



June 20, 2019

Mr. Jason Cook
Washington Department of Ecology
Toxics Cleanup Program
PO Box 47600
Olympia, Washington 98504-7600

**RE: GROUNDWATER MONITORING RESULTS
FORMER QUALEX PHOTOFINISHING FACILITY
21249 72nd AVENUE SOUTH
KENT, WASHINGTON
FARALLON PN: 1071-013 (TASK 1)**

Dear Mr. Cook:

Farallon Consulting, L.L.C. (Farallon) has prepared this letter report on behalf of Prologis, Inc. (Prologis) to document the results from groundwater monitoring activities conducted at the Former Qualex Photofinishing Facility at 21249 72nd Avenue South in Kent, Washington (herein referred to as the Site) (Figure 1) on March 12, 2018, and to request a No Further Action (NFA) determination from the Washington State Department of Ecology (Ecology) for the Site. The Site currently is enrolled in the Voluntary Cleanup Program (VCP) with Identification No. NW3088 for impacts to groundwater resulting from historical releases of petroleum hydrocarbons from a below-grade wastewater trap tank sump. Groundwater monitoring activities were conducted at the request of Ecology as part of a remedial investigation/feasibility study being performed at the Site under the VCP. This letter summarizes background information for the Site, describes the March 12, 2018 groundwater monitoring activities and results, and describes the potential for beneficial use of groundwater at the Site. Collectively, this information indicates that the groundwater pathway for the Site can be closed without an environmental covenant for groundwater. Therefore, this letter requests an opinion from Ecology regarding an NFA determination for the Site.

BACKGROUND

The Site comprises a portion of King County Parcel No. 1222049013 and has a total area of 734,866 square feet (King County Tax Assessor 2017). The Site is part of the O'Donnell Business Park and currently is developed with a warehouse and paved parking lot. The intersection of 72nd Avenue South and South 212th Street is east of the Site (Figure 2).

Prior to development, the Site reportedly was open marshland and/or was used for agricultural purposes. The Site was occupied by a photograph processing facility that operated from 1990 to 2002. Photograph processing operations performed by the Kodak Processing Laboratory included photofinishing operations (i.e., the commercial development and printing of film).



Prior to 1999, silver-bearing wastewater from the processors collected in sumps that were gravity-fed into underground piping that discharged to a silver reclamation system. Effluent from the silver reclamation system was pumped to a trap tank. The process wastewater system was upgraded in 1999. The upgrades included abandoning the underground piping system and installing aboveground wastewater piping and four pumps in sumps that were double-lined with polyethylene and set in concrete vaults.

The trap tank and approximately 9 tons of surrounding soil and concrete were removed in 2006. Environmental investigations and cleanup activities were performed at the Site between 2003 and 2006, and groundwater monitoring activities were performed at the Site in 2008, 2009, 2011, and 2016. Groundwater activities included measuring depth to groundwater and collecting samples from monitoring wells MW-1 through MW-5 at the Site for analysis for contaminants of potential concern (COPCs) related to releases of petroleum hydrocarbons from the trap tank sump. Monitoring well locations are shown on Figure 2. Monitoring well MW-1 is proximate to the former trap tank sump. Environmental investigations, cleanup activities, and groundwater monitoring activities performed at the Site between 2003 and 2016 were described in the *Remedial Investigation and Feasibility Study Report, Former Qualex Photofinishing Facility, 21249 72nd Avenue South, Kent, Washington* dated May 30, 2017, prepared by Farallon (RI/FS Report). The RI/FS Report identified a preferred cleanup alternative of no action/natural attenuation and potential institutional controls for the Site.

In response to its review of the RI/FS Report, Ecology issued the letter regarding Further Action at the Qualex Photo Finishing Facility Site dated September 6, 2017, from Mr. J.G. Cook to Ms. Janet Frentzel of Prologis (opinion letter). The opinion letter indicated that characterization of the Site is complete; however, additional groundwater monitoring and sampling would be required to determine whether residual groundwater impacts from COPCs related to releases of petroleum hydrocarbons from the trap tank sump are present. During a telephone conversation on December 20, 2018 between Mr. Jason Cook of Ecology and Mr. Mark Havighorst of Farallon, Ecology suggested that an environmental covenant restricting the withdrawal of groundwater at the Site may not be necessary to obtain an NFA determination from Ecology for the Site if it could be demonstrated that the groundwater exposure pathway for the Site can be closed and there likely is no future beneficial use of groundwater at or proximate to the Site.

2018 GROUNDWATER MONITORING ACTIVITIES

Groundwater monitoring activities were conducted at the Site by Farallon in response to the opinion letter on March 12, 2018 to evaluate current groundwater conditions, confirm that concentrations of COPCs have remained less than Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A or B cleanup levels, and assess the potential for natural attenuation of petroleum hydrocarbons from the trap tank sump in groundwater. Groundwater monitoring activities included the following tasks:

- Measuring the depth to groundwater in monitoring wells MW-1 through MW-5;



- Purging and sampling monitoring wells MW-1 through MW-5 using U.S. Environmental Protection Agency (EPA) low-flow sampling methods;
- Measuring water-quality parameters, including pH, conductivity, oxygen-reduction potential (ORP), dissolved oxygen (DO), and turbidity, during monitoring well purging to assess groundwater stabilization; and
- Submitting the groundwater samples for laboratory analysis for COPCs established by Ecology for groundwater at the Site, including total petroleum hydrocarbons (TPH) as diesel-range organics (DRO) and as oil-range organics (ORO), arsenic, iron, manganese, and selenium.

Farallon opened monitoring wells MW-1 through MW-5 to allow water levels to equilibrate with atmospheric pressure for a minimum of 15 minutes prior to obtaining groundwater-level measurements to an accuracy of 0.01 foot using an electronic water-level meter. Groundwater was detected at depths ranging from 4.81 to 9.34 feet below ground surface, which is consistent with historical observations. The groundwater-level measurements indicate a groundwater flow direction approximately to the northeast, and an average hydraulic gradient at the Site of approximately 0.003 foot per foot, which is consistent with historical observations. Groundwater-level measurements and calculated groundwater elevations are summarized in Table 1. Figure 2 provides a groundwater elevation contour map illustrating the estimated groundwater flow direction and gradient on March 12, 2018.

Following collection of groundwater-level measurements, monitoring wells MW-1 through MW-5 were purged and sampled using a bladder pump and polyethylene tubing. Purging was conducted at a flow rate ranging between 100 and 180 milliliters per minute, with the intake tubing placed a maximum of 3 feet above the bottom of each monitoring well. During purging, water quality was monitored using a Horiba water-quality meter equipped with a flow-through cell. The monitoring wells were purged until the water quality parameters stabilized in accordance with the EPA *Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Ground-Water* dated March 16, 1998. 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 OnSite Environmental Inc. of Redmond, Washington under standard chain-of-custody protocols for analysis for DRO and ORO by Northwest Method NWTPH-Dx with and without silica gel cleanup, and for dissolved arsenic, iron, manganese, and selenium by EPA Method 200.8 ICP/MS. The laboratory analytical results for the samples collected on March 12, 2018 are described below and summarized in Table 2. Laboratory analytical reports are provided in Attachment A.

As described below, the results of the March 12, 2018 groundwater monitoring activities indicate that groundwater conditions are stable or are improving since the groundwater monitoring event performed on January 21, 2016.

**DRO and ORO were not detected at concentrations exceeding MTCA Method A cleanup levels**

DRO historically has not been detected at a concentration exceeding the MTCA Method A cleanup level of 500 micrograms per liter ($\mu\text{g/l}$) in groundwater samples collected from monitoring wells at the Site. On March 12, 2018, DRO was detected in only the groundwater sample collected from monitoring well MW-4 at a concentration of 320 $\mu\text{g/l}$ without using silica gel cleanup, and was not detected at a concentration exceeding the laboratory practical quantitation limit (PQL) of 260 $\mu\text{g/l}$ in groundwater samples analyzed using silica gel cleanup.

ORO historically was detected at a concentration exceeding the MTCA Method A cleanup level in only the groundwater sample collected in 2004 from monitoring well MW-1, which is proximate to the trap tank sump. ORO has not been detected in groundwater samples collected following removal of the trap tank sump in 2006. On March 12, 2018, ORO was not detected at a concentration exceeding the PQL of 420 $\mu\text{g/l}$ in the groundwater samples collected.

Arsenic concentrations do not exceed regional background levels and arsenic mobility has not been enhanced by historical releases from the trap tank sump

Dissolved arsenic historically has been detected at concentrations ranging from 1.18 to 60 $\mu\text{g/l}$ in groundwater samples collected from monitoring wells at the Site, which can exceed the MTCA Method A cleanup level of 5 $\mu\text{g/l}$. However, as described in the RI/FS Report, the natural background concentration of dissolved arsenic in groundwater proximate to the Site can be as high as 115 $\mu\text{g/l}$. On March 12, 2018, dissolved arsenic was detected at concentrations ranging from 4.7 to 51 $\mu\text{g/l}$ in the groundwater samples collected, which is consistent with historical groundwater sampling results. Because regional background levels of dissolved arsenic in groundwater exceed the MTCA Method A cleanup level, it is unlikely that dissolved arsenic concentrations in Site groundwater will decrease to less than the MTCA Method A cleanup level in the future.

The RI/FS Report presented an evaluation of the potential for enhanced mobility of arsenic in groundwater at the Site due to the release of petroleum at the Site based on a review of groundwater monitoring data collected between 2003 and 2016. That evaluation has been updated using data collected during the March 12, 2018 monitoring event. The conclusions of the mobility evaluation presented in the RI/FS Report remain unchanged based on the data collected in 2018 and are as follows:

- There is no discernable correlation between DO and dissolved arsenic, and the highest dissolved arsenic concentrations occurred when DO exceeded 1.5 milligrams per liter.
- There is no discernable correlation between ORP and dissolved arsenic. For instance, although ORP generally increased between 2006 and 2016, arsenic concentrations did not increase.
- There is no discernible correlation between pH and dissolved arsenic. pH measured in monitoring wells historically have ranged from 4.73 in monitoring well MW-1 to 9.2 in



monitoring well MW-2; pH greater than 8 historically was measured in monitoring wells MW-1, MW-2, MW-4, and MW-5. The highest dissolved arsenic concentrations do not correlate with the highest measured pH; instead, highest dissolved arsenic concentrations occurred when pH ranged from 6.3 to 6.5.

- Dissolved arsenic concentrations in Site groundwater generally have been stable. Although reducing conditions exist, dissolved arsenic concentrations have not been increasing.

According to these findings, variability in geochemistry is not significantly influencing dissolved arsenic concentrations in groundwater at the Site. Therefore, it is unlikely that dissolved arsenic concentrations are being affected by the historical release of petroleum hydrocarbons from the trap tank sump.

Iron, manganese, and selenium concentrations are less than MTCA Method B cleanup levels

Concentrations of dissolved iron in groundwater samples collected from monitoring wells at the Site historically have ranged from 50 to 92,000 µg/l, which can exceed the MTCA Method B cleanup level of 11,200 µg/l. On March 12, 2018, dissolved iron was detected at concentrations ranging from 2,800 to 8,500 µg/l, which are less than the MTCA Method B cleanup level.

Concentrations of dissolved manganese in groundwater samples collected from monitoring wells at the Site historically have ranged from 160 to 7,260 µg/l, which are less than natural background concentrations of dissolved manganese in groundwater proximate to the Site, which reportedly are 48,000 to 510,000 µg/l. On March 12, 2018, dissolved manganese was detected at concentrations ranging from 260 to 810 µg/l, which are less than MTCA Method B cleanup level of 2,240 µg/l.

Concentrations of selenium in groundwater samples collected from monitoring wells at the Site historically have ranged from 1.8 to 116 µg/l, which can exceed the MTCA Method B cleanup level of 80 µg/l. In 2018, selenium was not detected at concentrations exceeding the laboratory PQL of 5 µg/l in groundwater samples collected from monitoring wells at the Site. Information regarding natural background concentrations of dissolved selenium in groundwater proximate to the Site was not available for the RI/FS Report. However, the 95 percent upper confidence limit of the true mean groundwater concentration of selenium in groundwater samples collected from monitoring wells at the Site is less than the MTCA Method B cleanup level of 80 µg/l, and no single concentration exceeded two times the MTCA Method B cleanup level in groundwater samples collected.



Groundwater monitoring data do not indicate natural attenuation of TPH is occurring at the Site; however, concentrations are less than MTCA Method A Cleanup Levels and are stable or improving

Concentrations of dissolved iron and manganese in groundwater historically are not correlated with DO or ORP, which suggests that natural attenuation of TPH in groundwater is not occurring at the Site. On March 12, 2018, concentrations of dissolved iron and manganese also were not correlated with DO or ORP, which indicates that natural attenuation of TPH likely is not occurring at the Site; therefore, concentrations of DRO and ORO in groundwater at the Site likely will not change significantly in the future.

BENEFICIAL USE OF GROUNDWATER

Farallon reviewed relevant regulatory information to evaluate whether groundwater at and proximate to the Site is currently or could potentially be used for potable water supply in the future. Based on this review, Farallon determined that current and future use of groundwater at and proximate to the Site for potable water supply is highly unlikely for the reasons described below.

Potable water is supplied by a public utility

As described in the RI/FS Report, drinking water in the area is provided by King County Water District No. 111, groundwater at the Site is not used for drinking water, and no drinking water supply wells are located within 0.25 mile of the Site.

King County Department of Public Health code effectively prohibits construction of potable water wells at the Site

Section 12.24.010, Source Protection, of King County Department of Public Health code indicates that potable water wells cannot be constructed within 100 feet of various infrastructure such as public roads, sewers, underground power lines, underground gas lines. A copy of Section 12.24.010 is provided as Attachment B. The Site is east-adjacent to the intersection of 72nd Avenue South and South 212th Street, as shown on Figure 3. According to Prologis and based on observations during groundwater monitoring activities performed by Farallon, sanitary and storm sewer, electricity, and natural gas services are provided to the Site via underground transmission lines. Farallon requested information regarding the locations of underground utilities from the City of Kent. Information provided by the City of Kent indicated that numerous underground sanitary and storm sewer lines and water supply lines are on and proximate to the Site. The approximate locations of these underground sanitary and storm sewer line and water supply lines are shown on Figure 3. Based on the proximity of the Site to public roads and underground utilities, construction of a potable water well on the Site is not permitted by the King County Department of Public Health code.



CONCLUSIONS

The results of groundwater monitoring activities performed by Farallon on March 12, 2018 indicate that residual groundwater impacts from COPCs related to releases of petroleum hydrocarbons from a below-grade wastewater trap tank sump remain at the Site. However, groundwater conditions are stable or improving, natural attenuation of TPH in groundwater likely is not occurring, and concentrations of COPCs do not exceed MTCA Method A or B cleanup levels and/or regional background levels. Farallon's evaluation of the potential for beneficial use of groundwater at and proximate to the Site indicates that the Site and its vicinity are supplied with potable water from a public utility and construction of a potable water well at the Site would not be permissible under King County Department of Public Health code; therefore, there likely is no future beneficial use of groundwater at or proximate to the Site and the exposure pathway via groundwater ingestion at the Site is not anticipated to present a potential risk to human health. Collectively, these conclusions indicate that the groundwater exposure pathway for the Site can be closed without an environmental covenant for groundwater. Based on these conditions, the remedial actions at the Site are sufficient to meet the substantive requirements under MTCA for characterization and to address the contamination at the Site. Therefore, Farallon requests, on behalf of Prologis, that Ecology issue an unrestricted NFA determination for the Site.

Please contact either of the undersigned at (503) 280-4628 if you have questions or need additional information.

Sincerely,

Farallon Consulting, L.L.C.

Mark Havighorst, P.E.
Senior Engineer

Scott Allin, R.E.P.A.
Principal Environmental Scientist

Attachments: Figure 1, *Site Vicinity Map*
Figure 2, *Site Map Showing Groundwater Elevation Contours, March 12, 2018*
Figure 3, *Site Map Showing Utilities*
Table 1, *Groundwater Elevation Data*
Table 2, *Summary of Groundwater Field Parameters and Analytical Results*
Attachment A, *Laboratory Analytical Reports*
Attachment B, *King County Department Of Public Health Code Section 12.24.010, Source Protection*
Attachment C, *Request for Opinion Form*

MH/SA:mm

FIGURES

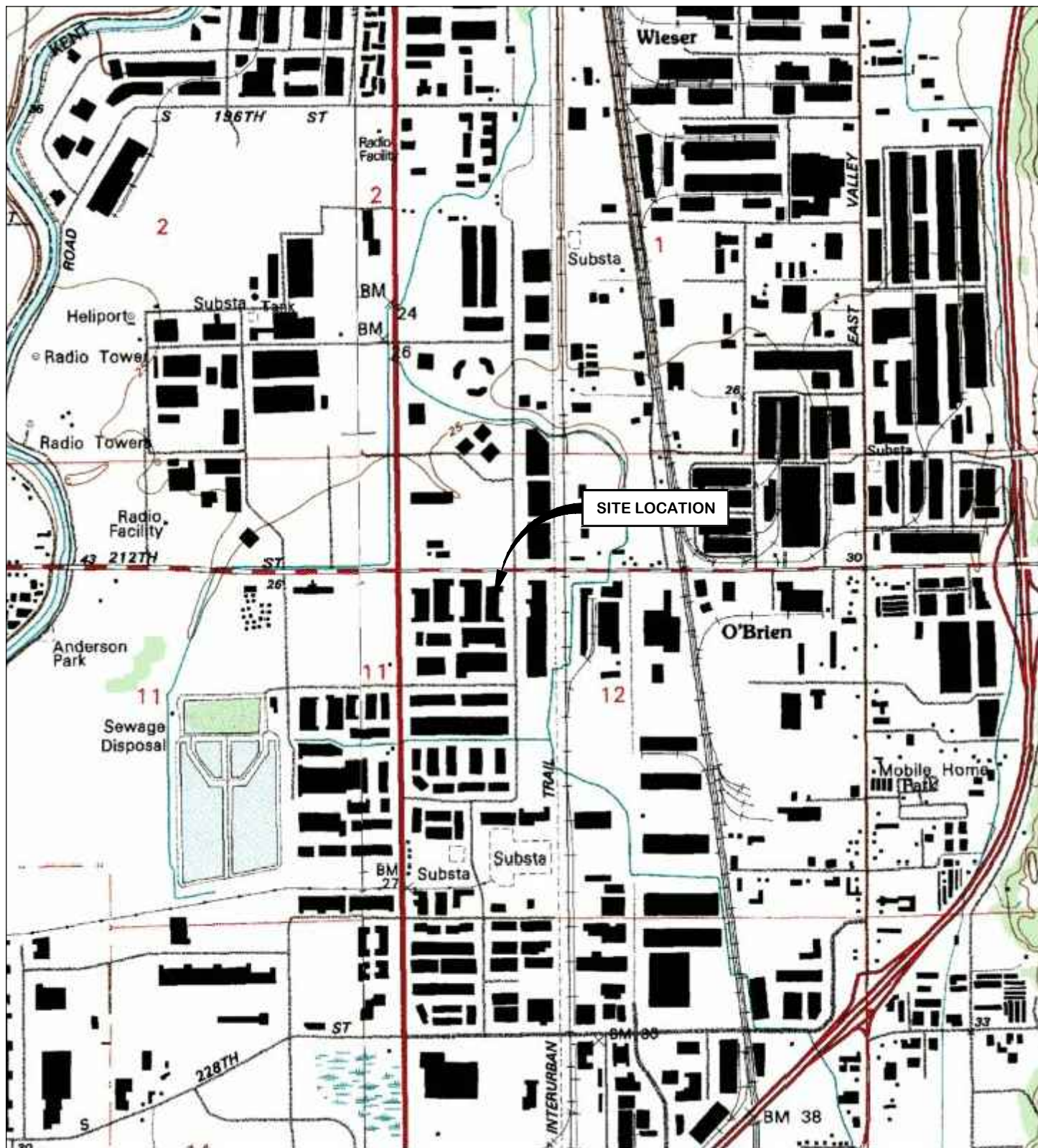
GROUNDWATER MONITORING RESULTS

Former Qualex Photofinishing Facility

21249 72nd Avenue South

Kent, Washington

Farallon PN: 1071-013 (Task 1)



REFERENCE: 7.5 MINUTE USGS QUADRANGLE RENTON, WASHINGTON. DATED 1994

FIGURE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION

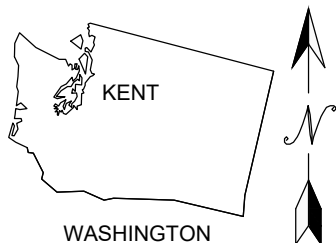


FIGURE 1

SITE VICINITY MAP
21249 72nd AVENUE SOUTH
KENT, WASHINGTON

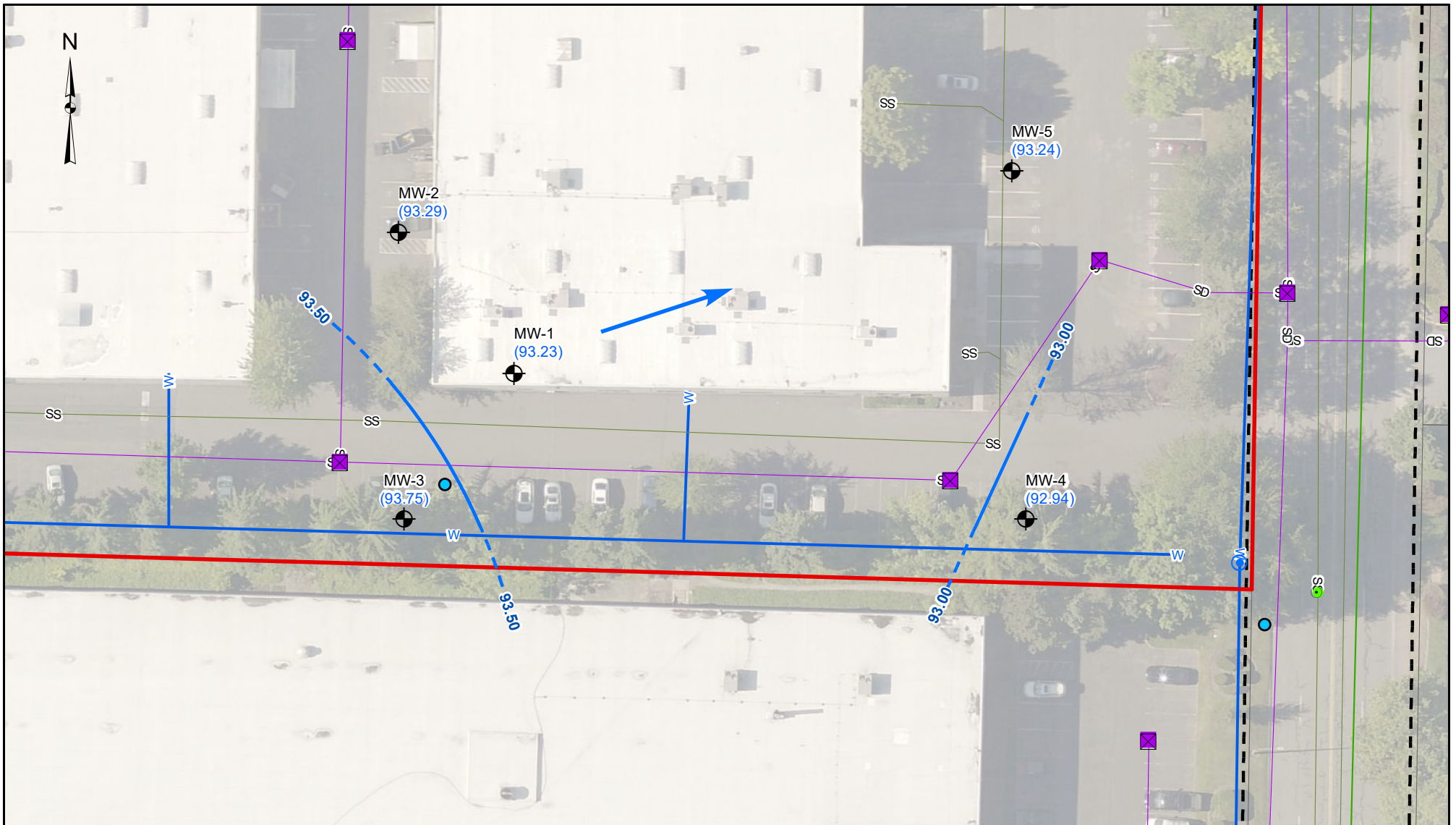
FARALLON PN1071-013-001

Drawn By: GPF

Checked By: MH

Date: 01/30/2019

Disk Reference: 1071-013-1



LEGEND

	MONITORING WELL		SS SANITARY SEWER
	SANITARY MANHOLE		SD STORM LINE
	CATCH BASIN		RIGHT-OF-WAY
	FIRE HYDRANT		W WATER LINE
	VALVE		KING COUNTY SEWER LINE
	SITE BOUNDARY		KING COUNTY PARCEL
	APPROXIMATE DIRECTION OF GROUNDWATER FLOW		
			GROUNDWATER ELEVATION IN FEET NAVD88 (IN REFERENCE TO MW-3 TOP OF CASING)
			GROUNDWATER ELEVATION CONTOUR IN FEET (IN REFERENCE TO MW-3 TOP OF CASING, DASHED WHERE INFERRED)



NOTES:
 1. ALL LOCATIONS ARE APPROXIMATE.
 2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.
 3. UTILITY DATA CITY OF KENT



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Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Bend | Baker City

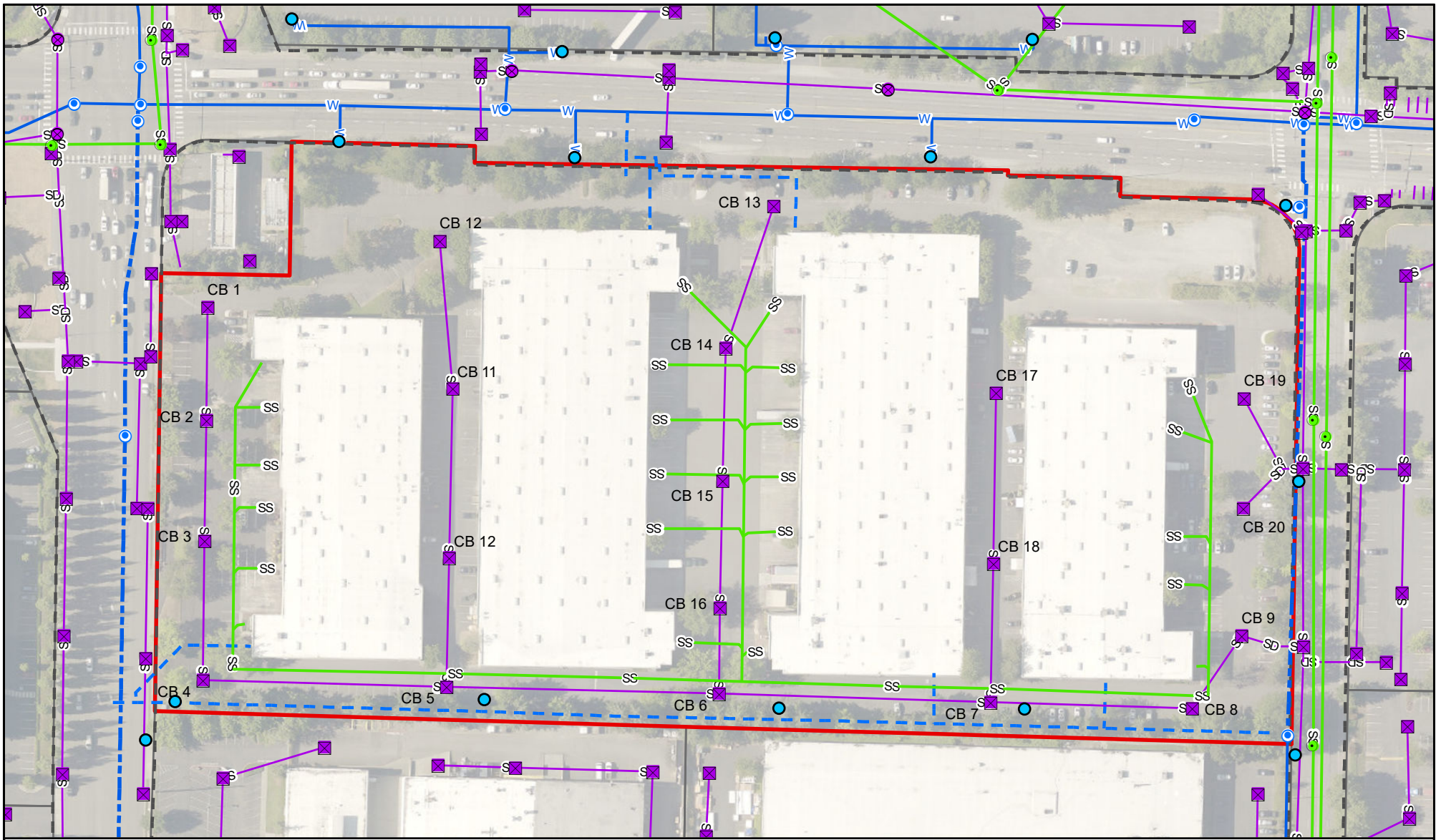
California
Oakland | Folsom | Irvine

FIGURE 2
 SITE MAP SHOWING
 GROUNDWATER ELEVATION CONTOURS
 MARCH 12, 2018
 21249 72nd AVENUE SOUTH
 KENT, WASHINGTON
 FARALLON PN: 1071-001

Drawn By: tperrin

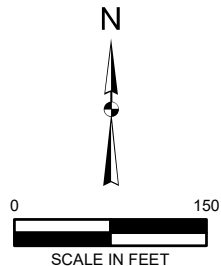
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Date: 3/11/2019
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 Disc Reference:



LEGEND

- | | | | | |
|--|------------------|--|----|--------------------|
| | SANITARY MANHOLE | | SS | SANITARY SEWER |
| | CATCH BASIN | | SD | STORM SEWER LINE |
| | MANHOLE | | W | WATER LINE |
| | FIRE HYDRANT | | FH | FIRE HYDRANT LINE |
| | VALVE | | PW | POTABLE WATER LINE |
| | | | | RIGHT-OF-WAY |
| | | | | SITE BOUNDARY |
| | | | | KING COUNTY PARCEL |



NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.
3. UTILITY LOCATIONS BASED ON INFORMATION PROVIDED BY CITY OF KENT



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Checked By: MH

Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Bend | Baker City

California
Oakland | Folsom | Irvine

FIGURE 3

SITE MAP SHOWING UTILITIES
21249 72nd AVE SOUTH
KENT, WASHINGTON

FARALLON PN: 1071-001

Date: 3/8/2019

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Disc Reference:

TABLES

GROUNDWATER MONITORING RESULTS

Former Qualex Photofinishing Facility

21249 72nd Avenue South

Kent, Washington

Farallon PN: 1071-013 (Task 1)

Table 1
Groundwater Elevation Data
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 (Task 1)

Monitoring Well	Top of Casing Elevation (ft msl)	Date	Depth to Water (ft btoc)	Elevation (elev ft)
MW-1	102.57	12/18/2003	9.92	92.65
		1/21/2004	9.87	92.70
		3/31/2004	10.30	92.27
		6/17/2004	10.77	91.80
		10/20/2004	10.75	91.82
		3/30/2005	10.55	92.02
		2/8/2006	8.97	93.60
		12/13/2006	9.40	93.17
		3/27/2008	9.86	92.71
		3/26/2009	9.86	92.71
		1/27/2011	8.81	93.76
		1/21/2016	Well Innaccessible	
		3/12/2018	9.34	93.23
MW-2	102.16	12/18/2003	9.42	92.74
		1/21/2004	9.39	92.77
		3/31/2004	9.86	92.30
		6/17/2004	10.35	91.81
		10/20/2004	10.30	91.86
		3/30/2005	10.09	92.07
		2/8/2006	8.55	93.61
		12/13/2006	8.90	93.26
		3/27/2008	9.41	92.75
		3/26/2009	9.43	92.73
		1/27/2011	8.33	93.83
		1/21/2016	8.21	93.95
		3/12/2018	8.87	93.29
MW-3	100.00	12/18/2003	7.20	92.80
		1/21/2004	6.97	93.03
		3/31/2004	7.40	92.60
		6/17/2004	7.96	92.04
		10/20/2004	8.04	91.96
		3/30/2005	7.71	92.29
		2/8/2006	6.88	93.12
		12/13/2006	6.88	93.12
		3/27/2008	7.24	92.76
		3/26/2009	7.08	92.92
		1/27/2011	5.90	94.10
		1/21/2016	5.46	94.54
		3/12/2018	6.25	93.75

Table 1
Groundwater Elevation Data
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 (Task 1)

Monitoring Well	Top of Casing Elevation (ft msl)	Date	Depth to Water (ft btoc)	Elevation (elev ft)
MW-4	98.64	12/18/2003	6.26	92.38
		1/21/2004	6.29	92.35
		3/31/2004	6.77	91.87
		6/17/2004	7.20	91.44
		10/20/2004	7.20	91.44
		3/30/2005	7.04	91.60
		2/8/2006	5.55	93.09
		12/13/2006	6.10	92.54
		3/27/2008	6.48	92.16
		3/26/2009	6.40	92.24
		1/27/2011	5.42	93.22
		1/21/2016	5.07	93.57
		3/12/2018	5.70	92.94
MW-5	98.05	12/18/2003	5.35	92.70
		1/21/2004	5.36	92.69
		3/31/2004	5.77	92.28
		6/17/2004	6.26	91.79
		10/20/2004	6.21	91.84
		3/30/2005	6.05	92.00
		2/8/2006	4.49	93.56
		12/13/2006	4.88	93.17
		3/27/2008	5.39	92.66
		3/26/2009	5.38	92.67
		1/27/2011	4.32	93.73
		1/21/2016	4.13	93.92
		3/12/2018	4.81	93.24

NOTES:

Shade denotes current monitoring results.

ft btoc = feet below top of casing

elev ft = elevation in feet reference to monitoring well MW-3 top of casing

Table 2
Summary of Groundwater Field Parameters and Analytical Results
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 (Task 1)

Sample Identification	Sample Date	Field Parameters			Analytical Results (micrograms per liter)					
					DRO ¹	ORO ¹	Dissolved Metals			
		ORP (mV)	pH (SU)	DO (mg/l)			Arsenic ²	Iron ²	Manganese ²	Selenium ²
MW-1	7/1/2003	--	--	--	430	320	21J	63,000	2,000	<16
	12/18/2003	--	8.9	0.4	350/470	<250/330	28/26	63,000	2,000	<16/<16
	3/31/2004	--	4.73	--	390	530	30	--	--	<16
	6/17/2004	103	--	--	230	<240	17	--	--	63
	10/20/2004	170	5.82	0.49	290	<260	17	--	--	43
	3/30/2005	--	6.21	--	170(B)	<240	17	59,000	160	38
	2/8/2006	--	6.3	3	200/150	<250	48.3/49.6	2,150	1,830	83.1/77.7
	12/13/2006	-98	6.7	--	<50	<250	14.2	2,510	--	<1
	3/27/2008	-153.3	6.39	0.11	83	<250	41	20,400	1,070	116
	3/26/2009	-155.7	6.5	3.87	110	<250	27.6	35,800	1,750	63.2
	1/27/2011	-131.2	6.57	0.13	<120/<120	<240/<240	10/10	49,000	1,300	19/20
	1/21/2016	Well innaccessible - Sample not collected								
	3/12/2018	-126.0	6.45	0.31	<260	<420	7	6600	260	<5
MW-2	12/18/2003	--	9.1	0.6	340	<250	11	59,000	3,700	<16
	3/31/2004	--	4.83	4	390	490	22	--	--	<16
	6/17/2004	126	9.2	--	230	<240	12	--	--	7.5
	10/20/2004	185	5.94	1.31	370	<250	18	--	--	10
	3/30/2005	--	6.28	--	260(B)	<240	48	92,000	3,600	7.9
	2/8/2006	--	6.5	1.72	130	<250	51.6	26,400	2,820	11.9
	12/13/2006	-106	6.5	--	<50	<250	4.52	3,180	--	<1
	3/27/2008	-15.3	6.44	0.14	86	<250	15.9	22,800	1,570	9.13
	3/26/2009	-147.8	6.57	6.14	120	<250	33.3	46,000	1,750	10.9
	1/27/2011	-105.6	6.34	0.22	<120	<240	26	46,000	2,000	2.9
	1/21/2016	9	6.57	0.66	<260	<410	13	--	--	<5.0
	3/12/2018	-82.1	6.48	0.33	<260	<420	12	2800	430	<5.0
MW-3	12/18/2003	--	--	0.8	<50	<250	<5	5,300	2,100	<16
	3/31/2004	--	7.5	5.4	140	220	12	--	--	<16
	6/17/2004	52	7.92	--	110	<240	15	--	--	<5
	10/20/2004	174	5.75	1.28	120	<250	16	--	--	15
	3/30/2005	--	--	--	110(B)	<240	26	17,000	3,600	<2
	2/8/2006	--	6.4	1.9	66	<250	28.9	26,700	3,980	2.41
	12/13/2006	-62	6.7	--	<50	<250	6	<100	--	<1
	3/27/2008	-106.1	6.3	0.15	<50	<250	15.1	8,870	2,940	2.71
	3/26/2009	-135.1	6.43	2.67	<50	<250	18.9	16,600	3,400	1.91
	1/27/2011	-107.8	6.31	0.13	<120	<240	23	24,000	4,000	0.96
	1/21/2016	15	6.52	0.93	<260	<410	27	--	--	<5.0
	3/12/2018	-103.1	6.51	0.40	<260	<420	51	6000	810	<5.0

Table 2
Summary of Groundwater Field Parameters and Analytical Results
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 (Task 1)

Sample Identification	Sample Date	Field Parameters			Analytical Results (micrograms per liter)					
					DRO ¹	ORO ¹	Dissolved Metals			
		ORP (mV)	pH (SU)	DO (mg/l)			Arsenic ²	Iron ²	Manganese ²	Selenium ²
MW-4	12/18/2003	--	7.2	0.5	87	<250	<5	29,000	2,700	<16
	3/31/2004	--	5.08	5.5	110	140	7.2	--	--	<16
	6/17/2004	87	8.52	--	79	<240	<5	--	--	<5
	10/20/2004	119	--	0.96	97	<260	<5	--	--	<5
	3/30/2005	--	6.32	--	92(B)	<240	6.2	43,000	4,400	<2
	2/8/2006	--	6.5	2	180	<250	60	57,100	7,260	5.25
	12/13/2006	-92	6.7	--	<50	<250	1.32	305	--	<1
	3/27/2008	-175.7	6.33	0.19	<50	<250	4.57	12,100	3,040	4.37
	3/26/2009	-195.1	6.5	1.19	56	<250	22.8	31,700	2,290	4.73
	1/27/2011	-128.6	6.49	0.26	<120	<240	58	63,000	4,500	1.8
	1/21/2016	-20	6.61	0.93	<250	<410	21	--	--	<5.0
	3/12/2018	-133.5	6.53	0.27	320	<420	38	6000	550	<5.0
MW-5	12/18/2003	--	7.4	0.2	64	<250	<5	55,000	1,900	<16
	3/31/2004	--	7.3	3.4	160	210	<5	--	--	<16
	6/17/2004	83	8.47	--	100	<240	<5	--	--	<5
	10/20/2004	117	5.22	0.67	130	<260	<5	--	--	11
	3/30/2005	--	6.35	--	184/74(B)	<240/(<240)	7.8	48,000	1,700	<2
	2/8/2006	--	6.5	1.25	63	<250	9.83	46,300	1,630	3.49
	12/13/2006	-82	6.6	--	<50	<250	1.18	3,120	--	<1
	3/27/2008	-111	6.19	0.15	<50	<250	3.82	16,900	944	3.62
	3/26/2009	-165.9	6.39	1.05	120	<250	5.93	34,300	1,270	4.89
	1/27/2011	-100.6	6.25	0.13	<120	<240	5.7	54,000	1,800	2.4
	1/21/2016	10	6.46	0.83	<280	<460	3.9	--	--	<5.0
	3/12/2018	-105.9	6.32	0.28	<260	<420	4.7	8500	380	<5.0
95% Upper Confidence Limit of the arithmetic mean as calculated using ProUCL Software					NC	NC	21.8	35,766	2,823	13.8
MTCA Method A Cleanup Levels³		--	--	--	500	500	5	--	--	--
MTCA Method B Cleanup Levels⁴		--	--	--	--	--	--	11,200	2,240	80
Background Concentration		--	--	--	--	--	3.3 - 115⁵	--	<1 - 510,000⁶	--

NOTES:

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

<250/330 = Primary sample result/field duplicate sample result.

Shading denotes concentration exceeds MTCA Method A or B Cleanup Level.

¹Analyzed by Method NWTPH-Dx.

²Analyzed by U.S. Environmental Protection Agency Method 200.8 ICP/MS.

³Washington 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 2013.

³Standard Method A Formula Values for Groundwater (potable use).

⁴MTCA Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater,

<https://fortress.wa.gov/ecy/clarc/Reporting/ChemicalQuery.aspx>

⁵Washington Sate Department of Ecology. 2012. Public Comment Notice for Termination of Interim Status for the Boeing Space Center – Striker Property in Kent, Washington. July.

⁶U.S. Department of the Interior Geological Survey. 1981. Quality of Ground Water in the Puget Sound Region, Washington.

Prepared in cooperation with the Washington State Department of Ecology.

B = analyte is found in the associated laboratory control blank

COPC = constituent of potential concern

DO = dissolved oxygen

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

GRO = TPH as gasoline-range organics

J = concentration is an estimated value

mg/l = milligrams per liter

mV = millivolt

µg/l = micrograms per liter

NC = not calculated

ORO = TPH as oil-range organics

ORP = oxidation-reduction potential

SU = standard units

ATTACHMENT A
LABORATORY ANALYTICAL REPORT

GROUNDWATER MONITORING RESULTS
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington

Farallon PN: 1071-013 (Task 1)



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

March 26, 2018

Mark Havighorst
Farallon Consulting
4380 SW Macadam Ave., Suite 500
Portland, OR 97239

Re: Analytical Data for Project 1071-013-001
Laboratory Reference No. 1803-088

Dear Mark:

Enclosed are the analytical results and associated quality control data for samples submitted on March 12, 2018.

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



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: March 26, 2018
Samples Submitted: March 12, 2018
Laboratory Reference: 1803-088
Project: 1071-013-001

Case Narrative

Samples were collected on March 12, 2018 and received by the laboratory on March 12, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

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: March 26, 2018
 Samples Submitted: March 12, 2018
 Laboratory Reference: 1803-088
 Project: 1071-013-001

NWTPH-Dx

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-1-031218					
Laboratory ID:	03-088-01					
Diesel Range Organics	ND	0.26	NWTPH-Dx	3-13-18	3-13-18	
Lube Oil Range Organics	ND	0.42	NWTPH-Dx	3-13-18	3-13-18	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	96	50-150				

Client ID:	MW-1-031218					
Laboratory ID:	03-088-01					
Diesel Range Organics	ND	0.26	NWTPH-Dx	3-13-18	3-14-18	X1
Lube Oil Range Organics	ND	0.42	NWTPH-Dx	3-13-18	3-14-18	X1
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	106	50-150				

Client ID:	MW-2-031218					
Laboratory ID:	03-088-02					
Diesel Range Organics	ND	0.26	NWTPH-Dx	3-13-18	3-13-18	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	3-13-18	3-13-18	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	94	50-150				

Client ID:	MW-2-031218					
Laboratory ID:	03-088-02					
Diesel Range Organics	ND	0.26	NWTPH-Dx	3-13-18	3-14-18	X1
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	3-13-18	3-14-18	X1
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	105	50-150				

Client ID:	MW-3-031218					
Laboratory ID:	03-088-03					
Diesel Range Organics	ND	0.26	NWTPH-Dx	3-13-18	3-13-18	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	3-13-18	3-13-18	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	99	50-150				

Client ID:	MW-3-031218					
Laboratory ID:	03-088-03					
Diesel Range Organics	ND	0.26	NWTPH-Dx	3-13-18	3-14-18	X1
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	3-13-18	3-14-18	X1
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	106	50-150				



Date of Report: March 26, 2018
 Samples Submitted: March 12, 2018
 Laboratory Reference: 1803-088
 Project: 1071-013-001

NWTPH-Dx

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-4-031218					
Laboratory ID:	03-088-04					
Diesel Range Organics	0.32	0.26	NWTPH-Dx	3-13-18	3-13-18	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	3-13-18	3-13-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	106	50-150				

Client ID:	MW-4-031218					
Laboratory ID:	03-088-04					
Diesel Range Organics	ND	0.26	NWTPH-Dx	3-13-18	3-14-18	X1
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	3-13-18	3-14-18	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	114	50-150				

Client ID:	MW-5-031218					
Laboratory ID:	03-088-05					
Diesel Range Organics	ND	0.26	NWTPH-Dx	3-13-18	3-13-18	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	3-13-18	3-13-18	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Client ID:	MW-5-031218					
Laboratory ID:	03-088-05					
Diesel Range Organics	ND	0.26	NWTPH-Dx	3-13-18	3-14-18	X1
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	3-13-18	3-14-18	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	102	50-150				



Date of Report: March 26, 2018
 Samples Submitted: March 12, 2018
 Laboratory Reference: 1803-088
 Project: 1071-013-001

NWTPH-Dx QUALITY CONTROL

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0313W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	3-13-18	3-13-18	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	3-13-18	3-13-18	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	99	50-150				

Laboratory ID:	MB0313W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	3-13-18	3-13-18	X1
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	3-13-18	3-13-18	X1
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	109	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-088-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	
Surrogate:								
<i>o</i> -Terphenyl				96	104	50-150		

DUPLICATE								
Laboratory ID:	03-088-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	X1
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	X1
Surrogate:								
<i>o</i> -Terphenyl				106	118	50-150		



Date of Report: March 26, 2018
 Samples Submitted: March 12, 2018
 Laboratory Reference: 1803-088
 Project: 1071-013-001

DISSOLVED METALS
EPA 200.8/6010D

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	03-088-01					
Client ID:	MW-1-031218					
Arsenic	7.0	3.0	200.8	3-12-18	3-17-18	
Iron	6600	56	6010D	3-12-18	3-13-18	
Manganese	260	11	6010D	3-12-18	3-13-18	
Selenium	ND	5.0	200.8	3-12-18	3-17-18	
Lab ID:	03-088-02					
Client ID:	MW-2-031218					
Arsenic	12	3.0	200.8	3-12-18	3-17-18	
Iron	2800	56	6010D	3-12-18	3-13-18	
Manganese	430	11	6010D	3-12-18	3-13-18	
Selenium	ND	5.0	200.8	3-12-18	3-17-18	
Lab ID:	03-088-03					
Client ID:	MW-3-031218					
Arsenic	51	3.0	200.8	3-12-18	3-17-18	
Iron	6000	56	6010D	3-12-18	3-13-18	
Manganese	810	11	6010D	3-12-18	3-13-18	
Selenium	ND	5.0	200.8	3-12-18	3-17-18	
Lab ID:	03-088-04					
Client ID:	MW-4-031218					
Arsenic	38	3.0	200.8	3-12-18	3-17-18	
Iron	6000	56	6010D	3-12-18	3-13-18	
Manganese	550	11	6010D	3-12-18	3-13-18	
Selenium	ND	5.0	200.8	3-12-18	3-17-18	



Date of Report: March 26, 2018
 Samples Submitted: March 12, 2018
 Laboratory Reference: 1803-088
 Project: 1071-013-001

DISSOLVED METALS
EPA 200.8/6010D

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	03-088-05					
Client ID:	MW-5-031218					
Arsenic	4.7	3.0	200.8	3-12-18	3-17-18	
Iron	8500	56	6010D	3-12-18	3-13-18	
Manganese	380	11	6010D	3-12-18	3-13-18	
Selenium	ND	5.0	200.8	3-12-18	3-17-18	



Date of Report: March 26, 2018
Samples Submitted: March 12, 2018
Laboratory Reference: 1803-088
Project: 1071-013-001

**DISSOLVED METALS
EPA 200.8/6010D
METHOD BLANK QUALITY CONTROL**

Date Filtered: 3-12-18
Date Analyzed: 3-13&17-18

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0312F1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.0
Iron	6010D	ND	56
Manganese	6010D	ND	11
Selenium	200.8	ND	5.0



Date of Report: March 26, 2018
 Samples Submitted: March 12, 2018
 Laboratory Reference: 1803-088
 Project: 1071-013-001

**DISSOLVED METALS
 EPA 200.8/6010D
 DUPLICATE QUALITY CONTROL**

Date Filtered: 3-12-18
 Date Analyzed: 3-13&17-18

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 03-088-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	12.1	11.4	6	3.0	
Iron	2820	2800	1	56	
Manganese	429	424	1	11	
Selenium	ND	ND	NA	5.0	



Date of Report: March 26, 2018
 Samples Submitted: March 12, 2018
 Laboratory Reference: 1803-088
 Project: 1071-013-001

**DISSOLVED METALS
 EPA 200.8/6010D
 MS/MSD QUALITY CONTROL**

Date Filtered: 3-12-18
 Date Analyzed: 3-13&17-18

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 03-088-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	207	97	211	99	2	
Iron	22200	24200	96	24200	96	0	
Manganese	555	971	98	979	99	1	
Selenium	200	202	101	225	112	11	





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





Onsite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: F2r2llon

Project Number: 1071-013-001

Project Name: 2429 12th Ave SE

Project Manager: M. Houghrest

Sampled by: AB

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day

☐ 2 Days ☐ 3 Days

☒ Standard (7 Days)
(TPH analysis 5 Days)

☐ (other) _____

Lab ID

Date Sampled

Time Sampled

Matrix

Number of Containers

NWTPH-HCID

NWTPH-Gx/BTEX

NWTPH-Gx

NWTPH-Dx (☐ Acid / SG Clean-up)

Volatiles 8260C

Halogenated Volatiles 8260C

EDB EPA 8011 (Waters Only)

Semivolatiles 8270D/SIM (with low-level PAHs)

PAHs 8270D/SIM (low-level)

PCBs 8082A

Organochlorine Pesticides 8081B

Organophosphorus Pesticides 8270D/SIM

Chlorinated Acid Herbicides 8151A

Total RCRA Metals

Total MTCA Metals

TCLP Metals

HEM (oil and grease) 1664A

Dissolved Iron, Manganese and Selenium

% Moisture

Laboratory Number: **03-088**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Dissolved Iron, Manganese and Selenium	% Moisture
1	MW-1-031218	3-12-18	9:08	Water	3				X															
2	MW-2-031218		13:54																					
3	MW-3-031218		13:01																					
4	MW-4-031218		11:01																					
5	MW-5-031218		11:55																					

Signature

Company

Date

Time

Comments/Special Instructions

Relinquished

F2r2llon

3-12-18

15:07

Please filter for dissolved metals. Please complete NWTPH-Dx analysis with and without silica gel clean up. Please use 1-0.5L w/ HCL for total organic analysis.

Received

AB

OSE

3/12/18

15:07

Relinquished

AB

Received

AB

Relinquished

AB

Received

AB

Reviewed/Date

AB

Reviewed/Date

Data Package: Standard ☐ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

ATTACHMENT B
KING COUNTY DEPARTMENT OF PUBLIC HEALTH CODE SECTION
12.24.010, SOURCE PROTECTION

GROUNDWATER MONITORING RESULTS
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington

Farallon PN: 1071-013 (Task 1)

Title 12
WATER*

UPDATED: November 20, 2013

*Editor's note: For administrative rules relevant to this title, see BOH Title R12.

Chapters:

- 12.04 GENERAL**
- 12.08 DEFINITIONS**
- 12.16 DESIGNER CERTIFICATION**
- 12.20 DESIGN AND CONSTRUCTION APPROVAL OF GROUP A AND GROUP B PUBLIC WATER SYSTEMS**
- 12.24 SPECIFIC REQUIREMENTS**
- 12.28 WATER SYSTEM OPERATIONS AND MANAGEMENT**
- 12.32 WATER SERVICE REQUIREMENTS**
- 12.36 WAIVERS**
- 12.40 ENFORCEMENT**
- 12.44 CRITICAL WATER SUPPLY AREAS**

12.04 GENERAL

Sections:

- 12.04.010 Title.
- 12.04.020 Purpose and policy declared.
- 12.04.030 Statutory authority- - Scope.
- 12.04.040 Administration.
- 12.04.050 Access.
- 12.04.060 (Reserved)

12.04.010 Title. The rules and regulations codified in this title shall be known as the "King County Public Water System Rules and Regulations" and may be so cited, and is referred to herein as "this title." (R&R 53 §1(part), 12-1-89).

12.04.020 Purpose and policy declared. This title is enacted as an exercise of the police power of the county to protect and preserve the public peace, health, safety, and welfare. Its provisions shall be liberally construed for the accomplishment of these purposes.

A. It is expressly the purpose of this title to provide for and promote the health, safety and welfare of the general public, and not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefitted by the terms of this title.

B. It is the specific intent of this title to place the obligation of complying with its requirements upon the owner or operator of public water systems within its scope. No provision of nor term used in this title is intended to impose any duty whatsoever upon the county or any of its officers or employees, for whom the implementation or enforcement of this title shall be discretionary and not mandatory.

C. Nothing contained in this title is intended to be nor shall be construed to create or form the basis for any liability on the part of the county, or its officers, employees or agents, for any injury or damage resulting from the failure of the owner or operator of a public water system to comply with the provisions of this title, or by reason or in consequence of any act or omission in connection with the implementation or enforcement of this title on the part of the county by its officers, employees or agents. (R&R 53 §1(part), 12-1-89).

12.04.030 Statutory authority - Scope. The provisions of this title are established pursuant to the authority derived from RCW 70.05.560 and WAC Chapter 246-290, including the latest revisions or amendments thereof, as they pertain to the authority and responsibilities of local health jurisdictions. The provisions of this title shall apply to the design, installation, alteration, addition, repair, replacement, maintenance and use of all group A noncommunity transient (as defined in Section 12.08.170(B) (3)(b)(2), (3) and (4)) public water systems serving zero (0) through two hundred ninety-nine (299) nonresidents and group B public water systems serving two (2) through nine (9) permanent connections or an average of less than twenty-five (25) people for sixty (60) or more days within a calendar year. (R&R 80 §1, 3-23-92: R&R 53 §1(part), 12-1-89).

12.04.040 Administration.

12.24 SPECIFIC REQUIREMENTS

Sections:

- 12.24.010 Source protection.
- 12.24.020 Abandonment of wells.
- 12.24.030 Cross-connections.

12.24.010 Source protection.

- A. Drinking water shall be obtained from the highest quality source feasible.
- B. Existing and proposed drinking water sources shall conform to the water quality standards established in WAC 246-290-310 or treatment capable of achieving such standards shall be provided.
- C. Sanitary Control Area.
 - 1. Drinking water sources shall be protected from possible contaminants in accordance with the minimum setbacks set forth in Section 12.20.010(C).
 - 2. The health officer may require greater setbacks than established in Section 12.24.010(C) if geological and hydrological data supports such a decision.
 - 3. It shall be the purveyor's responsibility to obtain the protection needed.
 - 4. The following setbacks shall be required for wells and springs:

	Drilled Wells	Springs ^{1, 14}
Animal Enclosures	100'	200' ¹⁴
Houses and/or Garages	100' ¹⁰	200' ¹¹
Public Roads ²	100' ^{3, 4, 8}	200' ^{3, 4, 8}
Sewers, Pressure Effluent Pipe Building Sewers	100' ¹²	200' ¹³
Septic Systems ⁵	100' ¹⁶	200' ¹⁶
Garbage and Manure Piles	100'	200'
Storage of Chemicals:		
Herbicides and Insecticides	100'	200' ¹⁴
Surface Water	100' ⁷	200' ⁶
Railroad Tracks and Power Utility or Gas Lines	100'	200'
Underground Storage Tanks	100'	200'
Sanitary and Abandoned Landfills (as defined in Board of Health King County Code Title 10)	1,000' ¹⁵	As deemed necessary by the health officer

- (1) Also applies to dug wells.
- (2) Includes county, state and interstate roads. Also includes roads in short plats which have CRID Covenants (County Road Improvement District). These roads have the potential for becoming public roads.
- (3) Private road easements, less than sixty feet (60') in width, which are existing and show no apparent or potential contamination possibilities to the water source (the roads drain surface water away from the water source through proper grading and ditching) can be allowed within the above setback if permitted by the health officer.
- (4) Private road easements, less than sixty feet (60') in width, which are proposed (not existing) within the above setback, may be permitted if it can be demonstrated to the health officer that the topography and the land contours will preclude the proposed road easement from presenting a contamination problem to the water source.
- (5) Includes the building sewer, septic tank, drainfield and designated reserve area.
- (6) A waiver of the setback to one-hundred feet (100') may be granted by the health officer for areas located below the spring site where there is an average drop-off in elevation of at least five percent (5%) from the spring site to the surface water, and it can be demonstrated that this area does not contribute to the recharge of the spring.
- (7) A waiver of the setback to fifty feet (50') may be granted by the health officer, provided that the well casing can be protected from flooding and the well utilizes an aquifer which is below the surface water and is protected by a geological barrier, hardpan, impervious layer, etc.
- (8) A waiver of the setback to seventy-five feet (75') may be granted by the health officer if:
 - (a) Ditches, properly designed and lined with impermeable material, may be installed along the roadway in order to accept any surface runoff or contamination and divert it to a point one hundred feet (100') away from the well;
 - (b) The purveyor demonstrates through appropriate engineering justification (per WAC Chapter 246-290-210) that adequate sanitary control can be provided in the vicinity of the source. The engineering justification shall include demonstration that the road right-of-way or easement does not contribute to the recharge of the water source in question;
 - (c) For a new source location, the waiver must have Washington State Department of Ecology (WSDOE) concurrence.
- (9) A waiver of the setback to one hundred fifty feet (150') may be granted by the health officer if:
 - (a) Ditches, properly designed and lined with impermeable material, may be installed along the roadway in order to accept any surface runoff or contamination and divert it to a point two hundred feet (200') away from the spring;

ATTACHMENT C
REQUEST FOR OPINION FORM

GROUNDWATER MONITORING RESULTS
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington

Farallon PN: 1071-013 (Task 1)



Voluntary Cleanup Program

Washington State Department of Ecology Toxics Cleanup Program

REQUEST FOR OPINION FORM

Use this form to request a written opinion on your planned or completed independent remedial action under the Voluntary Cleanup Program (VCP). Attach to this form the plans or reports documenting the remedial action. Please submit only one form for each request.

Step 1: IDENTIFY HAZARDOUS WASTE SITE

Please identify below the hazardous waste site for which you are requesting a written opinion under the VCP. This information may be found on the VCP Agreement.

Facility/Site Name: Former Qualex Photofinishing Facility

Facility/Site Address: 21249 72nd Avenue South Kent, Washington

Facility/Site No:

VCP Project No.: NW3808

Step 2: REQUEST WRITTEN OPINION ON PLAN OR REPORT

What type of independent remedial action plan or report are you submitting to Ecology for review under the VCP? Please check all that apply.

- ☐ Remedial investigation plan
- ☐ Remedial investigation report
- ☐ Feasibility study report
- ☐ Property cleanup* plan (* cleanup of one or more parcels located within the Site)
- ☐ Property cleanup* report
- ☐ Site cleanup plan
- ☐ Site cleanup report
- ☒ Other – please specify: Groundwater Monitoring Results report

Do you want Ecology to provide you with a written opinion on the planned or completed independent remedial action?

☒ Yes ☐ No

Please note that Ecology's opinion will be limited to:

- Whether the planned or completed remedial action at the site meets the substantive requirements of the Model Toxics Control Act (MTCA), and/or
- Whether further remedial action is necessary at the site under MTCA.

Step 3: REPRESENTATIONS AND SIGNATURE

The undersigned representative of the Customer hereby certifies that he or she is fully authorized to request services from Ecology under the Agreement for this VCP Project.

Name: Scott Allin

Title: Principal

Signature:

Date: February 1, 2019

Organization: Farallon Consulting, L.L.C.

Mailing address: 975 5th Avenue Northwest

City: Issaquah

State: WA

Zip code: 97027

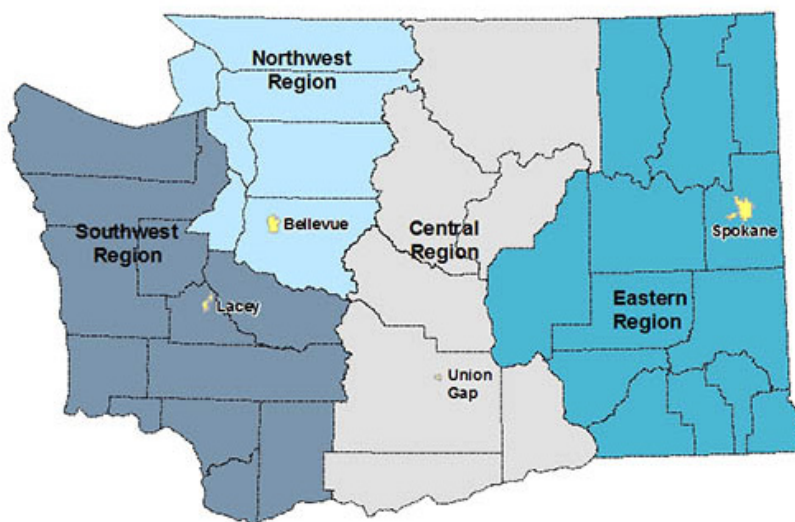
Phone: 425 295-0800

Fax: 425 295-0850

E-mail: SALLIN@farallonconsulting.com

Step 4: SUBMITTAL

Please mail your completed form and the independent remedial action plan or report that you are requesting Ecology review to the site manager Ecology assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.

**Northwest Region:**

Attn: VCP Coordinator
3190 160th Ave. SE
Bellevue, WA 98008-5452

Central Region:

Attn: VCP Coordinator
1250 West Alder St.
Union Gap, WA 98903-0009

Southwest Region:

Attn: VCP Coordinator
P.O. Box 47775
Olympia, WA 98504-7775

Eastern Region:

Attn: VCP Coordinator
N. 4601 Monroe
Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

ECY 070-219 (revised July 2015)