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Mr. Panjini Balaraju
Washington State Department of Ecology
Southwest Regional Office,
P.O. Box 47775
Olympia, Washington 98504-7775

ENVIRONMENT

Subject:
Semi-Annual Status Report, First Half 2019

Dear Mr. Balaraju,

Date:
October 25, 2019

On behalf of Chevron Environmental Management Company's (CEMC) affiliate, Union Oil Company of California, Arcadis has prepared the attached *Semiannual Status Report, First Half 2019* for the following facility:

Contact:
Komal Dixit

Phone:
503-765-9525

Email:
Komal.Dixit@arcadis.com

Former Standard Oil Bulk Plant No.	**Case No.**	**Location**
302095	FS ID: 7937547 Cleanup Side ID: 342	149 and 167 Mainstreet Morton, Washington

Our ref:
30010095

If you have any questions, please do not hesitate to contact me.

Sincerely,

Arcadis U.S., Inc.

Komal Dixit
Project Manager

Copies:
Mr. Tim Bishop – CEMC
Mr. Starlett Richardson – Jan's Lost N' Found
Project File

ARCADIS Design & Consultancy for natural and built assets

SEMI-ANNUAL STATUS REPORT

First Half 2019
October 25, 2019

Facility No:	Former Standard Oil Bulk Plant No. 302095	Address:	149 and 167 Mainstreet, Morton, Washington

Arcadis Contact Person / Phone No.:	Komal Dixit / (503) 765-9525
Arcadis Project No.:	30010095
Primary Agency/Regulatory ID No.:	Washington State Department of Ecology Southwest Regional Office, Toxics Cleanup Program Panjini Balaraju / Agreed Order No. DE 03TCPSR-5715

WORK CONDUCTED THIS PERIOD [First Half 2019]:

1. Conducted semi-annual groundwater monitoring and sampling on January 10, 2019.
2. Prepared the *Semi-Annual Status Report, First Half 2019*.

WORK PROPOSED NEXT PERIOD [Second Half 2019]:

1. Conducted semi-annual groundwater monitoring and sampling.
2. Prepare the *Semi-Annual Status Report, Second Half 2019*.

Current Phase of Project:	Monitoring	
Frequency of Monitoring / Sampling:	Semi-Annual (Q1/Q3)	
Is Light Non-Aqueous Phase Liquid (LNAPL) Present On-site:	None	
Cumulative LNAPL Recovered to Date:	None	(gallons)
Approximate Depth to Groundwater:	1.29 to 2.82	(feet below top of casing)
Approximate Groundwater Elevation:	95.38 to 97.08	(feet above NAVD88)
Groundwater Flow Direction	East-southeast	
Groundwater Gradient	0.009	(foot per foot)
Current Remediation Techniques:	None	

Permits for Discharge:	Not Applicable
Summary of Unusual Activity:	None
Agency Directive Requirements:	None

DISCUSSION

Gettler-Ryan, Inc. (G-R) conducted semi-annual groundwater monitoring activities on January 10, 2019. According to the regulatory directive dated April 24, 2017, seven (7) monitoring wells were gauged and five (5) monitoring wells were purged and sampled by G-R representatives. The groundwater monitoring field data sheets and general procedures are included as **Attachment A**. The regulatory directive is included as **Attachment B**.

Groundwater samples were submitted to Eurofins Lancaster Laboratories Environmental in Lancaster, Pennsylvania under standard chain-of-custody protocols. Current groundwater gauging and analytical data obtained by G-R for this event are summarized in **Table 1**. Historical groundwater gauging and analytical results for the site are presented in **Table 2**. The site location and layout are presented on **Figures 1** and **2**, respectively. The groundwater elevation contours for the site on January 10, 2019 are presented on **Figure 3**.

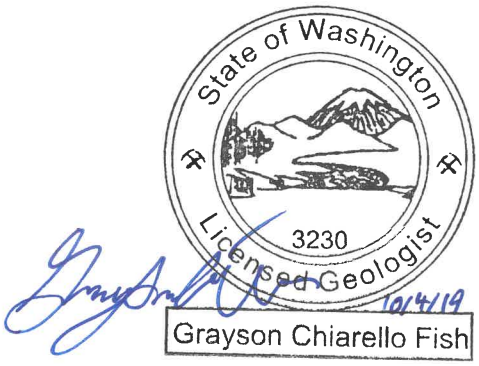
The calculated groundwater flow direction (east-southeast) and hydraulic gradient (0.009 ft/ft) were generally consistent with previous monitoring events. No LNAPL was observed in any of the monitoring wells during this period. Total petroleum hydrocarbon as gasoline (TPH-GRO) was detected in well MW-16 with a concentration of 610 micrograms per liter (µg/L), below the Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs). Concentrations of total petroleum hydrocarbon as diesel (TPH-DRO) was detected above the MTCA CULs in wells MW-7 (710 µg/L) and MW-16 (590 µg/L).Concentrations of total petroleum hydrocarbon as heavy range oil (TPH-HRO) was detected above the MTCA CULs in monitoring well MW-11 (890 µg/L). Concentrations of benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX) were detected at concentrations below MTCA CULs in MW-16. Samples collected from the remaining wells did not contain concentrations of BTEX above the laboratory reporting limits. The groundwater analytical map is presented on **Figure 4**. A copy of the laboratory analytical report and chain-of-custody documentation are included as **Attachment C.**

LIMITATIONS

This report was prepared in accordance with the scope of work outlined in Arcadis' contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of Chevron Environmental Management Company for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Arcadis. To the extent that this report is based on information provided to Arcadis by third parties, Arcadis may have made efforts to verify this third-party information, but Arcadis cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties expressed or implied are made by Arcadis.

Date: October 21, 2019

Komal Dixit
Project Manager



Date: October 21, 2019

Grayson Fish, L.G.
Licensed Geologist

ATTACHMENTS:

Table 1	Current Groundwater Gauging and Analytical Results
Table 2	Historical Groundwater Gauging and Analytical Results Fourth Quarter 2004 to Current
Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Groundwater Elevation Contour Map, January 10, 2019
Figure 4	Groundwater Analytical Map, January 10, 2019
Attachment A	Field Data Sheets and General Procedures
Attachment B	Regulatory Directive, April 24, 2017
Attachment C	Laboratory Report and Chain-of-Custody Documentation

TABLES

Table 1. Current Groundwater Gauging and Analytical Results
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Comments
MTCA Method A Cleanup Levels:							5	1000	700	1000	800/1,000	500	500	
MW-7	1/10/2019	5-20	99.90	2.82	0.00	97.08	<0.5	<0.5	<0.5	<1.5	<19	**710**	<100	
MW-11	1/10/2019	5-20	97.92	1.69	0.00	96.23	<0.5	<0.5	<0.5	<1.5	<19	220	**890**	
MW-12	1/10/2019	5-20	98.25	2.72	0.00	95.53	<0.5	<0.5	<0.5	<1.5	<19	<46	<100	
MW-13	1/10/2019	3-18	99.02	2.41	0.00	96.61	--	--	--	--	--	--	--	Monitored Only
MW-15	1/10/2019	3-18	97.81	1.29	0.00	96.52	<0.5	<0.5	<0.5	<1.5	<19	<46	<100	
MW-16	1/10/2019	3-18	98.63	2.31	0.00	96.32	0.9 J	0.6 J	1 J	<1.5	610	**590**	<100	
MW-17	1/10/2019	3-18	97.76	2.38	0.00	95.38	--	--	--	--	--	--	--	Monitored Only

Notes:

MW = Groundwater monitoring well
TOC = Top of casing
DTW = Depth to groundwater
ft bTOC = Feet below top of casing
ft = Feet
LNAPL = Liquid Non-Aqueous Phase Liquid
GW Elev = Groundwater elevation
µg/L = Micrograms per liter
<0.50 = Not detected at or above the stated limit
Bold = Value above MTCA Method A Cleanup Levels
-- = Not sampled/not measured
TPH = Total petroleum hydrocarbons
TPH-GRO = Total Petroleum Hydrocarbons-Gasoline Range, Method ECY 97-602 NWTPH-Gx
TPH-DRO = Total Petroleum Hydrocarbons-Diesel Range, Method ECY 97-602 NWTPH-Dx
TPH-HRO = Total Petroleum Hydrocarbons- Heavy Oil Range, Method ECY 97-602 NWTPH-Dx
Analytes Samples by SW-846 8021B**-** Benzene, toluene, ethylbenzene and total xylenes (collectively BTEX)
J = Estimated value (between laboratory reporting limit and method detection limit)
[1]TOC data to arbitrary 100 foot elevation surveyed by SAIC on December 2, 2018

Table 2. Historical Groundwater Gauging and Analytical Results
Fourth Quarter 2004 to Current
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Lead (µg/L)	Total Lead (µg/L)	Naphthalene (µg/L)	n-Hexane (µg/L)	Comments
MTCA Method A Cleanup Levels:							800/1,000	500	500	5	1000	700	1000	20	--	15	160	--	
MW-7	10/11/2004	5-20	99.89	3.79	0.00	96.10	200	**570**	<98	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-7	1/25/2005	5-20	99.89	3.27	0.00	96.62	190	**1,500**	220	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-7	4/13/2005	5-20	99.89	4.28	0.00	95.61	73	**880**	99	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	7/11/2005	5-20	99.89	4.02	0.00	95.87	140	**1,100**	120	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	8/13/2007	5-20	99.89	7.85	0.00	92.04	<50	**570**	210	<0.5	<0.5	<0.5	<1.5	--	<0.047	--	--	--	
MW-7	5/27/2008	5-20	99.89	3.42	0.00	96.47	<50	**750**	<97	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-7	12/2/2008	5-20	99.90	3.59	0.00	96.31	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	3/18/2009	5-20	99.90	3.29	0.00	96.61	71	360	<67	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-7	5/26-27/2009	5-20	99.90	4.13	0.00	95.77	73	**940**	69	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-7	8/3-4/2009	5-20	99.90	8.08	0.00	91.82	<50	**1,500**	530	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-7	12/29-30/2009	5-20	99.90	3.96	0.00	95.94	<50	**990**	77	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	2/4-5/10	5-20	99.90	4.17	0.00	95.73	<50	**890**	110	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	6/1/2010	5-20	99.90	3.23	0.00	96.67	91	**780**	78	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	8/10/2010	5-20	99.90	7.22	0.00	92.68	<50	**830**	260	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	11/18/2010	5-20	99.90	2.43	0.00	97.47	58	480	400	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	3/15/2011	5-20	99.90	3.84	0.00	96.06	<50	**810**	250	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	6/2/2011	5-20	99.90	4.08	0.00	95.82	83	**10,000**	**870**	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	8/25/2011	5-20	99.90	7.92	0.00	91.98	<50	**650**	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	11/10/2011	5-20	99.90	4.90	0.00	95.00	<50	380	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	2/9/2012	5-20	99.90	4.25	0.00	95.65	<50	130	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	5/31/2012	5-20	99.90	4.90	0.00	95.00	<50	430	<75	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	8/28/2012	5-20	99.90	7.83	0.00	92.07	<50	83	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	11/21/2012	5-20	99.90	1.84	0.00	98.06	<50	160	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	2/8/2013	5-20	99.90	3.29	0.00	96.61	89	310	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	5/10/2013	5-20	99.90	4.46	0.00	95.44	60	97	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	8/8/2013	5-20	99.90	7.23	0.00	92.67	<50	51	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	10/23/2013	5-20	99.90	4.72	0.00	95.18	65	100	<66	<03	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	2/25/2014	5-20	99.90	3.23	0.00	96.67	83	140	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	5/28/2014	5-20	99.90	4.08	0.00	95.82	100	210	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	8/26/2014	5-20	99.90	7.23	0.00	92.67	<50	110	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	11/4/2014	5-20	99.90	1.89	0.00	98.01	<50	190	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	3/23-24/2015	5-20	99.90	4.18	0.00	95.72	<50	85	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	5/26-27/2015	5-20	99.90	5.68	0.00	94.22	<50	70	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	8/13/2015	5-20	99.90	8.78	0.00	91.12	<50	**760**	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	11/16-17/2015	5-20	99.90	3.21	0.00	96.69	110	**1,200**	190	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	2/21-22/2016	5-20	99.90	4.22	0.00	95.68	<50	**1,800**	380	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	5/15-16/2016	5-20	99.90	5.20	0.00	94.70	110	**1,500**	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-7	8/15-16/2016	5-20	99.90	7.08	0.00	92.82	55	**730**	120	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
MW-7	11/15/2016	5-20	99.90	2.77	0.00	97.13	<50	**930**	120	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
MW-7	1/10/2019	5-20	99.90	2.82	0.00	97.08	<19	**710**	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	10/11/2004	5-20	97.92	2.92	0.00	95.00	<50	<80	<100	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-11	1/25/2005	5-20	97.92	2.95	0.00	94.97	<48	<79	<99	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-11	4/13/2005	5-20	97.92	2.21	0.00	95.71	<48	<79	<98	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	7/11/2005	5-20	97.92	3.20	0.00	94.72	<48	<93	<120	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	8/13/2007	5-20	97.92	6.56	0.00	91.36	<50	<79	<99	<0.5	<0.5	<0.5	<1.5	--	0.070	--	--	--	
MW-11	8/13/2007 (D)	5-20	97.92	6.56	0.00	91.36	<50	<80	<100	<0.5	<0.5	<0.5	<1.5	--	0.091	--	--	--	
MW-11	5/27/2008	5-20	97.92	3.98	0.00	93.94	<50	<76	<95	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-11	12/2/2008	5-20	97.92	3.31	0.00	94.61	--	--	--	--	--	--	--	--	--	--	--	--	
MW-11	3/18/2009	5-20	97.92	2.70	0.00	95.22	<50	85	480	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-11	5/26-27/2009	5-20	97.92	3.69	0.00	94.23	<50	170	<69	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-11	8/3-4/2009	5-20	97.92	6.59	0.00	91.33	<50	<30	<69	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-11	12/29-30/2009	5-20	97.92	UNABLE TO LOCATE			--		--	--	--	--	--	--	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
Fourth Quarter 2004 to Current
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Lead (µg/L)	Total Lead (µg/L)	Naphthalene (µg/L)	n-Hexane (µg/L)	Comments
MTCA Method A Cleanup Levels:							800/1,000	500	500	5	1000	700	1000	20	--	15	160	--	
MW-11	2/4-5/2010	5-20	97.92	UNABLE TO LOCATE			--		--	--	--	--	--	--	--	--	--	--	
MW-11	6/1/2010	5-20	97.92	UNABLE TO LOCATE			--		--	--	--	--	--	--	--	--	--	--	
MW-11	8/10/2010	5-20	97.92	UNABLE TO LOCATE			--		--	--	--	--	--	--	--	--	--	--	
MW-11	11/18/2010	5-20	97.92	UNABLE TO LOCATE			--		--	--	--	--	--	--	--	--	--	--	
MW-11	3/15/2011	5-20	97.92	UNABLE TO LOCATE			--		--	--	--	--	--	--	--	--	--	--	
MW-11	6/2/2011	5-20	97.92	UNABLE TO LOCATE			--		--	--	--	--	--	--	--	--	--	--	
MW-11	8/25/2011	5-20	97.92	UNABLE TO LOCATE			--		--	--	--	--	--	--	--	--	--	--	
MW-11	11/10/2011	5-20	97.92	UNABLE TO LOCATE			--		--	--	--	--	--	--	--	--	--	--	
MW-11	2/10/2012	5-20	97.92	3.00	0.00	94.92	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	5/30/2012	5-20	97.92	3.50	0.00	94.42	<50	<31	<72	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	8/27/2012	5-20	97.92	6.47	0.00	91.45	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	11/20/2012	5-20	97.92	2.92	0.00	95.00	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	2/7/2013	5-20	97.92	2.66	0.00	95.26	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	5/10/2013	5-20	97.92	3.95	0.00	93.97	<50	<28	<66	<0.5	<0.5	<05	<1.5	--	--	--	--	--	
MW-11	8/8/2013	5-20	97.92	6.46	0.00	91.46	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	10/22/2013	5-20	97.92	3.81	0.00	94.11	<50	<30	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	2/24/2014	5-20	97.92	1.88	0.00	96.04	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	5/28/2014	5-20	97.92	4.13	0.00	93.79	<50	200	**520**	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	8/25/2014	5-20	97.92	5.67	0.00	92.25	<50	29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	11/3/2014	5-20	97.92	2.93	0.00	94.99	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	3/23-24/2015	5-20	97.92	2.96	0.00	94.96	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	5/26-27/2015	5-20	97.92	6.96	0.00	90.96	<50	<28	<66	<0.5	<0.5	<0.5	<13	--	--	--	--	--	
MW-11	8/13/2015	5-20	97.92	6.42	0.00	91.50	<50	81	**540**	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	11/16-17/2015	5-20	97.92	2.34	0.00	95.58	<50	<46	170	<0.5	<0 5	<0.5	<1.5	--	--	--	--	--	
MW-11	2/21-22/2016	5-20	97.92	UNABLE TO ACCESS			--	--	--	--	--	--	--	--	--	--	--	--	
MW-11	5/15-16/2016	5-20	97.92	4.19	0.00	93.73	<50	<47	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-11	8/15-16/2016	5-20	97.92	5.43	0.00	92.49	<50	<46	<100	<0 2	<0 2	<0 2	<0.2	--	--	--	--	--	
MW-11	11/15/2016	5-20	97.92	UNABLE TO ACCESS			**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	
MW-11	1/10/2019	5-20	97.92	1.69	0.00	92.49	<19	220	**890**	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	10/11/2004	5-20	98.25	2.64	0.00	95.61	<50	<79	<99	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-12	1/25/2005	5-20	98.25	2.70	0.00	95.55	<48	<79	<98	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-12	4/13/2005	5-20	98.25	2.34	0.00	95.91	<48	<84	<110	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	7/11/2005	5-20	98.25	3.25	0.00	95.00	<48	<81	110	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	8/13/2007	5-20	98.25	6.06	0.00	92.19	<50	<89	<110	<0.5	<0.5	<0.5	<1.5	--	0.047	--	--	--	
MW-12	5/27/2008	5-20	98.25	4.22	0.00	94.03	<50	<82	<100	<0.5	<0.5	<0.5	1	<0.5	--	--	--	--	
MW-12	12/2/2008	5-20	98.25	2.84	0.00	95.41	--	--	--	--	--	--	--	--	--	--	--	--	
MW-12	3/18/2009	5-20	98.25	2.15	0.00	96.10	<50	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-12	5/26-27/2009	5-20	98.25	3.50	0.00	94.75	<50	<30	<71	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-12	8/3-4/2009	5-20	98.25	6.40	0.00	91.85	<50	<30	<70	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-12	12/29-30/2009	5-20	98.25	3.00	0.00	95.25	<50	63	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	2/4-5/2010	5-20	98.25	2.98	0.00	95.27	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	6/1/2010	5-20	98.25	2.55	0.00	95.70	<50	<30	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	8/10/2010	5-20	98.25	5.86	0.00	92.39	<50	<29	<190	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	11/18/2010	5-20	98.25	1.44	0.00	96.81	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	3/15/2011	5-20	98.25	2.08	0.00	96.17	<50	<30	250	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	8/25/2011	5-20	98.25	6.36	0.00	91.89	<50	31	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	11/10/2011	5-20	98.25	3.40	0.00	94.85	<50	<31	<72	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	2/10/2012	5-20	98.25	2.25	0.00	96.00	<50	39	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	5/30/2012	5-20	98.25	3.10	0.00	95.15	<50	<30	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	8/27/2012	5-20	98.25	6.51	0.00	91.74	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	11/20/2012	5-20	98.25	2.63	0.00	95.62	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	2/7/2013	5-20	98.25	2.01	0.00	96.24	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	5/10/2013	5-20	98.25	3.80	0.00	94.45	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
Fourth Quarter 2004 to Current
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Lead (µg/L)	Total Lead (µg/L)	Naphthalene (µg/L)	n-Hexane (µg/L)	Comments
MTCA Method A Cleanup Levels:							800/1,000	500	500	5	1000	700	1000	20	--	15	160	--	
MW-12	8/8/2013	5-20	98.25	6.32	0.00	91.93	<50	<30	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	10/22/2013	5-20	98.25	3.79	0.00	94.46	<50	<29	<67	<0.5	<05	<0.5	<1.5	--	--	--	--	--	
MW-12	2/24/2014	5-20	98.25	3.40	0.00	94.85	<50	<29	71	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	5/28/2014	5-20	98.25	3.32	0.00	94.93	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	8/25/2014	5-20	98.25	5.79	0.00	92.46	<50	<28	89	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	11/3/2014	5-20	98.25	2.62	0.00	95.63	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	3/23-24/2015	5-20	98.25	2.71	0.00	95.54	<50	<31	<71	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	5/26-27/2015	5-20	98.25	4.88	0.00	93.37	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	8/13/2015	5-20	98.25	6.03	0.00	92.22	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	11/16-17/2015	5-20	98.25	2.87	0.00	95.38	<50	<45	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	2/21-22/2016	5-20	98.25	2.43	0.00	95.82	<50	<47	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	5/15-16/2016	5-20	98.25	4.39	0.00	93.86	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-12	8/15-16/2016	5-20	98.25	5.44	0.00	92.81	<50	<46	<100	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
MW-12	11/15/2016	5-20	99.25	2.48	0.00	96.77	<50	<45	<100	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
MW-12	1/10/2019	5-20	98.25	2.72	0.00	95.53	<19	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	12/2/2008	3-18	99.02	3.22	0.00	95.80	--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	3/18/2009	3-18	99.02	2.24	0.00	96.78	<50	180	330	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-13	5/26-27/2009	3-18	99.02	3.88	0.00	95.14	<50	360	<700	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-13	8/3-4/2009	3-18	99.02	6.73	0.00	92.29	<50	**660**	**700**	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-13	12/29-30/2009	3-18	99.02	4.57	0.00	94.45	<50	110	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	2/4-5/2010	3-18	99.02	3.68	0.00	95.34	<50	59	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	6/1/2010	3-18	99.02	2.83	0.00	96.19	<50	<30	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	8/10/2010	3-18	99.02	6.20	0.00	92.82	<50	<300	<700	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	11/18/2010	3-18	99.02	UNABLE TO SAMPLE - AREA FLOODED			--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	3/15/2011	3-18	99.02	UNABLE TO SAMPLE - AREA FLOODED			--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	6/2/2011	3-18	99.02	UNABLE TO SAMPLE - AREA FLOODED			--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	8/25/2011	3-18	99.02	UNABLE TO SAMPLE - AREA FLOODED			--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	11/10/2011	3-18	99.02	UNABLE TO SAMPLE - AREA FLOODED			--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	2/9/2012	3-18	99.02	3.50	0.00	95.52	86	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	5/31/2012	3-18	99.02	1.20	0.00	97.82	<50	<32	<75	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	8/28/2012	3-18	99.02	6.69	0.00	92.33	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	11/21/2012	3-18	99.02	1.12	0.00	97.90	<50	<29	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	2/8/2013	3-18	99.02	2.13	0.00	96.89	<50	<28	120	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	5/10/2013	3-18	99.02	4.36	0.00	94.66	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	8/8/2013	3-18	99.02	6.72	0.00	92.30	<50	<29	<68	<0 5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	10/23/2013	3-18	99.02	4.17	0.00	94.85	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	2/25/2014	3-18	99.02	3.02	0.00	96.00	<50	<29	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	5/28/2014	3-18	99.02	4.92	0.00	94.10	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	8/26/2014	3-18	99.02	6.83	0.00	92.19	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	11/4/2014	3-18	99.02	1.22	0.00	97.80	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	3/23-24/2015	3-18	99.02	2.93	0.00	96.09	<50	<30	<71	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	5/26-27/2015	3-18	99.02	4.72	0.00	94.30	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	8/13/2015	3-18	99.02	7.80	0.00	91.22	<50	100	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	11/16-17/2015	3-18	99.02	2.96	0.00	96.06	<50	50	<100	<0.5	<0.5	<0.5	<15	--	--	--	--	--	
MW-13	2/21-22/2016	3-18	99.02	2.96	0.00	96.06	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	5/15-16/2016	3-18	99.02	4.79	0.00	94.23	<50	77	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-13	8/15-16/2016	3-18	99.02	5.76	0.00	93.26	<50	<46	<100	<0.2	<0.2	<0 2	<0.2	--	--	--	--	--	
MW-13	11/15/2016	3-18	99.02	2.72	0.00	96.30	<50	<45	<100	<0.2	<0.2	<0 2	<0.2	--	--	--	--	--	
MW-13	1/10/2019	3-18	99.02	2.41	0.00	96.61	--	--	--	--	--	--	--	--	--	--	--	--	Monitored Only
MW-14	12/2/2008	3-18	98.50	2.76	0.00	95.74	--	--	--	--	--	--	--	--	--	--	--	--	
MW-14	3/18/2009	3-18	98.50	1.71	0.00	96.79	<50	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-14	05/26-27/2009	3-18	98.50	3.49	0.00	95.01	<50	180	<69	0.600	<0.5	<0.5	<0.5	<0.5	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
Fourth Quarter 2004 to Current
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Lead (µg/L)	Total Lead (µg/L)	Naphthalene (µg/L)	n-Hexane (µg/L)	Comments
MTCA Method A Cleanup Levels:							800/1,000	500	500	5	1000	700	1000	20	--	15	160	--	
MW-14	6/1/2010	3-18	98.50	2.96	0.00	95.54	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	8/10/2010	3-18	98.50	6.40	0.00	92.10	<50	120	<90	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	11/18/2010	3-18	98.50	2.71	0.00	95.79	<50	<29	76	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	3/15/2011	3-18	98.50	2.91	0.00	95.59	<50	<31	94	2	1	<0.5	<1.5	--	--	--	--	--	
MW-14	6/2/2011	3-18	98.50	3.83	0.00	94.67	<50	<29	190	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	8/25/2011	3-18	98.50	6.55	0.00	91.95	<50	48	<80	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	11/10/2011	3-18	98.50	3.60	0.00	94.90	<50	<30	<71	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	2/10/2012	3-18	98.50	3.50	0.00	95.00	<50	80	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	5/31/2012	3-18	98.50	3.40	0.00	95.10	<50	<31	<73	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	8/27/2012	3-18	98.50	6.41	0.00	92.09	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	11/21/2012	3-18	98.50	2.86	0.00	95.64	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	2/8/2013	3-18	98.50	3.09	0.00	95.41	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	5/10/2013	3-18	98.50	4.44	0.00	94.06	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	8/8/2013	3-18	98.50	6.44	0.00	92.06	<50	73	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	10/23/2013	3-18	98.50	3.46	0.00	95.04	<50	<30	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	2/25/2014	3-18	98.50	2.64	0.00	95.86	<50	<28	<65	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	5/28/2014	3-18	98.50	3.92	0.00	94.58	<50	<28	<66	<0 5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	8/26/2014	3-18	98.50	5.89	0.00	92.61	<50	<29	100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	11/4/2014	3-18	98.50	2.77	0.00	95.73	<50	<29	<68	<03	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	3/23-24/2015	3-18	98.50	3.00	0.00	95.50	<50	<28	<65	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	5/26-27/2015	3-18	98.50	5.28	0.00	93.22	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	8/13/2015	3-18	98.50	7.19	0.00	91.31	<50	100	<100	<03	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	11/16-17/2015	3-18	98.50	3.02	0.00	95.48	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	2/21-22/2016	3-18	98.50	2.94	0.00	95.56	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	5/15-16/2016	3-18	98.50	4.87	0.00	93.63	<50	<47	<110	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-14	8/15-16/2016	3-18	98.50	5.70	0.00	92.80	<50	<46	<100	<0.2	<0.2	<0.2	<0 2	--	--	--	--	--	
MW-14	11/15/2016	3-18	98.50	2.76	0.00	95.74	<50	<46	<100	<0.2	<0.2	<0.2	<0 2	--	--	--	--	--	
NOT PART OF SAMPLING PROGRAM																			
MW-15	12/2/2008	3-18	97.81	1.73	0.00	96.08	--	--	--	--	--	--	--	--	--	--	--	--	
MW-15	3/18/2009	3-18	97.81	1.45	0.00	96.36	**1,200**	300	180	<0.5	<0.5	1	<0.5	<0.5	--	--	--	--	
MW-15	5/26-27/2009	3-18	97.81	2.75	0.00	95.06	**1,500**	140	<69	<0.5	<0.5	1	<0.5	<0.5	--	--	--	--	
MW-15	8/3-4/2009	3-18	97.81	5.59	0.00	92.22	**1,200**	190	<69	0.9	<0.5	1	<0.5	<0.5	--	--	--	--	
MW-15	12/29-30/2009	3-18	97.81	2.48	0.00	95.33	**1,500**	230	<68	1.9	1.1	1.8	2.9	--	--	--	--	--	
MW-15	2/4-5/2010	3-18	97.81	2.54	0.00	95.27	**1,600**	190	<69	1.7	1.1	1.9	3.2	--	--	--	--	--	
MW-15	6/1/2010	3-18	97.81	1.67	0.00	96.14	760	82	<69	<0.5	0.7	0.9	<5.0	--	--	--	--	--	
MW-15	8/10/2010	3-18	97.81	5.15	0.00	92.66	**1,300**	160	<69	2	0.900	1	<10	--	--	--	--	--	
MW-15	11/18/2010	3-18	97.81	1.38	0.00	96.43	**830**	120	<66	1	0.800	0.900	<5.0	--	--	--	--	--	
MW-15	3/15/2011	3-18	97.81	1.60	0.00	96.21	**1,200**	180	77	3	2	2	7	--	--	--	--	--	
MW-15	6/2/2011	3-18	97.81	2.55	0.00	95.26	**1,300**	270	<71	2	<10	2	5	--	--	--	--	--	
MW-15	8/25/2011	3-18	97.81	5.60	0.00	92.21	**870**	210	<69	1	<0.5	2	7	--	--	--	--	--	
MW-15	11/10/2011	3-18	97.81	3.05	0.00	94.76	750	66	<69	<2.0	<5.0	1	7	--	--	--	--	--	
MW-15	2/10/2012	3-18	97.81	2.50	0.00	95.31	**820**	35	160	<2.0	<6.0	2	6	--	--	--	--	--	
MW-15	5/30/2012	3-18	97.81	2.50	0.00	95.31	**1,100**	110	<69	1	<8.0	2	8	--	--	--	--	--	
MW-15	8/28/2012	3-18	97.81	5.53	0.00	92.28	740	190	<69	1	<5.0	2	5	--	--	--	--	--	
MW-15	11/21/2012	3-18	97.81	1.93	0.00	95.88	760	57	<66	1	<5.0	2	6	--	--	--	--	--	
MW-15	2/7/2013	3-18	97.81	1.78	0.00	96.03	640	47	<66	1	<6.0	2	<6.0	--	--	--	--	--	
MW-15	5/10/2013	3-18	97.81	4.23	0.00	93.58	580	<29	<67	1	<4.0	0.900	<6.0	--	--	--	--	--	
MW-15	8/8/2013	3-18	97.81	5.89	0.00	91.92	630	150	<66	13	<5.0	2	6	--	--	--	--	--	
MW-15	10/22/2013	3-18	97.81	2.98	0.00	94.83	430	<30	<70	0.600	<3.0	0.800	2	--	--	--	--	--	
MW-15	2/25/2014	3-18	97.81	1.54	0.00	96.27	**900**	38	<70	1	<5.0	2	7	--	--	--	--	--	
MW-15	5/28/2014	3-18	97.81	2.32	0.00	95.49	760	36	<68	<2.0	<2.0	1	6	--	--	--	--	--	
MW-15	8/26/2014	3-18	97.81	4.89	0.00	92.92	**870**	50	<67	<2.0	<2.0	2	<8.0	--	--	--	--	--	
MW-15	11/3/2014	3-18	97.81	1.89	0.00	95.92	360	50	<69	0.900	<2.0	1	<6.0	--	--	--	--	--	
MW-15	3/23-24/2015	3-18	97.81	1.91	0.00	95.90	480	48	<65	<0.5	1	1	<5.0	--	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
Fourth Quarter 2004 to Current
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Lead (µg/L)	Total Lead (µg/L)	Naphthalene (µg/L)	n-Hexane (µg/L)	Comments
MTCA Method A Cleanup Levels:							800/1,000	500	500	5	1000	700	1000	20	--	15	160	--	
MW-15	5/26-27/2015	3-18	97.81	5.58	0.00	92.23	580	51	<68	<0.5	<2.0	2	<7.0	--	--	--	--	--	
MW-15	8/13/2015	3-18	97.81	6.06	0.00	91.75	**900**	150	<110	1	1	2	5	--	--	--	--	--	
MW-15	11/16-17/2015	3-18	97.81	1.75	0.00	96.06	460	78	<100	<0.5	<0.5	<0.5	3	--	--	--	--	--	
MW-15	2/21-22/2016	3-18	97.81	1.45	0.00	96.36	180	69	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-15	5/15-16/2016	3-18	97.81	3.55	0.00	94.26	330	62	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-15	8/15-16/2016	3-18	97.81	4.65	0.00	93.16	**1,000**	85	<100	<0.2	<0.2	1	4	--	--	--	--	--	
MW-15	11/15/2016	3-18	97.81	1.70	0.00	96.11	**1,200**	73	<100	<0.9	<0.2	1	5						
MW-15	1/10/2019	3-18	97.81	1.29	0.00	96.52	<19	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-16	12/2/2008	3-18	97.73	2.32	0.00	95.41	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	3/18/2009	3-18	97.73	1.30	0.00	96.43	520	**1,200**	220	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-16	5/26-27/2009	3-18	97.73	2.97	0.00	94.76	680	390	<69	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-16	8/3-4/2009	3-18	97.73	5.36	0.00	92.37	410	**540**	<69	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-16	12/29-30/2009	3-18	97.73	2.80	0.00	94.93	500	**710**	100	0.600	0.600	<0.5	2	--	--	--	--	--	
MW-16	2/4-5/2010	3-18	97.73	2.89	0.00	94.84	**810**	**730**	70	0.800	0.900	0.700	2	--	--	--	--	--	
MW-16	6/1/2010	3-18	98.63	2.79	0.00	95.84	**1,400**	380	<69	<5.0	2	1	<1.5	--	--	--	--	--	
MW-16	8/10/2010	3-18	98.63	6.33	0.00	92.30	550	240	<90	0.600	0.600	0.600	2	--	--	--	--	--	
MW-16	11/18/2010	3-18	98.63	2.44	0.00	96.19	710	420	<68	0.800	1	0.900	2	--	--	--	--	--	
MW-16	3/15/2011	3-18	98.63	2.71	0.00	95.92	**890**	**1,500**	440	3	2	1	4	--	--	--	--	--	
MW-16	6/2/2011	3-18	98.63	3.60	0.00	95.03	490	**2,400**	320	0.500	<2.0	0.600	<5.0	--	--	--	--	--	
MW-16	8/25/2011	3-18	98.63	6.60	0.00	92.03	110	230	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-16	11/10/2011	3-18	98.63	4.35	0.00	94.28	510	**850**	<69	0.500	0.600	0.800	3	--	--	--	--	--	
MW-16	2/10/2012	3-18	98.63	3.35	0.00	95.28	370	71	<67	0.600	0.600	0.700	2	--	--	--	--	--	
MW-16	5/31/2012	3-18	98.63	3.80	0.00	94.83	530	**1,800**	<70	0.700	0.600	1	3	--	--	--	--	--	
MW-16	8/28/2012	3-18	98.63	6.39	0.00	92.24	130	42	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-16	11/20/2012	3-18	98.63	2.83	0.00	95.80	390	120	<66	0.600	0.500	0.600	<1.5	--	--	--	--	--	
MW-16	2/7/2013	3-18	98.63	2.91	0.00	95.72	480	120	<66	0.700	0.500	0.800	<1.5	--	--	--	--	--	
MW-16	5/9/2013	3-18	98.63	4.39	0.00	94.24	450	77	<68	0.600	<0.5	0.600	<5.0	--	--	--	--	--	
MW-16	8/8/2013	3-18	98.63	6.23	0.00	92.40	170	400	<67	<0.5	<0.5	0.600	<1.5	--	--	--	--	--	
MW-16	10/23/2013	3-18	98.63	4.16	0.00	94.47	580	99	<67	0.700	0.500	0.900	<5.0	--	--	--	--	--	
MW-16	2/25/2014	3-18	98.63	2.64	0.00	95.99	660	120	<70	0.700	0.600	1	3	--	--	--	--	--	
MW-16	5/27/2014	3-18	98.63	3.80	0.00	94.83	650	140	<67	0.600	0.500	0.900	3	--	--	--	--	--	
MW-16	8/25/2014	3-18	98.63	5.87	0.00	92.76	220	57	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-16	11/4/2014	3-18	98.63	2.88	0.00	95.75	480	**1,800**	220	<2.0	0.700	1	<5.0	--	--	--	--	--	
MW-16	3/23-24/2015	3-18	98.63	2.82	0.00	95.81	220	230	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-16	5/26-27/2015	3-18	98.63	4.72	0.00	93.91	180	93	<66	<0 5	<0.5	0.500	<2.0	--	--	--	--	--	
MW-16	8/13/2015	3-18	98.63	7.13	0.00	91.50	100	150	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-16	11/16-17/2015	3-18	98.63	2.98	0.00	95.65	**1,700**	**1,700**	250	1	1	2	2	--	--	--	--	--	
MW-16	2/21-22/2016	3-18	98.63	2.68	0.00	95.95	**1,800**	**760**	<100	1	1	1	2	--	--	--	--	--	
MW-16	5/15-16/2016	3-18	98.63	4.89	0.00	93.74	400	280	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-16	8/15-16/2016	3-18	98.63	5.69	0.00	92.94	700	290	<100	0.500	<0.2	0.800	2	--	--	--	--	--	
MW-16	11/15/2016	3-18	98.63	2.56	0.00	96.07	**940**	380	<100	0.700	0.600	1	2						
MW-16	1/10/2019	3-18	98.63	2.31	0.00	96.32	610	**590**	<100	0.9 J	0.6 J	1 J	<1.5	--	--	--	--	--	
MW-17	12/2/2008	3-18	97.76	2.21	0.00	95.55	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	3/18/2009	3-18	97.76	1.29	0.00	96.47	<50	310	200	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-17	5/26-27/2009	3-18	97.76	2.78	0.00	94.98	130	360	<69	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-17	8/3-4/2009	3-18	97.76	5.45	0.00	92.31	<50	100	<68	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-17	12/29-30/2009	3-18	97.76	3.44	0.00	94.32	<50	150	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	2/4-5/2010	3-18	97.76	3.49	0.00	94.27	53	220	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	6/1/2010	3-18	97.76	2.54	0.00	95.22	<50	82	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	8/10/2010	3-18	97.76	6.22	0.00	91.54	<50	87	<90	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	11/18/2010	3-18	97.76	2.34	0.00	95.42	<50	70	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	3/15/2011	3-18	97.76	2.55	0.00	95.21	94	140	84	2	2	<0.5	<1.5	--	--	--	--	--	
MW-17	6/2/2011	3-18	97.76	3.41	0.00	94.35	70	280	160	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
Fourth Quarter 2004 to Current
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Lead (µg/L)	Total Lead (µg/L)	Naphthalene (µg/L)	n-Hexane (µg/L)	Comments
MTCA Method A Cleanup Levels:							800/1,000	500	500	5	1000	700	1000	20	--	15	160	--	
MW-17	8/25/2011	3-18	97.76	6.70	0.00	91.06	<50	95	<73	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	11/10/2011	3-18	97.76	4.00	0.00	93.76	<50	100	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	2/10/2012	3-18	97.76	3.20	0.00	94.56	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	5/31/2012	3-18	97.76	3.60	0.00	94.16	<50	81	<71	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	8/28/2012	3-18	97.76	6.35	0.00	91.41	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	11/20/2012	3-18	97.76	2.53	0.00	95.23	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	2/7/2013	3-18	97.76	2.89	0.00	94.87	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	5/9/2013	3-18	97.76	4.13	0.00	93.63	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	8/8/2013	3-18	97.76	6.24	0.00	91.52	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	10/23/2013	3-18	97.76	4.04	0.00	93.72	<50	<29	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	2/25/2014	3-18	97.76	2.48	0.00	95.28	56	<28	<65	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	5/27/2014	3-18	97.76	3.64	0.00	94.12	<50	36	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	8/25/2014	3-18	97.76	5.97	0.00	91.79	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	11/4/2014	3-18	97.76	2.61	0.00	95.15	<50	99	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	3/23-24/2015	3-18	97.76	2.88	0.00	94.88	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	5/26-27/2015	3-18	97.76	4.71	0.00	93.05	<50	31	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	8/13/2015	3-18	97.76	7.26	0.00	90.50	<50	58	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	11/16-17/2015	3-18	97.76	2.70	0.00	95.06	79	65	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	2/21-22/2016	3-18	97.76	2.62	0.00	95.14	100	110	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	5/15-16/2016	3-18	97.76	4.76	0.00	93.00	<50	87	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-17	8/15-16/2016	3-18	97.76	5.73	0.00	92.03	<50	60	<100	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
MW-17	11/15/2016	3-18	97.76	2.41	0.00	95.35	<50	74	<100	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
MW-17	1/10/2019	3-18	97.76	2.38	0.00	95.38	--	--	--	--	--	--	--	--	--	--	--	--	Monitored Only
MW-18	12/2/2008	3-18	98.44	3.41	0.00	95.03	--	--	--	--	--	--	--	--	--	--	--	--	
MW-18	3/18/2009	3-18	98.44	2.61	0.00	95.83	<50	73	<72	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-18	5/26-27/2009	3-18	98.44	3.83	0.00	94.61	120	390	110	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-18	8/3-4/2009	3-18	98.44	6.51	0.00	91.93	<50	130	<70	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-18	12/29-30/2009	3-18	98.44	3.02	0.00	95.42	<50	360	120	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	2/4-5/2010	3-18	98.44	2.77	0.00	95.67	<50	130	310	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	6/1/2010	3-18	98.44	1.62	0.00	96.82	<50	<30	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	8/10/2010	3-18	98.44	5.66	0.00	92.78	<50	310	400	<0.5	<0.5	<0.5	<1.6	--	--	--	--	--	
MW-18	11/18/2010	3-18	98.44	0.85	0.00	97.59	<50	42	160	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	3/15/2011	3-18	98.44	1.17	0.00	97.27	<50	60	200	3	2	<0.5	<1.5	--	--	--	--	--	
MW-18	6/2/2011	3-18	98.44	1.46	0.00	96.98	<50	<300	<700	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	8/25/2011	3-18	98.44	6.10	0.00	92.34	<50	710	230	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	11/10/2011	3-18	98.44	3.40	0.00	95.04	<50	<29	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	2/10/2012	3-18	98.44	2.40	0.00	96.04	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	5/31/2012	3-18	98.44	1.20	0.00	97.24	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	8/27/2012	3-18	98.44	5.35	0.00	93.09	<50	31	190	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	11/20/2012	3-18	98.44	1.23	0.00	97.21	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	2/7/2013	3-18	98.44	0.97	0.00	97.47	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	5/9/2013	3-18	98.44	3.74	0.00	94.70	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	8/8/2013	3-18	98.44	5.65	0.00	92.79	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	10/23/2013	3-18	98.44	3.60	0.00	94.84	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	2/25/2014	3-18	98.44	1.33	0.00	97.11	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	5/27/2014	3-18	98.44	2.68	0.00	95.76	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	8/25/2014	3-18	98.44	5.27	0.00	93.17	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	11/4/2014	3-18	98.44	1.31	0.00	97.13	<50	<29	<68	<05	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	3/23-24/2015	3-18	98.44	1.01	0.00	97.43	<50	<30	<71	<0.5	<0.5	<0 5	<1.5	--	--	--	--	--	
MW-18	5/26-27/2015	3-18	98.44	4.41	0.00	94.03	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	8/13/2015	3-18	98.44	6.82	0.00	91.62	<50	77	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	11/16-17/2015	3-18	98.44	1.08	0.00	97.36	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	2/21-22/2016	3-18	98.44	1.19	0.00	97.25	<50	<47	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-18	5/15-16/2016	3-18	98.44	3.22	0.00	95.22	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
Fourth Quarter 2004 to Current
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Lead (µg/L)	Total Lead (µg/L)	Naphthalene (µg/L)	n-Hexane (µg/L)	Comments
MTCA Method A Cleanup Levels:							800/1,000	500	500	5	1000	700	1000	20	--	15	160	--	
MW-18	8/15-16/2016	3-18	98.44	5.21	0.00	93.23	<50	<46	<100	<0.2	<0.2	<0 2	<0.2	--	--	--	--	--	
MW-18	11/15/2016	3-18	98.44	0.44	0.00	98.00	<50	<45	<100	<0.2	<0.2	<0 2	<0.2	--	--	--	--	--	
NOT PART OF SAMPLING PROGRAM																			
MW-19	12/2/2008	3-18	98.54	3.78	0.00	94.76	--	--	--	--	--	--	--	--	--	--	--	--	
MW-19	3/18/2009	3-18	98.54	2.90	0.00	95.64	<50	<29	<68	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-19	5/26-27/2009	3-18	98.54	4.56	0.00	93.98	<50	360	500	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-19	8/3-4/2009	3-18	98.54	6.88	0.00	91.66	<50	<29	<68	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-19	12/29-30/2009	3-18	98.54	3.02	0.00	95.52	<50	<29	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	2/4-5/2010	3-18	98.54	3.75	0.00	94.79	<50	<30	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	6/1/2010	3-18	98.54	3.14	0.00	95.40	<50	<30	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	8/10/2010	3-18	98.54	6.41	0.00	92.13	<50	<29	<90	<0.5	<0.5	<0.5	<1.6	--	--	--	--	--	
MW-19	11/18/2010	3-18	98.54	1.89	0.00	96.65	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	3/15/2011	3-18	98.54	2.78	0.00	95.76	<50	44	85	2	2	<0.5	<1.5	--	--	--	--	--	
MW-19	6/2/2011	3-18	98.54	3.94	0.00	94.60	<50	36	79	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	8/25/2011	3-18	98.54	6.95	0.00	91.59	<50	41	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	11/10/2011	3-18	98.54	4.70	0.00	93.84	<50	<29	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	2/10/2012	3-18	98.54	4.05	0.00	94.49	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	5/31/2012	3-18	98.54	4.30	0.00	94.24	<50	<32	<75	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	8/27/2012	3-18	98.54	6.90	0.00	91.64	<50	<32	<75	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	11/20/2013	3-18	98.54	3.18	0.00	95.36	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	2/7/2013	3-18	98.54	3.74	0.00	94.80	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	5/9/2013	3-18	98.54	5.03	0.00	93.51	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	8/8/2013	3-18	98.54	6.89	0.00	91.65	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	10/23/2013	3-18	98.54	4.83	0.00	93.71	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	2/24/2014	3-18	98.54	3.40	0.00	95.14	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	5/27/2014	3-18	98.54	4.52	0.00	94.02	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	8/25/2014	3-18	98.54	6.59	0.00	91.95	<50	<28	<66	<0.5	<0.5	<0 5	<15	--	--	--	--	--	
MW-19	11/4/2014	3-18	98.54	1.86	0.00	96.68	<50	<33	<77	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	3/23-24/2015	3-18	98.54	1.00	0.00	97.54	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	5/26-27/2015	3-18	98.54	5.64	0.00	92.90	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	8/13/2015	3-18	98.54	7.79	0.00	90.75	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	11/16-17/2015	3-18	98.54	2.70	0.00	95.84	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	2/21-22/2016	3-18	98.54	3.45	0.00	95.09	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	5/15-16/2016	3-18	98.54	5.55	0.00	92.99	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-19	8/15-16/2016	3-18	98.54	6.46	0.00	92.08	<50	<46	<100	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
MW-19	11/15/2016	3-18	98.54	2.74	0.00	95.80	<50	<45	<100	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
NOT PART OF SAMPLING PROGRAM																			
MW-20	12/2/2008	3-18	98.92	1.93	0.00	96.99	--	--	--	--	--	--	--	--	--	--	--	--	
MW-20	3/18/2009	3-18	98.92	1.85	0.00	97.07	<50	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-20	5/26-27/2009	3-18	98.92	3.60	0.00	95.32	<50	63	<69	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-20	8/3-4/2009	3-18	98.92	7.28	0.00	91.64	<50	75	<70	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-20	12/29-30/2009	3-18	98.92	2.81	0.00	96.11	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	2/4-5/2010	3-18	98.92	2.70	0.00	96.22	<50	<30	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	6/1/2010	3-18	98.92	2.30	0.00	96.62	<50	<29	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	8/10/2010	3-18	98.92	6.49	0.00	92.43	<50	350	300	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	11/18/2010	3-18	98.92	1.80	0.00	97.12	<50	<29	170	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	3/15/2011	3-18	98.92	2.26	0.00	96.66	<50	<29	170	2	2	<0.5	<1.5	--	--	--	--	--	
MW-20	6/3/2011	3-18	98.92	2.73	0.00	96.19	<50	<31	<71	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	8/25/2011	3-18	98.92	7.27	0.00	91.65	<50	120	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	11/10/2011	3-18	98.92	3.55	0.00	95.37	<50	<30	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	2/10/2012	3-18	98.92	2.45	0.00	96.47	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	5/30/2012	3-18	98.92	2.80	0.00	96.12	<50	<30	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	8/28/2012	3-18	98.92	6.82	0.00	92.10	<50	70	<69	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
Fourth Quarter 2004 to Current
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Lead (µg/L)	Total Lead (µg/L)	Naphthalene (µg/L)	n-Hexane (µg/L)	Comments
MTCA Method A Cleanup Levels:							800/1,000	500	500	5	1000	700	1000	20	--	15	160	--	
MW-20	11/21/2012	3-18	98.92	1.93	0.00	96.99	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	2/7/2013	3-18	98.92	2.40	0.00	96.52	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	5/10/2013	3-18	98.92	4.06	0.00	94.86	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	8/8/2013	3-18	98.92	6.18	0.00	92.74	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	10/22/2013	3-18	98.92	3.81	0.00	95.11	<50	<30	<70	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	2/25/2014	3-18	98.92	2.26	0.00	96.66	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	5/28/2014	3-18	98.92	2.76	0.00	96.16	<50	<29	<67	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	8/26/2014	3-18	98.92	6.08	0.00	92.84	<50	30	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	11/3/2014	3-18	98.92	1.90	0.00	97.02	<50	<28	<66	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	3/23-24/2015	3-18	98.92	1.98	0.00	96.94	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	5/26-27/2015	3-18	98.92	4.88	0.00	94.04	<50	<29	<68	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	8/13/2015	3-18	98.92	7.81	0.00	91.11	<50	89	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	11/16-17/2015	3-18	98.92	2.20	0.00	96.72	<50	<45	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	2/21-22/2016	3-18	98.92	1.94	0.00	96.98	<50	<46	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	5/15-16/2016	3-18	98.92	3.89	0.00	95.03	<50	<47	<100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-20	8/15-16/2016	3-18	98.92	5.76	0.00	93.16	<50	300	<100	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
MW-20	11/15/2016	3-18	98.92	1.84	0.00	97.08	<50	<45	<100	<0.2	<0.2	<0.2	<0.2	--	--	--	--	--	
NOT PART OF MONITORING/SAMPLING PROGRAM																			
																--			
MW-1	7/9/2004	5-15	97.62	3.92	0.00	93.7	<50	**630**	210	<0.5	<0.5	<0.5	<0.5	<0.5	<0.99	--	<1	<2	
MW-1	10/11/2004	5-15	97.62	1.79	0.00	95.83	<50	120	<100	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-1	1/25/2005	5-15	97.62	2.01	0.00	95.61	<48	<79	<99	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-1	4/13/2005	5-15	97.62	1.19	0.00	96.43	<48	450	<99	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-1	7/11/2005	5-15	97.62	2.38	0.00	95.24	48	380	<110	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-1	8/13/2007	5-15	97.62	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	12/2/2008	5-15	97.55	2.17	0.00	95.38	--	--	--	--	--	--	--	--	--	--	--	--	
NOT PART OF MONITORING/SAMPLING PROGRAM																			
MW-2	7/9/2004	5-15	99.18	5.06	0.00	94.12	**2,500**	**1,800**	320	**1,100**	35	160	59	<0.5	<0.99	--	19	130	
MW-2	10/11/2004	5-15	99.18	2.68	0.00	96.50	**2,500**	**560**	<99	**1,100**	37	170	44	--	--	--	--	--	
MW-2	1/25/2005	5-15	99.18	2.82	0.00	96.36	**2,200**	**1,700**	180	**880**	33	150	35	--	--	--	--	--	
MW-2	4/13/2005	5-15	99.18	2.31	0.00	96.87	**2,800**	**960**	110	**1,100**	45	380	80	--	--	--	--	--	
MW-2	4/13/2005 (D)	5-15	99.18	2.31	0.00	96.87	**2,700**	**960**	120	**1,100**	48	380	84	--	--	--	--	--	
MW-2	7/11/2005	5-15	99.18	3.16	0.00	96.02	**2,300**	**1,400**	180	**760**	26	170	41	--	--	--	--	--	
MW-2	7/11/2005 (D)	5-15	99.18	3.16	0.00	96.02	**2,100**	**1,500**	170	**810**	25	150	36	--	--	--	--	--	
ABANDONED IN OCTOBER 2006																--			
																--			
MW-3	7/9/2004	5-15	100.00	6.03	0.00	93.97	80	290	150	**22**	0.600	6	5	<0.5	<0.99	--	<1	2	
MW-3	7/9/2004 (D)	5-15	100.00	6.03	0.00	93.97	100	300	190	**23**	0.600	6	5	<0.5	<0.99	--	<1	2	
MW-3	10/11/2004	5-15	100.00	4.27	0.00	95.73	<50	<79	<98	2	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-3	1/25/2005	5-15	100.00	4.13	0.00	95.87	<48	**670**	120	2	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-3	4/13/2005	5-15	100.00	3.78	0.00	96.22	<48	89	<97	2	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-3	7/11/2005	5-15	100.00	4.69	0.00	95.31	<48	<87	<110	2	<0.5	<0.5	<1.5	--	--	--	--	--	
ABANDONED IN OCTOBER 2006					0.00											--			
																--			
MW-4	7/9/2004	5-15	97.88	5.30	0.00	92.58	**1,600**	**1,700**	240	**160**	13	67	6	<0.5	<0.99	--	4	75	
MW-4	10/11/2004	5-15	97.88	1.66	0.00	96.22	**1,800**	**520**	<97	**140**	16	76	10	--	--	--	--	--	
MW-4	1/25/2005	5-15	97.88	1.79	0.00	96.09	**2,000**	410	<98	**140**	16	79	9	--	--	--	--	--	
MW-4	4/13/2005	5-15	97.88	1.40	0.00	96.48	**2,100**	**1,300**	110	**120**	16	81	15	--	--	--	--	--	
MW-4	7/11/2005	5-15	97.88	2.18	0.00	95.70	**1,800**	**1,200**	170	**54**	8	43	7	--	--	--	--	--	
ABANDONED IN OCTOBER 2006																--			
																--			
MW-5	10/11/2004	5-15	98.31	2.79	0.00	95.52	90	130	<99	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-5	1/25/2005	5-15	98.31	2.79	0.00	95.52	100	**860**	130	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	
MW-5	4/13/2005	5-15	98.31	2.23	0.00	96.08	110	**530**	<97	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
Fourth Quarter 2004 to Current
Former Standard Oil Bulk Plant No. 302095
149 and 167 Main Street
Morton, Washington

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC[1] (ft)	DTW (ft bTOC)	LNAPL thickness (ft)	GW Elev (ft)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-HRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Lead (µg/L)	Total Lead (µg/L)	Naphthalene (µg/L)	n-Hexane (µg/L)	Comments
MTCA Method A Cleanup Levels:							800/1,000	500	500	5	1000	700	1000	20	--	15	160	--	
MW-5	7/11/2005	5-15	98.31	3.38	0.00	94.93	64	**590**	140	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	
MW-5	8/13/2007	5-15		UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--	--		
ABANDONED/DESTROYED																--			
																--			
MW-6	10/11/2004	5-20	98.3	2.26	0.00	96.04	**1,000**	**600**	<97	1	0.700	<0.5	1	--	--	--	--	--	
MW-6	1/25/2005	5-20	98.3	2.46	0.00	95.84	**1,100**	**1,600**	260	1	0.700	<0.5	1	--	--	--	--	--	
MW-6	1/25/2005 (D)	5-20	98.3	2.46	0.00	95.84	**1,100**	**1,700**	270	1	0.700	0.600	1	--	--	--	--	--	
MW-6	4/13/2005	5-20	98.3	1.78	0.00	96.52	**860**	**900**	120	<2.0	1	0.900	<5.0	--	--	--	--	--	
MW-6	7/11/2005	5-20	98.3	3.16	0.00	95.14	**1,000**	**1,200**	150	2	1	1	2	--	--	--	--	--	
ABANDONED IN MARCH 2007																			
MW-8	10/11/2004	5-20	99.21	2.81	0.00	96.40	**1,200**	330	<98	6	<0.5	2	1	--	--	--	--	--	
MW-8	1/25/2005	5-20	99.21	2.63	0.00	96.58	**1,300**	**740**	170	5	<0.5	1	1	--	--	--	--	--	
MW-8	4/13/2005	5-20	99.21	2.44	0.00	96.77	**1,000**	470	<100	6	0.700	2	<5.0	--	--	--	--	--	
MW-8	7/11/2005	5-20	99.21	3.23	0.00	95.98	**1,400**	**670**	<110	6	0.900	3	4	--	--	--	--	--	
ABANDONED IN MARCH 2007																			
MW-9	10/11/2004	5-20	97.52	1.9	0.00	95.62	<0.5	<80	<50	<0.5	<0.5	<0.5	--	--	--	--	--		
MW-9	1/25/2005	5-20	97.52	1.68	0.00	95.84	<0.5	<78	<48	<0.5	<0.5	<0.5	--	--	--	--	--		
MW-9	4/13/2005	5-20	97.52	1.57	0.00	95.95	<0.5	<81	<48	<0.5	<0 5	<1.5	--	--	--	--	--		
MW-9	7/11/2005	5-20	97.52	2.25	0.00	95.27	<0.5	<83	<48	<0.5	<0.5	<1.5	--	--	--	--	--		
MW-9	8/13/2007			UNABLE TO LOCATE SINCE REMEDIAL EXCAVATON ACTIVITIES							--	--	--	--	--	--	--		
MW-9	12/29-30/2009	5-20	97.52	3.15	0.00	94.37	--	--	--	--	--	--	--	--	--	--	--		
NOT PART OF SAMPLING PROGRAM																			
MW-10	10/11/2004	5-20	98.78	2.09	0.00	96.69	**1,800**	**560**	<95	**51**	7	25	7	--	--	--	--	--	
MW-10	10/11/2004 (D)	5-20	98.78	2.09	0.00	96.69	**1,900**	500	<98	**51**	7	25	6	--	--	--	--	--	
MW-10	1/25/2005	5-20	98.78	2.08	0.00	96.70	**1,700**	**540**	<110	**37**	6	23	5	--	--	--	--	--	
MW-10	4/13/2005	5-20	98.78	1.64	0.00	97.14	**1,700**	**760**	<100	**24**	4	19	7	--	--	--	--	--	
MW-10	7/11/2005	5-20	98.78	2.54	0.00	96.24	**1,500**	**910**	<110	**31**	4	17	5	--	--	--	--	--	
ABANDONED IN MARCH 2007																			

Note:

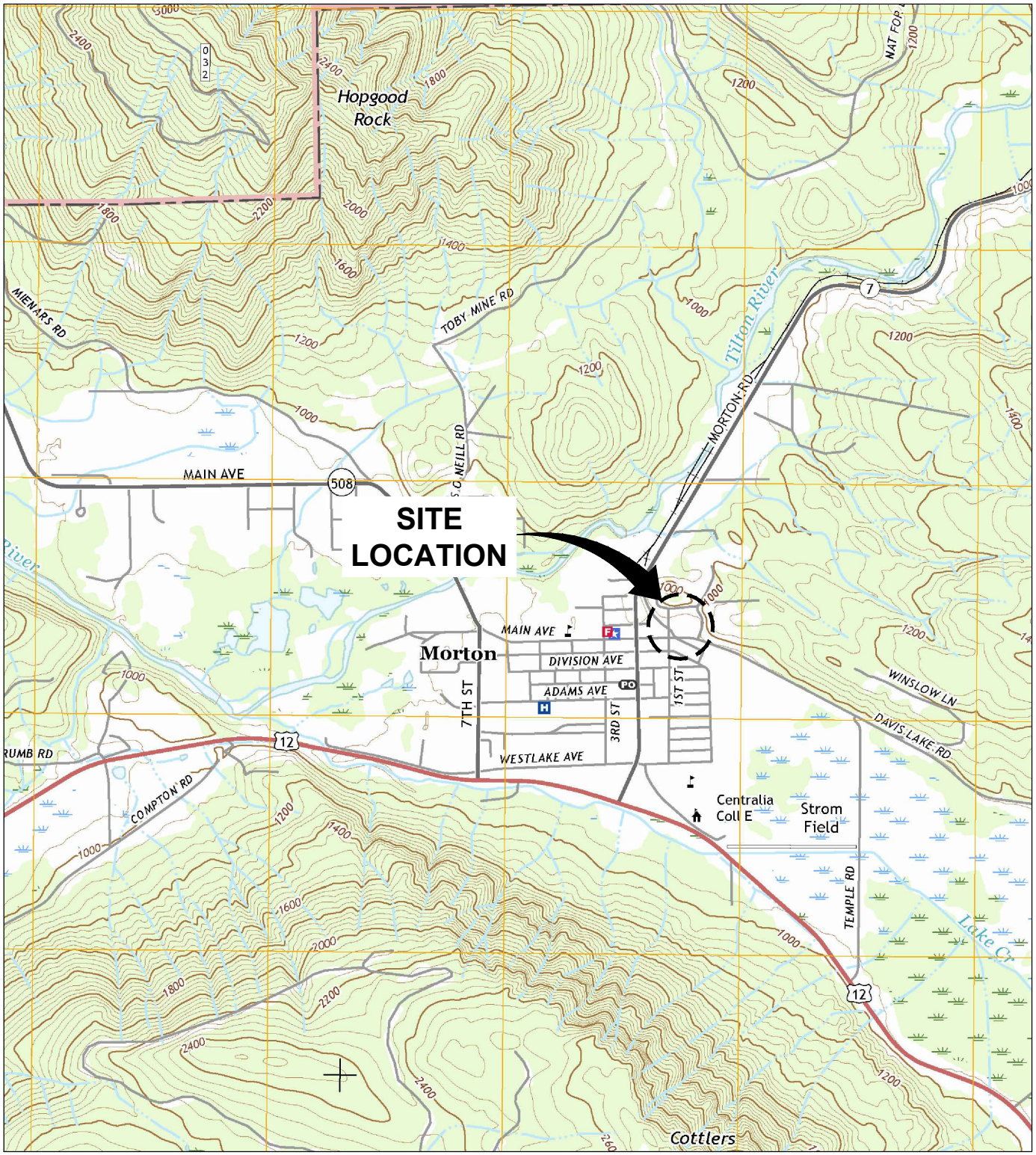
MW = Groundwater monitoring well
(D)= Duplicate
TOC = Top of casing
DTW = Depth to groundwater
ft bTOC = Feet below top of casing
ft = Feet
LNAPL = Liquid Non-Aqueous Phase Liquid
GW Elev = Groundwater elevation
µg/L = Micrograms per liter
<0.50 = Not detected at or above Method Detection limit
Bold = Value exceeds above Model Toxics Control Act (MTCA) Method A Cleanup Levels
[1]TOC data to arbitrary 100 foot elevation surveyed by SAIC on December 2, 2018

After october 2013, samples were analyzed without silica-gel cleanup. TPH-DRO and TPH-HRO detections were also analyzed with silica-gel clean up and those results are listed

TPH = Total petroleum hydrocarbons
TPH-GRO = Total Petroleum Hydrocarbons-Gasoline Range, Method ECY 97-602 NWTPH- Gx
TPH-DRO = Total Petroleum Hydrocarbons-Diesel Range, Method ECY 97-602 NWTPH- Dx
TPH-HRO = Total Petroleum Hydrocarbons- Heavy Oil Range, Method ECY 97-602 NWTPH- Dx
Benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX) analyzed by Method SW- 846 8021 B
MTBE = Methyl tert-butyl ether analyzed by Method USEPA 8021B
-- = Not sampled/not measured
QA= Quality Analysis
J = Estimated value (between laboratory reporting limit and method detection limit)
USEPA = United States Environmental Protection Agency

Data QA/QC by:NG 08.29.2019, ST 09.06.2019, NG 09.09.2019, ST 09.24.2019, NG 09.27.2019, ST 10.03.2019, NG 10.04.2019

FIGURES



SOURCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., MORTON, WA 2017.

N

0 2,000' 4,000'

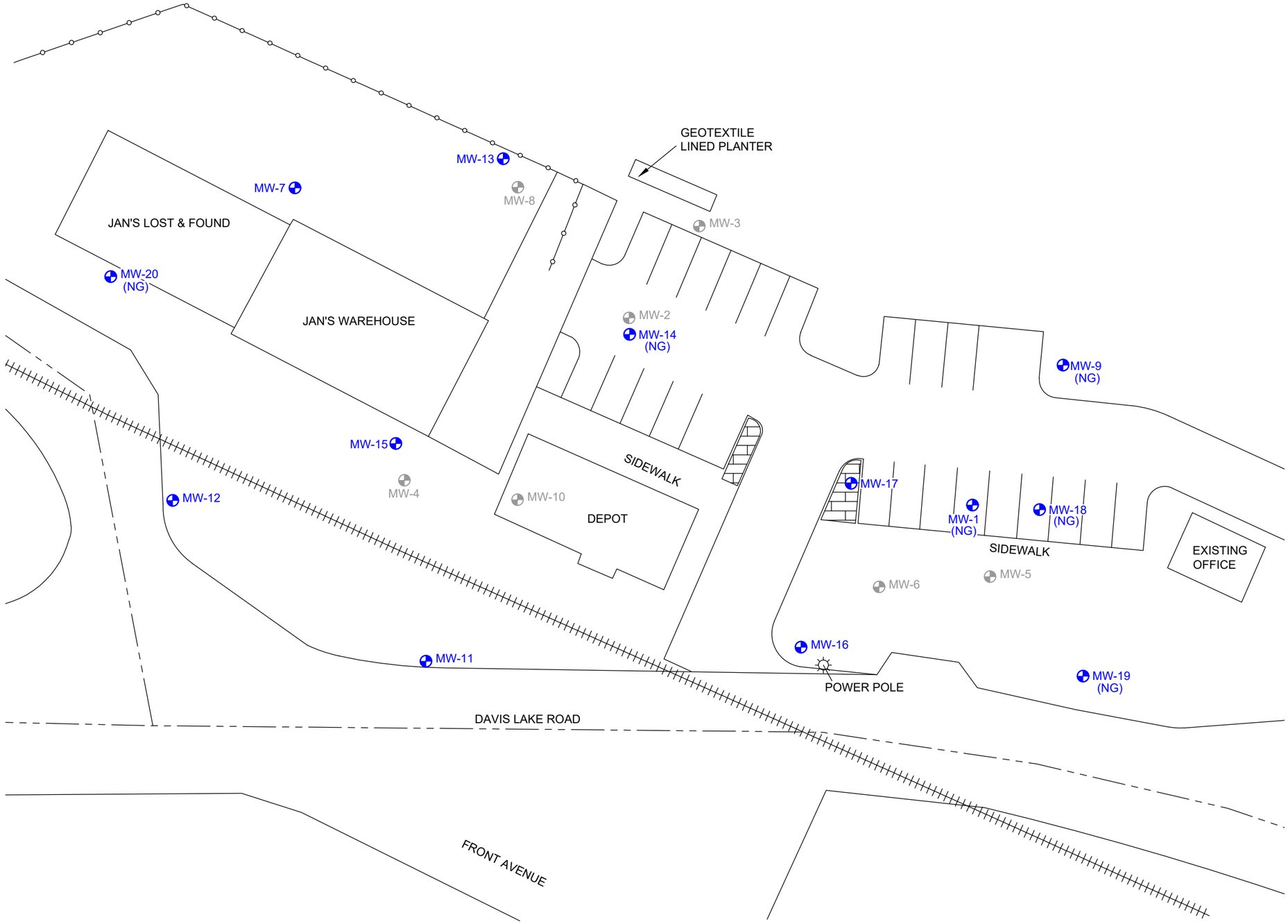
APPROXIMATE SCALE : 1 in. = 2,000 ft.

FORMER STANDARD OIL BULK PLANT NO. 302095
149 & 167 MAIN STREET
MORTON, WASHINGTON

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1



LEGEND:

- MW-16 GROUNDWATER MONITORING WELL
- MW-6 ABANDONED OR DESTROYED MONITORING WELL LOCATIONS
- FENCE LINE
- RAILROAD TRACKS
- (NG) NOT IN THE GROUNDWATER MONIORING AND SAMPLING PROGRAM

N

NOTE:

1. BASE MAP PROVIDED BY LEIDOS, DATED MARCH 2017, AT A SCALE OF 1"=15'.

0 30' 60'

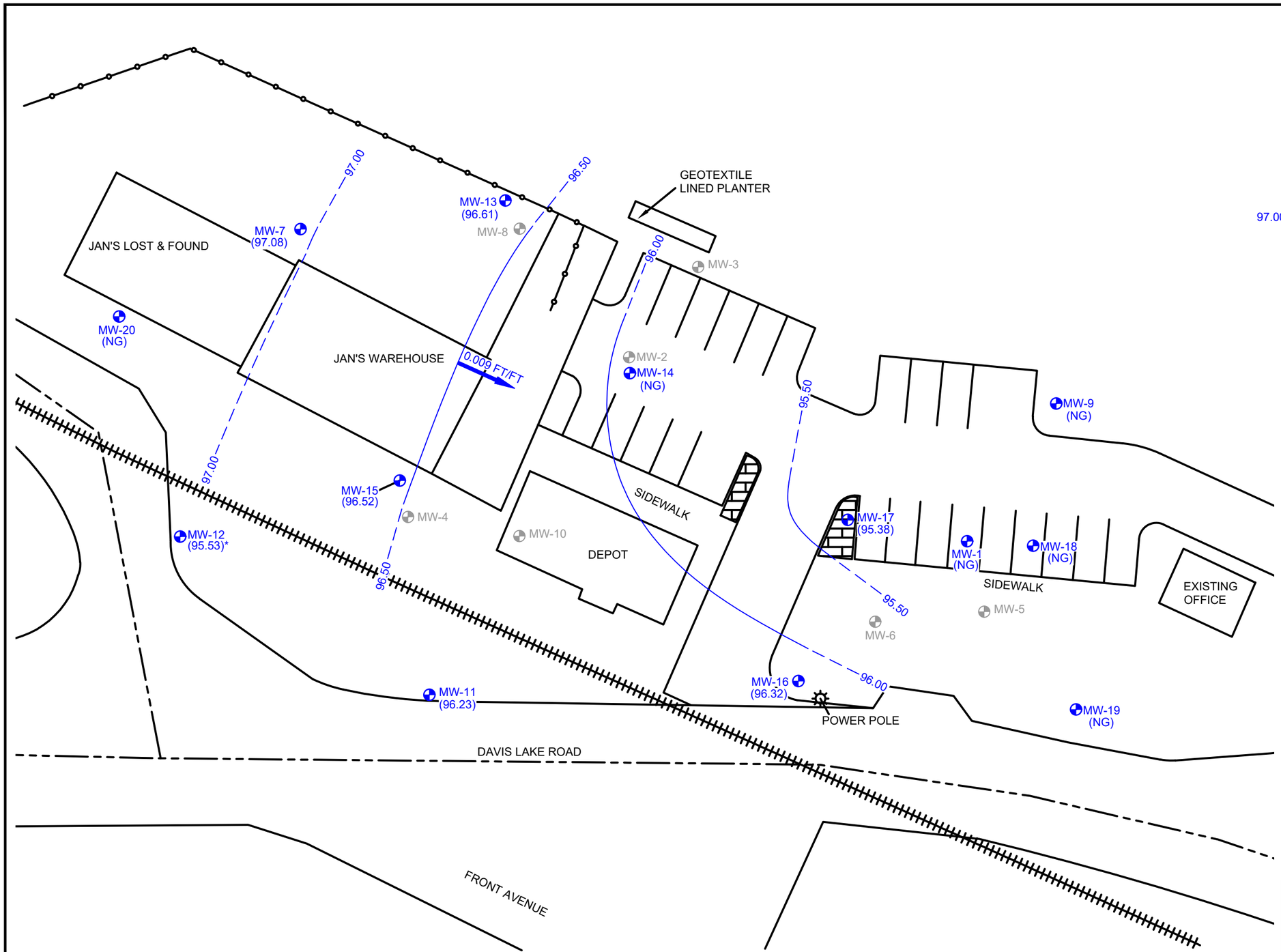
APPROXIMATE SCALE : 1 in. = 30 ft.

FORMER STANDARD OIL BULK PLANT NO. 302095
149 & 167 MAIN STREET
MORTON, WASHINGTON

SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2



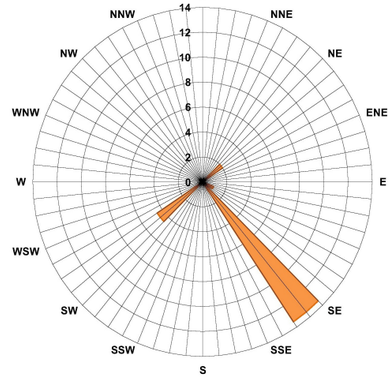
LEGEND:

- MW-16 — GROUNDWATER MONITORING WELL
- MW-6 — ABANDONED OR DESTROYED MONITORING WELL LOCATIONS
- FENCE LINE
- RAILROAD TRACKS
- (97.08) — GROUNDWATER ELEVATION (FEET)
- 97.00 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- 0.009 FT/FT — APPROXIMATE HYDRAULIC GRADIENT (FEET/FOOT)
- * — GROUNDWATER ELEVATION NOT USED IN CONTOURING
- (NG) — NOT IN THE GROUNDWATER MONIORING AND SAMPLING PROGRAM

N

NOTE:

1. BASE MAP PROVIDED BY LEIDOS, DATED MARCH 2017, AT A SCALE OF 1"=15'.



GROUNDWATER FLOW DIRECTION

0 30' 60'

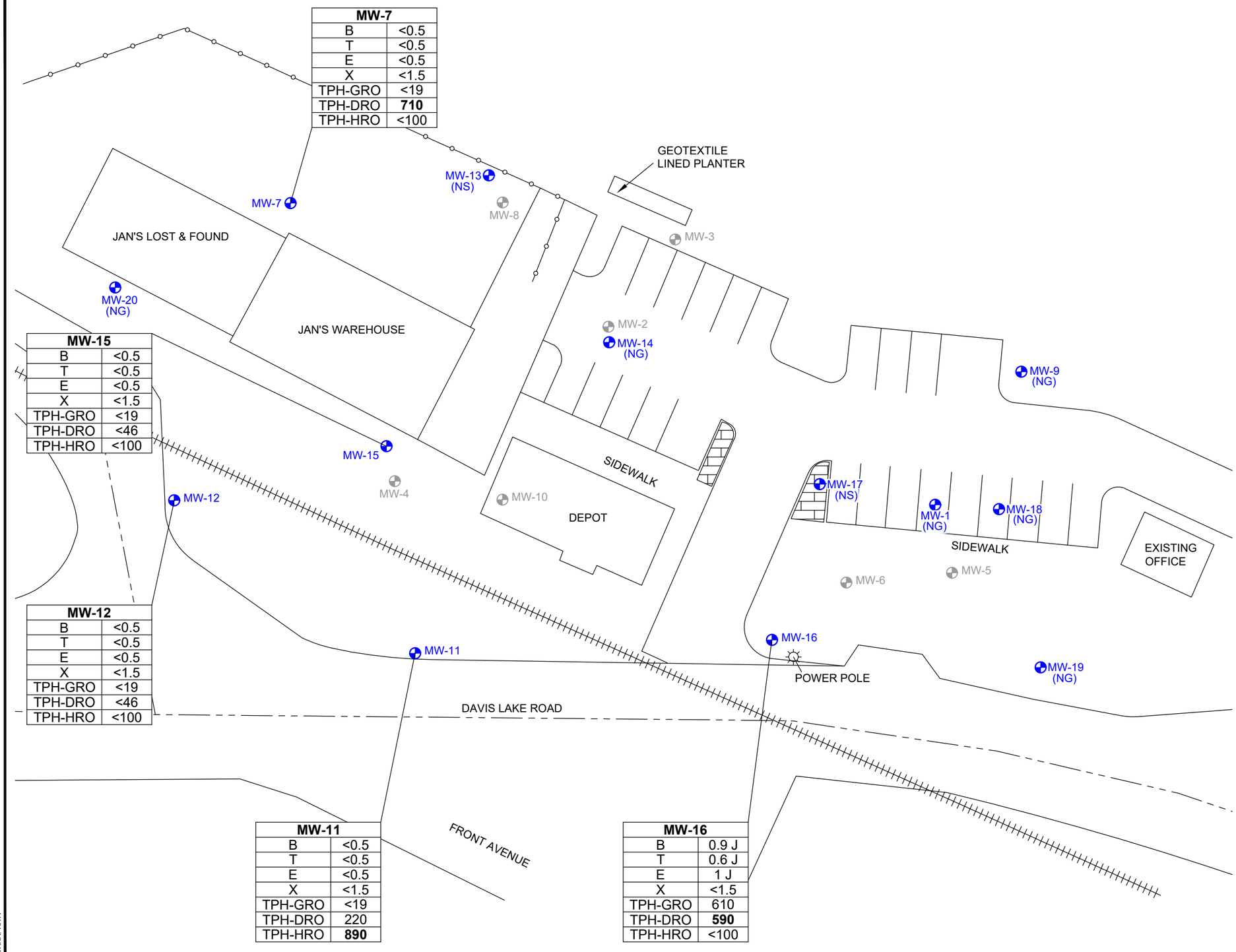
APPROXIMATE SCALE : 1 in. = 30 ft.

FORMER STANDARD OIL BULK PLANT NO. 302095
149 & 167 MAIN STREET
MORTON, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP JANUARY 10, 2019

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3



LEGEND:

MW-16	GROUNDWATER MONITORING WELL
MW-6	ABANDONED OR DESTROYED MONITORING WELL LOCATIONS
	FENCE LINE
	RAILROAD TRACKS
µg/L	ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER (µg/L).
(NS)	NOT SAMPLED
BOLD	RESULT EXCEEDS THE MODEL TOXICS CONTROL ACT (MTCA) METHOD A CLEANUP LEVELS
<0.5	NOT DETECTED AT THE LISTED METHOD DETECTION LIMIT (MDL)
J	ESTIMATED VALUE (BETWEEN LABORATORY REPORTING LIMIT AND MDL)
(NG)	NOT IN THE GROUNDWATER MONITORING AND SAMPLING PROGRAM

N

MTCA METHOD A CLEANUP LEVELS		
ABBREVIATION	**CONSTITUENT**	**MTCA METHOD A LEVEL**
B	BENZENE	5
T	TOLUENE	1000
E	ETHYLBENZENE	700
X	XYLENE	1000
TPH-GRO	TOTAL PETROLEUM HYDROCARBONS-GASOLINE RANGE	800/1,000
TPH-DRO	TOTAL PETROLEUM HYDROCARBONS-DIESEL RANGE	500
TPH-HRO	TOTAL PETROLEUM HYDROCARBONS-HEAVY RANGE ORGANICS	500

NOTE:

1. BASE MAP PROVIDED BY LEIDOS, DATED MARCH 2017, AT A SCALE OF 1"=15'.

0 30' 60'

APPROXIMATE SCALE : 1 in. = 30 ft.

FORMER STANDARD OIL BULK PLANT NO. 302095
149 & 167 MAIN STREET
MORTON, WASHINGTON

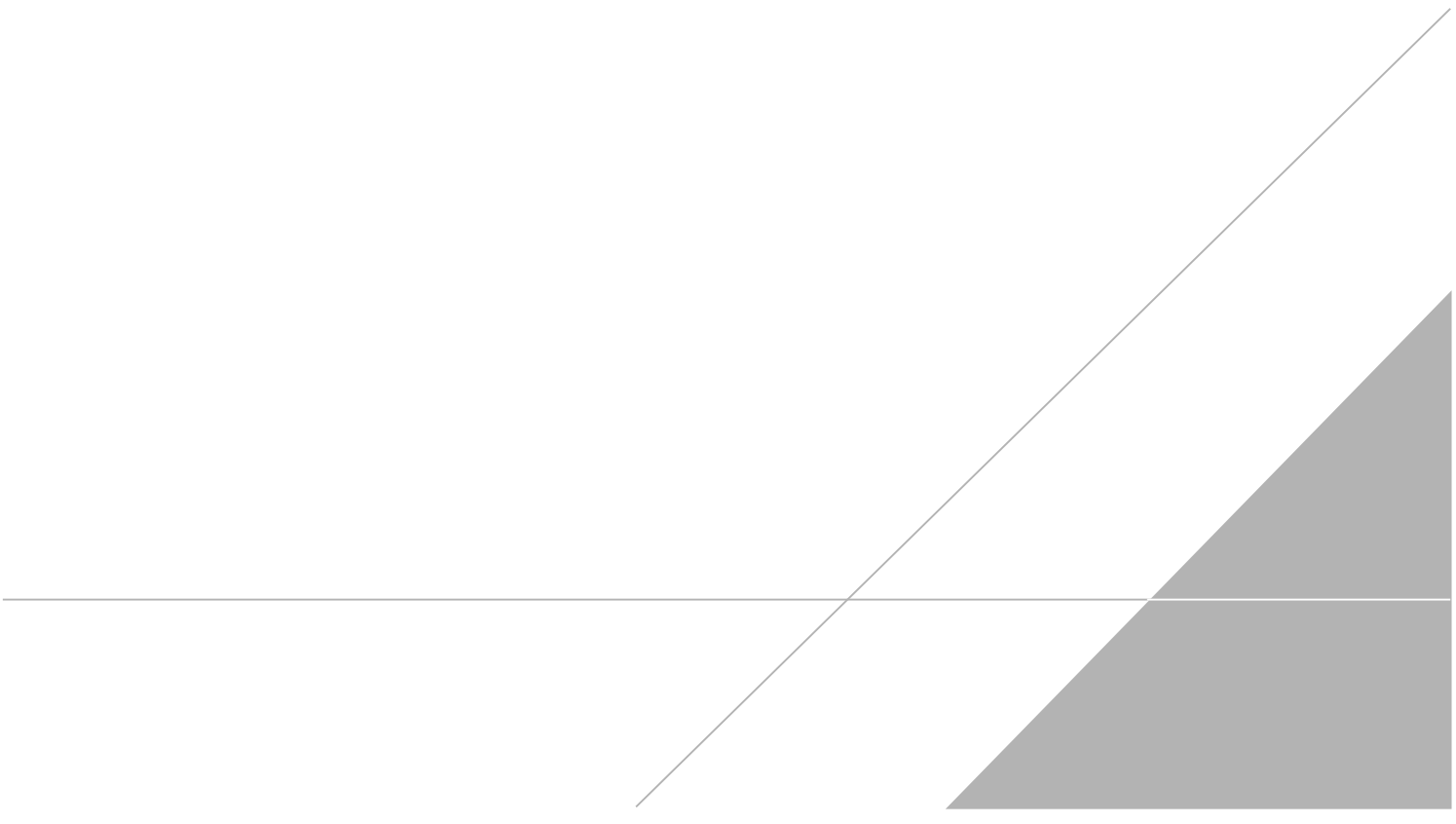
GROUNDWATER ANALYTICAL MAP JANUARY 10, 2019

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

ATTACHMENT A

Field Data Sheets and General Procedures



GETTLER-RYAN INC.

TRANSMITTAL

January 18, 2019
G-R #17155532

TO: Mr. Stephen Ahlquist
Arcadis
111 SW Columbia Street, Suite 670
Portland, Oregon 97201

FROM: Deanna L. Harding
Project Manager
Gettler-Ryan Inc.
6805 Sierra Court, Suite G
Dublin, California 94568

RE: Former Standard Oil Bulk Plant
#302095
149 and 167 Main Street
Morton, Washington

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **First Semi Annual Event of January 10, 2019**

COMMENTS:

Pursuant to your request, we are providing you with a copy of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/302095

GETTLER-RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#:	**Chevron #302095** Date: 1/10/19
Address:	**149 And 167 Main Street**
City/St.:	**Morton, WA**
Status of Site:	PARKING LOT / NON ACTIVE TRACKS

DRUMS:

Please list below ALL DRUMS on site:
(i.e., drum description, condition, labeling, contents and location of drums)

#	Description	Condition	Labeling	Contents/Capacity	Location
	NO DRUMS				

WELLS:

Please check the condition of ALL WELLS on site:
(i.e., gaskets, bolts, replaced well plug and/or well lock, well box condition and etc.)

Well ID	Gaskets (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Replaced Plug Y/N	Replaced Lock Y/N	Well Box Manufacturer/Size/# of Bolts	Other
MW-7	OK	OK	No	No	MORRIS / 8 / 3	
MW-11	↓	↓	↓	↓	↓	
MW-12	↓	↓	↓	↓	↓	
MW-13	↓	↓	↓	↓	↓	
MW-15	↓	↓	↓	↓	↓	
MW-16	↓	↓	↓	↓	↓	
MW-17	↓	↓	↓	↓	GENERIC / 12 / 1	

Additional Comments/Observations:

STANDARD OPERATING PROCEDURE, LOW-FLOW PURGING AND SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following Standard Operating Procedure (SOP) for the collection and handling of representative groundwater samples using the Low-Flow (Minimal-Drawdown) Purging technique. This SOP incorporates purging and sampling methods discussed in U.S. EPA, Ground Water Issue, Publication Number EPA/540/S-95/504, April 1996 by Puls, R.W. and M.J. Barcelona - *"Low-Flow (Minimal-Drawdown) Ground-Water Sampling Procedures."*

A QED Well Wizard™ (or equivalent) bladder pump or Peristaltic Pump will be used to purge and sample selected wells as outlined in the scope-of-work. An in-line flow cell or other multi-parameter meter is used to collect water quality indicating parameters during purging.

Initial Pump Discharge Test Procedures

The Static Water Level (SWL) is measured in all wells at the site prior to the installation of the pump or tubing and initiation of the test procedures in any well. In addition, the presence or absence of separate-phase hydrocarbons (SPH) is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot. The SWL measurement and SPH thickness, if any, will be recorded on the field data sheet. Total well depths are measured annually.

The bladder pump or suction inlet tubing of the peristaltic pump is then positioned with its inlet located within the screened interval of the well. The in-line flow cell is then connected to the discharge tubing. After pump installation, the SWL is allowed to recover to its original level. The pump is then started at a discharge rate between 100 ml to 300 ml per minute with the in-line flow cell connected. The water level is monitored continuously for any change from the original measurement and the discharge rate is adjusted until an optimum discharge rate (ODR) is determined. The goal for the ODR is to produce a stable drawdown of less than 0.1 meter as allowed by site conditions; however the total drawdown from the initial SWL should not exceed 25% of the distance between pump inlet location and the top of the well screen. Once achieved, the ODR will be confirmed by volumetric discharge measurement and recorded on the field data sheet.

Purging and Water Quality Parameter Measurement

When the ODR has been determined and the SWL drawdown has been established within the acceptable range, and a minimum of one pump system volume (bladder volume and/or discharge tubing volume) has been purged, field measurements for temperature (T), pH, conductivity (Ec), and if required, oxygen reduction potential (ORP) and dissolved oxygen (DO) will be collected and documented on the field data sheet. Measurements should be taken every three to five minutes until parameters stabilize for three consecutive readings. The minimum parameter subset of T (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 20 mV).

Sample Collection

When water quality parameters have stabilized, and the SWL drawdown remains established within the acceptable range, groundwater sample collection may begin. If used, the in-line flow cell and its tubing are disconnected from the discharge tubing prior to sample collection. Water samples are collected from the discharge tubing into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #302095 Job Number: 17155532
Site Address: 149 And 167 Main Street Event Date: 1/10/19 (inclusive)
City: Morton, WA Sampler: GM

Well ID MW-7 Date Monitored: 1/10/19
Well Diameter 2 in.
Total Depth 19.55 ft.
Depth to Water 2.82 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

16.73 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	
QED Bladder Pump	X
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	X
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0705 Weather Conditions: COLD
Sample Time/Date: 0745 / 1/10/19 Water Color: CLEAR Odor: Y (N)
Approx. Flow Rate: 200 mlpm Sediment Description: NONE
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 2.89

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0723	3.6	6.06	120.1	9.0	4.64	195.7	2.89
0726	4.2	6.04	118.6	8.9	4.59	197.1	2.89
0729	4.8	6.03	117.5	8.9	4.52	198.6	2.89

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	3 x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2 x 250ml ambers	YES	HCL	EUROFINS	NWTPH-Dx

COMMENTS: Depth Pump Set At: ≈ 12.28 ft.

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #302095 Job Number: 17155532
Site Address: 149 And 167 Main Street Event Date: 1/10/19 (inclusive)
City: Morton, WA Sampler: GM

Well ID MW-11 Date Monitored: 1/10/19
Well Diameter 2 in
Total Depth 19.83 ft.
Depth to Water 1.69 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

18.14 xVF ~ = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump
QED Bladder Pump X
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump X
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: Ø ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0855 Weather Conditions: COLD
Sample Time/Date: 0935 / 1/10/19 Water Color: BROWN Odor: Y (N)
Approx. Flow Rate: 200 mlpm Sediment Description: SILT
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 1.72

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0913	3.6	6.93	111.2	9.6	10.64	186.1	1.71
0916	4.2	6.94	110.7	9.7	10.59	184.6	1.71
0919	4.8	6.90	109.5	9.7	10.56	183.2	1.72

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	3 x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2 x 250ml ambers	YES	HCL	EUROFINS	NWTPH-Dx

COMMENTS: Depth Pump Set At: ≈12.42ft

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #302095 | Job Number: 17155532
Site Address: 149 And 167 Main Street | Event Date: 1/10/19 (inclusive)
City: Morton, WA | Sampler: GM

Well ID: MW-12 | Date Monitored: 1/10/19
Well Diameter: 2 in.
Total Depth: 19.57 ft.
Depth to Water: 2.72 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

16.85 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump	X	QED Bladder Pump	X
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: Ø ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0800 | Weather Conditions: COLD
Sample Time/Date: 0840 / 1/10/19 | Water Color: CLEAR Odor: Y (N)
Approx. Flow Rate: 200 mlpm | Sediment Description: SL SILT
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 2.77

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS ~~µmhos/cm~~)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0818	3.6	6.07	83.6	10.9	4.81	193.9	2.76
0821	4.2	6.06	82.9	10.9	4.72	195.2	2.77
0824	4.8	6.04	82.2	10.8	4.69	196.4	2.77

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12	3 x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2x 250ml ambers	YES	HCL	EUROFINS	NWTPH-Dx

COMMENTS: Depth Pump Set At: ≈12.29ft.

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #302095 Job Number: 17155532
Site Address: 149 And 167 Main Street Event Date: 1/10/19 (inclusive)
City: Morton, WA Sampler: GM

Well ID MW-13 Date Monitored: 1/10/19
Well Diameter 2 in.
Total Depth 16.41 ft.
Depth to Water 2.41 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

14.00 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:
Disposable Bailer ___
Stainless Steel Bailer ___
Stack Pump ___
Peristaltic Pump ___
QED Bladder Pump ___
Other: ___

Sampling Equipment:
Disposable Bailer ___
Pressure Bailer ___
Metal Filters ___
Peristaltic Pump ___
QED Bladder Pump ___
Other: ___

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): ___ Weather Conditions: ___
Sample Time/Date: / Water Color: ___ Odor: Y / N ___
Approx. Flow Rate: ___ mlpm Sediment Description: ___
Did well de-water? ___ If yes, Time: ___ Volume: ___ ltrs DTW @ Sampling: ___

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	x 250ml ambers	YES	HCL	EUROFINS	NWTPH-Dx

COMMENTS: Depth Pump Set At: NA M/D

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #302095 | Job Number: 17155532
Site Address: 149 And 167 Main Street | Event Date: 1/10/19 (inclusive)
City: Morton, WA | Sampler: GM

Well ID: MW-15 | Date Monitored: 1/10/19
Well Diameter: 2 in.
Total Depth: 17.38 ft.
Depth to Water: 1.29 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

16.09 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	
QED Bladder Pump	X
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	X
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: Ø ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0950 | Weather Conditions: COLD
Sample Time/Date: 1030 / 1/10/19 | Water Color: CLEAR Odor (Y) N MODERATE
Approx. Flow Rate: 200 mlpm | Sediment Description: NONE
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 1.34

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1008	3.6	6.64	45.2	9.5	4.81	191.5	1.33
1011	4.2	6.61	44.6	9.4	4.78	193.9	1.34
1014	4.8	6.59	43.9	9.3	4.74	195.6	1.34

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-15	3x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2x 250ml ambers	YES	HCL	EUROFINS	NWTPH-Dx

COMMENTS: Depth Pump Set At: ≈ 10.19ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #302095 | Job Number: 17155532
Site Address: 149 And 167 Main Street | Event Date: 1/10/19 (inclusive)
City: Morton, WA | Sampler: GM

Well ID: MW-16 | Date Monitored: 1/10/19
Well Diameter: 2 in.
Total Depth: 18.42 ft.
Depth to Water: 2.31 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

16.11 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump	X	QED Bladder Pump	X
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: Ø ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1045 | Weather Conditions: COLD
Sample Time/Date: 1125 / 1/10/19 | Water Color: CLEAR Odor: (Y) N MODERATE
Approx. Flow Rate: 200 mlpm | Sediment Description: NONE
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 2.38

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1103	3.6	6.50	241.60	10.7	4.39	40.1	2.37
1106	4.2	6.49	240.1	10.3	4.33	40.6	2.38
1109	4.8	6.46	238.8	10.8	4.30	41.2	2.38

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-16	3 x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2 x 250ml ambers	YES	HCL	EUROFINS	NWTPH-Dx

COMMENTS: Depth Pump Set At: ≈ 10.71 ft.

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #302095 Job Number: 17155532
Site Address: 149 And 167 Main Street Event Date: 1/10/19 (inclusive)
City: Morton, WA Sampler: GM

Well ID MW-17 Date Monitored: 1/10/19
Well Diameter 2 in.
Total Depth 17.53 ft.
Depth to Water 2.38 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

15.15 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): Weather Conditions:
Sample Time/Date: / Water Color: Odor: Y / N
Approx. Flow Rate: mlpm Sediment Description:
Did well de-water? If yes, Time: Volume: ltrs DTW @ Sampling:

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	x 250ml ambers	YES	HCL	EUROFINS	NWTPH-Dx

COMMENTS: Depth Pump Set At: NA M/O

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Client Information

Facility # SS#302095-OML G-R#17155532 WBS

Site Address 149 and 167 Main Street, MORTON, WA

Chevron PM EH LEIDOSDW Lead Consultant Don E. Wyll

Consultant/Office Gettler-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler G. MEDINA

(4) Matrix

Soil ☐ Sediment ☐ Water ☑ Ground ☐ Potable ☐ Surface ☐ NPDES ☐ Oil ☐ Air ☐

(3) Grab / Composite

(2) Sample Identification / Collected

Sample Identification	Date	Time	Grab	Composite
QA	190110	-	X	
MW-7	190110	0745	X	
MW-11	190110	0935	X	
MW-12	190110	0840	X	
MW-15	190110	1030	X	
MW-16	190110	1125	X	

(5) Analyses Requested

Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☑	Naphth ☐ 8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☐	NWTPH-Dx without Silica Gel Cleanup ☑	WA EPH ☐ WA VPH ☐	Lead Total ☐ Diss. ☐ Method				
2	X			X								
5	X			X		X						
5	X			X		X						
5	X			X		X						
5	X			X		X						
5	X			X		X						

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(6) Remarks

Please run Dx samples without silica gel.

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD | 72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
[signature]	190110	1200			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____			Received by	Date	Time
Temperature Upon Receipt ____ °C			Custody Seals Intact? Yes No		

(8) Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)
Other: _____

(9)

ATTACHMENT B

Regulatory Directive, April 24, 2017

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

April 24, 2017

Electronic Copy

Mr. Don Wyll
Principal Project Manager
Leidos
18912 North Creek Parkway, Suite 101
Bothell, WA 98011

Re: Former Chevron Bulk Plant (Wolfe and Parks Property), Morton, Washington.
Compliance Groundwater Monitoring Modifications Approval Letter.

Dear Mr. Wyll:

I reviewed your proposed modifications to the Compliance Groundwater Monitoring Plan (copy enclosed) for the Former Chevron Bulk Plant (Wolfe and Parks Property) Site located at 149 and 167 Main Street, Morton, Washington. I also reviewed the results of the groundwater monitoring conducted at this Site from 2004 through 2016.

Based on my review of the above information, Ecology is here by approving your request except the abandonment of monitoring wells MW-13 and MW-17. Ecology's approval include the following:

- Reduction in the sampling frequency from quarterly to semi-annual.

- Reduction in the number of monitoring wells from twelve to five (MW-7, MW-11, MW-12, MW-15 and MW-16) for chemical analysis.

- Abandonment of four monitoring wells (MW-14, MW-18, MW-19 and MW-2). Based on the results of groundwater monitoring, Ecology understands that the contaminant concentrations in these wells were either below the laboratory detection limits or below the Model Toxics Control Act (MTCA) Method A cleanup levels since December 2008 (30 rounds of monitoring). Since continued monitoring of these wells will not provide any valuable information, it is Ecology's opinion that it is appropriate to discontinue the monitoring and abandon these wells.

- Ecology would like to retain the monitoring wells MW-13 and MW-17 just for water level measurements. Ecology believes that measurement of water level elevations in seven wells (MW-7, MW-11, MW-12, MW-13, MW-15, MW-16 and MW-17) will aid to develop a more accurate groundwater flow direction at the site.

- The two rounds of semi-annual groundwater monitoring must reflect the lowest and highest water level elevations (seasons). Please review the existing water level elevation data and select two rounds (seasons) for reflecting the lowest and highest water level conditions at the Site. These two rounds may coincide with the summer and winter seasons.

If you have any questions, regarding this approval, please call me at (360) 407-6335.

Sincerely,

Panjini Balaraju, P.E.

By Certified Mail: [91 7199 9991 7037 0279 7772]

Enclosure: (1)

cc: Central File

ATTACHMENT C

Laboratory Report and Chain-of-Custody Documentation

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Chevron
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

Report Date: March 11, 2019 15:13

Project: 302095

Account #: 11928
Group Number: 2025030
PO Number: 0015306196
Release Number: HETRICK
State of Sample Origin: WA

Electronic Copy To	ARCADIS	Attn: Ophelie Encelle
Electronic Copy To	ARCADIS	Attn: Chris Dotson

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
QA-T-190110 NA Water	01/10/2019	9966848
MW-7-W-190110 Grab Groundwater	01/10/2019 07:45	9966849
MW-11-W-190110 Grab Groundwater	01/10/2019 09:35	9966850
MW-12-W-190110 Grab Groundwater	01/10/2019 08:40	9966851
MW-15-W-190110 Grab Groundwater	01/10/2019 10:30	9966852
MW-16-W-190110 Grab Groundwater	01/10/2019 11:25	9966853

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **QA-T-190110 NA Water**
Facility# 302095 Job# 17155532
149 & 167 Main St - Morton, WA

Project Name: **302095**

Submittal Date/Time: 01/11/2019 09:35
Collection Date/Time: 01/10/2019

Chevron
ELLE Sample #: **WW 9966848**
ELLE Group #: **2025030**
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	2.0	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	2.0	1
02102	Toluene	108-88-3	N.D.	0.5	2.0	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	5.0	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19021A94A	01/21/2019 16:57	Jeremy C Giffin	1
02102	BTEX (8021)	SW-846 8021B	1	19021A94A	01/21/2019 16:57	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19021A94A	01/21/2019 16:56	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-7-W-190110 Grab Groundwater**
Facility# 302095 Job# 17155532
149 & 167 Main St - Morton, WA

Project Name: **302095**

Submittal Date/Time: 01/11/2019 09:35
Collection Date/Time: 01/10/2019 07:45

Chevron
ELLE Sample #: WW 9966849
ELLE Group #: 2025030
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	2.0	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	2.0	1
02102	Toluene	108-88-3	N.D.	0.5	2.0	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	5.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	710	46	100	1
12899	DX HRO C24-C40	n.a.	N.D.	100	250	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19021A94A	01/21/2019 18:38	Jeremy C Giffin	1
02102	BTEX (8021)	SW-846 8021B	1	19021A94A	01/21/2019 18:38	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19021A94A	01/21/2019 18:37	Jeremy C Giffin	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	190180029A	01/21/2019 23:00	Thomas C Wildermuth	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	190180029A	01/21/2019 09:00	Logan M Brosemer	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-11-W-190110 Grab Groundwater**
Facility# 302095 Job# 17155532
149 & 167 Main St - Morton, WA

Project Name: **302095**

Submittal Date/Time: 01/11/2019 09:35
Collection Date/Time: 01/10/2019 09:35

Chevron
ELLE Sample #: WW 9966850
ELLE Group #: 2025030
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	2.0	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	2.0	1
02102	Toluene	108-88-3	N.D.	0.5	2.0	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	5.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	220	45	99	1
12899	DX HRO C24-C40	n.a.	890	99	250	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19021A94A	01/21/2019 19:03	Jeremy C Giffin	1
02102	BTEX (8021)	SW-846 8021B	1	19021A94A	01/21/2019 19:03	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19021A94A	01/21/2019 19:02	Jeremy C Giffin	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	190220028A	01/24/2019 04:18	Thomas C Wildermuth	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	2	190220028A	01/23/2019 10:00	Joshua S Ruth	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-12-W-190110 Grab Groundwater**
Facility# 302095 Job# 17155532
149 & 167 Main St - Morton, WA

Project Name: **302095**

Submittal Date/Time: 01/11/2019 09:35
Collection Date/Time: 01/10/2019 08:40

Chevron
ELLE Sample #: WW 9966851
ELLE Group #: 2025030
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	2.0	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	2.0	1
02102	Toluene	108-88-3	N.D.	0.5	2.0	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	5.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	46	100	1
12899	DX HRO C24-C40	n.a.	N.D.	100	250	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19021A94A	01/21/2019 19:28	Jeremy C Giffin	1
02102	BTEX (8021)	SW-846 8021B	1	19021A94A	01/21/2019 19:28	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19021A94A	01/21/2019 19:27	Jeremy C Giffin	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	190180030A	01/21/2019 16:04	Thomas C Wildermuth	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	190180030A	01/21/2019 09:00	Logan M Brosemer	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-15-W-190110 Grab Groundwater**
Facility# 302095 Job# 17155532
149 & 167 Main St - Morton, WA

Project Name: **302095**

Submittal Date/Time: 01/11/2019 09:35
Collection Date/Time: 01/10/2019 10:30

Chevron
ELLE Sample #: WW 9966852
ELLE Group #: 2025030
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	2.0	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	2.0	1
02102	Toluene	108-88-3	N.D.	0.5	2.0	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	5.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	N.D.	46	100	1
12899	DX HRO C24-C40	n.a.	N.D.	100	260	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19021A94A	01/21/2019 19:54	Jeremy C Giffin	1
02102	BTEX (8021)	SW-846 8021B	1	19021A94A	01/21/2019 19:54	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19021A94A	01/21/2019 19:53	Jeremy C Giffin	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	190180030A	01/21/2019 16:27	Thomas C Wildermuth	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	190180030A	01/21/2019 09:00	Logan M Brosemer	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: **MW-16-W-190110 Grab Groundwater**
Facility# 302095 Job# 17155532
149 & 167 Main St - Morton, WA

Project Name: **302095**

Submittal Date/Time: 01/11/2019 09:35
Collection Date/Time: 01/10/2019 11:25

Chevron
ELLE Sample #: WW 9966853
ELLE Group #: 2025030
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	610	19	250	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	**ug/l**	
02102	Benzene	71-43-2	0.9 J	0.5	2.0	1
02102	Ethylbenzene	100-41-4	1 J	0.5	2.0	1
02102	Toluene	108-88-3	0.6 J	0.5	2.0	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	5.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	**ug/l**	
12899	DX DRO C12-C24	n.a.	590	46	100	1
12899	DX HRO C24-C40	n.a.	N.D.	100	260	1

Sample Comments

State of Washington Lab Certification No. C457

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	19021A94A	01/21/2019 20:19	Jeremy C Giffin	1
02102	BTEX (8021)	SW-846 8021B	1	19021A94A	01/21/2019 20:19	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	19021A94A	01/21/2019 20:18	Jeremy C Giffin	1
12899	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	190180030A	01/21/2019 16:50	Thomas C Wildermuth	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	190180030A	01/21/2019 09:00	Logan M Brosemer	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Chevron
Reported: 03/11/2019 15:13

Group Number: 2025030

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: 19021A94A	Sample number(s): 9966848-9966853		
Benzene	N.D.	0.03	1.0
Ethylbenzene	N.D.	0.05	1.0
NWTPH-Gx water C7-C12	N.D.	19	250
Toluene	N.D.	0.1	1.0
Total Xylenes	N.D.	0.1	1.0
Batch number: 190180029A	Sample number(s): 9966849		
DX DRO C12-C24	N.D.	45	100
DX HRO C24-C40	N.D.	100	250
Batch number: 190180030A	Sample number(s): 9966851-9966853		
DX DRO C12-C24	N.D.	45	100
DX HRO C24-C40	N.D.	100	250
Batch number: 190220028A	Sample number(s): 9966850		
DX DRO C12-C24	N.D.	45	100
DX HRO C24-C40	N.D.	100	250

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 19021A94A	Sample number(s): 9966848-9966853								
Benzene	20	19.83	20	19.62	99	98	80-120	1	30
Ethylbenzene	20.12	19.42	20.12	19.63	97	98	80-120	1	30
NWTPH-Gx water C7-C12	1100	1355.14	1100	1382.82	123	126	64-131	2	30
Toluene	20.06	19.32	20.06	19.56	96	97	80-120	1	30
Total Xylenes	60.17	58.77	60.17	59.92	98	100	80-120	2	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 190180029A	Sample number(s): 9966849								
DX DRO C12-C24	600.14	223.22	600.14	310.75	37	52	11-115	33*	20
Batch number: 190180030A	Sample number(s): 9966851-9966853								
DX DRO C12-C24	600.14	240.69	600.14	304.83	40	51	11-115	24*	20
Batch number: 190220028A	Sample number(s): 9966850								

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 03/11/2019 15:13

Group Number: 2025030

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
DX DRO C12-C24	600.14	326.66	600.14	309.49	54	52	11-115	5	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX (8021)
Batch number: 19021A94A

	Trifluorotoluene-P	Trifluorotoluene-F
9966848	81	80
9966849	81	78
9966850	82	79
9966851	83	78
9966852	82	88
9966853	78	84
Blank	83	81
LCS	79	104
LCSD	79	103
Limits:	51-120	50-150

Analysis Name: NWTPH-Dx water
Batch number: 190180029A

	Orthoterphenyl
9966849	89
Blank	76
LCS	72
LCSD	81
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 190180030A

	Orthoterphenyl
9966851	83
9966852	71
9966853	91
Blank	80
LCS	74
LCSD	77

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 03/11/2019 15:13

Group Number: 2025030

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: NWTPH-Dx water
Batch number: 190180030A

Limits: 50-150

Analysis Name: NWTPH-Dx water
Batch number: 190220028A

	Orthoterphenyl
9966850	58
Blank	84
LCS	79
LCSD	80

Limits: 50-150

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody

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Acct. # 11928 For Eurofins Lancaster Laboratories use only Group # 2025030 Sample # 9966848 – 53
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#302095-OML G-R#17155532 WBS
Site Address 149 and 167 Main Street, MORTON, WA
Chevron PM EH LEIDOSDW Lead Consultant Don E. Wyll
Consultant/Office Gettler-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180
Sampler G. MEDINA

2 Sample Identification / 3 / 4 Matrix / 5 Analyses Requested

Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite	4 Soil	4 Water	4 Oil	Total Number of Containers	5 BTEX + MTBE 8021	5 Naphth 8260	5 8260 full scan	5 Oxygenates	5 NWTPH-Gx	5 NWTPH-Dx with Silica Gel Cleanup	5 NWTPH-Dx without Silica Gel Cleanup	5 WA VPH	5 WA EPH	5 Lead Total	5 Lead Diss.	5 Lead Method
QA	190110	—	X			X		2	X				X							
MW-7	190110	0745	X			X		5	X				X		X					
MW-11	190110	0935	X			X		5	X				X		X					
MW-12	190110	0940	X			X		5	X				X		X					
MW-15	190110	1030	X			X		5	X				X		X					
MW-16	190110	1125	X			X		5	X				X		X					

- [ ] Results in Dry Weight
- [ ] J value reporting needed
- [ ] Must meet lowest detection limits possible for 8260 compounds
- [ ] 8021 MTBE Confirmation
- [ ] Confirm MTBE + Naphthalene
- [ ] Confirm highest hit by 8260
- [ ] Confirm all hits by 8260
- [ ] Run _____ oxy's on highest hit
- [ ] Run _____ oxy's on all hits

6 Remarks

Please run Dx samples without silica gel.

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD | 72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	190110	1700			
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS X FedEx _____ Other _____

Received by _____ Date 11/11/19 Time 935

Temperature Upon Receipt 0.5 – 1.5 °C

Custody Seals Intact? Yes No

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Sample Administration Receipt Documentation Log

Doc Log ID: 238416

Group Number(s): ~~2020~~ 2025030

(3) KM2 2123 1/14/19

Client: Chevron

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	01/11/2019 9:35
Number of Packages:	5	Number of Projects:	3

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Ariel Garcia (15332) at 14:48 on 01/11/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-03	0.5	DT	Wet	Y	Bagged	N
2	DT42-03	0.9	DT	Wet	Y	Bagged	N
3	DT42-03	1.0	DT	Wet	Y	Bagged	N
4	DT42-03	1.5	DT	Wet	Y	Bagged	N
5	DT42-03	0.7	DT	Wet	Y	Bagged	N

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Lancaster, PA 17605-2425
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F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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

Tests 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.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.