



Southwest Regional Office
Toxics Cleanup Program
PO Box 47775
Olympia, WA 98504-7775
360-407-6240

TRANSMITTAL MEMO

Date: January 13, 2014

TO: Mr. Eric Larsen
Antea Group

RE: Circle K Store 5496 (ConocoPhillips 2705496)
SW0919

Subject: Explanation of Timeline

NOTE: The determination date is the date Ecology approved the No Further Action status for the site. Final payment, EIM Data submission, once received, the NFA letter was released.

Ecology Determination date: December 9, 2013

Email Customer Notification: December 9, 2013

Payment received date: December 25, 2013

EIM Data successfully uploaded: December 11, 2013

Ecology Determination letter mailed/sent: January 13, 2014



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

December 9, 2013

Mr. Eric Larsen
Antea Group
4006 148th Ave NE
Redmond WA 98052-5165

Re: No Further Action at the following Site:

- **Site Name:** Circle K Store 5496 (ConocoPhillips 2705496)
- **Site Address:** 1105 Marvin Rd NE, Lacey, Washington
- **Facility/Site No.:** 45855297
- **Cleanup Site No.:** 6120
- **VCP Project No.:** SW0919

Dear Mr. Larsen:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Circle K Store 5496 facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Petroleum into the soil and groundwater



Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

- Subsurface Investigation Report, Antea Group, October 22, 2013.
- Further Action letter, Department of Ecology, December 16, 2011.

These documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at (360) 407-6365.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **no further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**.

The Site is an operating Circle K Convenience Store and Service Station located at 1105 Marvin Road NE, Lacey, Washington (Figure 1). Site facilities include a convenience store building with dispenser islands located north and south of the building and a car wash located at the northern end of the property. Four 10,000-gallon fiberglass underground storage tanks (USTs) are located southwest of the station building. Surrounding properties consist of various commercial businesses.

The Site lies within the Puget Sound Lowland, which is a major structural and topographical linear depression that trends north-south between the Olympic Mountains on the west and the Cascade Mountain Range on the east. This depression has been subsequently filled with glacially derived sediments during several episodes of glacial advance and retreat.

Shallow groundwater at the Site is perched and discontinuous. Many of the on-Site groundwater monitoring wells are consistently dry, while other wells may have contained small amounts of water at times. The Site hydrogeology was difficult to interpret because during most gauging and sampling events, the amount of water in the well casing closely

approximated the length of the solid bottom cap on the well and probably represented condensation collected in the end cap. A septic system that was in use on the Site until 2001 probably created a shallow perched water zone and that once the system was abandoned, the water zone disappeared. The depths of existing monitoring wells range from 25 to 75 feet below ground surface (bgs), and groundwater was encountered at 65 feet bgs in the deepest well at the time of drilling.

A subsurface investigation was conducted in 1993 that included advancing four soil borings. Two borings, with total depths of 25 feet bgs, were completed as monitoring wells. The other two borings were advanced to 45 feet bgs. They were abandoned since no groundwater was found.

In 1994, during installation of a stage II vapor recovery system, petroleum contamination was found in soil beneath the dispenser islands. A monitoring well was installed at the Site during this work. Figure 2 shows locations of all borings and monitoring wells at the Site.

In 1997, a natural gas line leak occurred at the Site. During the line repair, an unleaded gasoline product line was punctured and approximately 350 gallons of gasoline released to the soil.

Monitoring well MW-6 was installed in 1998 in the area of the 1997 release. Soil sample concentrations of Total Petroleum Hydrocarbons-Gasoline (TPH-G) and xylenes above Method A cleanup levels were found at 16.5 feet bgs. A groundwater sample collected from the well had no contamination above Method A cleanup levels.

During groundwater sampling events in 2004, separate-phase hydrocarbons (SPH) were found in monitoring wells MW-1 and MW-6. Subsequent groundwater measurements in these wells did not find SPH; however, reports have mentioned that any water found was most likely from accumulation in the end caps and was not true representations of groundwater conditions.

ATC Associates, Inc. conducted a due diligence Site assessment in 2007. Six borings were installed in the vicinity of the existing fuel USTs and dispensers. Depths of the borings ranged from 25 feet to 40 feet bgs. Samples submitted for laboratory analysis were analyzed for TPH-G, Total Petroleum Hydrocarbons-Diesel (TPH-D), Total Petroleum Hydrocarbons-Oil (TPH-O), benzene, toluene, ethylbenzene, total xylenes (BTEX), other halogenated volatile organic compounds, oxygenates, and lead. In boring B-6-20, at 20 feet bgs, TPH-G was found at 41 milligrams per kilogram (mg/kg). The rest of the analytes in this and other borings were all either not detected or well below the cleanup levels.

During this work, groundwater was sampled in wells MW-6 and MW-7 and analyzed for TPH-G, BTEX, other halogenated volatile organic compounds, and oxygenates. TPH-G at

380 micrograms per liter ($\mu\text{g/l}$) and chloromethane at 1 $\mu\text{g/l}$ were found in MW-7. The rest of the analytes were not detected at the detection limits.

In 2010, monitoring well MW-8 was installed. Figure 2 shows the location of the new monitoring well as well as previously installed wells. Soil samples were collected at depths of 6 feet, 10 feet, 20 feet, 25 feet, and 75 feet bgs. Analyses included TPH-G, TPH-D, TPH-O, BTEX, methyl-tertiary-butyl-ether, and lead. With the exception of lead, all results were non-detect. Lead was found at a maximum concentration of 7.8 mg/kg, well below the cleanup level of 250 mg/kg. Historical results are presented in Table 1.

The December 2011 opinion letter listed data gaps in the characterization of the Site. These data gaps consisted of:

- Characterization of the contamination found in 1994 around the southern and northern pump islands.
- Lack of information and characterization of the spill that occurred in 1997.
- Incomplete characterization of potential groundwater contamination.
- The flow direction of groundwater.
- The need for additional analytes in future groundwater sampling in MW-7.

On June 27, 2013, Antea Group advanced three soil borings at the Site to address the remaining data gaps. Borings B09 and B-10 were advanced near areas of previously identified contamination at the north and south dispensers. The total depth of these borings was 4.5 feet bgs. Boring B-11 was advanced in the area of the 1997 petroleum release to determine if contamination identified at approximately 16.5 feet bgs. Seven samples were collected from this boring and analyzed for TPH-G, TPH-D, TPH-O, and BTEX. All results, including the sample from 16.6 feet bgs, and the bottom sample at 25 feet bgs, were non-detect. Results of this work are presented on Figure 2.

2. Establishment of cleanup standards.

a. Cleanup Levels.

MTCA Method A cleanup levels for unrestricted land uses were used for soil and groundwater at the Site.

b. Points of compliance.

Standard points of compliance were used for the Site. The point of compliance for protection of groundwater was established in the soils throughout the Site. For soil cleanup levels based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway, the point of compliance was established in the soils throughout the Site from the ground

surface to 15 feet bgs. In addition, the point of compliance for the groundwater was established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth that could potentially be affected by the Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

The selected cleanup remedy was excavation of affected soils and installation of groundwater monitoring wells.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site.

An indeterminate amount of soil was excavated during the 1994 Phase II vapor recovery system release and the 1997 release. Sampling conducted in 2013 at areas that were previously not well characterized did not detect any remaining contamination. No documentation exists for the 1997 excavation activities.

Groundwater conditions have been monitored since 1997. Analytical results have indicated that groundwater impacts have attenuated to below Method A cleanup levels at the Site.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

Mr. Eric Larsen
December 9, 2013
Page 6

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#SW0919).

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (360) 407-6263 or e-mail at cjoh461@ecy.wa.gov.

Sincerely,



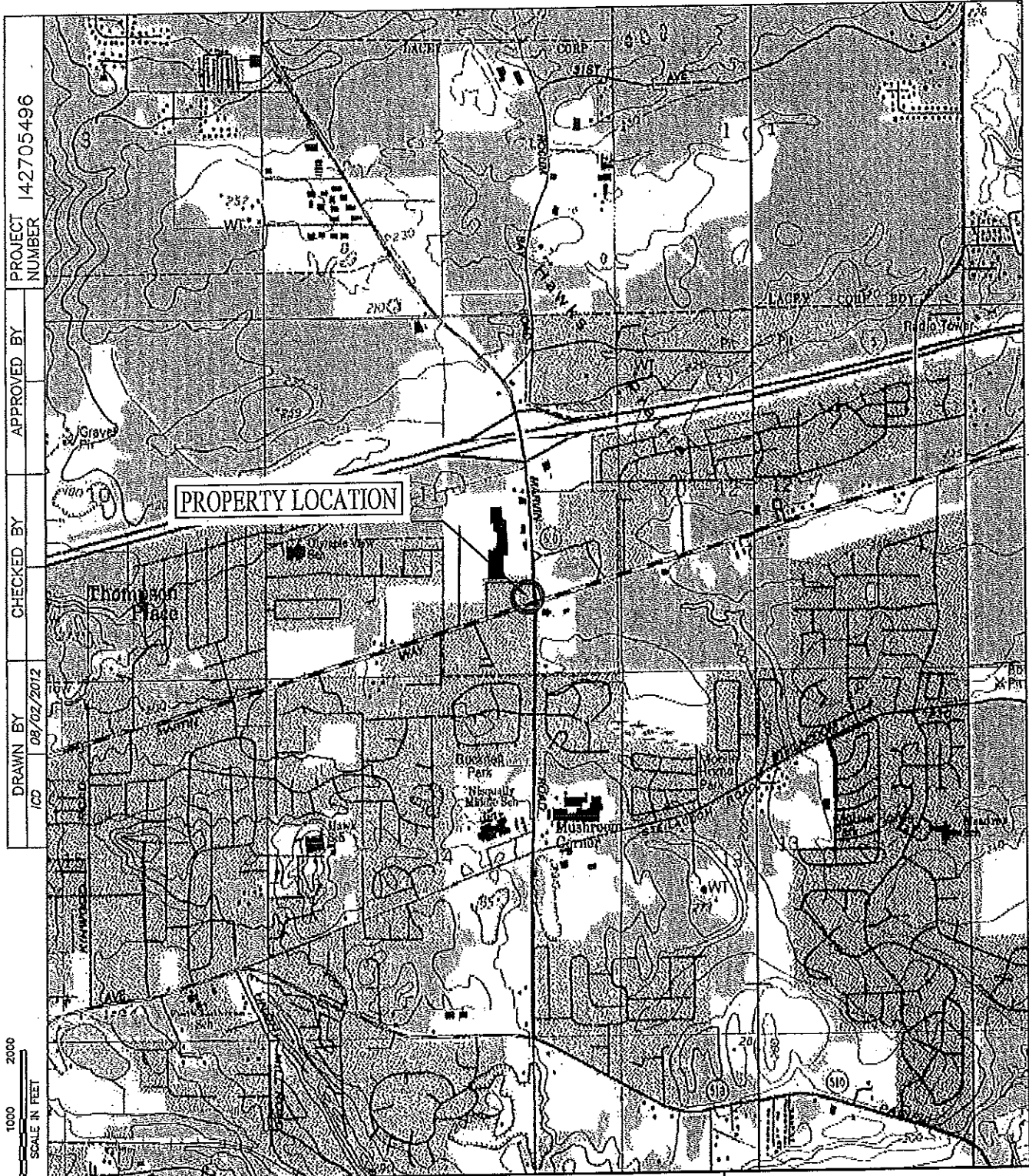
Carol A. Johnston
SWRO Toxics Cleanup Program

CAJ/ksc:Site NFA SW0919 Circle K 5496

Enclosures (2 figures; 1 table):

By certified mail: (7012 2210 0002 6581 0768)

cc: Walter Sprague, Pacific Convenience & Fuels, LLC
Gerald Tousley, Thurston County Health
Scott Rose, Ecology
Dolores Mitchell (without enclosures)



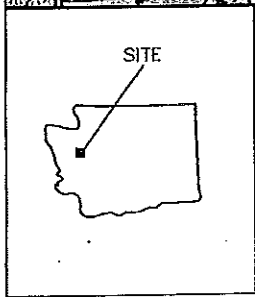
PROJECT NUMBER
142705496

APPROVED BY

CHECKED BY

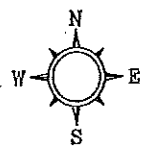
DRAWN BY
ICD
09/02/2012

0 1000 2000
SCALE IN FEET



SITE

LATITUDE 47D 03M 26S NORTH
LONGITUDE 122D 45M 54S WEST



FACILITY
No. 2705496

FIGURE 1
PROPERTY LOCATION MAP
1105 MARVIN ROAD NE
LACEY, WASHINGTON

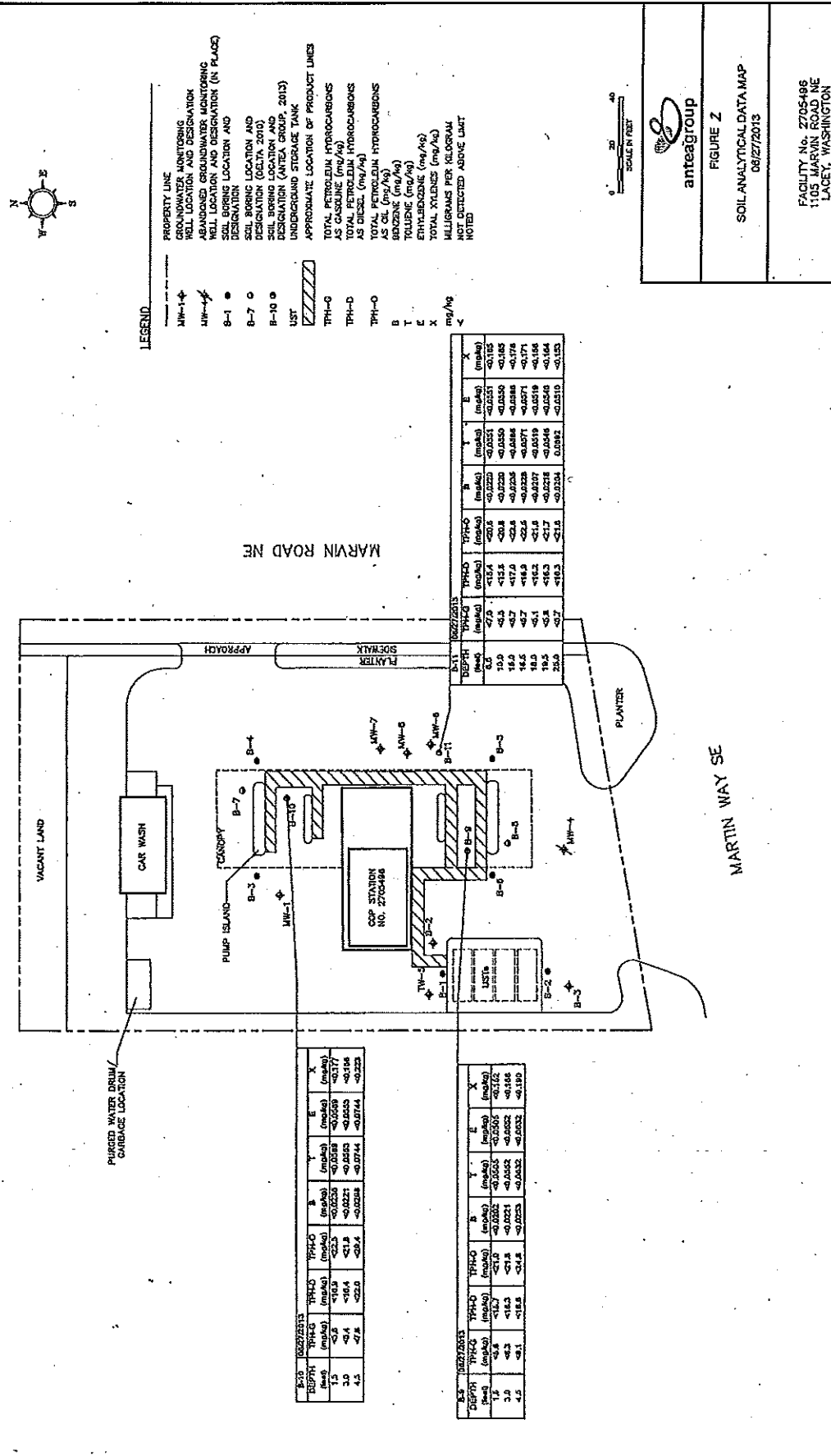


FIGURE Z
 SOIL ANALYTICAL DATA MAP
 08/27/2013
 antea group
 FACILITY NO. 2705496
 1105 MARVIN ROAD NE
 LACEY, WASHINGTON

TABLE 1
SUMMARY OF GROUNDWATER GAUGING AND ANALYTICAL DATA
 ConocoPhillips Facility No. 2705496
 1105 Marvin Road NE
 Lacey Washington 98516

Sample ID	Sample Date	Depth to Water (feet)	GW Elevation (feet)	Total Petroleum Hydrocarbons			Aromatic Hydrocarbons				Metals			
				Gasoline Range (µg/L)	Diesel Range (µg/L)	Heavy Range (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Total Pb (µg/L)		
MW-1	6/19/97	24.65	74.02	<50.0	--	--	<0.500	1.03	<0.500	<0.500	1.72	--	--	
	7/11/00	24.6	74.07	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--	--	
	4/19/04	24.6	74.07	--	--	--	--	--	--	--	--	--	--	
	4/18/07	24.57	74.10	<50.0	--	--	<0.5	<0.7	<0.8	<8	<8	--	--	
	4/28/09	24.22	74.45	<50.0	<82.0	<410	<1.0	<1.0	<1.0	<3.0	<3.0	--	8.30	
	07/29/09	25.09	73.58	--	--	--	--	--	--	--	--	--	--	
	11/04/09	25.11	73.56	--	--	--	<1.00	<1.00	<1.00	<3.00	<3.00	--	--	
	01/18/10	24.61	74.06	<50.0	--	--	<1.0	<1.0	<1.0	<3.0	<3.0	--	12.3	
	08/03/10	DRY	--	--	--	--	--	--	--	--	--	--	--	--
	02/03/11	25.03	73.64	--	--	--	Insufficient water to sample							
	02/20/12	25.14	73.53	--	--	--	Insufficient water to sample							
	05/10/12	25.00	73.67	--	--	--	Insufficient water to sample							
	08/07/12	25.00	73.67	--	--	--	Insufficient water to sample							
	11/13/12	24.75	73.92	--	--	--	Insufficient water to sample							
01/28/13	24.71	73.96	--	--	--	Insufficient water to sample								
05/13/13	DRY	--	--	--	--	Insufficient water to sample								

TABLE 1
SUMMARY OF GROUNDWATER GAUGING AND ANALYTICAL DATA
 ConocoPhillips Facility No. 2705496
 1105 Marvin Road NE,
 Lacey Washington 98516

Sample ID	Sample Date	Depth to Water (feet)	GW Elevation (feet)	Total Petroleum Hydrocarbons			Aromatic Hydrocarbons				Metals	
				Gasoline Range (µg/L)	Diesel Range (µg/L)	Heavy Range (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)		MTBE (µg/L)
TW-5	6/19/97	28	71.05	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--
	7/11/00	24.66	74.39	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--
	4/19/04	24.67	74.38	<100	--	--	<1	<1	<1	<2	--	--
	4/18/07	24.68	74.37	NS	--	--	--	--	--	--	--	--
	4/28/09	25.42	73.63	--	--	--	--	--	--	--	--	--
	7/29/09	--	--	--	--	--	--	--	--	--	--	--
	11/04/09	--	--	--	--	--	--	--	--	--	--	--
	01/18/10	--	--	--	--	--	--	--	--	--	--	--
	08/03/10	DRY	--	--	--	--	--	--	--	--	--	--
	02/03/11	DRY	--	--	--	--	--	--	--	--	--	--
	02/20/12	25.41	73.64	--	--	--	Insufficient water to sample					
	05/10/12	--	--	--	--	--	Insufficient water to sample					
	08/07/12	25.00	74.05	--	--	--	Insufficient water to sample					
	11/13/12	24.94	74.11	--	--	--	Insufficient water to sample					
	01/28/13	24.67	74.38	--	--	--	Insufficient water to sample					
05/13/13	DRY	--	--	--	--	Insufficient water to sample						

TABLE 1
 SUMMARY OF GROUNDWATER GAUGING AND ANALYTICAL DATA
 ConocoPhillips Facility No. 2705496
 1105 Marvin Road NE,
 Lacey Washington 98516

Sample ID	Sample Date	Depth to Water (feet)	GW Elevation (feet)	Total Petroleum Hydrocarbons				Aromatic Hydrocarbons				Metals	
				Gasoline Range (µg/L)	Diesel Range (µg/L)	Heavy Range (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Total Pb (µg/L)	
B-2	6/19/97	DRY	---	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--
	7/11/00	28.05	70.88	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	<1.00	--	--
	4/19/04	28.06	70.87	<100	--	--	<1	<1	<1	<2	<2	--	--
	4/18/07	28.06	70.87	<50.0	--	--	--	--	--	--	--	--	--
	4/28/09	29	69.93	--	--	--	--	--	--	--	--	--	--
	7/29/09	28.6	70.33	--	--	--	--	--	--	--	--	--	--
	11/04/09	28.15	70.52	--	--	--	<1.00	<1.00	<1.00	<1.00	<3.00	--	--
	01/18/10	28.10	70.83	<50.0	--	--	<1.0	<1.0	<1.0	<1.0	<3.0	--	--
	08/03/10	DRY	---	--	--	--	--	--	--	--	--	--	--
	02/03/11	28.05	70.88	<50.0	--	--	<1.0	<1.0	<1.0	<1.0	<3.0	--	--
	02/20/12	28.09	70.84	Insufficient water to sample									
	05/10/12	28.18	70.75	Insufficient water to sample									
	08/07/12	28.00	70.93	Insufficient water to sample									
	11/13/12	27.99	70.94	Insufficient water to sample									
	01/28/13	28.00	70.93	Insufficient water to sample									
05/13/13	DRY	---	Insufficient water to sample										

TABLE 1
SUMMARY OF GROUNDWATER GAUGING AND ANALYTICAL DATA
ConocoPhillips Facility No. 2705496
1105 Marvin Road NE,
Lacey Washington 98516

Sample ID	Sample Date	Depth to Water (feet)	GW Elevation (feet)	Total Petroleum Hydrocarbons				Aromatic Hydrocarbons				Metals	
				Gasoline Range (µg/L)	Diesel Range (µg/L)	Heavy Range (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Total Pb (µg/L)	
MW-6	7/11/00	34.37	64.56	1160	--	--	3.93	36.4	3.06	322	--	--	
	4/19/04	34.76	63.82	--	--	--	--	--	--	--	--	--	
	4/18/07	35.09	63.49	--	--	--	--	--	--	--	--	--	
	12/14/07	--	--	<50.0	--	--	<0.5	<0.7	<0.8	<0.8	--	--	
	4/28/09	35.2	63.38	--	--	--	--	--	--	--	--	--	
	7/29/09	--	--	--	--	--	--	--	--	--	--	--	
	11/04/09	--	--	--	--	--	--	--	--	--	--	--	
	01/18/10	32.50	66.08	--	--	--	--	--	--	--	--	--	
	02/03/11	DRY	--	--	--	--	--	--	--	--	--	--	
	08/03/10	DRY	--	--	--	--	--	--	--	--	--	--	
	02/20/12	35.10	63.48	Insufficient water to sample									
	05/10/12	35.26	63.32	Insufficient water to sample									
	08/07/12	35.25	63.33	Insufficient water to sample									
	11/13/12	35.29	63.29	Insufficient water to sample									
01/28/13	35.20	63.38	Insufficient water to sample										
05/13/13	DRY	--	Insufficient water to sample										

TABLE 1
SUMMARY OF GROUNDWATER GAUGING AND ANALYTICAL DATA
 ConocoPhillips Facility No. 2705496
 1105 Marvin Road NE,
 Lacey Washington 98516

Sample ID	Sample Date	Depth to Water (feet)	GW Elevation (feet)	Total Petroleum Hydrocarbons			Aromatic Hydrocarbons				Metals		
				Gasoline Range (µg/L)	Diesel Range (µg/L)	Heavy Range (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Total Pb (µg/L)	
MW-7	4/18/07	49.36	--	135	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	--	--
	12/14/07	--	--	380	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	--	1.20
	4/28/09	48.99	--	<50.0	<81.0	<400	<1.0	<1.0	<1.0	<3.0	<3.0	--	3.30
	7/29/09	49.66	--	<50.0	--	--	<1.00	<1.00	<1.00	<3.00	<3.00	--	--
	11/04/09	49.30	--	<50.0	570	<380	<1.00	<1.00	<1.00	<3.00	<3.00	--	<10.0
	01/18/10	48.87	--	<50.0	110	790	<1.0	<1.0	<1.0	<3.0	<3.0	--	<10.0
	08/03/10	49.50	49.04				Insufficient water to sample						
	02/03/11	49.19	49.35	<50.0	340	<400	<1.0	<1.0	<1.0	<3.0	<3.0	--	--
	02/20/12	49.05	49.49				Insufficient water to sample						
	05/10/12	49.41	49.13				Insufficient water to sample						
	08/07/12	49.58	48.96				Insufficient water to sample						
	11/13/12	48.90	49.64				Insufficient water to sample						
	01/28/13	49.34	49.20				Insufficient water to sample						
05/13/13	DRY	--				Insufficient water to sample							

TABLE 1
SUMMARY OF GROUNDWATER GAUGING AND ANALYTICAL DATA
 ConocoPhillips Facility No. 2705496
 1105 Marvin Road NE,
 Lacey Washington 98516

Sample ID	Sample Date	Depth to Water (feet)	GW Elevation (feet)	Total Petroleum Hydrocarbons				Aromatic Hydrocarbons				Metals
				Gasoline Range (µg/L)	Diesel Range (µg/L)	Heavy Range (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	
MW-8	06/03/10	66.56	31.85	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	<1.0	<10.0
	02/03/11	55.08	43.33	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	—	<10.0
	02/20/12	56.03	42.38	<50.0	<81	<400	<1.0	<1.0	<1.0	<3.0	—	<10.0
	05/10/12	57.86	40.55	<50.0	<75	<380	<1.0	<1.0	<1.0	<3.0	—	<10.0
	08/07/12	66.83	31.58	<50.0	<154	<769	<1.0	<1.0	<1.0	<3.0	—	—
	11/13/12	64.50	33.91	<100	<194	257	<1.0	<1.0	<1.0	<3.0	—	<3.0
	01/28/13	57.23	41.18	<100	<200	<200	<1.0	<1.0	<1.0	<3.0	—	<3.0
	05/13/13	61.90	36.51	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	—	<10.0
MTCA Method A Cleanup Levels:				1,000/800^a	500	500	5	1,000	700	1,000	—	15

NOTES:

- All concentrations are in ug/L (ppb).
- Depth to water in feet below top of casing.
- Groundwater elevation relative to top of casing elevation.
- Gasoline range hydrocarbons by Ecology Method NWTPH-Gx.
- Diesel and heavy oil range hydrocarbons, respectively, by Ecology Method NWTPH-Dx.
- BTEX = Aromatic compounds by EPA Method 8260B; previous results by 8021B or 8260B, refer to laboratory reports.
- MTBE = Methyl tert-butyl ether by EPA Method 8260B.
- Total Pb = total lead analyzed by EPA Method 6010.
- < = Less than the stated laboratory reporting limit.
- Bolded values equal or exceed MTCA Method A Cleanup Levels.
- ^a MTCA Method A Cleanup levels for TPH-g are 1,000 ug/L when no Benzene is present and 800 ug/L when Benzene is present.
- Not Analyzed, Measured or Sampled