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DEPARTMENT OF ECOLOGY - CENTRAL REGIONAL OFFICE

February 2, 2011

Mr. Richard Bassett  
Washington State Department of Ecology  
Central Regional Office  
15 West Yakima Avenue, Suite 200  
Yakima, Washington 98902

*Subject:* Request for No Further Action for Former Standard Oil Bulk Facility #1001157,  
West 15<sup>th</sup> Avenue and North Water Street, Ellensburg, Washington

Dear Mr. Bassett:

SAIC Energy, Environment & Infrastructure, LLC (hereafter, SAIC), on behalf of Chevron Environmental Management Company (CEMC) is pleased to present you with the details of the most recent groundwater monitoring and sampling, performed for the former Standard Oil Bulk facility located on the northwest corner of West 15<sup>th</sup> Avenue and North Water Street in Ellensburg, Washington, hereafter referred to as the site. In September, 2010, groundwater monitoring results for monitoring well MW-10, located on the south side of West 15<sup>th</sup> Avenue, showed four consecutive quarters of analytical results below Model Toxics Control Act (MTCA) cleanup levels for all petroleum constituents (Table 1 and Attachment A). Analytical results for all the remaining monitoring wells have been below MTCA Method A cleanup levels since 2007.

In January 2005, remedial activities were performed at the site and resulted in removal of all petroleum impacted soil from the ground surface to below the water table. A total of 4,850 tons of petroleum impacted soil was removed from the site, as detailed in the 2005 *Remedial Excavation Report*. Prior to initiation of remedial activities and as explained in the 2004 *Cleanup Action Plan*, SAIC and Washington State Department of Ecology (WDOE) determined that excavating impacted soils beneath the public right of way was infeasible based on cost and effectiveness. Any residual soil impacts are 100% capped by asphalt on West 15<sup>th</sup> Avenue West and do not pose a threat to human health or the environment. A Soil Management Plan has been created to deal with any future contact to residual petroleum impacted soil by city or utility workers working in the area (Attachment B). Groundwater sampling around the site indicates that contaminant leaching to groundwater is not occurring and consequently any residual soil impacts are minimal and most likely significantly attenuated in the last seven years.

With groundwater now meeting MTCA cleanup criteria per the 2004 *Cleanup Action Plan*, Chevron requests a No Further Action determination for the site. Please find

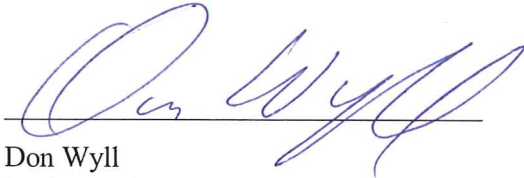
**SAIC Energy, Environment, and Infrastructure, LLC**

18912 North Creek Parkway | Ste. 101 / Bothell, WA 98011 / tel: (425) 485-5800 / fax: (425) 485-5566 | saic.com/eeandi

attached a Voluntary Cleanup Program (VCP) application for this site (Attachment C). If you have any questions or comments please contact Don Wyll at (425) 482-3315 or [wylld@saic.com](mailto:wylld@saic.com).

Sincerely,

**SAIC Energy, Environment, and Infrastructure, LLC**



Don Wyll  
Senior Project Manager

Enclosures:









Figure 1- Extent of Potential Soil Impacts  
Table 1-Groundwater Monitoring Data and Analytical Results  
Attachment A- September 2010 Laboratory Report  
Attachment B- Soil Management Plan  
Attachment C- Voluntary Cleanup Program (VCP) Application

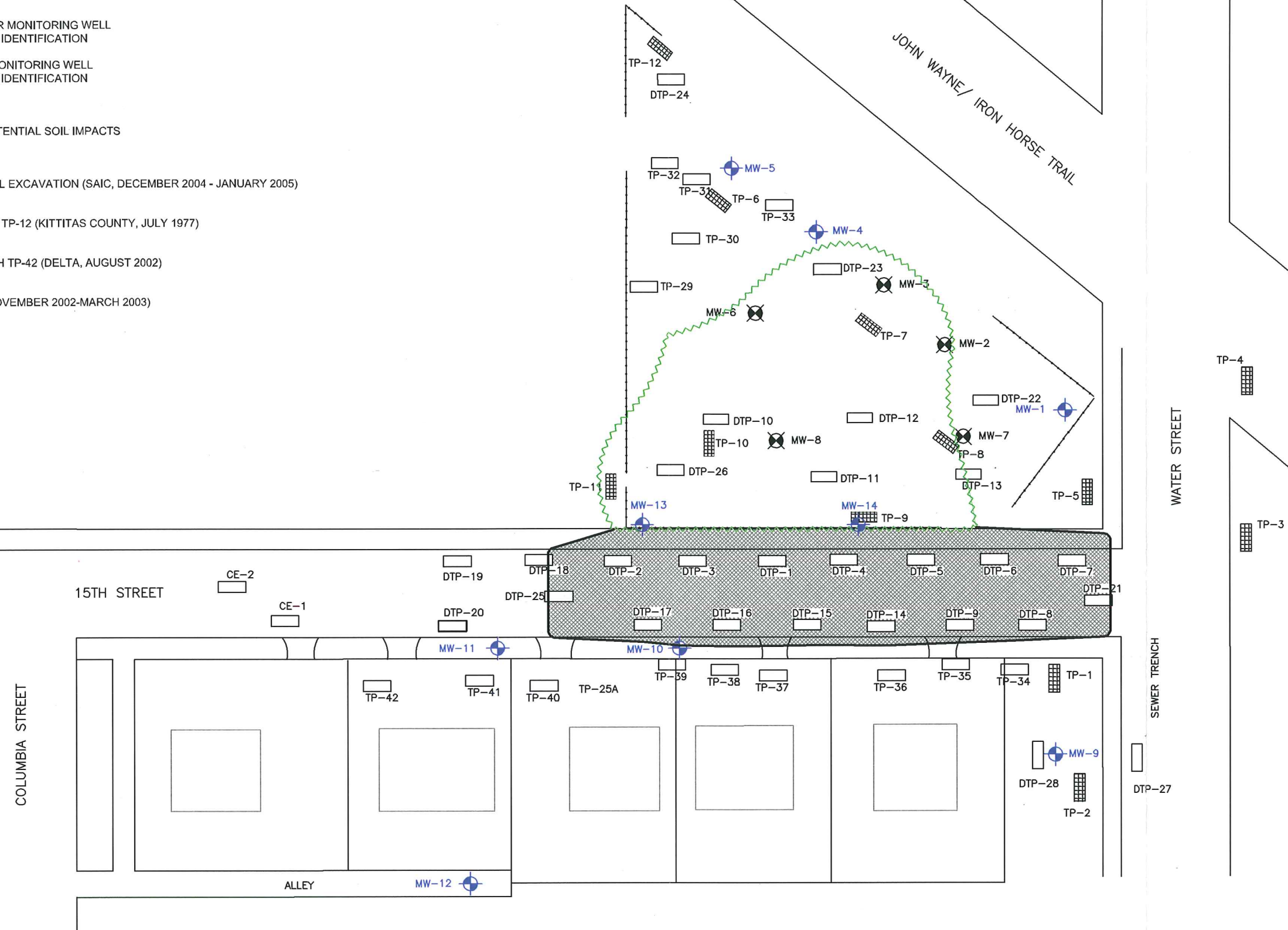
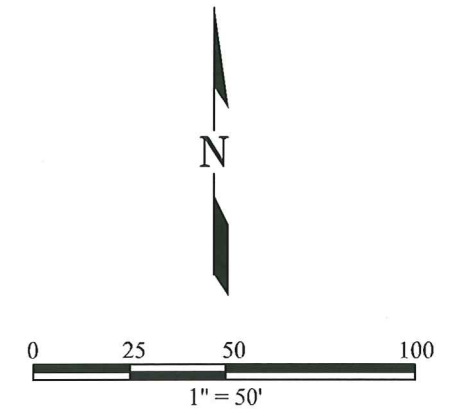
cc: Mrs. Carol Wondrack, PO Box 2775, Pasco, Washington 99302  
Mr. Dan Carrier, CEMC

**Figure 1:**  
**Extent of Potential Soil Impacts**

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# LEGEND

- MW-13  GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION
- MW-3  ABANDONED MONITORING WELL LOCATION AND IDENTIFICATION
-  FENCE
-  EXTENT OF POTENTIAL SOIL IMPACTS
-  EXTENT OF SOIL EXCAVATION (SAIC, DECEMBER 2004 - JANUARY 2005)
-  TP-1 THOROUGH TP-12 (KITITAS COUNTY, JULY 1977)
-  TP-29 THROUGH TP-42 (DELTA, AUGUST 2002)
-  DTP (DELTA, NOVEMBER 2002-MARCH 2003)



FORMER CHEVRON BULK PLANT  
NO. 1001157  
WEST 15TH AVENUE & NORTH WATER STREET  
ELLENSBURG, WASHINGTON

**FIGURE 1**  
**EXTENT OF POTENTIAL SOIL**  
**IMPACTS**

FILE NAME: 100-1157-ExtSoilContam.dwg DATE: 02/03/2011



**Table 1:**  
**Groundwater Monitoring Data and Analytical Results**

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**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**FORMER STANDARD OIL BULK PLANT #1001157**  
**West 15th Avenue and North Water Street**  
**Ellensburg, Washington**  
**Concentrations reported in µg/L**

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
<b>MW-10</b>											
05/26/05	--	3.64	--	270 <sup>5</sup>	<250 <sup>5</sup>	220	<0.5	<0.5	<0.5	<1.5	--
08/17/05	--	4.44	--	370 <sup>5</sup>	<250 <sup>5</sup>	320	0.7	<0.5	<0.5	<1.5	--
11/01/05	--	4.14	--	210 <sup>5</sup>	<99 <sup>5</sup>	330	<2.0	<0.5	<0.5	<1.5	--
03/02/06	--	4.08	--	400 <sup>5</sup>	<100 <sup>5</sup>	1,200	<2.0	<1.0	2.6	1.7	--
05/18/06	--	4.19	--	280 <sup>5</sup>	<99 <sup>5</sup>	590	<1.0	<0.5	1.1	<1.5	--
08/03/06	--	3.86	--	210 <sup>5</sup>	<100 <sup>5</sup>	290	<2.0	<0.5	<0.5	<1.5	--
10/27/06	--	4.13	--	520 <sup>5</sup>	<100 <sup>5</sup>	1,000	3.5	<0.5	0.5	<1.5	--
02/08/07	--	4.09	--	650 <sup>5</sup>	<99 <sup>5</sup>	980	3.0	0.5	1.3	<1.5	--
05/17/07	--	4.24	--	370 <sup>5</sup>	<99 <sup>5</sup>	650	<5.0	<0.5	0.8	<1.5	--
08/13/07	--	4.59	--	-- <sup>9</sup>	-- <sup>9</sup>	950	5.1	<2.0	0.9	1.9	--
11/05/07	--	4.25	--	290 <sup>5</sup>	<98 <sup>5</sup>	350	1.6	<0.5	<0.5	<1.5	--
03/24/08	--	4.44	--	410 <sup>5</sup>	<99 <sup>5</sup>	1,000	4.4	<2.0	0.9	<5.0	--
05/16/08	--	4.25	--	610 <sup>5</sup>	260 <sup>5</sup>	630	3.9	<0.5	<0.5	<1.5	--
08/11/08	--	4.69	--	490 <sup>5</sup>	<97 <sup>5</sup>	940	5.6	<2.0 <sup>10</sup>	0.6	<5.0 <sup>10</sup>	--
11/13/08	--	3.88	--	96 <sup>5</sup>	<75 <sup>5</sup>	85	<0.5	<0.5	<0.5	<1.5	--
03/04/10 <sup>7</sup>	--	3.91	--	340 <sup>5</sup>	<700 <sup>5</sup>	640	2.4	<0.5	<0.5	<1.5	--
06/24/10	--	4.47	--	320 <sup>5</sup>	<69 <sup>5</sup>	790	2.0	<0.5	<0.5	<1.5	--
09/27/10	--	4.27	--	250 <sup>5</sup>	200 <sup>5</sup>	360	1.4	<0.5	<0.5	<1.5	--
05/26/05	--	3.61	--	400 <sup>5</sup>	<250 <sup>5</sup>	190	1.0	<0.5	<0.5	<1.5	--
08/17/05	--	4.38	--	<250 <sup>5</sup>	<250 <sup>5</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/01/05	--	3.96	--	98 <sup>5</sup>	<100 <sup>5</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
03/02/06	--	3.91	--	160 <sup>5</sup>	<98 <sup>5</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/18/06	--	4.11	--	260 <sup>5</sup>	160 <sup>5</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
08/03/06	--	3.91	--	90 <sup>5</sup>	<100 <sup>5</sup>	<48	0.9	<0.5	<0.5	<1.5	--
10/27/06	--	3.98	--	84 <sup>5</sup>	150 <sup>5</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
02/08/07	--	3.79	--	170 <sup>5</sup>	400 <sup>5</sup>	<48	<0.5	<0.5	<0.5	<1.5	--

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**FORMER STANDARD OIL BULK PLANT #1001157**  
**West 15th Avenue and North Water Street**  
**Ellensburg, Washington**  
Concentrations reported in µg/L

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
<b>MW-11</b>											
05/17/07	--	4.20	--	110 <sup>s</sup>	<99 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/13/07	--	4.48	--	110 <sup>s</sup>	<98 <sup>s</sup>	50	<0.5	<0.5	<0.5	<1.5	--
11/05/07	--	4.08	--	110 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
03/24/08	--	4.27	--	130 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
05/16/08	--	4.18	--	160 <sup>s</sup>	370 <sup>s</sup>	50	<0.5	<0.5	<0.5	<1.5	--
08/11/08	--	4.59	--	80 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/13/08	--	3.76	--	120 <sup>s</sup>	<70 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
03/04/10	--	3.82	--	66 <sup>s</sup>	310 <sup>s</sup>	53	<0.5	<0.5	<0.5	<1.5	--
<b>MW-12</b>											
05/26/05	--	UNABLE TO LOCATE - COVERED BY DEBRIS									
08/17/05	--	4.98	--	<250 <sup>s</sup>	<250 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/01/05	--	4.66	--	<81 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
03/02/06	--	4.43	--	<80 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/18/06	--	4.79	--	<77 <sup>s</sup>	<97 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
08/03/06	--	4.96	--	<79 <sup>s</sup>	<98 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
10/27/06	--	4.68	--	110 <sup>s</sup>	250 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
02/08/07	--	4.48	--	<81 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/17/07	--	4.92	--	<79 <sup>s</sup>	<99 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/13/07	--	5.37	--	140 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/05/07	--	4.75	--	130 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
03/24/08	--	4.88	--	<79 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
05/16/08	--	4.84	--	<78 <sup>s</sup>	<97 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/11/08	--	5.47	--	<79 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/13/08	--	4.50	--	50 <sup>s</sup>	<75 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
03/04/10	--	4.40	--	37 <sup>s</sup>	<70 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
DISCONTINUED MONITORING/ SAMPLING											

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**FORMER STANDARD OIL BULK PLANT #1001157**  
**West 15th Avenue and North Water Street**  
**Ellensburg, Washington**  
Concentrations reported in µg/L

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
<b>MW-13</b>											
05/26/05	98.47	2.68	95.79	380 <sup>s</sup>	<250 <sup>s</sup>	460	0.5	<0.5	7.7	1.7	--
08/17/05	98.47	4.38	94.09	310 <sup>s</sup>	<250 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/01/05	98.47	3.34	95.13	<86 <sup>s</sup>	<110 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
03/02/06	98.47	3.19	95.28	<80 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/18/06	98.47	3.94	94.53	-- <sup>9</sup>	-- <sup>9</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
08/03/06	98.47	3.05	95.42	79 <sup>s</sup>	98 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
10/27/06	98.47	3.29	95.18	<79 <sup>s</sup>	<99 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
02/08/07	98.47	3.14	95.33	<79 <sup>s</sup>	<99 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/17/07	98.47	3.88	94.59	<79 <sup>s</sup>	<99 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/13/07	98.47	3.68	94.79	210 <sup>s</sup>	<97 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/05/07	98.47	3.27	95.20	180 <sup>s</sup>	<99 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
03/24/08	98.47	3.66	94.81	140 <sup>s</sup>	<100 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
05/16/08	98.47	3.45	95.02	<78 <sup>s</sup>	<97 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/11/08	98.47	3.77	94.70	280 <sup>s</sup>	<98 <sup>s</sup>	150	<0.5	<0.5	<0.5	<1.5	--
11/13/08	98.47	2.91	95.56	66 <sup>s</sup>	<69 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
03/04/10 <sup>7</sup>	98.47	2.86	95.61	<30 <sup>s</sup>	<69 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
<b>DISCONTINUED MONITORING/ SAMPLING</b>											
<b>MW-14</b>											
05/26/05	99.05	1.98	97.07	290 <sup>s</sup>	<250 <sup>s</sup>	130	<0.5	<0.5	<0.5	<1.5	--
08/17/05	99.05	2.83	96.22	400 <sup>s</sup>	<250 <sup>s</sup>	340	<0.5	<0.5	<0.5	<1.5	--
11/01/05	99.05	2.86	96.19	260 <sup>s</sup>	<100 <sup>s</sup>	330	0.6	<0.5	<0.5	<1.5	--
03/02/06	99.05	2.72	96.33	470 <sup>s</sup>	<99 <sup>s</sup>	1,000 <sup>s</sup>	<2.0	<0.5	<0.5	<1.5	--
05/18/06	99.05	2.62	96.43	430 <sup>s</sup>	<100 <sup>s</sup>	670	<1.0	<0.5	<0.5	<1.5	--
08/03/06	99.05	1.79	97.26	<83 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
10/27/06	99.05	2.73	96.32	230 <sup>s</sup>	<100 <sup>s</sup>	380	<0.5	<0.5	<0.5	<1.5	--
02/08/07	99.05	2.62	96.43	500 <sup>s</sup>	<98 <sup>s</sup>	580	0.5	<0.5	<0.5	<1.5	--
05/17/07	99.05	2.58	96.47	430 <sup>s</sup>	<99 <sup>s</sup>	500	<0.5	<0.5	<0.5	<1.5	--
08/13/07	99.05	2.88	96.17	440 <sup>s</sup>	<97 <sup>s</sup>	390	<0.5	<0.5	<0.5	<5.0	--



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**West 15th Avenue and North Water Street**  
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 Concentrations reported in µg/L

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
<b>MW-14 (cont)</b>											
11/05/07	99.05	2.89	96.16	550 <sup>s</sup>	<100 <sup>s</sup>	710	0.5	<0.5	<0.5	<1.5	--
03/24/08	99.05	3.12	95.93	340 <sup>s</sup>	<99 <sup>s</sup>	540	<0.5	<0.5	<0.5	<5.0	--
05/16/08	99.05	2.92	96.13	370 <sup>s</sup>	<97 <sup>s</sup>	500	<0.5	<0.5	<0.5	<1.5	--
08/11/08	99.05	3.13	95.92	470 <sup>s</sup>	<98 <sup>s</sup>	330	<0.5	<0.5	0.5	<5.0 <sup>11</sup>	--
11/13/08	99.05	2.60	96.45	510 <sup>12</sup>	<68 <sup>s</sup>	650	<0.5	<0.5	<0.5	<1.5	--
03/04/10 <sup>7</sup>	99.05	2.40	96.65	<30 <sup>s</sup>	<69 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
06/24/10	99.05	2.93	96.12	290 <sup>s</sup>	<68 <sup>s</sup>	330	<0.5	<0.5	<0.5	<1.5	--
<b>MW-1</b>											
08/19/98 <sup>1</sup>	100.00	5.19	94.81	ND	ND	ND	ND	ND	ND	ND	--
10/27/98	100.00	4.99	95.01	ND	ND	ND	ND	ND	ND	ND	--
01/18/99	100.00	5.05	94.95	ND	ND	ND	ND	ND	ND	ND	--
06/07/99	100.00	5.18	94.82	ND	ND	ND	ND	ND	ND	ND	--
09/05/99	100.00	5.29	94.71	ND	ND	ND	ND	ND	ND	ND	--
11/17/99	100.00	NOT MONITORED/SAMPLED			--	--	--	--	--	--	--
02/25/00	100.00	4.36	95.64	--	--	--	--	--	--	--	--
05/09/00	100.00	4.91	95.09	--	--	--	--	--	--	--	--
08/12/00	100.00	5.49	94.51	--	--	--	--	--	--	--	--
11/10/00	100.00	NOT MONITORED/SAMPLED			--	--	--	--	--	--	--
05/26/05	100.00	3.00	97.00	<250 <sup>s</sup>	<250 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/17/05	100.00	3.44	96.56	<250 <sup>s</sup>	<250 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/01/05	100.00	3.64	96.36	<81 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
03/02/06	100.00	3.86	96.14	<80 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/18/06	100.00	3.33	96.67	<81 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
08/03/06	100.00	2.78	97.22	<79 <sup>s</sup>	<99 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
10/27/06	100.00	3.71	96.29	<82 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
02/08/07	100.00	3.64	96.36	<82 <sup>s</sup>	200 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/17/07	100.00	3.47	96.53	<78 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/13/07	100.00	3.55	96.45	<78 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--

**TABLE 1**  
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**FORMER STANDARD OIL BULK PLANT #1001157**  
**West 15th Avenue and North Water Street**  
**Ellensburg, Washington**  
 Concentrations reported in µg/L

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
<b>MW-1 (cont)</b>											
11/05/07	100.00	4.28	95.72	86 <sup>s</sup>	<100 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
03/24/08	100.00	4.46	95.54	83 <sup>s</sup>	<97 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
DISCONTINUED MONITORING/ SAMPLING											
<b>MW-4</b>											
08/19/98	100.36	5.16	95.20	260	ND	81.1	ND	ND	ND	ND	--
10/27/98	100.36	4.81	95.55	ND	ND	ND	ND	ND	ND	ND	--
01/18/99	100.36	4.42	95.94	ND	ND	ND	ND	ND	ND	ND	--
06/07/99	100.36	5.09	95.27	ND	ND	ND	ND	ND	ND	ND	--
09/05/99	100.36	5.16	95.20	ND	ND	ND	ND	ND	ND	ND	--
11/17/99	100.36	NOT MONITORED/SAMPLED									
02/25/00	100.36	3.89	96.47	--	--	--	--	--	--	--	--
05/09/00	100.36	4.75	95.61	--	--	--	--	--	--	--	--
08/12/00	100.36	5.38	94.98	--	--	--	--	--	--	--	--
11/10/00	100.36	NOT MONITORED/SAMPLED									
05/26/05	100.36	3.55	96.81	<250 <sup>s</sup>	<250 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/17/05	100.36	4.50	95.86	<250 <sup>s</sup>	<250 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/01/05	100.36	4.36	96.00	<80 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
03/02/06	100.36	3.84	96.52	<84 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/18/06	100.36	3.81	96.55	<81 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
08/03/06	100.36	3.04	97.32	<82 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
10/27/06	100.36	3.82	96.54	<82 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
02/08/07	100.36	3.83	96.53	<80 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/17/07	100.36	3.81	96.55	<79 <sup>s</sup>	<99 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/13/07	100.36	4.08	96.28	<78 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/05/07	100.36	4.05	96.31	100 <sup>s</sup>	<100 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
03/24/08	100.36	4.25	96.11	<79 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
DISCONTINUED MONITORING/ SAMPLING											

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**FORMER STANDARD OIL BULK PLANT #1001157**  
**West 15th Avenue and North Water Street**  
**Ellensburg, Washington**  
Concentrations reported in µg/L

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
<b>MW-5</b>											
08/19/98 <sup>1</sup>	100.70	5.52	95.18	ND	ND	82.3	ND	ND	ND	ND	--
10/27/98	100.70	5.12	95.58	ND	ND	ND	ND	ND	ND	ND	--
01/18/99	100.70	4.72	95.98	ND	ND	ND	ND	ND	ND	ND	--
06/07/99	100.70	5.44	95.26	ND	ND	ND	ND	ND	ND	ND	--
09/03/99	100.70	5.52	95.18	ND	ND	ND	ND	ND	ND	ND	--
11/17/99	100.70	5.01	95.69	--	--	--	--	--	--	--	--
02/25/00	100.70	4.19	96.51	--	--	--	--	--	--	--	--
05/09/00	100.70	5.11	95.59	--	--	--	--	--	--	--	--
08/12/00	100.70	5.74	94.96	--	--	--	--	--	--	--	--
11/10/00	100.70	5.21	95.49	--	--	--	--	--	--	--	--
02/02/01	100.70	5.12	95.58	--	--	--	--	--	--	--	--
05/26/05	100.70	UNABLE TO LOCATE - COVERED BY GRAVEL									
08/17/05	100.70	UNABLE TO LOCATE - COVERED BY GRAVEL									
11/01/05	100.70	UNABLE TO LOCATE - COVERED BY DIRT									
03/02/06	100.70	4.21	96.49	<80 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/18/06	100.70	4.25	96.45	<81 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
08/03/06	100.70	3.52	97.18	<79 <sup>s</sup>	<99 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
10/27/06	100.70	4.22	96.48	<80 <sup>s</sup>	<100 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
02/08/07	100.70	4.18	96.52	<79 <sup>s</sup>	<99 <sup>s</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/17/07	100.70	4.24	96.46	<79 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/13/07	100.70	4.53	96.17	<78 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/05/07	100.70	4.44	96.26	<80 <sup>s</sup>	<100 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
03/24/08	100.70	4.62	96.08	<79 <sup>s</sup>	<98 <sup>s</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
DISCONTINUED MONITORING/ SAMPLING											
<b>MW-2</b>											
08/19/98	99.59	4.55	95.04	ND	ND	143	ND	ND	ND	ND	--
10/27/98	99.59	4.36	95.23	ND	ND	ND	ND	ND	ND	ND	--
01/18/99	99.59	3.95	95.64	ND	ND	ND	1.44	ND	ND	ND	--
06/07/99 <sup>2</sup>	99.59	4.57	95.02	ND	ND	ND	ND	ND	ND	ND	--
09/05/99	99.59	4.66	94.93	ND	ND	ND	ND	ND	ND	ND	--
11/17/99	99.59	NOT MONITORED/SAMPLED									
02/25/00 <sup>2</sup>	99.59	3.60	95.99	--	--	--	--	--	--	--	--



**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**FORMER STANDARD OIL BULK PLANT #1001157**  
**West 15th Avenue and North Water Street**  
**Ellensburg, Washington**  
 Concentrations reported in µg/L

Concentrations Reported in PPT											
WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
MW-2 (cont)											
05/09/00 <sup>7</sup>	99.59	4.25	95.34	--	--	--	--	--	--	--	--
08/12/00	99.59	4.84	94.75	--	--	--	--	--	--	--	--
11/10/00	99.59	NOT MONITORED/SAMPLED			--	--	--	--	--	--	--
ABANDONED											
MW-3											
08/19/98	99.94	4.67	95.27	468	ND	ND	ND	ND	ND	ND	--
10/27/98	99.94	4.43	95.51	ND	ND	ND	ND	ND	ND	ND	--
01/18/99	99.94	4.00	95.94	ND	ND	ND	ND	ND	ND	ND	--
06/07/99	99.94	4.67	95.27	273	ND	ND	ND	ND	ND	ND	--
09/05/99	99.94	4.72	95.22	ND	ND	ND	ND	ND	ND	ND	--
11/17/99	99.94	4.27	95.67	--	--	--	--	--	--	--	--
02/25/00	99.94	3.60	96.34	--	--	--	--	--	--	--	--
05/09/00	99.94	4.34	95.60	--	--	--	--	--	--	--	--
08/12/00	99.94	4.94	95.00	--	--	--	--	--	--	--	--
11/10/00	99.94	4.51	95.43	--	--	--	--	--	--	--	--
02/02/01	99.94	4.61	95.33	--	--	--	--	--	--	--	--
ABANDONED											
MW-6											
08/19/98	100.17	5.11	95.06	346	ND	98.5	ND	ND	ND	ND	--
10/27/98	100.17	4.73	95.44	ND	ND	ND	0.533	ND	ND	ND	--
01/18/99	100.17	4.33	95.84	406	ND	89.2	0.690	ND	ND	ND	--
06/07/99	100.17	5.08	95.09	ND	ND	ND	ND	ND	ND	1.11	--
09/05/99	100.17	5.12	95.05	ND	ND	ND	ND	ND	ND	ND	--
11/17/99	100.17	NOT MONITORED/SAMPLED			--	--	--	--	--	--	--
02/25/00	100.17	3.75	96.42	--	--	--	--	--	--	--	--
05/09/00	100.17	4.71	95.46	--	--	--	--	--	--	--	--
08/12/00	100.17	5.35	94.82	--	--	--	--	--	--	--	--
11/10/00	100.17	NOT MONITORED/SAMPLED			--	--	--	--	--	--	--
ABANDONED											
MW-7											
08/19/98 <sup>1</sup>	100.25	5.43	94.82	280	ND	112	3.71	ND	ND	ND	--
10/27/98	100.25	5.20	95.05	ND	ND	99.8	10.1	ND	ND	ND	--
01/18/99	100.25	4.94	95.31	274	ND	146	14.8	ND	1.60	ND	--



**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**FORMER STANDARD OIL BULK PLANT #1001157**  
**West 15th Avenue and North Water Street**  
**Ellensburg, Washington**  
Concentrations reported in µg/L

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
<b>MW-7 (cont)</b>											
06/07/99 <sup>2</sup>	100.25	5.43	94.82	373	ND	97.9	4.42	ND	ND	ND	--
09/05/99	100.25	5.54	94.71	-- <sup>3</sup>	-- <sup>3</sup>	ND	ND	ND	ND	ND	--
11/17/99 <sup>4</sup>	100.25	4.99	95.26	ND <sup>5</sup>	ND <sup>5</sup>	ND	ND	ND	ND	ND	ND
02/25/00	100.25	4.32	95.93	ND <sup>5</sup>	ND <sup>5</sup>	280	41.7	ND <sup>6</sup>	6.94	4.35	ND
05/09/00 <sup>7</sup>	100.25	5.06	95.19	ND <sup>5</sup>	ND <sup>5</sup>	83.7	3.58	ND	ND <sup>6</sup>	ND <sup>6</sup>	--
08/12/00	100.25	5.74	94.51	ND <sup>5</sup>	ND <sup>5</sup>	ND	0.543	ND	ND	ND	--
11/10/00	100.25	5.34	94.91	ND <sup>5</sup>	ND <sup>5</sup>	100	2.61	ND	0.513	ND	--
02/02/01	100.25	5.45	94.80	ND <sup>5</sup>	ND <sup>5</sup>	ND	ND	ND	ND	ND	--
06/28/01 <sup>8</sup>	100.25	--	--	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.00	--
ABANDONED											
<b>MW-8</b>											
08/19/98 <sup>1</sup>	99.43	4.54	94.89	ND	ND	94.5	ND	ND	ND	ND	--
10/27/98	99.43	4.18	95.25	ND	ND	ND	ND	ND	ND	ND	--
01/18/99	99.43	3.82	95.61	ND	ND	ND	1.74	ND	ND	ND	--
06/07/99 <sup>2</sup>	99.43	4.48	94.95	ND	ND	ND	3.52	ND	0.523	ND	--
09/05/99	99.43	4.57	94.86	ND	ND	ND	0.518	ND	ND	ND	--
11/17/99 <sup>4</sup>	99.43	4.05	95.38	--	--	--	--	--	--	--	--
02/25/00	99.43	3.20	96.23	--	--	--	--	--	--	--	--
05/09/00 <sup>7</sup>	99.43	4.14	95.29	--	--	--	--	--	--	--	--
08/12/00	99.43	4.79	94.64	--	--	--	--	--	--	--	--
11/10/00	99.43	4.31	95.12	--	--	--	--	--	--	--	--
02/02/01	99.43	4.38	95.05	--	--	--	--	--	--	--	--
ABANDONED											
<b>MW-9</b>											
05/26/05	--	3.19	--	<250 <sup>5</sup>	<250 <sup>5</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
08/17/05	--	3.79	--	<250 <sup>5</sup>	<250 <sup>5</sup>	<50	<0.5	<0.5	<0.5	<1.5	--
11/01/05	--	3.91	--	<79 <sup>5</sup>	<98 <sup>5</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
03/02/06	--	3.91	--	<79 <sup>5</sup>	<99 <sup>5</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
05/18/06	--	3.73	--	<78 <sup>5</sup>	<98 <sup>5</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
08/03/06	--	3.06	--	<83 <sup>5</sup>	<100 <sup>5</sup>	<48	<0.5	<0.5	<0.5	<1.5	--
10/27/06	--	UNABLE TO LOCATE	--	--	--	--	--	--	--	--	--
ABANDONED											

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**FORMER STANDARD OIL BULK PLANT #1001157**  
**West 15th Avenue and North Water Street**  
**Ellensburg, Washington**  
 Concentrations reported in µg/L

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
<b>TRIP BLANK</b>											
10/27/98	--	--	--	--	--	ND	ND	ND	ND	ND	--
01/18/99	--	--	--	--	--	ND	ND	ND	ND	ND	--
06/07/99	--	--	--	--	--	ND	ND	ND	ND	ND	--
09/05/99	--	--	--	--	--	ND	ND	ND	ND	ND	--
11/17/99	--	--	--	--	--	ND	ND	ND	ND	ND	ND
02/25/00	--	--	--	--	--	ND	ND	ND	ND	ND	ND
05/07/00	--	--	--	--	--	ND	ND	ND	ND	ND	--
08/12/00	--	--	--	--	--	ND	ND	ND	ND	ND	--
11/10/00	--	--	--	--	--	ND	ND	ND	ND	ND	--
02/02/01	--	--	--	--	--	ND	ND	ND	ND	ND	--
<b>QA</b>											
05/26/05	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
08/17/05	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
11/01/05	--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	--
03/02/06	--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	--
05/18/06	--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	--
08/03/06	--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	--
10/27/06	--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	--
02/08/07	--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	--
05/17/07	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
08/13/07	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
11/05/07	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
03/24/08	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
05/16/08	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
08/11/08	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
11/13/08	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
03/04/10	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/24/10	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/27/10	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
<div> <div>Standard Method Detection Limit:</div> <div>MTCA Method A Cleanup Level:</div> <div>Current Method:</div> </div>											
				TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE
				250	250	50	0.5	0.5	0.5	1.5	--
				500	500	800/1,000	5	1,000	700	1,000	20
				NWTPH-Dx + Extended							
				NWTPH-Gx and EPA 8021B							

**TABLE 1**  
**GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS**  
**FORMER STANDARD OIL BULK PLANT #1001157**  
**West 15th Avenue and North Water Street**  
**Ellensburg, Washington**

Concentrations reported in µg/L														
WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	B	T	E	X	MTBE			

**Attachment A:**  
**September 2010 Laboratory Report**

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2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

## Analysis Report

### ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

Prepared for:

Chevron  
6001 Bollinger Canyon Road  
L4310  
San Ramon CA 94583

October 25, 2010

Project: 1001157

Submittal Date: 10/01/2010  
Group Number: 1214393  
PO Number: 0015060861  
Release Number: CARRIER  
State of Sample Origin: WA

Client Sample Description

QA Water Sample  
MW-10 Grab Water Sample

Lancaster Labs (LLI) #

6100754  
6100755

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

ELECTRONIC COPY TO SAIC c/o Gettler-Ryan  
ELECTRONIC COPY TO SAIC  
ELECTRONIC COPY TO SAIC

Attn: Rachelle Munoz

Attn: Mike Lange

Attn: Don Wyl

Questions? Contact your Client Services Representative  
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,

*Martha L. Seidel*

Martha L. Seidel  
Senior Chemist

**Sample Description:** QA Water Sample  
**Facility#** 1001157 **Job#** 386612  
**15th Ave & Water St - Ellensburg, WA**

**LLI Sample #** WW 6100754  
**LLI Group #** 1214393  
**Account #** 11260

**Project Name:** 1001157

**Collected:** 09/27/2010

Chevron

6001 Bollinger Canyon Road

**Submitted:** 10/01/2010 09:15

L4310

**Reported:** 10/25/2010 09:26

San Ramon CA 94583

**Discard:** 11/25/2010

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1

## General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## 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	10277B94A	10/05/2010 16:55	Marie D John	1
05879	BTEX Water	SW-846 8021B	1	10277B94A	10/05/2010 16:55	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10277B94A	10/05/2010 16:55	Marie D John	1



# Analysis Report

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Page 1 of 1

**Sample Description:** MW-10 Grab Water Sample  
Facility# 1001157 Job# 386612  
15th Ave & Water St - Ellensburg, WA

LLI Sample # WW 6100755  
LLI Group # 1214393  
Account # 11260

**Project Name:** 1001157

Collected: 09/27/2010 15:00 by ML

Chevron

6001 Bollinger Canyon Road

Submitted: 10/01/2010 09:15

L4310

Reported: 10/25/2010 09:26

San Ramon CA 94583

Discard: 11/25/2010

15E10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l 360	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l 1.4	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
02211	DRO C12-C24 w/Si Gel	ECY 97-602 NWTPH-Dx modified n.a.	ug/l 250	ug/l 29	1
02211	HRO C24-C40 w/Si Gel	n.a.	200	68	1

## General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## 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	10277B94A	10/05/2010 18:40	Marie D John	1
05879	BTEX Water	SW-846 8021B	1	10277B94A	10/05/2010 18:40	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	10277B94A	10/05/2010 18:40	Marie D John	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	102820010A	10/11/2010 19:15	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	2	102820010A	10/11/2010 08:40	Karen R Rettew	1



## Quality Control Summary

Client Name: Chevron  
Reported: 10/25/10 at 09:26 AM

Group Number: 1214393

Matrix QC may not be reported if 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.

## Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 10277B94A	Sample number(s): 6100754-6100755							
Benzene	N.D.	0.5	ug/l	90	95	80-120	5	30
Ethylbenzene	N.D.	0.5	ug/l	90	95	80-120	5	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	100	109	75-135	9	30
Toluene	N.D.	0.5	ug/l	90	90	80-120	0	30
Total Xylenes	N.D.	1.5	ug/l	92	93	80-120	2	30
Batch number: 102820010A	Sample number(s): 6100755							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	73	83	50-100	13	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					

## Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 10277B94A	Sample number(s): 6100754-6100755 UNSPK: 6100755, P100756								
Benzene	83		80-152						
Ethylbenzene	95		80-133						
NWTPH-Gx water C7-C12	94		57-157						
Toluene	95		80-133						
Total Xylenes	95		80-148						

## 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 Water  
Batch number: 10277B94A

	Trifluorotoluene-P	Trifluorotoluene-F
6100754	86	87
6100755	86	89
Blank	86	87
LCS	86	90
LCSD	86	91
MS	86	92

\*- Outside of specification

- (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.



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 2 of 2

## Quality Control Summary

Client Name: Chevron  
Reported: 10/25/10 at 09:26 AM

Group Number: 1214393

### Surrogate Quality Control

---

Limits: 58-146 63-135

Analysis Name: NWTPH-Dx water w/Si Gel  
Batch number: 102820010A  
Orthoterphenyl

---

6100755	119
Blank	97
LCS	95
LCSD	107

---

Limits: 50-150

\*- Outside of specification

- (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



AMENDED

For Lancaster Laboratories use only  
Acct. #: 11260 Sample #: 6100754-56

SCR#:

Grp # 1214393

<b>Facility #:</b> SS#1001157-OML G-R#386612 <b>Site Address:</b> 15th Avenue & Water Street, ELLENSBURG, WA <b>Chevron PM:</b> DC <b>Lead Consultant:</b> SAICDW WYLL <b>Consultant/Office:</b> G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568 <b>Consultant Prj. Mgr.:</b> Deanna L. Harding (deanna@grinc.com) <b>Consultant Phone #:</b> 925-551-7555 <b>Fax #:</b> 925-551-7899 <b>Sampler:</b> Mike Lombard <b>Service Order #:</b> <input type="checkbox"/> Non SAR:		<b>Analyses Requested</b> <b>Preservation Codes</b> H = HCl T = Thiocyanate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run oxy s on highest hit <input type="checkbox"/> Run oxy s on all hits	
<b>Matrix</b> <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Soil <input checked="" type="checkbox"/> Water <input checked="" type="checkbox"/> Composite		<b>Preservation Codes</b> Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method Extended Ring <input checked="" type="checkbox"/> Salsa Gel Cleanup <input checked="" type="checkbox"/> TPH G <input checked="" type="checkbox"/> TPH H <input checked="" type="checkbox"/> HPH <input type="checkbox"/> quantification 8260 full scan <input checked="" type="checkbox"/> 8021 <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> NWTPH H HClD	
<b>Sample Identification</b> QA 9-27-10 Date Collected Time Collected MW-10 1500 MW-14 1555		<b>Total Number of Containers</b> 2 5 3	
<b>Relinquished by:</b> [Signature] <b>Relinquished by:</b> [Signature] <b>Relinquished by:</b> [Signature]		<b>Received by:</b> [Signature] <b>Received by:</b> [Signature] <b>Received by:</b> [Signature]	
<b>Turnaround Time Requested (TAT) (please circle)</b> STD. TAT 72 hour 48 hour 5 day 24 hour		<b>EDF/EDD</b> <b>Data Package Options (please circle if required)</b> QC Summary Type I - Full Type VI (Raw Data) Disk / EDD WIP (RWOCB) Standard Format Disk Other:	
<b>Temperature Upon Receipt</b> 48-52°C		<b>Custody Seals Intact?</b> Yes No	

Please forward the lab results directly to the Lead Consultant and cc: G-R.

MW-14 placed on hold (don't analyze) per Mike Lange gmp 10/4/10



# Explanation of Symbols and Abbreviations

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

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>ug</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>ml</b>	milliliter(s)	<b>l</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>ul</b>	microliter(s)
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>J</b>	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
<b>ppm</b>	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 of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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.		

## U.S. EPA CLP Data Qualifiers:

### Organic Qualifiers

<b>A</b>	TIC is a possible aldol-condensation product
<b>B</b>	Analyte was also detected in the blank
<b>C</b>	Pesticide result confirmed by GC/MS
<b>D</b>	Compound quantitated on a diluted sample
<b>E</b>	Concentration exceeds the calibration range of the instrument
<b>N</b>	Presumptive evidence of a compound (TICs only)
<b>P</b>	Concentration difference between primary and confirmation columns $>25\%$
<b>U</b>	Compound was not detected
<b>X,Y,Z</b>	Defined in case narrative

### Inorganic Qualifiers

<b>B</b>	Value is $<CRDL$ , but $\geq IDL$
<b>E</b>	Estimated due to interference
<b>M</b>	Duplicate injection precision not met
<b>N</b>	Spike sample not within control limits
<b>S</b>	Method of standard additions (MSA) used for calculation
<b>U</b>	Compound was not detected
<b>W</b>	Post digestion spike out of control limits
<b>*</b>	Duplicate analysis not within control limits
<b>+</b>	Correlation coefficient for MSA $<0.995$

Analytical test results meet all requirements of NELAC 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.

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**Attachment B:**  
**Soil Management Plan**

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# **SOIL MANAGEMENT PLAN**

**FORMER STANDARD OIL BULK PLANT #1001157  
WEST 15<sup>TH</sup> AVENUE AND NORTH WATER STREET  
ELLENSBURG, WASHINGTON**

**February 3, 2011**

**Prepared for:  
City of Ellensburg  
501 Anderson Street  
Ellensburg, Washington 98926**

**On Behalf of:  
Chevron Environmental Management Company  
145 S. State College Boulevard  
Brea, CA 92821**

**Prepared by:  
Science Applications International Corporation  
18912 North Creek Parkway, Suite 101  
Bothell, WA 98011**

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Figure 1     Extent of Potential Soil Impacts

## SOIL MANAGEMENT PLAN

### 1.0 INTRODUCTION

This Soil Management Plan has been prepared by SAIC Energy, Environment, and Infrastructure, LLC (hereafter SAIC) on behalf of Chevron Environmental Management Company (CEMC). The plan specifically addresses residual soils containing petroleum hydrocarbons that remain beneath the public right-of-way adjacent to former Chevron Bulk Plant 1001157 located at the northeast corner of West 15<sup>th</sup> and North Water Streets, in Ellensburg, Washington (Figure 1). The property is bound by a State Park to the north and by residential housing to the south. This soil management plan has been prepared at the request of the Washington State Department of Ecology (WDOE) as a component of the long-term contingency planning required for the site following completion of a remedial excavation in January 2005.

### 2.0 BACKGROUND

#### 2.1 SITE HISTORY

The property operated as a bulk fuel transfer facility from the 1920s through the 1980s. The site was purchased from Chevron by ARH Distributors in 1980. In 1986, ARH Distributors went bankrupt and sold the property to Wondrack Distributing who ceased operations shortly after purchasing the facility. All underground piping, tanks, and associated buildings were removed in 1997, with the exception of a corrugated metal garage which was removed during excavation activities in January 2005. The property is currently owned by Wondrak Distributing, Inc. (Carol Wondrak). A site map is presented as Figure 1.

In June 2002, Ecology issued Agreed Order #DE 02TCPCR-3982 to Chevron requiring the planning and implementation of a remedial investigation/feasibility study (RI/FS) at the site. Delta Environmental Consultants (Delta) started a Remedial Investigation of the site in August 2002. Test pits DTP-1 through DTP-28 were installed in order to delineate the extent of petroleum impacts on the property and beneath West 15<sup>th</sup> Avenue. Supplemental sampling events were conducted by Delta in November 2002 and completed in March 2003 (*Final Remedial Investigation/Feasibility Study Report, Former Chevron Bulk Plant No. 100-1157*, Prepared for ChevronTexaco by SAIC, June 1, 2004). Test pits TP-29 through TP-42 were installed on residential properties south of 15<sup>th</sup> Avenue to further delineate the extent of potential petroleum impacts (Figure 1). Test pits were completed in March 2003 with SAIC onsite to observe.

In accordance with the 2004 *Cleanup Action Plan*, SAIC completed a soil remedial excavation cleanup at the site and a portion of the eastern adjacent State Park property in late December 2004 and early January 2005. Approximately 4,800 tons of petroleum-impacted soil was removed from the site. All impacted soil beneath the property was removed from surface to a minimum of one foot below the water table, approximately 6 to 8 feet in depth. Petroleum-impacted soil remains in-place beneath the sidewalk and West 15<sup>th</sup> Avenue. Figure 1 shows the approximate extent of petroleum impacts to soil remaining in the City right-of-way based on test pit results.

Following the site remedial efforts, two additional groundwater monitoring wells (MW-13 and MW-14) were installed in March 2005 along the southern property boundary of the site (Figure 1). On- and off-property monitoring wells have been sampled quarterly since May 2005.



Groundwater analytical results show contaminant concentrations below MTCA Method A cleanup levels in all wells.

### **3.0 HYDROGEOLOGY/GEOLOGY**

Shallow groundwater beneath the site typically occurs from approximately 3-6 feet below ground surface (bgs) with seasonal fluctuations of 0.5 to 1.0 foot. The groundwater is at its lowest levels in the winter. Groundwater flow directions vary from southeast to southwest and are influenced by seasonal variation. The hydraulic gradients across the site are low, ranging from 0.005 to 0.006 ft/ft.

Subsurface soils typically consist of very dense clayey gravel and sand with coarse gravel and occasional cobbles to 15 feet below ground surface (bgs). The subsurface material is brown and dark green in color and dense to very dense in compaction. A layer of rounded gravel and river rock was observed at 4.5 to 6.5 feet bgs in the south and southeast portions of the site.

A more detailed presentation of hydrogeologic and geologic information can be found in the RI/FS (SAIC, 2004).

### **4.0 EXTENT OF PETROLEUM HYDROCARBON IMPACT**

The estimated extent of subsurface impacts off-property beneath West 15<sup>th</sup> Avenue is approximately 250 feet long (east-west direction) by 50 feet wide (approximate width of 15<sup>th</sup> Avenue) (Figure 1). The highest petroleum impacts were encountered between 4 and 6 feet below ground surface, at depths typical of buried utilities. Off-property impacted soil beneath West 15<sup>th</sup> Avenue has been detected between approximately between 2 and 10 feet bgs.

### **5.0 PURPOSE OF SOIL MANAGEMENT PLAN**

The purpose of this soil management plan is to develop long-term management procedures that will be adequate to protect human health and the environment with respect to residual petroleum impacted soil remaining beneath West 15<sup>th</sup> Avenue where the impacted soil cannot be reasonably removed due to presence of underground utilities. This soil management plan presents specific actions and protocols for managing impacted soil and groundwater that may be encountered beneath West 15<sup>th</sup> Avenue.

### **6.0 EXPOSURE ASSESSMENT**

#### **6.1 HEALTH AND SAFETY**

Personnel that work with the petroleum impacted soil must be trained in the hazards specific to these substances and in the appropriate protective measures. The contractor/utility worker will be entirely responsible for identifying and complying with all health and safety requirements in federal, state, and local regulations. The contractors/utility workers will be responsible for writing, implementing, and enforcing an appropriate health and safety plan that is in compliance with all federal, state and local regulations when excavating and handling impacted soil.

#### **6.2 CHEMICALS OF CONCERN**

Chemicals of concern in soil and potentially groundwater beneath West 15<sup>th</sup> Avenue and North Water Street include gasoline-, diesel-, and heavy oil-range hydrocarbons, and BTEX. These

compounds were present at the site at concentrations greater than the MTCA Method A cleanup levels for soil, based on soil cleanup levels summarized in Table 720-1, WAC 173-340-900.

### 6.3 EXPOSURE PATHWAYS

There is potential for humans to be exposed to petroleum impacted soil, groundwater or vapor during invasive work activities.

*Subsurface soil:* Activities that involve soil excavation beneath West 15<sup>th</sup> Avenue may lead to petroleum hydrocarbon exposure to humans through inhalation, ingestion, and dermal contact. The individuals most likely to be affected by this exposure pathway are utility workers.

*Groundwater:* There is potential for individuals to come into contact with petroleum impacted groundwater during excavations or subsurface exploration beneath West 15<sup>th</sup> Avenue. The most likely group to be affected by this exposure pathway beneath the street is utility workers. Although impacts to groundwater are minimal, this pathway has been left open to ensure long-term protection for individuals that may come in contact with groundwater through invasive work actions.

*Vapors:* There is potential for humans to come into contact with vapors that volatilize from soil and groundwater during excavation or subsurface explorations in the soil management area. Vapors can pose a threat to human health and the environment when they are present at concentrations in confined spaces that exceed NIOSH (National Institute for Occupational Safety and Health) and/or OSHA (Occupational Safety and Health Administration) permissible exposure limits, or at high enough concentrations to create conditions that may lead to explosions. The most likely population to be affected by this exposure pathway within the soil management area is utility workers.

Prior to and during any invasive work activities within the soil management area beneath West 15<sup>th</sup> Avenue, steps will be taken to notify all responsible parties, minimize the risk to workers and the public and properly handle, and treat and/or dispose of any impacted soil or groundwater generated. The steps necessary to accomplish these goals are presented in the following sections of this soil management plan.

## 7.0 SOIL MANAGEMENT PLAN

### 7.1 RISK MANAGEMENT MEASURES PRIOR TO INVASIVE WORK

Exposure to residual petroleum hydrocarbons beneath West 15<sup>th</sup> Avenue is most likely to occur during excavation, grading or drilling activities, particularly at depths between 2 and 6 feet bgs. Coordinating response actions in advance of street work will help minimize construction delays. The contractors/utility workers performing the subsurface activity must be notified of the environmental conditions and contents of this soil management plan prior to site activities.

#### 7.1.1 Notification Requirements

The contractor/utility worker will notify the City of Ellensburg prior to the start of ground disturbing activities at the site. An environmental consultant representing CEMC will be on site to observe any ground disturbing activities and to monitor soil and groundwater conditions during site work.



For grading, excavation, drilling/test pitting or any subsurface site activities, the contractor/utility worker will provide the following information:

- Start date and time
- Anticipated duration of subsurface activities
- Nature of subsurface activities
- Location, size, and depth of excavation/borehole

The information provided by the contractor/utility worker will be forwarded on to CEMC, Washington State Department of Ecology and any permitting agency. Point of contact names and addresses are listed in Section 8.

## 8.0 PROJECT CONTACTS

### **Chevron Environmental Management Company**

Dan Carrier  
145 S. State College Blvd. Room 4086  
Brea, CA 92821  
Phone: (714) 671-3371  
E-mail: [DCarrier@chevron.com](mailto:DCarrier@chevron.com)

### **City of Ellensburg**

John Akers  
Public Works  
501 Anderson Street  
Ellensburg, Washington 98926  
(509) 962-7230  
E-mail: [pubworks@ci.ellensburg.wa.us](mailto:pubworks@ci.ellensburg.wa.us)

### **Washington State Department of Ecology, Central Regional Office**

Attn: Richard Bassett  
15 West Yakima Ave., Ste 200  
Yakima, Washington 98902  
Phone: (509) 454-7839  
E-mail: [rbas461@ecy.wa.gov](mailto:rbas461@ecy.wa.gov)

## 9.0 REFERENCES

*Cleanup Action Plan, Former Chevron Bulk Plant #100-1157, 15<sup>th</sup> and Water Streets, Ellensburg, Washington.* Prepared for ChevronTexaco by SAIC, December 8, 2004.

*Analytical Results for Samples Collected at the Sewer Line Installation Site, Ellensburg, WA.* Prepared for the City of Ellensburg by SAGE Earth Science Inc., November 27, 1995.

*Final Remedial Investigation/Feasibility Study Report, Former Chevron Bulk Plant No. 100-1157, 15<sup>th</sup> and Water Streets, Ellensburg, WA.* Prepared for ChevronTexaco by SAIC, June 8, 2004.









*Final Remedial Excavation Report, ChevronTexaco Facility No. 100-1157, West 15<sup>th</sup> Ave and North Water Street, Ellensburg, Washington 98926.* Prepared for ChevronTexaco by SAIC, February 15, 2005.

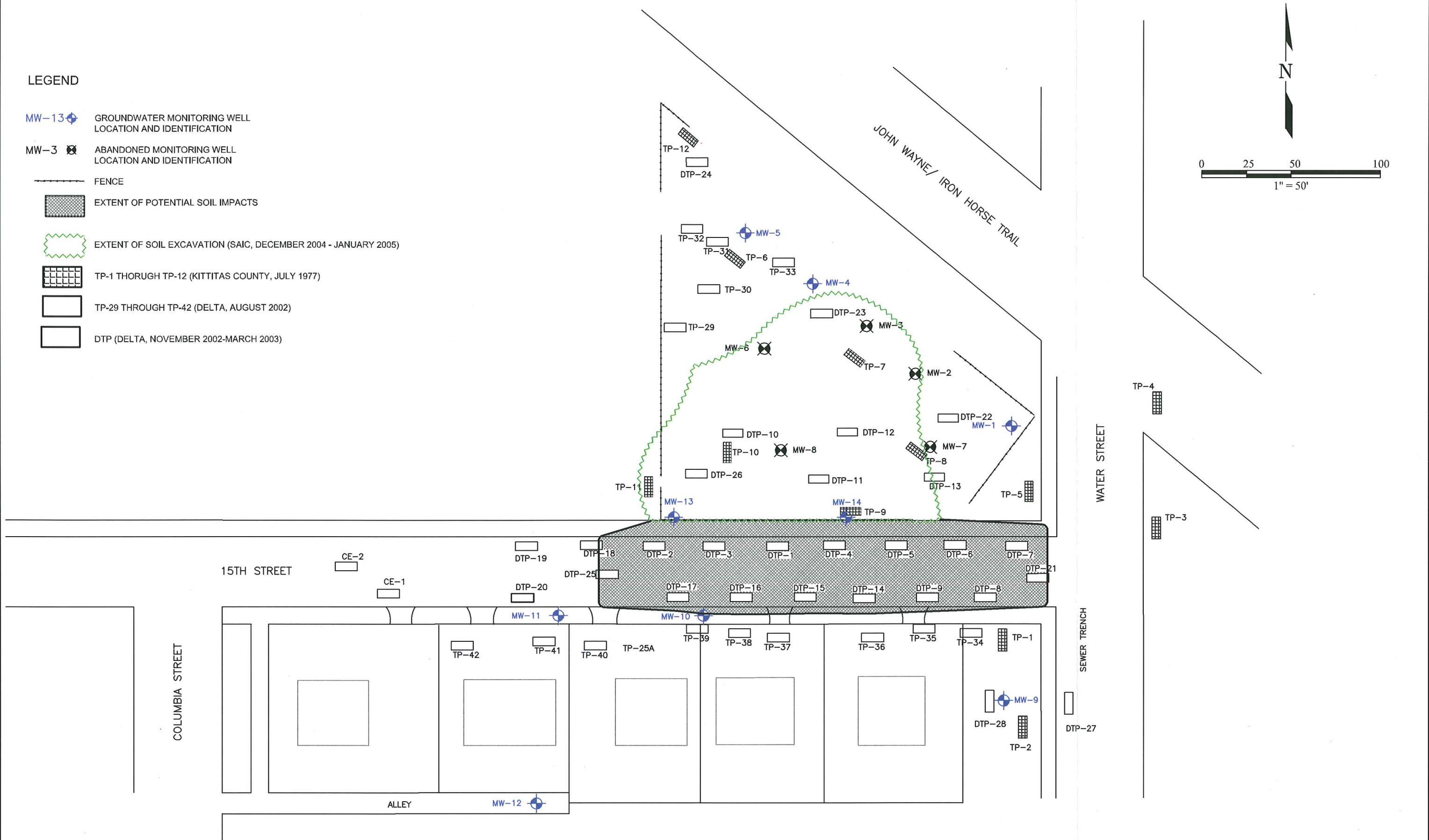


**Figure**

---

LEGEND

- MW-13  GROUNDWATER MONITORING WELL  
LOCATION AND IDENTIFICATION
- MW-3  ABANDONED MONITORING WELL  
LOCATION AND IDENTIFICATION
-  FENCE
-  EXTENT OF POTENTIAL SOIL IMPACTS
-  EXTENT OF SOIL EXCAVATION (SAIC, DECEMBER 2004 - JANUARY 2005)
-  TP-1 THOROUGH TP-12 (KITITAS COUNTY, JULY 1977)
-  TP-29 THROUGH TP-42 (DELTA, AUGUST 2002)
-  DTP (DELTA, NOVEMBER 2002-MARCH 2003)



**Attachment C:**  
**Voluntary Cleanup Program (VCP) Application**

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