800/1000	500	500	500	500	5	1,000	700	1,000	NA	15	NA	20	160	NA	NA	NA	NA	NA	NA	NA
	Units	ft	ft	ft-elev.	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

LEGEND:

MTCA = Model Toxics Control Act Cleanup Regulations [WAC 173-340-720(2)(a)(1), as amended February 2001]
NA = No applicable MTCA Method A cleanup level
TOC = Top of Casing
DTW = Depth to Water
GWE = Groundwater elevation
(ft-elev) = Feet Above Elevation
ft = Feet
µg/L = Micrograms per Liter
TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics
TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics
TPH-HRO = Total Petroleum Hydrocarbons - Oil Range Organics
BTEX = Benzene, toluene, ethylbenzene, xylenes
VOCs = Volatile organic compounds
MTBE = Methyl tertiary butyl ether
PAHs = Polycyclic aromatic hydrocarbons
-- = Not available / not applicable
< = Not detected above laboratory method detection limit
J = Result is < RL but ≥ to the MDL and the concentration is an approximate value
B = Compound was found in the blank and sample
H = Sample was prepped or analyzed beyond the specified holding time
w/SGC = with Silica Gel Cleanup
[1] = Not sampled due to insufficient water
[2] = Inaccessible
[3] = Dry
[4] = Destroyed
[5] = Inaccessible - Paved over
+ = LCS and/or LCSD is outside acceptance limits, high biased.

NOTES:
Monitoring wells MW-9, MW-10 and MW-11 have not been surveyed.
Concentrations in bold exceed MTCA Method A Cleanup Levels

Table 2
Geochemical Analytical Results
Chevron Site No. 9-8944
Richland, Washington

Well ID	Date	TOC	DTW	GWE	Methane	Nitrate	Sulfate	Total Manganese	Dissolved Manganese	Total Iron	Dissolved Iron
	Units	ft	ft	ft-elev.	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-9	5/20/2020	--	14.64	--	51	570	79,000	1,600	--	--	--
MW-9	8/27/2020	--	13.78	--	--	<20	19,000 F1	560	580	1,300	1000
MW-9	11/5/2020	--	13.75	--	1,200	<20	1,000 J	1,600.0	1,700	2,200	2,000
MW-9	2/24/2021	--	13.68	--	3,200	560	830 J	1,200	1,300	1,400 J	1,600 J
MW-10	5/20/2020	--	14.31	--	980 [1,200]	600 [640 H]	410,000 [380,000]	3,500 [3,400]	--	--	--
MW-10	8/27/2020	--	13.32	--	--	4,800 [4,600]	170,000 [160,000]	520 [780]	950 [890]	560 J [810 J]	760 J [670 J]
MW-10	11/5/2020	--	13.46	--	280[280]	2,100[2,200]	79,000[80,000]	760[740]	790[760]	1,200[1,200]	1,300[1,200]
MW-10	02/24/2021	--	13.37	--	520[470]	1,100[1,100]	56,000[56,000]	920[970]	1,000[1,100]	2,500[2,600]	2,800[2,700]
MW-11	5/20/2020	--	14.33	--	1400	740	97,000	2,900	--	--	--
MW-11	8/27/2020	--	13.59	--	--	1,100	52,000	1,900	2,000	4,500	3,900
MW-11	11/5/2020	--	13.34	--	460	<20	23,000	2,000	1,900	3,200	2,900
MW-11	02/24/2021	--	13.45	--	390	790	18,000	1,500	1,500	2,200 J	2,000 J

LEGEND:

TOC = Top of Casing
DTW = Depth to Water
GWE = Groundwater elevation
(ft-elev) = Feet Above Elevation
ft = Feet
µg/L = Micrograms per Liter
-- = Not available / not applicable
< = Not detected above laboratory method detection limit
J = Result is < RL but ≥ to the MDL and the concentration is an approximate value

NOTES:
Monitoring wells MW-9, MW-10 and MW-11 have not been surveyed.

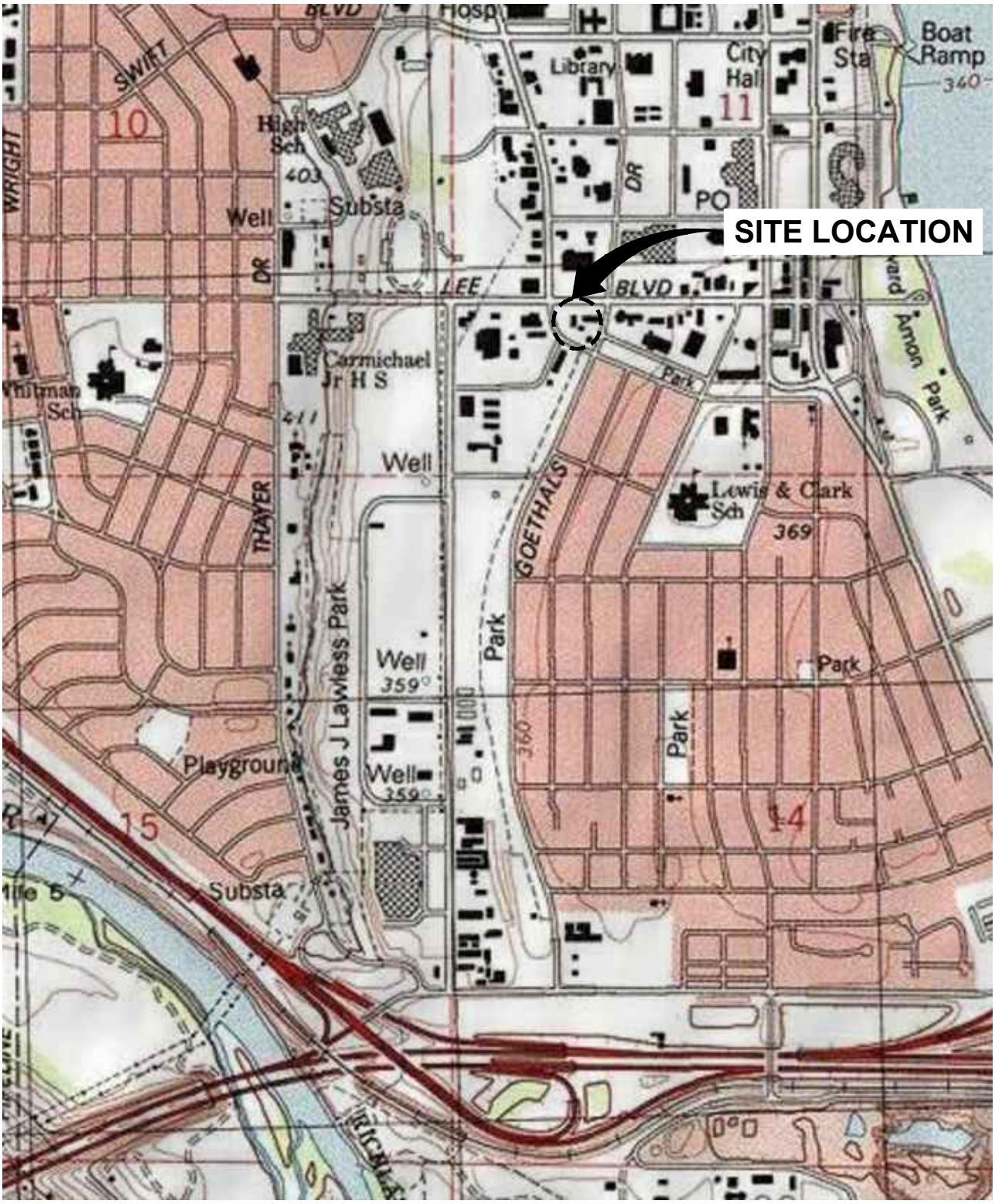
Table 3
Groundwater Field Sampling Results
Chevron Site No. 9-8944
Richland, Washington

Well ID	Date	pH	Conductivity	Dissolved Oxygen	ORP	Turbidity	Ferrous Iron
		--	mS/cm	mg/L	mV	NTU	mg/L
MW-9	2/19/2020	6.76	0.665	3.16	83.9	9	--
MW-9	5/20/2020	7.04	0.939	0.58	-74.9	7	0.0
MW-9	8/27/2020	7.17	0.579	1.02	7.5	16	0.0
MW-9	11/5/2020	7.23	0.929	0.51	-80.9	16	--
MW-9	2/24/2021	7.30	0.56	0.63	-105.7	14	0.8
MW-9	5/18/2021	7.12	0.702	0.35	-120.7	16	--
MW-10	2/19/2020	4.30	0.824	2.56	158.3	11	--
MW-10	5/20/2020	6.85	1.925	0.3	-90.1	17	0.0
MW-10	8/27/2020	7.16	1.62	0.27	12.5	8	0.0
MW-10	11/5/2020	7.11	1.91	0.44	-103.4	10	--
MW-10	2/24/2021	7.05	0.814	0.9	-67.6	48	2.4
MW-10	5/18/2021	7.04	1.39	0.36	-112.9	32	--
MW-11	2/19/2020	4.60	0.946	2.63	168.1	31	--
MW-11	5/20/2020	6.94	1.48	0.31	-90.9	61	0.0
MW-11	8/27/2020	7.09	1.45	0.22	-83.2	10	0.0
MW-11	11/5/2020	7.19	1.40	0.49	-56.7	11	--
MW-11	2/24/2021	7.07	0.743	0.69	-90	14	0.6
MW-11	5/18/2021	6.8	1.08	0.37	-117	60	--

Notes:

mg/L = Milligrams per liter
mS/cm = milliSiemens per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Unit
-- = not analyzed

Figures



REFERENCE: BASE MAP CREATED WITH TOPO! - RICHLAND, US TOPO.

0 1,500' 3,000'

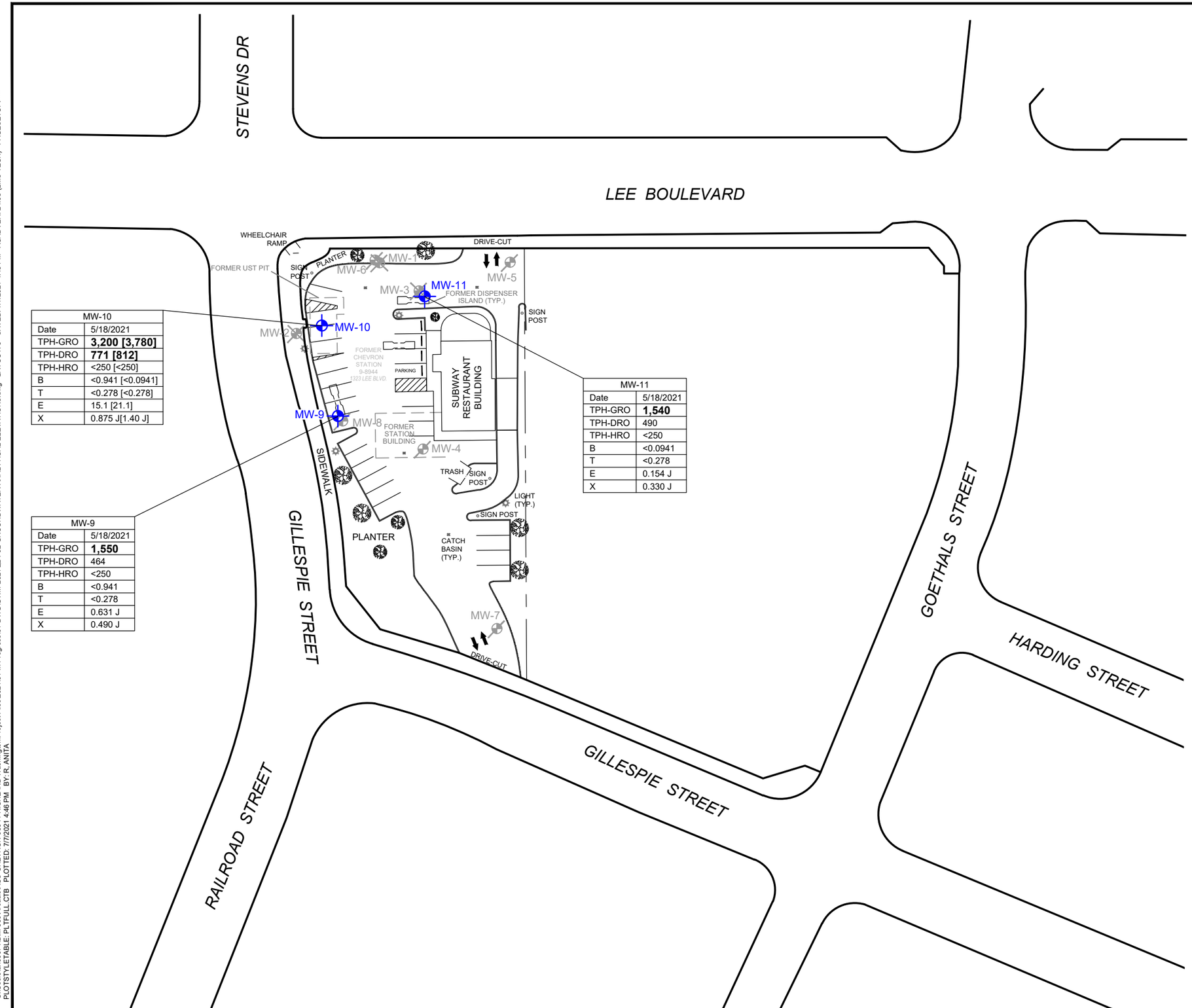
Approximate Scale: 1 in. = 1,500 ft.

CHEVRON SERVICE SITE 9-8944
1323 LEE BOULEVARD
RICHLAND, WASHINGTON

SITE LOCATION MAP

ARCADIS

FIGURE
1



MW-10	
Date	5/18/2021
TPH-GRO	**3,200 [3,780]**
TPH-DRO	**771 [812]**
TPH-HRO	<250 [<250]
B	<0.941 [<0.0941]
T	<0.278 [<0.278]
E	15.1 [21.1]
X	0.875 J[1.40 J]

MW-11	
Date	5/18/2021
TPH-GRO	**1,540**
TPH-DRO	490
TPH-HRO	<250
B	<0.0941
T	<0.278
E	0.154 J
X	0.330 J

MW-9	
Date	5/18/2021
TPH-GRO	**1,550**
TPH-DRO	464
TPH-HRO	<250
B	<0.941
T	<0.278
E	0.631 J
X	0.490 J

LEGEND:

MW-10	GROUNDWATER MONITORING WELL LOCATION
MW-3	ABANDONED WELL LOCATIONS
MW-2	DESTROYED MONITORING WELL LOCATION
[3,780]	DUPLICATE SAMPLE CONCENTRATIONS (µg/L)
<0.941	CONCENTRATIONS NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT
J	ESTIMATED VALUE
BOLD	BOLD AND HIGHLIGHTED VALUES ARE GREATER THAN THEIR RESPECTIVE MTCA METHOD A CLEANUP LEVEL
*	ECOLOGY MODEL TOXICS CONTROL ACT (MTCA) METHOD A CLEANUP LEVELS (CULS) FOR GROUNDWATER, WAC CHAPTER 173-340-900, TABLE 720-1
800/1,000	GRO MTCA METHOD A CUL WITH B PRESENT IS 800 (µg/L) AND WITHOUT IS 1,000 (µg/L)
TPH	TOTAL PETROLEUM HYDROCARBONS

Well ID		
Constituent	MTCA CULs*	
TPH-GRO	TPH as gasoline	**800/1,000**
TPH-DRO	TPH as diesel	**500**
TPH-HRO	TPH as motor oil	**500**
B	Benzene	**5**
T	Toluene	**1,000**
E	Ethylbenzene	**700**
X	Xylenes (total)	**1,000**

NOTES:

1. BASE MAP PROVIDED BY CONESTOGA-ROVERS & ASSOCIATES, DATED 11/3/2008, AT A SCALE OF 1"=30'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. ALL VALUES REPORTED IN MICROGRAMS PER LITER (µg/L).

0 60' 120'

GRAPHIC SCALE

CHEVRON SERVICE STATION 9-8944
1323 LEE BOULEVARD
RICHLAND, WASHINGTON

GROUNDWATER CONCENTRATIONS MAP MAY 18, 2021

ARCADIS

FIGURE 2

CITY:IRVINE DIV/GROUP:ENVCAD DB:E.MURESAN PIC: K. ABBOTT PM: A. JUST TM: J. NEWMAN
C:\Users\ar\0007\1BIM 360\Arcadis\AUS-CHEVRON-98944-RICHLAND Washington\Project Files\202101-In Progress\01-DWG\GWM-2021Q2-F02-GROUNDWATER ANALYTICAL ELEVATIONS.dwg LAYOUT: 3 SAVED: 7/7/2021 4:45 PM ACADVER: 24.0S (LMS TECH) PAGESETUP: ---
PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 7/7/2021 4:46 PM BY: R. ANITA

Attachment 1

Field Sampling Forms

ARCADIS Design & Consultancy for natural and built assets

Groundwater Gauging Log

Project Number	30064311
Client:	Chevron
Site ID:	98944
Site Location:	Kennewick, Washington
Measuring Point:	Top of Casing
Date(s):	05/18/2021
Sampler(s):	Lee Bures
Gauging Equipment:	Water Level Meter

Well ID	Date	Gauging Time	Static Water Level (ft bmp)	Depth to Product (ft bmp)	Total Depth (ft bmp)	PID Reading (ppm)	Comments
MW-9	05/18/2021	11:05	14.19	ND	18.37	--	--
MW-10	05/18/2021	23:02	13.78	ND	18.12	--	--
MW-11	05/18/2021	11:13	13.91	ND	18.05	--	--

ft-bmp = feet below measuring point ND = Not Detected PID = Photoionization Detector Reading

ppm = parts per million -- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30064311	**Well ID**	MW-10	**Date**	5/18/2021		
Site Location	Kennewick, Washington	**Site ID**	98944	**Weather (°F)**	Clear	**Sampled by**	Lee Bures
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	8 to 18	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	13.78	**Total Depth (ft-bmp)**	18.12	**Water Column (ft)**	4.34	**Gallons in Well**	0.71
Water Quality Meter Make/Model	YSI 556 MP5	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	12:22	**Well Volumes Purged**	1.12	**Sample ID**	MW-10-210518	**Evacuation Equipment**	Peristaltic
Purge Start	12:04	**Gallons Purged**	0.79	**Duplicate ID**	Duplicate-1-210518		
Purge End	12:19	**Total Purge Time (h:m)**	0:15				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
12:07	200	13.91	7.02	1.45	50.0	0.29	16.96	-77.4	Clear	--
12:10	200	13.91	7.01	1.44	38.0	0.35	16.82	-98.5	Clear	--
12:13	200	13.91	7.06	1.43	34.0	0.36	16.76	-105.1	Clear	--
12:16	200	13.91	7.05	1.40	32.0	0.36	16.79	-109.6	Clear	--
12:19	200	13.91	7.04	1.39	32.0	0.36	16.70	-112.9	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-10-210518 Sample Time: 12:22 Sample Depth (ft-bmp): 16

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30064311	**Well ID**	MW-11	**Date**	5/18/2021		
Site Location	Kennewick, Washington	**Site ID**	98944	**Weather (°F)**	Clear	**Sampled by**	Lee Bures
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	8 to 18	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	13.91	**Total Depth (ft-bmp)**	18.05	**Water Column (ft)**	4.14	**Gallons in Well**	0.67
Water Quality Meter Make/Model	YSI 556 MP5	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	11:42	**Well Volumes Purged**	1.18	**Sample ID**	MW-11-210518	**Evacuation Equipment**	Peristaltic
Purge Start	11:24	**Gallons Purged**	0.79	**Duplicate ID**	--		
Purge End	11:39	**Total Purge Time (h:m)**	0:15				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
11:27	200	13.91	6.85	1.12	49.0	0.57	17.14	-108.2	Clear	--
11:30	200	13.91	6.83	1.11	57.0	0.34	17.13	-109.9	Clear	--
11:33	200	13.91	6.80	1.10	62.0	0.35	17.22	-113.9	Clear	--
11:36	200	13.91	6.81	1.08	60.0	0.38	17.14	-115.9	Clear	--
11:39	200	13.91	6.80	1.08	60.0	0.37	17.14	-117	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-11-210518 Sample Time: 11:42 Sample Depth (ft-bmp): 16

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30064311	**Well ID**	MW-9	**Date**	5/18/2021		
Site Location	Kennewick, Washington	**Site ID**	98944	**Weather (°F)**	Clear	**Sampled by**	Lee Bures
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	8 to 18	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	14.19	**Total Depth (ft-bmp)**	18.37	**Water Column (ft)**	4.18	**Gallons in Well**	0.68
Water Quality Meter Make/Model	Hach 2100Q,YSI 556 MP5	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	13:15	**Well Volumes Purged**	1.17	**Sample ID**	MW-9-210518	**Evacuation Equipment**	Peristaltic
Purge Start	00:57	**Gallons Purged**	0.79	**Duplicate ID**	--		
Purge End	13:12	**Total Purge Time (h:m)**	12:15				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
13:00	200	14.19	7.21	0.718	25.0	0.31	18.75	-91.6	Clear	--
13:03	200	14.19	7.18	0.710	20.0	0.32	18.59	-106.8	Clear	--
13:06	200	14.19	7.15	0.701	16.0	0.34	18.70	-114.2	Clear	--
13:09	200	14.19	7.12	0.703	16.0	0.35	18.94	-117.5	Clear	--
13:12	200	14.19	7.12	0.702	16.0	0.35	18.86	-120.7	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-9-210518 Sample Time: 13:15 Sample Depth (ft-bmp): 16

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Company Name/Address:
Arcadis - Chevron - WA

1100 Olive Way
Suite 800
Seattle. WA 98101

Billing Information:
Attn: Accounts Payable
630 Plaza Dr., Ste. 600
Highlands Ranch, CO 80129

Pres Chk

Report to:
Ada Hamilton

Email To:
ada.hamilton@arcadis.com;environmentDM-

Project Description:
98944

City/State Collected: Richland, WA

Please Circle: PT MT CT ET

Phone: **206-325-5254**

Client Project #
30064311

Lab Project #
CHEVARCWA-98944

Collected by (print):
Andrew Leaser

Site/Facility ID #
1323 LEE BLVD. RICHLAND WA

P.O. #

Collected by (signature):

Immediately
Packed on Ice N ____ Y X

Rush? (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 8260D 40mlAmb-HCl	NWTPHDX no silica 40mlAmb-HCl-BT	NWTPHDX w/ silica 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl
MW-9-210518	Grab	GW	—	5/18/21	~~1338~~ 1335	10	X	X	X	X
MW-10-210518	Grab	GW	—	5/18/21	1222	10	X	X	X	X
MW-11-210518	Grab	GW	—	5/18/21	1142	10	X	X	X	X
Duplicate-1-210518	Grab	GW	—	5/18/21	1200	10	X	X	X	X
Trip Blank-1-210518	Grab	GW	—	5/18/21	1100	2	X			

Chain of Custody Page ___ of ___

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG #

Table #

Acctnum: **CHEVARCWA**

Template: **T187764**

Prelogin: **P847856**

PM: **110 - Brian Ford**

PB:

Shipped Via:

Remarks	Sample # (lab only)

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

WELLHEAD INSPECTION FORM

Client: Arcadis Site: 1323 Lee Blvd, Richland, WA Date: 5/18/21

Job # : 210518-AW1 Technician: Andrew Visser Page 1 of 1

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency: Cap non-functional	Lock non-functional	Lock missing	Bolts missing (list qty)	Tabs stripped (list qty)	Tabs broken (list qty)	Annular seal incomplete	Apron damaged	Rim / Lid broken	Trip Hazard	Below Grade	Other (explain in notes)	Well Not Inspected (explain in notes)	Notes (list if cap or lick replaced, if there are access issues associated with repairs, if traffic control is required, if stand pipe damaged, or any specific details not covered by checklist)
MW-9				X											
MW-10				X											
MW-11				X											

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 1323 Richland BNL, Richland, WA				PROJECT NUMBER 20518-A-1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI 556	0260203	5/18/21	DO 100% pH 4.00 7.00 10.00 ORP 237.5 Containing 3Mo	98.6% 3.81 6.67 10.13 247.6 3.021	✓	20°C	AU
					✓	20°C	AU

CHEVRON-WASHINGTON/OREGON TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING**

FOR PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT CHEVRON FACILITIES IN THE STATE OF WASHINGTON AND OREGON. THE PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR AND HAULED TO THEIR FACILITY IN KENT, WASHINGTON FOR TEMPORARILY HOLDING PENDING TRANSPORT BY OTHERS TO FINAL DESTINATION.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 22727 72ND Ave South, Suite D – 102, Kent, WA 98032. BLAINE TECH. is authorized by Chevron Environmental Management Company (CHEVRON EMC) to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the CHEVRON EMC facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one CHEVRON EMC facility to BLAINE TECH; from one CHEVRON EMC facility to BLAINE TECH via another CHEVRON EMC facility; or any combination thereof. The well purgewater is and remains the property of CHEVRON EMC.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Chevron facility described below:

9-8949	Ada Hamilton
CHEVRON #	Chevron Project Manager

1523	Lee Blvd	Richland	WA
Street number	street name	city	state

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-9	1		
MW-10	1		
MW-11	1		

added equip. rinse water / .25

any other adjustments /

TOTAL GALS. RECOVERED 3.25

loaded onto BTS vehicle # 96

BTS event #	time	date
210518-A1	1400	5/18/21

signature

Blaine Tech Services, Inc.

Permit To Work

for Chevron EMC Sites

Client: Arcadis Date 5/18/21

Site Address: 1323 Lee Blvd, Richlnd, LA

Job Number: 210518-AN1 Technician(s): Andrew Lusk

Pre-Job Safety Review

1. JMP reviewed, site restrictions and parking/access issues addressed. Reviewed: ☐

2. Special Permit Required Task Review

Are there any conditions or tasks that would require:	**Yes**	**No**
Confined space entry	☐	☒
Working at height	☐	☒
Lock-out/Tag-out	☐	☒
Excavations greater than 4 feet deep	☐	☒
Excavations within 3 feet of a buried active electrical line or product piping or within 10 feet of a high pressure gas line.	☐	☒
Use of overhead equipment within 15 feet of an overhead electrical power line or pole supporting one	☐	☒
Hot work	☐	☒

If "Yes" was the answer to any of the Special Permit Required Tasks above, the Project Manager will contact the client and arrange to modify the Scope of Work so that the Special Permit Required Tasks are not required to be performed by Blaine Tech Services employees.

	Yes	**No**
3. Is a Traffic Control Permit required for today's work?	☐	☒
If so is it in the folder?	☐	☐
Is it current?	☐	☐
Do you understand the Traffic Control Plan and what equipment you will need?	☐	☐

On site Pre-Job Safety Review

1. Reviewed and signed the site specific HASP.	☒
2. Route to hospital understood.	☒
3. Reviewed "Groundwater Monitoring Well Sampling General Job Safety Analysis included in the HASP.	☒
4. Exceptional circumstances today that are not covered by the HASP, JSA or JMP have been addressed and mitigated.	☒
5. Understands procedure to follow, if site circumstances change, to address new site hazards.	☒
6. There are no unexpected conditions which would make your task a Special Permit Required Task. If there is, contact your Project Manager.	☒
7. All site hazards have been communicated to all necessary onsite personnel during tailgate safety meeting.	☒
8. After lunch tailgate safety meeting refresher conducted.	☒

If Checklist Task cannot be completed, explain:

Permit To Work Authority: Andrew Lusk (Name) Field Technician (Title) 5/18/21 (Date) 1059 (Time)

Attachment 2

Laboratory Analytical Report and Chain of Custody Documentation

ANALYTICAL REPORT

June 03, 2021

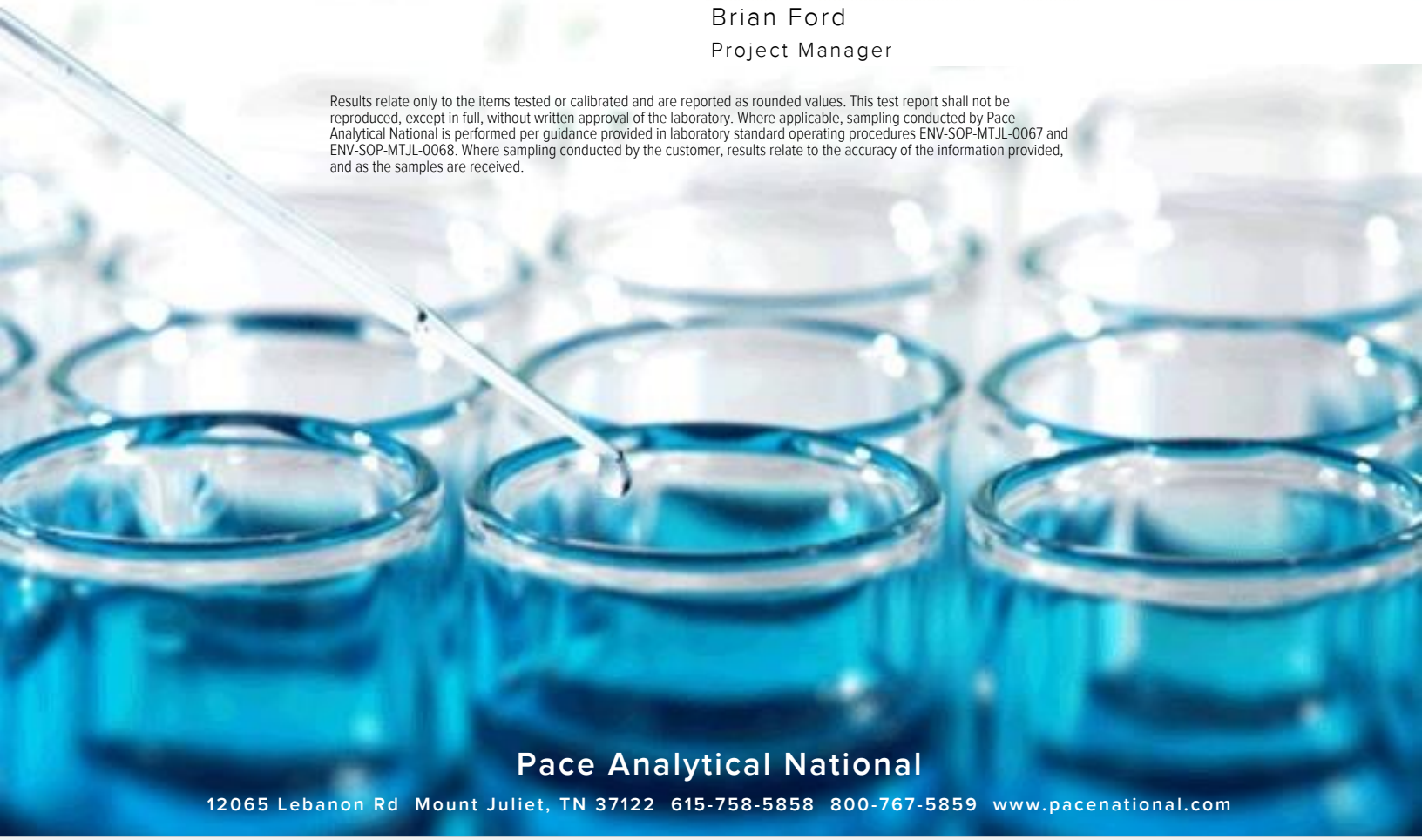
Arcadis - Chevron - WA

Sample Delivery Group:	L1355985
Samples Received:	05/20/2021
Project Number:	30064311
Description:	98944
Site:	1323 LEE BLVD. RICHLAND WA
Report To:	Ada Hamilton 1100 Olive Way Suite 800 Seattle, WA 98101

Entire Report Reviewed By:

Brian Ford

Project Manager



Pace Analytical National

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

TABLE OF CONTENTS

MW-9-210518 L1355985-01 GW

Collected by: Andrew L. | Collected date/time: 05/18/21 13:15 | Received date/time: 05/20/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1676905	1	05/25/21 11:30	05/25/21 11:30	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1678064	1	05/26/21 19:24	05/26/21 19:24	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1676413	1	05/27/21 09:28	05/28/21 02:33	DMG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	WG1676415	1	05/27/21 09:30	05/28/21 15:53	WCR	Mt. Juliet, TN

MW-10-210518 L1355985-02 GW

Collected by: Andrew L. | Collected date/time: 05/18/21 12:22 | Received date/time: 05/20/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1676905	1	05/25/21 11:51	05/25/21 11:51	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1678064	1	05/26/21 19:44	05/26/21 19:44	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1676413	1	05/27/21 09:28	05/28/21 02:58	DMG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	WG1676415	1	05/27/21 09:30	05/28/21 16:19	WCR	Mt. Juliet, TN

MW-11-210518 L1355985-03 GW

Collected by: Andrew L. | Collected date/time: 05/18/21 11:42 | Received date/time: 05/20/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1676905	1	05/25/21 12:13	05/25/21 12:13	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1678064	1	05/26/21 20:04	05/26/21 20:04	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1676413	1	05/27/21 09:28	05/28/21 03:24	DMG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	WG1676415	1	05/27/21 09:30	06/02/21 10:12	DMG	Mt. Juliet, TN

DUPLICATE-1-210518 L1355985-04 GW

Collected by: Andrew L. | Collected date/time: 05/18/21 12:00 | Received date/time: 05/20/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1676905	1	05/25/21 12:35	05/25/21 12:35	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1678064	1	05/26/21 20:24	05/26/21 20:24	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1676413	1	05/27/21 09:28	05/28/21 03:50	DMG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	WG1676415	1	05/27/21 09:30	05/28/21 17:10	WCR	Mt. Juliet, TN

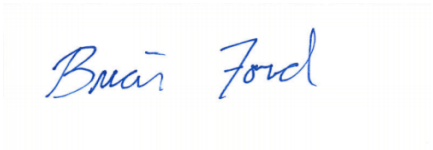
TRIP BLANK-1-210518 L1355985-05 GW

Collected by: Andrew L. | Collected date/time: 05/18/21 11:00 | Received date/time: 05/20/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1678064	1	05/26/21 19:04	05/26/21 19:04	JHH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	1550		31.6	100	1	05/25/2021 11:30	WG1676905
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*05/25/2021 11:30*	WG1676905

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	05/26/2021 19:24	WG1678064
Toluene	U		0.278	1.00	1	05/26/2021 19:24	WG1678064
Ethylbenzene	0.631	J	0.137	1.00	1	05/26/2021 19:24	WG1678064
Total Xylenes	0.490	J	0.174	3.00	1	05/26/2021 19:24	WG1678064
(S) Toluene-d8	*99.5*			*80.0-120*		*05/26/2021 19:24*	WG1678064
(S) 4-Bromofluorobenzene	*96.1*			*77.0-126*		*05/26/2021 19:24*	WG1678064
(S) 1,2-Dichloroethane-d4	*129*			*70.0-130*		*05/26/2021 19:24*	WG1678064

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	464		66.7	200	1	05/28/2021 02:33	WG1676413
Residual Range Organics (RRO)	U		83.3	250	1	05/28/2021 02:33	WG1676413
(S) o-Terphenyl	*104*			*52.0-156*		*05/28/2021 02:33*	WG1676413

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	257		66.7	200	1	05/28/2021 15:53	WG1676415
Residual Range Organics (RRO)	U		83.3	250	1	05/28/2021 15:53	WG1676415
(S) o-Terphenyl	*75.8*			*52.0-156*		*05/28/2021 15:53*	WG1676415

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	3200		31.6	100	1	05/25/2021 11:51	WG1676905
(S) a,a,a-Trifluorotoluene(FID)	*121*	J1		*78.0-120*		*05/25/2021 11:51*	WG1676905

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	05/26/2021 19:44	WG1678064
Toluene	U		0.278	1.00	1	05/26/2021 19:44	WG1678064
Ethylbenzene	15.1		0.137	1.00	1	05/26/2021 19:44	WG1678064
Total Xylenes	0.875	J	0.174	3.00	1	05/26/2021 19:44	WG1678064
(S) Toluene-d8	*97.4*			*80.0-120*		*05/26/2021 19:44*	WG1678064
(S) 4-Bromofluorobenzene	*97.0*			*77.0-126*		*05/26/2021 19:44*	WG1678064
(S) 1,2-Dichloroethane-d4	*147*	J1		*70.0-130*		*05/26/2021 19:44*	WG1678064

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	771		66.7	200	1	05/28/2021 02:58	WG1676413
Residual Range Organics (RRO)	U		83.3	250	1	05/28/2021 02:58	WG1676413
(S) o-Terphenyl	*106*			*52.0-156*		*05/28/2021 02:58*	WG1676413

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	215		66.7	200	1	05/28/2021 16:19	WG1676415
Residual Range Organics (RRO)	U		83.3	250	1	05/28/2021 16:19	WG1676415
(S) o-Terphenyl	*64.2*			*52.0-156*		*05/28/2021 16:19*	WG1676415

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	1540		31.6	100	1	05/25/2021 12:13	WG1676905
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*		*05/25/2021 12:13*	WG1676905

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	05/26/2021 20:04	WG1678064
Toluene	U		0.278	1.00	1	05/26/2021 20:04	WG1678064
Ethylbenzene	0.154	J	0.137	1.00	1	05/26/2021 20:04	WG1678064
Total Xylenes	0.330	J	0.174	3.00	1	05/26/2021 20:04	WG1678064
(S) Toluene-d8	*97.2*			*80.0-120*		*05/26/2021 20:04*	WG1678064
(S) 4-Bromofluorobenzene	*94.6*			*77.0-126*		*05/26/2021 20:04*	WG1678064
(S) 1,2-Dichloroethane-d4	*124*			*70.0-130*		*05/26/2021 20:04*	WG1678064

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	490		66.7	200	1	05/28/2021 03:24	WG1676413
Residual Range Organics (RRO)	U		83.3	250	1	05/28/2021 03:24	WG1676413
(S) o-Terphenyl	*105*			*52.0-156*		*05/28/2021 03:24*	WG1676413

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	425		66.7	200	1	06/02/2021 10:12	WG1676415
Residual Range Organics (RRO)	U		83.3	250	1	06/02/2021 10:12	WG1676415
(S) o-Terphenyl	*92.1*			*52.0-156*		*06/02/2021 10:12*	WG1676415

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	3780		31.6	100	1	05/25/2021 12:35	WG1676905
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*		*05/25/2021 12:35*	WG1676905

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	05/26/2021 20:24	WG1678064
Toluene	U		0.278	1.00	1	05/26/2021 20:24	WG1678064
Ethylbenzene	21.1		0.137	1.00	1	05/26/2021 20:24	WG1678064
Total Xylenes	1.40	J	0.174	3.00	1	05/26/2021 20:24	WG1678064
(S) Toluene-d8	*98.8*			*80.0-120*		*05/26/2021 20:24*	WG1678064
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*05/26/2021 20:24*	WG1678064
(S) 1,2-Dichloroethane-d4	*148*	J1		*70.0-130*		*05/26/2021 20:24*	WG1678064

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	812		66.7	200	1	05/28/2021 03:50	WG1676413
Residual Range Organics (RRO)	U		83.3	250	1	05/28/2021 03:50	WG1676413
(S) o-Terphenyl	*107*			*52.0-156*		*05/28/2021 03:50*	WG1676413

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	343		66.7	200	1	05/28/2021 17:10	WG1676415
Residual Range Organics (RRO)	U		83.3	250	1	05/28/2021 17:10	WG1676415
(S) o-Terphenyl	*83.2*			*52.0-156*		*05/28/2021 17:10*	WG1676415

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	05/26/2021 19:04	WG1678064
Toluene	U		0.278	1.00	1	05/26/2021 19:04	WG1678064
Ethylbenzene	U		0.137	1.00	1	05/26/2021 19:04	WG1678064
Total Xylenes	0.222	J	0.174	3.00	1	05/26/2021 19:04	WG1678064
(S) Toluene-d8	*95.3*			*80.0-120*		*05/26/2021 19:04*	WG1678064
(S) 4-Bromofluorobenzene	*91.1*			*77.0-126*		*05/26/2021 19:04*	WG1678064
(S) 1,2-Dichloroethane-d4	*122*			*70.0-130*		*05/26/2021 19:04*	WG1678064

Method Blank (MB)

(MB) R3659526-3 05/25/21 09:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	38.6	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*98.1*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3659526-2 05/25/21 09:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5380	97.8	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*104*	*78.0-120*	

Method Blank (MB)

(MB) R3660321-3 05/26/21 18:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*97.4*			*80.0-120*
(S) 4-Bromofluorobenzene	*92.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*122*			*70.0-130*

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

(LCS) R3660321-1 05/26/21 17:44 • (LCSD) R3660321-2 05/26/21 18:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	5.22	5.33	104	107	70.0-123			2.09	20
Ethylbenzene	5.00	4.12	4.46	82.4	89.2	79.0-123			7.93	20
Toluene	5.00	4.33	4.42	86.6	88.4	79.0-120			2.06	20
Xylenes, Total	15.0	13.8	14.0	92.0	93.3	79.0-123			1.44	20
(S) Toluene-d8				*96.4*	*98.9*	*80.0-120*				
(S) 4-Bromofluorobenzene				*95.1*	*99.6*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*123*	*123*	*70.0-130*				

L1356419-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1356419-02 05/27/21 03:04 • (MS) R3660321-4 05/27/21 04:04 • (MSD) R3660321-5 05/27/21 04:24

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	2500	U	2500	1810	100	72.4	500	17.0-158		J3	32.0	27
Ethylbenzene	2500	1730	3140	2870	56.4	45.6	500	30.0-155			8.99	27
Toluene	2500	U	2230	1590	89.2	63.6	500	26.0-154		J3	33.5	28
Xylenes, Total	7500	9180	12200	11600	40.3	32.3	500	29.0-154			5.04	28
(S) Toluene-d8					*101*	*99.4*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.5*	*99.9*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*117*	*114*		*70.0-130*				

Method Blank (MB)

(MB) R3660305-1 05/27/21 22:17

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*81.5*			*52.0-156*

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

(LCS) R3660305-2 05/27/21 22:43 • (LCSD) R3660305-3 05/27/21 23:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1620	1620	108	108	50.0-150			0.000	20
(S) o-Terphenyl				*127*	*122*	*52.0-156*				

Method Blank (MB)

(MB) R3660306-1 05/27/21 23:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*79.0*			*52.0-156*

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

(LCS) R3660306-2 05/28/21 00:00 • (LCSD) R3660306-3 05/28/21 00:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1320	1190	88.0	79.3	50.0-150			10.4	20
(S) o-Terphenyl				*104*	*95.0*	*52.0-156*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Arcadis - Chevron - WA
1100 Olive Way
Suite 800
Seattle. WA 98101

Billing Information:
Attn: Accounts Payable
630 Plaza Dr., Ste. 600
Highlands Ranch, CO 80129

Pres Chk

Report to: **Ada Hamilton**

Email To: **ada.hamilton@arcadis.com;environmentDM-**

Project Description: **98944**

City/State Collected: Richland, WA

Please Circle: PT MT CT ET

Phone: **206-325-5254**

Client Project # **30064311**

Lab Project # **CHEVARCWA-98944**

Collected by (print): Andrew Laser

Site/Facility ID # **1323 LEE BLVD. RICHLAND WA**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 8260D 40mlAmb-HCl	NWTPHDX no silica 40mlAmb-HCl-BT	NWTPHDX w/ silica 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	Remarks	Sample # (lab only)
MW-9-210518	Grab	GW	—	5/18/21	AM 1135	10	X	X	X	X		-01
MW-10-210518	Grab	GW	—	5/18/21	1222	10	X	X	X	X		-02
MW-11-210518	Grab	GW	—	5/18/21	1142	10	X	X	X	X		-03
Duplicate-1-210518	Grab	GW	—	5/18/21	1200	10	X	X	X	X		-04
Trip Blank-1-210518	Grab	GW	—	5/18/21	1100	2	X					-05

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ___

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: __ UPS X FedEx __ Courier ___

Tracking # 9463 1921 0282

Relinquished by : (Signature) — Date: 5/19/21 — Time: 1530
Received by: (Signature): Shipped via Fed EX

Relinquished by : (Signature) — Date: — Time:
Received by: (Signature)

Relinquished by : (Signature) — Date: — Time:
Received for lab by: (Signature): R. Holden — Date: 5/20/21 — Time: 9:30

Trip Blank Received: Yes / No
2
HCl / MeoH
TBR

Temp: 0.6 6.8 °C
2.4 - 1 = 2.3
Bottles Received: 40

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Chain of Custody Page 1 of 1

Pace Analytical®
L1355985
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # D142
Table
Acctnum: **CHEVARCWA**
Template: **T187764**
Prelogin: **P847856**
PM: **110 - Brian Ford**
PB:
Shipped Via: