

**FINAL GROUNDWATER MONITORING STATUS REPORT
AND REQUEST FOR NO FURTHER ACTION
DETERMINATION**

**COLEMAN OIL WENATCHEE FACILITY
3 EAST CHEHALIS STREET
WENATCHEE, WASHINGTON**

**Submitted by:
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**For:
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ACRONYMS AND ABBREVIATIONS

BTEX	benzene, toluene, ethylbenzene, and xylenes
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
Farallon	Farallon Consulting, L.L.C.
GRO	total petroleum hydrocarbons as gasoline-range organics
µg/l	micrograms per liter
MTCA	Washington State Model Toxics Control Act Cleanup Regulation
PQLs	practical quantitation limits
Site	Coleman Oil Wenatchee facility at 3 East Chehalis Street in Wenatchee, Washington
TPH	total petroleum hydrocarbons
VCP	Voluntary Cleanup Program



1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this final Groundwater Monitoring Status Report on behalf of Coleman Oil Company, Inc. (Coleman Oil) to provide the results of the groundwater monitoring event conducted on October 24, 2013 at the Coleman Oil Wenatchee Facility at 3 East Chehalis Street in Wenatchee, Washington (herein referred to as the Site) (Figure 1). In addition, based on the results of groundwater monitoring events conducted during the past 3 years, Farallon requests that a No Further Action (NFA) determination be issued for the Site by the Washington State Department of Ecology (Ecology).

Prior subsurface investigations and groundwater monitoring conducted at the Site have confirmed that total petroleum hydrocarbons (TPH) as gasoline-range organics (GRO) and benzene have been released to the subsurface at concentrations exceeding Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A cleanup levels as a result of a gasoline leak from piping associated with an aboveground storage tank (AST) at the Site. Continued groundwater monitoring events were conducted to evaluate groundwater quality with respect to the presence of GRO and benzene at the Site.

Prior subsurface investigations and groundwater monitoring events conducted at the Site have been performed in accordance with the letter regarding Subsurface Investigation Work Plan, Coleman Oil Wenatchee Facility, 3 Chehalis Street East, Wenatchee, Washington dated July 6, 2010, prepared by Farallon (Work Plan); and the letter regarding Final Subsurface Investigation Work Plan Addendum, Coleman Oil Wenatchee Facility, 3 Chehalis Street East, Wenatchee, Washington dated September 3, 2010, prepared by Farallon (Work Plan Addendum). Both the Work Plan and the Work Plan Addendum were approved by Ecology. The Work Plan and Work Plan Addendum were prepared to meet the substantive requirements of MTCA for a remedial action as established in Chapter 173-340 of the Washington Administrative Code. The overall objective of the project was to complete the cleanup action and obtain an NFA determination from Ecology for the Site. The Site has been enrolled in the Ecology Voluntary Cleanup Program (VCP) and has been assigned VCP Identification No. CE0328 and Facility Site No. 83844381.



2.0 SITE BACKGROUND

The Site comprises approximately 1 acre (Figure 2). The north end of the property is developed with a building used for office and warehouse storage, a smaller storage building, 18 aboveground bulk fuel tanks and associated piping, a transport truck filling station, and an underground storage tank. The central portion of the property is developed with two card-lock dispenser islands, and the southern portion of the property is undeveloped land used for equipment storage. Wholesale petroleum products such as diesel fuel, gasoline, and lube oils are stored at the facility, and commercial fueling is provided at the southernmost card-lock dispenser island. Dispensers on the island closest to the bulk fuel tank containment area have been removed.

On June 2, 2010, a review of daily inventory records for AST 15A by the Coleman Oil Plant Manager revealed a discrepancy of approximately 180 gallons of unleaded gasoline. Subsequent inspection of AST 15A and associated piping revealed gasoline leaking from a fill valve and flowing onto the concrete ground surface in the AST 15A valve control box on the south side of the tank farm (Figure 2). Gasoline also was observed on the ground surface east of the AST 15A valve control box in an unpaved area between the bulk fuel tank containment area and the south-adjacent former fuel dispenser island. Coleman Oil personnel immediately stopped the flow of gasoline from the tank to the leaking fill valve, contacted emergency spill response contractor NRC Environmental Services (NRCES) to address the spill, and reported the spill to the appropriate regulatory agencies.

According to the Coleman Oil Plant Manager, the observed area of the gasoline release was limited to the narrow unpaved area between the bulk fuel tank containment area and the adjacent former fuel dispenser island (Figure 2). NRCES hand-excavated soil containing gasoline from this area to a depth of approximately 2 feet below ground surface (bgs). Feasible alternatives for excavation of additional material between the bulk fuel tank containment area and the adjacent former fuel dispenser island were severely limited due to concerns about the structural integrity of the tank farm containment area and the presence of large boulders in the excavation area.

A total of approximately 6 cubic yards of gasoline-contaminated soil was excavated from the spill area and disposed of off the Site. Soil samples subsequently collected from the excavation sidewalls and from 1 foot below the base of the excavation contained GRO, and benzene, toluene, ethylbenzene, and xylenes (BTEX) at concentrations exceeding MTCA Method A cleanup levels.

Follow-up characterization was conducted by Environmental Compliance Associates to evaluate the potential for migration of gasoline from the release location to areas proximate to the excavation. The characterization included advancement of shallow borings using a Geoprobe drill rig and deep borings using an air rotary drill rig. Results of the follow-up characterization indicated that concentrations of GRO and BTEX in soil decrease rapidly with distance both laterally and vertically from the spill area.



Farallon conducted a subsurface investigation at the Site in July and September 2010 to evaluate whether the surface spill of gasoline had migrated beneath the Site to a deeper groundwater-bearing zone that may be in hydraulic communication with surface water in the adjacent Columbia River. Four groundwater monitoring wells were installed on the Site, and one groundwater monitoring well was installed east of South Worthen Street. Groundwater samples were collected from the five monitoring wells and submitted for laboratory analysis for GRO by Northwest Method NWTPH-Gx and for BTEX by U.S. Environmental Protection Agency (EPA) Method 8021. Laboratory analytical results for the groundwater samples confirmed that GRO and benzene had been released to the subsurface as a result of a gasoline leak from piping associated with an AST at the Site.

Groundwater levels in the monitoring wells were measured frequently in 2010 to confirm groundwater flow direction and gradient. Multiple groundwater monitoring events have been conducted since July 2010 to monitor concentrations of GRO and benzene.

On May 31, 2013, a gasoline spill occurred at the Site. Based on current information, the spill occurred near the underground storage tanks in the southeast corner of the Site. The affected soil was excavated and confirmation soil samples were collected that confirmed a release of gasoline to shallow soil had occurred as a result of the incident. The spill was reported to the National Response Center and issued Case No. 1048904. An incident report is forthcoming from Coleman Oil and will be submitted to Ecology under separate cover.

Because the location of the May 31, 2013 gasoline spill was within the area of the current groundwater monitoring network, no modifications were made to the groundwater monitoring plan as described in the Work Plan and Work Plan Addendum.



3.0 MONITORING ACTIVITIES AND RESULTS

The monitoring activities conducted at the Site by Farallon on October 24, 2013 included measurement of groundwater levels and collection of groundwater quality data and samples for laboratory analysis. The groundwater monitoring activities and results are summarized in the following sections.

3.1 GROUNDWATER MONITORING ACTIVITIES

The groundwater monitoring event included:

- Measuring depths to groundwater in monitoring wells MW-1 through MW-5;
- Purging and sampling monitoring wells MW-1, MW-2, and MW-5 using EPA low-flow sampling methods;
- Measuring water quality parameters during monitoring well purging to assess groundwater stabilization; and
- Submitting the groundwater samples for laboratory analysis.

Farallon opened monitoring wells MW-1 through MW-5 to allow the water levels to equilibrate with atmospheric pressure for a minimum of 15 minutes prior to obtaining groundwater level measurements. Groundwater levels were measured to an accuracy of 0.01 foot using an electronic water-level meter.

Following collection of groundwater level measurements, monitoring wells MW-1, MW-2, and MW-5 were purged and sampled using a bladder pump and polyethylene tubing. Purging was conducted at a flow rate ranging between 100 and 175 milliliters per minute, with the intake tubing placed at a maximum of 3 feet below the water table in each monitoring well. During purging, water quality was monitored using a Horiba water-quality meter equipped with a flow-through cell. The water quality parameters monitored and recorded during purging and sampling included temperature, pH, specific conductance, dissolved oxygen, and oxidation-reduction potential. The monitoring wells were purged until the water quality parameters stabilized in accordance with EPA guidelines for low-flow sampling. The groundwater samples were transferred directly from the tubing into laboratory-prepared containers. The containers were placed on ice in a cooler and transported to an Ecology-accredited laboratory under standard chain-of-custody protocols. The groundwater samples were analyzed for GRO and BTEX by Northwest Method NWTPH-Gx.

Purge water that has been generated during monitoring well sampling activities is temporarily stored on the Site in a labeled 55-gallon steel drum. The laboratory analytical results from the groundwater samples will be used to develop a waste profile to determine waste disposal options. The waste will be disposed of off the Site within 90 days.



3.2 GROUNDWATER MONITORING RESULTS

Groundwater level measurements and calculated elevations are summarized in Table 1. Figure 2 provides a groundwater elevation contour map illustrating the estimated groundwater flow direction and gradient for the groundwater monitoring event conducted on October 24, 2013. The groundwater level measurements indicate an approximate groundwater flow direction to the northeast, and an average approximate hydraulic gradient at the Site of 0.48 foot per foot, which is consistent with previous monitoring events.

The laboratory analytical results for groundwater samples collected on October 24, 2013 are shown on Figure 3 and summarized in Table 2. GRO was detected at a concentration of 130 micrograms per liter ($\mu\text{g/l}$), exceeding the laboratory practical quantitation limit (PQL) in the groundwater sample collected from monitoring well MW-1 but not exceeding the MTCA Method A groundwater cleanup level of 800 $\mu\text{g/l}$ for GRO. The BTEX constituents were not detected at or exceeding the laboratory practical quantitation limits (PQLs) in the groundwater sample collected from monitoring well MW-1. GRO and the BTEX constituents were not detected at or exceeding the laboratory PQLs in the groundwater samples collected from monitoring wells MW-2 and MW-5. Monitoring wells MW-3 and MW-4 were not sampled during the October 2013 monitoring event. The laboratory analytical report for the October 24, 2013 groundwater monitoring event is provided in Appendix A.



4.0 CONCLUSIONS AND REQUEST FOR NO FURTHER ACTION DETERMINATION

The groundwater flow direction and hydraulic gradient estimated for the October 24, 2013 groundwater monitoring event was northeast at a gradient of 0.48 foot per foot, which is consistent with previous monitoring events. GRO and the BTEX constituents were not detected at or exceeding the MTCA Method A groundwater cleanup levels in the groundwater samples collected from monitoring wells MW-1, MW-2, and MW-5. The only analyte detected was GRO at a concentration of 130 µg/l in the groundwater sample collected from monitoring well MW-1, which is below the MTCA Method A cleanup level of 800 µg/l for GRO.

In April 2013, Ecology stated that for an NFA determination to be issued for the Site, concentrations of GRO and BTEX must remain below MTCA Method A cleanup levels in groundwater samples collected from monitoring wells MW-1, MW-2, and MW-5 for three consecutive quarters beginning in April 2013. GRO and the BTEX constituents have not been detected at concentrations at or exceeding MTCA Method A cleanup levels since May 2012 in monitoring wells MW-1, MW-2, and MW-5 (Table 2). These data demonstrate that the groundwater cleanup levels for GRO and BTEX have been attained at the standard point of compliance for the Site.

The work completed under the Work Plan and Work Plan Addendum complies with the cleanup standards and meets the substantive requirements of MTCA for a remedial action as established in Chapter 173-340 of the Washington Administrative Code for an NFA determination by demonstrating that the action protects human health and the environment and is protective of terrestrial ecological receptors. Based on the results of the remedial action, Farallon requests that an NFA determination be issued by Ecology for the Site.



5.0 REFERENCES

- Farallon Consulting, L.L.C. (Farallon). 2010a. Letter Regarding Subsurface Investigation Work Plan, Coleman Oil Wenatchee Facility, 3 Chehalis Street East, Wenatchee, Washington. From Stacy Patterson and J. Riley Conkin. To Norm Peck, Washington State Department of Ecology. July 6.
- . 2010b. Letter Regarding Final Subsurface Investigation Work Plan Addendum, Coleman Oil Wenatchee Facility, 3 Chehalis Street East, Wenatchee, Washington. From Stacy Patterson and J. Riley Conkin. To Norm Peck, Washington State Department of Ecology. September 3.



6.0 LIMITATIONS

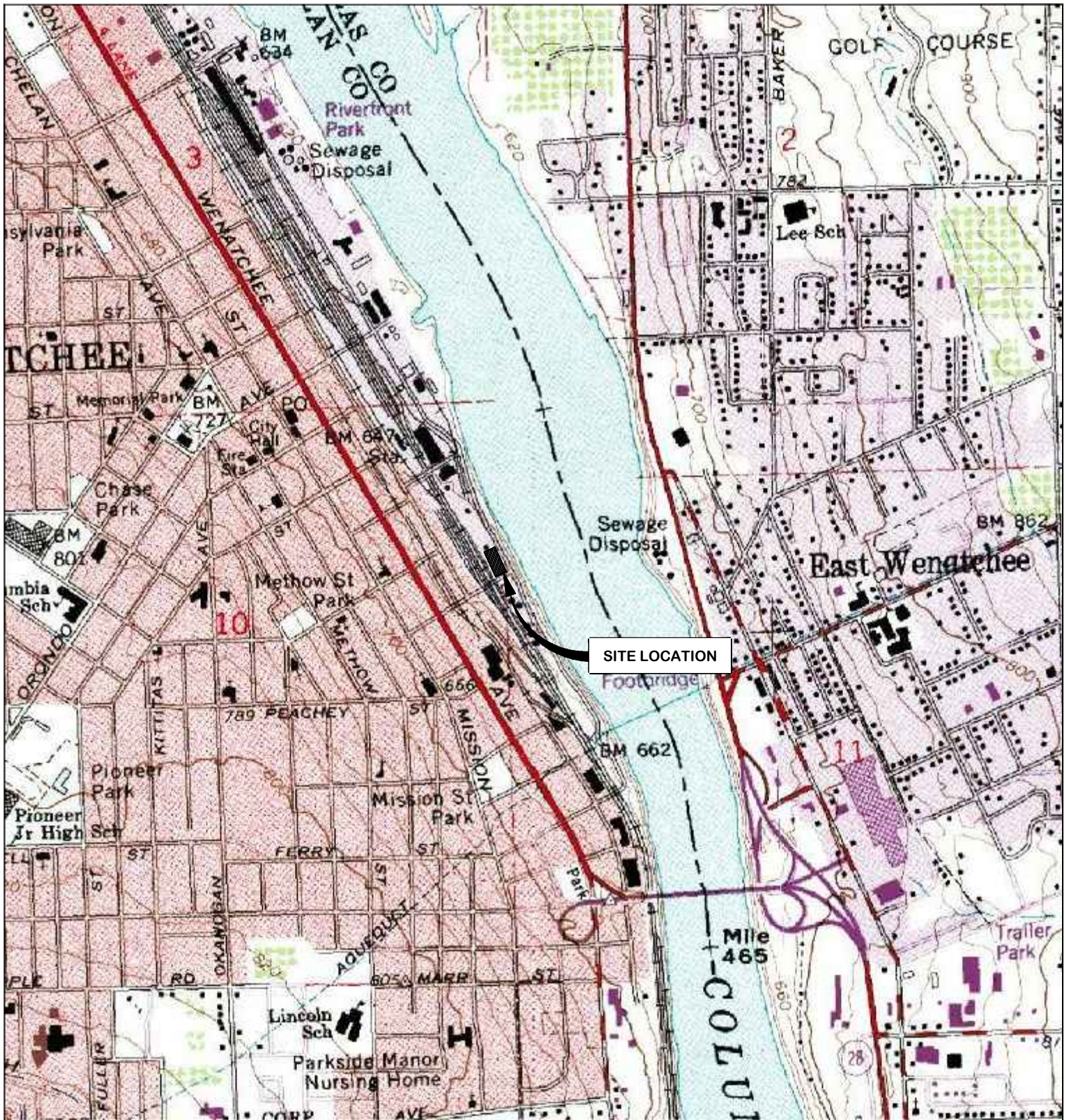
The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location, and are subject to the following inherent limitations:

- **Accuracy of Information.** Certain information used by Farallon in this report/assessment has been obtained, reviewed, and evaluated from various sources believed to be reliable. Although Farallon's conclusions, opinions, and recommendations are based in part on such information, Farallon's services did not include verification of its accuracy or authenticity. Should such information prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and Characterization.** Farallon performed a reconnaissance and characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated.

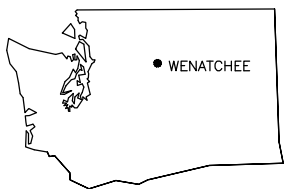
FIGURES

GROUNDWATER MONITORING STATUS REPORT Coleman Oil Wenatchee Facility 3 East Chehalis Street Wenatchee, Washington

Farallon PN: 1001-001



REFERENCE: 7.5 MINUTE USGS QUADRANGLE WENATCHEE, WASHINGTON, WASHINGTON. DATED 1953 AND PHOTOREVISED 1972



WASHINGTON



FARALLON CONSULTING
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FIGURE 1

SITE VICINITY MAP
 COLEMAN OIL
 3 EAST CHEHALIS STREET
 WENATCHEE, WASHINGTON

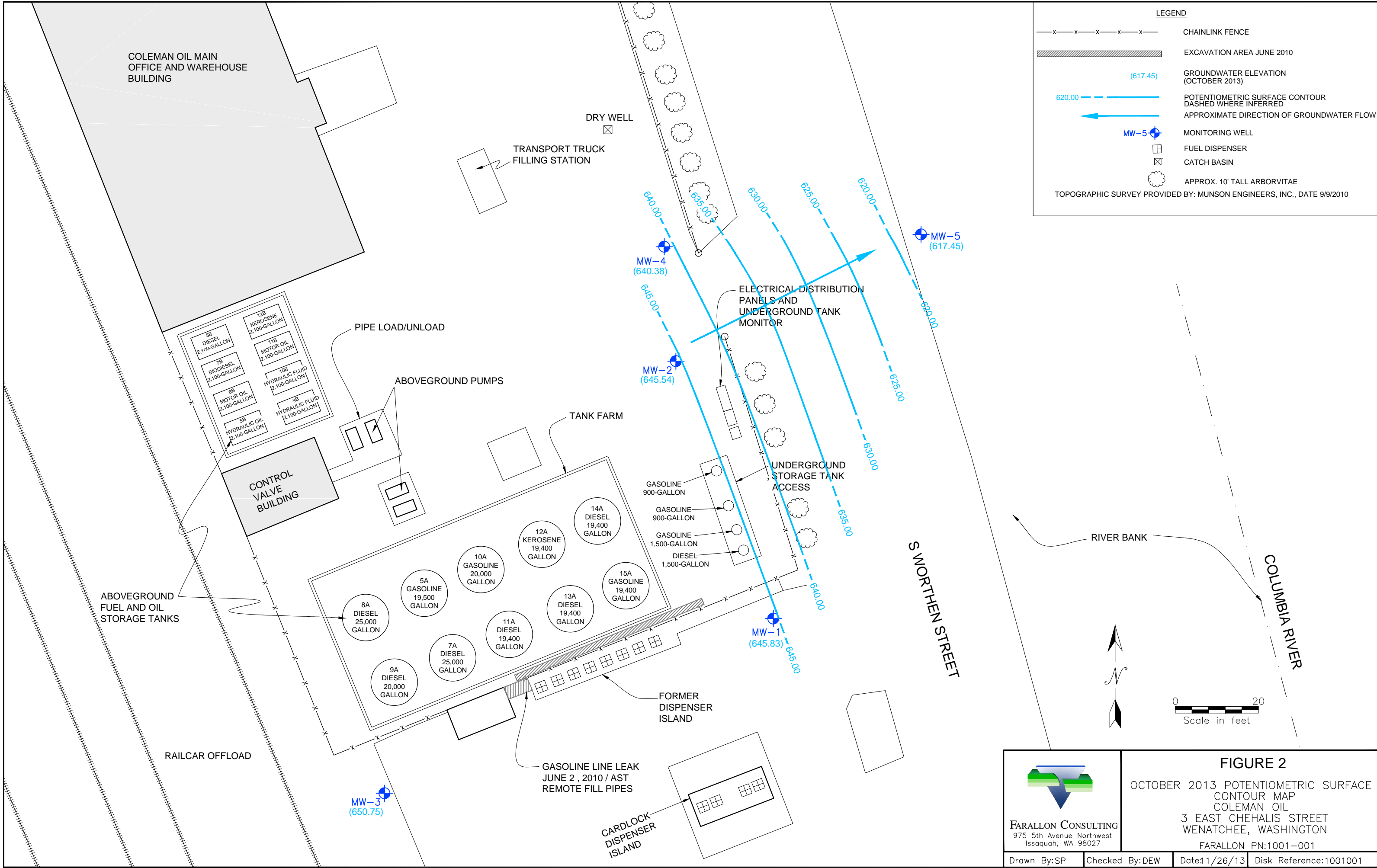
FARALLON PN:1001-001


Drawn By: DEW

Checked By: SP

Date: 2/20/12

Disk Reference: 1001001



 FARALLON CONSULTING 975 5th Avenue Northwest Issaquah, WA 98027	FIGURE 2 OCTOBER 2013 POTENTIOMETRIC SURFACE CONTOUR MAP COLEMAN OIL 3 EAST CHEHALIS STREET WENATCHEE, WASHINGTON FARALLON PN:1001-001	
	Drawn By: SP	Checked By: DEW

TABLES

GROUNDWATER MONITORING STATUS REPORT Coleman Oil Wenatchee Facility 3 East Chehalis Street Wenatchee, Washington

Farallon PN: 1001-001

Table 1
Summary of Groundwater Elevation Data
Coleman Oil Facility
Wenatchee, Washington
Farallon PN: 1001-001

Well Identification	Monitoring Date	Depth of Monitoring Well (feet)	Monitoring Well Screened Interval (feet bgs)	Wellhead Elevation ¹ (feet) ²	Depth to Water (feet bgs)	Groundwater Elevation (feet)
MW-1	7/14/2010	34.90	20-35	658.01	11.46	646.55
	9/8/2010				11.79	646.22
	9/13/2010				11.78	646.23
	9/29/2010				11.74	646.27
	10/18/2010				11.93	646.08
	3/24/2011				9.88	648.13
	8/10/2011				11.16	646.85
	12/13/2011				12.30	645.71
	6/14/2012				11.43	646.58
	10/11/2012				12.65	645.36
	1/22/2013				10.39	647.62
	4/25/2013				11.21	646.80
	7/3/2013				11.42	646.59
10/24/2013	12.18	645.83				
MW-2	7/14/2010	39.66	25-40	657.76	11.61	646.15
	9/8/2010				11.88	645.88
	9/13/2010				11.81	645.95
	9/29/2010				11.80	645.96
	10/18/2010				11.88	645.88
	3/24/2011				9.91	647.85
	8/10/2011				11.42	646.34
	12/13/2011				12.37	645.39
	6/14/2012				11.50	646.26
	10/11/2012				12.71	645.05
	1/22/2013				10.65	647.11
	4/25/2013				11.38	646.38
	7/3/2013				11.54	646.22
10/24/2013	12.22	645.54				
MW-3	9/8/2010	35.00	25-35	658.26	8.06	650.20
	9/13/2010				7.71	650.55
	9/29/2010				7.95	650.31
	10/18/2010				7.77	650.49
	3/24/2011				7.81	650.45
	8/10/2011				10.06	648.20
	12/13/2011				11.11	647.15
	6/14/2012				10.47	647.79
	10/11/2012				11.14	647.12
	1/22/2013				9.98	648.28
	4/25/2013				7.76	650.50
	7/3/2013				7.79	650.47
10/24/2013	7.51	650.75				

Table 1
Summary of Groundwater Elevation Data
Coleman Oil Facility
Wenatchee, Washington
Farallon PN: 1001-001

Well Identification	Monitoring Date	Depth of Monitoring Well (feet)	Monitoring Well Screened Interval (feet bgs)	Wellhead Elevation ¹ (feet) ²	Depth to Water (feet bgs)	Groundwater Elevation (feet)
MW-4	9/9/2010	37.00	27-37	657.48	36.98	620.50
	9/13/2010				24.59	632.89
	9/29/2010				17.89	639.59
	10/18/2010				17.59	639.89
	3/24/2011				19.09	638.39
	8/10/2011				17.57	639.91
	12/13/2011				20.05	637.43
	6/14/2012				17.00	640.48
	10/11/2012				17.51	639.97
	1/22/2013				15.71	641.77
	4/25/2013				16.78	640.70
	7/3/2013				17.09	640.39
	10/24/2013				17.10	640.38
MW-5	--	45.00	30-45	656.00	--	--
	9/13/2010				39.02	616.98
	9/29/2010				38.71	617.29
	10/18/2010				38.67	617.33
	3/24/2011				36.97	619.03
	8/10/2011				37.06	618.94
	12/13/2011				37.65	618.35
	6/14/2012				33.94	622.06
	10/11/2012				38.72	617.28
	1/22/2013				36.65	619.35
	4/25/2013				36.45	619.55
	7/3/2013				33.98	622.02
	10/24/2013				38.55	617.45

NOTES

¹Elevations based on NAVD 1988 vertical datum.

bgs = below ground surface

²In feet at top of well casing.

Rock Island Pool elevation approximately 75 feet east of the Site on July 6, 2010 was 619.84 feet. The predicted daily fluctuation for that day was between 637.0 and 613.0 feet.

Table 2
Summary of Groundwater Analytical Results for GRO and BTEX
Coleman Oil Facility
Wenatchee, Washington
Farallon PN :1001-001

Monitoring Well	Sample Identification	Sample Date	Groundwater Analytical Results (micrograms per liter) ¹				
			GRO	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1	MW-1-071410	7/15/2010	<100	37	<1.0	<1.0	<1.0
	MW1-091310	9/13/2010	<100	44	<1.0	<1.0	<1.0
	MW1-10-18-10	10/18/2010	<400	120	<4.0	<4.0	<4.0
	MW-1-032411	3/24/2011	490	150	<1.0	<1.0	<1.0
	MW-1-081011	8/10/2011	840	95	<4.0	<4.0	5.8
	MW-1-121311	12/13/2011	210	4.0	<1.0	<1.0	<1.0
	MW-1-061412	6/14/2012	330	2.7	<1.0	<1.0	<1.0
	MW-1-101112	10/11/2012	320	<1.0	<1.0	<1.0	<1.0
	MW-1-012213	1/22/2013	390	2.4	<1.0	<1.0	<1.0
	MW-1-042513	4/25/2013	280	1.6	<1.0	<1.0	<1.0
	MW-1-070313	7/3/2013	260	<1.0	<1.0	<1.0	<1.0
	MW-1-102413	10/24/2013	130	<1.0	<1.0	<1.0	<1.0
MW-2	MW-2-071410	7/15/2010	<400	220	<4.0	<4.0	<4.0
	MW2-091310	9/13/2010	<100	2.1	<1.0	<1.0	<1.0
	MW2-10-18-10	10/18/2010	<400	730	<4.0	9.4	<4.0
	MW2-032411	3/24/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-2-081011	8/10/2011	400	160	<4.0	<4.0	<4.0
	MW-2-121311	12/13/2011	100	38	<1.0	<1.0	<1.0
	DUP-121311	12/13/2011	110	38	<1.0	<1.0	<1.0
	MW-2-061412	6/14/2012	<100	<1.0	<1.0	<1.0	<1.0
	MW-2-101112	10/11/2012	<100	<1.0	<1.0	<1.0	<1.0
	DUP-101112	10/11/2012	<100	<1.0	<1.0	<1.0	<1.0
	MW-2-012213	1/22/2013	170	2.4	<1.0	<1.0	<1.0
	DUP-012213	1/22/2013	160	2.2	<1.0	<1.0	<1.0
	MW-2-042513	4/25/2013	<100	<1.0	<1.0	<1.0	<1.0
	MW-2-070313	7/3/2013	<100	<1.0	<1.0	<1.0	<1.0
MW-2-102413	10/24/2013	<100	<1.0	<1.0	<1.0	<1.0	
DUP-102413	10/24/2013	<100	<1.0	<1.0	<1.0	<1.0	
MTCA Method A Cleanup Levels for Groundwater²			800	5	1,000	700	1,000

Table 2
Summary of Groundwater Analytical Results for GRO and BTEX
Coleman Oil Facility
Wenatchee, Washington
Farallon PN :1001-001

Monitoring Well	Sample Identification	Sample Date	Groundwater Analytical Results (micrograms per liter) ¹				
			GRO	Benzene	Toluene	Ethylbenzene	Xylenes
MW-3	MW3-091310	9/13/2010	<100	<1.0	<1.0	<1.0	<1.0
	MW3-10-18-10	10/18/2010	<100	<1.0	<1.0	<1.0	<1.0
	MW3-032411	3/24/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-3-081011	8/10/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-3-121311	12/13/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-3-061412	6/14/2012	<100	<1.0	<1.0	<1.0	<1.0
	MW-3-101112	10/11/2012	<100	<1.0	<1.0	<1.0	<1.0
	MW-3-012213	1/22/2013	<100	<1.0	<1.0	<1.0	<1.0
MW-4	MW4-10-18-10	10/18/2010	<100	1.9	<1.0	<1.0	<1.0
	MW4-032411	3/24/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-4-081011	8/10/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-4-121311	12/13/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-4-061412	6/14/2012	<100	<1.0	<1.0	<1.0	<1.0
	DUP-061412	6/14/2012	<100	<1.0	<1.0	<1.0	<1.0
	MW-4-101112	10/11/2012	<100	<1.0	<1.0	<1.0	<1.0
	MW-4-012213	1/22/2013	<100	<1.0	<1.0	<1.0	<1.0
MW-5	MW5-091310	9/13/2010	<100	<1.0	<1.0	<1.0	<1.0
	MW5-10-18-10	10/18/2010	<100	<1.0	<1.0	<1.0	<1.0
	MW-5-032411	3/24/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-5-081011	8/10/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-5-121311	12/13/2011	<100	<1.0	<1.0	<1.0	<1.0
	MW-5-061412	6/14/2012	<100	<1.0	<1.0	<1.0	<1.0
	MW-5-101110	10/11/2010	<100	<1.0	<1.0	<1.0	<1.0
	MW-5-012213	1/22/2013	<100	<1.0	<1.0	<1.0	<1.0
	MW-5-070313	7/3/2013	<100	<1.0	<1.0	<1.0	<1.0
MW-5-102413	10/24/2013	<100	<1.0	<1.0	<1.0	<1.0	
MTCA Method A Cleanup Levels for Groundwater²			800	5	1,000	700	1,000

NOTES:

Results in **bold** denote concentrations above applicable cleanup levels.

< denotes analyte not detected at or above the reporting limit listed.

¹Analyzed by Northwest Method NWTPH-Gx/BTEX.

²Washington State Model Toxics Control Act Cleanup Regulation (MTCA)

Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of

Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

BTEX = benzene, toluene, ethylbenzene, and xylenes

Farallon = Farallon Consulting, L.L.C.

GRO = total petroleum hydrocarbons as gasoline-range organics

APPENDIX A
LABORATORY ANALYTICAL REPORT

GROUNDWATER MONITORING STATUS REPORT
Coleman Oil Wenatchee Facility
3 Chehalis Street East
Wenatchee, Washington

Farallon PN: 1001-001



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 1, 2013

Stacy Patterson
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1001-001
Laboratory Reference No. 1210-272

Dear Stacy:

Enclosed are the analytical results and associated quality control data for samples submitted on October 25, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: November 1, 2013
Samples Submitted: October 25, 2013
Laboratory Reference: 1210-272
Project: 1001-001

Case Narrative

Samples were collected on October 24, 2013 and received by the laboratory on October 25, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: November 1, 2013
 Samples Submitted: October 25, 2013
 Laboratory Reference: 1210-272
 Project: 1001-001

NWTPH-Gx/BTEX

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	DUP-102413					
Laboratory ID:	10-272-01					
Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Toluene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Ethyl Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
m,p-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
o-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Gasoline	ND	100	NWTPH-Gx	10-29-13	10-29-13	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	71-112				
Client ID:	MW-5-102413					
Laboratory ID:	10-272-02					
Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Toluene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Ethyl Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
m,p-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
o-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Gasoline	ND	100	NWTPH-Gx	10-29-13	10-29-13	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	71-112				
Client ID:	MW-1-102413					
Laboratory ID:	10-272-03					
Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Toluene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Ethyl Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
m,p-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
o-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Gasoline	130	100	NWTPH-Gx	10-29-13	10-29-13	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	71-112				

Date of Report: November 1, 2013
 Samples Submitted: October 25, 2013
 Laboratory Reference: 1210-272
 Project: 1001-001

NWTPH-Gx/BTEX

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-2-102413					
Laboratory ID:	10-272-04					
Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Toluene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Ethyl Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
m,p-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
o-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Gasoline	ND	100	NWTPH-Gx	10-29-13	10-29-13	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>92</i>	<i>71-112</i>				

Date of Report: November 1, 2013
 Samples Submitted: October 25, 2013
 Laboratory Reference: 1210-272
 Project: 1001-001

**NWTPH-Gx/BTEX
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1029W1					
Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Toluene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Ethyl Benzene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
m,p-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
o-Xylene	ND	1.0	EPA 8021B	10-29-13	10-29-13	
Gasoline	ND	100	NWTPH-Gx	10-29-13	10-29-13	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	71-112				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	10-291-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	30	
Toluene	ND	ND	NA	NA	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA	NA	NA	30	
o-Xylene	ND	ND	NA	NA	NA	NA	30	
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				89	90	71-112		

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES								
Laboratory ID:	10-291-01							
	MS	MSD	MS	MSD	MS	MSD		
Benzene	50.8	49.9	50.0	50.0	ND	102	100	78-120
Toluene	50.2	49.3	50.0	50.0	ND	100	99	80-121
Ethyl Benzene	50.2	49.5	50.0	50.0	ND	100	99	81-120
m,p-Xylene	50.2	49.5	50.0	50.0	ND	100	99	81-119
o-Xylene	49.9	49.6	50.0	50.0	ND	100	99	79-117
<i>Surrogate:</i>								
<i>Fluorobenzene</i>					92	91	71-112	



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference

