

FARALLON CONSULTING, L.L.C.

**Cornwall Plaza Building
1201 Cornwall Avenue, Suite 105
Bellingham, Washington 98225**

**Phone
(360) 527-0241**

**Fax
(360) 527-0243**

T E C H N I C A L M E M O R A N D U M

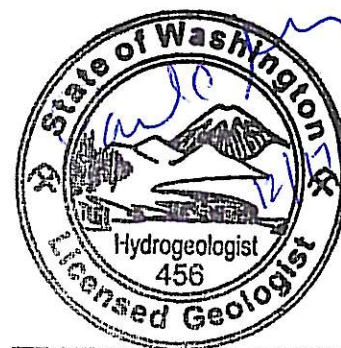
TO: Eugene Freeman – Washington State Department of Ecology

cc: Marty Winn – Former Property Owner
Tod Gold – Salter Joyce Ziker, P.L.L.C. (e-mail only)
Carol Lybeer – Colony Specialty (e-mail only)
David Campbell – Current Property Owner (e-mail only)

FROM: Paul Grabau, L.H.G., Principal Hydrogeologist

DATE: December 17, 2012

RE: **NOVEMBER 2012 PROGRESS REPORT
WHIDBEY MARINE & AUTO SUPPLY SITE
FREELAND, WASHINGTON
FARALLON PN: 454-001**



Paul C. Grabau

Farallon Consulting, L.L.C. (Farallon) has prepared this progress report to document the status of the cleanup action related to the release of gasoline from the underground storage tank (UST) system at the former Whidbey Marine & Auto Supply facility at 1689 Main Street in Freeland, Washington (herein referred to as the Site) (Figure 1). The cleanup action at the Site is being conducted under the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program and in accordance with the provisions of the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) as established in Chapter 173-340 of the Washington Administrative Code. The Site has been assigned Toxics Cleanup Program Identification No. NW1529 by Ecology. The Site has been registered with the Ecology Underground Injection Control (UIC) Program as UIC Site No. 31045. This progress report presents the results of the groundwater sampling and monitoring activities conducted at the Site in May 2012 and the groundwater elevation monitoring activities conducted in September and November 2012.

GROUNDWATER MONITORING

A Site-wide groundwater monitoring and sampling event was conducted on May 15 and 16, 2012. Groundwater samples were collected from monitoring wells MW-1 through MW-4, MW-6, and MW-8 through MW-12 (Figure 2). Monitoring wells MW-1 through MW-8 are installed in the perched groundwater zone at the Site. Monitoring wells MW-9 through MW-12 are installed within the deeper sea level aquifer. There was an insufficient volume of groundwater present in monitoring well MW-7 for collection of a representative sample during the May 2012 monitoring event and monitoring well MW-5 was dry. Dedicated sample tubing that had been previously placed in monitoring well MW-2 could not be removed during the May 2012 sampling event and the resulting obstruction in the well casing prevented sampling using a bladder pump. Therefore, monitoring well MW-2 was sampled using a dedicated polyethylene bailer. The other monitoring wells were sampled using a bladder pump and dedicated tubing. Details of the field activities and the results for the May 2012 monitoring and sampling events are presented below.

FIELD METHODS

Prior to sampling, Farallon measured the depth to groundwater in each monitoring well using an electronic water-level indicator. The monitoring wells were opened and the water levels were allowed to equilibrate before measurement. The groundwater level in each monitoring well was measured to the surveyed reference point on the top of the well casing to derive the groundwater elevation at each location.

During the May 2012 monitoring event, groundwater was purged from the monitoring wells that were sampled with the bladder pump at a flow rate of approximately 200 milliliters per minute, where feasible. Monitoring well MW-2 was sampled using a dedicated disposable bailer using the procedures described below. Field measurements were collected for pH, temperature, specific conductivity, dissolved oxygen, and oxidation/reduction potential during groundwater purging using a YSI Model MPS 556 water quality analyzer equipped with a flow-through cell. Groundwater samples were collected after the temperature, conductivity, and pH parameters stabilized. Stabilization was defined as a relative percent difference of less than 3 percent for temperature and conductivity, and a change of ± 0.1 pH unit between readings for three consecutive measurements. The samples from monitoring wells sampled with the bladder pump were collected by pumping groundwater directly from each well through dedicated polyethylene tubing into laboratory-prepared containers. Monitoring well MW-2 was sampled using a dedicated disposable bailer. A minimum of three submerged casing volumes of water was purged from monitoring well MW-2 prior to sample collection. Groundwater samples were collected from monitoring well MW-2 by decanting the groundwater directly from the disposable bailer into laboratory-prepared containers. The groundwater samples were labeled, placed on ice, and transported to ALS Laboratories in Everett, Washington for analysis in accordance with chain-of-custody protocols.

ANALYTICAL METHODS

The groundwater samples were analyzed for the presence of total petroleum hydrocarbons as gasoline-range organics (GRO) by Northwest Method NWTPH-Gx and for benzene, toluene, ethylbenzene, and xylenes (BTEX) by U.S. Environmental Protection Agency Method 8021B.

GROUNDWATER MONITORING RESULTS

Table 1 presents a summary of the groundwater elevation data for the Site. Table 2 presents the groundwater analytical results for GRO and BTEX for May 2012 and previous quarterly monitoring events conducted at the Site. The analytical results for the perched groundwater zone and Sea Level Aquifers are shown on Figures 3 and 4, respectively. The laboratory analytical report for the May 2012 groundwater monitoring event is provided in Attachment A.

Groundwater Elevation

Groundwater elevations measured at the Site on May 15, 2012 in the perched groundwater zone ranged from 65.40 feet above mean sea level (msl) in monitoring well MW-1 to 58.09 feet above msl in monitoring well MW-7. Groundwater elevation contours for the perched groundwater zone based on the water levels measured on May 15, 2012 are shown on Figure 3. Monitoring well MW-5 has been dry each time it has been monitored since it was installed in February 2007. As shown on Figure 3, the general groundwater flow direction in the perched groundwater zone at the Site is to the west, with a hydraulic gradient of approximately 0.02 foot per foot in the eastern area of the Site and a considerably steeper gradient of 0.20 foot per foot to the west. The groundwater flow direction and gradient are consistent with previous results for the Site.

Groundwater elevations measured in the sea level aquifer ranged from 12.62 feet above msl in monitoring well MW-10 to 11.74 feet above msl in monitoring well MW-9. Groundwater elevation contours for the sea level aquifer based on the water levels measured on May 15, 2012 are shown on Figure 4. As shown on Figure 4, the general groundwater flow direction in the sea level aquifer is to the southeast, with a hydraulic gradient ranging from 0.001 to 0.02 foot per foot.

Analytical Results

GRO and one or more of the BTEX constituents were detected at concentrations exceeding their respective MTCA Method A cleanup levels in the groundwater samples collected during the May 2012 monitoring event (Table 2). A general discussion of comparative trends in contaminant concentrations between the November 2011 and May 2012 monitoring events is presented below by water-bearing zone and monitoring well (Figure 2).

Perched Zone Monitoring Wells

- Monitoring well MW-1: Neither GRO nor BTEX constituents have been detected in groundwater samples obtained from monitoring well MW-1 at concentrations exceeding MTCA Method A cleanup levels since January 2007. The prior operation of the soil vapor extraction system at the Site appears to have successfully reduced

the contaminant mass flux from vadose zone soil to groundwater in the area of monitoring well MW-1.

- Monitoring well MW-2: GRO and BTEX concentrations in groundwater samples collected from monitoring well MW-2 during May 2012 were consistent with concentrations in groundwater samples collected in November 2011 and remained below the MTCA Method A cleanup levels. Elevated pH readings up to 12.76 pH units were measured in groundwater purged from monitoring well MW-2 prior to sampling. The elevated pH is a result of the chemical oxidants containing calcium hydroxide that were injected in 2011 at the Site and solidified in the bottom of the well screen in monitoring well MW-2.
- Monitoring well MW-3: Neither GRO nor BTEX constituents have been detected in groundwater samples collected from monitoring well MW-3 at concentrations exceeding the laboratory reporting limits or MTCA Method A cleanup levels since the well was installed in 2005.
- Monitoring well MW-4: The concentration of GRO detected in the groundwater sample collected from monitoring well MW-4 increased slightly since the November 2011 monitoring event to 5,200 micrograms per liter ($\mu\text{g/l}$), but remains over an order of magnitude lower than the concentration detected during the May 2011 monitoring event. The concentration of benzene in May 2012 was below the laboratory reporting limit, which was elevated due to required dilutions to two times greater than the MTCA Method A cleanup level.. The concentrations of toluene and ethylbenzene have been below the MTCA Method A cleanup levels for the last two monitoring events. The 1,500 $\mu\text{g/l}$ concentration of xylenes detected in groundwater during the May 2012 sampling event increased to above the MTCA Method A cleanup levels between the November 2011 and May 2012 sampling events. Elevated pH readings up to 9.48 pH units were measured in groundwater purged from monitoring well MW-4 prior to sampling. Similar to monitoring well MW-2, the elevated pH is related to the injection of the highly basic chemical oxidants at the Site in 2011.
- Monitoring well MW-6: GRO was detected at a concentration of 17,000 $\mu\text{g/l}$ and xylenes were detected at a concentrations of 3,700 $\mu\text{g/l}$ in the groundwater sample collected from monitoring well MW-6 during the May 2012 groundwater monitoring event, both of which exceed the MTCA Method A cleanup levels. GRO, toluene, ethylbenzene, and xylenes concentrations detected in groundwater samples collected from monitoring well MW-6 decreased between the November 2011 and May 2012 groundwater monitoring events. The toluene concentration decreased to below the MTCA Method A cleanup level.
- Monitoring well MW-8: GRO (42,000 $\mu\text{g/l}$), ethylbenzene (900 $\mu\text{g/l}$), and xylenes (9,700 $\mu\text{g/l}$) were detected at concentrations exceeding the MTCA Method A cleanup levels during the May 2012 groundwater monitoring event. GRO, ethylbenzene, and xylenes concentrations detected in groundwater samples collected from monitoring well MW-8 decreased slightly between the November 2011 and May 2012 groundwater monitoring events.

Sea Level Aquifer Monitoring Wells

- Monitoring well MW-9: The highest concentrations of GRO and BTEX at the Site have been detected in groundwater samples collected from monitoring well MW-9 during the May 2012 and previous monitoring events. GRO was detected at a concentration of 280,000 µg/l, benzene at 13,000 µg/l, toluene at 59,000 µg/l, ethylbenzene at 4,700 µg/l, and xylenes at 25,000 µg/l during the May 2012 monitoring event. GRO and BTEX concentrations detected in groundwater samples collected from monitoring well MW-9 were similar during the November 2011 and May 2012 groundwater monitoring events.
- Monitoring well MW-10: Neither GRO nor BTEX constituents were detected at concentrations at or above the laboratory reporting limits in the groundwater samples collected from monitoring well MW-10 during the May 2012 monitoring event.
- Monitoring well MW-11: GRO was detected at a concentration of 19,000 µg/l, benzene at 700 µg/l, toluene at 2,200 µg/l, ethylbenzene at 700 µg/l, and xylenes at 2,700 µg/l in groundwater samples collected from monitoring well MW-11 during the May 2012 monitoring event. GRO and BTEX concentrations detected in groundwater samples collected from monitoring well MW-11 decreased slightly between the November 2011 and May 2012 groundwater monitoring events.
- Monitoring well MW-12: GRO was detected a concentration of 77,000 µg/l, toluene at 5,100 µg/l, ethylbenzene at 1,700 µg/l, and xylenes at 13,000 µg/l in groundwater samples collected from monitoring well MW-11 during the May 2012 monitoring event, each of which exceeds the their respective MTCA Method A cleanup levels for groundwater. The elevated laboratory reporting limit for benzene of 100 µg/l also exceeds the MTCA Method A cleanup level for groundwater. GRO and BTEX concentrations detected in groundwater samples collected from monitoring well MW-12 were similar during the November 2011 and May 2012 groundwater monitoring events.

LIGHT NON-AQUEOUS PHASE LIQUID AND WATER LEVEL MONITORING

The first groundwater elevation contour map generated for the Sea Level Aquifer at the Site following the installation of the Sea Level Aquifer monitoring wells MW-9 through MW-12 in April 2009 showed a relatively uniform north-to-south gradient, indicating a southerly flow direction for the aquifer. The groundwater elevation contour map for the Sea Level Aquifer for May 12, 2009 was presented as Figure 4 of the *Cleanup Action Progress Report – May 2009* dated July 28, 2009, prepared by Farallon. Beginning with the October 2010 groundwater monitoring event, the water levels in monitoring well MW-9 appeared depressed relative to the water levels in the other Sea Level Aquifer monitoring wells, resulting in a deflection of the elevation contours toward monitoring well MW-9 as shown on the May 2012 groundwater elevation contours provided on Figure 4. After reviewing the Sea Level Aquifer water level data, Farallon hypothesized that the presence of light non-aqueous phase liquid (LNAPL) in monitoring well MW-9 could account for the apparent depressed water level measured during

recent monitoring events. Farallon had previously monitored the perched zone monitoring wells for the presence of LNAPL and none was detected. However, the oil/water interface probe used in previous monitoring events was limited to a 100-foot depth due to the tape length on the probe and therefore had not been used to gauge the Sea Level Aquifer monitoring wells, which are approximately 110 feet deep.

Due to the recurring anomalous water levels measured in monitoring well MW-9, a 250-foot-long oil/water interface probe was used to monitor for the presence of LNAPL in the Sea Level Aquifer monitoring wells at the Site on September 5 and November 8, 2012. An LNAPL thickness of 0.98 feet was measured in monitoring well MW-9 on September 5, 2012. No detectable LNAPL was measured in any of the other Sea Level Aquifer monitoring wells (Table 1). Farallon bailed approximately 1 liter of LNAPL from monitoring well MW-9 on September 5, 2012 using a disposable bailer until no more LNAPL was visible in the bailer. Following completion of the bailing, the oil/water interface probe was used to measure the residual LNAPL thickness and no detectable LNAPL was found. The LNAPL removed from the monitoring well had a strong gasoline-like odor. A hydrophobic oil sorbent sock was placed in monitoring well MW-9 after the final groundwater/LNAPL measurement was completed. The LNAPL and water removed were placed in a sealed bucket and placed in the fenced remediation compound. The groundwater elevations for the Sea Level aquifer on September 5, 2012 are shown on Figure 5. The groundwater level in monitoring well MW-9 shown on Figure 5 was corrected for the presence of LNAPL using a specific gravity of 0.74, which is typical for regular unleaded gasoline.

Farallon gauged the Sea Level Aquifer monitoring wells again on November 8, 2012 (Table 1). Upon removal of the sorbent sock prior to monitoring, it was noted that the sock appeared to have adhered to the side of the well casing and had not reached the LNAPL as intended; therefore, no LNAPL has been sorbed since the September 5, 2012 monitoring event. An LNAPL thickness of 0.82 feet was measured in monitoring well MW-9 on November 8, 2012. The groundwater and LNAPL bailed from monitoring well MW-9 during the September and November 2012 monitoring events were placed in a steel drum in the fenced remediation compound.

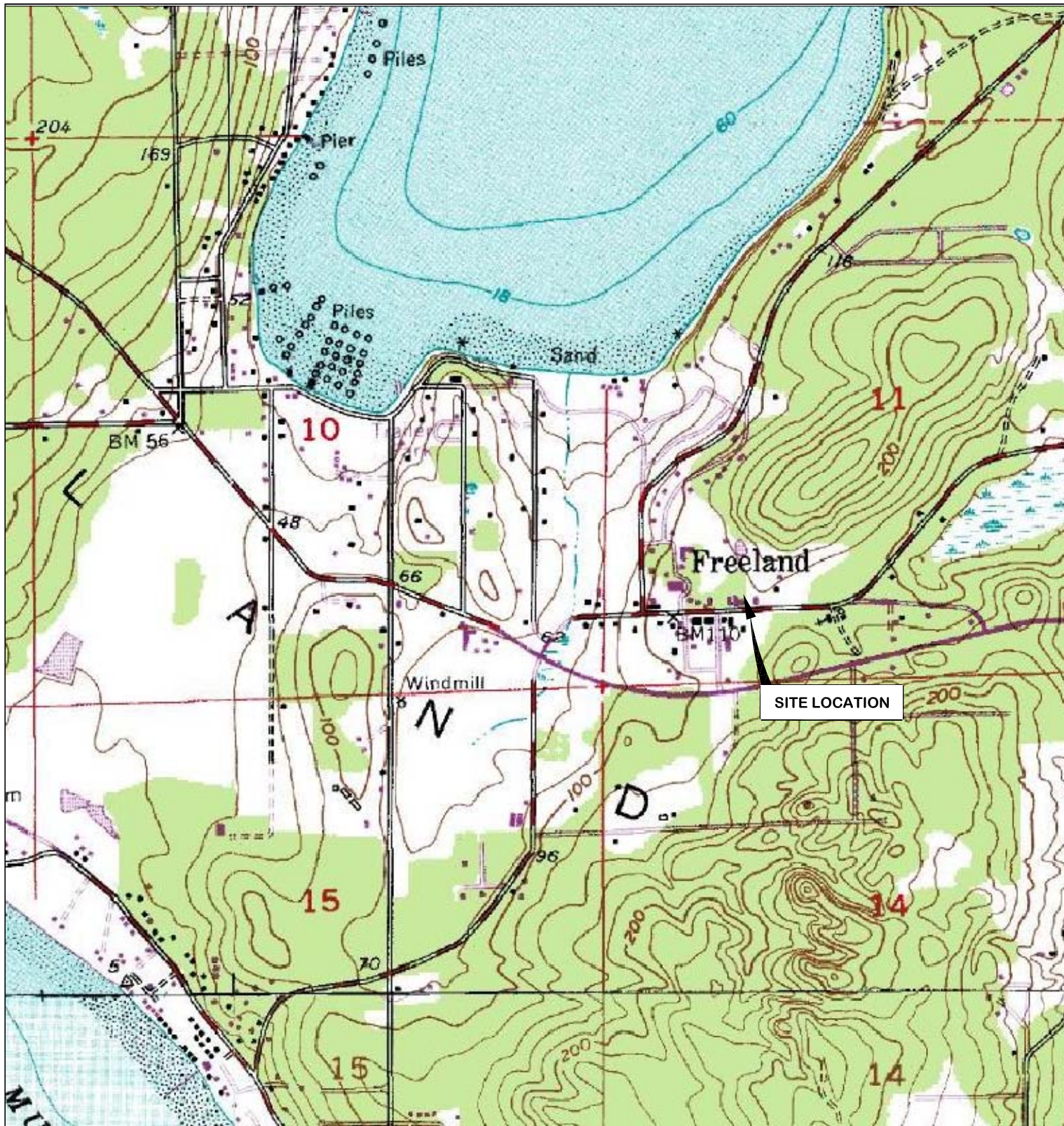
CLOSING

Groundwater monitoring will be conducted at the Site on a semiannual basis during the spring and fall seasons to evaluate potential seasonal variations in contaminant trends. Groundwater elevation and LNAPL measurements will be conducted monthly, sorbent socks will be replaced, and LNAPL will be bailed, if present. An assessment of potential additional LNAPL recovery measures will be conducted based on the observations of LNAPL occurrence and recovery in monitoring well MW-9 in subsequent LNAPL monitoring events in 2012 and early 2013. Farallon recommends installation of an additional Sea Level Aquifer monitoring well down-gradient of monitoring well MW-9 to delineate the extent of LNAPL on groundwater and to characterize subsurface conditions to support the evaluation of potential LNAPL recovery

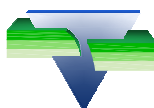
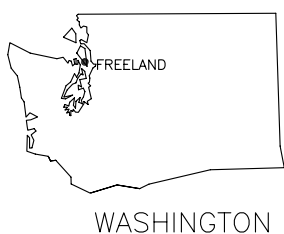
methods. Farallon anticipates meeting with Ecology in early 2013 to present a plan of action regarding the discovery of LNAPL on groundwater in monitoring well MW-9.

Attachments: Figure 1, *Site Vicinity Map*
Figure 2, *Site Plan*
Figure 3, *Site Plan Showing Groundwater Analytical Results Perched Groundwater Zone May 2012*
Figure 4, *Site Plan Showing Groundwater Analytical Results Sea Level Aquifer May 2012*
Figure 5, *Groundwater Elevation Contours – Sea Level Aquifer – September 5, 2012*
Table 1, *Groundwater Elevation Data*
Table 2, *Summary of Laboratory Results for GRO and BTEX in Groundwater Samples*
Attachment A, *Laboratory Analytical Report*

PG:bw



REFERENCE: 7.5 MINUTE USGS QUADRANGLE FREELAND, WASHINGTON. DATED 1993



FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 1

SITE VICINITY MAP
WHIDBEY MARINE & AUTO SUPPLY
1689 MAIN STREET
FREELAND, WASHINGTON

FARALLON PN: 454-001

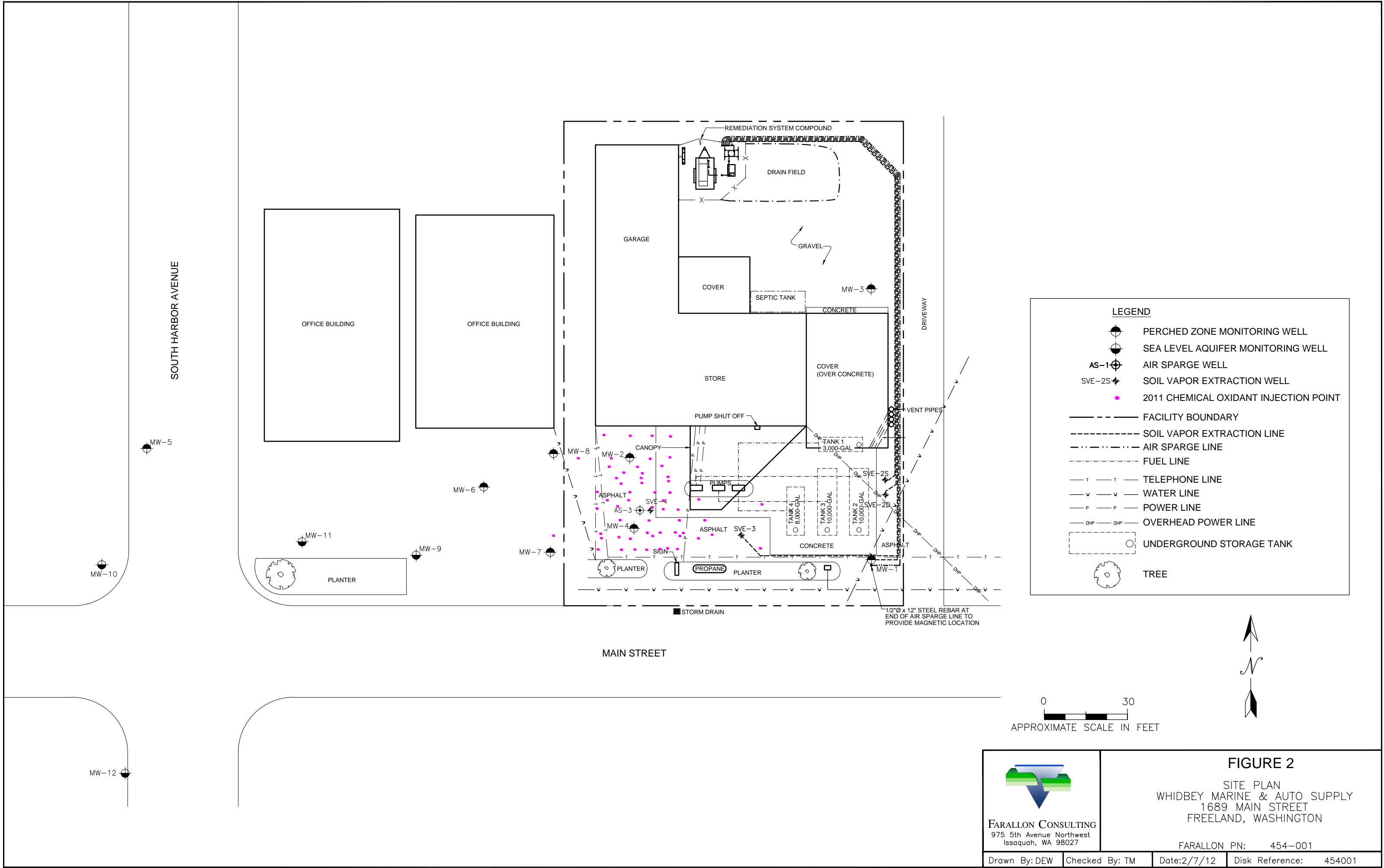
Drawn By: DEW


Checked By: PJ

Date: 7/11/07

Disk Reference: 454001

P:\Projects\454001 Whidbey Marine & Auto\Drawings_Plate\454-001.dwg, 2/9/2012 1:04:33 PM



 FARALLON CONSULTING 975 5th Avenue Northwest Issaquah, WA 98027	FIGURE 2 SITE PLAN WHIDBEY MARINE & AUTO SUPPLY 1689 MAIN STREET FREELAND, WASHINGTON		
	FARALLON PN: 454-001		
	Drawn By: DEW	Checked By: TM	Date: 2/7/12
Disk Reference: 454001			

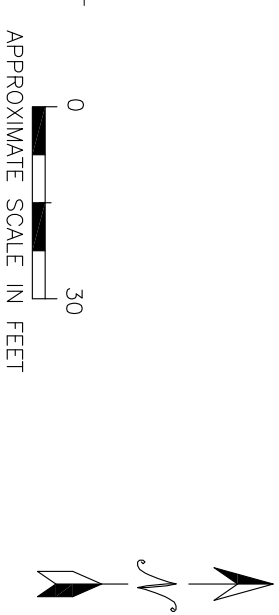
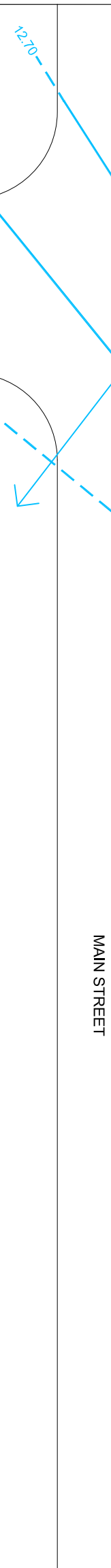
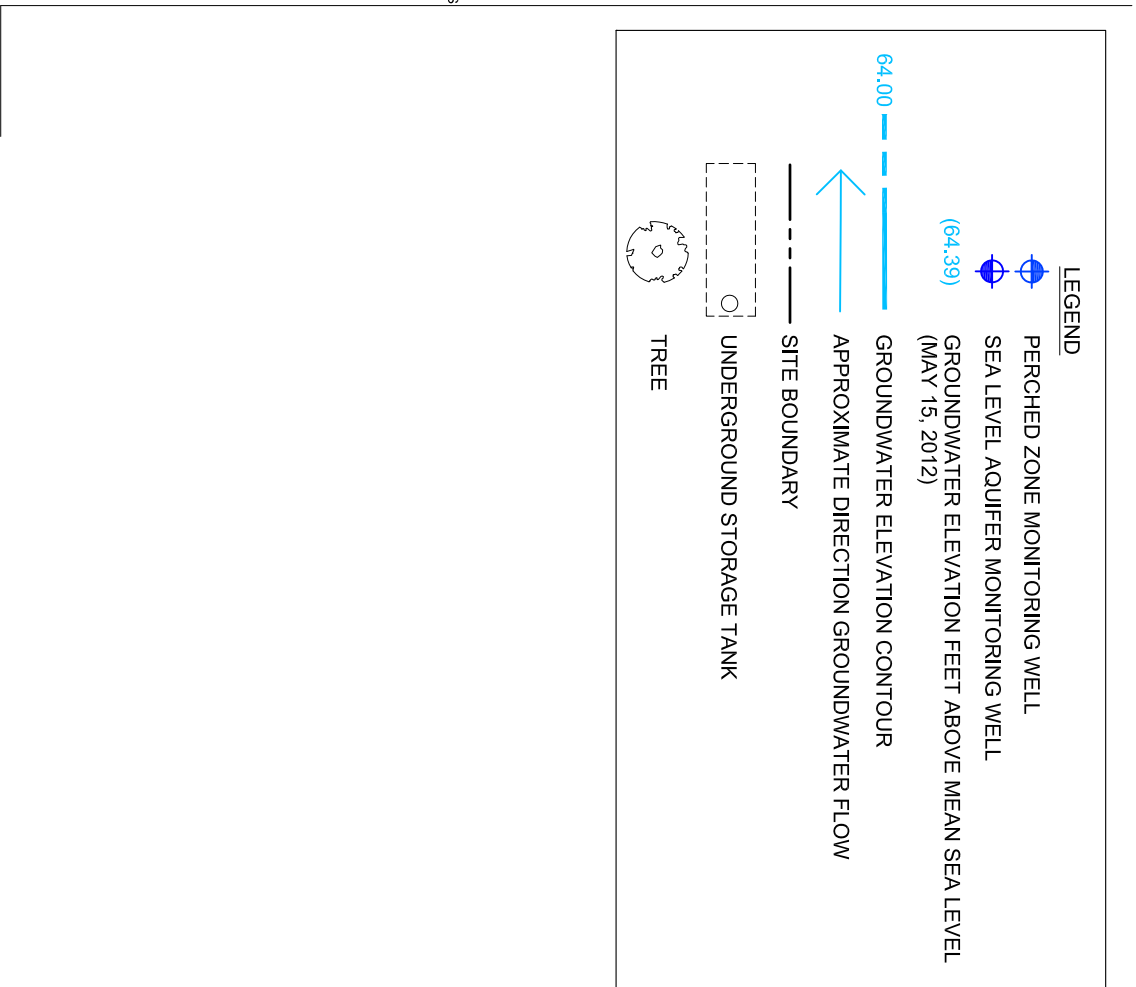
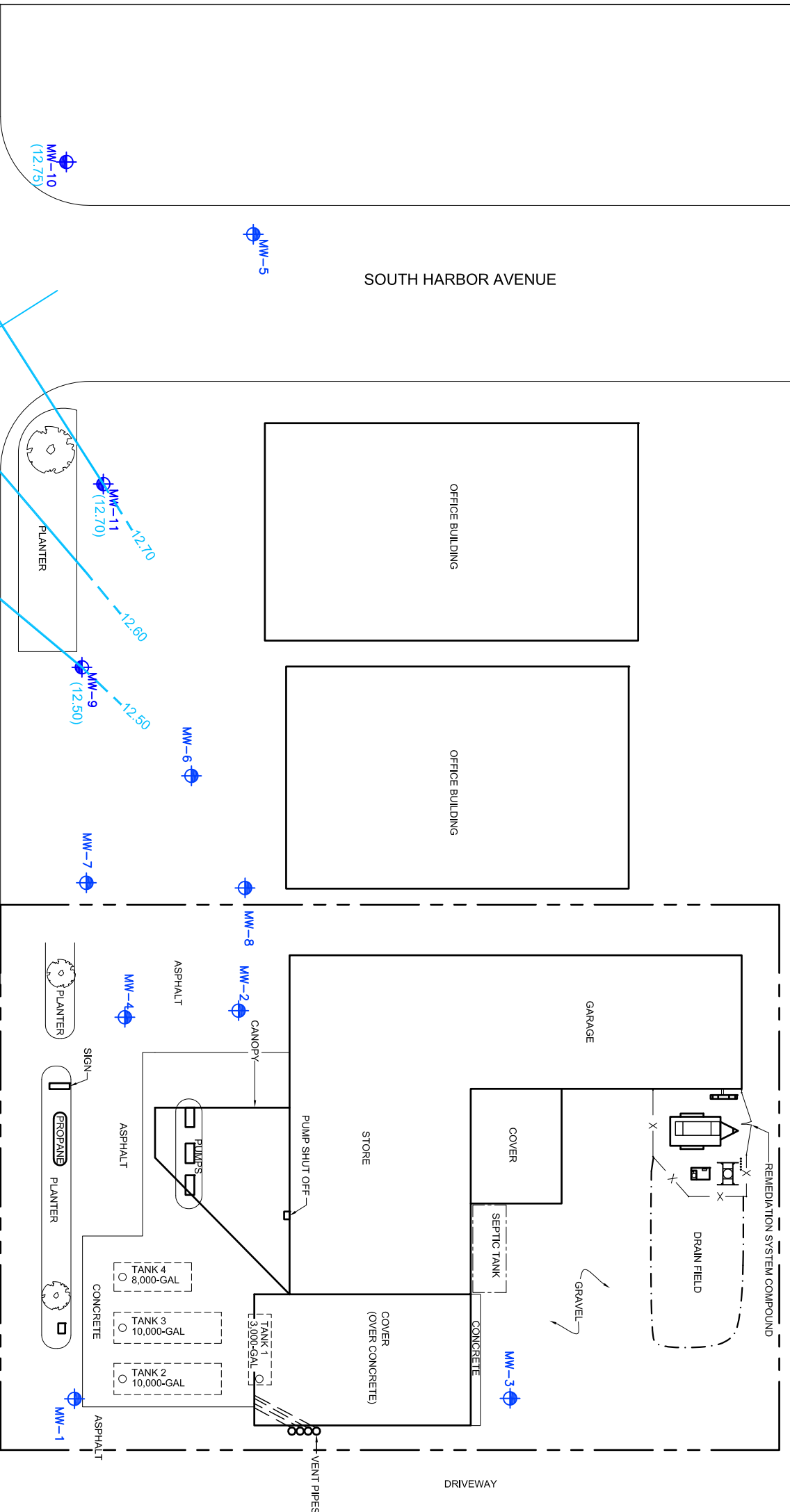


FIGURE 5

GROUNDWATER ELEVATION CONTOURS
SEA LEVEL AQUIFER
SEPTEMBER 5, 2012
WHIDBEY MARINE & AUTO SUPPLY
FREELAND, WASHINGTON

FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FARALLON PN: 454-001

Drawn By: DEW	Checked By: PG	Date: 12/12/12	Disk Reference: 454001
---------------	----------------	----------------	------------------------

Table 1
Groundwater Elevation Data
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Well Identification	Groundwater Zone	Date	Top of Well Casing Elevation (feet) ¹	Depth to LNAPL (feet) ²	Depth to Water (feet) ²	Groundwater Elevation (feet) ^{1,3}
MW-1 ⁴	Perched Zone	12/5/05	116.64		52.54	64.10
		6/7/06			52.67	63.78
		10/9/06			51.93	64.52
		1/9/07			51.80	64.65
		3/27/07			51.50	64.95
		6/19/07			51.66	64.79
		12/7/07			51.98	64.47
		4/17/08			51.10	65.35
		6/30/08			51.24	65.21
		8/14/08			51.36	65.09
		9/9/08	116.45		51.45	65.00
		10/21/08			51.63	64.82
		1/15/09			51.63	64.82
		5/12/09			51.29	65.16
		8/5/09			51.46	64.99
		2/10/10			51.13	65.32
		10/21/10			51.28	65.17
		5/18/11			50.20	66.25
		11/17/11			49.98	66.47
		5/15/12			51.05	65.40
MW-2	Perched Zone	12/5/05			55.06	62.43
		6/7/06			55.56	61.93
		10/9/06			54.69	62.80
		1/9/07			54.60	62.89
		3/27/07			54.44	63.05
		6/19/07			54.50	62.99
		12/7/07			54.81	62.68
		4/17/08			54.06	63.43
		6/30/08			54.12	63.37
		8/14/08			54.21	63.28
		9/9/08	117.49		54.26	63.23
		10/21/08			54.44	63.05
		1/15/09			54.40	63.09
		5/12/09			54.08	63.41
		8/5/09			54.19	63.30
		2/10/10			53.92	63.57
		10/21/10			54.11	63.38
		5/18/11			53.22	64.27
		11/17/11			53.80	63.69
		5/15/12			53.75	63.74

Table 1
Groundwater Elevation Data
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Well Identification	Groundwater Zone	Date	Top of Well Casing Elevation (feet) ¹	Depth to LNAPL (feet) ²	Depth to Water (feet) ²	Groundwater Elevation (feet) ^{1,3}
MW-3	Perched Zone	12/5/05	117.47		53.48	63.99
		6/7/06			53.96	63.51
		10/9/06			53.26	64.21
		1/9/07			53.02	64.45
		3/27/07			52.82	64.65
		6/19/07			52.70	64.77
		12/7/07			53.33	64.14
		4/17/08			52.50	64.97
		6/30/08			52.66	64.81
		8/14/08			52.76	64.71
		9/9/08			52.84	64.63
		10/21/08			52.99	64.48
		1/15/09			53.01	64.46
		5/12/09			52.64	64.83
		8/5/09			52.79	64.68
		2/10/10			52.50	64.97
		10/21/10			52.63	64.84
		5/18/11			51.63	65.84
		11/17/11			52.28	65.19
		5/15/12			52.31	65.16
MW-4	Perched Zone	3/27/07	117.27		53.94	63.33
		6/19/07			54.02	63.25
		12/7/07			54.28	62.99
		4/17/08			53.58	63.69
		6/30/08			53.64	63.63
		8/14/08			53.71	63.56
		9/9/08			53.76	63.51
		10/21/08			53.89	63.38
		1/15/09			53.88	63.39
		5/12/09			53.50	63.77
		8/5/09			53.65	63.62
		2/10/10			53.44	63.83
		10/21/10			53.58	63.69
		5/18/11			52.76	64.51
		11/17/11			53.28	63.99
		5/15/12			53.31	63.96

Table 1
Groundwater Elevation Data
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Well Identification	Groundwater Zone	Date	Top of Well Casing Elevation (feet) ¹	Depth to LNAPL (feet) ²	Depth to Water (feet) ²	Groundwater Elevation (feet) ^{1,3}
MW-6	Perched Zone	4/17/08	116.56		59.84	56.72
		6/30/08			60.07	56.49
		8/14/08			60.26	56.30
		9/9/08			60.35	56.21
		10/21/08			60.47	56.09
		1/15/09			60.50	56.06
		5/12/09			60.34	56.22
		8/5/09			60.49	56.07
MW-6	Perched Zone	2/10/10	116.56		59.43	57.13
		10/21/10			59.45	57.11
		5/18/11			57.76	58.80
		11/17/11			57.75	58.81
		5/15/12			57.10	59.46
MW-7	Perched Zone	4/17/08	116.82		56.98	59.84
		6/30/08			57.42	59.40
		8/14/08			57.87	58.95
		9/9/08			58.25	58.57
		10/21/08			58.34	58.48
		1/15/09			DRY	DRY
		5/12/09			57.43	59.39
		8/5/09			58.32	58.50
		2/10/10			58.24	58.58
		10/21/10			58.30	58.52
		5/18/11			58.05	58.77
		11/17/11			58.72	58.10
		5/15/12			58.73	58.09
MW-8	Perched Zone	4/17/08	117.23		55.29	61.94
		6/30/08			55.34	61.89
		8/14/08			55.33	61.90
		9/9/08			55.36	61.87
		10/21/08			55.47	61.76
		1/15/09			55.37	61.86
		5/12/09			55.09	62.14
		8/5/09			55.21	62.02
		2/10/10			54.93	62.30
		10/21/10			55.08	62.15
		5/18/21			54.47	62.76
		11/17/11			54.83	62.40
		5/15/12			54.83	62.40

Table 1
Groundwater Elevation Data
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Well Identification	Groundwater Zone	Date	Top of Well Casing Elevation (feet) ¹	Depth to LNAPL (feet) ²	Depth to Water (feet) ²	Groundwater Elevation (feet) ^{1,3}
MW-9	Sea Level Aquifer	5/12/09	114.79		103.54	11.25
		8/5/09			103.85	10.94
		2/10/10			103.79	11.00
		10/21/10			103.77	11.02
		5/18/11			103.12	11.67
		11/17/11			NM	NM
		5/15/12			103.05	11.74
		9/5/12		102.03	103.01	12.50
		11/8/12		102.15	102.97	12.43
MW-10	Sea Level Aquifer	5/12/09	113.45		102.02	11.43
		8/5/09			102.29	11.16
		2/10/10			102.25	11.20
		10/21/10			101.95	11.50
		5/18/11			101.47	11.98
		11/17/11			100.30	13.15
		5/15/12			100.83	12.62
		9/5/12		ND	100.70	12.75
		11/8/12		ND	100.82	12.63
MW-11	Sea Level Aquifer	5/12/09	114.24		102.82	11.42
		8/5/09			103.09	11.15
		2/10/10			103.09	11.15
		10/21/10			102.82	11.42
		5/18/11			102.31	11.93
		11/17/11			NM	NM
		5/15/12			101.64	12.60
		9/5/12		ND	101.54	12.70
		11/8/12		ND	101.66	12.58
MW-12	Sea Level Aquifer	5/12/09	114.23		103.96	10.27
		8/5/09			103.24	10.99
		2/10/10			103.36	10.87
		10/21/10			102.90	11.33
		5/18/11			103.37	10.86
		11/17/11			NM	NM
		5/15/12			101.69	12.54
		9/5/12		ND	101.60	12.63
		11/8/12		ND	101.72	12.51

NOTES:

ND = not detected

LNAPL = Light non-aqueous phase liquid

¹Feet above mean sea level, based on May 2008 survey data.

²Feet below top of well casing.

³ Groundwater elevation at monitoring well MW-9 corrected as follows: (Casing Elevation - Depth to Water) + (LNAPL Thickness x LNAPL Specific Gravity) = Corrected Groundwater Elevation using a specific gravity for gasoline of 0.74.

⁴Top of well casing elevation adjusted using change in total depth measurements before and after change in well casing length following soil vapor extraction system installation.

Table 2
Summary of Laboratory Analytical Results for GRO and BTEX in Groundwater Samples
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Sample Location	Groundwater Zone	Sample Identification	Sample Date	Analytical Results (micrograms per liter)				
				GRO ¹	Benzene ²	Toluene ²	Ethylbenzene ²	Xylenes ²
MW-1	Perched Zone	MW1-120505	12/5/05	4,200	480	770	65	318
		MW1-060706	6/7/06	5,800	500	1,000	70	780
		MW-1-100906	10/9/06	17,000	2,400	3,800	270	2,200
		MW1-010907	1/9/07	1,500	14	6	11	120
		QA/QC-010907	1/9/07	1,500	11	6	10	110
		MW1-032707	3/27/07	290	1	1	<1	17
		QA/QC-032707	3/27/07	320	1	<1	<1	19
		MW1-061907	6/19/07	73	<1	<1	<1	<3
		MW1-120707	12/7/07	110	<1	<1	<1	<3
		MW1-041808	4/18/08	74	<1	<1	<1	<3
		MW1-090908	9/9/08	68	<1	<1	<1	<3
		MW1-051409	5/14/09	<50	<1	<1	<1	<3
		MW1-021110	2/11/10	<50	<1	<1	<1	<3
		MW1-102110	10/21/10	<50	<1	<1	<1	<3
		MW1-051811	5/18/11	<50	<1	<1	<1	<3
		MW-1-111711	11/17/11	<50	<1.0	<1.0	<1.0	<3.0
		MW-1-051512	5/15/12	<50	<1.0	<1.0	<1.0	<3.0
MW-2	Perched Zone	MW2-120505	12/5/05	570	110	110	2.8	50
		MW2-060706	6/7/06	2,800	440	540	15	430
		MW2-100906	10/9/06	370	20	44	1	77
		MW2-010907	1/9/07	730	35	69	11	150
		MW2-032707	3/27/07	610	6	9	<1	150
		MW2-061907	6/19/07	1,000	17	52	22	200
		MW2-120707	12/7/07	2,300	7	310	36	270
		MW2-041808	4/18/08	3,700	<1	57	33	890
		MW2-090908	9/9/08	20,000	<50	3,100	470	4,200
		MW2-051309	5/13/09	4,300	<5	380	130	1,100
		MW2-021110	2/11/10	15,000	<10	160	590	3,800
		MW2-102210	10/22/10	12,000	50	15	420	2,400
		MW2-032111	3/21/11	7,000	<10	1.9	31	1,400
		MW-2-111711	11/17/11	130	<1.0	1.5	1.3	10
		MW-2-051512	5/15/12	210	1.9	<1.0	1.1	13
MW-3	Perched Zone	MW3-120505	12/5/05	<100	<1.0	<1.0	<1.0	<2.0
		FD-120505	12/5/05	<100	<1.0	<1.0	<1.0	<2.0
		MW3-060706	6/7/06	<50	<1	<1	<1	<3
		MW3-100906	10/9/06	<50	<1	<1	<1	<3
		MW3-010907	1/9/07	<50	<1	<1	<1	<3
MTCA Method A Cleanup Levels for Groundwater ³				800	5	1,000	700	1,000

Table 2
Summary of Laboratory Analytical Results for GRO and BTEX in Groundwater Samples
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Sample Location	Groundwater Zone	Sample Identification	Sample Date	Analytical Results (micrograms per liter)				
				GRO ¹	Benzene ²	Toluene ²	Ethylbenzene ²	Xylenes ²
MW-3	Perched Zone	MW3-032707	3/27/07	<50	<1	<1	<1	<3
		MW3-061907	6/19/07	<50	<1	<1	<1	<3
		QA/QC-061907	6/19/07	<50	<1	<1	<1	<3
		MW3-120707	12/7/07	<50	<1	<1	<1	<3
		MW3-041808	4/18/08	<50	<1	<1	<1	<3
		MW3-090908	9/9/08	<50	<1	<1	<1	<3
		MW3-051409	5/14/09	<50	<1	<1	<1	<3
		MW3-021110	2/11/10	<50	<1	<1	<1	<3
		MW3-102110	10/21/10	<50	<1	<1	<1	<3
		MW3-051811	5/18/11	<50	<1	1.1	<1	<3
		MW-3-111711	11/17/11	<50	<1.0	<1	<1.0	<3.0
		MW-3-051512	5/15/12	<50	<1.0	<1	<1.0	<3.0
MW-4	Perched Zone	MW4-032707	3/27/07	99,000	31,000	32,000	970	6,000
		MW4-061907	6/19/07	110,000	22,000	36,000	1,600	8,200
		MW4-120707	12/7/07	39,000	7,600	12,000	300	2,400
		QA/QC-120707	12/7/07	60,000	9,500	18,000	710	4,700
		MW4-041808	4/18/08	140,000	530	42,000	1,600	9,400
		MW4-090908	9/9/08	120,000	150	40,000	2,000	11,000
		QA/QC-1-090908	9/9/08	120,000	150	43,000	1,900	11,000
		MW4-051409	5/14/09	83,000	<50	30,000	1,100	6,600
		MW4-021110	2/11/10	71,000	<50	20,000	940	5,900
		MW4-102110	10/21/10	32,000	<10	4,200	1,100	6,600
		MW4-032111	3/21/11	32,000	<10	160	870	6,900
		MW4-051811	5/18/11	33,000	<10	550	840	6,700
		MW-4-111811	11/18/11	2,300	<5.0	20	110	610
		MW-4-051612	5/16/12	5,200	<10	12	77	1,500
MW-6	Perched Zone	MW6-041708	4/18/08	23,000	260	1,500	530	3,600
		MW6-090908	9/9/08	42,000	450	8,500	1,300	7,800
		MW6-051409	5/14/09	17,000	29	3,200	250	3,100
		MW6-021110	2/11/10	89,000	<100	16,000	1,800	14,000
		MW6-102210	10/22/10	39,000	<10	1,800	1,200	7,800
		MW6-032111	3/21/11	37,000	<20	350	650	9,200
		MW6-051811	5/18/11	49,000	<25	270	690	11,000
		MW-6-111711	11/17/11	22,000	<20	1,200	520	5,400
		MW-6-051512	5/15/12	17,000	<20	220	210	3,700
MW-7	Perched Zone	MW7-041808	4/18/08	54,000	13,000	17,000	420	3,700
		MW7-051409	5/14/09	13,000	2,500	3,700	180	1,700
MTCA Method A Cleanup Levels for Groundwater ³				800	5	1,000	700	1,000

Table 2
Summary of Laboratory Analytical Results for GRO and BTEX in Groundwater Samples
Whidbey Marine & Auto Supply
Freeland, Washington
Farallon PN: 454-001

Sample Location	Groundwater Zone	Sample Identification	Sample Date	Analytical Results (micrograms per liter)				
				GRO ¹	Benzene ²	Toluene ²	Ethylbenzene ²	Xylenes ²
MW-8	Perched Zone	MW8-041808	4/18/08	5,400	<1	57	57	890
		QA/QC-1-041808	4/18/08	5,600	<1	42	55	930
		MW8-090908	9/9/08	34,000	<50	3,500	670	6,700
		MW8-051309	5/13/09	60,000	<50	9,000	1,800	9,500
		QA/QC-051309	5/13/09	57,000	<50	8,900	1,700	9,400
		MW8-021110	2/11/10	54,000	<50	3,900	2,000	12,000
		MW8-102210	10/22/10	58,000	<10	770	2,200	15,000
		MW8-032111	3/21/11	17,000	<10	<10	600	2,900
		MW8-051811	5/18/11	2,900	<1	2.3	23	320
		MW-8-111711	11/17/11	47,000	<50	<50	1,200	12,000
		DUP-1-111711	11/17/11	47,000	<50	<50	1,200	12,000
		MW-8-051512	5/15/12	46,000	<50	<50	930	10,000
		DUP-1-051512	5/15/12	42,000	<50	<50	900	9,700
MW-9	Sea Level Aquifer	MW9-051309	5/13/09	94,000	18,000	32,000	1,500	7,600
		MW9-021010	2/10/10	32,000	10,000	9,800	390	1,800
		MW9-102210	10/22/10	160,000	15,000	42,000	2,700	14,000
		MW9-032111	3/21/11	260,000	13,000	55,000	5,300	27,000
		MW9-051811	5/18/11	230,000	18,000	55,000	4,000	21,000
		MW-9-111811	11/18/11	240,000	19,000	68,000	4,400	23,000
		MW-9-051612	5/16/12	280,000	13,000	59,000	4,700	25,000
MW-10	Sea Level Aquifer	MW10-051309	5/13/09	<50	<1	2	<1	<3
		MW10-021010	2/10/10	140	<1	3.3	1.5	7.3
		MW10-102210	10/22/10	<50	<1	4.0	<1	3.2
		MW10-051811	5/18/11	69	<1	2.6	<1	<3
		MW-10-111711	11/17/11	<50	<1.0	<1.0	<1.0	<3.0
		MW-10-051512	5/15/12	<50	<1.0	<1.0	<1.0	<3.0
MW-11	Sea Level Aquifer	MW11-051309	5/13/09	2,300	500	530	19	230
		MW11-021010	2/10/10	23,000	4,000	7,000	340	1,600
		MW11-102210	10/22/10	29,000	2,400	7,400	790	2,800
		MW11-051811	5/18/11	70,000	3,100	15,000	1,500	7,200
		MW-11-111811	11/18/11	24,000	670	3,700	820	3,000
		MW-11-051612	5/16/12	19,000	700	2,200	700	2,700
MW-12	Sea Level Aquifer	MW12-051309	5/13/09	55,000	200	8,900	1,700	9,700
		MW12-021010	2/10/10	52,000	92	3,900	1,300	8,400
		MW12-102210	10/22/10	81,000	120	5,300	2,100	14,000
		MW12-051811	5/18/11	69,000	83	4,400	1,700	11,000
		MW-12-111711	11/17/11	68,000	82	4,700	1,500	11,000
		MW-12-051512	5/15/12	77,000	<100	5,100	1,700	13,000
MTCA Method A Cleanup Levels for Groundwater ³				800	5	1,000	700	1,000

NOTES:

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

Results in **bold** denote concentrations or laboratory reporting limits exceed applicable cleanup levels.

¹Analyzed by Northwest Method NWTPH-Gx.

²Analyzed by U.S. Environmental Protection Agency Method 8021B.

³Washington State Model Toxics Control Act Cleanup Regulation 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
GRO = total petroleum hydrocarbons as gasoline-range organics



May 22, 2012

Mr. Paul Grabau
Farallon Consulting
975 Fifth Ave. NW, Suite 100
Issaquah, WA 98027

Dear Mr. Grabau,

On May 16th, 11 samples were received by our laboratory and assigned our laboratory project number EV12050091. The project was identified as your 454-001. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
		ALS JOB#:	EV12050091
		ALS SAMPLE#:	-01
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	5/16/2012
CLIENT PROJECT:	454-001	COLLECTION DATE:	5/15/2012 10:55:00 AM
CLIENT SAMPLE ID	MW-3-051512	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	05/17/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	97.0	05/17/2012	DLC
TFT	EPA-8021	87.1	05/17/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
		ALS JOB#:	EV12050091
		ALS SAMPLE#:	-02
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	5/16/2012
CLIENT PROJECT:	454-001	COLLECTION DATE:	5/15/2012 11:35:00 AM
CLIENT SAMPLE ID	MW-1-051512	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	05/17/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	84.4	05/17/2012	DLC
TFT	EPA-8021	91.0	05/17/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
		ALS JOB#:	EV12050091
		ALS SAMPLE#:	-03
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	5/16/2012
CLIENT PROJECT:	454-001	COLLECTION DATE:	5/15/2012 12:25:00 PM
CLIENT SAMPLE ID	MW-10-051512	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	05/17/2012	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	97.6	05/17/2012	DLC
TFT	EPA-8021	92.6	05/17/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
CLIENT CONTACT:	Paul Grabau	ALS JOB#:	EV12050091
CLIENT PROJECT:	454-001	ALS SAMPLE#:	-04
CLIENT SAMPLE ID	MW-2-051512	DATE RECEIVED:	5/16/2012
		COLLECTION DATE:	5/15/2012 12:50:00 PM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	210	50	1	UG/L	05/17/2012	DLC
Benzene	EPA-8021	1.9	1.0	1	UG/L	05/17/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	1.1	1.0	1	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	13	3.0	1	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	112	05/17/2012	DLC
TFT	EPA-8021	112	05/17/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered gasoline.

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
CLIENT CONTACT:	Paul Grabau	ALS JOB#:	EV12050091
CLIENT PROJECT:	454-001	ALS SAMPLE#:	-05
CLIENT SAMPLE ID	MW-8-051512	DATE RECEIVED:	5/16/2012
		COLLECTION DATE:	5/15/2012 1:45:00 PM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	46000	2500	50	UG/L	05/17/2012	DLC
Benzene	EPA-8021	U	50	50	UG/L	05/17/2012	DLC
Toluene	EPA-8021	U	50	50	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	930	50	50	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	10000	150	50	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 50X Dilution	NWTPH-GX	111	05/17/2012	DLC
TFT 50X Dilution	EPA-8021	99.3	05/17/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
		ALS JOB#:	EV12050091
CLIENT CONTACT:	Paul Grabau	ALS SAMPLE#:	-06
CLIENT PROJECT:	454-001	DATE RECEIVED:	5/16/2012
CLIENT SAMPLE ID	DUP-1-051512	COLLECTION DATE:	5/15/2012 1:50:00 PM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	42000	2500	50	UG/L	05/17/2012	DLC
Benzene	EPA-8021	U	50	50	UG/L	05/17/2012	DLC
Toluene	EPA-8021	U	50	50	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	900	50	50	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	9700	150	50	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 50X Dilution	NWTPH-GX	103	05/17/2012	DLC
TFT 50X Dilution	EPA-8021	98.1	05/17/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
		ALS JOB#:	EV12050091
CLIENT CONTACT:	Paul Grabau	ALS SAMPLE#:	-07
CLIENT PROJECT:	454-001	DATE RECEIVED:	5/16/2012
CLIENT SAMPLE ID	MW-6-051512	COLLECTION DATE:	5/15/2012 2:25:00 PM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	17000	1000	20	UG/L	05/17/2012	DLC
Benzene	EPA-8021	U	20	20	UG/L	05/17/2012	DLC
Toluene	EPA-8021	220	20	20	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	210	20	20	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	3700	60	20	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 20X Dilution	NWTPH-GX	113	05/17/2012	DLC
TFT 20X Dilution	EPA-8021	109	05/17/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
		ALS JOB#:	EV12050091
		ALS SAMPLE#:	-08
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	5/16/2012
CLIENT PROJECT:	454-001	COLLECTION DATE:	5/15/2012 3:10:00 PM
CLIENT SAMPLE ID	MW-12-051512	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	77000	5000	100	UG/L	05/17/2012	DLC
Benzene	EPA-8021	U	100	100	UG/L	05/17/2012	DLC
Toluene	EPA-8021	5100	100	100	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	1700	100	100	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	13000	300	100	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 100X Dilution	NWTPH-GX	110	05/17/2012	DLC
TFT 100X Dilution	EPA-8021	109	05/17/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
		ALS JOB#:	EV12050091
CLIENT CONTACT:	Paul Grabau	ALS SAMPLE#:	-09
CLIENT PROJECT:	454-001	DATE RECEIVED:	5/16/2012
CLIENT SAMPLE ID	MW-4-051612	COLLECTION DATE:	5/16/2012 10:10:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	5200	500	10	UG/L	05/17/2012	DLC
Benzene	EPA-8021	U	10	10	UG/L	05/17/2012	DLC
Toluene	EPA-8021	12	10	10	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	77	10	10	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	1500	30	10	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 10X Dilution	NWTPH-GX	104	05/17/2012	DLC
TFT 10X Dilution	EPA-8021	109	05/17/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
		ALS JOB#:	EV12050091
		ALS SAMPLE#:	-10
CLIENT CONTACT:	Paul Grabau	DATE RECEIVED:	5/16/2012
CLIENT PROJECT:	454-001	COLLECTION DATE:	5/16/2012 11:15:00 AM
CLIENT SAMPLE ID	MW-11-051612	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	19000	2500	50	UG/L	05/17/2012	DLC
Benzene	EPA-8021	700	50	50	UG/L	05/17/2012	DLC
Toluene	EPA-8021	2200	50	50	UG/L	05/17/2012	DLC
Ethylbenzene	EPA-8021	700	50	50	UG/L	05/17/2012	DLC
Xylenes	EPA-8021	2700	150	50	UG/L	05/17/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 50X Dilution	NWTPH-GX	107	05/17/2012	DLC
TFT 50X Dilution	EPA-8021	110	05/17/2012	DLC

Chromatogram indicates that it is likely that sample contains lightly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
CLIENT CONTACT:	Paul Grabau	ALS JOB#:	EV12050091
CLIENT PROJECT:	454-001	ALS SAMPLE#:	-11
CLIENT SAMPLE ID	MW-9-051612	DATE RECEIVED:	5/16/2012
		COLLECTION DATE:	5/16/2012 11:55:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	280000	25000	500	UG/L	05/21/2012	DLC
Benzene	EPA-8021	13000	500	500	UG/L	05/21/2012	DLC
Toluene	EPA-8021	59000	1000	1000	UG/L	05/21/2012	DLC
Ethylbenzene	EPA-8021	4700	500	500	UG/L	05/21/2012	DLC
Xylenes	EPA-8021	25000	1500	500	UG/L	05/21/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 500X Dilution	NWTPH-GX	110	05/21/2012	DLC
TFT 500X Dilution	EPA-8021	102	05/21/2012	DLC
TFT 1000X Dilution	EPA-8021	108	05/21/2012	DLC

Chromatogram indicates that it is likely that sample contains lightly weathered gasoline.

CERTIFICATE OF ANALYSIS

CLIENT:	Farallon Consulting 975 Fifth Ave. NW, Suite 100 Issaquah, WA 98027	DATE:	5/22/2012
		ALS SDG#:	EV12050091
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Paul Grabau		
CLIENT PROJECT:	454-001		

LABORATORY BLANK RESULTS
MBG-051612W - Batch 2765 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	05/16/2012	DLC

MB-051612W - Batch 2765 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	05/16/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	05/16/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	05/16/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	05/16/2012	DLC



CERTIFICATE OF ANALYSIS

CLIENT: Farallon Consulting
975 Fifth Ave. NW, Suite 100
Issaquah, WA 98027

DATE: 5/22/2012
ALS SDG#: EV12050091
WDOE ACCREDITATION: C601

CLIENT CONTACT: Paul Grabau
CLIENT PROJECT: 454-001

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2765 - Water by NWTPH-GX

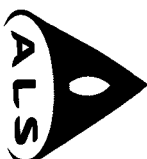
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	74.7			05/16/2012	DLC
TPH-Volatile Range - BSD	NWTPH-GX	71.6	4		05/16/2012	DLC

ALS Test Batch ID: 2765 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	103			05/16/2012	DLC
Benzene - BSD	EPA-8021	105	2		05/16/2012	DLC
Toluene - BS	EPA-8021	99.4			05/16/2012	DLC
Toluene - BSD	EPA-8021	102	2		05/16/2012	DLC
Ethylbenzene - BS	EPA-8021	95.8			05/16/2012	DLC
Ethylbenzene - BSD	EPA-8021	97.9	2		05/16/2012	DLC
Xylenes - BS	EPA-8021	95.9			05/16/2012	DLC
Xylenes - BSD	EPA-8021	98.1	2		05/16/2012	DLC

APPROVED BY

Laboratory Director



ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(425) 356-2626 Fax
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EV12056091

Date 5/16/12 Page 1 of 2

PROJECT ID: 454-001					ANALYSIS REQUESTED										OTHER (Specify)						
REPORT TO COMPANY: FARALLON																					
PROJECT MANAGER: PAUL GRABAU																					
ADDRESS: 975 5th Ave NW																					
ISSAQUAH, WA, 98027																					
PHONE: 425-295-0888 FAX: 425-295-0850																					
P.O. NUMBER: E-MAIL: paul.grabau@faron.com																					
INVOICE TO COMPANY: COLUMBIA INSURANCE																					
ATTENTION: Matt Miller																					
ADDRESS:																					
SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 <input type="checkbox"/> EPA-8260 <input type="checkbox"/>	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/>	PCB <input type="checkbox"/> Pesticides <input type="checkbox"/> by EPA 8081/8082	Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> Pri Pol <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify)	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-3-051512	5/15/12	1055	W	1																2	
2. MW-1-051512		1135	W	2																2	
3. MW-10-051512		1225	W	3																2	
4. MW-2-051512		1250	W	4																2	
5. MW-8-051512		1345	W	5																2	
6. DUP-1-051512		1350	W	6																2	
7. MW-6-051512		1425	W	7																2	
8. MW-12-051512		1510	W	8																2	
9. MW-4-051612	5/16/12	1010	W	9																2	
10. MW-11-051612		1115	W	10																2	

SPECIAL INSTRUCTIONS

Please bill to Columbia Insurance, Attn: Matt Miller of Allstate Group
e-mail results to Paul Grabau (pgrabau@faron.com) or Fax to 425-295-0850

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Ken Smith, Faron, 5/16/12 @ 1400

Received By: Matt Miller, ALS, 5/16/12 1400

2. Relinquished By:

Received By:

Organic, Metals & Inorganic Analysis
TURNS AROUND REQUESTED IN BUSINESS DAYS*

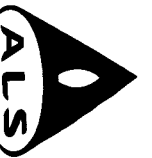
Fuels & Hydrocarbon Analysis

Standard ☒ 3 ☐ 1 ☐ SAME DAY

Specify:

OTHER:

* Turnaround request less than standard may incur Rush Charges



ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(425) 356-2626 Fax
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EV 12050091

Date 5/16/12 Page 2 of 2

PROJECT ID: 454-001

REPORT TO COMPANY: FARALLON

PROJECT MANAGER: PAUL GRABAD

ADDRESS: 975 5th Ave NW,
Issaquah, WA, 98027

PHONE: 425-295-0800 FAX: 425-295-0850

PO. NUMBER: E-MAIL: paul@farallon.com

INVOICE TO COMPANY: Colony Insurance

ATTENTION: Matt M. Liser

ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB #
1. MW-9-051612	5/16/12	1155	W	11
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

NWTPH-HCID

NWTPH-DX

NWTPH-GX

BTEX by EPA-8021

MTBE by EPA-8021 ☐ EPA-8260 ☐

Halogenated Volatiles by EPA 8260

Volatile Organic Compounds by EPA 8260

EDB / EDC by EPA 8260 SIM (water)

EDB / EDC by EPA 8260 (soil)

Semivolatile Organic Compounds by EPA 8270

Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐

PCB ☐ Pesticides ☐ by EPA 8081/8082

Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐

Metals Other (Specify)

TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐

NUMBER OF CONTAINERS

RECEIVED IN GOOD CONDITION?

ANALYSIS REQUESTED

OTHER (Specify)

SPECIAL INSTRUCTIONS See page #1 comments.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Paul Grabad, Farallon, 5/16/12 @ 1400

Received By: Matt M. Liser, ALS, 5/16/12, 1400

2. Relinquished By:

Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis

Specify:

OTHER:

Fuels & Hydrocarbon Analysis

Standard ☒ SAME DAY

* Turnaround request less than standard may incur Rush Charges