

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY

2019 GROUNDWATER AND OPERATION REPORT

Former Unocal Edmonds Bulk Fuel Terminal
Edmonds, Washington

March 25, 2020





Ophélie Encelle
Associate Project Manager



Peter Campbell PE
Project Engineer



Samuel Miles
Project Manager

2019 GROUNDWATER AND OPERATION REPORT

Former Unocal Edmonds Bulk Fuel
Terminal
Edmonds, Washington

Prepared for:

Chevron Environmental Management
Company

Prepared by:

Arcadis U.S., Inc.

1100 Olive Way

Suite 800

Seattle

Washington 98101

Tel 206 325 5254

Fax 206 325 8218

Our Ref.:

B0045362.0013

Date:

March 25, 2020

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

CONTENTS

Acronyms and Abbreviations.....	iv
1. Introduction.....	1
2. Site Description	2
3. Groundwater Monitoring.....	3
3.1 Groundwater Monitoring Program	3
3.2 Groundwater Cleanup Levels	4
3.3 2019 Groundwater Sampling Events	5
3.3.1 Field Activities.....	5
3.3.2 Groundwater Elevation and Flow Direction	6
3.3.3 Analytical Results	6
3.3.3.1 Constituent of Concern Concentrations.....	6
3.3.3.2 Monitored Natural Attenuation Parameters	7
4. Remediation System	8
4.1 Remediation System Background	8
4.2 2019 Remediation System Operation.....	8
4.3 2019 Effluent Discharge.....	10
4.3.1 2019 Water Discharge.....	10
4.3.2 2019 Vapor Discharge.....	10
5. References.....	11

TABLES (IN TEXT)

Table 3-1. Groundwater Compliance Monitoring Wells.....	3
Table 3-2. Groundwater Cleanup Levels.....	5

TABLES (ATTACHED)

Table 3-3. Groundwater Elevation Data	
Table 3-4. Summary of Groundwater Analytical Data – Petroleum and Polynuclear Aromatic Hydrocarbons	
Table 3-5. Summary of Groundwater Analytical Data – Natural Attenuation Parameters	
Table 4-1. Groundwater Extraction Data	
Table 4-2. Vapor Extraction Data	
Table 4-3. Vapor Extraction Data – Laboratory Data and Mass Removal	
Table 4-4. DPE Well Groundwater Operational Data	
Table 4-5. DPE Well Vapor Data	
Table 4-6. Observation Well Data	
Table 4-7. Catalytic Oxidizer Data	
Table 4-8. DPE System Treated Water Discharge Analytical Data and Field Parameters	

FIGURES

Figure 1-1. Site Location	
Figure 2-1. Site Layout	
Figure 3-1. Compliance Monitoring Well Locations	
Figure 3-2. Site Groundwater TPH Remediation Status Fourth Quarter 2019	
Figure 3-3. Site Groundwater Benzene Remediation Status Fourth Quarter 2019	
Figure 4-1. DPE System Vapor Phase Mass Removal	

APPENDICES

Appendix A. National Oceanic and Atmospheric Administration Edmonds Tide Charts	
Appendix B. Groundwater Sampling Event Field Notes	
Appendix C. Groundwater Sampling Event Figures	
Appendix D. Groundwater Monitoring Laboratory Analytical Reports and Chain of Custody Documentation	
Appendix E. Discharge Monitoring Reports	

2019 GROUNDWATER AND OPERATION REPORT

Appendix F. Potentiometric Surface Maps

Appendix G. Outfall #002 Laboratory Analytical Results and Chain of Custody Documentation

ACRONYMS AND ABBREVIATIONS

2019 GOR	Groundwater and Operation Report
Arcadis	Arcadis U.S., Inc.
CMP	Compliance Monitoring Plan
COC	constituent of concern
cPAHs	carcinogenic polycyclic aromatic hydrocarbons
CUL	cleanup level
DB-1	Detention Basin 1
DMR	discharge monitoring report
DPE	dual-phase extraction
DRO	diesel range organics
Ecology	Washington State Department of Ecology
Final IAWP	Final Interim Action Work Plan
GRO	gasoline range organics
HO	heavy oil range organics
LNAPL	light nonaqueous phase liquid
MNA	monitored natural attenuation
NAVD88	North American Vertical Datum of 1988
NPDES	National Pollutant Discharge Elimination System
OM&M	operation maintenance and monitoring
POC	point of compliance
PSCAA	Puget Sound Clean Air Agency
Site	former Unocal Edmonds Bulk Fuel Terminal, located at 11720 Unoco Road, Edmonds, Washington
TEQ	toxic equivalent
TPH	total petroleum hydrocarbons
USEPA	United States Environmental Protection Agency
WAC	Washington Administrative Code
µg/L	micrograms per liter

1. INTRODUCTION

On behalf of Chevron Environmental Management Company, Arcadis U.S., Inc. (Arcadis) prepared this 2019 Groundwater and Operation Report (2019 GOR) for the former Union Oil Company of California (Unocal) Edmonds Bulk Fuel Terminal, located at 11720 Unoco Road in Edmonds, Washington (Site). The Site and surrounding area are shown on Figure 1-1.

This 2019 GOR is written in accordance with the specifications of the Compliance Monitoring Plan (CMP), which is provided as Appendix B of the Draft Cleanup Action Plan (Arcadis 2017c) submitted to the Washington State Department of Ecology (Ecology) on July 31, 2017. The Site is currently under Agreed Order No. DE 4460 (Ecology 2007).

The Site is formally known as Unocal Edmonds Bulk Fuel Terminal 0178 in Ecology's database. Identifiers are:

- Facility Site Identification Number: 2720
- Cleanup Site Identification Number: 5180.

In 2019, Arcadis performed the following activities:

- Quarterly groundwater monitoring events
- Operation of the dual-phase extraction (DPE) remediation system according to the Final Interim Action Work Plan (Final IAWP; Arcadis 2016b), the Dual-Phase Extraction System Operation, Maintenance, and Monitoring Manual (Arcadis 2017a) and the National Pollutant Discharge Elimination System (NPDES) Waste Discharge Permit No. WA099100.
- Expansion of the DPE remediation system according to the Final Additional Dual Phase Extraction Well Installation Work Plan (Arcadis 2019). The expansion of the DPE system will be discussed under separate cover.

The 2019 GOR includes:

- Descriptions of field activities, including any unusual or unexpected events or conditions
- Tables containing groundwater monitoring data, as well as groundwater sample analytical results
- Figures displaying total petroleum hydrocarbons (TPHs), benzene, and total toxic equivalent (TEQ) carcinogenic polycyclic aromatic hydrocarbons (cPAHs) concentrations in the groundwater samples
- Copies of laboratory reports and chain of custody documentation
- Discharge monitoring reports in accordance with NPDES permit requirements.

2. SITE DESCRIPTION

The Site, as defined by the Model Toxics Control Act, comprises the areas of the Lower Yard and the former Upper Yard. The Site layout, as well as the areas of the Lower Yard, are shown on Figure 2-1.

The approximately 25-acre former Upper Yard is located south of the Lower Yard (Figure 2-1). Unocal sold the former Upper Yard to Point Edwards, LLC in October 2003 after Ecology confirmed that Unocal had completed cleanup activities in the Upper Yard (Ecology 2003). The Upper Yard was subsequently redeveloped as the Point Edwards condominium complex. The aquifer beneath the Site is considered a site-wide aquifer; therefore, groundwater constituents of concern (COCs) are the same for the former Upper Yard and the Lower Yard. Additionally, points of compliance (POCs) for the former Upper Yard will be monitored at POC monitoring well locations in the Lower Yard.

The approximately 22-acre Lower Yard surrounds the former Upper Yard to the north, east, and west, and is currently owned by Unocal. The Lower Yard is currently a vacant property, with no permanent aboveground structures. A temporary storage shed, concrete pad, and remediation system enclosure are located along lower Unoco Road in the central portion of the Lower Yard. The Lower Yard stormwater system conveys direct precipitation and stormwater to Detention Basin 1 (DB-1).

Willow Creek runs along the northern portion of the western boundary and the entire eastern boundary of the Lower Yard. To the north and northeast of the Lower Yard beyond Willow Creek is Edmonds Marsh, which is a 23-acre freshwater and brackish water marsh. Willow Creek and Edmonds Marsh are directly connected to Puget Sound and are tidally influenced. At high tide, water flows from Puget Sound upstream in Willow Creek into Edmonds Marsh; at low tide, water drains from Edmonds Marsh through Willow Creek into Puget Sound. At its nearest point (the southwest corner of the Lower Yard), the Site is approximately 160 feet from the Puget Sound shoreline. The tidal variations in water levels in Puget Sound also influence groundwater elevations at the site perimeter.

3. GROUNDWATER MONITORING

This section discusses the groundwater monitoring program, groundwater cleanup levels, and groundwater sampling events conducted at the Site in 2019.

3.1 Groundwater Monitoring Program

The groundwater monitoring program includes quarterly post-remedial action events. The events include gauging and sampling the interior and perimeter compliance monitoring wells listed in the CMP (Arcadis 2017c), in Table 3-1, and as shown on Figure 3-1. Additionally, the groundwater monitoring program includes gauging monitoring wells in the southeast Lower Yard (MW-108, MW-109, MW-135, MW-136, MW-500, and MW-501), southwest Lower Yard (MW-147, MW-149-R, MW-150, MW-523, and MW-524), and southeast Lower Yard near the Willow Creek fish hatchery (MW-13U, MW-134X, MW-203, MW-527, and MW-528).

Table 3-1. Groundwater Compliance Monitoring Wells

Perimeter Wells	Interior Wells
LM-2	MW-126
MW-8R	MW-143
MW-20R	MW-502
MW-101	MW-503
MW-104	MW-504
MW-129R	MW-505
MW-139R	MW-506
MW-518	MW-507
MW-522	MW-509
MW-530	MW-511
MW-533	MW-512
MW-535	MW-513
	MW-514
	MW-515
	MW-516
	MW-517
	MW-519
	MW-520
	MW-521
	MW-525
	MW-526
	MW-531
	MW-532
	MW-E
	MW-535

The groundwater monitoring program includes gauging the monitoring wells to measure water levels and assess the presence of recoverable light nonaqueous phase liquid (LNAPL) within 2 hours of low tide, according to the tide charts for Edmonds, Washington (obtained from the National Oceanic and Atmospheric Administration), which are provided in Appendix A.¹

The groundwater monitoring program includes purging and collecting groundwater samples using low-flow methods, monitoring water quality parameters (dissolved oxygen, oxidation-reduction potential, pH, conductivity, and temperature), and submitting groundwater samples to an Ecology-approved laboratory under chain of custody for the analyses described in the CMP (Arcadis 2017c) and summarized below:

- COCs:
 - Benzene by United States Environmental Protection Agency (USEPA) Method 8021B
 - Gasoline range organics (GRO) by Ecology Method NWTPH-Gx
 - Diesel range organics (DRO) and heavy oil range organics (HO) by Ecology Method NWTPH-Dx (after silica gel cleanup)
 - cPAHs by USEPA Method 8270 selected ion monitoring, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene.
- Monitored natural attenuation (MNA) parameters:
 - Sulfate and nitrate by USEPA Method 300.0
 - Dissolved methane by USEPA Method RSK 175
 - Dissolved manganese by USEPA Method 200.8 (field filtered)
 - Ferrous iron (Hach® field kits).

Groundwater samples are submitted quarterly for COCs and biannually for MNA parameters.

3.2 Groundwater Cleanup Levels

Groundwater cleanup levels (CULs) for the Site are summarized in Table 3-2. Further details regarding CUL identification are provided in the Public Review Draft Final Feasibility Study Report (Arcadis 2017b).

¹ Available at <https://tidesandcurrents.noaa.gov/noaatidepredictions.html?id=9447427&legacy=1>

Table 3-2. Groundwater Cleanup Levels

Constituents of Concern ¹	Cleanup Levels (as protection of surface water) ¹
TPH ²	— ⁴
Benzene	16 µg/L ⁵
Total cPAHs TEQ ³	0.05 µg/L ⁶

Notes:

¹ The aquifer beneath the Site is considered a site-wide aquifer; therefore, groundwater COCs and CULs are the same for the former Upper Yard and the Lower Yard.

² TPH concentration calculated by summing the concentrations of GRO, DRO, and HO. For results that do not exceed method reporting limits, one-half of the reporting limit is added to determine TPH concentration.

³ Total cPAHs calculated by summing the concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene; and are adjusted for toxicity using toxic equivalency factors to represent a total benzo(a)pyrene concentration (Washington Administrative Code [WAC] 173-340-900). For results that do not exceed method reporting limits, one-half of the reporting limit is added to determine the total cPAHs concentration.

⁴ Method A (WAC 173-340-900, Table 720-1); TPH calculated on a sample-specific basis. The CUL will fall between 500 and 800 micrograms per liter (µg/L), depending on the sample's composition.

⁵ National Recommended Water Quality Criteria for human-health (organisms only) (USEPA 2015).

⁶Total cPAHs TEQ adjusted for practical quantitation limit based on WAC 173-340-730(5)(c).

3.3 2019 Groundwater Sampling Events

3.3.1 Field Activities

Arcadis performed the following quarterly groundwater sampling events in 2019:

- First quarter: March 18 to 22
- Second quarter: June 17 to 20
- Third quarter: September 16 to 19
- Fourth quarter: December 9 to 12.

Gauging was implemented per the groundwater monitoring program described in Section 3.1. The depths to groundwater in monitoring wells were measured on March 18, June 17, September 16, and December 10, within a 2-hour window during low tide, according to the tide charts for Edmonds presented in Appendix A. Groundwater field notes are provided in Appendix B.

Sampling was conducted per the groundwater monitoring program described in Section 3.1. Groundwater samples were submitted to Lancaster Laboratories Environmental, an Ecology-approved laboratory, under chain of custody and were analyzed in accordance with the methods described in Section 3.1.

On February 7, 2019, a limited event was conducted to confirm results observed during fourth quarter 2018 for MW-101, MW-129R, MW-518, MW-526, and MW-E-R.

3.3.2 Groundwater Elevation and Flow Direction

Groundwater elevations throughout the Lower Yard remained consistent from October 2008 to December 2019, with average groundwater elevations ranging between 5 and 9 feet above North American Vertical Datum of 1988 (NAVD 88) excluding data for the southeast Lower Yard, which indicate the presence of an area of localized groundwater mounding (with average groundwater elevations ranging between 9 and 11 feet above NAVD 88 and groundwater elevations in monitoring wells MW-500 and MW-501 generally observed several feet higher than nearby wells). In general, the seasonal variation includes the difference between the highest groundwater elevations observed during January and the lowest groundwater elevations observed between June and September.

Historically observed groundwater gradient is to the north-northwest in the central portion of the Site (Central Lower Yard) and to the northwest in the western portion of the Site (Western Boundary, West/Northwest Lower Yard, and Southwest Lower Yard). Using the quarterly water-level data from October 2008 to June 2012 to calculate a site-wide gradient (Devlin 2003), the analysis indicates that the overall average gradient is 0.002 foot per foot toward the west-northwest.

Observed depth to water and groundwater elevations observed in 2019 are presented in Table 3-3. Groundwater elevations and contours are presented on the figures in Appendix C. Interpreted groundwater flow direction were generally to the west-northwest for the Site with local variations: direction varying from north to west in the central portion of the Site (Central Lower Yard), to the northwest in the western portion of the Site (Western Boundary, West/Northwest Lower Yard, and Southwest Lower Yard) and a mounding effect was observed in the southeast Lower Yard. The 2019 groundwater flow directions are consistent with historical data.

No LNAPL was encountered at the Site during any of the 2019 groundwater sampling events. However, two weeks following DPE system expansion, LNAPL was observed in groundwater well MW-129R, located approximately 8 feet from newly installed DPE well DPE-18. The observations were made during two DPE system performance gauging events on August 15 and August 21, 2019, with LNAPL thicknesses of 0.05 and 0.03 feet, respectively, and were communicated verbally and by email to Ecology. With Ecology's approval, an oil absorbent sock was placed in groundwater well MW-129R on August 21, 2019. LNAPL was not observed in groundwater well MW-129R after August 21, 2019 and weekly gauging of groundwater well MW-129R was discontinued after December 10, 2019 in accordance with the Ecology approved plan.

3.3.3 Analytical Results

Thirty-three of the 37 POC monitoring wells contained COC concentrations less than their respective CULs. Analytical results are presented in Tables 3-4 and 3-5. Figures 3-2 and 3-3 show the Site groundwater remediation status as of fourth quarter 2019. Low-flow sampling field notes are included in Appendix B. COC concentrations are presented on the figures in Appendix C. Groundwater laboratory analytical reports and chain of custody documents are included in Appendix D.

3.3.3.1 Constituent of Concern Concentrations

On February 7, 2019, a limited event was conducted to confirm results observed during fourth quarter 2018 for MW-101, MW-129R, MW-518, MW-526, and MW-E-R; results are summarized below:

2019 GROUNDWATER AND OPERATION REPORT

- *TPH*. MW-E-R contained TPH concentrations of 850 µg/L.
- *Benzene*. No exceedances were observed.
- *cPAHs*. No exceedances were observed.

Quarterly groundwater sampling events COC concentrations greater than their respective CULs are listed below:

- First quarter:
 - *TPH*. No exceedances were observed.
 - *Benzene*. No exceedances were observed.
 - *cPAHs*. No exceedances were observed.
- Second quarter:
 - *TPH*. MW-518, MW-522 and MW-526 contained TPH concentrations of 1100, 580 and 840 µg/L, respectively.
 - *Benzene*. No exceedances were observed.
 - *cPAHs*. No exceedances were observed.
- Third quarter:
 - *TPH*. MW-E-R contained a TPH concentration of 880 µg/L.
 - *Benzene*. No exceedances were observed.
 - *cPAHs*. No exceedances were observed.
- Fourth quarter:
 - *TPH*. MW-518 and MW-E-R contained TPH concentrations of 906 and 894 µg/L, respectively.
 - *Benzene*. No exceedances were observed.
 - *cPAHs*. No exceedances were observed.

3.3.3.2 Monitored Natural Attenuation Parameters

Thirty-one of the 37 POCs during the June 2019 event contained methane concentrations greater than detection limits (3 µg/L) and 23 of those POCs contained methane concentrations greater than 100 µg/L, suggesting degradation of organic constituents.

Thirty-three of the 37 POCs during the December 2019 event contained methane concentrations greater than detection limits (3 µg/L) and 24 of those POCs contained methane concentrations greater than 100 µg/L, suggesting degradation of organic constituents.

4. REMEDIATION SYSTEM

This section discusses the remediation system operations conducted at the Site in 2019.

4.1 Remediation System Background

The DPE system was installed in 2017 to address remaining impacts near the Washington State Department of Transportation stormwater line, as discussed in the Engineering Design Report and the Final IAWP (Arcadis 2016a, 2016b). Construction details for the DPE system are described in the Dual-Phase Extraction System As-Built Report (Arcadis 2018).

Treated water from the DPE system is discharged to Willow Creek at Outfall #002 under NPDES Waste Discharge Permit No. WA0991007. This permit requires the collection of discharge water samples weekly at Outfall #002 during system operation and submittal of the discharge water samples to an Ecology-approved laboratory for the following analyses:

- Benzene by USEPA Method 624
- GRO by Ecology Method NWTPH-Gx
- DRO by Ecology Method NWTPH-Dx (after silica gel cleanup)
- cPAHs by USEPA Method 625
- pH by pH meter onsite.

NPDES Waste Discharge Permit No. WA0991007, effective since November 1, 2016, requires discharge monitoring reports (DMRs; provided in Appendix E) to be entered by the 28th day of each month, starting December 28, 2016, into Ecology's online system WQebDMR.

Treated effluent vapors from the DPE system are discharged under the Puget Sound Clean Air Agency (PSCAA) Permit No.29892 per the permit restrictions and conditions.

4.2 2019 Remediation System Operation

The DPE system startup began on December 1, 2017 with the groundwater extraction components in operation. The SVE portion of the DPE system commenced testing operation on December 5, 2017. The soil vapor extraction effective startup was initiated on December 11, 2017.

The SVE portion of the DPE system was turned off on November 21, 2018 to prepare for the December 2018 groundwater monitoring event. SVE operation was not resumed as mass removal rates were less than 10 pounds per day (lbs/day) and had reached asymptotic levels. As discussed in the approved 2018 Washington State Stormwater Compliance Sampling Work Plan, upon startup in December 2017, mass removal rates exceeded 40 lbs/day but by December 2018, mass removal rates had reduced to under 1 lb/day and had reached asymptotic levels.

The SVE portion of the DPE system was restarted on September 23, 2019 following testing occurring throughout September 2019 in order to test potential rebound in the vapor phase following DPE system expansion. A mechanical failure required DPE system shutdown from September 27, 2019 to January 31,

2019 GROUNDWATER AND OPERATION REPORT

2020 when mechanical repairs were completed. The DPE system restarted on January 31, 2020. DPE system mass removal rates are shown on Figure 4-1.

From January 1, 2019 through December 31, 2019, the following activities related to DPE system operation were performed:

- Arcadis conducted DPE system operation, maintenance, and monitoring (OM&M) according to the Dual-Phase Extraction System Operation, Maintenance, and Monitoring Manual (Arcadis 2017a). As part of the DPE system OM&M, Arcadis gauged the observation and DPE wells to assess drawdown. Potentiometric surface maps showing drawdown for January through September are presented in Appendix F.
- Arcadis monitored the discharged treated water by collecting samples and the discharged vapor from the DPE system by using a photo ionization detector (PID) (see Section 4.3).
- Arcadis expanded the DPE remediation system during Summer 2019 according to the Final Additional Dual Phase Extraction Well Installation Work Plan (Arcadis 2019). The expansion of the DPE system will be discussed under a separate cover.

Groundwater and vapor extraction data since the beginning of operation are presented in Tables 4-1 and 4-2. Vapor extraction laboratory data since the beginning of operation and mass removal calculations are presented in Table 4-3². Individual DPE well groundwater and vapor data since beginning of operation are presented in Tables 4-4 and 4-5. Observation well data since beginning of operation are presented in Table 4-6. Catalytic oxidizer data since beginning of operation are presented in Table 4-7.

The 2019 DPE system operation is summarized below:

System startup date:	12/01/2017
Remedial technology:	Dual-phase extraction and treatment system
System operation:	Operation from 12/01/2017 to 12/31/2019 (not continuous).
System OM&M schedule:	OM&M was scheduled according to Dual-Phase Extraction System Operation Maintenance and Monitoring Manual (Arcadis. 2017a)
NPDES permit conditions met:	Yes
PSCAA permit conditions met:	Yes
Total volume treated (gallons) since beginning of operation:	9,021,914
Approximate total vapor-phase mass removed since beginning of operation:	
field data (PID):	490 pounds volatile organic compounds
analytical data:	630 pounds GRO

² No vapor extraction laboratory data were collected in 2019.

4.3 2019 Effluent Discharge

4.3.1 2019 Water Discharge

DPE system groundwater startup was conducted on December 1, 2017. The DPE system began treating and discharging groundwater into DB-1 on December 1, 2017. DPE system water was temporarily held in DB-1 until receipt of analytical results confirming the effectiveness of the DPE system. Outfall#002 sample was collected on December 1, 2017, prior to the first discharge into Willow Creek, and results showed compliance with the NPDES Waste Discharge Permit No. WA0991007 allowing discharge into Willow Creek. Discharge into Willow Creek at Outfall #002 under NPDES Waste Discharge Permit No. WA0991007 was implemented from December 14, 2017 through December 31, 2019. Sampling was implemented weekly for the analytical program described in Section 4.1. If the discharge was suspended for a given week, the associated sampling event was suspended accordingly. DPE system treated water discharge analytical data and field parameters are presented in Table 4-8.

DMRs are presented in Appendix E. Outfall #002 laboratory analytical results and chain-of-custody documents are included in Appendix G.

4.3.2 2019 Vapor Discharge

The DPE system soil vapor extraction effective startup was initiated on December 11, 2017 after startup testing beginning December 5, 2017. Pre-and post-treatment effluent vapor monitoring under PSCAA Permit No.29892 was implemented and all post-treatment vapor discharge concentrations, discharge flow, and treatment temperatures met permit conditions during 2019.

Overall vapor discharge results are summarized in Table 4-7.

5. REFERENCES

- Arcadis. 2016a. Engineering Design Report. Former Unocal Edmonds Bulk Fuel Terminal. March 8.
- Arcadis. 2016b. Final Interim Action Work Plan. Former Unocal Edmonds Bulk Fuel Terminal. July 19.
- Arcadis. 2017a. Dual-Phase Extraction System Operation, Maintenance, and Monitoring Manual. Former Unocal Edmonds Bulk Fuel Terminal. June 14.
- Arcadis. 2017b. Public Review Draft Final Feasibility Study Report. Former Unocal Edmonds Bulk Fuel Terminal. June 16.
- Arcadis. 2017c. Draft Cleanup Action Plan. Former Unocal Edmonds Bulk Fuel Terminal. July 31.
- Arcadis. 2018a. Washington State Department of Transportation Stormwater Line Compliance Soil Sampling Work Plan. Former Unocal Edmonds Bulk Fuel Terminal. November 29.
- Arcadis. 2018b. Dual-Phase Extraction System As-Built Report. Former Unocal Edmonds Bulk Fuel Terminal. May 10.
- Arcadis 2019. Final Additional Dual Phase Extraction Well Installation Work Plan. Former Unocal Edmonds Bulk Fuel Terminal. May 29.
- Devlin, J.F. 2003. A Spreadsheet Method of Estimating Best-Fit Hydraulic Gradients Using Head Data from Multiple Wells. *Groundwater* 41(3): 316-320.
- Ecology. 2003. Letter RE: Edmonds Bulk Fuel Terminal, Upper Yard: Completion of Cleanup per Interim Action Report. October 9.
- Ecology. 2007. Agreed Order No. DE 4460
- USEPA. 2015. National Recommended Water Quality Criteria – Human Health Criteria Table. <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table>. Accessed on June 6, 2016.

TABLES



Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
LM-2	10/20/08	16:08	8.14	2.66	--	NP	5.48	--
LM-2	12/08/08	10:51	8.14	2.89	--	NP	5.25	--
LM-2	02/20/09	9:55	8.14	2.64	--	NP	5.50	--
LM-2	04/20/09	9:48	8.14	2.46	--	NP	5.68	--
LM-2	06/22/09	11:35	8.14	2.84	--	NP	5.30	--
LM-2	08/03/09	11:18	8.14	3.10	--	NP	5.04	--
LM-2	08/17/09	9:27	8.14	3.09	--	NP	5.05	--
LM-2	10/29/09	9:46	8.14	2.56	--	NP	5.58	--
LM-2	01/18/10	13:47	8.14	2.59	--	NP	5.55	--
LM-2	04/19/10	15:14	8.14	2.20	--	NP	5.94	--
LM-2	07/19/10	7:24	8.14	2.41	--	NP	5.73	--
LM-2	10/25/10	14:02	8.14	1.63	--	NP	6.51	--
LM-2	03/21/11	12:32	8.14	1.60	--	NP	6.54	--
LM-2	06/14/11	10:54	8.14	2.54	--	NP	5.60	--
LM-2	09/26/11	10:59	8.14	2.79	--	NP	5.35	--
LM-2	12/12/11	12:42	8.14	2.46	--	NP	5.68	--
LM-2	03/27/12	14:09	8.14	1.71	--	NP	6.43	--
LM-2	06/27/12	17:14	8.14	1.98	--	NP	6.16	--
LM-2	09/25/12	7:40	8.14	2.51	--	NP	5.63	--
LM-2	12/13/12	10:15	8.14	1.68	--	NP	6.46	--
LM-2	03/25/13	10:20	8.14	1.17	--	NP	6.97	--
LM-2	06/24/13	12:45	8.14	1.66	--	NP	6.48	--
LM-2	09/23/13	13:55	8.14	2.36	--	NP	5.78	--
LM-2	12/16/13	11:33	8.14	1.86	--	NP	6.28	--
LM-2	03/26/14	8:15	8.14	1.94	--	NP	6.20	--
LM-2	06/16/14	13:11	8.14	2.04	--	NP	6.10	--
LM-2	09/29/14	14:58	8.14	2.29	--	NP	5.85	--
LM-2	12/08/14	12:15	8.14	1.90	--	NP	6.24	--
LM-2	03/23/15	14:51	8.14	2.13	--	NP	6.01	--
LM-2	06/22/15	15:48	8.14	2.50	--	NP	5.64	--
LM-2	10/27/16	9:26	8.14	1.62	--	NP	6.52	--
LM-2	07/24/17	11:40	8.14	1.62	--	NP	6.52	--
LM-2	03/19/18	13:30	8.14	1.70	--	NP	6.44	--
LM-2	06/26/18	10:11	8.14	1.92	--	NP	6.22	--
LM-2	09/21/18	8:41	8.14	2.60	--	NP	5.54	--
LM-2	11/26/18	13:11	8.14	1.22	--	NP	6.92	PID: 0.6
LM-2	03/18/19	9:59	8.14	1.78	--	NP	6.36	--
LM-2	06/17/19	11:27	8.14	1.85	--	NP	6.29	--
LM-2	09/16/19	12:52	8.14	1.63	--	NP	6.51	--
LM-2	12/10/19	09:44	8.14	1.69	--	NP	6.45	--
MW-E	10/20/08	16:20	14.42	7.95	--	NP	6.47	--
MW-E	12/08/08	11:35	14.42	7.78	--	NP	6.64	--
MW-E	02/20/09	10:27	14.42	7.58	--	NP	6.84	--
MW-E	04/20/09	10:11	14.42	7.48	--	NP	6.94	--
MW-E	06/22/09	12:14	14.42	7.94	--	NP	6.48	--
MW-E	08/03/09	11:32	14.42	8.10	--	NP	6.32	--
MW-E	08/17/09	9:39	14.42	8.19	--	NP	6.23	--
MW-E	10/29/09	8:53	14.42	7.02	--	NP	7.40	--
MW-E	01/18/10	13:45	14.42	6.89	--	NP	7.53	--
MW-E	04/19/10	15:39	14.42	7.10	--	NP	7.32	--
MW-E	07/19/10	7:41	14.42	7.65	--	NP	6.77	--
MW-E	10/25/10	14:14	14.42	7.30	--	NP	7.12	--
MW-E	03/21/11	12:44	14.42	6.58	--	NP	7.84	--
MW-E	06/14/11	11:15	14.42	7.57	--	NP	6.85	--
MW-E	09/26/11	11:06	14.42	7.93	--	NP	6.49	--
MW-E	12/12/11	12:41	14.42	7.45	--	NP	6.97	--
MW-E	03/27/12	14:24	14.42	6.71	--	NP	7.71	--
MW-E	06/27/12	17:26	14.42	7.19	--	NP	7.23	--
MW-E	09/25/12	8:03	14.42	7.82	--	NP	6.60	--
MW-E	12/13/12	10:15	14.42	6.68	--	NP	7.74	--
MW-E	03/25/13	10:37	14.42	6.82	--	NP	7.60	--
MW-E	06/24/13	12:06	14.42	7.29	--	NP	7.13	--
MW-E	09/23/13	14:05	14.42	7.58	--	NP	6.84	--
MW-E	12/16/13	10:43	14.42	7.46	--	NP	6.96	--
MW-E	03/26/14	8:26	14.42	6.99	--	NP	7.43	--
MW-E	06/16/14	13:54	14.42	7.42	--	NP	7.00	--
MW-E	09/29/14	15:55	14.42	7.46	--	NP	6.96	--
MW-E	12/08/14	12:45	14.42	6.84	--	NP	7.58	--
MW-E	03/23/15	13:59	14.42	7.09	--	NP	7.33	--
MW-E	06/22/15	15:17	14.42	7.66	--	NP	6.76	--
MW-E	10/27/16	9:58	14.42	6.67	--	<0.01	7.75	Film observed during gauging, confirmed with bailer
MW-E	07/24/17	12:45	14.42	7.29	--	NP	7.13	--
MW-E-R	03/19/18	12:43	14.30	6.89	--	NP	7.41	--
MW-E-R	06/26/18	10:20	14.30	7.41	--	NP	6.89	--
MW-E-R	09/21/18	8:17	14.30	7.35	--	NP	6.95	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-E-R	11/26/18	12:27	14.30	6.93	--	NP	7.37	--
MW-E-R	02/07/19	10:05	14.30	7.10	--	NP	7.20	Not part of the quarterly monitoring program; gauged out of low tide window
MW-E-R	03/18/19	9:31	14.30	7.05	--	NP	7.25	
MW-E-R	06/17/19	11:12	14.30	7.20	--	NP	7.10	
MW-E-R	09/16/19	12:33	14.30	7.13	--	NP	7.17	
MW-E-R	12/10/19	10:12	14.30	7.51	--	NP	6.79	
MW-8R	10/20/08	15:47	13.82	8.49	--	NP	5.33	
MW-8R	12/08/08	10:17	13.82	8.35	--	NP	5.47	--
MW-8R	02/20/09	9:22	13.82	8.11	--	NP	5.71	--
MW-8R	04/20/09	9:09	13.82	8.40	--	NP	5.42	--
MW-8R	06/22/09	11:13	13.82	7.06	--	NP	6.76	--
MW-8R	08/03/09	10:53	13.82	8.21	--	NP	5.61	--
MW-8R	08/17/09	8:53	13.82	8.45	--	NP	5.37	--
MW-8R	10/29/09	8:43	13.82	7.99	--	NP	5.83	--
MW-8R	01/18/10	13:21	13.82	6.02	--	NP	7.80	--
MW-8R	04/19/10	14:29	13.82	7.64	--	NP	6.18	--
MW-8R	07/19/10	6:58	13.82	8.37	--	NP	5.45	--
MW-8R	10/25/10	13:31	13.82	7.83	--	NP	5.99	--
MW-8R	03/21/11	12:16	13.82	6.92	--	NP	6.90	--
MW-8R	06/14/11	9:58	13.82	8.13	--	NP	5.69	--
MW-8R	09/26/11	10:48	13.82	8.35	--	NP	5.47	--
MW-8R	12/12/11	11:39	13.82	8.39	--	NP	5.43	--
MW-8R	03/27/12	13:47	13.82	7.39	--	NP	6.43	--
MW-8R	06/27/12	16:37	13.82	8.04	--	NP	5.78	--
MW-8R	09/25/12	7:30	13.82	8.46	--	NP	5.36	--
MW-8R	12/13/12	9:49	13.82	7.24	--	NP	6.58	--
MW-8R	03/25/13	9:56	13.82	8.25	--	NP	5.57	--
MW-8R	06/24/13	11:19	13.82	8.13	--	NP	5.69	--
MW-8R	09/23/13	13:28	13.82	8.02	--	NP	5.80	--
MW-8R	12/16/13	9:35	13.82	8.58	--	NP	5.24	--
MW-8R	03/26/14	7:45	13.82	7.83	--	NP	5.99	--
MW-8R	06/16/14	13:16	13.82	8.16	--	NP	5.66	--
MW-8R	09/29/14	13:26	13.82	7.62	--	NP	6.20	--
MW-8R	12/08/14	12:00	13.82	7.21	--	NP	6.61	--
MW-8R	03/23/15	13:07	13.82	8.53	--	NP	5.29	--
MW-8R	06/22/15	15:11	13.82	8.33	--	NP	5.49	--
MW-8R	10/27/16	8:48	13.82	7.02	--	NP	6.80	--
MW-8R	07/24/17	11:31	13.82	8.31	--	NP	5.51	--
MW-8R	03/19/18	12:13	13.82	7.98	--	NP	5.84	--
MW-8R	06/26/18	9:50	13.82	8.56	--	NP	5.26	--
MW-8R	09/21/18	8:37	13.82	8.44	--	NP	5.38	--
MW-8R	11/26/18	12:37	13.82	7.85	--	NP	5.97	--
MW-8R	03/18/19	9:12	13.82	8.42	--	NP	5.40	--
MW-8R	06/17/19	10:51	13.82	8.39	--	NP	5.43	--
MW-8R	09/16/19	12:03	13.82	8.22	--	NP	5.60	--
MW-8R	12/10/19	9:30	13.82	8.06	--	NP	5.76	--
MW-101	10/20/08	15:55	14.99	8.97	--	NP	6.02	--
MW-101	12/08/08	10:30	14.99	8.96	--	NP	6.03	--
MW-101	02/20/09	9:40	14.99	8.81	--	NP	6.18	--
MW-101	04/20/09	9:15	14.99	8.83	--	NP	6.16	--
MW-101	06/22/09	11:27	14.99	8.95	--	NP	6.04	--
MW-101	08/03/09	11:03	14.99	9.14	--	NP	5.85	--
MW-101	08/17/09	9:18	14.99	9.38	--	NP	5.61	--
MW-101	10/29/09	9:00	14.99	8.71	--	NP	6.28	--
MW-101	01/18/10	13:30	14.99	7.00	--	NP	7.99	--
MW-101	04/19/10	14:43	14.99	8.31	--	NP	6.68	--
MW-101	07/19/10	7:10	14.99	9.08	--	NP	5.91	--
MW-101	10/25/10	13:39	14.99	8.55	--	NP	6.44	--
MW-101	03/21/11	12:23	14.99	7.85	--	NP	7.14	--
MW-101	06/14/11	10:07	14.99	8.79	--	NP	6.20	--
MW-101	09/26/11	10:50	14.99	9.13	--	NP	5.86	--
MW-101	12/12/11	11:56	14.99	9.82	--	NP	5.17	--
MW-101	03/27/12	13:52	14.99	8.06	--	NP	6.93	--
MW-101	06/27/12	16:53	14.99	8.79	--	NP	6.20	--
MW-101	09/25/12	7:28	14.99	9.39	--	NP	5.60	--
MW-101	12/13/12	10:06	14.99	7.95	--	NP	7.04	--
MW-101	03/25/13	10:06	14.99	8.01	--	NP	6.98	--
MW-101	06/24/13	11:27	14.99	8.86	--	NP	6.13	--
MW-101	09/23/13	13:37	14.99	8.76	--	NP	6.23	--
MW-101	12/16/13	11:40	14.99	9.20	--	NP	5.79	--
MW-101	03/26/14	7:45	14.99	8.19	--	NP	6.80	--
MW-101	06/16/14	13:24	14.99	8.91	--	NP	6.08	--
MW-101	09/29/14	13:42	14.99	8.72	--	NP	6.27	--
MW-101	12/08/14	12:20	14.99	8.01	--	NP	6.98	--
MW-101	03/23/15	13:22	14.99	8.24	--	NP	6.75	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-101	06/22/15	15:22	14.99	9.14	--	NP	5.85	--
MW-101	10/27/16	9:03	14.99	7.88	--	NP	7.11	--
MW-101	07/24/17	11:44	14.99	8.99	--	NP	6.00	--
MW-101	03/19/18	12:29	14.99	8.64	--	NP	6.35	--
MW-101	06/26/18	10:07	14.99	9.41	--	NP	5.58	--
MW-101	09/21/18	9:04	14.99	9.17	--	NP	5.82	--
MW-101	11/26/18	12:54	14.99	8.69	--	NP	6.30	PID: 0.1
MW-101	02/07/19	12:34	14.99	8.65	--	NP	6.34	Not part of the quarterly monitoring program; gauged out of low tide window
MW-101	03/18/19	9:22	14.99	8.90	--	NP	6.09	
MW-101	06/17/19	11:09	14.99	9.01	--	NP	5.98	
MW-101	09/16/19	12:07	14.99	8.91	--	NP	6.08	
MW-101	12/10/19	9:39	14.99	8.96	--	NP	6.03	
MW-104	10/20/08	15:53	14.08	8.21	--	NP	5.87	--
MW-104	12/08/08	10:28	14.08	8.20	--	NP	5.88	--
MW-104	02/20/09	9:34	14.08	8.09	--	NP	5.99	--
MW-104	04/20/09	9:13	14.08	8.32	--	NP	5.76	--
MW-104	06/22/09	11:24	14.08	8.41	8.40	0.01^	5.67	Measurement error. See note^.
MW-104	08/03/09	11:02	14.08	8.51	--	NP	5.57	--
MW-104	08/17/09	9:17	14.08	8.80	--	NP	5.28	--
MW-104	10/29/09	8:59	14.08	8.12	--	NP	5.96	--
MW-104	01/18/10	13:29	14.08	6.24	--	NP	7.84	--
MW-104	04/19/10	14:40	14.08	7.77	--	NP	6.31	--
MW-104	07/19/10	7:08	14.08	8.47	--	NP	5.61	--
MW-104	10/25/10	13:37	14.08	7.74	--	NP	6.34	--
MW-104	03/21/11	12:21	14.08	7.11	--	NP	6.97	--
MW-104	06/14/11	10:04	14.08	8.26	--	NP	5.82	--
MW-104	09/26/11	10:47	14.08	8.50	--	NP	5.58	--
MW-104	12/12/11	11:48	14.08	8.15	--	NP	5.93	--
MW-104	03/27/12	13:50	14.08	7.39	--	NP	6.69	--
MW-104	06/27/12	16:49	14.08	8.09	--	NP	5.99	--
MW-104	09/25/12	7:26	14.08	8.78	--	NP	5.30	--
MW-104	12/13/12	10:04	14.08	7.21	--	NP	6.87	--
MW-104	03/25/13	10:04	14.08	8.13	--	NP	5.95	--
MW-104	06/24/13	11:25	14.08	8.19	--	NP	5.89	--
MW-104	09/23/13	13:35	14.08	7.99	--	NP	6.09	--
MW-104	12/16/13	10:03	14.08	8.45	--	NP	5.63	--
MW-104	03/26/14	7:40	14.08	7.55	--	NP	6.53	--
MW-104	06/16/14	13:22	14.08	8.24	--	NP	5.84	--
MW-104	09/29/14	13:33	14.08	7.99	--	NP	6.09	--
MW-104	12/08/14	12:18	14.08	7.30	--	NP	6.78	--
MW-104	03/23/15	13:23	14.08	7.58	--	NP	6.50	--
MW-104	06/22/15	15:22	14.08	8.46	--	NP	5.62	--
MW-104	10/27/16	9:02	14.08	7.12	--	NP	6.96	--
MW-104	07/24/17	11:43	14.08	8.35	--	NP	5.73	--
MW-104	03/19/18	12:27	14.08	7.99	--	NP	6.09	--
MW-104	06/26/18	10:00	14.08	8.71	--	NP	5.37	--
MW-104	09/21/18	9:02	14.08	8.54	--	NP	5.54	--
MW-104	11/26/18	12:53	14.08	7.82	--	NP	6.26	PID: 0.2
MW-104	03/18/19	9:21	14.08	8.23	--	NP	5.85	
MW-104	06/17/19	11:07	14.08	8.47	--	NP	5.61	
MW-104	09/16/19	12:06	14.08	8.23	--	NP	5.85	
MW-104	12/10/19	9:36	14.08	8.18	--	NP	5.90	
MW-108	10/20/08	16:11	12.40	6.31	--	NP	6.09	--
MW-108	12/08/08	10:59	12.40	7.80	--	NP	4.60	--
MW-108	02/20/09	9:58	12.40	6.54	--	NP	5.86	--
MW-108	04/20/09	9:51	12.40	6.48	--	NP	5.92	--
MW-108	06/22/09	11:38	12.40	6.68	--	NP	5.72	--
MW-108	08/03/09	11:20	12.40	6.75	--	NP	5.65	--
MW-108	08/17/09	9:29	12.40	6.80	--	NP	5.60	--
MW-108	10/29/09	9:43	12.40	7.45	--	NP	4.95	--
MW-108	01/18/10	13:49	12.40	6.42	--	NP	5.98	--
MW-108	04/19/10	15:16	12.40	6.07	--	NP	6.33	--
MW-108	07/19/10	7:27	12.40	6.42	--	NP	5.98	--
MW-108	10/25/10	13:58	12.40	5.66	--	NP	6.74	--
MW-108	03/21/11	12:34	12.40	5.81	--	NP	6.59	--
MW-108	06/14/11	10:49	12.40	6.38	--	NP	6.02	--
MW-108	09/26/11	9:27	12.40	6.56	--	NP	5.84	--
MW-108	12/12/11	12:47	12.40	6.37	--	NP	6.03	--
MW-108	03/27/12	14:11	12.40	5.91	--	NP	6.49	--
MW-108	06/27/12	17:19	12.40	6.03	--	NP	6.37	--
MW-108	09/25/12	7:43	12.40	6.49	--	NP	5.91	--
MW-108	12/13/12	10:06	12.40	5.76	--	NP	6.64	--
MW-108	03/25/13	11:30	12.40	5.52	--	NP	6.88	--
MW-108	06/24/13	12:48	12.40	5.91	--	NP	6.49	--
MW-108	09/23/13	13:58	12.40	6.25	--	NP	6.15	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-108	12/16/13	11:37	12.40	6.45	--	NP	5.95	--
MW-108	03/26/14	8:17	12.40	5.80	--	NP	6.60	--
MW-108	06/16/14	13:10	12.40	6.05	--	NP	6.35	--
MW-108	09/29/14	14:45	12.40	6.23	--	NP	6.17	--
MW-108	12/08/14	12:20	12.40	6.03	--	NP	6.37	--
MW-108	03/23/15	14:59	12.40	6.03	--	NP	6.37	--
MW-108	06/22/15	15:49	12.40	6.44	--	NP	5.96	--
MW-108	10/27/16	10:16	12.40	6.05	--	NP	6.35	--
MW-108	07/24/17	11:25	12.40	7.08	--	NP	5.32	--
MW-108	03/19/18	13:38	12.40	5.81	--	NP	6.59	--
MW-108	06/26/18	9:59	12.40	6.44	--	NP	5.96	--
MW-108	09/21/18	8:33	12.40	6.12	--	NP	6.28	--
MW-108	11/26/18	13:14	12.40	5.35	--	NP	7.05	--
MW-108	03/18/19	9:01	12.40	5.65	--	NP	6.75	--
MW-108	06/17/19	11:41	12.40	5.83	--	NP	6.57	--
MW-108	09/16/19	13:04	12.40	5.74	--	NP	6.66	--
MW-108	12/10/19	9:48	12.40	5.99	--	NP	6.41	--
MW-109	10/20/08	16:15	13.53	6.98	--	NP	6.55	--
MW-109	12/08/08	11:02	13.53	7.38	--	NP	6.15	--
MW-109	02/20/09	10:00	13.53	7.36	--	NP	6.17	--
MW-109	04/20/09	9:53	13.53	7.30	--	NP	6.23	--
MW-109	06/22/09	11:41	13.53	7.15	--	NP	6.38	--
MW-109	08/03/09	11:22	13.53	7.56	--	NP	5.97	--
MW-109	08/17/09	9:32	13.53	7.60	--	NP	5.93	--
MW-109	10/29/09	9:41	13.53	7.39	--	NP	6.14	--
MW-109	01/18/10	13:51	13.53	6.46	--	NP	7.07	--
MW-109	04/19/10	15:20	13.53	6.87	--	NP	6.66	--
MW-109	07/19/10	7:33	13.53	7.40	--	NP	6.13	--
MW-109	10/25/10	13:58	13.53	6.40	--	NP	7.13	--
MW-109	03/21/11	12:32	13.53	6.74	--	NP	6.79	--
MW-109	06/14/11	10:44	13.53	6.95	--	NP	6.58	--
MW-109	09/26/11	9:49	13.53	7.15	--	NP	6.38	--
MW-109	12/12/11	12:50	13.53	2.33	--	NP	11.20	--
MW-109	03/27/12	14:14	13.53	6.76	--	NP	6.77	--
MW-109	06/27/12	17:22	13.53	7.12	--	NP	6.41	--
MW-109	09/25/12	7:45	13.53	7.51	--	NP	6.02	--
MW-109	12/13/12	10:02	13.53	6.68	--	NP	6.85	--
MW-109	03/25/13	11:34	13.53	6.91	--	NP	6.62	--
MW-109	06/24/13	12:55	13.53	6.64	--	NP	6.89	--
MW-109	09/23/13	13:58	13.53	6.77	--	NP	6.76	--
MW-109	12/16/13	11:40	13.53	7.57	--	NP	5.96	--
MW-109	03/26/14	8:20	13.53	6.26	--	NP	7.27	--
MW-109	06/16/14	13:03	13.53	6.78	--	NP	6.75	--
MW-109	09/29/14	14:46	13.53	6.85	--	NP	6.68	--
MW-109	12/08/14	12:22	13.53	7.01	--	NP	6.52	--
MW-109	03/23/15	15:00	13.53	6.97	--	NP	6.56	--
MW-109	06/22/15	15:54	13.53	7.54	--	NP	5.99	--
MW-109	10/27/16	10:20	13.53	6.80	--	NP	6.73	--
MW-109	07/24/17	--	--	--	--	--	--	Unable to access
MW-109	03/19/18	13:40	13.53	6.68	--	NP	6.85	--
MW-109	06/26/18	9:54	13.53	7.50	--	NP	6.03	--
MW-109	09/21/18	8:35	13.53	7.13	--	NP	6.40	--
MW-109	11/26/18	13:18	13.53	6.20	--	NP	7.33	--
MW-109	03/18/19	8:59	13.53	6.60	--	NP	6.93	--
MW-109	06/17/19	11:33	13.53	6.81	--	NP	6.72	--
MW-109	09/16/19	13:08	13.53	6.78	--	NP	6.75	--
MW-109	12/10/19	9:52	13.53	7.21	--	NP	6.32	--
MW-122	10/20/08	16:32	15.54	8.05	--	NP	7.49	--
MW-122	12/08/08	11:40	15.54	7.87	--	NP	7.67	--
MW-122	02/20/09	10:27	15.54	7.85	--	NP	7.69	--
MW-122	04/20/09	10:13	15.54	7.92	--	NP	7.62	--
MW-122	06/22/09	11:54	15.54	8.21	--	NP	7.33	--
MW-122	08/03/09	10:30	15.54	8.31	--	NP	7.23	--
MW-122	08/17/09	9:42	15.54	8.41	--	NP	7.13	--
MW-122	10/29/09	9:35	15.54	7.78	--	NP	7.76	--
MW-122	01/18/10	14:10	15.54	7.35	--	NP	8.19	--
MW-122	04/19/10	15:43	15.54	7.61	--	NP	7.93	--
MW-122	07/19/10	7:49	15.54	8.00	--	NP	7.54	--
MW-122	10/25/10	14:15	15.54	7.52	--	NP	8.02	--
MW-122	03/21/11	12:46	15.54	7.23	--	NP	8.31	--
MW-122	06/14/11	11:11	15.54	7.90	--	NP	7.64	--
MW-122	09/26/11	11:17	15.54	8.10	--	NP	7.44	--
MW-122	12/12/11	12:44	15.54	7.76	--	NP	7.78	--
MW-122	03/27/12	14:30	15.54	7.31	--	NP	8.23	--
MW-122	06/27/12	17:37	15.54	7.59	--	NP	7.95	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-122	09/25/12	8:08	15.54	8.02	--	NP	7.52	--
MW-122	12/13/12	10:29	15.54	7.15	--	NP	8.39	--
MW-122	03/25/13	10:41	15.54	7.39	--	NP	8.15	--
MW-122	06/24/13	12:08	15.54	7.67	--	NP	7.87	--
MW-122	09/23/13	14:05	15.54	7.74	--	NP	7.80	--
MW-122	12/16/13	10:43	15.54	7.71	--	NP	7.83	--
MW-122	03/26/14	8:33	15.54	7.29	--	NP	8.25	--
MW-122	06/16/14	14:02	15.54	7.77	--	NP	7.77	--
MW-122	09/29/14	14:01	15.54	7.66	--	NP	7.88	--
MW-122	12/08/14	13:15	15.54	7.27	--	NP	8.27	--
MW-122	03/23/15	14:36	15.54	7.53	--	NP	8.01	--
MW-122	06/22/15	15:15	15.54	7.92	--	NP	7.62	--
MW-122	10/27/16	10:00	15.54	7.23	--	NP	8.31	--
MW-122	07/24/17	--	--	--	--	--	--	Deep well - not part of the monitoring network
MW-126	10/20/08	17:05	12.40	4.51	--	NP	7.89	--
MW-126	12/08/08	10:00	12.40	4.17	--	NP	8.23	--
MW-126	02/20/09	9:33	12.40	4.32	--	NP	8.08	--
MW-126	04/20/09	8:59	12.40	4.13	--	NP	8.27	--
MW-126	06/22/09	11:03	12.40	4.54	--	NP	7.86	--
MW-126	08/03/09	10:58	12.40	4.85	--	NP	7.55	--
MW-126	08/17/09	8:44	12.40	4.65	--	NP	7.75	--
MW-126	10/29/09	9:47	12.40	4.00	--	NP	8.40	--
MW-126	01/18/10	13:02	12.40	3.55	--	NP	8.85	--
MW-126	04/19/10	14:10	12.40	3.97	--	NP	8.43	--
MW-126	07/19/10	6:44	12.40	4.72	--	NP	7.68	--
MW-126	10/25/10	13:13	12.40	4.35	--	NP	8.05	--
MW-126	03/21/11	12:08	12.40	3.74	--	NP	8.66	--
MW-126	06/14/11	11:30	12.40	4.49	--	NP	7.91	--
MW-126	09/26/11	10:35	12.40	4.91	--	NP	7.49	--
MW-126	12/12/11	11:51	12.40	4.20	--	NP	8.20	--
MW-126	03/27/12	13:34	12.40	3.85	--	NP	8.55	--
MW-126	06/27/12	16:46	12.40	4.35	--	NP	8.05	--
MW-126	09/25/12	7:21	12.40	4.80	--	NP	7.60	--
MW-126	12/13/12	9:56	12.40	3.68	--	NP	8.72	--
MW-126	03/25/13	11:26	12.40	4.07	--	NP	8.33	--
MW-126	06/24/13	11:11	12.40	4.47	--	NP	7.93	--
MW-126	09/23/13	13:27	12.40	4.57	--	NP	7.83	--
MW-126	12/16/13	9:53	12.40	4.53	--	NP	7.87	--
MW-126	03/26/14	8:04	12.40	3.80	--	NP	8.60	--
MW-126	06/16/14	13:22	12.40	4.39	--	NP	8.01	--
MW-126	09/29/14	14:52	12.40	4.53	--	NP	7.87	--
MW-126	12/08/14	13:18	12.40	3.73	--	NP	8.67	--
MW-126	03/22/15	12:21	12.40	2.84	--	NP	9.56	--
MW-126	06/22/15	15:21	12.40	4.99	--	NP	7.41	--
MW-126	10/27/16	8:58	12.40	3.94	--	NP	8.46	--
MW-126	07/24/17	11:43	12.40	5.95	--	NP	6.45	--
MW-126	03/19/18	12:24	12.40	4.70	--	NP	7.70	--
MW-126	06/26/18	10:03	12.40	4.48	--	NP	7.92	--
MW-126	09/21/18	8:50	12.40	5.74	--	NP	6.66	--
MW-126	11/26/18	12:45	12.40	4.90	--	NP	7.50	--
MW-126	03/18/19	9:48	12.40	4.94	--	NP	7.46	--
MW-126	06/17/19	11:03	12.40	5.58	--	NP	6.82	--
MW-126	09/16/19	12:25	12.40	5.89	--	NP	6.51	--
MW-126	12/10/19	10:13	12.40	5.61	--	NP	6.79	--
MW-129R	10/20/08	16:33	12.92	6.54	--	NP	6.38	--
MW-129R	12/08/08	11:38	12.92	6.78	--	NP	6.14	--
MW-129R	02/20/09	10:30	12.92	6.35	6.34	0.01	6.58	See **
MW-129R	04/20/09	10:15	12.92	6.35	--	NP	6.57	--
MW-129R	06/22/09	11:56	12.92	6.71	--	NP	6.21	--
MW-129R	08/03/09	10:25	12.92	6.90	--	NP	6.02	--
MW-129R	08/17/09	9:44	12.92	6.98	--	<0.01	5.94	Film observed during gauging, sheen observed on purge water
MW-129R	10/29/09	9:34	12.92	6.27	--	NP	6.65	--
MW-129R	01/18/10	14:08	12.92	6.22	--	NP	6.70	--
MW-129R	04/19/10	15:44	12.92	5.88	--	NP	7.04	--
MW-129R	07/19/10	7:45	12.92	6.30	--	NP	6.62	--
MW-129R	10/25/10	14:17	12.92	5.79	--	NP	7.13	--
MW-129R	03/21/11	12:49	12.92	5.31	--	NP	7.61	--
MW-129R	06/14/11	11:07	12.92	6.36	--	NP	6.56	--
MW-129R	09/26/11	11:10	12.92	6.66	--	<0.01	6.26	Film observed during gauging, confirmed with bailer
MW-129R	12/12/11	13:53	12.92	6.31	--	NP	6.61	--
MW-129R	03/27/12	14:37	12.92	5.37	--	NP	7.55	--
MW-129R	06/27/12	17:35	12.92	5.81	--	NP	7.11	--
MW-129R	09/25/12	8:05	12.92	6.44	--	NP	6.48	--
MW-129R	12/13/12	10:20	12.92	5.52	--	NP	7.40	--
MW-129R	03/25/13	10:40	12.92	5.20	--	NP	7.72	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-129R	06/24/13	12:52	12.92	5.71	--	NP	7.21	--
MW-129R	09/23/13	14:42	12.92	6.31	--	NP	6.61	--
MW-129R	12/16/13	10:45	12.92	6.96	--	NP	5.96	--
MW-129R	03/23/14	14:36	12.92	5.90	--	NP	7.02	Sheen observed on purge water
MW-129R	03/26/14	8:31	12.92	5.53	--	NP	7.39	--
MW-129R	06/16/14	13:56	12.92	5.95	--	NP	6.97	--
MW-129R	09/29/14	14:47	12.92	6.18	--	NP	6.74	--
MW-129R	12/08/14	12:46	12.92	5.65	--	NP	7.27	--
MW-129R	06/22/15	15:14	12.92	6.13	--	NP	6.79	--
MW-129R	10/27/16	9:59	12.92	5.59	--	NP	7.33	--
MW-129R	07/24/17	12:57	12.92	5.62	--	NP	7.30	Film observed during gauging, confirmed with bailer
MW-129R	03/19/18	12:45	12.92	5.53	--	NP	7.39	--
MW-129R	06/26/18	10:23	12.92	5.95	--	NP	6.97	--
MW-129R	09/21/18	8:15	12.92	6.00	--	NP	6.92	--
MW-129R	11/26/18	12:29	12.92	5.43	--	NP	7.49	PID: 42.1
MW-129R	02/07/19	10:21	12.92	5.64	--	NP	7.28	Not part of the quarterly monitoring program; gauged out of low tide window
MW-129R	03/18/19	9:36	12.92	5.45	--	NP	7.47	
MW-129R	06/17/19	11:10	12.92	5.72	--	NP	7.20	
MW-129R	09/16/19	12:30	12.92	5.68	--	NP	7.24	
MW-129R	12/10/19	10:08	12.92	5.76	--	NP	7.16	
MW-13U	10/20/08	16:46	25.60	17.52	--	NP	8.08	--
MW-13U	12/08/08	12:03	25.60	17.32	--	NP	8.28	--
MW-13U	02/20/09	10:52	25.60	17.29	--	NP	8.31	--
MW-13U	04/20/09	10:35	25.60	17.10	--	NP	8.50	--
MW-13U	06/22/09	11:40	25.60	17.40	--	NP	8.20	--
MW-13U	08/03/09	10:39	25.60	17.53	--	NP	8.07	--
MW-13U	08/17/09	9:55	25.60	17.63	--	NP	7.97	--
MW-13U	10/29/09	9:32	25.60	17.26	--	NP	8.34	--
MW-13U	01/18/10	14:02	25.60	16.21	--	NP	9.39	--
MW-13U	04/19/10	16:06	25.60	16.52	--	NP	9.08	--
MW-13U	07/19/10	8:10	25.60	17.21	--	NP	8.39	--
MW-13U	10/25/10	14:48	25.60	17.25	--	NP	8.35	--
MW-13U	03/21/11	13:03	25.60	16.33	--	NP	9.27	--
MW-13U	06/14/11	11:30	25.60	16.88	--	NP	8.72	--
MW-13U	09/26/11	11:15	25.60	17.34	--	NP	8.26	--
MW-13U	12/12/11	13:24	25.60	16.96	--	NP	8.64	--
MW-13U	03/27/12	14:53	25.60	16.49	--	NP	9.11	--
MW-13U	06/27/12	17:44	25.60	16.92	--	NP	8.68	--
MW-13U	09/25/12	8:28	25.60	17.41	--	NP	8.19	--
MW-13U	12/13/12	10:39	25.60	16.56	--	NP	9.04	--
MW-13U	03/25/13	11:03	25.60	16.78	--	NP	8.82	--
MW-13U	06/24/13	12:37	25.60	17.11	--	NP	8.49	--
MW-13U	09/23/13	13:32	25.60	17.23	--	NP	8.37	--
MW-13U	12/16/13	11:05	25.60	17.30	--	NP	8.30	--
MW-13U	03/26/14	8:28	25.60	16.44	--	NP	9.16	--
MW-13U	06/16/14	14:10	25.60	17.02	--	NP	8.58	--
MW-13U	09/29/14	14:53	25.60	17.22	--	NP	8.38	--
MW-13U	12/08/14	13:09	25.60	16.58	--	NP	9.02	--
MW-13U	03/23/15	14:32	25.60	16.61	--	NP	8.99	--
MW-13U	06/22/15	15:46	25.60	17.13	--	NP	8.47	--
MW-13U	10/27/16	9:40	25.60	16.91	--	NP	8.69	--
MW-13U	07/24/17	12:15	25.60	17.03	--	NP	8.57	--
MW-13U	03/19/18	12:44	25.60	17.03	--	NP	8.57	--
MW-13U	06/26/18	11:20	25.60	17.57	--	NP	8.03	--
MW-13U	09/21/18	9:42	25.60	17.49	--	NP	8.11	--
MW-13U	11/26/18	12:51	25.60	17.30	--	NP	8.30	--
MW-13U	03/18/19	10:06	25.60	17.05	--	NP	8.55	--
MW-13U	06/17/19	10:34	25.60	17.39	--	NP	8.21	--
MW-13U	09/16/19	11:54	25.60	17.40	--	NP	8.20	--
MW-13U	12/10/19	9:02	25.60	17.40	--	NP	8.20	--
MW-131	10/20/08	16:17	12.53	6.37	--	NP	6.16	--
MW-131	12/08/08	11:31	12.53	6.10	--	NP	6.43	--
MW-131	02/20/09	10:58	12.53	5.91	--	NP	6.62	--
MW-131	04/20/09	8:42	12.53	5.75	--	NP	6.78	--
MW-131	06/22/09	11:46	12.53	6.27	--	NP	6.26	--
MW-131	08/03/09	11:31	12.53	6.45	--	NP	6.08	--
MW-131	08/17/09	9:32	12.53	6.46	--	NP	6.07	--
MW-131	10/29/09	9:30	12.53	5.70	--	NP	6.83	--
MW-131	01/18/10	13:46	12.53	4.81	--	NP	7.72	--
MW-131	04/19/10	15:32	12.53	5.49	--	NP	7.04	--
MW-131	07/19/10	8:36	12.53	6.11	--	NP	6.42	--
MW-131	10/25/10	14:12	12.53	5.83	--	NP	6.70	--
MW-131	03/21/11	12:42	12.53	4.83	--	NP	7.70	--
MW-131	06/14/11	10:53	12.53	5.95	--	NP	6.58	--
MW-131	09/26/11	11:04	12.53	6.40	--	NP	6.13	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-131	12/12/11	12:11	12.53	5.84	--	NP	6.69	--
MW-131	03/27/12	14:20	12.53	5.24	--	NP	7.29	--
MW-131	06/27/12	17:28	12.53	5.68	--	NP	6.85	--
MW-131	09/25/12	8:00	12.53	6.34	--	NP	6.19	--
MW-131	12/13/12	10:54	12.53	5.19	--	NP	7.34	--
MW-131	03/25/13	10:45	12.53	5.12	--	NP	7.41	--
MW-131	06/24/13	12:05	12.53	5.92	--	NP	6.61	--
MW-131	09/23/13	14:02	12.53	6.05	--	NP	6.48	--
MW-131	12/16/13	10:32	12.53	6.04	--	NP	6.49	--
MW-131	03/26/14	9:11	12.53	5.51	--	NP	7.02	--
MW-131	06/16/14	13:52	12.53	5.95	--	NP	6.58	--
MW-131	09/29/14	13:57	12.53	5.93	--	NP	6.60	--
MW-131	12/08/14	12:50	12.53	5.36	--	NP	7.17	--
MW-131	03/23/15	14:03	12.53	5.38	--	NP	7.15	--
MW-131	06/22/15	15:19	12.53	6.15	--	NP	6.38	--
MW-131	10/27/16	9:50	12.53	4.98	--	NP	7.55	--
MW-131	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
MW-131	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
MW-131	06/26/18	10:30	12.53	6.22	--	NP	6.31	Not part of the monitoring network
MW-131	09/21/18	--	12.53	--	--	--	--	Not part of the monitoring network
MW-134X	10/20/08	16:40	35.13	26.58	--	NP	8.55	--
MW-134X	12/08/08	11:57	35.13	26.55	--	NP	8.58	--
MW-134X	02/20/09	10:55	35.13	26.62	--	NP	8.51	--
MW-134X	04/20/09	10:30	35.13	26.43	--	NP	8.70	--
MW-134X	06/22/09	11:35	35.13	26.69	--	NP	8.44	--
MW-134X	08/03/09	10:36	35.13	26.70	--	NP	8.43	--
MW-134X	08/17/09	9:50	35.13	26.79	--	NP	8.34	--
MW-134X	10/29/09	9:25	35.13	26.34	--	NP	8.79	--
MW-134X	01/18/10	13:57	35.13	25.51	--	NP	9.62	--
MW-134X	04/19/10	16:01	35.13	25.64	--	NP	9.49	--
MW-134X	07/19/10	8:06	35.13	26.41	--	NP	8.72	--
MW-134X	10/25/10	14:43	35.13	26.40	--	NP	8.73	--
MW-134X	03/21/11	13:00	35.13	25.65	--	NP	9.48	--
MW-134X	06/14/11	11:22	35.13	26.20	--	NP	8.93	--
MW-134X	09/26/11	11:11	35.13	26.34	--	NP	8.79	--
MW-134X	12/12/11	13:16	35.13	26.21	--	NP	8.92	--
MW-134X	03/27/12	14:48	35.13	25.75	--	NP	9.38	--
MW-134X	06/27/12	17:54	35.13	26.15	--	NP	8.98	--
MW-134X	09/25/12	8:25	35.13	26.50	--	NP	8.63	--
MW-134X	12/13/12	11:00	35.13	25.97	--	NP	9.16	--
MW-134X	03/25/13	11:11	35.13	25.97	--	NP	9.16	--
MW-134X	06/24/13	12:34	35.13	26.14	--	NP	8.99	--
MW-134X	09/23/13	13:43	35.13	26.52	--	NP	8.61	--
MW-134X	12/16/13	11:10	35.13	26.53	--	NP	8.60	--
MW-134X	03/26/14	9:15	35.13	25.61	--	NP	9.52	--
MW-134X	06/16/14	14:02	35.13	26.15	--	NP	8.98	--
MW-134X	09/29/14	15:15	35.13	26.26	--	NP	8.87	--
MW-134X	12/08/14	13:04	35.13	25.89	--	NP	9.24	--
MW-134X	03/23/15	11:53	35.13	25.83	--	NP	9.30	--
MW-134X	06/22/15	15:44	35.13	26.26	--	NP	8.87	--
MW-134X	10/27/16	9:30	35.13	24.16	--	NP	10.97	--
MW-134X	07/24/17	12:31	35.13	26.02	--	NP	9.11	--
MW-134X	03/19/18	12:51	35.13	26.10	--	NP	9.03	--
MW-134X	06/26/18	10:35	35.13	26.41	--	NP	8.72	--
MW-134X	09/21/18	8:56	35.13	26.40	--	NP	8.73	--
MW-134X	11/26/18	12:45	35.13	26.19	--	NP	8.94	--
MW-134X	03/18/19	10:02	35.13	26.05	--	NP	9.08	--
MW-134X	06/17/19	10:44	35.13	26.42	--	NP	8.71	--
MW-134X	09/16/19	12:02	35.13	26.41	--	NP	8.72	--
MW-134X	12/10/19	9:13	35.13	26.48	--	NP	8.65	--
MW-135	10/20/08	16:35	18.13	10.06	--	NP	8.07	--
MW-135	12/08/08	11:47	18.13	11.43	--	NP	6.70	--
MW-135	02/20/09	10:47	18.13	10.14	--	NP	7.99	--
MW-135	04/20/09	10:22	18.13	11.17	--	NP	6.96	--
MW-135	06/22/09	11:23	18.13	10.84	--	NP	7.29	--
MW-135	08/03/09	10:13	18.13	11.04	--	NP	7.09	--
MW-135	08/17/09	9:55	18.13	11.16	--	NP	6.97	--
MW-135	10/29/09	10:15	18.13	11.00	--	NP	7.13	--
MW-135	01/18/10	13:05	18.13	10.20	--	NP	7.93	--
MW-135	04/19/10	15:54	18.13	10.78	--	NP	7.35	--
MW-135	07/19/10	7:52	18.13	10.97	--	NP	7.16	--
MW-135	10/25/10	14:26	18.13	10.75	--	NP	7.38	--
MW-135	03/21/11	12:56	18.13	10.53	--	NP	7.60	--
MW-135	06/14/11	11:26	18.13	10.05	--	NP	8.08	--
MW-135	09/26/11	11:05	18.13	11.25	--	NP	6.88	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-135	12/12/11	13:08	18.13	11.01	--	NP	7.12	--
MW-135	03/27/12	14:41	18.13	10.61	--	NP	7.52	--
MW-135	06/27/12	17:43	18.13	10.41	--	NP	7.72	--
MW-135	09/25/12	8:15	18.13	11.19	--	NP	6.94	--
MW-135	12/13/12	10:32	18.13	10.48	--	NP	7.65	--
MW-135	03/25/13	10:40	18.13	10.46	--	NP	7.67	--
MW-135	06/24/13	12:27	18.13	10.62	--	NP	7.51	--
MW-135	09/23/13	13:56	18.13	11.00	--	NP	7.13	--
MW-135	12/16/13	10:38	18.13	11.56	--	NP	6.57	--
MW-135	03/26/14	--	18.13	--	--	--	--	--
MW-135	06/16/14	13:20	18.13	10.78	--	NP	7.35	--
MW-135	09/29/14	14:35	18.13	10.99	--	NP	7.14	--
MW-135	12/08/14	13:17	18.13	10.77	--	NP	7.36	--
MW-135	03/23/15	14:50	18.13	10.35	--	NP	7.78	--
MW-135	06/22/15	14:41	18.13	11.10	--	NP	7.03	--
MW-135	10/27/16	9:40	18.13	10.69	--	NP	7.44	--
MW-135	07/24/17	11:50	18.13	10.88	--	NP	7.25	--
MW-135	03/19/18	12:34	18.13	10.51	--	NP	7.62	--
MW-135	06/26/18	9:57	18.13	11.59	--	NP	6.54	--
MW-135	09/21/18	9:18	18.13	11.21	--	NP	6.92	--
MW-135	11/26/18	12:39	18.13	11.09	--	NP	7.04	--
MW-135	03/18/19	9:57	18.13	10.76	--	NP	7.37	--
MW-135	06/17/19	10:58	18.13	11.06	--	NP	7.07	--
MW-135	09/16/19	12:20	18.13	11.01	--	NP	7.12	--
MW-135	12/10/19	9:49	18.13	8.19	--	NP	9.94	--
MW-136	10/27/08	13:35	15.99	8.13	--	NP	7.86	--
MW-136	12/08/08	11:49	15.99	8.06	--	NP	7.93	--
MW-136	02/20/09	10:50	15.99	7.80	--	NP	8.19	--
MW-136	04/20/09	10:25	15.99	7.73	--	NP	8.26	--
MW-136	06/22/09	11:25	15.99	8.00	--	NP	7.99	--
MW-136	08/03/09	10:14	15.99	8.74	--	NP	7.25	--
MW-136	08/17/09	9:57	15.99	9.78	--	NP	6.21	--
MW-136	10/29/09	10:20	15.99	7.84	--	NP	8.15	--
MW-136	01/18/10	13:02	15.99	7.08	--	NP	8.91	--
MW-136	04/19/10	15:55	15.99	7.63	--	NP	8.36	--
MW-136	07/19/10	7:55	15.99	8.06	--	NP	7.93	--
MW-136	10/25/10	14:23	15.99	7.91	--	NP	8.08	--
MW-136	03/21/11	12:56	15.99	6.22	--	NP	9.77	--
MW-136	06/14/11	11:23	15.99	7.77	--	NP	8.22	--
MW-136	09/26/11	11:23	15.99	8.70	--	NP	7.29	--
MW-136	12/12/11	13:10	15.99	7.69	--	NP	8.30	--
MW-136	03/27/12	14:43	15.99	7.44	--	NP	8.55	--
MW-136	06/27/12	17:45	15.99	7.79	--	NP	8.20	--
MW-136	09/25/12	8:05	15.99	8.31	--	NP	7.68	--
MW-136	12/13/12	10:25	15.99	6.78	--	NP	9.21	--
MW-136	03/25/13	10:35	15.99	7.46	--	NP	8.53	--
MW-136	06/24/13	12:28	15.99	7.86	--	NP	8.13	--
MW-136	09/23/13	13:55	15.99	8.01	--	NP	7.98	--
MW-136	12/16/13	10:50	15.99	7.80	--	NP	8.19	--
MW-136	03/26/14	9:02	15.99	6.85	--	NP	9.14	--
MW-136	06/16/14	13:32	15.99	7.80	--	NP	8.19	--
MW-136	09/29/14	15:20	15.99	7.72	--	NP	8.27	--
MW-136	12/08/14	13:15	15.99	7.11	--	NP	8.88	--
MW-136	03/23/15	14:25	15.99	7.04	--	NP	8.95	--
MW-136	06/22/15	14:43	15.99	7.86	--	NP	8.13	--
MW-136	10/27/16	9:32	15.99	7.40	--	NP	8.59	--
MW-136	07/24/17	11:52	15.99	8.12	--	NP	7.87	--
MW-136	03/19/18	12:49	15.99	7.88	--	NP	8.11	--
MW-136	06/26/18	11:28	15.99	8.32	--	NP	7.67	--
MW-136	09/21/18	9:17	15.99	8.25	--	NP	7.74	--
MW-136	11/26/18	12:38	15.99	8.03	--	NP	7.96	--
MW-136	03/18/19	9:54	15.99	7.74	--	NP	8.25	--
MW-136	06/17/19	10:50	15.99	7.40	--	NP	8.59	--
MW-136	09/16/19	12:11	15.99	8.27	--	NP	7.72	--
MW-136	12/10/19	9:39	15.99	8.45	--	NP	7.54	--
MW-139R	10/20/08	15:59	13.84	7.57	--	NP	6.27	--
MW-139R	12/08/08	10:46	13.84	7.17	--	NP	6.67	--
MW-139R	02/20/09	9:48	13.84	6.96	--	NP	6.88	--
MW-139R	04/20/09	9:38	13.84	6.77	--	NP	7.07	--
MW-139R	06/22/09	11:27	13.84	7.34	--	NP	6.50	--
MW-139R	08/03/09	11:12	13.84	7.54	--	NP	6.30	--
MW-139R	08/17/09	9:21	13.84	7.62	--	NP	6.22	--
MW-139R	10/29/09	9:23	13.84	6.93	--	NP	6.91	--
MW-139R	01/18/10	13:45	13.84	5.43	--	NP	8.41	--
MW-139R	04/19/10	14:58	13.84	6.51	--	NP	7.33	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-139R	07/19/10	7:15	13.84	7.36	--	NP	6.48	--
MW-139R	10/25/10	13:48	13.84	7.08	--	NP	6.76	--
MW-139R	03/21/11	12:27	13.84	5.89	--	NP	7.95	--
MW-139R	06/14/11	10:39	13.84	7.01	--	NP	6.83	--
MW-139R	09/26/11	10:53	13.84	7.62	--	NP	6.22	--
MW-139R	12/12/11	12:07	13.84	6.95	--	NP	6.89	--
MW-139R	03/27/12	13:59	13.84	6.35	--	NP	7.49	--
MW-139R	06/27/12	17:05	13.84	6.92	--	NP	6.92	--
MW-139R	09/25/12	7:38	13.84	7.62	--	NP	6.22	--
MW-139R	12/13/12	10:12	13.84	6.33	--	NP	7.51	--
MW-139R	03/25/13	10:14	13.84	6.75	--	NP	7.09	--
MW-139R	06/24/13	11:32	13.84	7.31	--	NP	6.53	--
MW-139R	09/23/13	13:44	13.84	7.20	--	NP	6.64	--
MW-139R	12/16/13	11:23	13.84	7.38	--	NP	6.46	--
MW-139R	03/26/14	8:22	13.84	6.50	--	NP	7.34	--
MW-139R	06/16/14	13:34	13.84	7.23	--	NP	6.61	--
MW-139R	09/29/14	13:44	13.84	7.15	--	NP	6.69	--
MW-139R	12/08/14	12:36	13.84	6.50	--	NP	7.34	--
MW-139R	03/23/15	13:49	13.84	6.56	--	NP	7.28	--
MW-139R	06/22/15	15:26	13.84	7.35	--	NP	6.49	--
MW-139R	10/27/16	9:18	13.84	6.04	--	NP	7.80	--
MW-139R	07/24/17	11:50	13.84	7.42	--	NP	6.42	--
MW-139R	03/19/18	12:33	13.84	7.01	--	NP	6.83	--
MW-139R	06/26/18	10:17	13.84	7.63	--	NP	6.21	--
MW-139R	09/21/18	9:13	13.84	7.40	--	NP	6.44	--
MW-139R	11/26/18	13:05	13.84	7.16	--	NP	6.68	--
MW-139R	03/18/19	9:18	13.84	7.18	--	NP	6.66	--
MW-139R	06/17/19	11:19	13.84	7.22	--	NP	6.62	--
MW-139R	09/16/19	12:11	13.84	7.18	--	NP	6.66	--
MW-139R	12/10/19	9:42	13.84	7.36	--	NP	6.48	--
MW-143	10/22/08	12:25	11.94	4.55	--	NP	7.39	--
MW-143	12/16/08	10:16	11.94	4.08	--	NP	7.86	--
MW-143	02/20/09	10:18	11.94	4.02	--	NP	7.92	--
MW-143	04/20/09	9:31	11.94	3.79	--	NP	8.15	--
MW-143	06/22/09	11:05	11.94	4.45	--	NP	7.49	--
MW-143	08/03/09	10:57	11.94	4.70	--	NP	7.24	--
MW-143	08/17/09	8:45	11.94	4.69	--	NP	7.25	--
MW-143	10/29/09	9:50	11.94	4.07	--	NP	7.87	--
MW-143	01/18/10	13:07	11.94	2.81	--	NP	9.13	--
MW-143	04/19/10	14:12	11.94	3.46	--	NP	8.48	--
MW-143	07/19/10	6:44	11.94	4.47	--	NP	7.47	--
MW-143	10/25/10	13:18	11.94	3.17	--	NP	8.77	--
MW-143	03/21/11	12:06	11.94	3.80	--	NP	8.14	--
MW-143	06/14/11	11:31	11.94	4.14	--	NP	7.80	--
MW-143	09/26/11	10:36	11.94	2.90	--	NP	9.04	--
MW-143	12/12/11	11:50	11.94	3.84	--	NP	8.10	--
MW-143	03/27/12	13:36	11.94	3.83	--	NP	8.11	--
MW-143	06/27/12	16:44	11.94	4.13	--	NP	7.81	--
MW-143	09/25/12	7:22	11.94	4.76	--	NP	7.18	--
MW-143	12/13/12	9:58	11.94	3.52	--	NP	8.42	--
MW-143	03/25/13	10:14	11.94	3.63	--	NP	8.31	--
MW-143	06/24/13	11:13	11.94	3.65	--	NP	8.29	--
MW-143	09/23/13	13:26	11.94	4.46	--	NP	7.48	--
MW-143	12/16/13	9:50	11.94	4.35	--	NP	7.59	--
MW-143	03/26/14	8:18	11.94	3.66	--	NP	8.28	--
MW-143	06/16/14	14:09	11.94	4.34	--	NP	7.60	--
MW-143	09/29/14	14:53	11.94	4.45	--	NP	7.49	--
MW-143	12/08/14	11:35	11.94	3.70	--	NP	8.24	--
MW-143	03/23/15	13:19	11.94	3.56	--	NP	8.38	--
MW-143	06/22/15	15:19	11.94	4.65	--	NP	7.29	--
MW-143	10/27/16	10:00	11.94	4.83	--	NP	7.11	--
MW-143	07/24/17	11:41	11.94	5.65	--	NP	6.29	--
MW-143	03/19/18	12:23	11.94	4.53	--	NP	7.41	--
MW-143	06/26/18	10:00	11.94	4.57	--	NP	7.37	--
MW-143	09/21/18	8:48	11.94	5.76	--	NP	6.18	--
MW-143	11/26/18	12:44	11.94	5.04	--	NP	6.90	--
MW-143	03/18/19	9:50	11.94	5.01	--	NP	6.93	PID: 13.6
MW-143	06/17/19	11:01	11.94	5.76	--	NP	6.18	--
MW-143	09/16/19	12:27	11.94	4.36	--	NP	7.58	--
MW-143	12/10/19	10:18	11.94	4.34	--	NP	7.60	--
MW-147	10/20/08	15:45	11.02	5.69	--	NP	5.33	--
MW-147	12/08/08	10:13	11.02	5.51	--	NP	5.51	--
MW-147	02/20/09	9:13	11.02	5.35	--	NP	5.67	--
MW-147	04/20/09	9:13	11.02	5.76	--	NP	5.26	--
MW-147	06/22/09	11:08	11.02	5.67	--	NP	5.35	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-147	08/03/09	10:50	11.02	5.72	--	NP	5.30	--
MW-147	08/17/09	8:51	11.02	5.99	--	NP	5.03	--
MW-147	10/29/09	8:48	11.02	5.01	--	NP	6.01	--
MW-147	01/18/10	13:18	11.02	2.86	--	NP	8.16	--
MW-147	04/19/10	14:25	11.02	5.12	--	NP	5.90	--
MW-147	07/19/10	6:58	11.02	5.93	--	NP	5.09	--
MW-147	10/25/10	13:28	11.02	4.74	--	NP	6.28	--
MW-147	03/21/11	12:15	11.02	4.07	--	NP	6.95	--
MW-147	06/14/11	9:56	11.02	5.70	--	NP	5.32	--
MW-147	09/26/11	10:39	11.02	8.78	--	NP	2.24	--
MW-147	12/12/11	11:34	11.02	5.58	--	NP	5.44	--
MW-147	03/27/12	13:43	11.02	4.70	--	NP	6.32	--
MW-147	06/27/12	16:35	11.02	5.37	--	NP	5.65	--
MW-147	09/25/12	7:25	11.02	5.98	--	NP	5.04	--
MW-147	12/13/12	9:46	11.02	4.26	--	NP	6.76	--
MW-147	03/25/13	9:56	11.02	5.57	--	NP	5.45	--
MW-147	06/24/13	11:16	11.02	5.64	--	NP	5.38	--
MW-147	09/23/13	13:23	11.02	5.33	--	NP	5.69	--
MW-147	12/16/13	9:46	11.02	5.80	--	NP	5.22	--
MW-147	03/26/14	7:42	11.02	4.96	--	NP	6.06	--
MW-147	06/16/14	13:12	11.02	5.70	--	NP	5.32	--
MW-147	09/29/14	13:23	11.02	5.16	--	NP	5.86	--
MW-147	12/08/14	11:30	11.02	4.41	--	NP	6.61	--
MW-147	03/23/15	13:04	11.02	4.95	--	NP	6.07	--
MW-147	06/22/15	15:12	11.02	5.86	--	NP	5.16	--
MW-147	10/27/16	8:52	11.02	3.95	--	NP	7.07	--
MW-147	07/24/17	11:28	11.02	5.78	--	NP	5.24	--
MW-147	03/19/18	12:11	11.02	5.31	--	NP	5.71	--
MW-147	06/26/18	9:50	11.02	5.96	--	NP	5.06	--
MW-147	09/21/18	8:31	11.02	5.84	--	NP	5.18	--
MW-147	11/26/18	12:33	11.02	4.88	--	NP	6.14	--
MW-147	03/18/19	9:08	11.02	8.12	--	NP	2.90	Depth to water value is an anomalie
MW-147	06/17/19	10:45	11.02	5.90	--	NP	5.12	--
MW-147	09/16/19	12:00	11.02	5.54	--	NP	5.48	--
MW-147	12/10/19	9:22	11.02	5.29	--	NP	5.73	--
MW-149R	10/20/08	15:42	12.18	6.76	--	NP	5.42	--
MW-149R	12/08/08	10:07	12.18	6.70	--	NP	5.48	--
MW-149R	02/20/09	9:10	12.18	6.57	--	NP	5.61	--
MW-149R	04/20/09	9:06	12.18	7.09	--	NP	5.09	--
MW-149R	06/22/09	11:10	12.18	7.22	--	NP	4.96	--
MW-149R	08/03/09	10:46	12.18	7.33	--	NP	4.85	--
MW-149R	08/17/09	8:48	12.18	7.69	--	NP	4.49	--
MW-149R	10/29/09	8:50	12.18	6.77	--	NP	5.41	--
MW-149R	01/18/10	13:15	12.18	3.90	--	NP	8.28	--
MW-149R	04/19/10	14:20	12.18	6.76	--	NP	5.42	--
MW-149R	07/19/10	6:50	12.18	7.56	--	NP	4.62	--
MW-149R	10/25/10	13:23	12.18	6.13	--	NP	6.05	--
MW-149R	03/21/11	12:13	12.18	5.39	--	NP	6.79	--
MW-149R	06/14/11	9:44	12.18	7.27	--	NP	4.91	--
MW-149R	09/26/11	10:44	12.18	7.19	--	NP	4.99	--
MW-149R	12/12/11	11:29	12.18	6.74	--	NP	5.44	--
MW-149R	03/27/12	13:41	12.18	6.07	--	NP	6.11	--
MW-149R	06/27/12	16:30	12.18	6.75	--	NP	5.43	--
MW-149R	09/25/12	7:14	12.18	7.58	--	NP	4.60	--
MW-149R	12/13/12	9:41	12.18	5.34	--	NP	6.84	--
MW-149R	03/25/13	9:49	12.18	6.95	--	NP	5.23	--
MW-149R	06/24/13	11:17	12.18	7.24	--	NP	4.94	--
MW-149R	09/23/13	13:14	12.18	6.60	--	NP	5.58	--
MW-149R	12/16/13	9:33	12.18	6.90	--	NP	5.28	--
MW-149R	03/26/14	7:35	12.18	6.08	--	NP	6.10	--
MW-149R	06/16/14	13:05	12.18	7.28	--	NP	4.90	--
MW-149R	09/29/14	13:17	12.18	6.43	--	NP	5.75	--
MW-149R	12/08/14	11:27	12.18	5.59	--	NP	6.59	--
MW-149R	03/23/15	13:00	12.18	6.21	--	NP	5.97	--
MW-149R	06/22/15	15:01	12.18	7.34	--	NP	4.84	--
MW-149R	10/27/16	8:44	12.18	5.41	--	NP	6.77	--
MW-149R	07/24/17	11:21	12.18	7.28	--	NP	4.90	--
MW-149R	03/19/18	12:09	12.18	6.49	--	NP	5.69	--
MW-149R	06/26/18	9:38	12.18	7.40	--	NP	4.78	--
MW-149R	09/21/18	8:24	12.18	7.34	--	NP	4.84	--
MW-149R	11/26/18	12:26	12.18	5.94	--	NP	6.24	--
MW-149R	03/18/19	9:00	12.18	6.67	--	NP	5.51	--
MW-149R	06/17/19	10:33	12.18	7.38	--	NP	4.80	--
MW-149R	09/16/19	11:57	12.18	6.85	--	NP	5.33	--
MW-149R	12/10/19	9:16	12.18	6.41	--	NP	5.77	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-150	10/20/08	15:41	12.36	7.21	--	NP	5.15	--
MW-150	12/08/08	10:05	12.36	6.90	--	NP	5.46	--
MW-150	02/20/09	9:07	12.36	6.76	--	NP	5.60	--
MW-150	04/20/09	9:04	12.36	6.89	--	NP	5.47	--
MW-150	06/22/09	11:12	12.36	6.81	--	NP	5.55	--
MW-150	08/03/09	10:44	12.36	6.95	--	NP	5.41	--
MW-150	08/17/09	8:46	12.36	7.15	--	NP	5.21	--
MW-150	10/29/09	8:48	12.36	6.44	--	NP	5.92	--
MW-150	01/18/10	13:14	12.36	4.20	--	NP	8.16	--
MW-150	04/19/10	14:18	12.36	6.34	--	NP	6.02	--
MW-150	07/19/10	6:47	12.36	7.07	--	NP	5.29	--
MW-150	10/25/10	13:25	12.36	6.55	--	NP	5.81	--
MW-150	03/21/11	12:11	12.36	4.93	--	NP	7.43	--
MW-150	06/14/11	9:40	12.36	6.75	--	NP	5.61	--
MW-150	09/26/11	10:43	12.36	7.15	--	NP	5.21	--
MW-150	12/12/11	11:30	12.36	6.89	--	NP	5.47	--
MW-150	03/27/12	13:38	12.36	5.81	--	NP	6.55	--
MW-150	06/27/12	16:28	12.36	6.61	--	NP	5.75	--
MW-150	09/25/12	7:10	12.36	DRY	DRY	DRY	DRY	--
MW-150	12/13/12	9:42	12.36	5.36	--	NP	7.00	--
MW-150	03/25/13	9:46	12.36	6.62	--	NP	5.74	--
MW-150	06/24/13	11:15	12.36	6.98	--	NP	5.38	--
MW-150	09/23/13	13:15	12.36	6.81	--	NP	5.55	--
MW-150	12/16/13	9:30	12.36	7.17	--	NP	5.19	--
MW-150	03/26/14	7:32	12.36	6.09	--	NP	6.27	--
MW-150	06/16/14	13:08	12.36	6.95	--	NP	5.41	--
MW-150	09/29/14	13:15	12.36	6.55	--	NP	5.81	--
MW-150	12/08/14	11:25	12.36	5.90	--	NP	6.46	--
MW-150	03/23/15	12:57	12.36	5.96	--	NP	6.40	--
MW-150	06/22/15	15:07	12.36	6.99	--	NP	5.37	--
MW-150	10/27/16	8:42	12.36	5.28	--	NP	7.08	--
MW-150	07/24/17	11:19	12.36	6.96	--	NP	5.40	--
MW-150	03/19/18	12:09	12.36	6.36	--	NP	6.00	--
MW-150	06/26/18	9:40	12.36	7.02	--	NP	5.34	--
MW-150	09/21/18	8:20	12.36	7.14	--	NP	5.22	--
MW-150	11/26/18	12:24	12.36	6.22	--	NP	6.14	--
MW-150	03/18/19	8:59	12.36	6.68	--	NP	5.68	--
MW-150	06/17/19	10:35	12.36	7.11	--	NP	5.25	--
MW-150	09/16/19	11:55	12.36	6.91	--	NP	5.45	--
MW-150	12/10/19	9:14	12.36	6.64	--	NP	5.72	--
MW-151	10/20/08	15:39	11.05	5.76	--	NP	5.29	--
MW-151	12/08/08	10:02	11.05	5.41	--	NP	5.64	--
MW-151	02/20/09	9:16	11.05	5.28	--	NP	5.77	--
MW-151	04/20/09	9:10	11.05	5.24	--	NP	5.81	--
MW-151	06/22/09	11:07	11.05	5.52	--	NP	5.53	--
MW-151	08/03/09	10:48	11.05	5.64	--	NP	5.41	--
MW-151	08/17/09	8:51	11.05	5.82	--	NP	5.23	--
MW-151	10/29/09	8:42	11.05	4.44	--	NP	6.61	--
MW-151	01/18/10	13:10	11.05	1.26	--	NP	9.79	--
MW-151	04/19/10	14:15	11.05	4.77	--	NP	6.28	--
MW-151	07/19/10	6:53	11.05	7.80	--	NP	3.25	--
MW-151	10/25/10	13:21	11.05	4.63	--	NP	6.42	--
MW-151	03/21/11	12:10	11.05	2.71	--	NP	8.34	--
MW-151	06/14/11	9:51	11.05	7.38	--	NP	3.67	--
MW-151	09/26/11	10:38	11.05	5.75	--	NP	5.30	--
MW-151	12/12/11	11:35	11.05	5.29	--	NP	5.76	--
MW-151	03/27/12	13:39	11.05	3.96	--	NP	7.09	--
MW-151	06/27/12	16:31	11.05	5.01	--	NP	6.04	--
MW-151	09/25/12	7:20	11.05	5.85	--	NP	5.20	--
MW-151	12/13/12	9:45	11.05	3.42	--	NP	7.63	--
MW-151	03/25/13	9:53	11.05	4.98	--	NP	6.07	--
MW-151	06/24/13	11:21	11.05	5.60	--	NP	5.45	--
MW-151	09/23/13	13:20	11.05	5.39	--	NP	5.66	--
MW-151	12/16/13	9:40	11.05	5.79	--	NP	5.26	--
MW-151	03/26/14	7:37	11.05	4.25	--	NP	6.80	--
MW-151	06/16/14	13:12	11.05	5.60	--	NP	5.45	--
MW-151	09/29/14	14:54	11.05	5.19	--	NP	5.86	--
MW-151	12/08/14	11:49	11.05	4.21	--	NP	6.84	--
MW-151	03/23/15	13:10	11.05	4.41	--	NP	6.64	--
MW-151	06/22/15	15:09	11.05	5.73	--	NP	5.32	--
MW-151	10/27/16	8:53	11.05	4.46	--	NP	6.59	--
MW-151	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
MW-151	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
MW-151	06/26/18	9:44	11.05	5.80	--	NP	5.25	Not part of the monitoring network
MW-151	09/21/18	--	11.05	--	--	--	--	Not part of the monitoring network

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-20R	10/20/08	15:51	12.17	6.53	--	NP	5.64	--
MW-20R	12/08/08	10:27	12.17	6.50	--	NP	5.67	--
MW-20R	02/20/09	9:27	12.17	6.37	--	NP	5.80	--
MW-20R	04/20/09	9:11	12.17	6.80	--	NP	5.37	--
MW-20R	06/22/09	11:21	12.17	6.83	--	NP	5.34	--
MW-20R	08/03/09	11:00	12.17	6.90	--	NP	5.27	--
MW-20R	08/17/09	9:15	12.17	7.18	--	NP	4.99	--
MW-20R	10/29/09	8:58	12.17	6.55	--	NP	5.62	--
MW-20R	01/18/10	13:27	12.17	4.60	--	NP	7.57	--
MW-20R	04/19/10	14:38	12.17	6.30	--	NP	5.87	--
MW-20R	07/19/10	7:06	12.17	6.94	--	NP	5.23	--
MW-20R	10/25/10	13:34	12.17	5.96	--	NP	6.21	--
MW-20R	03/21/11	12:19	12.17	5.73	--	NP	6.44	--
MW-20R	06/14/11	10:02	12.17	6.76	--	NP	5.41	--
MW-20R	09/26/11	10:47	12.17	6.83	--	NP	5.34	--
MW-20R	12/12/11	11:44	12.17	6.56	--	NP	5.61	--
MW-20R	03/27/12	13:49	12.17	5.98	--	NP	6.19	--
MW-20R	06/27/12	16:43	12.17	6.52	--	NP	5.65	--
MW-20R	09/25/12	7:24	12.17	7.09	--	NP	5.08	--
MW-20R	12/13/12	10:00	12.17	5.62	--	NP	6.55	--
MW-20R	03/25/13	10:02	12.17	6.64	--	NP	5.53	--
MW-20R	06/24/13	11:23	12.17	6.64	--	NP	5.53	--
MW-20R	09/23/13	13:32	12.17	6.34	--	NP	5.83	--
MW-20R	12/16/13	9:45	12.17	6.76	--	NP	5.41	--
MW-20R	03/26/14	7:30	12.17	6.04	--	NP	6.13	--
MW-20R	06/16/14	13:20	12.17	6.77	--	NP	5.40	--
MW-20R	09/29/14	13:32	12.17	6.28	--	NP	5.89	--
MW-20R	12/08/14	12:15	12.17	5.55	--	NP	6.62	--
MW-20R	03/23/15	13:15	12.17	6.13	--	NP	6.04	--
MW-20R	06/22/15	15:13	12.17	6.89	--	NP	5.28	--
MW-20R	10/27/16	9:01	12.17	5.66	--	NP	6.51	--
MW-20R	07/24/17	11:41	12.17	6.88	--	NP	5.29	--
MW-20R	03/19/18	12:20	12.17	6.44	--	NP	5.73	--
MW-20R	06/26/18	9:59	12.17	7.08	--	NP	5.09	--
MW-20R	09/21/18	8:59	12.17	6.95	--	NP	5.22	--
MW-20R	11/26/18	12:52	12.17	5.96	--	NP	6.21	--
MW-20R	03/18/19	9:19	12.17	6.59	--	NP	5.58	--
MW-20R	06/17/19	11:05	12.17	6.97	--	NP	5.20	--
MW-20R	09/16/19	12:05	12.17	6.59	--	NP	5.58	--
MW-20R	12/10/19	9:33	12.17	6.40	--	NP	5.77	--
MW-203	10/20/08	16:43	31.15	22.83	--	NP	8.32	--
MW-203	12/08/08	12:00	31.15	22.69	--	NP	8.46	--
MW-203	02/20/09	11:00	31.15	22.71	--	NP	8.44	--
MW-203	04/20/09	10:33	31.15	22.55	--	NP	8.60	--
MW-203	06/22/09	11:38	31.15	22.81	--	NP	8.34	--
MW-203	08/03/09	10:38	31.15	22.90	--	NP	8.25	--
MW-203	08/17/09	10:22	31.15	23.02	--	NP	8.13	--
MW-203	10/29/09	9:30	31.15	22.11	--	NP	9.04	--
MW-203	01/18/10	13:59	31.15	21.67	--	NP	9.48	--
MW-203	04/19/10	16:04	31.15	21.86	--	NP	9.29	--
MW-203	07/19/10	8:05	31.15	22.57	--	NP	8.58	--
MW-203	10/25/10	14:45	31.15	22.62	--	NP	8.53	--
MW-203	03/21/11	13:00	31.15	21.76	--	NP	9.39	--
MW-203	06/14/11	11:27	31.15	22.26	--	NP	8.89	--
MW-203	09/26/11	11:13	31.15	22.63	--	NP	8.52	--
MW-203	12/12/11	13:20	31.15	22.35	--	NP	8.80	--
MW-203	03/27/12	14:51	31.15	21.91	--	NP	9.24	--
MW-203	06/27/12	17:48	31.15	22.30	--	NP	8.85	--
MW-203	09/25/12	8:50	31.15	22.75	--	NP	8.40	--
MW-203	12/13/12	10:41	31.15	23.01	--	NP	8.14	--
MW-203	03/25/13	11:06	31.15	22.16	--	NP	8.99	--
MW-203	06/24/13	12:36	31.15	22.43	--	NP	8.72	--
MW-203	09/23/13	13:35	31.15	22.61	--	NP	8.54	--
MW-203	12/16/13	9:41	31.15	22.64	--	NP	8.51	--
MW-203	03/26/14	8:30	31.15	21.85	--	NP	9.30	--
MW-203	06/16/14	14:05	31.15	22.36	--	NP	8.79	--
MW-203	09/29/14	14:55	31.15	22.54	--	NP	8.61	--
MW-203	12/08/14	13:07	31.15	22.00	--	NP	9.15	--
MW-203	03/23/15	14:15	31.15	21.98	--	NP	9.17	--
MW-203	06/22/15	15:48	31.15	22.48	--	NP	8.67	--
MW-203	10/27/16	9:50	31.15	22.31	--	NP	8.84	--
MW-203	07/24/17	12:25	31.15	22.29	--	NP	8.86	--
MW-203	03/19/18	12:48	31.15	22.35	--	NP	8.80	--
MW-203	06/26/18	10:40	31.15	22.37	--	NP	8.78	--
MW-203	09/21/18	8:59	31.15	22.75	--	NP	8.40	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-203	11/26/18	12:49	31.15	22.58	--	NP	8.57	--
MW-203	03/18/19	10:17	31.15	23.35	--	NP	7.80	--
MW-203	06/17/19	10:38	31.15	22.78	--	NP	8.37	--
MW-203	09/16/19	11:57	31.15	22.69	--	NP	8.46	--
MW-203	12/10/19	9:08	31.15	22.78	--	NP	8.37	--
MW-301	10/20/08	17:30	12.15	6.73	--	NP	5.42	--
MW-301	12/08/08	--	12.15	--	--	--	--	--
MW-301	02/20/09	11:22	12.15	6.53	--	NP	5.62	--
MW-301	04/20/09	10:55	12.15	7.44	--	NP	4.71	--
MW-301	06/22/09	10:36	12.15	7.25	--	NP	4.90	--
MW-301	08/03/09	11:44	12.15	7.42	--	NP	4.73	--
MW-301	08/17/09	10:28	12.15	7.92	--	NP	4.23	--
MW-301	10/29/09	10:00	12.15	7.26	--	NP	4.89	--
MW-301	01/18/10	14:11	12.15	4.95	--	NP	7.20	--
MW-301	04/19/10	16:25	12.15	7.05	--	NP	5.10	--
MW-301	07/19/10	8:34	12.15	7.62	--	NP	4.53	--
MW-301	10/25/10	15:07	12.15	6.05	--	NP	6.10	--
MW-301	03/21/11	13:26	12.15	6.36	--	NP	5.79	--
MW-301	06/14/11	11:50	12.15	7.57	--	NP	4.58	--
MW-301	09/26/11	11:50	12.15	7.27	--	NP	4.88	--
MW-301	12/12/11	14:15	12.15	6.78	--	NP	5.37	--
MW-301	03/27/12	14:51	12.15	6.60	--	NP	5.55	--
MW-301	06/27/12	18:10	12.15	7.05	--	NP	5.10	--
MW-301	09/25/12	9:05	12.15	7.70	--	NP	4.45	--
MW-301	12/13/12	10:58	12.15	5.94	--	NP	6.21	--
MW-301	03/25/13	11:40	12.15	7.30	--	NP	4.85	--
MW-301	06/24/13	12:58	12.15	7.36	--	NP	4.79	--
MW-301	09/23/13	15:00	12.15	6.66	--	NP	5.49	--
MW-301	12/16/13	11:20	12.15	6.95	--	NP	5.20	--
MW-301	03/26/14	9:05	12.15	6.46	--	NP	5.69	--
MW-301	06/16/14	14:45	12.15	7.40	--	NP	4.75	--
MW-301	09/29/14	15:05	12.15	6.59	--	NP	5.56	--
MW-301	12/08/14	12:58	12.15	5.73	--	NP	6.42	--
MW-301	03/23/15	15:01	12.15	7.00	--	NP	5.15	--
MW-301	06/22/15	15:54	12.15	7.39	--	NP	4.76	--
MW-301	10/27/16	10:15	12.15	6.21	--	NP	5.94	--
MW-301	07/24/17	--	--	--	--	--	--	Offsite well - Not part of the monitoring network
MW-500	10/20/08	16:32	16.64	8.71	--	NP	7.93	--
MW-500	12/08/08	11:45	16.64	5.16	--	NP	11.48	--
MW-500	02/20/09	10:46	16.64	4.51	--	NP	12.13	--
MW-500	04/20/09	10:19	16.64	3.54	--	NP	13.10	--
MW-500	06/22/09	11:28	16.64	5.18	--	NP	11.46	--
MW-500	08/03/09	10:20	16.64	6.15	--	NP	10.49	--
MW-500	08/17/09	9:48	16.64	6.51	--	NP	10.13	--
MW-500	10/29/09	9:05	16.64	4.94	--	NP	11.70	--
MW-500	01/18/10	13:16	16.64	1.69	--	NP	14.95	--
MW-500	04/19/10	15:50	16.64	3.77	--	NP	12.87	--
MW-500	07/19/10	7:45	16.64	5.39	--	NP	11.25	--
MW-500	10/25/10	14:35	16.64	5.51	--	NP	11.13	--
MW-500	03/21/11	12:54	16.64	2.20	--	NP	14.44	--
MW-500	06/14/11	11:17	16.64	4.71	--	NP	11.93	--
MW-500	09/26/11	11:00	16.64	6.94	--	NP	9.70	--
MW-500	12/12/11	13:00	16.64	4.39	--	NP	12.25	--
MW-500	03/27/12	14:36	16.64	2.61	--	NP	14.03	--
MW-500	06/27/12	17:35	16.64	4.65	--	NP	11.99	--
MW-500	09/25/12	8:17	16.64	6.57	--	NP	10.07	--
MW-500	12/13/12	10:28	16.64	2.27	--	NP	14.37	--
MW-500	03/25/13	10:50	16.64	3.54	--	NP	13.10	--
MW-500	06/24/13	12:20	16.64	5.61	--	NP	11.03	--
MW-500	09/23/13	14:07	16.64	6.22	--	NP	10.42	--
MW-500	12/16/13	10:50	16.64	5.20	--	NP	11.44	--
MW-500	03/26/14	8:46	16.64	2.63	--	NP	14.01	--
MW-500	06/16/14	13:44	16.64	5.48	--	NP	11.16	--
MW-500	09/29/14	15:40	16.64	6.55	--	NP	10.09	--
MW-500	12/08/14	13:05	16.64	3.05	--	NP	13.59	--
MW-500	03/23/15	14:07	16.64	3.18	--	NP	13.46	--
MW-500	06/22/15	14:58	16.64	5.95	--	NP	10.69	--
MW-500	10/27/16	9:45	16.64	2.00	--	NP	14.64	--
MW-500	07/24/17	11:58	16.64	5.85	--	NP	10.79	--
MW-500	03/19/18	12:58	16.64	3.85	--	NP	12.79	--
MW-500	06/26/18	10:10	16.64	5.84	--	NP	10.80	--
MW-500	09/21/18	9:05	16.64	7.28	--	NP	9.36	--
MW-500	11/26/18	12:33	16.64	4.65	--	NP	11.99	--
MW-500	03/18/19	9:42	16.64	3.79	--	NP	12.85	--
MW-500	06/17/19	11:02	16.64	5.84	--	NP	10.80	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-500	09/16/19	12:24	16.64	7.20	--	NP	9.44	
MW-500	12/10/19	9:53	16.64	5.78	--	NP	10.86	
MW-501	10/20/08	16:30	15.24	7.27	--	NP	7.97	--
MW-501	12/08/08	11:43	15.24	5.20	--	NP	10.04	--
MW-501	02/20/09	10:44	15.24	3.43	--	NP	11.81	--
MW-501	04/20/09	10:17	15.24	2.50	--	NP	12.74	--
MW-501	06/22/09	11:31	15.24	3.98	--	NP	11.26	--
MW-501	08/03/09	10:22	15.24	4.95	--	NP	10.29	--
MW-501	08/17/09	9:46	15.24	5.51	--	NP	9.73	--
MW-501	10/29/09	9:02	15.24	3.01	--	NP	12.23	--
MW-501	01/18/10	13:23	15.24	0.56	--	NP	14.68	--
MW-501	04/19/10	15:48	15.24	2.54	--	NP	12.70	--
MW-501	07/19/10	7:44	15.24	4.36	--	NP	10.88	--
MW-501	10/25/10	14:35	15.24	4.57	--	NP	10.67	--
MW-501	03/21/11	12:48	15.24	1.31	--	NP	13.93	--
MW-501	06/14/11	11:12	15.24	3.51	--	NP	11.73	--
MW-501	09/26/11	11:12	15.24	6.01	--	NP	9.23	--
MW-501	12/12/11	12:56	15.24	3.28	--	NP	11.96	--
MW-501	03/27/12	14:53	15.24	1.79	--	NP	13.45	--
MW-501	06/27/12	17:47	15.24	3.38	--	NP	11.86	--
MW-501	09/25/12	8:15	15.24	5.78	--	NP	9.46	--
MW-501	12/13/12	10:25	15.24	1.36	--	NP	13.88	--
MW-501	03/25/13	10:54	15.24	2.35	--	NP	12.89	--
MW-501	06/24/13	12:18	15.24	4.24	--	NP	11.00	--
MW-501	09/23/13	14:08	15.24	5.52	--	NP	9.72	--
MW-501	12/16/13	11:25	15.24	4.01	--	NP	11.23	--
MW-501	03/26/14	8:41	15.24	1.75	--	NP	13.49	--
MW-501	06/16/14	13:53	15.24	4.12	--	NP	11.12	--
MW-501	09/29/14	15:47	15.24	6.49	--	NP	8.75	--
MW-501	12/08/14	12:50	15.24	2.20	--	NP	13.04	--
MW-501	03/23/15	14:41	15.24	2.45	--	NP	12.79	--
MW-501	06/22/15	14:59	15.24	4.85	--	NP	10.39	--
MW-501	10/27/16	9:54	15.24	1.39	--	NP	13.85	--
MW-501	07/24/17	12:02	15.24	4.67	--	NP	10.57	--
MW-501	03/19/18	13:09	15.24	4.69	--	NP	10.55	--
MW-501	06/26/18	10:15	15.24	4.90	--	NP	10.34	--
MW-501	09/21/18	9:20	15.24	6.71	--	NP	8.53	--
MW-501	11/26/18	12:32	15.24	6.39	--	NP	8.85	--
MW-501	03/18/19	9:39	15.24	5.35	--	NP	9.89	--
MW-501	06/17/19	11:06	15.24	4.99	--	NP	10.25	--
MW-501	09/16/19	12:26	15.24	6.44	--	NP	8.80	--
MW-501	12/10/19	9:58	15.24	7.20	--	NP	8.04	--
MW-502	10/20/08	16:25	13.00	5.41	--	NP	7.59	--
MW-502	12/08/08	11:20	13.00	5.16	--	NP	7.84	--
MW-502	02/20/09	10:24	13.00	5.03	--	NP	7.97	--
MW-502	04/20/09	10:40	13.00	4.98	--	NP	8.02	--
MW-502	06/22/09	11:49	13.00	5.35	--	NP	7.65	--
MW-502	08/03/09	11:34	13.00	5.53	--	NP	7.47	--
MW-502	08/17/09	9:39	13.00	5.56	--	NP	7.44	--
MW-502	10/29/09	9:40	13.00	5.03	--	NP	7.97	--
MW-502	01/18/10	13:55	13.00	3.78	--	NP	9.22	--
MW-502	04/19/10	15:42	13.00	4.47	--	NP	8.53	--
MW-502	07/19/10	7:24	13.00	5.25	--	NP	7.75	--
MW-502	10/25/10	14:15	13.00	5.20	--	NP	7.80	--
MW-502	03/21/11	12:43	13.00	4.05	--	NP	8.95	--
MW-502	06/14/11	11:05	13.00	4.90	--	NP	8.10	--
MW-502	09/26/11	11:10	13.00	5.46	--	NP	7.54	--
MW-502	12/12/11	13:26	13.00	4.91	--	NP	8.09	--
MW-502	03/27/12	14:26	13.00	4.32	--	NP	8.68	--
MW-502	06/27/12	17:24	13.00	4.93	--	NP	8.07	--
MW-502	09/25/12	8:01	13.00	6.50	--	NP	6.50	--
MW-502	12/13/12	10:22	13.00	4.31	--	NP	8.69	--
MW-502	03/25/13	10:31	13.00	4.71	--	NP	8.29	--
MW-502	06/24/13	12:38	13.00	5.20	--	NP	7.80	--
MW-502	09/23/13	14:20	13.00	5.22	--	NP	7.78	--
MW-502	12/16/13	10:39	13.00	5.27	--	NP	7.73	--
MW-502	03/26/14	8:24	13.00	4.38	--	NP	8.62	--
MW-502	06/16/14	13:50	13.00	5.10	--	NP	7.90	--
MW-502	09/29/14	15:39	13.00	5.20	--	NP	7.80	--
MW-502	12/08/14	12:37	13.00	4.51	--	NP	8.49	--
MW-502	03/23/15	14:27	13.00	4.50	--	NP	8.50	--
MW-502	06/22/15	15:55	13.00	5.28	--	NP	7.72	--
MW-502	10/27/16	10:05	13.00	4.80	--	NP	8.20	--
MW-502	07/24/17	11:51	13.00	5.35	--	NP	7.65	--
MW-502	03/19/18	12:50	13.00	5.22	--	NP	7.78	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-502	06/26/18	10:24	13.00	5.96	--	NP	7.04	--
MW-502	09/21/18	8:14	13.00	5.72	--	NP	7.28	--
MW-502	11/26/18	12:57	13.00	5.56	--	NP	7.44	--
MW-502	03/18/19	9:31	13.00	5.35	--	NP	7.65	--
MW-502	06/17/19	11:30	13.00	5.62	--	NP	7.38	--
MW-502	09/16/19	13:04	13.00	5.51	--	NP	7.49	--
MW-502	12/10/19	10:05	13.00	5.52	--	NP	7.48	--
MW-503	10/20/08	16:23	12.22	5.75	--	NP	6.47	--
MW-503	12/08/08	11:23	12.22	5.42	--	NP	6.80	--
MW-503	02/20/09	10:21	12.22	5.25	--	NP	6.97	--
MW-503	04/20/09	10:42	12.22	5.00	--	NP	7.22	--
MW-503	06/22/09	11:48	12.22	5.56	--	NP	6.66	--
MW-503	08/03/09	11:33	12.22	5.75	--	NP	6.47	--
MW-503	08/17/09	9:37	12.22	5.76	--	NP	6.46	--
MW-503	10/29/09	9:39	12.22	5.00	--	NP	7.22	--
MW-503	01/18/10	13:54	12.22	3.66	--	NP	8.56	--
MW-503	04/19/10	15:40	12.22	4.69	--	NP	7.53	--
MW-503	07/19/10	7:26	12.22	5.45	--	NP	6.77	--
MW-503	10/25/10	14:12	12.22	5.19	--	NP	7.03	--
MW-503	03/21/11	12:42	12.22	4.10	--	NP	8.12	--
MW-503	06/14/11	11:01	12.22	5.10	--	NP	7.12	--
MW-503	09/26/11	11:07	12.22	5.55	--	NP	6.67	--
MW-503	12/12/11	13:30	12.22	5.07	--	NP	7.15	--
MW-503	03/27/12	14:24	12.22	4.47	--	NP	7.75	--
MW-503	06/27/12	17:22	12.22	5.05	--	NP	7.17	--
MW-503	09/25/12	7:59	12.22	5.61	--	NP	6.61	--
MW-503	12/13/12	10:20	12.22	4.40	--	NP	7.82	--
MW-503	03/25/13	10:35	12.22	4.83	--	NP	7.39	--
MW-503	06/24/13	11:54	12.22	5.33	--	NP	6.89	--
MW-503	09/23/13	14:35	12.22	5.26	--	NP	6.96	--
MW-503	12/16/13	10:35	12.22	5.40	--	NP	6.82	--
MW-503	03/26/14	8:22	12.22	4.56	--	NP	7.66	--
MW-503	06/16/14	13:48	12.22	5.22	--	NP	7.00	--
MW-503	09/29/14	15:41	12.22	5.13	--	NP	7.09	--
MW-503	12/08/14	12:35	12.22	4.55	--	NP	7.67	--
MW-503	03/23/15	14:10	12.22	5.09	--	NP	7.13	--
MW-503	06/22/15	15:57	12.22	5.32	--	NP	6.90	--
MW-503	10/27/16	10:06	12.22	4.22	--	NP	8.00	--
MW-503	07/24/17	11:53	12.22	5.38	--	NP	6.84	Well damaged
MW-503	03/19/18	12:48	12.22	5.12	--	NP	7.10	--
MW-503	06/26/18	11:05	12.22	5.80	--	NP	6.42	--
MW-503	09/21/18	9:31	12.22	5.36	--	NP	6.86	--
MW-503	11/26/18	13:01	12.22	5.18	--	NP	7.04	--
MW-503	03/18/19	9:32	12.22	5.49	--	NP	6.73	--
MW-503	06/17/19	11:28	12.22	5.34	--	NP	6.88	--
MW-503	09/16/19	13:06	12.22	5.18	--	NP	7.04	--
MW-503	12/10/19	10:03	12.22	5.39	--	NP	6.83	--
MW-504	10/20/08	16:14	13.32	7.01	--	NP	6.31	--
MW-504	12/08/08	11:26	13.32	6.63	--	NP	6.69	--
MW-504	02/20/09	10:16	13.32	6.46	--	NP	6.86	--
MW-504	04/20/09	10:03	13.32	6.25	--	NP	7.07	--
MW-504	06/22/09	11:42	13.32	6.81	--	NP	6.51	--
MW-504	08/03/09	11:29	13.32	7.00	--	NP	6.32	--
MW-504	08/17/09	9:35	13.32	7.05	--	NP	6.27	--
MW-504	10/29/09	9:26	13.32	6.28	--	NP	7.04	--
MW-504	01/18/10	13:53	13.32	4.90	--	NP	8.42	--
MW-504	04/19/10	15:37	13.32	5.99	--	NP	7.33	--
MW-504	07/19/10	7:28	13.32	6.80	--	NP	6.52	--
MW-504	10/25/10	14:10	13.32	6.66	--	NP	6.66	--
MW-504	03/21/11	12:40	13.32	5.48	--	NP	7.84	--
MW-504	06/14/11	10:57	13.32	6.48	--	NP	6.84	--
MW-504	09/26/11	11:05	13.32	7.09	--	NP	6.23	--
MW-504	12/12/11	12:07	13.32	6.42	--	NP	6.90	--
MW-504	03/27/12	14:22	13.32	5.84	--	NP	7.48	--
MW-504	06/27/12	17:20	13.32	6.40	--	NP	6.92	--
MW-504	09/25/12	7:57	13.32	7.07	--	NP	6.25	--
MW-504	12/13/12	10:18	13.32	5.80	--	NP	7.52	--
MW-504	03/25/13	10:33	13.32	6.22	--	NP	7.10	--
MW-504	06/24/13	11:57	13.32	6.80	--	NP	6.52	--
MW-504	09/23/13	13:55	13.32	6.67	--	NP	6.65	--
MW-504	12/16/13	10:37	13.32	6.85	--	NP	6.47	--
MW-504	03/26/14	8:21	13.32	6.00	--	NP	7.32	--
MW-504	06/16/14	13:46	13.32	6.69	--	NP	6.63	--
MW-504	09/29/14	15:45	13.32	6.61	--	NP	6.71	--
MW-504	12/08/14	12:33	13.32	5.64	--	NP	7.68	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-504	03/23/15	13:57	13.32	6.05	--	NP	7.27	--
MW-504	06/22/15	15:59	13.32	5.32	--	NP	8.00	--
MW-504	10/27/16	9:13	13.32	5.52	--	NP	7.80	--
MW-504	07/24/17	12:00	13.32	6.85	--	NP	6.47	--
MW-504	03/19/18	12:42	13.32	6.56	--	NP	6.76	--
MW-504	06/26/18	10:26	13.32	7.13	--	NP	6.19	--
MW-504	09/21/18	8:49	13.32	6.94	--	NP	6.38	--
MW-504	11/26/18	13:03	13.32	6.70	--	NP	6.62	PID: 0.9
MW-504	03/18/19	10:25	13.32	6.71	--	NP	6.61	--
MW-504	06/17/19	11:26	13.32	6.75	--	NP	6.57	--
MW-504	09/16/19	12:44	13.32	6.65	--	NP	6.67	--
MW-504	12/10/19	10:01	13.32	6.90	--	NP	6.42	--
MW-505	10/20/08	16:11	11.42	5.10	--	NP	6.32	--
MW-505	12/08/08	11:13	11.42	4.72	--	NP	6.70	--
MW-505	02/20/09	10:18	11.42	4.53	--	NP	6.89	--
MW-505	04/20/09	10:02	11.42	4.32	--	NP	7.10	--
MW-505	06/22/09	11:39	11.42	4.90	--	NP	6.52	--
MW-505	08/03/09	11:28	11.42	5.11	--	NP	6.31	--
MW-505	08/17/09	9:33	11.42	5.13	--	NP	6.29	--
MW-505	10/29/09	9:25	11.42	4.37	--	NP	7.05	--
MW-505	01/18/10	13:52	11.42	2.99	--	NP	8.43	--
MW-505	04/19/10	15:35	11.42	4.08	--	NP	7.34	--
MW-505	07/19/10	7:31	11.42	5.89	--	NP	5.53	--
MW-505	10/25/10	14:08	11.42	4.73	--	NP	6.69	--
MW-505	03/21/11	12:39	11.42	3.45	--	NP	7.97	--
MW-505	06/14/11	10:58	11.42	4.58	--	NP	6.84	--
MW-505	09/26/11	10:54	11.42	5.14	--	NP	6.28	--
MW-505	12/12/11	12:09	11.42	4.50	--	NP	6.92	--
MW-505	03/27/12	14:11	11.42	3.94	--	NP	7.48	--
MW-505	06/27/12	17:16	11.42	4.49	--	NP	6.93	--
MW-505	09/25/12	7:55	11.42	5.13	--	NP	6.29	--
MW-505	12/13/12	10:15	11.42	3.88	--	NP	7.54	--
MW-505	03/25/13	10:31	11.42	4.30	--	NP	7.12	--
MW-505	06/24/13	11:52	11.42	4.84	--	NP	6.58	--
MW-505	09/23/13	13:53	11.42	4.76	--	NP	6.66	--
MW-505	12/16/13	10:27	11.42	4.91	--	NP	6.51	--
MW-505	03/26/14	8:17	11.42	4.10	--	NP	7.32	--
MW-505	06/16/14	13:44	11.42	4.75	--	NP	6.67	--
MW-505	09/29/14	15:47	11.42	4.69	--	NP	6.73	--
MW-505	12/08/14	12:30	11.42	4.10	--	NP	7.32	--
MW-505	03/23/15	13:56	11.42	4.13	--	NP	7.29	--
MW-505	06/22/15	16:01	11.42	4.88	--	NP	6.54	--
MW-505	10/27/16	9:14	11.42	3.63	--	NP	7.79	--
MW-505	07/24/17	12:17	11.42	4.92	--	NP	6.50	--
MW-505	03/19/18	12:40	11.42	4.65	--	NP	6.77	--
MW-505	06/26/18	10:21	11.42	5.23	--	NP	6.19	--
MW-505	09/21/18	9:35	11.42	5.05	--	NP	6.37	--
MW-505	11/26/18	13:04	11.42	4.78	--	NP	6.64	--
MW-505	03/18/19	10:21	11.42	4.76	--	NP	6.66	--
MW-505	06/17/19	11:24	11.42	4.83	--	NP	6.59	--
MW-505	09/16/19	12:43	11.42	4.71	--	NP	6.71	--
MW-505	12/10/19	9:58	11.42	4.95	--	NP	6.47	--
MW-506	10/20/08	16:16	13.44	7.13	--	NP	6.31	--
MW-506	12/08/08	11:29	13.44	6.75	--	NP	6.69	--
MW-506	02/20/09	10:13	13.44	6.60	--	NP	6.84	--
MW-506	04/20/09	10:08	13.44	6.37	--	NP	7.07	--
MW-506	06/22/09	11:44	13.44	6.93	--	NP	6.51	--
MW-506	08/03/09	11:30	13.44	7.13	--	NP	6.31	--
MW-506	08/17/09	9:31	13.44	7.17	--	NP	6.27	--
MW-506	10/29/09	9:28	13.44	6.39	--	NP	7.05	--
MW-506	01/18/10	13:47	13.44	5.02	--	NP	8.42	--
MW-506	04/19/10	15:30	13.44	6.10	--	NP	7.34	--
MW-506	07/19/10	7:37	13.44	6.91	--	NP	6.53	--
MW-506	10/25/10	14:10	13.44	6.75	--	NP	6.69	--
MW-506	03/21/11	12:40	13.44	5.50	--	NP	7.94	--
MW-506	06/14/11	10:48	13.44	6.59	--	NP	6.85	--
MW-506	09/26/11	11:00	13.44	7.13	--	NP	6.31	--
MW-506	12/12/11	12:14	13.44	6.56	--	NP	6.88	--
MW-506	03/27/12	14:15	13.44	5.93	--	NP	7.51	--
MW-506	06/27/12	17:20	13.44	6.51	--	NP	6.93	--
MW-506	09/25/12	7:52	13.44	7.15	--	NP	6.29	--
MW-506	12/13/12	10:10	13.44	5.89	--	NP	7.55	--
MW-506	03/25/13	10:33	13.44	6.33	--	NP	7.11	--
MW-506	06/24/13	12:03	13.44	6.88	--	NP	6.56	--
MW-506	09/23/13	13:57	13.44	6.76	--	NP	6.68	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-506	12/16/13	10:28	13.44	6.93	--	NP	6.51	--
MW-506	03/26/14	9:12	13.44	6.09	--	NP	7.35	--
MW-506	06/16/14	13:48	13.44	6.79	--	NP	6.65	--
MW-506	09/29/14	13:54	13.44	6.71	--	NP	6.73	--
MW-506	12/08/14	12:45	13.44	6.07	--	NP	7.37	--
MW-506	03/23/15	14:03	13.44	6.15	--	NP	7.29	--
MW-506	06/22/15	15:25	13.44	6.89	--	NP	6.55	--
MW-506	10/27/16	9:48	13.44	5.62	--	NP	7.82	--
MW-506	07/24/17	12:01	13.44	6.91	--	NP	6.53	--
MW-506	03/19/18	12:43	13.44	6.60	--	NP	6.84	--
MW-506	06/26/18	10:20	13.44	7.21	--	NP	6.23	--
MW-506	09/21/18	8:47	13.44	7.01	--	NP	6.43	--
MW-506	11/26/18	13:06	13.44	6.78	--	NP	6.66	--
MW-506	03/18/19	10:22	13.44	6.80	--	NP	6.64	--
MW-506	06/17/19	11:16	13.44	6.82	--	NP	6.62	--
MW-506	09/16/19	12:36	13.44	6.73	--	NP	6.71	--
MW-506	12/10/19	10:20	13.44	6.95	--	NP	6.49	--
MW-507	10/20/08	16:09	13.60	7.38	--	NP	6.22	--
MW-507	12/08/08	11:11	13.60	7.09	--	NP	6.51	--
MW-507	02/20/09	10:11	13.60	6.91	--	NP	6.69	--
MW-507	04/20/09	10:00	13.60	6.70	--	NP	6.90	--
MW-507	06/22/09	11:37	13.60	7.23	--	NP	6.37	--
MW-507	08/03/09	11:27	13.60	7.41	--	NP	6.19	--
MW-507	08/17/09	9:29	13.60	7.45	--	NP	6.15	--
MW-507	10/29/09	9:23	13.60	6.70	--	NP	6.90	--
MW-507	01/18/10	13:48	13.60	5.49	--	NP	8.11	--
MW-507	04/19/10	15:29	13.60	6.40	--	NP	7.20	--
MW-507	07/19/10	7:36	13.60	7.14	--	NP	6.46	--
MW-507	10/25/10	14:09	13.60	6.90	--	NP	6.70	--
MW-507	03/21/11	12:38	13.60	5.86	--	NP	7.74	--
MW-507	06/14/11	10:44	13.60	6.95	--	NP	6.65	--
MW-507	09/26/11	11:01	13.60	7.40	--	NP	6.20	--
MW-507	12/12/11	12:17	13.60	6.81	--	NP	6.79	--
MW-507	03/27/12	14:10	13.60	6.23	--	NP	7.37	--
MW-507	06/27/12	17:17	13.60	6.79	--	NP	6.81	--
MW-507	09/25/12	7:49	13.60	7.38	--	NP	6.22	--
MW-507	12/13/12	10:12	13.60	6.19	--	NP	7.41	--
MW-507	03/25/13	10:31	13.60	6.56	--	NP	7.04	--
MW-507	06/24/13	12:02	13.60	7.05	--	NP	6.55	--
MW-507	09/23/13	13:52	13.60	7.03	--	NP	6.57	--
MW-507	12/16/13	10:26	13.60	7.15	--	NP	6.45	--
MW-507	03/26/14	8:40	13.60	6.41	--	NP	7.19	--
MW-507	06/16/14	13:46	13.60	7.01	--	NP	6.59	--
MW-507	09/29/14	13:53	13.60	6.92	--	NP	6.68	--
MW-507	12/08/14	12:41	13.60	6.35	--	NP	7.25	--
MW-507	03/23/15	13:54	13.60	6.47	--	NP	7.13	--
MW-507	06/22/15	15:26	13.60	7.17	--	NP	6.43	--
MW-507	10/27/16	9:47	13.60	5.84	--	NP	7.76	--
MW-507	07/24/17	12:05	13.60	7.07	--	NP	6.53	--
MW-507	03/19/18	12:42	13.60	6.82	--	NP	6.78	--
MW-507	06/26/18	10:16	13.60	7.37	--	NP	6.23	--
MW-507	09/21/18	8:44	13.60	7.21	--	NP	6.39	--
MW-507	11/26/18	13:08	13.60	6.85	--	NP	6.75	--
MW-507	03/18/19	10:19	13.60	6.93	--	NP	6.67	--
MW-507	06/17/19	11:18	13.60	7.00	--	NP	6.60	--
MW-507	09/16/19	12:38	13.60	6.89	--	NP	6.71	--
MW-507	12/10/19	10:22	13.60	7.12	--	NP	6.48	--
MW-509	10/20/08	16:05	10.28	3.97	--	NP	6.31	--
MW-509	12/08/08	11:07	10.28	3.59	--	NP	6.69	--
MW-509	02/20/09	10:06	10.28	3.39	--	NP	6.89	--
MW-509	04/20/09	9:36	10.28	3.18	--	NP	7.10	--
MW-509	06/22/09	11:33	10.28	3.75	--	NP	6.53	--
MW-509	08/03/09	11:11	10.28	3.95	--	NP	6.33	--
MW-509	08/17/09	9:27	10.28	6.97	--	NP	3.31	--
MW-509	10/29/09	9:10	10.28	3.23	--	NP	7.05	--
MW-509	01/18/10	13:50	10.28	1.85	--	NP	8.43	--
MW-509	04/19/10	15:26	10.28	2.93	--	NP	7.35	--
MW-509	07/19/10	7:18	10.28	3.77	--	NP	6.51	--
MW-509	10/25/10	14:49	10.28	4.59	--	NP	5.69	--
MW-509	03/21/11	12:30	10.28	2.34	--	NP	7.94	--
MW-509	06/14/11	10:17	10.28	3.43	--	NP	6.85	--
MW-509	09/26/11	10:55	10.28	4.20	--	NP	6.08	--
MW-509	12/12/11	12:27	10.28	3.36	--	NP	6.92	--
MW-509	03/27/12	13:57	10.28	2.78	--	NP	7.50	--
MW-509	06/27/12	17:06	10.28	3.33	--	NP	6.95	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-509	09/25/12	7:42	10.28	4.00	--	NP	6.28	--
MW-509	12/13/12	10:13	10.28	2.73	--	NP	7.55	--
MW-509	03/25/13	10:26	10.28	3.18	--	NP	7.10	--
MW-509	06/24/13	11:34	10.28	3.37	--	NP	6.91	--
MW-509	09/23/13	13:50	10.28	3.62	--	NP	6.66	--
MW-509	12/16/13	11:25	10.28	3.80	--	NP	6.48	--
MW-509	03/26/14	8:24	10.28	2.93	--	NP	7.35	--
MW-509	06/16/14	13:36	10.28	3.64	--	NP	6.64	--
MW-509	09/29/14	14:30	10.28	3.56	--	NP	6.72	--
MW-509	12/08/14	12:05	10.28	2.92	--	NP	7.36	--
MW-509	03/23/15	13:47	10.28	2.98	--	NP	7.30	--
MW-509	06/25/15	11:41	10.28	3.74	--	NP	6.54	--
MW-509	10/27/16	9:17	10.28	2.48	--	NP	7.80	--
MW-509	07/24/17	11:53	10.28	3.80	--	NP	6.48	--
MW-509	03/19/18	12:35	10.28	3.58	--	NP	6.70	--
MW-509	06/26/18	10:19	10.28	4.06	--	NP	6.22	--
MW-509	09/21/18	9:19	10.28	3.85	--	NP	6.43	--
MW-509	11/26/18	13:18	10.28	3.64	--	NP	6.64	--
MW-509	03/18/19	10:10	10.28	3.63	--	NP	6.65	--
MW-509	06/17/19	11:22	10.28	3.69	--	NP	6.59	--
MW-509	09/16/19	13:09	10.28	3.61	--	NP	6.67	--
MW-509	12/10/19	9:57	10.28	3.81	--	NP	6.47	--
MW-511	10/20/08	16:49	15.20	7.75	--	NP	7.45	--
MW-511	12/08/08	12:05	15.20	7.45	--	NP	7.75	--
MW-511	02/20/09	10:13	15.20	7.34	--	NP	7.86	--
MW-511	04/20/09	10:44	15.20	7.09	--	NP	8.11	--
MW-511	06/22/09	11:16	15.20	7.66	--	NP	7.54	--
MW-511	08/03/09	10:40	15.20	7.89	--	NP	7.31	--
MW-511	08/17/09	9:17	15.20	7.87	--	NP	7.33	--
MW-511	10/29/09	9:10	15.20	7.30	--	NP	7.90	--
MW-511	01/18/10	13:36	15.20	6.06	--	NP	9.14	--
MW-511	04/19/10	16:10	15.20	6.83	--	NP	8.37	--
MW-511	07/19/10	7:18	15.20	7.59	--	NP	7.61	--
MW-511	10/25/10	14:50	15.20	7.51	--	NP	7.69	--
MW-511	03/21/11	13:06	15.20	6.37	--	NP	8.83	--
MW-511	06/14/11	11:38	15.20	7.29	--	NP	7.91	--
MW-511	09/26/11	11:08	15.20	7.88	--	NP	7.32	--
MW-511	12/12/11	13:27	15.20	7.20	--	NP	8.00	--
MW-511	03/27/12	14:55	15.20	6.62	--	NP	8.58	--
MW-511	06/27/12	17:39	15.20	7.27	--	NP	7.93	--
MW-511	09/25/12	8:27	15.20	7.85	--	NP	7.35	--
MW-511	12/13/12	10:44	15.20	6.59	--	NP	8.61	--
MW-511	03/25/13	10:59	15.20	7.05	--	NP	8.15	--
MW-511	06/24/13	11:32	15.20	7.60	--	NP	7.60	--
MW-511	09/23/13	13:29	15.20	7.59	--	NP	7.61	--
MW-511	12/16/13	11:27	15.20	7.60	--	NP	7.60	--
MW-511	03/26/14	8:24	15.20	6.74	--	NP	8.46	--
MW-511	06/16/14	13:35	15.20	7.50	--	NP	7.70	--
MW-511	09/29/14	15:16	15.20	7.59	--	NP	7.61	--
MW-511	12/08/14	11:50	15.20	6.89	--	NP	8.31	--
MW-511	03/23/15	13:29	15.20	6.86	--	NP	8.34	--
MW-511	06/22/15	15:42	15.20	7.70	--	NP	7.50	--
MW-511	10/27/16	9:10	15.20	7.38	--	NP	7.82	--
MW-511	07/24/17	11:49	15.20	8.06	--	NP	7.14	--
MW-511	03/19/18	12:42	15.20	7.92	--	NP	7.28	--
MW-511	06/26/18	11:06	15.20	8.70	--	NP	6.50	--
MW-511	09/21/18	9:40	15.20	8.35	--	NP	6.85	--
MW-511	11/26/18	12:53	15.20	8.33	--	NP	6.87	--
MW-511	03/18/19	9:29	15.20	8.12	--	NP	7.08	--
MW-511	06/17/19	11:47	15.20	8.32	--	NP	6.88	--
MW-511	09/16/19	11:52	15.20	8.27	--	NP	6.93	--
MW-511	12/10/19	10:31	15.20	8.13	--	NP	7.07	--
MW-512	10/20/08	16:04	13.19	6.90	--	NP	6.29	--
MW-512	12/08/08	10:37	13.19	6.51	--	NP	6.68	--
MW-512	02/20/09	10:10	13.19	6.30	--	NP	6.89	--
MW-512	04/20/09	9:28	13.19	6.12	--	NP	7.07	--
MW-512	06/22/09	11:18	13.19	7.68	--	NP	5.51	--
MW-512	08/03/09	11:09	13.19	6.86	--	NP	6.33	--
MW-512	08/17/09	9:18	13.19	6.91	--	NP	6.28	--
MW-512	10/29/09	9:07	13.19	6.15	--	NP	7.04	--
MW-512	01/18/10	13:34	13.19	4.78	--	NP	8.41	--
MW-512	04/19/10	14:48	13.19	5.85	--	NP	7.34	--
MW-512	07/19/10	7:16	13.19	6.67	--	NP	6.52	--
MW-512	10/25/10	13:48	13.19	6.51	--	NP	6.68	--
MW-512	03/21/11	12:22	13.19	5.26	--	NP	7.93	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-512	06/14/11	10:16	13.19	6.35	--	NP	6.84	--
MW-512	09/26/11	11:53	13.19	6.95	--	NP	6.24	--
MW-512	12/12/11	11:59	13.19	6.29	--	NP	6.90	--
MW-512	03/27/12	13:52	13.19	5.72	--	NP	7.47	--
MW-512	06/27/12	17:00	13.19	6.27	--	NP	6.92	--
MW-512	09/25/12	7:30	13.19	6.93	--	NP	6.26	--
MW-512	12/13/12	10:15	13.19	5.65	--	NP	7.54	--
MW-512	03/25/13	10:20	13.19	6.11	--	NP	7.08	--
MW-512	06/24/13	11:37	13.19	6.67	--	NP	6.52	--
MW-512	09/23/13	13:40	13.19	6.57	--	NP	6.62	--
MW-512	12/16/13	10:09	13.19	6.72	--	NP	6.47	--
MW-512	03/26/14	8:12	13.19	5.88	--	NP	7.31	--
MW-512	06/16/14	13:31	13.19	6.56	--	NP	6.63	--
MW-512	09/29/14	15:25	13.19	6.50	--	NP	6.69	--
MW-512	12/08/14	11:55	13.19	5.90	--	NP	7.29	--
MW-512	03/23/15	13:32	13.19	5.91	--	NP	7.28	--
MW-512	06/22/15	15:38	13.19	6.70	--	NP	6.49	--
MW-512	10/27/16	9:09	13.19	5.40	--	NP	7.79	--
MW-512	07/24/17	12:25	13.19	6.73	--	NP	6.46	--
MW-512	03/19/18	12:54	13.19	6.44	--	NP	6.75	--
MW-512	06/26/18	11:08	13.19	7.08	--	NP	6.11	--
MW-512	09/21/18	9:34	13.19	6.84	--	NP	6.35	--
MW-512	11/26/18	13:14	13.19	6.62	--	NP	6.57	--
MW-512	03/18/19	9:25	13.19	6.64	--	NP	6.55	--
MW-512	06/17/19	11:41	13.19	6.66	--	NP	6.53	--
MW-512	09/16/19	12:41	13.19	6.59	--	NP	6.60	--
MW-512	12/10/19	10:24	13.19	6.82	--	NP	6.37	--
MW-513	10/20/08	16:01	11.09	4.78	--	NP	6.31	--
MW-513	12/08/08	10:41	11.09	4.40	--	NP	6.69	--
MW-513	02/20/09	10:07	11.09	4.19	--	NP	6.90	--
MW-513	04/20/09	9:30	11.09	4.00	--	NP	7.09	--
MW-513	06/22/09	11:21	11.09	4.58	--	NP	6.51	--
MW-513	08/03/09	11:08	11.09	4.78	--	NP	6.31	--
MW-513	08/17/09	9:21	11.09	4.80	--	NP	6.29	--
MW-513	10/29/09	9:13	11.09	4.04	--	NP	7.05	--
MW-513	01/18/10	13:37	11.09	2.67	--	NP	8.42	--
MW-513	04/19/10	14:51	11.09	3.75	--	NP	7.34	--
MW-513	07/19/10	7:12	11.09	4.57	--	NP	6.52	--
MW-513	10/25/10	13:44	11.09	4.42	--	NP	6.67	--
MW-513	03/21/11	12:25	11.09	3.18	--	NP	7.91	--
MW-513	06/14/11	10:12	11.09	4.25	--	NP	6.84	--
MW-513	09/26/11	10:54	11.09	4.83	--	NP	6.26	--
MW-513	12/12/11	11:57	11.09	4.19	--	NP	6.90	--
MW-513	03/27/12	13:56	11.09	3.60	--	NP	7.49	--
MW-513	06/27/12	16:58	11.09	4.15	--	NP	6.94	--
MW-513	09/25/12	7:35	11.09	4.82	--	NP	6.27	--
MW-513	12/13/12	10:13	11.09	3.56	--	NP	7.53	--
MW-513	03/25/13	10:16	11.09	3.90	--	NP	7.19	--
MW-513	06/24/13	11:40	11.09	4.55	--	NP	6.54	--
MW-513	09/23/13	13:46	11.09	4.47	--	NP	6.62	--
MW-513	12/16/13	10:12	11.09	4.62	--	NP	6.47	--
MW-513	03/26/14	8:14	11.09	3.77	--	NP	7.32	--
MW-513	06/16/14	13:41	11.09	4.46	--	NP	6.63	--
MW-513	09/29/14	15:29	11.09	4.38	--	NP	6.71	--
MW-513	12/08/14	12:00	11.09	3.74	--	NP	7.35	--
MW-513	03/23/15	13:35	11.09	3.81	--	NP	7.28	--
MW-513	06/22/15	15:31	11.09	4.58	--	NP	6.51	--
MW-513	10/27/16	9:08	11.09	3.30	--	NP	7.79	--
MW-513	07/24/17	12:01	11.09	4.62	--	NP	6.47	--
MW-513	03/19/18	13:24	11.09	4.35	--	NP	6.74	--
MW-513	06/26/18	10:12	11.09	4.92	--	NP	6.17	--
MW-513	09/21/18	9:29	11.09	4.70	--	NP	6.39	--
MW-513	11/26/18	13:09	11.09	4.49	--	NP	6.60	--
MW-513	03/18/19	10:08	11.09	4.49	--	NP	6.60	--
MW-513	06/17/19	11:38	11.09	4.54	--	NP	6.55	--
MW-513	09/16/19	12:38	11.09	4.46	--	NP	6.63	--
MW-513	12/10/19	10:26	11.09	4.68	--	NP	6.41	--
MW-514	10/20/08	16:02	11.39	5.09	--	NP	6.30	--
MW-514	12/08/08	10:35	11.39	4.70	--	NP	6.69	--
MW-514	02/20/09	10:08	11.39	4.19	--	NP	7.20	--
MW-514	04/20/09	9:28	11.39	4.31	--	NP	7.08	--
MW-514	06/22/09	11:19	11.39	4.88	--	NP	6.51	--
MW-514	08/03/09	11:07	11.39	5.08	--	NP	6.31	--
MW-514	08/17/09	9:19	11.39	5.11	--	NP	6.28	--
MW-514	10/29/09	9:06	11.39	4.35	--	NP	7.04	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-514	01/18/10	13:33	11.39	2.98	--	NP	8.41	--
MW-514	04/19/10	14:46	11.39	4.05	--	NP	7.34	--
MW-514	07/19/10	7:10	11.39	4.97	--	NP	6.42	--
MW-514	10/25/10	13:41	11.39	4.71	--	NP	6.68	--
MW-514	03/21/11	12:23	11.39	3.48	--	NP	7.91	--
MW-514	06/14/11	10:14	11.39	4.56	--	NP	6.83	--
MW-514	09/26/11	10:50	11.39	5.13	--	NP	6.26	--
MW-514	12/12/11	11:55	11.39	4.49	--	NP	6.90	--
MW-514	03/27/12	13:54	11.39	3.92	--	NP	7.47	--
MW-514	06/27/12	16:56	11.39	4.47	--	NP	6.92	--
MW-514	09/25/12	7:32	11.39	5.13	--	NP	6.26	--
MW-514	12/13/12	10:14	11.39	3.84	--	NP	7.55	--
MW-514	03/25/13	9:50	11.39	7.62	--	NP	3.77	See*
MW-514	06/24/13	11:39	11.39	4.84	--	NP	6.55	--
MW-514	09/23/13	13:38	11.39	4.76	--	NP	6.63	--
MW-514	12/16/13	10:10	11.39	4.92	--	NP	6.47	--
MW-514	03/26/14	8:00	11.39	4.05	--	NP	7.34	--
MW-514	06/16/14	13:39	11.39	4.76	--	NP	6.63	--
MW-514	09/29/14	15:27	11.39	4.69	--	NP	6.70	--
MW-514	12/08/14	11:57	11.39	4.10	--	NP	7.29	--
MW-514	03/23/15	13:33	11.39	4.12	--	NP	7.27	--
MW-514	06/22/15	15:28	11.39	4.88	--	NP	6.51	--
MW-514	10/27/16	9:08	11.39	3.61	--	NP	7.78	--
MW-514	07/24/17	12:39	11.39	4.92	--	NP	6.47	--
MW-514	03/19/18	12:55	11.39	4.65	--	NP	6.74	--
MW-514	06/26/18	10:10	11.39	5.23	--	NP	6.16	--
MW-514	09/21/18	9:31	11.39	5.01	--	NP	6.38	--
MW-514	11/26/18	13:12	11.39	4.81	--	NP	6.58	--
MW-514	03/18/19	9:24	11.39	4.91	--	NP	6.48	--
MW-514	06/17/19	11:36	11.39	4.84	--	NP	6.55	--
MW-514	09/16/19	12:40	11.39	4.78	--	NP	6.61	--
MW-514	12/10/19	10:27	11.39	4.97	--	NP	6.42	--
MW-515	10/20/08	16:00	11.60	5.30	--	NP	6.30	--
MW-515	12/08/08	10:42	11.60	4.91	--	NP	6.69	--
MW-515	02/20/09	9:47	11.60	5.70	--	NP	5.90	--
MW-515	04/20/09	9:25	11.60	4.52	--	NP	7.08	--
MW-515	06/22/09	11:25	11.60	5.09	--	NP	6.51	--
MW-515	08/03/09	11:04	11.60	5.29	--	NP	6.31	--
MW-515	08/17/09	9:23	11.60	5.33	--	NP	6.27	--
MW-515	10/29/09	9:15	11.60	4.55	--	NP	7.05	--
MW-515	01/18/10	13:40	11.60	3.18	--	NP	8.42	--
MW-515	04/19/10	14:54	11.60	4.26	--	NP	7.34	--
MW-515	07/19/10	7:12	11.60	5.10	--	NP	6.50	--
MW-515	10/25/10	13:45	11.60	4.93	--	NP	6.67	--
MW-515	03/21/11	12:26	11.60	3.65	--	NP	7.95	--
MW-515	06/14/11	10:14	11.60	4.75	--	NP	6.85	--
MW-515	09/26/11	10:52	11.60	5.35	--	NP	6.25	--
MW-515	12/12/11	12:01	11.60	4.71	--	NP	6.89	--
MW-515	03/27/12	13:56	11.60	4.11	--	NP	7.49	--
MW-515	06/27/12	17:00	11.60	4.68	--	NP	6.92	--
MW-515	09/25/12	7:35	11.60	5.34	--	NP	6.26	--
MW-515	12/13/12	10:12	11.60	4.06	--	NP	7.54	--
MW-515	03/25/13	10:10	11.60	4.53	--	NP	7.07	--
MW-515	06/24/13	11:45	11.60	5.06	--	NP	6.54	--
MW-515	09/23/13	13:40	11.60	4.96	--	NP	6.64	--
MW-515	12/16/13	10:19	11.60	5.15	--	NP	6.45	--
MW-515	03/26/14	8:18	11.60	4.26	--	NP	7.34	--
MW-515	06/16/14	13:30	11.60	4.98	--	NP	6.62	--
MW-515	09/29/14	15:35	11.60	4.89	--	NP	6.71	--
MW-515	12/08/14	12:03	11.60	4.27	--	NP	7.33	--
MW-515	03/23/15	13:45	11.60	4.33	--	NP	7.27	--
MW-515	06/22/15	15:29	11.60	5.09	--	NP	6.51	--
MW-515	10/27/16	9:05	11.60	3.81	--	NP	7.79	--
MW-515	07/24/17	11:55	11.60	5.11	--	NP	6.49	--
MW-515	03/19/18	12:31	11.60	4.83	--	NP	6.77	--
MW-515	06/26/18	10:11	11.60	5.44	--	NP	6.16	--
MW-515	09/21/18	9:22	11.60	5.22	--	NP	6.38	--
MW-515	11/26/18	13:03	11.60	5.01	--	NP	6.59	--
MW-515	03/18/19	10:05	11.60	5.00	--	NP	6.60	--
MW-515	06/17/19	11:42	11.60	5.03	--	NP	6.57	--
MW-515	09/16/19	12:37	11.60	4.98	--	NP	6.62	--
MW-515	12/10/19	9:59	11.60	5.16	--	NP	6.44	--
MW-516	10/20/08	15:59	11.25	4.94	--	NP	6.31	--
MW-516	12/08/08	10:33	11.25	4.56	--	NP	6.69	--
MW-516	02/20/09	9:49	11.25	4.35	--	NP	6.90	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-516	04/20/09	9:26	11.25	4.17	--	NP	7.08	--
MW-516	06/22/09	11:24	11.25	4.75	--	NP	6.50	--
MW-516	08/03/09	11:05	11.25	4.94	--	NP	6.31	--
MW-516	08/17/09	9:24	11.25	4.96	--	NP	6.29	--
MW-516	10/29/09	9:14	11.25	4.22	--	NP	7.03	--
MW-516	01/18/10	13:39	11.25	2.84	--	NP	8.41	--
MW-516	04/19/10	14:52	11.25	3.91	--	NP	7.34	--
MW-516	07/19/10	7:11	11.25	4.75	--	NP	6.50	--
MW-516	10/25/10	13:44	11.25	5.38	--	NP	5.87	--
MW-516	03/21/11	12:25	11.25	3.30	--	NP	7.95	--
MW-516	06/14/11	10:12	11.25	4.41	--	NP	6.84	--
MW-516	09/26/11	10:50	11.25	5.00	--	NP	6.25	--
MW-516	12/12/11	11:48	11.25	4.36	--	NP	6.89	--
MW-516	03/27/12	13:55	11.25	3.79	--	NP	7.46	--
MW-516	06/27/12	16:58	11.25	4.33	--	NP	6.92	--
MW-516	09/25/12	7:32	11.25	4.99	--	NP	6.26	--
MW-516	12/13/12	10:11	11.25	3.71	--	NP	7.54	--
MW-516	03/25/13	10:09	11.25	4.17	--	NP	7.08	--
MW-516	06/24/13	11:43	11.25	4.71	--	NP	6.54	--
MW-516	09/23/13	13:39	11.25	4.62	--	NP	6.63	--
MW-516	12/16/13	10:16	11.25	4.81	--	NP	6.44	--
MW-516	03/26/14	7:50	11.25	3.92	--	NP	7.33	--
MW-516	06/16/14	13:28	11.25	4.63	--	NP	6.62	--
MW-516	09/29/14	15:32	11.25	4.56	--	NP	6.69	--
MW-516	12/08/14	12:25	11.25	3.92	--	NP	7.33	--
MW-516	03/23/15	13:43	11.25	3.99	--	NP	7.26	--
MW-516	06/22/15	15:31	11.25	4.75	--	NP	6.50	--
MW-516	10/27/16	9:06	11.25	3.49	--	NP	7.76	--
MW-516	07/24/17	11:58	11.25	4.82	--	NP	6.43	--
MW-516	03/19/18	12:29	11.25	4.51	--	NP	6.74	--
MW-516	06/26/18	10:09	11.25	5.09	--	NP	6.16	--
MW-516	09/21/18	9:24	11.25	4.86	--	NP	6.39	--
MW-516	11/26/18	12:58	11.25	4.65	--	NP	6.60	--
MW-516	03/18/19	10:03	11.25	4.67	--	NP	6.58	--
MW-516	06/17/19	11:44	11.25	4.70	--	NP	6.55	--
MW-516	09/16/19	12:36	11.25	4.62	--	NP	6.63	--
MW-516	12/10/19	10:00	11.25	4.84	--	NP	6.41	--
MW-517	10/20/08	15:57	12.00	5.69	--	NP	6.31	--
MW-517	12/08/08	10:31	12.00	5.31	--	NP	6.69	--
MW-517	02/20/09	9:51	12.00	5.12	--	NP	6.88	--
MW-517	04/20/09	9:27	12.00	4.91	--	NP	7.09	--
MW-517	06/22/09	11:22	12.00	5.49	--	NP	6.51	--
MW-517	08/03/09	11:06	12.00	5.68	--	NP	6.32	--
MW-517	08/17/09	9:25	12.00	5.72	--	NP	6.28	--
MW-517	10/29/09	9:05	12.00	4.97	--	NP	7.03	--
MW-517	01/18/10	13:31	12.00	3.58	--	NP	8.42	--
MW-517	04/19/10	14:44	12.00	4.66	--	NP	7.34	--
MW-517	07/19/10	7:08	12.00	5.49	--	NP	6.51	--
MW-517	10/25/10	13:42	12.00	5.33	--	NP	6.67	--
MW-517	03/21/11	12:24	12.00	4.05	--	NP	7.95	--
MW-517	06/14/11	10:08	12.00	5.16	--	NP	6.84	--
MW-517	09/26/11	10:49	12.00	5.77	--	NP	6.23	--
MW-517	12/12/11	11:51	12.00	5.11	--	NP	6.89	--
MW-517	03/27/12	13:54	12.00	4.52	--	NP	7.48	--
MW-517	06/27/12	16:54	12.00	5.08	--	NP	6.92	--
MW-517	09/25/12	7:30	12.00	5.78	--	NP	6.22	--
MW-517	12/13/12	10:10	12.00	4.46	--	NP	7.54	--
MW-517	03/25/13	10:08	12.00	4.93	--	NP	7.07	--
MW-517	06/24/13	11:41	12.00	5.48	--	NP	6.52	--
MW-517	09/23/13	13:35	12.00	5.38	--	NP	6.62	--
MW-517	12/16/13	10:13	12.00	5.55	--	NP	6.45	--
MW-517	03/26/14	7:55	12.00	4.69	--	NP	7.31	--
MW-517	06/16/14	13:26	12.00	5.38	--	NP	6.62	--
MW-517	09/29/14	15:31	12.00	5.30	--	NP	6.70	--
MW-517	12/08/14	12:22	12.00	4.68	--	NP	7.32	--
MW-517	03/23/15	13:40	12.00	4.73	--	NP	7.27	--
MW-517	06/22/15	15:27	12.00	5.49	--	NP	6.51	--
MW-517	10/27/16	9:07	12.00	4.22	--	NP	7.78	--
MW-517	07/24/17	12:00	12.00	5.55	--	NP	6.45	--
MW-517	03/19/18	12:28	12.00	5.27	--	NP	6.73	--
MW-517	06/26/18	10:08	12.00	5.82	--	NP	6.18	--
MW-517	09/21/18	9:26	12.00	5.62	--	NP	6.38	--
MW-517	11/26/18	13:02	12.00	5.42	--	NP	6.58	--
MW-517	03/18/19	10:02	12.00	5.41	--	NP	6.59	--
MW-517	06/17/19	11:46	12.00	5.45	--	NP	6.55	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-517	09/16/19	12:35	12.00	5.39	--	NP	6.61	
MW-517	12/10/19	10:02	12.00	5.58	--	NP	6.42	
MW-518	10/20/08	15:56	14.60	8.51	--	NP	6.09	--
MW-518	12/08/08	10:44	14.60	8.37	--	NP	6.23	--
MW-518	02/20/09	9:45	14.60	8.29	--	NP	6.31	--
MW-518	04/20/09	9:17	14.60	8.40	--	NP	6.20	--
MW-518	06/22/09	11:29	14.60	8.68	--	NP	5.92	--
MW-518	08/03/09	11:04	14.60	8.79	--	NP	5.81	--
MW-518	08/17/09	9:20	14.60	9.00	--	NP	5.60	--
MW-518	10/29/09	9:19	14.60	8.42	--	NP	6.18	--
MW-518	01/18/10	13:43	14.60	6.65	--	NP	7.95	--
MW-518	04/19/10	14:56	14.60	8.01	--	NP	6.59	--
MW-518	07/19/10	7:14	14.60	8.73	--	NP	5.87	--
MW-518	10/25/10	13:47	14.60	8.05	--	NP	6.55	--
MW-518	03/21/11	12:27	14.60	7.45	--	NP	7.15	--
MW-518	06/14/11	10:09	14.60	8.45	--	NP	6.15	--
MW-518	09/26/11	10:52	14.60	8.73	--	NP	5.87	--
MW-518	12/12/11	12:03	14.60	7.30	--	NP	7.30	--
MW-518	03/27/12	13:57	14.60	7.75	--	NP	6.85	--
MW-518	06/27/12	17:02	14.60	8.28	--	NP	6.32	--
MW-518	09/25/12	7:37	14.60	8.96	--	NP	5.64	--
MW-518	12/13/12	10:09	14.60	7.49	--	NP	7.11	--
MW-518	03/25/13	10:11	14.60	8.30	--	NP	6.30	--
MW-518	06/24/13	11:30	14.60	8.44	--	NP	6.16	--
MW-518	09/23/13	13:41	14.60	8.32	--	NP	6.28	--
MW-518	12/16/13	11:56	14.60	8.65	--	NP	5.95	--
MW-518	03/26/14	8:20	14.60	7.82	--	NP	6.78	--
MW-518	06/16/14	13:32	14.60	8.53	--	NP	6.07	--
MW-518	09/29/14	13:43	14.60	8.25	--	NP	6.35	--
MW-518	12/08/14	12:30	14.60	7.57	--	NP	7.03	--
MW-518	03/23/15	13:50	14.60	7.92	--	NP	6.68	--
MW-518	06/22/15	15:24	14.60	8.70	--	NP	5.90	--
MW-518	10/27/16	9:04	14.60	7.47	--	NP	7.13	--
MW-518	07/24/17	11:47	14.60	8.62	--	NP	5.98	--
MW-518	03/19/18	12:33	14.60	8.29	--	NP	6.31	--
MW-518	06/26/18	10:15	14.60	8.95	--	NP	5.65	--
MW-518	09/21/18	9:07	14.60	8.73	--	NP	5.87	--
MW-518	11/26/18	13:07	14.60	8.12	--	NP	6.48	--
MW-518	02/07/19	11:58	14.60	8.24	--	NP	6.36	Not part of the quarterly monitoring program; gauged out of low tide window
MW-518	03/18/19	9:20	14.60	8.51	--	NP	6.09	
MW-518	06/17/19	11:17	14.60	8.63	--	NP	5.97	
MW-518	09/16/19	12:09	14.60	8.41	--	NP	6.19	
MW-518	12/10/19	9:41	14.60	8.47	--	NP	6.13	
MW-519	10/20/08	15:35	12.60	7.25	--	NP	5.35	--
MW-519	12/08/08	10:25	12.60	7.12	--	NP	5.48	--
MW-519	02/20/09	10:21	12.60	6.89	--	NP	5.71	--
MW-519	04/20/09	9:02	12.60	7.17	--	NP	5.43	--
MW-519	06/22/09	11:04	12.60	6.83	--	NP	5.77	--
MW-519	08/03/09	10:57	12.60	6.96	--	NP	5.64	--
MW-519	08/17/09	8:47	12.60	7.21	--	NP	5.39	--
MW-519	10/29/09	8:56	12.60	6.75	--	NP	5.85	--
MW-519	01/18/10	13:25	12.60	4.80	--	NP	7.80	--
MW-519	04/19/10	14:37	12.60	6.41	--	NP	6.19	--
MW-519	07/19/10	7:05	12.60	7.15	--	NP	5.45	--
MW-519	10/25/10	13:36	12.60	6.60	--	NP	6.00	--
MW-519	03/21/11	12:19	12.60	5.71	--	NP	6.89	--
MW-519	06/14/11	10:03	12.60	6.88	--	NP	5.72	--
MW-519	09/26/11	10:37	12.60	7.11	--	NP	5.49	--
MW-519	12/12/11	11:42	12.60	7.14	--	NP	5.46	--
MW-519	03/27/12	13:46	12.60	6.14	--	NP	6.46	--
MW-519	06/27/12	16:42	12.60	6.84	--	NP	5.76	--
MW-519	09/25/12	7:20	12.60	7.26	--	NP	5.34	--
MW-519	12/13/12	9:54	12.60	6.01	--	NP	6.59	--
MW-519	03/25/13	9:59	12.60	6.99	--	NP	5.61	--
MW-519	06/24/13	11:24	12.60	6.90	--	NP	5.70	--
MW-519	09/23/13	13:30	12.60	6.83	--	NP	5.77	--
MW-519	12/16/13	9:48	12.60	7.34	--	NP	5.26	--
MW-519	03/26/14	7:54	12.60	6.62	--	NP	5.98	--
MW-519	06/16/14	13:20	12.60	6.92	--	NP	5.68	--
MW-519	09/29/14	15:04	12.60	6.68	--	NP	5.92	--
MW-519	12/08/14	11:37	12.60	6.02	--	NP	6.58	--
MW-519	03/23/15	13:17	12.60	6.30	--	NP	6.30	--
MW-519	06/22/15	15:19	12.60	7.09	--	NP	5.51	--
MW-519	10/27/16	8:57	12.60	5.75	--	NP	6.85	--
MW-519	07/24/17	11:45	12.60	7.02	--	NP	5.58	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-519	03/19/18	12:19	12.60	6.70	--	NP	5.90	--
MW-519	06/26/18	9:55	12.60	7.29	--	NP	5.31	--
MW-519	09/21/18	8:45	12.60	7.17	--	NP	5.43	--
MW-519	11/26/18	12:42	12.60	6.60	--	NP	6.00	--
MW-519	03/18/19	9:52	12.60	7.18	--	NP	5.42	--
MW-519	06/17/19	10:59	12.60	7.11	--	NP	5.49	--
MW-519	09/16/19	12:29	12.60	6.94	--	NP	5.66	--
MW-519	12/10/19	10:10	12.60	6.83	--	NP	5.77	--
MW-520	10/20/08	15:50	13.31	7.95	--	NP	5.36	--
MW-520	12/08/08	10:23	13.31	7.83	--	NP	5.48	--
MW-520	02/20/09	9:23	13.31	7.61	--	NP	5.70	--
MW-520	04/20/09	9:05	13.31	7.88	--	NP	5.43	--
MW-520	06/22/09	11:19	13.31	7.55	--	NP	5.76	--
MW-520	08/03/09	10:56	13.31	7.69	--	NP	5.62	--
MW-520	08/17/09	8:49	13.31	7.92	--	NP	5.39	--
MW-520	10/29/09	8:55	13.31	7.46	--	NP	5.85	--
MW-520	01/18/10	13:26	13.31	5.51	--	NP	7.80	--
MW-520	04/19/10	14:35	13.31	7.12	--	NP	6.19	--
MW-520	07/19/10	7:03	13.31	7.85	--	NP	5.46	--
MW-520	10/25/10	13:33	13.31	7.30	--	NP	6.01	--
MW-520	03/21/11	12:18	13.31	5.38	--	NP	7.93	--
MW-520	06/14/11	10:01	13.31	7.59	--	NP	5.72	--
MW-520	09/26/11	10:43	13.31	7.82	--	NP	5.49	--
MW-520	12/12/11	11:40	13.31	7.85	--	NP	5.46	--
MW-520	03/27/12	13:47	13.31	6.84	--	NP	6.47	--
MW-520	06/27/12	16:40	13.31	7.53	--	NP	5.78	--
MW-520	09/25/12	7:22	13.31	7.94	--	NP	5.37	--
MW-520	12/13/12	9:53	13.31	6.71	--	NP	6.60	--
MW-520	03/25/13	10:00	13.31	7.70	--	NP	5.61	--
MW-520	06/24/13	11:22	13.31	7.59	--	NP	5.72	--
MW-520	09/23/13	13:28	13.31	7.52	--	NP	5.79	--
MW-520	12/16/13	9:47	13.31	8.04	--	NP	5.27	--
MW-520	03/26/14	7:50	13.31	7.31	--	NP	6.00	--
MW-520	06/16/14	13:17	13.31	7.62	--	NP	5.69	--
MW-520	09/29/14	15:00	13.31	7.39	--	NP	5.92	--
MW-520	12/08/14	11:40	13.31	6.69	--	NP	6.62	--
MW-520	03/23/15	13:11	13.31	7.00	--	NP	6.31	--
MW-520	06/22/15	15:17	13.31	7.80	--	NP	5.51	--
MW-520	10/27/16	8:56	13.31	6.48	--	NP	6.83	--
MW-520	07/24/17	11:34	13.31	7.71	--	NP	5.60	--
MW-520	03/19/18	12:17	13.31	7.42	--	NP	5.89	--
MW-520	06/26/18	9:57	13.31	7.96	--	NP	5.35	--
MW-520	09/21/18	8:41	13.31	7.88	--	NP	5.43	--
MW-520	11/26/18	12:40	13.31	7.31	--	NP	6.00	--
MW-520	03/18/19	9:55	13.31	7.86	--	NP	5.45	--
MW-520	06/17/19	10:57	13.31	7.81	--	NP	5.50	--
MW-520	09/16/19	12:31	13.31	7.65	--	NP	5.66	--
MW-520	12/10/19	10:06	13.31	7.54	--	NP	5.77	--
MW-521	10/20/08	15:48	12.18	6.82	--	NP	5.36	--
MW-521	12/08/08	10:21	12.18	6.71	--	NP	5.47	--
MW-521	02/20/09	9:21	12.18	6.49	--	NP	5.69	--
MW-521	04/20/09	9:04	12.18	6.75	--	NP	5.43	--
MW-521	06/22/09	11:06	12.18	6.41	--	NP	5.77	--
MW-521	08/03/09	10:55	12.18	6.57	--	NP	5.61	--
MW-521	08/17/09	8:48	12.18	6.80	--	NP	5.38	--
MW-521	10/29/09	8:56	12.18	6.33	--	NP	5.85	--
MW-521	01/18/10	13:24	12.18	4.39	--	NP	7.79	--
MW-521	04/19/10	14:33	12.18	6.01	--	NP	6.17	--
MW-521	07/19/10	7:01	12.18	6.74	--	NP	5.44	--
MW-521	10/25/10	13:30	12.18	6.40	--	NP	5.78	--
MW-521	03/21/11	12:16	12.18	5.29	--	NP	6.89	--
MW-521	06/14/11	10:04	12.18	7.45	--	NP	4.73	--
MW-521	09/26/11	10:40	12.18	6.70	--	NP	5.48	--
MW-521	12/12/11	11:38	12.18	6.73	--	NP	5.45	--
MW-521	03/27/12	13:44	12.18	5.75	--	NP	6.43	--
MW-521	06/27/12	16:38	12.18	6.42	--	NP	5.76	--
MW-521	09/25/12	7:35	12.18	6.82	--	NP	5.36	--
MW-521	12/13/12	9:51	12.18	5.60	--	NP	6.58	--
MW-521	03/25/13	9:58	12.18	6.60	--	NP	5.58	--
MW-521	06/24/13	11:26	12.18	6.48	--	NP	5.70	--
MW-521	09/23/13	13:25	12.18	6.41	--	NP	5.77	--
MW-521	12/16/13	9:49	12.18	6.42	--	NP	5.76	--
MW-521	03/26/14	7:52	12.18	6.21	--	NP	5.97	--
MW-521	06/16/14	13:15	12.18	6.50	--	NP	5.68	--
MW-521	09/29/14	14:59	12.18	6.27	--	NP	5.91	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-521	12/08/14	11:32	12.18	5.61	--	NP	6.57	--
MW-521	03/23/15	13:10	12.18	5.90	--	NP	6.28	--
MW-521	06/22/15	15:15	12.18	6.69	--	NP	5.49	--
MW-521	10/27/16	--	12.18	--	--	--	--	--
MW-521	07/24/17	11:36	12.18	6.67	--	NP	5.51	--
MW-521	03/19/18	12:19	12.18	6.33	--	NP	5.85	--
MW-521	06/26/18	9:55	12.18	6.89	--	NP	5.29	--
MW-521	09/21/18	8:44	12.18	6.76	--	NP	5.42	--
MW-521	11/26/18	12:41	12.18	6.21	--	NP	5.97	--
MW-521	03/18/19	9:53	12.18	6.77	--	NP	5.41	--
MW-521	06/17/19	10:53	12.18	6.71	--	NP	5.47	--
MW-521	09/16/19	12:30	12.18	6.53	--	NP	5.65	--
MW-521	12/10/19	10:08	12.18	6.43	--	NP	5.75	--
MW-522	10/20/08	15:50	13.82	8.49	--	NP	5.33	--
MW-522	12/08/08	10:19	13.82	8.35	--	NP	5.47	--
MW-522	02/20/09	9:23	13.82	8.10	--	NP	5.72	--
MW-522	04/20/09	9:07	13.82	8.41	--	NP	5.41	--
MW-522	06/22/09	11:15	13.82	8.11	--	NP	5.71	--
MW-522	08/03/09	10:53	13.82	8.25	--	NP	5.57	--
MW-522	08/17/09	8:54	13.82	8.51	--	NP	5.31	--
MW-522	10/29/09	8:56	13.82	7.99	--	NP	5.83	--
MW-522	01/18/10	13:22	13.82	6.03	--	NP	7.79	--
MW-522	04/19/10	14:31	13.82	7.65	--	NP	6.17	--
MW-522	07/19/10	7:02	13.82	8.43	--	NP	5.39	--
MW-522	10/25/10	13:33	13.82	7.80	--	NP	6.02	--
MW-522	03/21/11	12:18	13.82	6.97	--	NP	6.85	--
MW-522	06/14/11	9:59	13.82	8.13	--	NP	5.69	--
MW-522	09/26/11	10:46	13.82	8.40	--	NP	5.42	--
MW-522	12/12/11	11:42	13.82	8.38	--	NP	5.44	--
MW-522	03/27/12	13:49	13.82	7.42	--	NP	6.40	--
MW-522	06/27/12	16:39	13.82	8.08	--	NP	5.74	--
MW-522	09/25/12	7:32	13.82	8.48	--	NP	5.34	--
MW-522	12/13/12	9:50	13.82	7.22	--	NP	6.60	--
MW-522	03/25/13	10:00	13.82	8.25	--	NP	5.57	--
MW-522	06/24/13	11:20	13.82	8.17	--	NP	5.65	--
MW-522	09/23/13	13:30	13.82	8.04	--	NP	5.78	--
MW-522	12/16/13	9:43	13.82	8.58	--	NP	5.24	--
MW-522	03/26/14	7:46	13.82	7.84	--	NP	5.98	--
MW-522	06/16/14	13:18	13.82	8.19	--	NP	5.63	--
MW-522	09/29/14	13:27	13.82	7.90	--	NP	5.92	--
MW-522	12/08/14	12:11	13.82	7.19	--	NP	6.63	--
MW-522	03/23/15	13:08	13.82	7.55	--	NP	6.27	--
MW-522	06/22/15	15:12	13.82	8.34	--	NP	5.48	--
MW-522	10/27/16	8:55	13.82	6.99	--	NP	6.83	--
MW-522	07/24/17	11:32	13.82	5.36	--	NP	8.46	--
MW-522	03/19/18	12:15	13.82	8.01	--	NP	5.81	--
MW-522	06/26/18	9:52	13.82	8.58	--	NP	5.24	--
MW-522	09/21/18	8:39	13.82	8.43	--	NP	5.39	--
MW-522	11/26/18	12:38	13.82	7.83	--	NP	5.99	--
MW-522	03/18/19	9:17	13.82	8.41	--	NP	5.41	--
MW-522	06/17/19	10:55	13.82	8.39	--	NP	5.43	--
MW-522	09/16/19	12:04	13.82	8.22	--	NP	5.60	--
MW-522	12/10/19	9:32	13.82	8.07	--	NP	5.75	--
MW-523	10/20/08	15:47	13.53	8.17	--	NP	5.36	--
MW-523	12/08/08	10:15	13.53	8.05	--	NP	5.48	--
MW-523	02/20/09	9:21	13.53	7.81	--	NP	5.72	--
MW-523	04/20/09	9:10	13.53	8.10	--	NP	5.43	--
MW-523	06/22/09	11:11	13.53	7.78	--	NP	5.75	--
MW-523	08/03/09	10:52	13.53	7.91	--	NP	5.62	--
MW-523	08/17/09	8:52	13.53	8.17	--	NP	5.36	--
MW-523	10/29/09	8:54	13.53	7.69	--	NP	5.84	--
MW-523	01/18/10	13:20	13.53	5.73	--	NP	7.80	--
MW-523	04/19/10	14:27	13.53	7.35	--	NP	6.18	--
MW-523	07/19/10	6:54	13.53	8.09	--	NP	5.44	--
MW-523	10/25/10	13:30	13.53	7.52	--	NP	6.01	--
MW-523	03/21/11	12:15	13.53	6.64	--	NP	6.89	--
MW-523	06/14/11	9:58	13.53	7.85	--	NP	5.68	--
MW-523	09/26/11	10:44	13.53	8.02	--	NP	5.51	--
MW-523	12/12/11	11:37	13.53	8.09	--	NP	5.44	--
MW-523	03/27/12	13:45	13.53	7.09	--	NP	6.44	--
MW-523	06/27/12	16:35	13.53	7.77	--	NP	5.76	--
MW-523	09/25/12	7:27	13.53	8.20	--	NP	5.33	--
MW-523	12/13/12	9:48	13.53	6.95	--	NP	6.58	--
MW-523	03/25/13	9:55	13.53	7.95	--	NP	5.58	--
MW-523	06/24/13	11:18	13.53	7.84	--	NP	5.69	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-523	09/23/13	13:25	13.53	7.75	--	NP	5.78	--
MW-523	12/16/13	9:40	13.53	8.27	--	NP	5.26	--
MW-523	03/26/14	7:44	13.53	7.55	--	NP	5.98	--
MW-523	06/16/14	13:14	13.53	7.89	--	NP	5.64	--
MW-523	09/29/14	13:25	13.53	7.61	--	NP	5.92	--
MW-523	12/08/14	11:55	13.53	6.91	--	NP	6.62	--
MW-523	03/23/15	13:05	13.53	7.22	--	NP	6.31	--
MW-523	06/22/15	15:10	13.53	8.04	--	NP	5.49	--
MW-523	10/27/16	8:47	13.53	6.71	--	NP	6.82	--
MW-523	07/24/17	11:29	13.53	7.96	--	NP	5.57	--
MW-523	03/19/18	12:12	13.53	7.68	--	NP	5.85	--
MW-523	06/26/18	9:47	13.53	8.26	--	NP	5.27	--
MW-523	09/21/18	8:34	13.53	8.13	--	NP	5.40	--
MW-523	11/26/18	12:35	13.53	7.57	--	NP	5.96	--
MW-523	03/18/19	9:15	13.53	8.13	--	NP	5.40	--
MW-523	06/17/19	10:49	13.53	8.11	--	NP	5.42	--
MW-523	09/16/19	12:01	13.53	7.92	--	NP	5.61	--
MW-523	12/10/19	9:25	13.53	7.78	--	NP	5.75	--
MW-524	10/20/08	15:44	13.16	8.95	--	NP	4.21	--
MW-524	12/08/08	10:09	13.16	7.71	--	NP	5.45	--
MW-524	02/20/09	9:13	13.16	7.60	--	NP	5.56	--
MW-524	04/20/09	9:08	13.16	7.81	--	NP	5.35	--
MW-524	06/22/09	11:19	13.16	7.69	--	NP	5.47	--
MW-524	08/03/09	10:47	13.16	7.79	--	NP	5.37	--
MW-524	08/17/09	7:33	13.16	8.03	--	NP	5.13	--
MW-524	10/29/09	8:50	13.16	6.75	--	NP	6.41	--
MW-524	01/18/10	13:17	13.16	4.26	--	NP	8.90	--
MW-524	04/19/10	14:23	13.16	7.17	--	NP	5.99	--
MW-524	07/19/10	6:51	13.16	7.99	--	NP	5.17	--
MW-524	10/25/10	13:27	13.16	6.97	--	NP	6.19	--
MW-524	03/21/11	12:12	13.16	5.78	--	NP	7.38	--
MW-524	06/14/11	9:48	13.16	7.67	--	NP	5.49	--
MW-524	09/26/11	10:41	13.16	7.90	--	NP	5.26	--
MW-524	12/12/11	11:33	13.16	7.74	--	NP	5.42	--
MW-524	03/27/12	13:41	13.16	6.60	--	NP	6.56	--
MW-524	06/27/12	16:32	13.16	7.49	--	NP	5.67	--
MW-524	09/25/12	7:18	13.16	8.05	--	NP	5.11	--
MW-524	12/13/12	9:44	13.16	6.20	--	NP	6.96	--
MW-524	03/25/13	11:28	13.16	7.68	--	NP	5.48	--
MW-524	06/24/13	11:19	13.16	7.75	--	NP	5.41	--
MW-524	09/23/13	13:20	13.16	7.55	--	NP	5.61	--
MW-524	12/16/13	9:41	13.16	8.02	--	NP	5.14	--
MW-524	03/26/14	7:39	13.16	6.98	--	NP	6.18	--
MW-524	06/16/14	13:10	13.16	7.79	--	NP	5.37	--
MW-524	09/29/14	13:20	13.16	7.36	--	NP	5.80	--
MW-524	12/08/14	11:53	13.16	6.56	--	NP	6.6	--
MW-524	03/23/15	13:02	13.16	6.85	--	NP	6.31	--
MW-524	06/22/15	15:04	13.16	7.89	--	NP	5.27	--
MW-524	10/27/16	8:45	13.16	5.49	--	NP	7.67	--
MW-524	07/24/17	11:25	13.16	7.78	--	NP	5.38	--
MW-524	03/19/18	12:10	13.16	7.30	--	NP	5.86	--
MW-524	06/26/18	9:45	13.16	7.95	--	NP	5.21	--
MW-524	09/21/18	8:28	13.16	7.94	--	NP	5.22	--
MW-524	11/26/18	12:28	13.16	7.19	--	NP	5.97	--
MW-524	03/18/19	9:03	13.16	7.65	--	NP	5.51	--
MW-524	06/17/19	10:41	13.16	7.91	--	NP	5.25	--
MW-524	09/16/19	11:59	13.16	7.71	--	NP	5.45	--
MW-524	12/10/19	9:19	13.16	7.46	--	NP	5.70	--
MW-525	06/27/12	16:50	12.62	6.02	--	NP	6.60	--
MW-525	09/25/12	7:27	12.62	6.57	--	NP	6.05	--
MW-525	12/13/12	10:05	12.62	5.40	--	NP	7.22	--
MW-525	03/25/13	10:04	12.62	6.01	--	NP	6.61	--
MW-525	06/24/13	12:54	12.62	6.30	--	NP	6.32	--
MW-525	09/23/13	13:20	12.62	6.18	--	NP	6.44	--
MW-525	12/16/13	9:58	12.62	6.45	--	NP	6.17	--
MW-525	03/26/14	8:02	12.62	5.58	--	NP	7.04	--
MW-525	06/16/14	14:50	12.62	6.30	--	<0.01	6.32	Film observed during gauging
MW-525	09/29/14	14:35	12.62	6.08	--	<0.01	6.54	Film observed during gauging
MW-525	12/08/14	11:42	12.62	5.45	--	NP	7.17	--
MW-525	03/23/15	16:00	12.62	5.75	--	NP	6.87	Sheen
MW-525	06/22/15	15:32	12.62	6.36	6.35	0.01	6.27	See **
MW-525	10/27/16	9:00	12.62	5.49	--	NP	7.13	--
MW-525	07/24/17	13:06	12.62	6.65	--	NP	5.97	--
MW-525	03/19/18	12:25	12.62	6.37	--	NP	6.25	--
MW-525	06/26/18	10:02	12.62	6.84	--	NP	5.78	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-525	09/21/18	8:14	12.62	6.66	--	NP	5.96	--
MW-525	11/26/18	12:17	12.62	6.15	--	NP	6.47	--
MW-525	03/18/19	9:46	12.62	6.64	--	NP	5.98	--
MW-525	06/17/19	11:50	12.62	6.88	--	NP	5.74	--
MW-525	09/16/19	12:19	12.62	6.62	--	NP	6.00	--
MW-525	12/10/19	10:18	12.62	6.48	--	NP	6.14	--
MW-526	06/27/12	17:03	12.90	4.93	--	NP	7.97	--
MW-526	09/25/12	8:25	12.90	5.54	--	NP	7.36	--
MW-526	12/13/12	10:17	12.90	4.26	--	NP	8.64	--
MW-526	03/25/13	10:23	12.90	4.71	--	NP	8.19	--
MW-526	06/24/13	11:35	12.90	5.27	--	NP	7.63	--
MW-526	09/23/13	13:43	12.90	5.29	--	NP	7.61	--
MW-526	12/16/13	10:09	12.90	5.29	--	NP	7.61	--
MW-526	03/26/14	8:11	12.90	4.38	--	NP	8.52	--
MW-526	06/16/14	13:33	12.90	5.14	--	NP	7.76	--
MW-526	09/29/14	15:18	12.90	5.33	--	NP	7.57	--
MW-526	12/08/14	11:52	12.90	4.55	--	NP	8.35	--
MW-526	03/23/15	13:30	12.90	4.56	--	NP	8.34	--
MW-526	06/22/15	15:40	12.90	5.31	--	NP	7.59	--
MW-526	10/27/16	9:10	12.90	5.01	--	NP	7.89	--
MW-526	07/24/17	11:03	12.90	5.49	--	NP	7.41	--
MW-526	03/19/18	12:52	12.90	5.45	--	NP	7.45	--
MW-526	06/26/18	11:00	12.90	6.12	--	NP	6.78	--
MW-526	09/21/18	9:36	12.90	5.96	--	NP	6.94	--
MW-526	11/26/18	12:55	12.90	5.80	--	NP	7.10	--
MW-526	02/07/19	11:27	12.90	5.40	--	NP	7.50	Not part of the quarterly monitoring program; gauged out of low tide window
MW-526	03/18/19	9:28	12.90	5.59	--	NP	7.31	--
MW-526	06/17/19	11:45	12.90	5.89	--	NP	7.01	--
MW-526	09/16/19	12:42	12.90	5.58	--	NP	7.32	--
MW-526	12/10/19	10:11	12.90	5.48	--	NP	7.42	--
MW-527	06/27/12	17:50	19.09	9.41	--	NP	9.68	--
MW-527	09/25/12	8:10	19.09	10.41	--	NP	8.68	--
MW-527	12/13/12	10:30	19.09	7.22	--	NP	11.87	--
MW-527	03/25/13	10:42	19.09	9.05	--	NP	10.04	--
MW-527	06/24/13	12:31	19.09	9.91	--	NP	9.18	--
MW-527	09/23/13	13:48	19.09	9.95	--	NP	9.14	--
MW-527	12/16/13	10:59	19.09	9.50	--	NP	9.59	--
MW-527	03/26/14	9:00	19.09	7.58	--	NP	11.51	--
MW-527	06/16/14	13:38	19.09	9.88	--	NP	9.21	--
MW-527	09/29/14	15:30	19.09	10.05	--	NP	9.04	--
MW-527	12/08/14	13:05	19.09	8.65	--	NP	10.44	--
MW-527	03/23/15	14:20	19.09	8.82	--	NP	10.27	--
MW-527	06/22/15	14:48	19.09	10.18	--	NP	8.91	--
MW-527	10/27/16	9:45	19.09	6.79	--	NP	12.30	--
MW-527	07/24/17	11:56	19.09	9.90	--	NP	9.19	--
MW-527	03/19/18	12:56	19.09	8.97	--	NP	10.12	--
MW-527	06/26/18	9:50	19.09	9.75	--	NP	9.34	--
MW-527	09/21/18	9:09	19.09	9.91	--	NP	9.18	--
MW-527	11/26/18	12:35	19.09	9.10	--	NP	9.99	--
MW-527	03/18/19	9:47	19.09	8.89	--	NP	10.20	--
MW-527	06/17/19	10:56	19.09	9.89	--	NP	9.20	--
MW-527	09/16/19	12:15	19.09	9.81	--	NP	9.28	--
MW-527	12/10/19	9:23	19.09	9.49	--	NP	9.60	--
MW-528	06/27/12	17:47	19.74	9.46	--	NP	10.28	--
MW-528	09/25/12	8:07	19.74	10.82	--	NP	8.92	--
MW-528	12/13/12	10:28	19.74	8.12	--	NP	11.62	--
MW-528	03/25/13	10:37	19.74	8.92	--	NP	10.82	--
MW-528	06/24/13	12:30	19.74	10.22	--	NP	9.52	--
MW-528	09/23/13	13:50	19.74	10.27	--	NP	9.47	--
MW-528	12/16/13	10:51	19.74	9.73	--	NP	10.01	--
MW-528	03/26/14	8:59	19.74	8.05	--	NP	11.69	--
MW-528	06/16/14	13:35	19.74	10.03	--	NP	9.71	--
MW-528	09/29/14	15:25	19.74	11.28	--	NP	8.46	--
MW-528	12/08/14	13:10	19.74	8.61	--	NP	11.13	--
MW-528	03/23/15	14:22	19.74	8.53	--	NP	11.21	--
MW-528	06/22/15	14:48	19.74	10.38	--	NP	9.36	--
MW-528	10/27/16	9:36	19.74	8.06	--	NP	11.68	--
MW-528	07/24/17	11:54	19.74	10.59	--	NP	9.15	--
MW-528	03/19/18	12:52	19.74	9.38	--	NP	10.36	--
MW-528	06/26/18	9:44	19.74	10.62	--	NP	9.12	--
MW-528	09/21/18	9:11	19.74	11.00	--	NP	8.74	--
MW-528	11/26/18	12:36	19.74	10.01	--	NP	9.73	--
MW-528	03/18/19	9:51	19.74	9.23	--	NP	10.51	--
MW-528	06/17/19	10:52	19.74	10.62	--	NP	9.12	--
MW-528	09/16/19	12:13	19.74	11.03	--	NP	8.71	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-528	12/10/19	9:30	19.74	10.32	--	NP	9.42	
MW-530	06/27/12	17:16	11.02	5.27	--	NP	5.75	--
MW-530	09/25/12	7:43	11.02	5.79	--	NP	5.23	--
MW-530	12/13/12	10:13	11.02	4.65	--	NP	6.37	--
MW-530	03/23/13	10:22	11.02	5.06	--	NP	5.96	--
MW-530	06/24/13	12:43	11.02	5.28	--	NP	5.74	--
MW-530	09/23/13	13:57	11.02	5.09	--	NP	5.93	--
MW-530	12/16/13	11:34	11.02	5.21	--	NP	5.81	--
MW-530	03/26/14	8:10	11.02	4.82	--	NP	6.20	--
MW-530	06/16/14	13:13	11.02	5.31	--	NP	5.71	--
MW-530	09/29/14	14:55	11.02	4.90	--	NP	6.12	--
MW-530	12/08/14	12:17	11.02	4.64	--	NP	6.38	--
MW-530	03/23/15	14:37	11.02	5.24	--	NP	5.78	--
MW-530	06/22/15	15:46	11.02	5.65	--	NP	5.37	--
MW-530	10/27/16	9:30	11.02	4.95	--	NP	6.07	--
MW-530	07/24/17	11:30	11.02	4.97	--	NP	6.05	--
MW-530	03/19/18	13:31	11.02	4.93	--	NP	6.09	--
MW-530	06/26/18	10:04	11.02	5.38	--	NP	5.64	--
MW-530	09/21/18	8:40	11.02	5.33	--	NP	5.69	--
MW-530	11/26/18	13:12	11.02	4.20	--	NP	6.82	--
MW-530	03/18/19	9:07	11.02	5.64	--	NP	5.38	--
MW-530	06/17/19	--	--	--	--	--	--	Well Damaged
MW-530	09/16/19	12:55	12.73	6.62	--	NP	6.11	
MW-530	12/10/19	9:44	12.73	6.58	--	NP	6.15	
MW-531	06/27/12	16:51	13.26	7.50	--	NP	5.76	--
MW-531	09/25/12	7:24	13.26	7.90	--	NP	5.36	--
MW-531	12/13/12	9:58	13.26	6.70	--	NP	6.56	--
MW-531	03/25/13	10:03	13.26	7.67	--	NP	5.59	--
MW-531	06/24/13	11:30	13.26	7.54	--	NP	5.72	--
MW-531	09/23/13	13:25	13.26	7.43	--	NP	5.83	--
MW-531	12/16/13	10:01	13.26	8.00	--	NP	5.26	--
MW-531	03/26/14	7:56	13.26	7.28	--	NP	5.98	--
MW-531	06/16/14	13:27	13.26	7.59	--	NP	5.67	--
MW-531	09/29/14	15:07	13.26	7.35	--	NP	5.91	--
MW-531	12/08/14	11:42	13.26	6.64	--	NP	6.62	--
MW-531	03/23/15	13:27	13.26	6.95	--	NP	6.31	--
MW-531	06/22/15	15:25	13.26	7.75	--	NP	5.51	--
MW-531	10/27/16	9:00	13.26	6.42	--	NP	6.84	--
MW-531	07/24/17	11:45	13.26	7.69	--	NP	5.57	--
MW-531	03/19/18	12:22	13.26	7.35	--	NP	5.91	--
MW-531	06/26/18	10:05	13.26	7.93	--	NP	5.33	--
MW-531	09/21/18	8:53	13.26	7.81	--	NP	5.45	--
MW-531	11/26/18	12:50	13.26	7.25	--	NP	6.01	--
MW-531	03/18/19	9:56	13.26	7.83	--	NP	5.43	--
MW-531	06/17/19	11:52	13.26	7.80	--	NP	5.46	--
MW-531	09/16/19	12:33	13.26	7.60	--	NP	5.66	--
MW-531	12/10/19	10:04	13.26	7.47	--	NP	5.79	--
MW-532	06/27/12	16:48	13.38	6.62	--	NP	6.76	--
MW-532	09/25/12	7:26	13.38	7.11	--	NP	6.27	--
MW-532	12/13/12	9:57	13.38	6.00	--	NP	7.38	--
MW-532	03/25/13	10:05	13.38	6.61	--	NP	6.77	--
MW-532	06/24/13	11:28	13.38	6.79	--	NP	6.59	--
MW-532	09/23/13	13:28	13.38	6.80	--	NP	6.58	--
MW-532	12/16/13	9:56	13.38	7.02	--	NP	6.36	--
MW-532	03/26/14	7:59	13.38	6.31	--	NP	7.07	--
MW-532	06/16/14	13:24	13.38	6.78	--	NP	6.60	--
MW-532	09/29/14	15:11	13.38	6.70	--	NP	6.68	--
MW-532	12/08/14	11:45	13.38	6.14	--	NP	7.24	--
MW-532	03/23/15	13:25	13.38	6.28	--	NP	7.10	--
MW-532	06/22/15	15:23	13.38	7.00	--	NP	6.38	--
MW-532	10/27/16	8:54	13.38	6.52	--	NP	6.86	--
MW-532	07/24/17	11:13	13.38	7.49	--	NP	5.89	--
MW-532	03/19/18	12:25	13.38	7.33	--	NP	6.05	--
MW-532	06/26/18	10:06	13.38	7.75	--	NP	5.63	--
MW-532	09/21/18	8:55	13.38	7.71	--	NP	5.67	--
MW-532	11/26/18	12:47	13.38	6.97	--	NP	6.41	--
MW-532	03/18/19	9:59	13.38	7.68	--	NP	5.70	--
MW-532	06/17/19	11:54	13.38	7.98	--	NP	5.40	--
MW-532	09/16/19	12:24	13.38	7.60	--	NP	5.78	--
MW-532	12/10/19	10:17	13.38	7.30	--	NP	6.08	--
MW-533	03/19/18	12:36	11.79	5.10	--	NP	6.69	--
MW-533	06/26/18	9:46	11.79	5.58	--	NP	6.21	--
MW-533	09/21/18	8:27	11.79	5.49	--	NP	6.30	--
MW-533	11/26/18	12:21	11.79	4.60	--	NP	7.19	--
MW-533	03/18/19	9:16	11.79	5.54	--	NP	6.25	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
MW-533	06/17/19	11:21	11.79	5.27	--	NP	6.52	
MW-533	09/16/19	12:13	11.79	5.17	--	NP	6.62	
MW-533	12/10/19	9:47	11.79	5.34	--	NP	6.45	
MW-534	03/19/18	12:37	10.28	3.63	--	NP	6.65	--
MW-534	06/26/18	9:41	10.28	4.00	--	NP	6.28	--
MW-534	09/21/18	8:24	10.28	3.94	--	NP	6.34	--
MW-534	11/26/18	12:23	10.28	3.30	--	NP	6.98	--
MW-534	03/18/19	9:27	10.28	3.61	--	NP	6.67	--
MW-534	06/17/19	11:20	10.28	3.68	--	NP	6.60	--
MW-534	09/16/19	12:39	10.28	3.54	--	NP	6.74	--
MW-534	12/10/19	9:51	10.28	3.76	--	NP	6.52	--
MW-535	03/19/18	12:40	11.55	4.90	--	NP	6.65	--
MW-535	06/26/18	9:48	11.55	5.36	--	NP	6.19	--
MW-535	09/21/18	8:26	11.55	5.33	--	NP	6.22	--
MW-535	11/26/18	12:22	11.55	4.18	--	NP	7.37	--
MW-535	03/18/19	9:12	11.55	4.71	--	NP	6.84	--
MW-535	06/17/19	11:23	11.55	5.09	--	NP	6.46	--
MW-535	09/16/19	12:15	11.55	4.97	--	NP	6.58	--
MW-535	12/10/19	9:48	11.55	5.12	--	NP	6.43	--
Piezometers								
P-1 ^S	08/03/09	10:23	16.47	7.80	--	NP	8.67	--
P-1 ^S	08/17/09	9:43	16.47	6.60	--	NP	9.87	--
P-1 ^S	10/29/09	9:32	16.47	4.37	--	NP	12.10	--
P-1 ^S	01/18/10	13:31	16.47	1.26	--	NP	15.21	--
P-1 ^S	04/19/10	15:46	16.47	3.21	--	NP	13.26	--
P-1 ^S	07/19/10	8:02	16.47	4.65	--	NP	11.82	--
P-1 ^S	10/25/10	14:26	16.47	4.61	--	NP	11.86	--
P-1 ^S	03/21/11	12:46	16.47	2.16	--	NP	14.31	--
P-1 ^S	06/14/11	11:08	16.47	3.98	--	NP	12.49	--
P-1 ^S	09/26/11	11:27	16.47	6.76	--	NP	9.71	--
P-1 ^S	12/12/11	12:49	16.47	3.87	--	NP	12.60	--
P-1 ^S	03/27/12	14:30	16.47	2.55	--	NP	13.92	--
P-1 ^S	06/27/12	17:43	16.47	3.64	--	NP	12.83	--
P-1 ^S	09/25/12	8:35	16.47	6.45	--	NP	10.02	--
P-1 ^S	12/13/12	10:24	16.47	1.95	--	NP	14.52	--
P-1 ^S	03/25/13	10:45	16.47	2.78	--	NP	13.69	--
P-1 ^S	06/24/13	12:10	16.47	4.84	--	NP	11.63	--
P-1 ^S	09/23/13	14:07	16.47	6.02	--	NP	10.45	--
P-1 ^S	12/16/13	10:41	16.47	4.23	--	NP	12.24	--
P-1 ^S	03/26/14	8:36	16.47	2.42	--	NP	14.05	--
P-1 ^S	06/16/14	13:55	16.47	4.60	--	NP	11.87	--
P-1 ^S	09/29/14	15:57	16.47	7.02	--	NP	9.45	--
P-1 ^S	12/08/14	12:56	16.47	2.81	--	NP	13.66	--
P-1 ^S	03/23/15	14:26	16.47	2.93	--	NP	13.54	--
P-1 ^S	06/22/15	15:06	16.47	5.23	--	NP	11.24	--
P-1 ^S	10/27/16	9:55	16.47	2.06	--	NP	14.41	--
P-1 ^S	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
P-1 ^S	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
P-1 ^S	06/26/18	11:05	16.47	5.23	--	NP	11.24	Not part of the monitoring network
P-2 ^D	08/03/09	10:21	15.00	7.39	--	NP	7.61	--
P-2 ^D	08/17/09	9:46	15.00	7.46	--	NP	7.54	--
P-2 ^D	10/29/09	8:57	15.00	6.38	--	NP	8.62	--
P-2 ^D	01/18/10	13:28	15.00	6.30	--	NP	8.70	--
P-2 ^D	04/19/10	15:47	15.00	6.68	--	NP	8.32	--
P-2 ^D	07/19/10	7:46	15.00	7.02	--	NP	7.98	--
P-2 ^D	10/25/10	14:29	15.00	6.65	--	NP	8.35	--
P-2 ^D	03/21/11	12:49	15.00	6.26	--	NP	8.74	--
P-2 ^D	06/14/11	11:10	15.00	7.01	--	NP	7.99	--
P-2 ^D	09/26/11	11:15	15.00	7.01	--	NP	7.99	--
P-2 ^D	12/12/11	12:52	15.00	6.79	--	NP	8.21	--
P-2 ^D	03/27/12	14:31	15.00	6.35	--	NP	8.65	--
P-2 ^D	06/27/12	17:48	15.00	6.63	--	NP	8.37	--
P-2 ^D	09/25/12	8:12	15.00	7.14	--	NP	7.86	--
P-2 ^D	12/13/12	10:26	15.00	6.19	--	NP	8.81	--
P-2 ^D	03/25/13	10:49	15.00	6.48	--	NP	8.52	--
P-2 ^D	06/24/13	12:15	15.00	6.81	--	NP	8.19	--
P-2 ^D	09/23/13	14:10	15.00	6.84	--	NP	8.16	--
P-2 ^D	12/16/13	10:48	15.00	6.81	--	NP	8.19	--
P-2 ^D	03/26/14	8:38	15.00	7.32	--	NP	7.68	--
P-2 ^D	06/16/14	13:52	15.00	6.86	--	NP	8.14	--
P-2 ^D	09/29/14	15:45	15.00	6.79	--	NP	8.21	--
P-2 ^D	12/08/14	12:55	15.00	6.31	--	NP	8.69	--
P-2 ^D	03/23/15	14:28	15.00	6.26	--	NP	8.74	--
P-2 ^D	06/22/15	15:03	15.00	7.00	--	NP	8.00	--
P-2 ^D	10/27/16	9:52	15.00	6.25	--	NP	8.75	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
P-2 ^D	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
P-2 ^D	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
P-2 ^D	06/26/18	10:40	15.00	6.90	--	NP	8.1	Not part of the monitoring network
P-3 ^S	08/03/09	10:21	14.84	4.47	--	NP	10.37	--
P-3 ^S	08/17/09	9:48	14.84	4.77	--	NP	10.07	--
P-3 ^S	10/29/09	8:59	14.84	3.35	--	NP	11.49	--
P-3 ^S	01/18/10	13:25	14.84	0.81	--	NP	14.03	--
P-3 ^S	04/19/10	15:48	14.84	2.36	--	NP	12.48	--
P-3 ^S	07/19/10	7:48	14.84	3.72	--	NP	11.12	--
P-3 ^S	10/25/10	14:31	14.84	4.04	--	NP	10.80	--
P-3 ^S	03/21/11	12:49	14.84	1.19	--	NP	13.65	--
P-3 ^S	06/14/11	11:11	14.84	3.05	--	NP	11.79	--
P-3 ^S	09/26/11	11:17	14.84	5.18	--	NP	9.66	--
P-3 ^S	12/12/11	12:54	14.84	2.95	--	NP	11.89	--
P-3 ^S	03/27/12	14:32	14.84	1.63	--	NP	13.21	--
P-3 ^S	06/27/12	17:54	14.84	3.11	--	NP	11.73	--
P-3 ^S	09/25/12	8:14	14.84	4.80	--	NP	10.04	--
P-3 ^S	12/13/12	10:27	14.84	1.42	--	NP	13.42	--
P-3 ^S	03/25/13	10:51	14.84	2.16	--	NP	12.68	--
P-3 ^S	06/24/13	12:16	14.84	4.02	--	NP	10.82	--
P-3 ^S	09/23/13	14:12	14.84	4.49	--	NP	10.35	--
P-3 ^S	12/16/13	10:47	14.84	3.55	--	NP	11.29	--
P-3 ^S	03/26/14	8:39	14.84	1.48	--	NP	13.36	--
P-3 ^S	06/16/14	13:54	14.84	3.80	--	NP	11.04	--
P-3 ^S	09/29/14	15:43	14.84	4.80	--	NP	10.04	--
P-3 ^S	12/08/14	13:00	14.84	1.90	--	NP	12.94	--
P-3 ^S	03/23/15	14:29	14.84	2.10	--	NP	12.74	--
P-3 ^S	06/22/15	15:01	14.84	4.24	--	NP	10.60	--
P-3 ^S	10/27/16	9:50	14.84	1.15	--	NP	13.69	--
P-3 ^S	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
P-3 ^S	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
P-3 ^S	06/26/18	10:46	14.84	4.14	--	NP	10.7	Not part of the monitoring network
P-4 ^D	08/03/09	10:19	16.38	8.64	--	NP	7.74	--
P-4 ^D	08/17/09	9:49	16.38	8.75	--	NP	7.63	--
P-4 ^D	10/29/09	9:08	16.38	7.64	--	NP	8.74	--
P-4 ^D	01/18/10	13:21	16.38	7.56	--	NP	8.82	--
P-4 ^D	04/19/10	15:49	16.38	7.92	--	NP	8.46	--
P-4 ^D	07/19/10	7:50	16.38	8.28	--	NP	8.10	--
P-4 ^D	10/25/10	14:34	16.38	7.93	--	NP	8.45	--
P-4 ^D	03/21/11	12:52	16.38	7.51	--	NP	8.87	--
P-4 ^D	06/14/11	11:14	16.38	8.23	--	NP	8.15	--
P-4 ^D	09/26/11	11:20	16.38	8.41	--	NP	7.97	--
P-4 ^D	12/12/11	13:01	16.38	8.00	--	NP	8.38	--
P-4 ^D	03/27/12	14:34	16.38	7.60	--	NP	8.78	--
P-4 ^D	06/27/12	17:30	16.38	7.92	--	NP	8.46	--
P-4 ^D	09/25/12	8:19	16.38	8.37	--	NP	8.01	--
P-4 ^D	12/13/12	10:30	16.38	7.45	--	NP	8.93	--
P-4 ^D	03/25/13	10:54	16.38	7.79	--	NP	8.59	--
P-4 ^D	06/24/13	12:22	16.38	8.00	--	NP	8.38	--
P-4 ^D	09/23/13	14:03	16.38	8.11	--	NP	8.27	--
P-4 ^D	12/16/13	10:49	16.38	8.05	--	NP	8.33	--
P-4 ^D	03/26/14	8:47	16.38	7.56	--	NP	8.82	--
P-4 ^D	06/16/14	13:45	16.38	8.01	--	NP	8.37	--
P-4 ^D	09/29/14	15:35	16.38	8.03	--	NP	8.35	--
P-4 ^D	12/08/14	12:58	16.38	7.53	--	NP	8.85	--
P-4 ^D	03/23/15	14:30	16.38	7.82	--	NP	8.56	--
P-4 ^D	06/22/15	14:56	16.38	8.28	--	NP	8.10	--
P-4 ^D	10/27/16	9:48	16.38	7.43	--	NP	8.95	--
P-4 ^D	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
P-4 ^D	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
P-4 ^D	06/26/18	10:28	16.38	8.19	--	NP	8.19	Not part of the monitoring network
P-5 ^S	08/03/09	10:19	16.85	6.47	--	NP	10.38	--
P-5 ^S	08/17/09	9:50	16.85	6.78	--	NP	10.07	--
P-5 ^S	10/29/09	9:10	16.85	5.85	--	NP	11.00	--
P-5 ^S	01/18/10	13:18	16.85	2.76	--	NP	14.09	--
P-5 ^S	04/19/10	15:50	16.85	4.31	--	NP	12.54	--
P-5 ^S	07/19/10	7:54	16.85	5.71	--	NP	11.14	--
P-5 ^S	10/25/10	14:33	16.85	6.03	--	NP	10.82	--
P-5 ^S	03/21/11	12:53	16.85	3.17	--	NP	13.68	--
P-5 ^S	06/14/11	11:15	16.85	5.00	--	NP	11.85	--
P-5 ^S	09/26/11	11:21	16.85	7.13	--	NP	9.72	--
P-5 ^S	12/12/11	13:02	16.85	4.93	--	NP	11.92	--
P-5 ^S	03/27/12	14:35	16.85	3.60	--	NP	13.25	--
P-5 ^S	06/27/12	17:32	16.85	5.07	--	NP	11.78	--
P-5 ^S	09/25/12	8:21	16.85	6.78	--	NP	10.07	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
P-5 ^S	12/13/12	10:32	16.85	3.01	--	NP	13.84	--
P-5 ^S	03/25/13	10:52	16.85	4.00	--	NP	12.85	--
P-5 ^S	06/24/13	12:23	16.85	5.95	--	NP	10.90	--
P-5 ^S	09/23/13	14:01	16.85	6.46	--	NP	10.39	--
P-5 ^S	12/16/13	10:48	16.85	5.46	--	NP	11.39	--
P-5 ^S	03/26/14	8:48	16.85	3.31	--	NP	13.54	--
P-5 ^S	06/16/14	13:41	16.85	5.68	--	NP	11.17	--
P-5 ^S	09/29/14	15:37	16.85	6.79	--	NP	10.06	--
P-5 ^S	12/08/14	13:02	16.85	3.67	--	NP	13.18	--
P-5 ^S	03/23/15	14:32	16.85	3.88	--	NP	12.97	--
P-5 ^S	06/22/15	15:04	16.85	6.17	--	NP	10.68	--
P-5 ^S	10/27/16	9:46	16.85	3.20	--	NP	13.65	--
P-5 ^S	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
P-5 ^S	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
P-5 ^S	06/26/18	10:38	16.85	6.10	--	NP	10.75	Not part of the monitoring network
P-6 ^S	08/03/09	10:16	17.67	9.90	--	NP	7.77	--
P-6 ^S	08/17/09	9:53	17.67	6.31	--	NP	11.36	--
P-6 ^S	10/29/09	9:12	17.67	4.92	--	NP	12.75	--
P-6 ^S	01/18/10	13:10	17.67	3.09	--	NP	14.58	--
P-6 ^S	04/19/10	15:52	17.67	4.63	--	NP	13.04	--
P-6 ^S	07/19/10	7:59	17.67	5.21	--	NP	12.46	--
P-6 ^S	10/25/10	14:29	17.67	4.81	--	NP	12.86	--
P-6 ^S	03/21/11	12:54	17.67	3.41	--	NP	14.26	--
P-6 ^S	06/14/11	11:20	17.67	5.05	--	NP	12.62	--
P-6 ^S	09/26/11	11:25	17.67	6.40	--	NP	11.27	--
P-6 ^S	12/12/11	13:05	17.67	5.07	--	NP	12.60	--
P-6 ^S	03/27/12	14:39	17.67	3.90	--	NP	13.77	--
P-6 ^S	06/27/12	17:39	17.67	4.64	--	NP	13.03	--
P-6 ^S	09/25/12	8:17	17.67	5.94	--	NP	11.73	--
P-6 ^S	12/13/12	10:35	17.67	3.71	--	NP	13.96	--
P-6 ^S	03/25/13	10:45	17.67	4.60	--	NP	13.07	--
P-6 ^S	06/24/13	12:24	17.67	5.22	--	NP	12.45	--
P-6 ^S	09/23/13	13:58	17.67	5.23	--	NP	12.44	--
P-6 ^S	12/16/13	10:56	17.67	4.91	--	NP	12.76	--
P-6 ^S	03/26/14	8:55	17.67	3.74	--	NP	13.93	--
P-6 ^S	06/16/14	13:50	17.67	5.16	--	NP	12.51	--
P-6 ^S	09/29/14	15:59	17.67	6.77	--	NP	10.90	--
P-6 ^S	12/08/14	13:09	17.67	4.05	--	NP	13.62	--
P-6 ^S	03/23/15	14:35	17.67	3.97	--	NP	13.70	--
P-6 ^S	06/22/15	14:50	17.67	5.38	--	NP	12.29	--
P-6 ^S	10/27/16	9:42	17.67	3.55	--	NP	14.12	--
P-6 ^S	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
P-6 ^S	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
P-6 ^S	06/26/18	10:37	17.67	5.41	--	NP	12.26	Not part of the monitoring network
P-7 ^D	08/03/09	10:17	17.63	9.72	--	NP	7.91	--
P-7 ^D	08/17/09	9:52	17.63	9.80	--	NP	7.83	--
P-7 ^D	10/29/09	8:55	17.63	6.15	--	NP	11.48	--
P-7 ^D	01/18/10	13:14	17.63	8.56	--	NP	9.07	--
P-7 ^D	04/19/10	15:51	17.63	8.94	--	NP	8.69	--
P-7 ^D	07/19/10	8:00	17.63	7.36	--	NP	10.27	--
P-7 ^D	10/25/10	14:31	17.63	8.97	--	NP	8.66	--
P-7 ^D	03/21/11	12:52	17.63	8.62	--	NP	9.01	--
P-7 ^D	06/14/11	11:18	17.63	9.24	--	NP	8.39	--
P-7 ^D	09/26/11	11:23	17.63	9.55	--	NP	8.08	--
P-7 ^D	12/12/11	13:04	17.63	9.04	--	NP	8.59	--
P-7 ^D	03/27/12	14:36	17.63	8.66	--	NP	8.97	--
P-7 ^D	06/27/12	17:37	17.63	8.94	--	NP	8.69	--
P-7 ^D	09/25/12	8:19	17.63	9.49	--	NP	8.14	--
P-7 ^D	12/13/12	10:37	17.63	8.49	--	NP	9.14	--
P-7 ^D	03/25/13	10:47	17.63	8.81	--	NP	8.82	--
P-7 ^D	06/24/13	12:26	17.63	9.13	--	NP	8.50	--
P-7 ^D	09/23/13	14:00	17.63	9.16	--	NP	8.47	--
P-7 ^D	12/16/13	10:57	17.63	9.11	--	NP	8.52	--
P-7 ^D	03/26/14	8:50	17.63	8.66	--	NP	8.97	--
P-7 ^D	06/16/14	13:49	17.63	9.07	--	NP	8.56	--
P-7 ^D	09/29/14	15:59	17.63	9.12	--	NP	8.51	--
P-7 ^D	12/08/14	13:06	17.63	8.60	--	NP	9.03	--
P-7 ^D	03/23/15	14:34	17.63	8.82	--	NP	8.81	--
P-7 ^D	06/22/15	14:51	17.63	9.29	--	NP	8.34	--
P-7 ^D	10/27/16	9:44	17.63	8.56	--	NP	9.07	--
P-7 ^D	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
P-7 ^D	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
P-7 ^D	06/26/18	10:33	17.63	9.00	--	NP	8.63	Not part of the monitoring network
P-8 ^D	08/03/09	10:24	16.07	8.52	--	NP	7.55	--
P-8 ^D	08/17/09	9:41	16.07	8.92	--	NP	7.15	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
P-8 ^D	10/29/09	8:53	16.07	8.03	--	NP	8.04	--
P-8 ^D	01/18/10	13:33	16.07	7.47	--	NP	8.60	--
P-8 ^D	04/19/10	15:45	16.07	7.80	--	NP	8.27	--
P-8 ^D	07/19/10	8:03	16.07	8.12	--	NP	7.95	--
P-8 ^D	10/25/10	14:24	16.07	7.80	--	NP	8.27	--
P-8 ^D	03/21/11	12:45	16.07	7.49	--	NP	8.58	--
P-8 ^D	06/14/11	11:05	16.07	8.16	--	NP	7.91	--
P-8 ^D	09/26/11	11:20	16.07	8.34	--	NP	7.73	--
P-8 ^D	12/12/11	12:48	16.07	7.94	--	NP	8.13	--
P-8 ^D	03/27/12	14:29	16.07	7.49	--	NP	8.58	--
P-8 ^D	06/27/12	17:41	16.07	7.78	--	NP	8.29	--
P-8 ^D	09/25/12	8:10	16.07	8.29	--	NP	7.78	--
P-8 ^D	12/13/12	10:21	16.07	7.34	--	NP	8.73	--
P-8 ^D	03/25/13	10:49	16.07	7.60	--	NP	8.47	--
P-8 ^D	06/24/13	12:12	16.07	7.89	--	NP	8.18	--
P-8 ^D	09/23/13	14:05	16.07	8.01	--	NP	8.06	--
P-8 ^D	12/16/13	10:40	16.07	7.93	--	NP	8.14	--
P-8 ^D	03/26/14	8:35	16.07	7.41	--	NP	8.66	--
P-8 ^D	06/16/14	13:53	16.07	7.95	--	NP	8.12	--
P-8 ^D	09/29/14	15:50	16.07	7.94	--	NP	8.13	--
P-8 ^D	12/08/14	12:55	16.07	7.45	--	NP	8.62	--
P-8 ^D	03/23/14	14:33	16.07	7.60	--	NP	8.47	--
P-8 ^D	06/22/15	15:09	16.07	8.18	--	NP	7.89	--
P-8 ^D	10/27/16	9:58	16.07	7.41	--	NP	8.66	--
P-8 ^D	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
P-8 ^D	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
P-8 ^D	06/26/18	10:26	16.07	8.01	--	NP	8.06	Not part of the monitoring network
P-9	08/25/11	12:51	13.86	7.57	--	NP	6.29	--
P-9	09/02/11	10:04	13.86	7.58	--	NP	6.28	--
P-9	09/09/11	7:58	13.86	7.61	--	NP	6.25	--
P-9	09/16/11	14:42	13.86	7.64	--	NP	6.22	--
P-9	09/26/11	11:03	13.86	8.62	--	NP	5.24	--
P-9	10/28/11	9:52	13.86	7.59	--	NP	6.27	--
P-9	11/18/11	8:55	13.86	7.45	--	NP	6.41	--
P-9	12/12/11	13:55	13.86	7.00	--	NP	6.86	--
P-9	03/27/12	14:17	13.86	6.39	--	NP	7.47	--
P-9	06/27/12	17:23	13.86	6.95	--	NP	6.91	--
P-9	09/25/12	7:59	13.86	7.62	--	NP	6.24	--
P-9	12/13/12	10:50	13.86	6.33	--	NP	7.53	--
P-9	03/25/13	11:34	13.86	6.79	--	NP	7.07	--
P-9	06/24/13	12:04	13.86	7.33	--	NP	6.53	--
P-9	09/23/13	14:59	13.86	7.23	--	NP	6.63	--
P-9	12/16/13	10:31	13.86	7.38	--	NP	6.48	--
P-9	03/26/14	9:13	13.86	6.52	--	NP	7.34	--
P-9	06/16/14	13:50	13.86	7.25	--	NP	6.61	--
P-9	09/29/14	15:48	13.86	7.16	--	NP	6.70	--
P-9	12/08/14	12:48	13.86	6.53	--	NP	7.33	--
P-9	03/23/15	14:00	13.86	6.59	--	NP	7.27	--
P-9	06/22/15	15:24	13.86	7.36	--	NP	6.50	--
P-9	10/27/16	9:48	13.86	6.09	--	NP	7.77	--
P-9	07/24/17	--	--	--	--	--	--	Not part of the monitoring network
P-9	03/19/18	--	--	--	--	--	--	Not part of the monitoring network
P-9	06/26/18	--	--	--	--	--	--	Not part of the monitoring network
Staff Gauges								
D-2	10/20/08	17:15	5.60	1.20	--	NP	6.80	--
D-2	12/08/08	11:05		1.24	--	NP	6.84	--
D-2	02/20/09	9:55		0.60	--	NP	6.20	--
D-2	04/20/09	9:49		0.20	--	NP	5.80	--
D-2	06/22/09	10:50	8.67 ³	2.30	--	NP	6.37	--
D-2	06/22/09	12:35		2.44	--	NP	6.23	--
D-2	08/03/09	9:40		2.43	--	NP	6.24	--
D-2	08/03/09	12:05		2.45	--	NP	6.22	--
D-2	08/17/09	7:53		2.50	--	NP	6.17	--
D-2	08/17/09	11:03		2.50	--	NP	6.17	--
D-2	10/29/09	7:52		2.35	--	NP	6.32	--
D-2	10/29/09	10:14		2.25	--	NP	6.42	--
D-2	01/18/10	12:38		1.38	--	NP	7.29	--
D-2	01/18/10	14:43		1.76	--	NP	6.91	--
D-2	04/19/10	14:14		2.32	--	NP	6.35	--
D-2	04/19/10	16:16		2.44	--	NP	6.23	--
D-2	07/19/10	5:46		2.26	--	NP	6.41	--
D-2	07/19/10	9:13		2.45	--	NP	6.22	--
D-2	10/25/10	12:23		1.00	--	NP	7.67	--
D-2	10/25/10	15:40		1.60	--	NP	7.07	--
D-2	03/21/11	11:21		2.27	--	NP	6.40	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
D-2	03/21/11	14:06		2.45	--	NP	6.22	--
D-2	06/14/11	9:23		2.64	--	NP	6.03	--
D-2	06/14/11	12:54		2.45	--	NP	6.22	--
D-2	09/26/11	9:25		2.30	--	NP	6.37	--
D-2	09/26/11	--		2.39	--	NP	6.28	--
D-2	12/12/11	10:21		2.09	--	NP	6.58	--
D-2	12/12/11	14:47		2.50	--	NP	6.17	--
D-2	03/27/12	12:49		2.00	--	NP	6.67	--
D-2	03/27/12	15:51		2.88	--	NP	5.79	--
D-2	06/27/12	15:28		2.50	--	NP	6.17	--
D-2	06/27/12	18:45		2.50	--	NP	6.17	--
D-2	09/25/12	6:20		2.60	--	NP	6.07	--
D-2	09/25/12	9:42		2.53	--	NP	6.14	--
D-2	12/13/12	9:10		1.80	--	NP	6.87	--
D-2	12/13/12	12:05		2.34	--	NP	6.33	--
D-2	03/25/13	9:07		2.07	--	NP	6.60	--
D-2	03/25/13	11:40		2.53	--	NP	6.14	--
D-2	06/24/13	10:44		1.60	--	NP	7.07	--
D-2	06/24/13	12:44		2.30	--	NP	6.37	--
D-2	09/23/13	12:10		1.49	--	NP	7.18	--
D-2	09/23/13	15:45		2.59	--	NP	6.08	--
D-2	12/16/13	9:40		2.65	--	NP	6.02	--
D-2	12/16/13	11:36		2.74	--	NP	5.93	--
D-2	03/26/14	7:05		1.51	--	NP	7.16	--
D-2	03/26/14	10:10		2.32	--	NP	6.35	--
D-2	06/16/14	12:59		2.74	--	NP	5.93	--
D-2	06/16/14	14:47		2.83	--	NP	5.84	--
D-2	09/29/14	14:15		2.24	--	NP	6.43	--
D-2	09/29/14	16:15		2.80	--	NP	5.87	--
D-2	12/08/14	10:40		2.15	--	NP	6.52	--
D-2	12/08/14	13:40		2.66	--	NP	6.01	--
D-2	03/23/15	12:50		1.87	--	NP	6.80	--
D-2	03/26/15	15:39		2.69	--	NP	5.98	--
D-2	06/22/15	14:06		2.89	--	NP	5.78	--
D-2	06/22/15	16:29		2.91	--	NP	5.76	--
D-2	10/27/16	7:55		2.11	--	NP	6.56	--
D-2	10/27/16	10:27		2.63	--	NP	6.04	--
D-2	07/24/17	11:28		4.50	--	NP	4.17	--
D-2	07/24/17	14:10		2.70	--	NP	5.97	--
D-2	03/19/18	12:08		2.17	--	NP	6.50	--
D-2	03/19/18	13:46		2.63	--	NP	6.04	--
D-2	06/26/18	--	--	--	--	--	--	Not part of the monitoring network
D-3	10/20/08	17:18	5.20	1.90	--	NP	7.10	--
D-3	12/08/08	11:09		1.78	--	NP	6.98	--
D-3	02/20/09	9:59		1.20	--	NP	6.40	--
D-3	04/20/09	9:53		1.20	--	NP	6.40	--
D-3	06/22/09	11:02	8.39 ³	2.19	--	NP	6.20	--
D-3	06/22/09	12:40		2.24	--	NP	6.15	--
D-3	08/03/09	9:49		2.30	--	NP	6.09	--
D-3	08/03/09	12:10		2.23	--	NP	6.16	--
D-3	08/17/09	7:57		2.19	--	NP	6.20	--
D-3	08/17/09	11:08		2.40	--	NP	5.99	--
D-3	10/29/09	7:55		2.07	--	NP	6.32	--
D-3	10/29/09	10:13		2.04	--	NP	6.35	--
D-3	01/18/10	12:23		1.22	--	NP	7.17	--
D-3	01/18/10	14:46		1.52	--	NP	6.87	--
D-3	04/19/10	14:18		2.12	--	NP	6.27	--
D-3	04/19/10	16:22		2.29	--	NP	6.10	--
D-3	07/19/10	5:55		2.10	--	NP	6.29	--
D-3	07/19/10	9:17		2.28	--	NP	6.11	--
D-3	10/25/10	12:29		0.80	--	NP	7.59	--
D-3	10/25/10	15:42		1.45	--	NP	6.94	--
D-3	03/21/11	11:25		2.30	--	NP	6.09	--
D-3	03/21/11	14:05		2.50	--	NP	5.89	--
D-3	06/14/11	9:06		2.05	--	NP	6.34	--
D-3	06/14/11	12:59		2.35	--	NP	6.04	--
D-3	09/26/11	9:45		2.19	--	NP	6.20	--
D-3	09/26/11	--		2.08	--	NP	6.31	--
D-3	12/12/11	10:27		3.16	--	NP	5.23	--
D-3	12/12/11	14:55		3.47	--	NP	4.92	--
D-3	03/27/12	12:53		2.94	--	NP	5.45	--
D-3	03/27/12	15:55		3.53	--	NP	4.86	--
D-3	06/27/12	15:22		-- ⁴	--	NP	-- ⁴	--
D-3	06/27/12	18:52	8.70 ⁵	2.60	--	NP	6.10	--
D-3	09/25/12	6:25		2.72	--	NP	5.98	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
D-3	09/25/12	9:45		2.73	--	NP	5.97	--
D-3	12/13/12	9:15		1.90	--	NP	6.80	--
D-3	12/13/12	12:09		2.40	--	NP	6.30	--
D-3	03/25/13	9:15		2.20	--	NP	6.50	--
D-3	03/25/13	11:37		2.60	--	NP	6.10	--
D-3	06/24/13	10:49		1.81	--	NP	6.89	--
D-3	06/24/13	12:37		2.45	--	NP	6.25	--
D-3	09/23/13	12:45		1.42	--	NP	7.28	--
D-3	09/23/13	15:55		2.65	--	NP	6.05	--
D-3	12/16/13	9:44		2.55	--	NP	6.15	--
D-3	12/16/13	11:39		2.65	--	NP	6.05	--
D-3	03/26/14	7:10		1.25	--	NP	7.45	--
D-3	03/26/14	10:15		2.06	--	NP	6.64	--
D-3	06/16/14	12:59		2.44	--	NP	6.26	--
D-3	06/16/14	14:49		2.54	--	NP	6.16	--
D-3	09/29/14	14:10		2.83	--	NP	5.87	--
D-3	09/29/14	--	--	--	--	--	--	D-3 appears to have been moved
D-3	12/08/14	10:50		3.07	--	NP	--	Top of casing elevation not available
D-3	12/08/14	13:50		0.59	--	NP	--	Top of casing elevation not available
D-3	03/23/15	12:44		2.67	--	NP	--	Top of casing elevation not available
D-3	03/23/15	15:40		3.56	--	NP	--	Top of casing elevation not available
D-3	06/22/15	14:00		3.82	--	NP	--	Top of casing elevation not available
D-3	06/22/15	16:30		3.83	--	NP	--	Top of casing elevation not available
D-3	10/27/16	8:05		3.02	--	NP	--	Top of casing elevation not available
D-3	10/27/16	10:21		3.49	--	NP	--	Top of casing elevation not available
D-3	07/24/17	--	--	--	--	--	--	Unable to access. Top of casing elevation not available
D-3	07/24/17	--	--	--	--	--	--	Unable to access. Top of casing elevation not available
D-3	03/19/18	12:14		3.09	--	NP	--	Top of casing elevation not available
D-3	03/19/18	13:42		3.51	--	NP	--	Top of casing elevation not available
D-3	06/26/18	--	--	--	--	--	--	Not part of the monitoring network
D-4 ²	06/22/09	10:19	9.39	2.96	--	NP	6.43	--
D-4 ²	06/22/09	12:54		2.81	--	NP	6.58	--
D-4 ²	08/03/09	10:09		2.93	--	NP	6.46	--
D-4 ²	08/03/09	12:25		2.95	--	NP	6.44	--
D-4 ²	08/17/09	8:10		2.92	--	NP	6.47	--
D-4 ²	08/17/09	11:19		2.94	--	NP	6.45	--
D-4 ²	10/29/09	8:19		2.74	--	NP	6.65	--
D-4 ²	10/29/09	10:34		2.59	--	NP	6.80	--
D-4 ²	01/18/10	12:55		2.06	--	NP	7.33	--
D-4 ²	01/18/10	15:00		2.35	--	NP	7.04	--
D-4 ²	04/19/10	14:33		2.87	--	NP	6.52	--
D-4 ²	04/19/10	16:39		2.95	--	NP	6.44	--
D-4 ²	07/19/10	6:19		2.90	--	NP	6.49	--
D-4 ²	07/19/10	9:34		3.00	--	NP	6.39	--
D-4 ²	10/25/10	12:45		1.70	--	NP	7.69	--
D-4 ²	10/25/10	15:36		2.40	--	NP	6.99	--
D-4 ²	03/21/11	11:48		2.83	--	NP	6.56	--
D-4 ²	03/21/11	14:15		2.90	--	NP	6.49	--
D-4 ²	06/14/11	9:00		2.35	--	NP	7.04	--
D-4 ²	06/14/11	13:12		2.93	--	NP	6.46	--
D-4 ²	09/26/11	10:00		2.82	--	NP	6.57	--
D-4 ²	09/26/11	--		3.03	--	NP	6.36	--
D-4 ²	12/12/11	10:48		2.86	--	NP	6.53	--
D-4 ²	12/12/11	15:05		2.18	--	NP	7.21	--
D-4 ²	03/27/12	13:05		2.70	--	NP	6.69	--
D-4 ²	03/27/12	16:14		3.01	--	NP	6.38	--
D-4 ²	06/27/12	15:43		3.05	--	NP	6.34	--
D-4 ²	06/27/12	19:02		3.00	--	NP	6.39	--
D-4 ²	09/25/12	6:35		3.09	--	NP	6.30	--
D-4 ²	09/25/12	9:55		3.05	--	NP	6.34	--
D-4 ²	12/13/12	9:35		2.45	--	NP	6.94	--
D-4 ²	12/13/12	12:35		2.77	--	NP	6.62	--
D-4 ²	03/25/13	9:30		2.83	--	NP	6.56	--
D-4 ²	03/25/13	11:05		3.05	--	NP	6.34	--
D-4 ²	06/24/13	11:00		2.42	--	NP	6.97	--
D-4 ²	06/24/13	13:30		3.04	--	NP	6.35	--
D-4 ²	09/23/13	13:00		2.16	--	NP	7.23	--
D-4 ²	09/23/13	16:10		3.08	--	NP	6.31	--
D-4 ²	12/16/13	9:54		3.08	--	NP	6.31	--
D-4 ²	12/16/13	11:50		3.13	--	NP	6.26	--
D-4 ²	03/26/14	7:20		1.90	--	NP	7.49	--
D-4 ²	03/26/14	10:20		2.69	--	NP	6.70	--
D-4 ²	06/16/14	13:00		3.02	--	NP	6.37	--
D-4 ²	06/16/14	14:57		3.04	--	NP	6.35	--
D-4 ²	09/29/14	14:25		2.66	--	NP	6.73	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
D-4 ²	09/29/14	16:00		2.98	--	NP	6.41	--
D-4 ²	12/08/14	11:00		2.50	--	NP	6.89	--
D-4 ²	12/08/14	13:55		3.00	--	NP	6.39	--
D-4 ²	03/23/15	12:55		2.18	--	NP	7.21	--
D-4 ²	03/23/15	15:32		2.94	--	NP	6.45	--
D-4 ²	06/22/15	14:38		3.08	--	NP	6.31	--
D-4 ²	06/22/15	16:46		3.11	--	NP	6.28	--
D-4 ²	10/27/16	8:25		2.39	--	NP	7.00	--
D-4 ²	10/27/16	10:48		2.68	--	NP	6.71	--
D-4 ²	07/24/17	11:46		2.74	--	NP	6.65	--
D-4 ²	07/24/17	14:22		2.90	--	NP	6.49	--
D-4 ²	03/19/18	12:30		2.56	--	NP	6.83	--
D-4 ²	03/19/18	13:30		2.78	--	NP	6.61	--
D-4 ²	06/26/18	--	--	--	--	--	--	Not part of the monitoring network
D-5	10/20/08	--	--	--	--	--	--	--
D-5	12/08/08	11:18	5.60	1.25	--	NP	6.85	--
D-5	02/20/09	9:45		0.30	--	NP	5.90*	See *
D-5	04/20/09	9:22		0.10	--	NP	5.70	--
D-5	06/22/09	10:39	9.09	2.88	--	NP	6.21	--
D-5	06/22/09	12:28		3.10	--	NP	5.99	--
D-5	08/03/09	9:32		3.10	--	NP	5.99	--
D-5	08/03/09	11:59		3.12	--	NP	5.97	--
D-5	08/17/09	7:46		3.12	--	NP	5.97	--
D-5	08/17/09	10:56		3.17	--	NP	5.92	--
D-5	10/29/09	7:45		2.99	--	NP	6.10	--
D-5	10/29/09	10:04		2.88	--	NP	6.21	--
D-5	01/18/10	12:29		1.76	--	NP	7.33	--
D-5	01/18/10	14:35		2.10	--	NP	6.99	--
D-5	04/19/10	14:05		2.87	--	NP	6.22	--
D-5	04/19/10	16:10		Dry	--	NP	DRY	--
D-5	07/19/10	5:32		2.78	--	NP	6.31	--
D-5	07/19/10	9:04		Dry	--	NP	DRY	--
D-5	10/25/10	12:15		1.50	--	NP	7.59	--
D-5	10/25/10	15:33		2.11	--	NP	6.98	--
D-5	03/21/11	11:13		2.80	--	NP	6.29	--
D-5	03/21/11	13:54		3.10	--	NP	5.99	--
D-5	06/14/11	8:50		2.65	--	NP	6.44	--
D-5	06/14/11	12:46		3.19	--	NP	5.90	--
D-5	09/26/11	8:50		2.69	--	NP	6.40	--
D-5	09/26/11	--		2.99	--	NP	6.10	--
D-5	12/12/11	10:09		2.49	--	NP	6.60	--
D-5	12/12/11	14:35		2.99	--	NP	6.10	--
D-5	03/27/12	12:36		2.44	--	NP	6.65	--
D-5	03/27/12	15:41		3.13	--	NP	5.96	--
D-5	06/27/12	15:10		3.20	--	NP	5.89	--
D-5	06/27/12	18:37		3.20	--	NP	5.89	--
D-5	09/25/12	6:10		Dry	--	NP	DRY	--
D-5	09/25/12	9:30		Dry	--	NP	DRY	--
D-5	12/13/12	9:00		2.20	--	NP	6.89	--
D-5	12/13/12	12:00		2.77	--	NP	6.32	--
D-5	03/25/13	8:55		2.55	--	NP	6.54	--
D-5	03/25/13	11:49		Dry	--	NP	DRY	--
D-5	06/24/13	10:33		2.08	--	NP	7.01	--
D-5	06/24/13	13:16		2.90	--	NP	6.19	--
D-5	09/23/13	12:10		1.88	--	NP	7.21	--
D-5	09/23/13	15:30		2.09	--	NP	7.00	--
D-5	12/16/13	9:29		3.01	--	NP	6.08	--
D-5	12/16/13	11:22		Dry	--	NP	DRY	--
D-5	03/26/14	6:50		1.66	--	NP	7.43	--
D-5	03/26/14	9:55		2.50	--	NP	6.59	--
D-5	06/16/14	12:48		2.95	--	NP	6.14	--
D-5	06/16/14	14:40		3.13	--	NP	5.96	--
D-5	09/29/14	13:50		2.29	--	NP	6.80	--
D-5	09/29/14	16:22		3.08	--	NP	6.01	--
D-5	12/08/14	10:20		2.29	--	NP	6.80	--
D-5	12/08/14	13:25		2.74	--	NP	6.35	--
D-5	03/23/15	12:34		2.20	--	NP	6.89	--
D-5	03/23/15	15:25		2.86	--	NP	6.23	--
D-5	06/22/15	14:12		3.20	--	NP	5.89	--
D-5	06/22/15	16:22		3.21	--	NP	5.88	--
D-5	10/27/16	7:40		2.27	--	NP	6.82	--
D-5	10/27/16	10:36		2.87	--	NP	6.22	--
D-5	07/24/17	11:12		2.61	--	NP	6.48	--
D-5	07/24/17	14:00		3.00	--	NP	6.09	--
D-5	03/19/18	12:03		2.35	--	NP	6.74	--

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
D-5	03/19/18	13:51		2.79	--	NP	6.30	--
D-5	06/26/18	--	--	--	--	--	--	Not part of the monitoring network
D-7	10/20/08	17:23	7.60	Dry	--	NP	DRY	--
D-7	12/08/08	11:31		Dry	--	NP	DRY	--
D-7	02/20/09	10:48		Dry	--	NP	DRY	--
D-7	04/20/09	10:23		Dry	--	NP	DRY	--
TB	10/20/08	17:05	4.70	2.30	--	NP	7.00	--
TB	12/08/08	11:16		2.50	--	NP	7.20	--
TB	02/20/09	9:37		1.10	--	NP	5.80	--
TB	04/20/09	9:20		1.33	--	NP	6.03	--
TB	06/22/09	10:35		1.63	--	NP	6.33	--
TB	06/22/09	12:25		1.85	--	NP	6.55	--
TB	08/03/09	9:27		1.83	--	NP	6.53	--
TB	08/03/09	11:56		1.83	--	NP	6.53	--
TB	08/17/09	7:41		1.83	--	NP	6.53	--
TB	08/17/09	10:52		1.88	--	NP	6.58	--
TB	10/29/09	7:41		1.69	--	NP	6.39	--
TB	10/29/09	10:01		1.64	--	NP	6.34	--
TB	01/18/10	12:18		0.45	--	NP	5.15	--
TB	01/18/10	14:24		0.90	--	NP	5.60	--
TB	04/19/10	14:00		1.74	--	NP	6.44	--
TB	04/19/10	16:07		1.94	--	NP	6.64	--
TB	07/19/10	5:28		1.59	--	NP	6.29	--
TB	07/19/10	9:01		1.97	--	NP	6.67	--
TB	10/25/10	12:11		4.20	--	NP	8.90	--
TB	10/25/10	15:30		0.86	--	NP	5.56	--
TB	06/14/11	8:47		1.49	--	NP	6.19	--
TB	06/14/11	12:42		1.95	--	NP	6.65	--
TB	09/26/11	8:47		1.51	--	NP	6.21	--
TB	09/26/11	--		1.74	--	NP	6.44	--
TB	12/12/11	10:05		1.19	--	NP	5.89	--
TB	12/12/11	14:30		1.70	--	NP	6.40	--
TB	03/27/12	12:32		1.33	--	NP	6.03	--
TB	03/27/12	15:37		1.99	--	NP	6.69	--
TB	06/27/12	15:00		1.95	--	NP	6.65	--
TB	06/27/12	18:31		2.00	--	NP	6.70	--
TB	09/25/12	6:05		1.99	--	NP	6.69	--
TB	09/25/12	9:25		1.98	--	NP	6.68	--
TB	12/13/12	8:55		0.90	--	NP	5.60	--
TB	12/13/12	11:55		1.49	--	NP	6.19	--
TB	03/25/13	8:50		1.40	--	NP	6.10	--
TB	03/25/13	11:54		1.94	--	NP	6.64	--
TB	06/24/13	10:27		1.03	--	NP	5.73	--
TB	06/24/13	12:18		1.73	--	NP	6.43	--
TB	09/23/13	12:00		2.51	--	NP	7.21	--
TB	09/23/13	15:20		3.68	--	NP	8.38	--
TB	12/16/13	9:24		1.76	--	NP	6.46	--
TB	12/16/13	11:17		2.03	--	NP	6.73	--
TB	03/26/14	6:40		2.43	--	NP	7.13	--
TB	03/26/14	9:50		3.22	--	NP	7.92	--
TB	06/16/14	12:45		3.56	--	NP	8.26	--
TB	06/16/14	14:37		3.74	--	NP	8.44	--
TB	09/29/14	13:45		1.83	--	NP	6.53	--
TB	09/29/14	16:30		3.81	--	NP	8.51	--
TB	12/08/14	10:10		2.85	--	NP	7.55	--
TB	12/08/14	13:20		3.31	--	NP	8.01	--
TB	03/23/15	12:30		2.93	--	NP	7.63	--
TB	03/23/15	15:20		3.50	--	NP	8.20	--
TB	06/22/15	14:29		3.85	--	NP	8.55	--
TB	06/22/15	16:14		3.88	--	NP	8.58	--
TB	10/27/16	7:37		2.99	--	NP	7.69	--
TB	10/27/16	10:39		3.50	--	NP	8.20	--
TB	07/24/17	11:09		3.29	--	NP	7.99	--
TB	07/24/17	13:58		3.64	--	NP	8.34	--
TB	03/19/18	11:59		3.12	--	NP	7.82	--
TB	03/19/18	13:56		3.53	--	NP	8.23	--
TB	06/26/18	--	--	--	--	--	--	Not part of the monitoring network

Table 3-3
Groundwater Elevation Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date	Time	Top of Casing Elevation (feet)	Depth to Water (top of casing) (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet amsl)	Comment
-----------------	------	------	--------------------------------	---------------------------------------	-----------------------	------------------------	-----------------------------------	---------

Notes:

amsl= Above Mean Sea Level

LNAPL = Light non-aqueous phase liquid

"-" = Not measured.

NP = Not present

¹ Staff gauge D-1 re-established prior to June 2009 sampling event.

² Staff gauge D-4 was established prior to June 2009 sampling event to replace staff gauge D-7 which is not within the Willow Creek channel.

³ Staff gauges were resurveyed by OTAK Incorporated June 1, 2009. Staff gauges were surveyed from top of gauge and water levels are now measured from top down to water.

⁴ Staff gauge D-3 was down during the first gauging of the June 27, 2012 gauging event. A depth to water reading was unable to be collected.

⁵ Staff gauge D-3 was re-established for the second gauging of the June 27, 2012 gauging event and was re-surveyed by OTAK Incorporated on 8/8/12.

* = Potentially anomalous reading that will be confirmed with subsequent gauging data.

** = Groundwater elevation adjusted for the presence of LNAPL.

+ = LNAPL thickness could not be accurately measured due to LNAPL coating oil/water interface probe tip.

^ = Measurement error. LNAPL measurement was not confirmed with a bailer at the time the measurement was collected. The measurement was re-collected on

^S = Shallow piezometer (installed between 12 and 13 feet below ground surface).

^D = Deep piezometer (installed between 22 and 25 feet below ground surface).

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)								Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)
		B		T		E		X		CUL=0.05		--		--		--		see note 6		
		CUL=16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LM-2*	10/23/08	0.50	U	0.50	U	0.50	U	1.00	U	0.007	UU	243	U	50	U	485	U	389	UU	512
LM-2*	12/11/08	0.50	U	0.50	U	0.50	U	1.00	U	0.008	UU	243	U	50	U	485	U	389	UU	512
LM-2*	02/26/09	0.5	U	NA	U	NA	U	NA	U	0.008	UU	1,300	U	50	U	510	U	1,835	UU	503
LM-2*	04/23/09	0.5	U	NA	U	NA	U	NA	U	0.007	UU	1,100	U	50	U	230	U	1,355	UU	503
LM-2*	06/25/09	0.5	U	NA	U	NA	U	NA	U	0.007	UU	520	U	50	U	370	U	915	UU	505
LM-2*	08/20/09	0.5	U	NA	U	NA	U	NA	U	0.012	UU	290	U	50	U	71	U	386	UU	512
LM-2*	10/30/09	0.5	U	NA	U	NA	U	NA	U	0.013	UU	1,500	U	50	U	700	U	2,225	UU	502
LM-2*	01/20/10	NA	U	NA	U	NA	U	NA	U	NA	UU	1,100	U	50	U	500	U	1,625	UU	503
LM-2*	04/21/10	NA	U	NA	U	NA	U	NA	U	NA	UU	1,100	U	50	U	460	U	1,585	UU	503
LM-2*	07/22/10	NA	U	NA	U	NA	U	NA	U	NA	UU	1,500	U	50	U	550	U	2,075	UU	502
LM-2*	10/29/10	0.5	U	NA	U	NA	U	NA	U	0.012	UU	2,500	U	50	U	1,400	U	3,925	UU	501
LM-2*	03/23/11	NA	U	NA	U	NA	U	NA	U	NA	UU	1,600	U	50	U	1,000	U	2,625	UU	502
LM-2*	06/16/11	NA	U	NA	U	NA	U	NA	U	NA	UU	1,800	U	50	U	520	U	2,345	UU	502
LM-2*	09/28/11	NA	U	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
LM-2*	12/16/11	0.2	U	NA	U	NA	U	NA	U	0.007	UU	28	U	50	U	66	U	72	UU	575
LM-2*	03/29/12	NA	U	NA	U	NA	U	NA	U	NA	UU	3,900	U	50	U	2,000	U	5,925	UU	501
LM-2*	06/29/12	NA	U	NA	U	NA	U	NA	U	NA	UU	32	U	50	U	74	U	78	UU	568
LM-2*	09/27/12	NA	U	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
LM-2*	12/18/12	0.2	U	NA	U	NA	U	NA	U	0.011	UU	30	U	50	U	71	U	76	UU	571
LM-2*	03/27/13	NA	U	NA	U	NA	U	NA	U	NA	UU	31	U	50	U	72	U	77	UU	570
LM-2*	06/26/13	NA	U	NA	U	NA	U	NA	U	NA	UU	30	U	250	U	69	U	190	UU	664
LM-2*	09/24/13	NA	U	NA	U	NA	U	NA	U	NA	UU	33	U	50	U	70	U	93	UU	556
LM-2*	12/18/13	0.2	U	NA	U	NA	U	NA	U	0.008	UU	30	U	50	U	69	U	75	UU	572
LM-2*	03/27/14	NA	U	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
LM-2*	06/17/14	NA	U	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
LM-2*	09/30/14	NA	U	NA	U	NA	U	NA	U	NA	UU	38	U	50	U	68	U	97	UU	553
LM-2*	12/09/14	0.3	U	NA	U	NA	U	NA	U	0.008	UU	29	U	50	U	67	U	73	UU	574
LM-2*	03/25/15	NA	U	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	UU	573
LM-2*	06/24/15	NA	U	NA	U	NA	U	NA	U	NA	UU	28	U	250	U	66	U	172	UU	687
LM-2*	10/26/16	0.5	U	0.5	U	0.5	U	1.5	U	0.008	UU	46	U	50	U	100	U	98	UU	553
LM-2*	07/26/17	25	U	NA	U	NA	U	NA	U	0.008	UU	48	U	2500	U	110	U	1,329	UU	772
LM-2*	03/20/18	2.9	U	NA	U	NA	U	NA	U	0.109	UU	95	U	500	U	100	U	395	UU	656
LM-2*	06/27/18	5.0	U	NA	U	NA	U	NA	U	0.008	UU	260	U	500	U	220	U	730	UU	574
LM-2*	09/20/18	0.5	U	NA	U	NA	U	NA	U	0.008	UU	54	U	19	U	120	U	97	UU	519
LM-2*	11/27/18	5.0	U	NA	U	NA	U	NA	U	0.008	UU	46	U	190	U	100	U	168	UU	635
LM-2*	03/19/19	0.0	U	NA	U	NA	U	NA	U	0.008	UU	46	U	19	U	100	U	83	UU	523
LM-2*	06/20/19	0.5	U	NA	U	NA	U	NA	U	0.008	UU	46	U	190	U	100	U	168	UU	635
LM-2*	09/17/19	0.2	U	NA	U	NA	U	NA	U	0.008	UU	46	U	190	U	100	U	168	UU	635
LM-2*	12/11/19	2	U	NA	U	NA	U	NA	U	0.008	UU	47	U	19	U	100	U	83	UU	522
MW-101*	10/22/08	0.50	U	0.50	U	0.50	U	1.00	U	0.007	UU	250	U	50	U	500	U	400	UU	512
MW-101*	12/10/08	0.50	U	0.50	U	0.50	U	1.00	U	0.007	UU	245	U	50	U	490	U	393	UU	512
MW-101*	02/24/09	0.5	U	NA	U	NA	U	NA	U	0.008	UU	160	U	83	U	72	U	279	UU	563
MW-101*	04/22/09	0.5	U	NA	U	NA	U	NA	U	0.008	UU	160	U	50	U	79	U	225	UU	522
MW-101*	06/25/09	0.5	U	NA	U	NA	U	NA	U	0.007	UU	36	U	50	U	69	U	96	UU	554
MW-101*	08/20/09	0.5	U	NA	U	NA	U	NA	U	0.012	UU	82	U	50	U	74	U	144	UU	535
MW-101*	10/27/09	0.5	U	NA	U	NA	U	NA	U	0.013	UU	310	U	50	U	74	U	372	UU	513
MW-101*	01/19/10	NA	U	NA	U	NA	U	NA	U	NA	UU	28	U	50	U	66	U	72	UU	575
MW-101*	04/21/10	NA	U	NA	U	NA	U	NA	U	NA	UU	75	U	75	U	78	U	189	UU	587
MW-101*	07/21/10	NA	U	NA	U	NA	U	NA	U	NA	UU	98	U	50	U	74	U	160	UU	531
MW-101* (Duplicate)	07/21/10	NA	U	NA	U	NA	U	NA	U	NA	UU	100	U	50	U	73	U	162	UU	531
MW-101*	10/27/10	0.5	U	NA	U	NA	U	NA	U	0.012	UU	130	U	120	U	67	U	284	UU	594
MW-101*	03/23/11	NA	U	NA	U	NA	U	NA	U	NA	UU	34	U	50	U	67	U	93	UU	556
MW-101*	06/15/11	NA	U	NA	U	NA	U	NA	U	NA	UU	70	U	50	U	67	U	129	UU	539
MW-101* (Duplicate)	06/15/11	NA	U	NA	U	NA	U	NA	U	NA	UU	68	U	50	U	70	U	163	UU	531
MW-101*	09/27/11	NA	U	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-101*	12/14/11	0.2	U	NA	U	NA	U	NA	U	0.007	UU	32	U	50	U	75	U	79	UU	568
MW-101*	03/28/12	NA	U	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-101*	06/29/12	NA	U	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-101*	09/27/12	NA	U	NA	U	NA	U	NA	U	NA	UU	30	U	50	U	70	U	75	UU	571
MW-101* (Duplicate)	09/27/12	NA	U	NA	U	NA	U	NA	U	NA	UU	30	U	50	U	71	U	76	UU	571
MW-101*	12/18/12	0.2	U	NA	U	NA	U	NA	U	0.008	UU	29	U	50	U	68	U	74	UU	573

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)	Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)									
		B	T	E	X															
		CUL=16	--	--	--															
MW-101*	03/26/13	NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574						
MW-101*	06/25/13	NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574						
MW-101*	09/25/13	NA	NA	NA	NA	29	U	50	U	68	U	74	UU	573						
MW-101*	12/20/13	0.2	U	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	574				
MW-101*	03/28/14	NA	NA	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575				
MW-101*	06/18/14	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574				
MW-101*	10/01/14	NA	NA	NA	NA	NA	UU	30	U	50	U	71	U	76	UU	571				
MW-101*	12/10/14	0.2	U	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	574				
MW-101*	03/25/15	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574				
MW-101*	06/25/15	NA	NA	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575				
MW-101*	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	0.008	UU	45	U	76	U	100	U	149	UU	619
MW-101*	07/25/17	0.5	U	NA	NA	NA	UU	NA	UU	46	U	50	U	100	U	98	UU	553		
MW-101* (Duplicate)	07/25/17	0.5	U	NA	NA	NA	UU	0.008	UU	46	U	50	U	100	U	98	UU	553		
MW-101*	03/22/18	0.5	U	NA	NA	NA	UU	0.008	UU	47	U	50	U	440	U	489	UU	510		
MW-101*	06/28/18	0.5	U	NA	NA	NA	UU	0.008	UU	45	U	50	U	100	U	98	UU	553		
MW-101*	09/18/18	0.5	U	NA	NA	NA	UU	0.008	UU	50	U	140	U	110	U	220	UU	657		
MW-101* (Duplicate)	09/18/18	0.5	U	NA	NA	NA	UU	0.008	UU	47	U	140	U	100	U	214	UU	663		
MW-101*	11/28/18	0.5	U	NA	NA	NA	UU	0.008	UU	45	U	900	U	100	U	973	UU	766		
MW-101*	02/07/19	0.0	U	NA	NA	NA	UU	0.008	UU	46	U	19	U	100	U	83	UU	523		
MW-101*	03/20/19	0.0	U	NA	NA	NA	UU	0.008	UU	48	U	19	U	110	U	89	UU	521		
MW-101*	06/18/19	0.5	U	NA	NA	NA	UU	0.008	UU	120	U	27	J	110	U	202	UU	526		
MW-101*	09/18/19	0.2	U	NA	NA	NA	UU	0.008	UU	48	U	650	U	110	U	729	UU	751		
MW-101*	12/12/19	0.2	U	NA	NA	NA	UU	0.008	UU	45	U	470	U	100	U	543	UU	741		
MW-101* (Duplicate)	12/12/19	0.2	U	NA	NA	NA	UU	0.008	UU	45	U	510	U	100	U	583	UU	744		
MW-104*	10/22/08	3.89	U	0.554	U	11.8	U	1.00	UU	0.008	UU	253	U	728	U	505	U	1,107	UU	664
MW-104*	12/10/08	3.41	U	0.50	U	23.5	U	1.15	UU	0.007	UU	245	U	859	U	490	U	1,227	UU	678
MW-104*	02/24/09	1.4	U	NA	NA	NA	UU	0.007	UU	130	U	460	U	68	U	624	UU	691		
MW-104*	04/23/09	5	U	NA	NA	NA	UU	0.008	UU	180	U	1,700	U	70	U	1,915	UU	750		
MW-104* (Duplicate)	04/23/09	5	U	NA	NA	NA	UU	0.008	UU	210	U	1,800	U	72	U	2,046	UU	746		
MW-104*	06/24/09	2.9	U	NA	NA	NA	UU	0.007	UU	140	U	740	U	72	U	916	UU	717		
MW-104*	08/19/09	2	U	NA	NA	NA	UU	0.012	UU	120	U	310	U	68	U	464	UU	667		
MW-104*	10/27/09	2	U	NA	NA	NA	UU	0.013	UU	130	U	510	U	73	U	677	UU	697		
MW-104*	01/19/10	NA	U	NA	NA	NA	UU	NA	UU	270	U	2,800	U	69	U	3,105	UU	756		
MW-104*	04/21/10	NA	U	NA	NA	NA	UU	NA	UU	100	U	400	U	83	U	542	UU	692		
MW-104* (Duplicate)	04/21/10	NA	U	NA	NA	NA	UU	NA	UU	100	U	510	U	67	U	644	UU	711		
MW-104*	07/20/10	NA	U	NA	NA	NA	UU	NA	UU	200	U	450	U	72	U	686	UU	663		
MW-104*	10/27/10	1.7	U	NA	NA	NA	UU	0.047	UU	81	U	220	U	67	U	335	UU	664		
MW-104*	03/23/11	NA	U	NA	NA	NA	UU	NA	UU	290	U	890	U	68	U	1,214	UU	690		
MW-104*	06/15/11	NA	U	NA	NA	NA	UU	NA	UU	340	U	1,900	U	67	U	2,274	UU	728		
MW-104* (Duplicate)	06/15/11	NA	U	NA	NA	NA	UU	NA	UU	350	U	1,900	U	67	U	2,317	UU	722		
MW-104*	09/27/11	NA	U	NA	NA	NA	UU	NA	UU	29	U	50	U	67	U	73	UU	574		
MW-104*	12/13/11	3.0	U	NA	NA	NA	UU	0.072	UU	38	U	700	U	66	U	771	UU	758		
MW-104*	03/29/12	NA	U	NA	NA	NA	UU	NA	UU	440	U	280	U	220	U	940	UU	563		
MW-104*	06/28/12	NA	U	NA	NA	NA	UU	NA	UU	29	U	83	U	67	U	131	UU	656		
MW-104*	09/26/12	NA	U	NA	NA	NA	UU	NA	UU	33	U	170	U	66	U	236	UU	685		
MW-104*	12/18/12	0.2	U	NA	NA	NA	UU	0.008	UU	29	U	50	U	67	U	73	UU	574		
MW-104*	03/27/13	NA	U	NA	NA	NA	UU	NA	UU	52	U	310	U	120	U	396	UU	708		
MW-104*	06/26/13	NA	U	NA	NA	NA	UU	NA	UU	29	U	78	U	68	U	127	UU	650		
MW-104*	09/24/13	NA	U	NA	NA	NA	UU	NA	UU	30	U	190	U	70	U	240	UU	711		
MW-104* (Duplicate)	09/24/13	NA	U	NA	NA	NA	UU	NA	UU	44	U	170	U	70	U	249	UU	672		
MW-104*	12/17/13	0.4	U	NA	NA	NA	UU	0.008	UU	29	U	120	U	68	U	169	UU	682		
MW-104*	03/26/14	NA	U	NA	NA	NA	UU	NA	UU	29	U	50	U	67	U	73	UU	574		
MW-104*	06/17/14	NA	U	NA	NA	NA	UU	NA	UU	29	U	50	U	67	U	73	UU	574		
MW-104* (Duplicate)	06/17/14	NA	U	NA	NA	NA	UU	NA	UU	28	U	50	U	66	U	72	UU	575		
MW-104*	09/30/14	NA	U	NA	NA	NA	UU	NA	UU	30	U	50	U	69	U	90	UU	559		
MW-104*	12/09/14	1.0	U	NA	NA	NA	UU	0.008	UU	29	U	50	U	67	U	73	UU	574		
MW-104*	03/25/15	NA	U	NA	NA	NA	UU	NA	UU	30	U	59	U	69	U	109	UU	628		
MW-104*	06/23/15	NA	U	NA	NA	NA	UU	NA	UU	28	U	64	U	66	U	111	UU	638		
MW-104*	10/24/16	0.5	U	0.5	U	11.0	U	1.5	UU	0.008	UU	46	U	350	U	100	U	423	UU	725
MW-104*	07/26/17	0.5	U	NA	NA	NA	UU	0.008	UU	45	U	120	U	100	U	193	UU	653		
MW-104*	03/20/18	0.2	U	NA	NA	NA	UU	0.008	UU	46	U	91	U	100	U	164	UU	631		

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)						
		B	T	E	X													
		CUL=16	--	--	--	CUL=0.05	--											
MW-104*	06/27/18	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-104*	09/17/18	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-104*	11/27/18	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	36	U	100	U	110	UU	570
MW-104*	03/19/19	0.0	U	NA	NA	NA	NA	0.008	UU	46	U	400	U	100	U	473	UU	732
MW-104*	06/20/19	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	64	J	100	U	138	UU	606
MW-104*	09/17/19	0.2	U	NA	NA	NA	NA	0.008	UU	45	U	59	J	100	U	132	UU	601
MW-104*	12/12/19	0.2	U	NA	NA	NA	NA	0.008	UU	280	U	52	J	130	J	462	UU	522
MW-108*	10/23/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	50	U	485	U	389	UU	512
MW-108*	12/11/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	50	U	485	U	389	UU	512
MW-108*	02/26/09	0.5	U	NA	NA	NA	NA	0.007	UU	31	U	50	U	71	U	76	UU	570
MW-108*	04/23/09	2.5	U W	NA	NA	NA	NA	0.007	UU	39	U	250	U W	66	U	322	UU	705
MW-108*	06/25/09	0.5	U	NA	NA	NA	NA	0.007	UU	28	U	50	U	66	U	72	UU	575
MW-108*	08/20/09	0.5	U	NA	NA	NA	NA	0.012	UU	36	U	50	U	68	U	95	UU	555
MW-108*	10/30/09	0.5	U	NA	NA	NA	NA	0.014	UU	40	U	50	U	71	U	101	UU	551
MW-108*	01/20/10	NA	U	NA	NA	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-108*	04/21/10	NA	U	NA	NA	NA	NA	NA	UU	75	U	50	U	67	U	134	UU	538
MW-108*	07/22/10	NA	U	NA	NA	NA	NA	NA	UU	76	U	50	U	76	U	139	UU	536
MW-108*	10/29/10	0.5	U	NA	NA	NA	NA	0.0119225	UU	29	U	50	U	67	U	73	UU	574
MW-108*	03/23/11	NA	U	NA	NA	NA	NA	NA	UU	33	U	50	U	67	U	92	UU	557
MW-108*	06/16/11	NA	U	NA	NA	NA	NA	NA	UU	140	U	50	U	68	U	199	UU	525
MW-108*	09/28/11	NA	U	NA	NA	NA	NA	NA	UU	30	U	50	U	69	U	75	UU	572
MW-108*	12/16/11	0.2	U	NA	NA	NA	NA	0.00717	UU	29	U	50	U	67	U	73	UU	574
MW-108*	03/29/12	NA	U	NA	NA	NA	NA	NA	UU	110	U	50	U	150	U	285	UU	517
MW-108*	06/29/12	NA	U	NA	NA	NA	NA	NA	UU	30	U	50	U	71	U	76	UU	571
MW-108*	09/27/12	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-108*	12/18/12	0.2	U	NA	NA	NA	NA	0.008	UU	31	U	50	U	72	U	77	UU	570
MW-108*	03/27/13	NA	U	NA	NA	NA	NA	NA	UU	31	U	50	U	72	U	77	UU	570
MW-108*	06/27/13	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-108*	09/26/13	NA	U	NA	NA	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-108*	12/19/13	0.2	U	NA	NA	NA	NA	0.008	UU	32	U	50	U	74	U	78	UU	568
MW-108*	03/27/14	NA	U	NA	NA	NA	NA	NA	UU	30	U	50	U	69	U	75	UU	572
MW-108*	06/17/14	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-108*	10/02/14	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	68	U	74	UU	573
MW-108*	12/09/14	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	574
MW-108*	03/26/15	NA	U	NA	NA	NA	NA	NA	UU	29	U	500	U	68	U	299	UU	729
MW-108*	06/24/15	NA	U	NA	NA	NA	NA	NA	UU	28	U	250	U	66	U	172	UU	687
MW-109*	10/23/08	0.50	U	0.50	U	0.50	U	1.00	U	253	U	50	U	505	U	404	UU	512
MW-109*	12/12/08	0.50	U	0.50	U	0.50	U	1.00	U	248	U	50	U	495	U	397	UU	512
MW-109*	02/26/09	0.5	U	NA	NA	NA	NA	0.008	UU	32	U	50	U	75	U	79	UU	568
MW-109*	04/23/09	0.5	U	NA	NA	NA	NA	0.007	UU	29	U	50	U	67	U	73	UU	574
MW-109*	06/25/09	0.5	U	NA	NA	NA	NA	0.007	UU	29	U	50	U	67	U	73	UU	574
MW-109*	08/20/09	0.5	U	NA	NA	NA	NA	0.012	UU	29	U	50	U	67	U	73	UU	574
MW-109*	10/30/09	0.5	U	NA	NA	NA	NA	0.012	UU	29	U	50	U	67	U	73	UU	574
MW-109*	01/20/10	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-109*	04/21/10	NA	U	NA	NA	NA	NA	NA	UU	55	U	50	U	67	U	114	UU	545
MW-109*	07/22/10	NA	U	NA	NA	NA	NA	NA	UU	31	U	50	U	72	U	77	UU	570
MW-109*	10/29/10	0.5	U	NA	NA	NA	NA	0.012	UU	29	U	50	U	67	U	73	UU	574
MW-109*	03/23/11	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-109*	06/16/11	NA	U	NA	NA	NA	NA	NA	UU	96	U	50	U	100	U	221	UU	522
MW-109*	09/28/11	NA	U	NA	NA	NA	NA	NA	UU	32	U	50	U	75	U	79	UU	568
MW-109*	12/16/11	0.2	U	NA	NA	NA	NA	0.0072	UU	29	U	50	U	66	U	87	UU	560
MW-109*	03/29/12	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	68	U	74	UU	573
MW-109*	06/29/12	NA	U	NA	NA	NA	NA	NA	UU	30	U	50	U	69	U	75	UU	572
MW-109*	09/27/12	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-109*	12/18/12	0.2	U	NA	NA	NA	NA	0.008	UU	33	U	50	U	77	U	80	UU	566
MW-109*	03/27/13	NA	U	NA	NA	NA	NA	NA	UU	31	U	50	U	72	U	77	UU	570
MW-109*	06/27/13	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	68	U	74	UU	573
MW-109* (Duplicate)	06/27/13	NA	U	NA	NA	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-109*	09/26/13	NA	U	NA	NA	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-109*	12/19/13	0.2	U	NA	NA	NA	NA	0.008	UU	31	U	50	U	73	U	77	UU	569
MW-109*	03/27/14	NA	U	NA	NA	NA	NA	NA	UU	54	U	67	U	50	U	113	UU	563

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)
		B	T	E	X	CUL=0.05		--		--		--		see note 6		
		CUL=16		--	--	--										
MW-109*	06/17/14	NA	NA	NA	NA	NA	NA	29	U	50	U	68	U	74	UU	573
MW-109*	10/02/14	NA	NA	NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574
MW-109*	12/09/14	0.2	U	NA	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU
MW-109*	03/26/15	NA	U	NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574
MW-109*	06/24/15	NA	U	NA	NA	NA	NA	28	U	50	U	66	U	72	UU	575
MW-126	06/29/12	NA	U	NA	NA	NA	NA	30	U	50	U	70	U	75	UU	571
MW-126 (Duplicate)	06/29/12	NA	U	NA	NA	NA	NA	31	U	50	U	71	U	76	UU	570
MW-126	12/18/12	0.2	U	NA	NA	NA	0.008	UU	170	U	50	U	68	U	229	UU
MW-126	06/25/13	NA	U	NA	NA	NA	NA	29	U	50	U	68	U	74	UU	573
MW-126	12/17/13	0.2	U	NA	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU
MW-126 (Duplicate)	12/17/13	0.2	U	NA	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU
MW-126	06/18/14	NA	U	NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574
MW-126	12/10/14	0.2	U	NA	NA	NA	0.008	UU	210	U	50	U	67	U	269	UU
MW-126	06/23/15	NA	U	NA	NA	NA	NA	28	U	50	U	65	U	72	UU	575
MW-126	10/24/16	0.5	U	0.5	U	0.5	U	1.5	U	45	U	50	U	100	UU	553
MW-126	07/25/17	0.5	U	NA	NA	NA	0.008	UU	45	U	50	U	100	UU	553	
MW-126	03/22/18	0.5	U	NA	NA	NA	0.008	UU	47	U	50	U	110	UU	550	
MW-126	06/29/18	0.5	U	NA	NA	NA	0.008	UU	45	U	50	U	100	UU	553	
MW-126	09/18/18	0.5	U	NA	NA	NA	0.008	UU	48	U	19	U	110	UU	521	
MW-126	11/30/18	0.5	U	NA	NA	NA	0.008	UU	46	U	19	U	100	UU	523	
MW-126 (Duplicate)	11/30/18	0.5	U	NA	NA	NA	0.008	UU	45	U	19	U	100	UU	523	
MW-126	03/21/19	0.5	U	NA	NA	NA	0.008	UU	46	U	19	U	100	UU	523	
MW-126	06/19/19	0.5	U	NA	NA	NA	0.008	UU	48	U	19	U	110	UU	521	
MW-126	09/19/19	0.2	U	NA	NA	NA	0.008	UU	47	U	19	U	110	UU	521	
MW-126	12/11/19	0.2	U	NA	NA	NA	0.008	UU	46	U	19	U	100	UU	523	
MW-129R*	10/24/08	0.50	U	0.50	U	0.50	U	1.12	U	250	U	68.1	U	443	UU	531
MW-129R*	12/12/08	0.50	U	0.50	U	0.50	U	1.00	U	245	U	50	U	393	UU	512
MW-129R*	02/27/09	0.5	U	NA	NA	NA	0.007	UU	1,900	U	50	U	730	2,655	UU	502
MW-129R*	04/27/09	0.5	U	NA	NA	NA	0.007	UU	1,400	U	50	U	250	1,675	UU	503
MW-129R*	06/26/09	0.5	U	NA	NA	NA	0.007	UU	1,700	U	50	U	1,000	2,725	UU	502
MW-129R*	08/21/09	0.5	U	NA	NA	NA	0.012	UU	3,400	U	50	U	1,000	4,425	UU	501
MW-129R*	10/28/09	0.5	U	NA	NA	NA	0.013	UU	1,900	U	50	U	240	2,165	UU	502
MW-129R*	01/21/10	NA	U	NA	NA	NA	NA	1,800	U	50	U	650	2,475	UU	502	
MW-129R*	04/22/10	NA	U	NA	NA	NA	NA	1,600	U	50	U	390	2,015	UU	502	
MW-129R*	07/22/10	NA	U	NA	NA	NA	NA	1,800	U	50	U	400	2,225	UU	502	
MW-129R*	11/01/10	0.5	U	NA	NA	NA	0.012	UU	1,900	U	50	U	700	2,625	UU	502
MW-129R*	03/23/11	NA	U	NA	NA	NA	NA	1,700	U	50	UU	550	2,300	UU	504	
MW-129R* (Duplicate)	03/23/11	NA	U	NA	NA	NA	NA	1,700	U	50	U	650	2,375	UU	502	
MW-129R*	06/17/11	NA	U	NA	NA	NA	NA	1,600	U	50	U	310	1,935	UU	502	
MW-129R*	09/28/11	NA	U	NA	NA	NA	NA	2,700	U	50	U	230	2,955	UU	502	
MW-129R*	12/19/11	0.2	U	NA	NA	NA	0.007	UU	45	U	50	U	67	104	UU	550
MW-129R*	03/29/12	NA	U	NA	NA	NA	NA	1,700	U	55	U	300	2,055	UU	505	
MW-129R* (Duplicate)	03/29/12	NA	U	NA	NA	NA	NA	87	U	56	U	67	177	UU	568	
MW-129R*	07/02/12	NA	U	NA	NA	NA	NA	44	U	50	U	67	103	UU	550	
MW-129R*	09/27/12	NA	U	NA	NA	NA	NA	330	U	50	U	75	393	UU	512	
MW-129R*	12/18/12	0.2	U	NA	NA	NA	0.009	UU	32	U	50	U	68	91	UU	557
MW-129R*	03/27/13	NA	U	NA	NA	NA	NA	29	U	50	U	67	88	UU	560	
MW-129R*	06/26/13	NA	U	NA	NA	NA	NA	30	U	50	U	68	114	UU	598	
MW-129R*	09/24/13	NA	U	NA	NA	NA	NA	30	U	50	U	69	75	UU	572	
MW-129R*	12/18/13	0.2	U	NA	NA	NA	0.008	UU	33	U	50	U	71	94	UU	556
MW-129R*	03/26/14	NA	U	NA	NA	NA	NA	46	U	56	U	67	136	UU	592	
MW-129R*	06/18/14	NA	U	NA	NA	NA	NA	80	U	50	U	66	138	UU	536	
MW-129R*	09/30/14	NA	U	NA	NA	NA	NA	310	U	50	U	68	369	UU	513	
MW-129R*	12/09/14	0.2	U	NA	NA	NA	0.008	UU	36	U	50	U	66	94	UU	555
MW-129R*	03/26/15	NA	U	NA	NA	NA	NA	100	U	52	U	67	186	UU	559	
MW-129R*	06/23/15	NA	U	NA	NA	NA	NA	51	U	50	U	66	109	UU	547	
MW-129R*	07/26/17	0.5	U	NA	NA	NA	0.008	UU	46	U	93	U	100	166	UU	633
MW-129R*	03/20/18	0.2	U	NA	NA	NA	0.008	UU	1,900	U	50	U	110	1,980	UU	502
MW-129R*	06/27/18	0.5	U	NA	NA	NA	0.008	UU	47	U	50	U	100	99	UU	553
MW-129R*	09/17/18	0.5	U	NA	NA	NA	0.008	UU	81	U	38	U	110	174	UU	545
MW-129R*	11/28/18	0.5	U	NA	NA	NA	0.008	UU	550	U	32	U	130	712	UU	509

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)		
		B	T	E	X													
		CUL=16	--	--	--	CUL=0.05		--		--		--		see note 6				
MW-129R*	02/07/19	0.0	U	NA	NA	NA	NA	0.008	UU	46	J	33	J	100	U	129	UU	553
MW-129R*	03/19/19	0.0	U	NA	NA	NA	NA	0.008	UU	46	U	34	J	100	U	107	UU	568
MW-129R*	06/20/19	0.5	U	NA	NA	NA	NA	0.008	J	240	U	19	U	100	U	300	UU	506
MW-129R*	09/17/19	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	56	J	100	U	129	UU	597
MW-129R*	12/11/19	0.2	U	NA	NA	NA	NA	0.008	UU	62	J	37	J	110	U	154	UU	550
MW-134X	06/28/12	NA		NA	NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575
MW-134X	12/14/12	0.2	U	NA	NA	NA	NA	0.008	UU	30		50	U	210		265		518
MW-134X	06/27/13	NA		NA	NA	NA	NA	NA		30		50	U	71		126		540
MW-134X	12/19/13	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	U	68	U	74	UU	573
MW-134X	06/17/14	NA		NA	NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575
MW-134X	12/10/14	0.2	U	NA	NA	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575
MW-134X	06/24/15	NA		NA	NA	NA	NA	NA		29	U	50	U	68	U	74	UU	573
MW-135*	10/27/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	50	U	485	U	389	UU	512
MW-135*	12/15/08	0.5	U	0.5	U	0.5	U	1.00	U	238	U	50	U	476	U	382	UU	513
MW-135*	02/27/09	0.5	U	NA		NA		0.079	UU	800		50	U	870		1,695		503
MW-135*	04/24/09	0.5	U	NA		NA		0.007	UU	310		50	U	67	U	369		513
MW-135*	06/29/09	0.5	U	NA		NA		0.007	UU	1,600		50	U	1,000		2,625		502
MW-135*	08/24/09	0.5	U	NA		NA		0.012	UU	1,900		50	U	640		2,565		502
MW-135*	10/29/09	0.5	U	NA		NA		0.012	UU	2,000		50	U	520		2,545		502
MW-135*	01/21/10	NA		NA		NA		NA		460		50	U	360		845		506
MW-135*	04/23/10	NA		NA		NA		NA		610		50	U	400		1,035		505
MW-135*	07/22/10	NA		NA		NA		NA		1,400		50	U	200		1,625		503
MW-135*	11/01/10	0.5	U	NA		NA		0.012	UU	1,800		50	U	590		2,415		502
MW-135*	03/24/11	NA		NA		NA		NA		500		50	U	170		695		507
MW-135*	06/17/11	NA		NA		NA		NA		550		50	U	210		785		506
MW-135*	03/28/14	NA		NA		NA		NA		28	U	50	U	66	U	72	UU	575
MW-135*	09/28/11	NA		NA		NA		NA		29	U	50	U	69	U	74	UU	573
MW-135*	12/16/11	0.2	U	NA		NA		0.007	UU	79		50	U	110		214		523
MW-135*	03/28/12	NA		NA		NA		NA		29	U	50	U	67	U	73	UU	574
MW-135*	07/02/12	NA		NA		NA		NA		29	U	50	U	68	U	74	UU	573
MW-135*	09/28/12	NA		NA		NA		NA		30	U	50	U	69	U	75	UU	572
MW-135*	12/19/12	0.2	U	NA		NA		0.008	UU	28	U	50	U	66	U	72	UU	575
MW-135*	03/28/13	NA		NA		NA		NA		30	U	50	U	71	U	76	UU	571
MW-135*	06/28/13	NA		NA		NA		NA		30	U	50	U	70	U	75	UU	571
MW-135*	09/26/13	NA		NA		NA		NA		30	U	50	U	70	U	75	UU	571
MW-135*	12/20/13	0.2	U	NA		NA		0.008	UU	29	U	50	U	68	U	74	UU	573
MW-135*	03/28/14	NA		NA		NA		NA		29	U	50	U	67	U	73	UU	574
MW-135*	06/20/14	NA		NA		NA		NA		29	U	50	U	68	U	74	UU	573
MW-135*	10/02/14	NA		NA		NA		NA		35	U	50	U	82	U	84	UU	563
MW-135*	12/12/14	0.2	U	NA		NA		0.008		29	U	50	U	67	U	73	UU	574
MW-135*	03/26/15	NA		NA		NA		NA		29	U	50	U	67	U	73	UU	574
MW-135*	06/26/15	NA		NA		NA		NA		28	U	50	U	66	U	72	UU	575
MW-136*	10/27/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	50	U	485	U	389	UU	512
MW-136*	12/15/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	60.6		485	U	425		528
MW-136*	02/27/09	2.5		NA		NA		0.007	UU	2,400		120		490		3,010		508
MW-136*	04/24/09	1.9		NA		NA		0.009	UU	1,400		52		170		1,622		506
MW-136*	06/29/09	0.8		NA		NA		0.008	UU	2,500		50	U	1,200		3,725		501
MW-136*	08/24/09	0.6		NA		NA		0.012	UU	1,600		50	U	560		2,185		502
MW-136*	10/29/09	0.5	U	NA		NA		0.013	UU	2,100		50	U	460		2,585		502
MW-136*	01/21/10	NA		NA		NA		NA		980		50	U	540		1,545		503
MW-136*	04/23/10	NA		NA		NA		NA		1,100		50	U	410		1,535		503
MW-136*	07/22/10	NA		NA		NA		NA		1,300		50	U	250		1,575		503
MW-136*	11/01/10	0.5	U	NA		NA		0.012	UU	1,200		50	U	460		1,685		503
MW-136*	03/24/11	NA		NA		NA		NA		540		50	U	78		643		507
MW-136*	06/17/11	NA		NA		NA		NA		510		50	U	110		645		507
MW-136*	09/28/11	NA		NA		NA		NA		40		50	U	67	U	99		553
MW-136*	12/16/11	0.2	U	NA		NA		0.007	UU	40		50	U	71	U	101		551
MW-136*	03/29/12	NA		NA		NA		NA		570		50	U	240		835		506
MW-136*	07/03/12	NA		NA		NA		NA		31	U	50	U	72	U	77	UU	570
MW-136*	09/28/12	NA		NA		NA		NA		29	U	50	U	67	U	73	UU	574
MW-136*	12/19/12	0.2	U	NA		NA		0.008	UU	30	U	50	U	69	U	75	UU	572

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)	
		B	T	E	X	CUL=0.05		--		--		--		see note 6			
		CUL=16		--	--	--											
MW-136*	03/28/13	NA	NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575	
MW-136*	06/28/13	NA	NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575	
MW-136*	09/26/13	NA	NA	NA	NA	NA		42	U	50	U	68	U	101	UU	551	
MW-136* (Duplicate)	09/26/13	NA	NA	NA	NA	NA		29	U	50	U	68	U	74	UU	573	
MW-136*	12/20/13	0.2	U	NA	NA	NA	0.008	UU	32	U	50	U	74	U	78	UU	568
MW-136*	03/28/14	NA		NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574
MW-136*	06/20/14	NA		NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575
MW-136* (Duplicate)	06/20/14	NA		NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575
MW-136*	10/02/14	NA		NA	NA	NA	NA		32	U	50	U	75	U	79	UU	568
MW-136* (Duplicate)	10/02/14	NA		NA	NA	NA	NA		33	U	51	U	96		138		537
MW-136*	12/12/14	0.2	U	NA	NA	NA	0.011	UU	30	U	50	U	70	U	75	UU	571
MW-136* (Duplicate)	12/12/14	0.2	U	NA	NA	NA	0.008	UU	29	U	50	U	68	U	88		560
MW-136*	03/26/15	NA		NA	NA	NA	NA		29	U	50	U	68	U	74	UU	573
MW-136*	06/26/15	NA		NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575
MW-139R*	10/22/08	0.50	U	0.50	U	0.724	1.00	UU	240	U	57	JZ	481	U	418		527
MW-139R*	12/10/08	0.50	U	0.50	U	0.50	1.00	UU	248	U	50	U	495	U	397	UU	512
MW-139R*	02/25/09	0.5	U	NA		NA	NA	UU	42	U	50	U	73	U	104		550
MW-139R*	04/23/09	0.5	U	NA		NA	NA	UU	31	U	50	U	72	U	77	UU	570
MW-139R*	06/25/09	0.5	U	NA		NA	NA	UU	63	U	50	U	69	U	123		541
MW-139R*	08/20/09	0.5	U	NA		NA	NA	UU	87	U	50	U	66	U	145		535
MW-139R*	10/28/09	0.5	U	NA		NA	NA	UU	78	U	50	U	70	U	138		536
MW-139R*	01/20/10	NA		NA		NA	NA		31	U	50	U	70	U	91		557
MW-139R* (Duplicate)	01/20/10	NA		NA		NA	NA		36	U	50	U	70	U	96		554
MW-139R*	04/21/10	NA		NA		NA	NA		34	U	50	U	78	U	81	UU	565
MW-139R*	07/21/10	NA		NA		NA	NA		66	U	50	U	80	U	131		539
MW-139R*	10/28/10	0.5	U	NA		NA	NA	UU	64	U	50	U	66	U	122		542
MW-139R*	03/23/11	NA		NA		NA	NA		29	U	50	U	67	U	73	UU	574
MW-139R*	06/16/11	NA		NA		NA	NA		56	U	50	U	870		951		505
MW-139R*	09/27/11	NA		NA		NA	NA		29	U	50	U	67	U	73	UU	574
MW-139R*	12/15/11	0.2	U	NA		NA	0.007	UU	29	U	50	U	67	U	73	UU	574
MW-139R*	03/28/12	NA		NA		NA	NA		28	U	50	U	66	U	72	UU	575
MW-139R*	06/29/12	NA		NA		NA	NA		31	U	50	U	72	U	77	UU	570
MW-139R*	09/27/12	NA		NA		NA	NA		31	U	50	U	73	U	77	UU	569
MW-139R*	12/18/12	0.2	U	NA		NA	0.008	UU	29	U	50	U	68	U	74	UU	573
MW-139R* (Duplicate)	12/18/12	0.2	U	NA		NA	0.008	UU	29	U	50	U	68	U	74	UU	573
MW-139R*	03/27/13	NA		NA		NA	NA		31	U	50	U	72	U	77	UU	570
MW-139R*	06/27/13	NA		NA		NA	NA		31	U	50	U	72	U	77	UU	570
MW-139R*	09/26/13	NA		NA		NA	NA		30	U	50	U	70	U	75	UU	571
MW-139R*	12/18/13	0.2	U	NA		NA	0.008	UU	30	U	50	U	71	U	76	UU	571
MW-139R*	03/28/14	NA		NA		NA	NA		28	U	50	U	66	U	72	UU	575
MW-139R*	06/19/14	NA		NA		NA	NA		29	U	50	U	68	U	74	UU	573
MW-139R*	10/01/14	NA		NA		NA	NA		29	U	50	U	67	U	73	UU	574
MW-139R*	12/10/14	0.2	U	NA		NA	0.008	UU	28	U	50	U	66	U	72	UU	575
MW-139R*	03/25/15	NA		NA		NA	NA		29	U	50	U	67	U	73	UU	574
MW-139R*	06/25/15	NA		NA		NA	NA		28	U	50	U	66	U	72	UU	575
MW-139R*	10/25/16	0.5	U	0.5	U	0.5	1.5	UU	45	U	50	U	100	U	98	UU	553
MW-139R* (Duplicate)	10/25/16	0.5	U	0.5	U	0.5	1.5	UU	46	U	50	U	100	U	98	UU	553
MW-139R*	07/27/17	0.5	U	NA		NA	NA	UU	47	U	50	U	100	U	99	UU	553
MW-139R*	03/22/18	0.5	U	NA		NA	NA	UU	47	U	50	U	100	U	99	UU	553
MW-139R*	06/28/18	0.5	U	NA		NA	NA	UU	47	U	50	U	100	U	99	UU	553
MW-139R*	09/19/18	0.5	U	NA		NA	NA	UU	47	U	19	U	110	U	88	UU	521
MW-139R*	11/28/18	0.5	U	NA		NA	0.010	UU	47	U	19	U	100	U	83	UU	522
MW-139R*	03/20/19	0.0	U	NA		NA	0.010	UU	47	U	19	U	100	U	83	UU	522
MW-139R*	06/18/19	0.5	U	NA		NA	0.008	UU	75	J	19	U	110	U	140		513
MW-139R*	09/18/19	0.2	U	NA		NA	0.008	UU	47	U	19	U	100	U	83	UU	522
MW-139R*	12/09/19	0.2	U	NA		NA	0.008	UU	50	U	19	U	110	U	90	UU	521
MW-13U	06/28/12	NA		NA		NA	NA		29	U	50	U	67	U	73	UU	574
MW-13U	12/14/12	0.2	U	NA		NA	0.008	UU	29	U	50	U	67	U	73	UU	574
MW-13U	06/27/13	NA		NA		NA	NA		30	U	50	U	69	U	75	UU	572
MW-13U	12/20/13	0.2	U	NA		NA	0.008	UU	31	U	50	U	71	U	76	UU	570
MW-13U (Duplicate)	12/20/13	0.2	U	NA		NA	0.008	UU	30	U	50	U	70	U	75	UU	571

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)
		B	T	E	X							
		CUL=16	--	--	--	CUL=0.05	--					
MW-13U	06/17/14	NA	NA	NA	NA	NA	29	50	68	74	573	
MW-13U	12/10/14	0.2	NA	NA	NA	0.008	30	50	69	75	572	
MW-13U	06/24/15	NA	NA	NA	NA	NA	29	50	68	74	573	
MW-143	10/22/08	0.50	0.50	0.50	1.00	0.007	250	50	500	400	512	
MW-143	12/16/08	0.50	0.50	0.50	1.00	0.007	240	50	481	386	512	
MW-143	02/25/09	0.5	NA	NA	NA	0.007	1,400	50	580	2,005	502	
MW-143	04/21/09	0.5	NA	NA	NA	0.007	710	50	69	770	506	
MW-143	06/24/09	0.5	NA	NA	NA	0.007	940	50	210	1,175	504	
MW-143	08/19/09	0.5	NA	NA	NA	0.013	360	50	71	421	511	
MW-143	10/27/09	0.5	NA	NA	NA	0.013	200	50	66	258	519	
MW-143	01/21/10	NA	NA	NA	NA	NA	620	50	330	975	505	
MW-143	04/20/10	NA	NA	NA	NA	NA	1,200	50	340	1,565	503	
MW-143 (Duplicate)	04/20/10	NA	NA	NA	NA	NA	1,400	50	450	1,875	503	
MW-143	07/20/10	NA	NA	NA	NA	NA	1,300	50	260	1,585	503	
MW-143	10/27/10	0.5	NA	NA	NA	0.012	110	50	67	169	529	
MW-143	06/15/11	NA	NA	NA	NA	NA	1,500	50	220	1,745	503	
MW-143	12/14/11	0.2	NA	NA	NA	0.007	31	50	67	90	559	
MW-143	06/29/12	NA	NA	NA	NA	NA	31	50	73	77	569	
MW-143	12/20/12	0.2	NA	NA	NA	0.008	28	50	66	72	575	
MW-143	06/27/13	0.2	NA	NA	NA	NA	29	50	68	74	573	
MW-143	12/18/13	0.2	NA	NA	NA	0.008	28	50	66	72	575	
MW-143 (Duplicate)	12/18/13	0.2	NA	NA	NA	0.008	28	50	66	72	575	
MW-143	06/18/14	NA	NA	NA	NA	NA	29	50	67	73	574	
MW-143	12/10/14	0.2	NA	NA	NA	0.008	28	50	65	72	575	
MW-143	06/23/15	NA	NA	NA	NA	NA	30	50	69	75	572	
MW-143	10/25/16	0.5	0.5	0.5	1.5	0.023	47	50	100	99	553	
MW-143	07/25/17	0.5	NA	NA	NA	0.008	46	50	100	98	553	
MW-143	03/22/18	0.5	NA	NA	NA	0.008	46	50	100	98	553	
MW-143	06/29/18	0.5	NA	NA	NA	0.008	46	50	100	98	553	
MW-143	09/18/18	0.5	NA	NA	NA	0.008	48	19	110	89	521	
MW-143	11/30/18	0.5	NA	NA	NA	0.008	45	19	100	82	523	
MW-143	03/21/19	0.5	NA	NA	NA	0.008	45	19	100	82	523	
MW-143	06/19/19	0.5	NA	NA	NA	0.008	46	19	100	83	523	
MW-143	09/19/19	0.2	NA	NA	NA	0.008	49	19	110	89	521	
MW-143	12/11/19	0.2	NA	NA	NA	0.008	45	19	100	82	523	
MW-147*	10/21/08	0.50	0.50	0.50	1.00	0.007	240	91.2	481	452	541	
MW-147*	12/09/08	0.50	0.562	1.38	3.49	0.008	243	604	485	968	653	
MW-147*	02/23/09	0.5	NA	NA	NA	0.007	1,100	760	380.00	2,240	573	
MW-147* (Duplicate)	02/23/09	0.5	NA	NA	NA	0.008	1,000	790	420	2,210	577	
MW-147*	04/21/09	1.7	NA	NA	NA	0.008	730	630	99	1,459	597	
MW-147*	06/23/09	0.5	NA	NA	NA	0.007	750	260	290	1,300	541	
MW-147*	08/18/09	0.5	NA	NA	NA	0.012	240	76	70	351	544	
MW-147*	10/26/09	0.5	NA	NA	NA	0.012	1,700	690	330	2,720	553	
MW-147*	01/19/10	NA	NA	NA	NA	NA	360	750	66	1,143	663	
MW-147*	04/20/10	NA	NA	NA	NA	NA	320	730	78	1,128	660	
MW-147*	07/20/10	NA	NA	NA	NA	NA	500	70	100	670	520	
MW-147*	10/26/10	0.5	NA	NA	NA	0.013	1,200	330	200	1,730	539	
MW-147*	03/22/11	NA	NA	NA	NA	NA	750	740	68	1,524	611	
MW-147*	06/15/11	NA	NA	NA	NA	NA	370	250	67	654	584	
MW-147*	09/27/11	NA	NA	NA	NA	NA	29	50	67	73	574	
MW-147*	12/13/11	0.2	NA	NA	NA	0.007	28	50	66	72	575	
MW-147* (Duplicate)	12/13/11	0.2	NA	NA	NA	0.007	28	50	66	72	575	
MW-147*	03/28/12	NA	NA	NA	NA	NA	29	130	67	178	689	
MW-147*	06/28/12	NA	NA	NA	NA	NA	29	59	67	107	630	
MW-147*	09/26/12	NA	NA	NA	NA	NA	30	50	71	76	571	
MW-147*	12/14/12	0.2	NA	NA	NA	0.008	28	50	66	72	575	
MW-147*	03/26/13	NA	NA	NA	NA	NA	28	50	66	72	575	
MW-147*	06/25/13	NA	NA	NA	NA	NA	30	50	71	76	571	
MW-147*	09/25/13	NA	NA	NA	NA	NA	29	50	69	74	573	
MW-147*	12/17/13	0.2	NA	NA	NA	0.008	29	50	67	73	574	
MW-147*	03/28/14	NA	NA	NA	NA	NA	31	50	72	77	570	

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)	
		B	T	E	X												
		CUL=16	--	--	--	CUL=0.05		--		--		--		see note 6			
MW-147*	06/18/14	NA	NA	NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574	
MW-147*	09/30/14	NA	NA	NA	NA	NA	NA	30	U	50	U	71	U	76	UU	571	
MW-147*	12/09/14	0.2	U	NA	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	574
MW-147*	03/25/15	NA	U	NA	NA	NA	NA	30	U	50	U	69	U	75	UU	572	
MW-147* (Duplicate)	03/25/15	NA	U	NA	NA	NA	NA	28	U	50	U	66	U	72	UU	575	
MW-147*	06/23/15	NA	U	NA	NA	NA	NA	28	U	50	U	66	U	72	UU	575	
MW-149R*	10/21/08	0.50	U	0.50	U	0.50	U	1.00	U	245	U	50	U	490	UU	512	
MW-149R*	12/09/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	50	U	485	UU	512	
MW-149R*	02/23/09	0.5	U	NA	U	NA	U	NA	UU	110	U	50	U	78	U	174	
MW-149R*	04/21/09	0.5	U	NA	U	NA	U	NA	UU	100	U	50	U	76	U	163	
MW-149R*	06/23/09	0.5	U	NA	U	NA	U	NA	UU	190	U	50	U	66	U	248	
MW-149R*	08/18/09	0.5	U	NA	U	NA	U	NA	UU	160	U	50	U	66	U	218	
MW-149R*	10/26/09	0.5	U	NA	U	NA	U	NA	UU	430	U	50	U	320	U	775	
MW-149R*	01/19/10	NA	U	NA	U	NA	U	NA	UU	28	U	50	U	66	U	72	
MW-149R*	04/20/10	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-149R* (Duplicate)	04/20/10	NA	U	NA	U	NA	U	NA	UU	28	U	50	U	66	U	72	
MW-149R*	07/20/10	NA	U	NA	U	NA	U	NA	UU	210	U	50	U	89	U	324	
MW-149R*	10/26/10	0.5	U	NA	U	NA	U	NA	UU	410	U	50	U	210	U	645	
MW-149R*	03/22/11	NA	U	NA	U	NA	U	NA	UU	61	U	50	U	66	U	119	
MW-149R*	06/17/11	NA	U	NA	U	NA	U	NA	UU	82	U	50	U	66	U	140	
MW-149R*	09/27/11	NA	U	NA	U	NA	U	NA	UU	30	U	50	U	67	U	74	
MW-149R*	12/13/11	0.2	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-149R*	03/28/12	NA	U	NA	U	NA	U	NA	UU	28	U	50	U	66	U	72	
MW-149R* (Duplicate)	03/28/12	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	
MW-149R*	06/28/12	NA	U	NA	U	NA	U	NA	UU	250	U	50	U	66	U	308	
MW-149R*	09/26/12	NA	U	NA	U	NA	U	NA	UU	32	U	50	U	74	U	78	
MW-149R*	12/14/12	0.2	U	NA	U	NA	U	NA	UU	28	U	50	U	66	U	72	
MW-149R*	03/26/13	NA	U	NA	U	NA	U	NA	UU	32	U	50	U	74	U	78	
MW-149R*	06/25/13	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-149R*	09/24/13	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-149R*	12/17/13	0.2	U	NA	U	NA	U	NA	UU	30	U	50	U	71	U	76	
MW-149R*	03/28/14	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-149R*	06/18/14	NA	U	NA	U	NA	U	NA	UU	28	U	50	U	66	U	72	
MW-149R*	09/30/14	NA	U	NA	U	NA	U	NA	UU	30	U	50	U	70	U	75	
MW-149R*	12/09/14	0.2	U	NA	U	NA	U	NA	UU	30	U	50	U	70	U	75	
MW-149R*	03/25/15	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-149R*	06/23/15	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-150*	10/21/08	0.50	U	0.50	U	0.50	U	1.00	U	240	U	50	U	481	UU	626	
MW-150*	12/09/08	0.50	U	0.50	U	0.50	U	1.00	U	248	U	50	U	495	UU	397	
MW-150*	02/23/09	0.5	U	NA	U	NA	U	NA	UU	82	U	50	U	69	U	142	
MW-150*	04/21/09	0.5	U	NA	U	NA	U	NA	UU	240	U	50	U	69	U	300	
MW-150*	06/23/09	0.5	U	NA	U	NA	U	NA	UU	160	U	50	U	69	U	220	
MW-150*	08/18/09	0.5	U	NA	U	NA	U	NA	UU	110	U	50	U	72	U	171	
MW-150*	10/26/09	0.5	U	NA	U	NA	U	NA	UU	420	U	50	U	270	U	715	
MW-150*	01/19/10	NA	U	NA	U	NA	U	NA	UU	31	U	50	U	69	U	91	
MW-150*	04/20/10	NA	U	NA	U	NA	U	NA	UU	48	U	50	U	77	U	112	
MW-150*	07/20/10	NA	U	NA	U	NA	U	NA	UU	200	U	50	U	68	U	259	
MW-150*	10/26/10	0.5	U	NA	U	NA	U	NA	UU	59	U	50	U	65	U	117	
MW-150*	03/22/11	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	
MW-150*	06/17/11	NA	U	NA	U	NA	U	NA	UU	190	U	50	U	68	U	249	
MW-150*	09/27/11	NA	U	NA	U	NA	U	NA	UU	30	U	50	U	68	U	74	
MW-150*	12/13/11	0.2	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-150* (Duplicate)	12/13/11	0.2	U	NA	U	NA	U	NA	UU	28	U	50	U	66	U	72	
MW-150*	03/28/12	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	67	U	73	
MW-150*	06/28/12	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-150*	09/26/12	NA	U	NA	U	NA	U	NA	UU	29	U	50	U	68	U	74	
MW-150*	12/14/12	0.2	U	NA	U	NA	U	NA	UU	30	U	50	U	69	U	75	
MW-150*	03/26/13	NA	U	NA	U	NA	U	NA	UU	28	U	50	U	66	U	72	
MW-150*	06/25/13	NA	U	NA	U	NA	U	NA	UU	30	U	50	U	69	U	75	
MW-150*	09/26/13	NA	U	NA	U	NA	U	NA	UU	30	U	50	U	69	U	75	
MW-150*	12/17/13	0.2	U	NA	U	NA	U	NA	UU	30	U	50	U	70	U	75	

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)	Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)									
		B	T	E	X															
		CUL=16	--	--	--															
MW-150*	03/28/14	NA	NA	NA	NA	NA	28	U	50	U	66	U	72	UU	575					
MW-150*	06/18/14	NA	NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574					
MW-150*	09/30/14	NA	NA	NA	NA	NA	31	U	50	U	71	U	76	UU	570					
MW-150* (Duplicate)	09/30/14	NA	NA	NA	NA	NA	30	U	50	U	71	U	76	UU	571					
MW-150*	12/09/14	0.4	U	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575				
MW-150* (Duplicate)	12/09/14	0.2	U	NA	NA	0.008	UU	30	U	50	U	70	U	75	UU	571				
MW-150*	03/25/15	NA	NA	NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574				
MW-150*	06/23/15	NA	NA	NA	NA	NA	NA	28	U	50	U	66	U	72	UU	575				
MW-203	06/28/12	NA	NA	NA	NA	NA	29	U	50	U	68	U	74	UU	573					
MW-203	12/17/12	0.2	U	NA	NA	0.008	UU	31	U	50	U	72	U	77	UU	570				
MW-203	06/27/13	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574				
MW-203	12/19/13	0.2	U	NA	NA	0.008	UU	30	U	50	U	70	U	75	UU	571				
MW-203	06/18/14	NA	NA	NA	NA	NA	NA	30	U	50	U	70	U	75	UU	571				
MW-203	12/10/14	0.3	U	NA	NA	0.008	UU	28	U	50	U	65	U	72	UU	575				
MW-203	06/24/15	NA	NA	NA	NA	NA	NA	28	U	50	U	66	U	72	UU	575				
MW-20R*	10/22/08	2.95	U	0.50	U	3.31	U	1.00	U	250	U	222	U	500	U	597	581			
MW-20R*	12/10/08	22.2	U	0.50	U	2.06	U	1.14	U	248	U	325	U	495	U	697	606			
MW-20R*	02/24/09	55	U	NA	U	NA	U	NA	U	580	U	420	U	87	U	1,087	585			
MW-20R*	04/22/09	47	U	NA	U	NA	U	NA	U	510	U	270	U	86	U	866	566			
MW-20R*	06/24/09	0.5	U	NA	U	NA	U	NA	U	160	U	50	U	69	U	220	522			
MW-20R*	08/19/09	8.4	U	NA	U	NA	U	NA	U	220	U	50	U	68	U	279	517			
MW-20R*	10/27/09	4.9	U	NA	U	NA	U	NA	U	170	U	50	U	72	U	231	521			
MW-20R*	01/19/10	50	U	0.5	U	1.1	U	1.5	U	260	U	66	U	66	U	359	537			
MW-20R*	04/21/10	0.9	U	NA	U	NA	U	NA	U	350	U	50	U	100	U	475	510			
MW-20R*	07/20/10	0.5	U	0.5	U	0.5	U	0.5	U	130	U	50	U	66	U	188	526			
MW-20R* (Duplicate)	07/20/10	0.5	U	0.5	U	0.5	U	0.5	U	130	U	50	U	66	U	188	526			
MW-20R*	10/27/10	0.5	U	NA	U	NA	U	NA	U	0.012	UU	47	U	75	U	110	547			
MW-20R*	03/23/11	5.3	U	NA	U	NA	U	NA	U	390	U	50	U	190	U	605	508			
MW-20R*	06/15/11	3.9	U	NA	U	NA	U	NA	U	320	U	71	U	72	U	463	531			
MW-20R*	09/27/11	0.9	U	NA	U	NA	U	NA	U	29	U	50	U	68	U	74	UU	573		
MW-20R*	12/14/11	20	U	NA	U	NA	U	NA	U	0.007	UU	29	U	65	U	113	638			
MW-20R*	03/28/12	28	U	NA	U	NA	U	NA	U	29	U	120	U	67	U	168	683			
MW-20R*	06/28/12	0.3	U	NA	U	NA	U	NA	U	29	U	50	U	68	U	74	UU	573		
MW-20R*	09/26/12	2.2	U	NA	U	NA	U	NA	U	30	U	57	U	70	U	107	625			
MW-20R*	12/17/12	0.2	U	NA	U	NA	U	NA	U	0.008	UU	28	U	50	U	66	UU	575		
MW-20R*	03/26/13	3.7	U	NA	U	NA	U	NA	U	29	U	310	U	68	U	359	740			
MW-20R*	06/25/13	1.1	U	NA	U	NA	U	NA	U	29	U	69	U	67	U	117	642			
MW-20R*	09/25/13	0.5	U	0.5	U	0.5	U	1.5	U	31	U	50	U	72	U	77	UU	570		
MW-20R* (Duplicate)	09/25/13	NA	U	NA	U	NA	U	NA	U	30	U	50	U	69	U	75	UU	572		
MW-20R*	12/18/13	35	U	NA	U	NA	U	NA	U	0.008	UU	30	U	82	U	132	652			
MW-20R*	03/26/14	38	U	NA	U	NA	U	NA	U	29	U	210	U	67	U	258	720			
MW-20R*	06/18/14	0.7	U	NA	U	NA	U	NA	U	28	U	98	U	66	U	145	670			
MW-20R*	10/01/14	0.8	U	NA	U	NA	U	NA	U	32	U	50	U	74	U	78	UU	568		
MW-20R*	12/10/14	0.8	U	NA	U	NA	U	NA	U	0.008	UU	30	U	50	U	69	UU	572		
MW-20R*	03/24/15	0.4	U	NA	U	NA	U	NA	U	31	U	88	U	71	U	139	656			
MW-20R*	06/24/15	NA	U	NA	U	NA	U	NA	U	28	U	50	U	66	U	72	UU	575		
MW-20R*	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	0.008	UU	45	U	50	U	100	UU	553		
MW-20R*	07/26/17	1.6	U	NA	U	NA	U	NA	U	0.008	UU	46	U	64	U	100	UU	606		
MW-20R*	03/22/18	0.5	U	NA	U	NA	U	NA	U	0.008	UU	46	U	50	U	100	UU	553		
MW-20R*	06/29/18	0.5	U	NA	U	NA	U	NA	U	0.008	UU	45	U	50	U	98	UU	553		
MW-20R*	09/18/18	0.5	U	NA	U	NA	U	NA	U	0.008	UU	50	U	19	U	110	UU	521		
MW-20R*	11/29/18	0.5	U	NA	U	NA	U	NA	U	0.008	UU	46	U	19	U	100	UU	523		
MW-20R* (Duplicate)	11/29/18	0.5	U	NA	U	NA	U	NA	U	0.008	UU	45	U	19	U	100	UU	523		
MW-20R*	03/20/19	0.0	U	NA	U	NA	U	NA	U	0.008	UU	45	U	19	U	100	UU	523		
MW-20R*	06/19/19	0.5	U	NA	U	NA	U	NA	U	0.008	UU	46	U	19	U	100	UU	523		
MW-20R* (Duplicate)	06/19/19	0.5	U	NA	U	NA	U	NA	U	0.008	UU	46	U	19	U	100	UU	523		
MW-20R*	09/18/19	0.2	U	NA	U	NA	U	NA	U	0.008	UU	45	U	19	U	100	UU	523		
MW-20R*	12/12/19	1	U	NA	U	NA	U	NA	U	0.009	UU	50	U	34	J	110	U	114	563	
MW-500*	10/27/08	0.8	U	0.50	U	0.93	U	8.29	U	0.007	UU	1,180	U	298	U	472	U	1,714	535	
MW-500*	12/15/08	0.5	U	0.50	U	0.50	U	1.00	U	0.007	UU	245	U	50	U	490	U	393	UU	512
MW-500*	02/27/09	0.5	U	NA	U	NA	U	NA	U	0.008	UU	250	U	50	U	320	U	595	508	

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)			
		B	T	E	X										
		CUL=16	--	--	--	CUL=0.05	--								
MW-500*	04/24/09	0.5	U	NA	NA	NA	0.007	UU	44	50	U	76	U	107	548
MW-500* (Duplicate)	04/24/09	0.5	U	NA	NA	NA	0.008	UU	35	50	U	75	U	98	553
MW-500*	06/29/09	0.5	U	NA	NA	NA	0.008	UU	1,400	50	U	500		1,925	502
MW-500*	08/21/09	0.6		NA	NA	NA	0.012	UU	2,200	110		690		3,000	507
MW-500*	10/29/09	0.5	U	NA	NA	NA	0.012	UU	1,000	50	U	500		1,525	503
MW-500*	01/21/10	NA		NA	NA	NA	NA		36	50	U	70		131	539
MW-500* (Duplicate)	01/21/10	NA		NA	NA	NA	NA		29	50	U	69	U	74	UU
MW-500*	04/22/10	NA		NA	NA	NA	NA		59	50	U	68	U	118	543
MW-500*	07/22/10	NA		NA	NA	NA	NA		490	50	U	96		611	508
MW-500*	11/01/10	0.5	U	NA	NA	NA	0.012	UU	170	50	U	67	U	229	521
MW-500*	03/24/11	NA		NA	NA	NA	NA		32	50	U	68	U	91	557
MW-500*	06/17/11	NA		NA	NA	NA	NA		130	50	U	67	U	189	526
MW-500*	09/28/11	NA		NA	NA	NA	NA		61	60		69	U	156	585
MW-500* (Duplicate)	09/28/11	NA		NA	NA	NA	NA		45	62		98	U	156	588
MW-500*	12/16/11	0.2	U	NA	NA	NA	0.008	UU	28	50	U	66	U	72	UU
MW-500*	03/28/12	NA		NA	NA	NA	NA		28	50	U	66	U	72	UU
MW-500*	07/02/12	NA		NA	NA	NA	NA		29	50	U	69	U	74	UU
MW-500*	09/28/12	NA		NA	NA	NA	NA		230	80		150		460	535
MW-500*	12/19/12	0.2	U	NA	NA	NA	0.008	UU	28	50	U	66	U	72	UU
MW-500*	03/28/13	NA		NA	NA	NA	NA		28	50	U	66	U	72	UU
MW-500*	06/28/13	NA		NA	NA	NA	NA		29	57	U	67	U	77	UU
MW-500*	09/26/13	NA		NA	NA	NA	NA		41	50	U	70	U	101	551
MW-500*	12/20/13	0.2	U	NA	NA	NA	0.008	UU	30	50	U	69	U	75	UU
MW-500*	03/28/14	NA		NA	NA	NA	NA		29	50	U	67	U	73	UU
MW-500*	06/19/14	NA		NA	NA	NA	NA		29	72		67	U	120	645
MW-500*	10/01/14	NA		NA	NA	NA	NA		130	65		83		278	548
MW-500*	12/11/14	0.2	U	NA	NA	NA	0.008	UU	29	50	U	67	U	73	UU
MW-500*	03/26/15	NA		NA	NA	NA	NA		28	50	U	66	U	72	UU
MW-500*	06/26/15	NA		NA	NA	NA	NA		83	93		66	U	209	600
MW-501*	10/24/08	0.50	U	1.42	U	1.15	U	1.00	U	6,690	J	1,040	J	8,327	525
MW-501*	12/15/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	50	U	485	UU
MW-501*	03/02/09	0.5	U	NA		NA		NA		630		50.00	U	160	
MW-501*	03/02/09	5.0	U	NA		NA		NA		550		50.00	U	210	
MW-501*	04/24/09	0.5	U	NA		NA		NA		350		50	U	67	
MW-501*	06/26/09	0.5	U	NA		NA		NA		1,700		50	U	1,100	
MW-501*	08/21/09	0.5	U	NA		NA		NA		2,600		50	U	760	
MW-501*	10/29/09	0.5	U	NA		NA		NA		75		50	U	73	U
MW-501*	01/21/10	NA		NA		NA		NA		75		50	U	67	U
MW-501*	04/22/10	NA		NA		NA		NA		130		50	U	69	U
MW-501*	07/22/10	NA		NA		NA		NA		470		50	U	97	
MW-501*	11/01/10	0.5	U	NA		NA		NA		230		50	U	68	U
MW-501*	03/24/11	NA		NA		NA		NA		89		50	U	67	U
MW-501*	06/17/11	NA		NA		NA		NA		340		50	U	82	
MW-501*	09/28/11	NA		NA		NA		NA		30	U	50	U	67	U
MW-501*	12/16/11	0.2	U	NA		NA		NA		28	U	50	U	66	U
MW-501*	03/28/12	NA		NA		NA		NA		29	U	50	U	67	U
MW-501*	07/02/12	NA		NA		NA		NA		31	U	50	U	73	U
MW-501*	09/28/12	NA		NA		NA		NA		29	U	50	U	67	U
MW-501*	12/19/12	0.2	U	NA		NA		NA		54		50	U	67	U
MW-501*	03/28/13	NA		NA		NA		NA		30	U	50	U	70	U
MW-501*	06/27/13	NA		NA		NA		NA		30	U	50	U	70	U
MW-501*	09/26/13	NA		NA		NA		NA		30	U	50	U	71	U
MW-501*	12/20/13	0.2	U	NA		NA		NA		29	U	50	U	67	U
MW-501*	03/28/14	NA		NA		NA		NA		29	U	50	U	67	U
MW-501*	06/19/14	NA		NA		NA		NA		29	U	50	U	67	U
MW-501*	10/01/14	NA		NA		NA		NA		30	U	50	U	71	U
MW-501*	12/11/14	0.2	U	NA		NA		NA		28	U	50	U	66	U
MW-501*	03/26/15	NA		NA		NA		NA		29	U	50	U	68	U
MW-501*	06/26/15	NA		NA		NA		NA		28	U	50	U	66	U
MW-502	10/24/08	0.50	U	0.50	U	0.891	U	1.00	U	347		1,100	JZ	500	U
MW-502	12/12/08	0.50	U	0.50	U	0.50	U	1.00	U	321	JX	874		485	U

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)				
		B	T	E	X											
		CUL=16	--	--	--	CUL=0.05	--									
MW-502	02/25/09	0.5	U	NA	NA	NA	NA	0.008	UU	31	U	1,500	72	U	1,552	784
MW-502	04/22/09	0.5	U	NA	NA	NA	NA	0.071	UU	370		1,100	66	U	1,503	689
MW-502	06/26/09	0.5	U	NA	NA	NA	NA	0.007	UU	260		170	82		512	571
MW-502 (Duplicate)	06/26/09	0.5	U	NA	NA	NA	NA	0.007	UU	220		160	66	U	413	585
MW-502	08/21/09	0.5	U	NA	NA	NA	NA	0.012	UU	140		50	67	U	199	525
MW-502	10/28/09	0.5	U	NA	NA	NA	NA	0.012	UU	370		470	66	U	873	626
MW-502	01/21/10	NA		NA	NA	NA	NA	NA		300		800	130		1,230	661
MW-502	04/22/10	NA		NA	NA	NA	NA	NA		290		520	67	U	844	650
MW-502	07/21/10	NA		NA	NA	NA	NA	NA		200		50	68	U	259	519
MW-502	10/28/10	0.5	U	NA	NA	NA	NA	0.013	UU	98		50	75	U	161	531
MW-502	06/17/11	NA		NA	NA	NA	NA	NA		150		50	67	U	209	524
MW-502	12/16/11	0.2	U	NA	NA	NA	NA	0.007	UU	30		50	66	U	88	560
MW-502	07/02/12	NA		NA	NA	NA	NA	NA		29	U	50	68	U	74	UU
MW-502	12/19/12	0.2	U	NA	NA	NA	NA	0.008	UU	95		180	68	U	309	640
MW-502 (Duplicate)	12/19/12	0.2	U	NA	NA	NA	NA	0.008	UU	95		190	66	U	318	644
MW-502	06/26/13	NA		NA	NA	NA	NA	NA		29	U	50	67	U	73	UU
MW-502	12/20/13	0.2	U	NA	NA	NA	NA	0.008	UU	30	U	50	70	U	75	UU
MW-502	06/19/14	NA		NA	NA	NA	NA	NA		29	U	50	68	U	74	UU
MW-502	12/11/14	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	68	U	74	UU
MW-502	06/25/15	NA		NA	NA	NA	NA	NA		28	U	50	66	U	72	UU
MW-502	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	46	U	50	100	U	98	UU
MW-502	07/26/17	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	50	100	U	99	UU
MW-502 (Duplicate)	07/26/17	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	50	100	U	98	UU
MW-502	03/21/18	0.2	U	NA	NA	NA	NA	0.008	UU	48	U	50	110	U	104	UU
MW-502	06/27/18	0.5	U	NA	NA	NA	NA	0.008	UU	50	U	50	110	U	105	UU
MW-502	09/20/18	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	19	110	U	88	UU
MW-502	11/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	45	U	19	100	U	82	UU
MW-502	03/20/19	0.0	U	NA	NA	NA	NA	0.008	UU	57	U	19	130	U	103	UU
MW-502	06/18/19	0.5	U	NA	NA	NA	NA	0.008	UU	45	U	19	100	U	82	UU
MW-502 (Duplicate)	06/18/19	0.5	U	NA	NA	NA	NA	0.013	J	46	U	19	100	U	83	UU
MW-502	09/18/19	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	19	100	U	83	UU
MW-502 (Duplicate)	09/18/19	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	19	100	U	83	UU
MW-502	12/09/19	0.2	U	NA	NA	NA	NA	0.008	UU	52	U	19	120	U	96	UU
MW-503	10/27/08	0.50	U	0.50	U	0.50	U	1.00	U	236	U	50	472	U	379	UU
MW-503	12/12/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	50	485	U	389	UU
MW-503	02/26/09	0.5	U	NA	NA	NA	NA	0.008	UU	77		50	74	U	139	536
MW-503	04/22/09	0.5	U	NA	NA	NA	NA	0.007	UU	130		50	68	U	189	526
MW-503	06/26/09	0.5	U	NA	NA	NA	NA	0.007	UU	210		50	96	U	331	515
MW-503	08/21/09	0.5	U	NA	NA	NA	NA	0.012	UU	140		50	67	U	199	525
MW-503	10/28/09	0.5	U	NA	NA	NA	NA	0.012	UU	160		50	66	U	218	522
MW-503	01/21/10	NA		NA	NA	NA	NA	NA		150		50	190		365	513
MW-503	04/22/10	NA		NA	NA	NA	NA	NA		30	U	50	70	U	75	UU
MW-503	07/21/10	NA		NA	NA	NA	NA	NA		220		50	68	U	279	517
MW-503	10/28/10	0.5	U	NA	NA	NA	NA	0.013	UU	150		50	79		254	519
MW-503	06/17/11	NA		NA	NA	NA	NA	NA		140		50	67	U	199	525
MW-503 (Duplicate)	06/17/11	NA		NA	NA	NA	NA	NA		160		50	67	U	219	522
MW-503	12/15/11	0.2	U	NA	NA	NA	NA	0.007	UU	28	U	50	66	U	72	UU
MW-503	07/02/12	NA		NA	NA	NA	NA	NA		29	U	50	69	U	74	UU
MW-503	12/18/12	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	67	U	73	UU
MW-503	06/27/13	NA		NA	NA	NA	NA	NA		30	U	50	70	U	75	UU
MW-503	12/19/13	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	67	U	73	UU
MW-503	06/19/14	NA		NA	NA	NA	NA	NA		29	U	50	67	U	73	UU
MW-503	12/11/14	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	68	U	74	UU
MW-503	06/25/15	NA		NA	NA	NA	NA	NA		31	U	50	72	U	77	UU
MW-503	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	47	U	50	100	U	99	UU
MW-503	03/21/18	0.2	U	NA	NA	NA	NA	0.008	UU	48	U	50	110	U	104	UU
MW-503	06/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	48	U	50	110	U	104	UU
MW-503 (Duplicate)	06/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	49	U	50	110	U	105	UU
MW-503	09/20/18	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	19	100	U	83	UU
MW-503	11/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	100	U	83	UU
MW-503	03/20/19	0.0	U	NA	NA	NA	NA	0.008	UU	46	U	19	100	U	83	UU

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)				
		B	T	E	X											
		CUL=16	--	--	--	CUL=0.05										
MW-503	06/18/19	0.5	U	NA	NA	NA	NA	46	U	19	U	100	U	83	UU	523
MW-503	09/18/19	0.2	U	NA	NA	NA	NA	46	U	19	U	100	U	83	UU	523
MW-503	12/09/19	0.2	U	NA	NA	NA	NA	48	U	19	U	110	U	89	UU	521
MW-504	10/24/08	7.03	U	0.50	U	4.03	2.95	248	U	329	U	495	U	701	UU	607
MW-504	12/12/08	0.5	U	0.5	U	0.5	1.00	248	U	50	U	495	U	397	UU	512
MW-504 (Duplicate)	12/12/08	5	U	5	U	5	1.00	250	U	50	U	500	U	400	UU	512
MW-504	02/27/09	0.5	U	NA	U	NA	NA	30	U	50	U	70	U	75	UU	571
MW-504	04/24/09	0.5	U	NA	U	NA	NA	46	U	50	U	66	U	104	UU	550
MW-504	06/26/09	0.5	U	NA	U	NA	NA	220	U	50	U	73	U	282	UU	517
MW-504	08/21/09	0.5	U	NA	U	NA	NA	220	U	50	U	68	U	279	UU	517
MW-504	10/28/09	0.5	U	NA	U	NA	NA	95	U	50	U	66	U	153	UU	533
MW-504	01/21/10	NA	U	NA	U	NA	NA	28	U	50	U	66	U	72	UU	575
MW-504	04/22/10	NA	U	NA	U	NA	NA	29	U	50	U	67	U	73	UU	574
MW-504	07/21/10	NA	U	NA	U	NA	NA	110	U	50	U	75	U	173	UU	529
MW-504	10/28/10	0.5	U	NA	U	NA	NA	110	U	50	U	66	U	168	UU	530
MW-504	06/17/11	NA	U	NA	U	NA	NA	60	U	50	U	68	U	119	UU	543
MW-504	12/16/11	0.2	U	NA	U	NA	NA	28	U	50	U	66	U	72	UU	575
MW-504 (Duplicate)	12/16/11	0.2	U	NA	U	NA	NA	29	U	50	U	68	U	74	UU	573
MW-504	07/02/12	NA	U	NA	U	NA	NA	30	U	50	U	69	U	75	UU	572
MW-504	12/18/12	0.2	U	NA	U	NA	NA	29	U	50	U	68	U	74	UU	573
MW-504	06/27/13	NA	U	NA	U	NA	NA	29	U	50	U	68	U	74	UU	573
MW-504 (Duplicate)	06/27/13	NA	U	NA	U	NA	NA	29	U	50	U	68	U	74	UU	573
MW-504	12/19/13	0.2	U	NA	U	NA	NA	28	U	78	U	66	U	125	UU	653
MW-504	06/19/14	NA	U	NA	U	NA	NA	29	U	50	U	68	U	74	UU	573
MW-504	12/11/14	0.2	U	NA	U	NA	NA	29	U	50	U	68	U	74	UU	573
MW-504	06/25/15	NA	U	NA	U	NA	NA	28	U	50	U	66	U	72	UU	575
MW-504	10/25/16	0.5	U	0.5	U	0.5	1.5	47	U	50	U	100	U	99	UU	553
MW-504	07/26/17	0.5	U	NA	U	NA	NA	46	U	50	U	100	U	98	UU	553
MW-504	03/21/18	0.2	U	NA	U	NA	NA	46	U	50	U	100	U	98	UU	553
MW-504	06/28/18	0.5	U	NA	U	NA	NA	47	U	50	U	100	U	99	UU	553
MW-504	09/20/18	0.5	U	NA	U	NA	NA	51	U	19	U	110	U	90	UU	521
MW-504	11/28/18	0.5	U	NA	U	NA	NA	46	U	19	U	100	U	83	UU	523
MW-504	03/20/19	0.0	U	NA	U	NA	NA	46	U	19	U	100	U	83	UU	523
MW-504	06/18/19	0.5	U	NA	U	NA	NA	46	U	19	U	100	U	83	UU	523
MW-504	09/18/19	0.2	U	NA	U	NA	NA	45	U	21	J	100	U	94	UU	546
MW-504	12/09/19	0.2	U	NA	U	NA	NA	46	U	19	U	100	U	83	UU	523
MW-505	10/24/08	0.5	U	0.5	UU	0.50	1.01	253	U	50	U	505	U	404	UU	512
MW-505 (Duplicate)	10/24/08	5.0	U	5.0	U	2.78	1.00	250	U	50	U	500	U	400	UU	512
MW-505	12/15/08	0.5	U	0.5	U	0.50	1.00	238	U	50	U	476	U	382	UU	513
MW-505 (Duplicate)	12/15/08	5.0	U	5.0	U	0.647	1.00	238	U	50	U	476	U	382	UU	513
MW-505	02/27/09	0.5	U	NA	U	NA	NA	52	U	50	U	78	U	116	UU	544
MW-505	04/22/09	0.5	U	NA	U	NA	NA	59	U	50	U	67	U	118	UU	543
MW-505	06/26/09	0.5	U	NA	U	NA	NA	39	U	50	U	100	U	164	UU	530
MW-505	08/21/09	0.5	U	NA	U	NA	NA	98	U	50	U	75	U	161	UU	531
MW-505	10/28/09	0.5	U	NA	U	NA	NA	67	U	50	U	69	U	127	UU	540
MW-505	01/20/10	NA	U	NA	U	NA	NA	30	U	50	U	71	U	76	UU	571
MW-505	04/22/10	NA	U	NA	U	NA	NA	30	U	50	U	69	U	75	UU	572
MW-505	07/21/10	NA	U	NA	U	NA	NA	220	U	50	U	67	U	279	UU	517
MW-505	10/29/10	0.5	U	NA	U	NA	NA	130	U	50	U	74	U	192	UU	526
MW-505	06/17/11	NA	U	NA	U	NA	NA	100	U	50	U	67	U	159	UU	531
MW-505	12/15/11	0.2	U	NA	U	NA	NA	29	U	50	U	67	U	73	UU	574
MW-505	07/02/12	NA	U	NA	U	NA	NA	31	U	50	U	73	U	77	UU	569
MW-505 (Duplicate)	07/02/12	NA	U	NA	U	NA	NA	32	U	50	U	75	U	95	UU	555
MW-505	12/18/12	0.2	U	NA	U	NA	NA	31	U	50	U	71	U	76	UU	570
MW-505	06/27/13	NA	U	NA	U	NA	NA	30	U	50	U	70	U	75	UU	571
MW-505	12/19/13	0.2	U	NA	U	NA	NA	28	U	50	U	66	U	72	UU	575
MW-505	06/19/14	NA	U	NA	U	NA	NA	29	U	50	U	67	U	73	UU	574
MW-505	12/11/14	0.2	U	NA	U	NA	NA	29	U	50	U	67	U	73	UU	574
MW-505	06/25/15	NA	U	NA	U	NA	NA	31	U	50	U	72	U	77	UU	570
MW-505	10/25/16	0.5	U	0.5	U	0.5	1.5	45	U	50	U	100	U	98	UU	553
MW-505 (Duplicate)	10/25/16	0.5	U	0.5	U	0.5	1.5	46	U	50	U	100	U	98	UU	553

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)						
		B	T	E	X													
		CUL=16	--	--	--	CUL=0.05	--						--	--	see note 6			
MW-505	07/26/17	0.5	U	NA	NA	NA	NA	0.008	UU	45	U	50	U	100	U	98	UU	553
MW-505	03/21/18	0.2	U	NA	NA	NA	NA	0.008	UU	47	U	50	U	100	U	99	UU	553
MW-505	06/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-505	09/20/18	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	19	U	100	U	83	UU	522
MW-505 (Duplicate)	09/20/18	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-505	11/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521
MW-505	03/20/19	0.0	U	NA	NA	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521
MW-505 (Duplicate)	03/20/19	0.0	U	NA	NA	NA	NA	0.008	UU	47	U	19	U	110	U	88	UU	521
MW-505	06/19/19	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-505	09/18/19	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	19	J	100	U	92	UU	542
MW-505	12/09/19	0.2	U	NA	NA	NA	NA	0.008	UU	47	U	22	J	110	U	101	UU	545
MW-506	10/24/08	0.50	U	0.50	U	0.50	U	1.00	U	245	U	50	U	490	U	393	UU	512
MW-506	12/12/08	0.50	U	0.50	U	0.50	U	1.00	U	248	U	50	U	495	U	397	UU	512
MW-506	02/27/09	0.5	U	NA	NA	NA	NA	0.007	UU	37	U	50	U	70	U	97	UU	553
MW-506	04/24/09	0.5	U	NA	NA	NA	NA	0.008	UU	31	U	50	U	72	U	77	UU	570
MW-506	06/26/09	0.5	U	NA	NA	NA	NA	0.007	UU	38	U	50	U	140	U	203	UU	524
MW-506	08/21/09	0.5	U	NA	NA	NA	NA	0.013	UU	85	U	50	U	75	U	148	UU	534
MW-506	10/30/09	0.5	U	NA	NA	NA	NA	0.016	UU	50	U	50	U	74	U	112	UU	546
MW-506	01/21/10	NA		NA	NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575
MW-506	04/22/10	NA		NA	NA	NA	NA	NA		36	U	50	U	75	U	99	UU	553
MW-506	07/21/10	NA		NA	NA	NA	NA	NA		57	U	50	U	68	U	116	UU	544
MW-506	10/29/10	0.50	U	NA	NA	NA	NA	0.012	UU	97	U	50	U	72	U	158	UU	532
MW-506 (Duplicate)	10/29/10	0.5	U	NA	NA	NA	NA	0.012	UU	72	U	50	U	71	U	133	UU	538
MW-506	06/16/11	NA		NA	NA	NA	NA	NA		50	U	50	U	67	U	109	UU	547
MW-506	12/15/11	0.2	U	NA	NA	NA	NA	0.007	UU	29	U	50	U	67	U	73	UU	574
MW-506	06/29/12	NA		NA	NA	NA	NA	NA		30	U	50	U	70	U	75	UU	571
MW-506	12/19/12	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	574
MW-506	06/27/12	NA		NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574
MW-506	12/19/13	0.2	U	NA	NA	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575
MW-506 (Duplicate)	12/19/13	0.2	U	NA	NA	NA	NA	0.008	UU	28	U	50	U	60	U	69	UU	579
MW-506	06/19/14	NA		NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574
MW-506	12/11/14	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	574
MW-506	06/25/15	NA		NA	NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575
MW-506	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	46	U	50	U	100	U	98	UU	553
MW-506	07/27/17	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-506	03/21/18	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-506 (Duplicate)	03/21/18	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-506	06/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	50	U	100	U	99	UU	553
MW-506	09/19/18	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-506	11/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-506	03/20/19	0.0	U	NA	NA	NA	NA	0.008	UU	47	U	19	U	100	U	83	UU	522
MW-506	06/19/19	0.5	U	NA	NA	NA	NA	0.008	UU	52	U	19	U	120	U	96	UU	519
MW-506	09/19/19	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	23	J	100	U	96	UU	549
MW-506	12/09/19	0.2	U	NA	NA	NA	NA	0.008	UU	49	U	19	U	110	U	89	UU	521
MW-507	10/24/08	0.995		0.50	U	0.50	U	1.00	U	240	U	523	U	481	U	884	UU	643
MW-507	12/12/08	0.605		0.50	U	0.50	U	1.00	U	245	U	194	U	490	U	562	UU	574
MW-507	02/27/09	0.5	U	NA	NA	NA	NA	0.007	UU	610	U	120	U	310	U	1,040	UU	523
MW-507 (Duplicate)	02/27/09	5	U	NA	NA	NA	NA	0.007	UU	560	U	130	U	120	U	810	UU	532
MW-507	04/24/09	0.5	U	NA	NA	NA	NA	0.007	UU	520	U	59	U	74	U	616	UU	519
MW-507	06/26/09	0.5	U	NA	NA	NA	NA	0.007	UU	640	U	62	U	440	U	1,142	UU	510
MW-507	08/21/09	0.5	U	NA	NA	NA	NA	0.013	UU	450	U	54	U	69	U	539	UU	520
MW-507 (Duplicate)	08/21/09	0.5	U	NA	NA	NA	NA	0.012	UU	500	U	50	U	72	U	561	UU	508
MW-507	10/28/09	0.5	U	NA	NA	NA	NA	0.013	UU	900	U	50	U	88	U	1,013	UU	505
MW-507	01/21/10	NA		NA	NA	NA	NA	NA		270	U	50	U	88	U	383	UU	513
MW-507	04/22/10	NA		NA	NA	NA	NA	NA		290	U	50	U	91	U	406	UU	512
MW-507	07/21/10	NA		NA	NA	NA	NA	NA		330	U	50	U	80	U	435	UU	511
MW-507	10/29/10	0.5	U	NA	NA	NA	NA	0.012	UU	370	U	50	U	220	U	615	UU	508
MW-507	06/17/11	NA		NA	NA	NA	NA	NA		200	U	50	U	88	U	313	UU	515
MW-507	12/16/11	0.2	U	NA	NA	NA	NA	0.007	UU	28	U	50	U	66	U	72	UU	575
MW-507 (Duplicate)	12/16/11	0.2	U	NA	NA	NA	NA	0.007	UU	29	U	50	U	67	U	73	UU	574
MW-507	06/29/12	NA		NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574
MW-507	12/19/12	0.2	U	NA	NA	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)				
		B	T	E	X											
		CUL=16	--	--	--	CUL=0.05	--									
MW-507	06/27/13	NA	NA	NA	NA	NA	29	U	50	U	68	U	74	UU	573	
MW-507	12/19/13	0.2	U	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575
MW-507	06/19/14	NA	U	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-507	12/11/14	0.2	U	NA	NA	0.009	UU	29	U	50	U	68	U	74	UU	573
MW-507	06/25/15	NA	U	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-507	10/25/16	0.5	U	0.5	U	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-507	07/27/17	0.5	U	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-507 (Duplicate)	07/27/17	0.5	U	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-507	03/21/18	0.2	U	NA	NA	0.008	UU	47	U	50	U	100	U	99	UU	553
MW-507	06/28/18	0.5	U	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-507	09/19/18	0.5	U	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521
MW-507 (Duplicate)	09/19/18	0.5	U	NA	NA	0.009	UU	49	U	19	U	110	U	89	UU	521
MW-507	11/28/18	0.5	U	NA	NA	0.008	UU	45	U	19	U	100	U	82	UU	523
MW-507	03/20/19	0.0	U	NA	NA	0.008	UU	47	U	19	U	100	U	83	UU	522
MW-507	06/19/19	0.5	U	NA	NA	0.008	UU	52	U	19	U	120	U	96	UU	519
MW-507 (Duplicate)	06/19/19	0.5	U	NA	NA	0.008	UU	52	U	19	U	110	U	91	UU	520
MW-507	09/19/19	0.2	U	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-507 (Duplicate)	09/19/19	0.2	U	NA	NA	0.008	UU	45	U	19	U	100	U	82	UU	523
MW-507	12/09/19	0.2	U	NA	NA	0.030	UU	50	U	19	U	110	U	90	UU	521
MW-509	10/23/08	0.50	U	0.50	U	0.007	UU	243	U	50	U	485	U	389	UU	512
MW-509	12/11/08	0.50	U	0.50	U	0.007	UU	243	U	50	U	485	U	389	UU	512
MW-509	02/25/09	0.5	U	NA	NA	0.008	UU	32	U	50	U	75	U	79	UU	568
MW-509	04/23/09	0.5	U	NA	NA	0.007	UU	31	U	50	U	71	U	76	UU	570
MW-509	06/25/09	0.5	U	NA	NA	0.007	UU	29	U	50	U	68	U	88	UU	560
MW-509	08/21/09	0.5	U	NA	NA	0.012	UU	46	U	50	U	70	U	106	UU	549
MW-509	10/28/09	0.5	U	NA	NA	0.012	UU	48	U	50	U	76	U	111	UU	546
MW-509	01/20/10	NA	U	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-509	04/21/10	NA	U	NA	NA	NA	UU	43	U	50	U	68	U	102	UU	551
MW-509	07/21/10	NA	U	NA	NA	NA	UU	34	U	50	U	75	U	97	UU	554
MW-509 (Duplicate)	07/21/10	NA	U	NA	NA	NA	UU	34	U	50	U	74	U	96	UU	554
MW-509	10/28/10	0.5	U	NA	NA	0.012	UU	40	U	50	U	76	U	103	UU	550
MW-509	06/16/11	NA	U	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-509	12/15/11	0.2	U	NA	NA	0.007	UU	29	U	50	U	67	U	73	UU	574
MW-509	06/29/12	NA	U	NA	NA	NA	UU	29	U	50	U	68	U	74	UU	573
MW-509	12/19/12	0.2	U	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575
MW-509	06/27/13	NA	U	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-509	12/19/13	0.2	U	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575
MW-509	06/19/14	NA	U	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-509 (Duplicate)	06/19/14	NA	U	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-509	12/11/14	0.2	U	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575
MW-509	06/25/15	NA	U	NA	NA	NA	UU	30	U	50	U	70	U	75	UU	571
MW-509 (Duplicate)	06/25/15	NA	U	NA	NA	NA	UU	31	U	50	U	72	U	77	UU	570
MW-509	10/25/16	0.5	U	0.5	U	0.008	UU	47	U	50	U	100	U	99	UU	553
MW-509	07/27/17	0.5	U	NA	NA	0.008	UU	45	U	50	U	100	U	98	UU	553
MW-509	03/21/18	0.2	U	NA	NA	0.008	UU	49	U	50	U	110	U	105	UU	549
MW-509	06/28/18	0.5	U	NA	NA	0.008	UU	47	U	50	U	110	U	104	UU	550
MW-509	09/19/18	0.5	U	NA	NA	0.008	UU	82	U	19	U	110	U	147	UU	512
MW-509	11/28/18	0.5	U	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-509	03/20/19	0.0	U	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521
MW-509	06/19/19	0.5	U	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521
MW-509	09/19/19	0.2	U	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-509	12/09/19	0.2	U	NA	NA	0.008	UU	50	U	19	U	440	U	475	UU	504
MW-511	10/24/08	0.50	U	0.50	U	0.008	UU	250	U	50	U	500	U	400	UU	512
MW-511	12/12/08	0.50	U	0.50	U	0.007	UU	243	U	50	U	485	U	389	UU	512
MW-511	02/25/09	0.5	U	NA	NA	0.007	UU	30	U	50	U	70	U	75	UU	571
MW-511	04/21/09	0.5	U	NA	NA	0.007	UU	28	U	50	U	66	U	72	UU	575
MW-511	06/24/09	0.5	U	NA	NA	0.007	UU	28	U	50	U	66	U	72	UU	575
MW-511 (Duplicate)	06/24/09	0.5	U	NA	NA	0.007	UU	28	U	50	U	66	U	72	UU	575
MW-511	08/19/09	0.5	U	NA	NA	0.012	UU	32	U	50	U	74	U	94	UU	555
MW-511	10/28/09	0.5	U	NA	NA	0.012	UU	33	U	50	U	65	U	91	UU	558
MW-511 (Duplicate)	10/28/09	0.5	U	NA	NA	0.012	UU	28	U	50	U	65	U	72	UU	575
MW-511	01/20/10	NA	U	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)				
		B	T	E	X	CUL=0.05		--		--		--		see note 6						
		CUL=16	--	--	--															
MW-511	04/22/10	NA	NA	NA	NA	NA		32	U	50	U	75	U	79	UU	568				
MW-511	07/22/10	NA	NA	NA	NA	NA		72	U	50	U	67	U	131		539				
MW-511	10/28/10	0.5	U	NA	NA	NA	0.012	UU	36	50	U	67	U	95		555				
MW-511	06/17/11	NA	U	NA	NA	NA	NA		100	50	U	70	U	160		531				
MW-511	12/19/11	0.2	U	NA	NA	NA	0.007	UU	29	50	U	67	U	73	UU	574				
MW-511	06/28/12	NA		NA	NA	NA	NA		30	50	U	69	U	75	UU	572				
MW-511 (Duplicate)	06/28/12	NA		NA	NA	NA	NA		29	50	U	68	U	74	UU	573				
MW-511	12/14/12	0.2	U	NA	NA	NA	0.008	UU	44	50	U	240		309		516				
MW-511	06/27/13	NA		NA	NA	NA	NA		30	50	U	71	U	76	UU	571				
MW-511	12/19/13	0.2	U	NA	NA	NA	0.008	UU	29	50	U	68	U	74	UU	573				
MW-511 (Duplicate)	12/19/13	0.2	U	NA	NA	NA	0.008	UU	31	50	U	71	U	76	UU	570				
MW-511	06/18/14	NA		NA	NA	NA	NA		29	50	U	67	U	73	UU	574				
MW-511	12/10/14	0.3		NA	NA	NA	0.008	UU	29	50	U	68	U	74	UU	573				
MW-511	03/25/15	NA		NA	NA	NA	NA		29	50	U	68	U	74	UU	573				
MW-511	06/24/15	NA		NA	NA	NA	NA		28	50	U	66	U	72	UU	575				
MW-511 (Duplicate)	06/24/15	NA		NA	NA	NA	NA		28	50	U	66	U	72	UU	575				
MW-511	10/24/16	0.5	U	0.5	U	0.5	U	1.5	U	0.008	UU	45	U	50	U	98	UU	553		
MW-511	07/27/17	0.5	U	NA	NA	NA	0.008	UU	46	50	U	100	U	98	UU	553				
MW-511	03/21/18	0.2	U	NA	NA	NA	0.008	UU	46	50	U	100	U	98	UU	553				
MW-511	06/27/18	0.5	U	NA	NA	NA	0.008	UU	46	50	U	100	U	98	UU	553				
MW-511	09/20/18	0.5	U	NA	NA	NA	0.008	UU	46	19	U	100	U	83	UU	523				
MW-511	11/29/18	0.5	U	NA	NA	NA	0.008	UU	45	19	U	100	U	82	UU	523				
MW-511	03/21/19	0.5	U	NA	NA	NA	0.008	UU	45	19	U	100	U	82	UU	523				
MW-511	06/18/19	0.5	U	NA	NA	NA	0.008	UU	91	19	U	100	U	151		512				
MW-511	09/19/19	0.2	U	NA	NA	NA	0.008	UU	46	19	U	100	U	83	UU	523				
MW-511	12/09/19	0.2	U	NA	NA	NA	0.008	UU	49	19	U	110	U	89	UU	521				
MW-512	10/23/08	1.97		0.50	U	2.96		5.23		0.008	UU	250	U	348		500	U	723		610
MW-512	12/11/08	2.5		0.50	U	2.17		3.58		0.007	UU	243	U	320		485	U	684		606
MW-512	02/25/09	1.5		NA		NA		NA		0.007	UU	390		280		78		748		582
MW-512	04/21/09	2.7		NA		NA		NA		0.007	UU	260		240		67	U	534		601
MW-512 (Duplicate)	04/21/09	3.7		NA		NA		NA		0.007	UU	220		280		66	U	533		623
MW-512	06/24/09	0.8		NA		NA		NA		0.007	UU	180		84		78		342		551
MW-512	08/19/08	1.3		NA		NA		NA		0.012	UU	220		110		66	U	363		564
MW-512	10/27/09	0.6		NA		NA		NA		0.012	UU	190		92		67	U	316		561
MW-512	01/20/10	NA		NA		NA		NA		NA		300		200		75		575		575
MW-512	04/21/10	NA		NA		NA		NA		NA		420		110		140		670		533
MW-512	07/21/10	NA		NA		NA		NA		NA		150		82		67	U	266		565
MW-512	10/28/10	0.5	U	NA		NA		NA		0.012	UU	220		93		67	U	347		556
MW-512	06/16/11	NA		NA		NA		NA		NA		200		74		67	U	308		550
MW-512 (Duplicate)	06/16/11	NA		NA		NA		NA		NA		190		79		67	U	303		554
MW-512	12/15/11	0.40		NA		NA		NA		0.007	UU	33		120		68	U	187		658
MW-512	06/29/12	NA		NA		NA		NA		NA		57		190		68	U	281		670
MW-512	12/17/12	0.3		NA		NA		NA		0.008	UU	32		120		67	U	186		660
MW-512	06/26/13	NA		NA		NA		NA		NA		29	U	62		68	U	111		633
MW-512	12/18/13	0.2	U	NA		NA		NA		0.008	UU	44		140		67	U	218		659
MW-512	06/17/14	NA		NA		NA		NA		NA		48		110		68	U	192		637
MW-512	12/11/14	0.2	U	NA		NA		NA		0.008		42		50	U	68	U	101		551
MW-512	06/24/15	NA		NA		NA		NA		NA		31		58		66	U	122		608
MW-512	10/25/16	0.5	U	0.50	U	0.50	U	1.50	U	0.008	UU	62		90		100	U	202		600
MW-512	07/26/17	0.5	U	NA		NA		NA		0.008	UU	46	U	120		100	U	193		652
MW-512	03/21/18	0.2	U	NA		NA		NA		0.008	UU	46	U	50	U	100	U	98	UU	553
MW-512 (Duplicate)	03/21/18	0.2	U	NA		NA		NA		0.008	UU	46	U	50	U	100	U	98	UU	553
MW-512 (Duplicate)	06/28/18	0.5	U	NA		NA		NA		0.008	UU	50	U	50	U	110	U	105	UU	549
MW-512 (Duplicate)	06/28/18	0.5	U	NA		NA		NA		0.008	UU	49	U	50	U	110	U	105	UU	549
MW-512	09/20/18	0.5	U	NA		NA		NA		0.008	UU	47	U	19	U	100	U	83	UU	522
MW-512	11/29/18	0.5	U	NA		NA		NA		0.017	UU	46	U	19	U	100	U	83	UU	523
MW-512	03/21/19	0.5	U	NA		NA		NA		0.008	UU	45	U	19	U	100	U	82	UU	523
MW-512	06/18/19	0.5	U	NA		NA		NA		0.008	UU	160		19	U	100	U	220		508
MW-512	09/19/19	0.2	U	NA		NA		NA		0.008	UU	46	U	45	J	100	U	118		583
MW-512	12/09/19	0.2	U	NA		NA		NA		0.008	UU	47	U	61	J	110	U	140		598
MW-513	10/23/08	0.702		0.50	U	0.50	U	3.81		0.008	UU	245	U	564	JZ	490	U	932		647
MW-513	12/10/08	0.793		0.50	U	0.50	U	1.21		0.007	UU	245	U	439		490	U	807		628

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)								
		B	T	E	X															
		CUL=16	--	--	--	CUL=0.05	--													
MW-513	02/25/09	0.5	U	NA	NA	NA	NA	0.008	UU	330	470	72.00	U	836	634					
MW-513 (Duplicate)	02/25/09	5	U	NA	NA	NA	NA	0.008	UU	300	440	74.00	U	777	635					
MW-513	04/22/09	0.5	U	NA	NA	NA	NA	0.007	UU	290	330	66	U	653	617					
MW-513	06/24/09	0.5	U	NA	NA	NA	NA	0.007	UU	170	280	75	U	488	637					
MW-513	08/20/09	0.5	U	NA	NA	NA	NA	0.013	UU	290	280	75	U	608	604					
MW-513	10/27/09	0.5	U	NA	NA	NA	NA	0.013	UU	320	180	68	U	534	572					
MW-513 (Duplicate)	10/27/09	5	U	NA	NA	NA	NA	0.012	UU	320	240	68	U	594	589					
MW-513	01/20/10	NA		NA	NA	NA	NA	NA		300	210	67	U	544	585					
MW-513	04/21/10	NA		NA	NA	NA	NA	NA		290	160	74	U	487	570					
MW-513	07/21/10	NA		NA	NA	NA	NA	NA		360	140	67	U	534	555					
MW-513	10/28/10	0.50	U	NA	NA	NA	NA	0.013	UU	270	150	74	U	457	570					
MW-513 (Duplicate)	10/28/10	0.50	U	NA	NA	NA	NA	0.013	UU	290	160	67	U	484	571					
MW-513	06/16/11	NA		NA	NA	NA	NA	NA		230	100	67	U	364	558					
MW-513	12/15/11	0.3		NA	NA	NA	NA	0.007	UU	38	97	67	U	169	638					
MW-513	06/29/12	NA		NA	NA	NA	NA	NA		62	59	75	U	159	581					
MW-513	12/17/12	0.2	U	NA	NA	NA	NA	0.008	UU	28	U	65	U	112	639					
MW-513	06/26/13	NA		NA	NA	NA	NA	NA		52	110	68	U	196	633					
MW-513	12/18/13	0.2	U	NA	NA	NA	NA	0.008	UU	50	120	66	U	203	642					
MW-513	06/17/14	NA		NA	NA	NA	NA	NA		47	72	67	U	153	608					
MW-513	12/10/14	0.5	U	NA	NA	NA	NA	0.008	UU	52	50	U	66	110	547					
MW-513	06/24/15	NA		NA	NA	NA	NA	NA		35	75	66	U	143	622					
MW-513 (Duplicate)	06/24/15	NA		NA	NA	NA	NA	NA		45	50	U	65	103	550					
MW-513	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	47	U	97	U	171	636					
MW-513	07/25/17	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	110	U	183	646					
MW-513	03/21/18	0.2	U	NA	NA	NA	NA	0.008	UU	240	50	U	100	U	315	515				
MW-513	06/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	49	U	50	U	110	U	105	UU	549		
MW-513	09/20/18	0.5	U	NA	NA	NA	NA	0.008	UU	46	HU	19	U	100	HU	83	UU	271		
MW-513	11/29/18	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	19	U	110	U	88	UU	521		
MW-513	03/21/19	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523		
MW-513	06/17/19	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	22	J	100	U	96		547		
MW-513	09/18/19	0.2	U	NA	NA	NA	NA	0.008	UU	45	U	50	J	100	U	123		590		
MW-513	12/09/19	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	29	J	100	U	102		560		
MW-514	10/23/08	2.98		0.64		1.54		4.69		0.007	UU	253	JZ	490	U	1,518		668		
MW-514	12/10/08	3.15		0.84		1.82		4.98		0.007	UU	248	U	495	U	1,173		672		
MW-514 (Duplicate)	12/10/08	3.40		0.82		1.89		4.95		0.008	UU	245	U	490	U	1,199		676		
MW-514	02/24/09	2.9		NA		NA		NA		0.008	UU	710		830	U	1,578		623		
MW-514	04/21/09	3.5		NA		NA		NA		0.015	UU	370		680	U	1,085		654		
MW-514	06/24/09	2		NA		NA		NA		0.007	UU	280		510	U	825		651		
MW-514	08/19/09	3.2		NA		NA		NA		0.012	UU	290		520	U	847		650		
MW-514 (Duplicate)	08/19/09	2.7		NA		NA		NA		0.013	UU	270		450	U	755		644		
MW-514	10/27/09	2.2		NA		NA		NA		0.012	UU	400		400	U	833		610		
MW-514	01/20/10	NA		NA		NA		NA		NA		200		340	U	575		643		
MW-514	04/21/10	NA		NA		NA		NA		NA		340		270	U	646		593		
MW-514	07/21/10	NA		NA		NA		NA		NA		420		170	U	624		557		
MW-514	10/27/10	1.5		NA		NA		NA		0.012	UU	250		290	U	575		617		
MW-514	06/16/11	NA		NA		NA		NA		NA		230		170	U	434		586		
MW-514	12/14/11	0.5		NA		NA		NA		0.007	UU	39		150	U	223		669		
MW-514	06/29/12	NA		NA		NA		NA		NA		42		97	U	173		634		
MW-514	12/17/12	0.5		NA		NA		NA		0.008	UU	29	U	84	U	132		657		
MW-514 (Duplicate)	12/17/12	0.7		NA		NA		NA		0.008	UU	34		92	U	159		639		
MW-514	06/26/13	NA		NA		NA		NA		NA		31		140	U	207		670		
MW-514	12/18/13	0.2	U	NA		NA		NA		0.008	UU	29	U	100	U	148		670		
MW-514	06/17/14	NA		NA		NA		NA		NA		43		76	U	152		615		
MW-514	12/11/14	0.2	U	NA		NA		NA		0.008		33		50	U	93		556		
MW-514	06/24/15	NA		NA		NA		NA		NA		32		50	U	68		557		
MW-514 (Duplicate)	06/24/15	NA		NA		NA		NA		NA		29	U	50	U	69	UU	573		
MW-514	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	0.008	UU	46	U	50	U	98	UU	553		
MW-514	07/27/17	0.5	U	NA		NA		NA		0.008	UU	47	U	50	U	110	UU	550		
MW-514	03/21/18	0.2	U	NA		NA		NA		0.008	UU	45	U	50	U	100	UU	553		
MW-514	06/28/18	0.5	U	NA		NA		NA		0.008	UU	49	U	50	U	110	UU	549		
MW-514	09/20/18	0.5	U	NA		NA		NA		0.008	UU	45	HU	19	U	100	HU	82	UU	272

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)
		B	T	E	X	CUL=0.05		--		--		--		see note 6		
		CUL=16	--	--	--											
MW-514	11/29/18	0.5	U	NA	NA	NA	NA	45	U	19	U	100	U	82	UU	523
MW-514	03/21/19	0.5	U	NA	NA	NA	NA	45	U	19	U	100	U	82	UU	523
MW-514	06/18/19	0.5	U	NA	NA	NA	NA	140	U	19	U	100	U	200	UU	509
MW-514	09/19/19	0.2	U	NA	NA	NA	NA	45	U	37	J	100	U	110	UU	573
MW-514	12/09/19	0.2	U	NA	NA	NA	NA	49	U	38	J	110	U	118	UU	569
MW-515	10/22/08	1.86		1.35		1.00		4.47		248	U	575	JZ	495	U	648
MW-515 (Duplicate)	10/22/08	1.92		1.40		1.07		4.70		248	U	603	JZ	495	U	651
MW-515	12/10/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	100		485	U	544
MW-515	02/24/09	0.5	U	NA		NA		NA		71		69	U	68	U	587
MW-515	04/22/09	0.5	U	NA		NA		NA		77		59	U	69	U	575
MW-515	06/24/09	0.5	U	NA		NA		NA		170		85	U	76	U	561
MW-515	08/20/09	0.5	U	NA		NA		NA		200		63	U	75	U	543
MW-515 (Duplicate)	08/20/09	0.5	U	NA		NA		NA		340		110	U	75	U	546
MW-515	10/27/09	0.5	U	NA		NA		NA		79		50	U	70	U	536
MW-515	01/20/10	NA		NA		NA		NA		34		50	U	69	U	556
MW-515	04/21/10	NA		NA		NA		NA		32		50	U	67	U	558
MW-515	07/21/10	NA		NA		NA		NA		120		50	U	66	U	528
MW-515	10/27/10	0.5	U	NA		NA		NA	UU	52		50	U	67	U	546
MW-515	06/16/11	NA		NA		NA		NA		200		50	U	67	U	519
MW-515	12/14/11	0.2	U	NA		NA		NA		28	U	50	U	66	U	575
MW-515	06/29/12	NA		NA		NA		NA		29	U	50	U	67	U	574
MW-515	12/17/12	0.2	U	NA		NA		NA	UU	29	U	50	U	67	U	574
MW-515	06/27/13	NA		NA		NA		NA		29	U	50	U	67	U	574
MW-515	12/18/13	0.2	U	NA		NA		NA	UU	30	U	50	U	70	U	571
MW-515	06/19/14	NA		NA		NA		NA		29	U	50	U	67	U	574
MW-515	12/11/14	0.2	U	NA		NA		NA	UU	29	U	50	U	67	U	574
MW-515	06/25/15	NA		NA		NA		NA		28	U	50	U	66	U	575
MW-515	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	47	U	50	U	100	U	553
MW-515	07/25/17	0.5	U	NA		NA		NA		45	U	50	U	100	U	553
MW-515	03/21/18	0.2	U	NA		NA		NA		50	U	50	U	110	U	549
MW-515	06/28/18	0.5	U	NA		NA		NA		47	U	50	U	110	U	550
MW-515	09/19/18	0.5	U	NA		NA		NA		120		19	U	110	U	510
MW-515	11/28/18	0.5	U	NA		NA		NA		48	U	19	U	110	U	521
MW-515 (Duplicate)	11/28/18	0.5	U	NA		NA		NA		50	U	19	U	110	U	521
MW-515	03/21/19	0.5	U	NA		NA		NA		46	U	19	U	100	U	523
MW-515	06/17/19	0.5	U	NA		NA		NA		45	U	19	U	100	U	523
MW-515	09/18/19	0.2	U	NA		NA		NA		46	U	37	J	100	U	570
MW-515	12/09/19	0.2	U	NA		NA		NA	UU	47	U	37	J	100	U	572
MW-516	10/22/08	0.779		0.711	U	0.50	U	3.96		248	U	429	JZ	495	U	626
MW-516	12/10/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	114		485	U	549
MW-516	02/24/09	0.5	U	NA		NA		NA		30	U	50	U	70	U	571
MW-516	04/22/09	0.5	U	NA		NA		NA		31	U	50	U	73	U	569
MW-516	06/24/09	0.5	U	NA		NA		NA		210		50	U	69	U	518
MW-516	08/20/09	0.5	U	NA		NA		NA		260		50	U	75	U	515
MW-516	10/27/09	0.5	U	NA		NA		NA		140		50	U	67	U	525
MW-516	01/20/10	NA		NA		NA		NA		29	U	50	U	67	U	574
MW-516	04/21/10	NA		NA		NA		NA		30	U	50	U	70	U	571
MW-516	07/21/10	NA		NA		NA		NA		150		50	U	67	U	524
MW-516	10/27/10	0.50	U	NA		NA		NA	UU	49		50	U	67	U	548
MW-516 (Duplicate)	10/27/10	0.5	U	NA		NA		NA	UU	40		50	U	66	U	553
MW-516	06/16/11	NA		NA		NA		NA		170		50	U	67	U	521
MW-516	12/14/11	0.2	U	NA		NA		NA		29	U	50	U	69	U	573
MW-516	06/29/12	NA		NA		NA		NA		28	U	50	U	66	U	575
MW-516	12/17/12	0.2	U	NA		NA		NA	UU	29	U	50	U	67	U	574
MW-516	06/27/13	NA		NA		NA		NA		30	U	50	U	69	U	572
MW-516	12/18/13	0.2	U	NA		NA		NA	UU	31	U	50	U	72	U	570
MW-516	06/19/14	NA		NA		NA		NA		28	U	50	U	66	U	575
MW-516 (Duplicate)	06/19/14	NA		NA		NA		NA		29	U	50	U	67	U	574
MW-516	12/11/14	0.2	U	NA		NA		NA		29	U	50	U	67	U	574
MW-516	06/25/15	NA		NA		NA		NA		28	U	50	U	66	U	575
MW-516	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	47	U	50	U	100	U	553
MW-516	07/25/17	0.5	U	NA		NA		NA	UU	45	U	50	U	100	U	553

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)		
		B	T	E	X	CUL=0.05		--		--		--		see note 6				
		CUL=16		--	--	--	--	--	--	--	--	--	--	--	--			
MW-516 (Duplicate)	07/25/17	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553
MW-516	03/21/18	0.2	U	NA	NA	NA	NA	0.008	UU	48	U	50	U	110	U	104	UU	550
MW-516	06/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	48	U	50	U	110	U	104	UU	550
MW-516	09/19/18	0.5	U	NA	NA	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521
MW-516	11/29/18	0.5	U	NA	NA	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521
MW-516	03/21/19	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-516	06/17/19	0.5	U	NA	NA	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521
MW-516	09/18/19	0.2	U	NA	NA	NA	NA	0.008	UU	45	U	19	U	100	U	82	UU	523
MW-516	12/09/19	0.2	U	NA	NA	NA	NA	0.008	UU	51	U	19	U	110	U	90	UU	521
MW-517	10/22/08	1.24	U	0.50	U	0.884	U	1.56	U	248	U	275	JZ	495	U	647	UU	595
MW-517	12/10/08	0.50	U	0.50	U	0.50	U	1.00	U	240	U	130	U	481	U	491	UU	555
MW-517	02/24/09	0.5	U	NA	NA	NA	NA	0.008	UU	50	U	50	U	72	U	111	UU	546
MW-517	04/22/09	0.5	U	NA	NA	NA	NA	0.008	UU	100	U	50	U	71	U	161	UU	531
MW-517	06/24/09	0.5	U	NA	NA	NA	NA	0.007	UU	460	U	50	U	86	U	571	UU	508
MW-517	08/20/09	0.5	U	NA	NA	NA	NA	0.012	UU	230	U	120	U	69	U	385	UU	566
MW-517	10/27/09	0.5	U	NA	NA	NA	NA	0.012	UU	160	U	54	U	73	U	251	UU	544
MW-517	01/20/10	NA	U	NA	NA	NA	NA	NA	UU	40	U	50	U	69	U	100	UU	552
MW-517	04/21/10	NA	U	NA	NA	NA	NA	NA	UU	75	U	50	U	67	U	134	UU	538
MW-517 (Duplicate)	04/21/10	NA	U	NA	NA	NA	NA	NA	UU	94	U	50	U	70	U	154	UU	532
MW-517	07/20/10	NA	U	NA	NA	NA	NA	NA	UU	200	U	50	U	66	U	258	UU	519
MW-517	10/27/10	0.5	U	NA	NA	NA	NA	0.012	UU	77	U	50	U	72	U	138	UU	536
MW-517	06/16/11	NA	U	NA	NA	NA	NA	NA	UU	89	U	50	U	67	U	148	UU	534
MW-517	12/14/11	0.2	U	NA	NA	NA	NA	0.007	UU	28	U	50	U	66	U	72	UU	575
MW-517	06/29/12	NA	U	NA	NA	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-517	12/17/12	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	574
MW-517	06/27/13	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-517	12/18/13	0.2	U	NA	NA	NA	NA	0.008	UU	30	U	50	U	70	U	75	UU	571
MW-517	06/19/14	NA	U	NA	NA	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-517	12/11/14	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	574
MW-517	06/25/15	NA	U	NA	NA	NA	NA	NA	UU	29	U	50	U	67	U	73	UU	574
MW-517	10/25/16	0.5	U	0.5	U	0.5	U	1.5	U	49	U	50	U	110	U	105	UU	549
MW-517	07/25/17	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	61	U	100	U	134	UU	603
MW-517	03/21/18	0.2	U	NA	NA	NA	NA	0.008	UU	49	U	50	U	110	U	105	UU	549
MW-517	06/28/18	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	50	U	110	U	104	UU	550
MW-517	09/19/18	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	19	U	100	U	83	UU	522
MW-517	11/29/18	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-517	03/21/19	0.5	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-517 (Duplicate)	03/21/19	0.5	U	NA	NA	NA	NA	0.008	UU	62	J	19	U	100	U	122	UU	515
MW-517	06/17/19	0.5	U	NA	NA	NA	NA	0.008	UU	47	U	19	U	100	U	83	UU	522
MW-517	09/18/19	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	31	J	100	U	104	UU	563
MW-517	12/09/19	0.2	U	NA	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523
MW-518*	10/22/08	0.503	U	0.50	U	0.50	U	1.92	U	248	U	770	JZ	495	U	1,142	UU	669
MW-518*	12/10/08	0.50	U	0.50	U	0.50	U	2.12	U	245	U	796	JZ	490	U	1,164	UU	673
MW-518*	02/25/09	0.5	U	NA	NA	NA	NA	0.007	UU	450	U	880	U	73	U	1,403	UU	654
MW-518*	04/22/09	0.5	U	NA	NA	NA	NA	0.007	UU	480	U	650	U	72	U	1,202	UU	627
MW-518*	06/25/09	0.5	U	NA	NA	NA	NA	0.007	UU	200	U	440	U	70	U	675	UU	662
MW-518*	08/20/09	0.5	U	NA	NA	NA	NA	0.013	UU	300	U	730	U	71	U	1,066	UU	673
MW-518*	10/30/09	0.5	U	NA	NA	NA	NA	0.013	UU	310	U	660	U	74	U	1,007	UU	663
MW-518*	01/20/10	NA	U	NA	NA	NA	NA	NA	UU	230	U	660	U	67	U	924	UU	683
MW-518*	04/21/10	NA	U	NA	NA	NA	NA	NA	UU	240	U	630	U	75	U	908	UU	676
MW-518*	07/21/10	NA	U	NA	NA	NA	NA	NA	UU	310	U	350	U	73	U	697	UU	616
MW-518* (Duplicate)	07/21/10	NA	U	NA	NA	NA	NA	NA	UU	400	U	270	U	78	U	709	UU	583
MW-518*	10/28/10	0.5	U	NA	NA	NA	NA	0.012	UU	290	U	600	U	67	U	924	UU	661
MW-518*	03/23/11	NA	U	NA	NA	NA	NA	NA	UU	390	U	330	U	68	U	754	UU	598
MW-518*	06/16/11	NA	U	NA	NA	NA	NA	NA	UU	200	U	140	U	67	U	374	UU	582
MW-518*	09/27/11	NA	U	NA	NA	NA	NA	NA	UU	66	U	230	U	68	U	330	UU	677
MW-518*	12/14/11	0.2	U	NA	NA	NA	NA	0.007	UU	40	U	440	U	67	U	514	UU	737
MW-518*	03/28/12	NA	U	NA	NA	NA	NA	NA	UU	28	U	50	U	66	U	72	UU	575
MW-518*	06/29/12	NA	U	NA	NA	NA	NA	NA	UU	29	U	93	U	69	U	142	UU	663
MW-518*	09/27/12	NA	U	NA	NA	NA	NA	NA	UU	59	U	240	U	68	U	333	UU	685
MW-518*	12/17/12	0.2	U	NA	NA	NA	NA	0.008	UU	29	U	180	U	69	U	229	UU	709

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)
		B	T	E	X							
		CUL=16	--	--	--	CUL=0.05	--					
MW-518*	03/27/13	NA	NA	NA	NA	NA	48	510	66	591	739	
MW-518*	06/27/13	NA	NA	NA	NA	NA	29	50	67	73	574	
MW-518*	09/25/13	NA	NA	NA	NA	NA	79	50	69	99	552	
MW-518*	12/19/13	0.2	U	NA	NA	NA	78	860	71	974	748	
MW-518*	03/28/14	NA	NA	NA	NA	NA	29	110	68	159	676	
MW-518*	06/18/14	NA	NA	NA	NA	NA	28	63	66	110	637	
MW-518* (Duplicate)	06/18/14	NA	NA	NA	NA	NA	28	62	66	109	636	
MW-518*	10/01/14	NA	NA	NA	NA	NA	68	260	72	364	683	
MW-518*	12/11/14	0.2	U	NA	NA	NA	43	290	66	366	711	
MW-518*	03/25/15	NA	NA	NA	NA	NA	39	390	67	463	731	
MW-518*	06/25/15	NA	NA	NA	NA	NA	59	600	66	692	741	
MW-518*	10/25/16	0.5	U	0.5	U	1.5	46	990	100	1,063	768	
MW-518*	07/25/17	0.5	U	NA	NA	NA	46	190	100	263	686	
MW-518*	03/21/18	0.2	U	NA	NA	NA	48	220	110	299	691	
MW-518*	06/28/18	0.5	U	NA	NA	NA	47	690	100	764	756	
MW-518* (Duplicate)	06/28/18	0.5	U	NA	NA	NA	47	630	100	704	753	
MW-518*	09/19/18	0.5	U	NA	NA	NA	47	370	100	444	728	
MW-518*	11/28/18	0.5	U	NA	NA	NA	47	840	110	919	761	
MW-518*	02/07/19	0.0	U	NA	NA	NA	46	340	100	413	723	
MW-518*	03/20/19	0.0	U	NA	NA	NA	47	480	100	554	741	
MW-518*	06/18/19	0.5	U	NA	NA	NA	290	760	100	1,100	675	
MW-518*	09/18/19	0.2	U	NA	NA	NA	46	520	100	593	745	
MW-518* (Duplicate)	09/18/19	0.2	U	NA	NA	NA	47	490	100	564	742	
MW-518*	12/09/19	0.2	U	NA	NA	NA	52	820	120	906	757	
MW-518* (Duplicate)	12/09/19	0.2	U	NA	NA	NA	50	840	110	920	760	
MW-519	10/22/08	0.5	U	0.5	U	1.00	248	80	495	451	536	
MW-519 (Duplicate)	10/22/08	5	U	5	U	1.00	248	84	495	455	537	
MW-519	12/09/08	0.50	U	0.50	U	1.00	250	64.1	500	439	529	
MW-519	02/24/09	0.5	U	NA	NA	NA	83	50	71	144	535	
MW-519	04/21/09	0.5	U	NA	NA	NA	150	50	74	212	523	
MW-519	06/24/09	0.5	U	NA	NA	NA	220	50	70	280	517	
MW-519	08/18/09	0.5	U	NA	NA	NA	290	50	75	353	514	
MW-519 (Duplicate)	08/18/09	0.5	U	NA	NA	NA	0.119	50	72	311	516	
MW-519	10/27/09	0.5	U	NA	NA	NA	58	50	66	116	544	
MW-519	01/19/10	NA	NA	NA	NA	NA	170	50	67	229	521	
MW-519	04/21/10	NA	NA	NA	NA	NA	82	50	71	143	535	
MW-519	07/20/10	NA	NA	NA	NA	NA	290	50	67	349	514	
MW-519	10/26/10	0.50	U	NA	NA	NA	43	50	73	105	549	
MW-519 (Duplicate)	10/26/10	0.50	U	NA	NA	NA	54	50	79	119	543	
MW-519	06/15/11	NA	NA	NA	NA	NA	260	50	68	319	515	
MW-519	12/14/11	0.2	U	NA	NA	NA	29	50	67	73	574	
MW-519	06/28/12	NA	NA	NA	NA	NA	30	50	71	76	571	
MW-519	12/17/12	0.2	U	NA	NA	NA	28	50	66	72	575	
MW-519	06/25/13	NA	NA	NA	NA	NA	29	50	68	74	573	
MW-519	12/17/13	0.2	U	NA	NA	NA	28	50	66	72	575	
MW-519	06/18/14	NA	NA	NA	NA	NA	29	50	67	73	574	
MW-519	12/10/14	0.2	U	NA	NA	NA	28	50	65	72	575	
MW-519	06/24/15	NA	NA	NA	NA	NA	29	50	67	73	574	
MW-519	10/24/16	0.5	U	0.5	U	1.5	47	50	110	104	550	
MW-519	07/25/17	0.5	U	NA	NA	NA	45	50	100	98	553	
MW-519	03/22/18	0.5	U	NA	NA	NA	45	50	100	98	553	
MW-519 (Duplicate)	03/22/18	0.5	U	NA	NA	NA	45	50	100	98	553	
MW-519	06/27/18	0.5	U	NA	NA	NA	46	50	100	98	553	
MW-519	09/18/18	0.5	U	NA	NA	NA	47	19	100	83	522	
MW-519	11/29/18	0.5	U	NA	NA	NA	46	19	100	83	523	
MW-519	03/21/19	0.5	U	NA	NA	NA	87	19	100	147	512	
MW-519	06/19/19	0.5	U	NA	NA	NA	52	19	120	96	519	
MW-519	09/19/19	0.2	U	NA	NA	NA	46	19	100	83	523	
MW-519	12/11/19	0.2	U	NA	NA	NA	120	19	110	185	510	
MW-520	10/21/08	1.45		0.50	U	0.50	250	356	500	731	612	
MW-520	12/09/08	3.77		0.50	U	0.50	243	125	485	489	553	
MW-520	02/23/09	1.6		NA	NA	NA	160	110	76	308	577	

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)			
		B	T	E	X										
		CUL=16	--	--	--	CUL=0.05	--								
MW-520	04/22/09	7.6	NA	NA	NA	0.007	UU	110	50	U	66	U	168	530	
MW-520 (Duplicate)	04/22/09	7.3	NA	NA	NA	0.007	UU	110	50	U	67	U	169	529	
MW-520	06/24/09	0.5	NA	NA	NA	0.007	UU	180	50	U	69	U	240	520	
MW-520	08/18/09	0.5	U	NA	NA	0.012	UU	140	50	U	72	U	201	524	
MW-520	10/27/09	0.5	U	NA	NA	0.012	UU	130	50	U	73	U	192	526	
MW-520	01/19/10	NA		NA	NA	NA		30	U	50	U	70	UU	571	
MW-520	04/20/10	NA		NA	NA	NA		52		50	U	68	U	546	
MW-520	07/20/10	NA		NA	NA	NA		320		50	U	67	U	513	
MW-520	10/27/10	0.5	U	NA	NA	0.012	UU	110	50	U	66	U	168	530	
MW-520	06/15/11	NA		NA	NA	NA		120	50	U	67	U	179	528	
MW-520	12/14/11	0.2	U	NA	NA	0.007	UU	29	U	50	U	67	UU	574	
MW-520	06/28/12	NA		NA	NA	NA		29	U	50	U	67	UU	574	
MW-520	12/14/12	0.2	U	NA	NA	0.008	UU	28	U	50	U	110	163	531	
MW-520	06/25/13	NA		NA	NA	NA		29	U	62	U	67	110	634	
MW-520 (Duplicate)	06/25/13	NA		NA	NA	NA		30	U	50	U	70	UU	571	
MW-520	12/17/13	0.2	U	NA	NA	0.008	UU	30	U	50	U	70	UU	571	
MW-520	06/18/14	NA		NA	NA	NA		29	U	50	U	67	UU	574	
MW-520	12/10/14	0.2	U	NA	NA	0.008	UU	28	U	50	U	66	UU	575	
MW-520	06/24/15	NA		NA	NA	NA		28	U	50	U	65	UU	575	
MW-520	10/24/16	0.5	U	0.5	U	0.5	U	1.5	U	50	U	100	UU	553	
MW-520	07/25/17	0.5	U	NA	NA	0.008	UU	46	U	50	U	100	UU	553	
MW-520	03/20/18	0.2	U	NA	NA	0.008	UU	47	U	50	U	110	UU	550	
MW-520	06/28/18	0.5	U	NA	NA	0.008	UU	48	U	50	U	110	UU	550	
MW-520	09/18/18	0.5	U	NA	NA	0.008	UU	46	U	19	U	100	UU	523	
MW-520	11/29/18	0.5	U	NA	NA	0.008	UU	45	U	19	U	100	UU	523	
MW-520	03/22/19	0.5	U	NA	NA	0.008	UU	47	U	19	U	100	UU	522	
MW-520	06/19/19	0.5	U	NA	NA	0.008	UU	46	U	19	U	100	UU	523	
MW-520	09/18/19	0.2	U	NA	NA	0.008	UU	46	U	22	J	100	UU	548	
MW-520	12/12/19	0.2	U	NA	NA	0.008	UU	45	U	19	U	100	UU	523	
MW-521	10/21/08	0.50	U	0.50	U	0.50	U	1.00	U	245	U	57.9	490	U	425
MW-521	12/09/08	0.50	U	0.50	U	0.50	U	1.00	U	250	U	98.4	500	U	473
MW-521	02/23/09	1.7		NA	NA	0.008	UU	90	U	50	U	78	U	154	532
MW-521	04/21/09	0.5	U	NA	NA	0.008	UU	31	U	50	U	73	UU	569	
MW-521	06/23/09	0.5	U	NA	NA	0.008	UU	47		50	U	71	U	108	
MW-521	08/19/09	0.5	U	NA	NA	0.012	UU	45		50	U	71	U	106	
MW-521	10/26/09	0.5	U	NA	NA	0.012	UU	120		50	U	69	U	180	
MW-521 (Duplicate)	10/26/09	0.5	U	NA	NA	0.012	UU	78		50	U	74	U	140	
MW-521	01/19/10	NA		NA	NA	NA		30	U	50	U	70	UU	571	
MW-521	04/20/10	NA		NA	NA	NA		31	U	50	U	73	UU	569	
MW-521	07/20/10	NA		NA	NA	NA		70		50	U	67	U	539	
MW-521	10/27/10	0.5	U	NA	NA	0.013	UU	77		50	U	72	U	536	
MW-521	06/15/11	NA		NA	NA	NA		47		50	U	67	U	549	
MW-521	12/14/11	0.2	U	NA	NA	0.007	UU	29	U	50	U	67	UU	574	
MW-521	06/28/12	NA		NA	NA	NA		28	U	50	U	66	U	575	
MW-521	12/17/12	0.2	U	NA	NA	0.008	UU	28	U	50	U	66	UU	575	
MW-521	06/25/13	NA		NA	NA	NA		29	U	50	U	69	UU	573	
MW-521	12/17/13	0.2	U	NA	NA	0.008	UU	29	U	50	U	67	UU	574	
MW-521	06/18/14	NA		NA	NA	NA		28	U	50	U	66	UU	575	
MW-521	12/10/14	0.3		NA	NA	0.008	UU	28	U	50	U	66	UU	575	
MW-521	06/24/15	NA		NA	NA	NA		29	U	50	U	68	UU	573	
MW-521	10/24/16	0.5	U	0.5	U	0.5	U	1.5	U	50	U	110	UU	550	
MW-521	07/25/17	0.5	U	NA	NA	0.008	UU	45	U	50	U	100	UU	553	
MW-521	03/20/18	0.2	U	NA	NA	0.008	UU	46	U	50	U	100	UU	553	
MW-521	06/28/18	0.5	U	NA	NA	0.008	UU	48	U	50	U	110	UU	550	
MW-521	09/18/18	0.5	U	NA	NA	0.008	UU	46	U	19	U	100	UU	523	
MW-521	11/30/18	0.5	U	NA	NA	0.009	UU	46	U	19	U	100	UU	523	
MW-521	03/22/19	0.5	U	NA	NA	0.008	UU	75	J	19	U	100	U	514	
MW-521 (Duplicate)	03/22/19	0.5	U	NA	NA	0.008	UU	47	U	19	U	110	UU	521	
MW-521	06/19/19	0.5	U	NA	NA	0.008	UU	47	U	19	U	100	UU	522	
MW-521	09/18/19	0.2	U	NA	NA	0.008	UU	47	U	19	U	100	UU	522	
MW-521	12/11/19	0.2	U	NA	NA	0.008	UU	48	U	19	U	110	UU	521	

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)					
		B	T	E	X												
		CUL=16	--	--	--	CUL=0.05	--										
MW-522*	10/21/08	1.46	0.50	U	0.50	U	1.41	UU	250	U	534	JZ	500	U	909	641	
MW-522*	12/09/08	0.782	0.5	U	0.5	U	1.00	UU	245	U	183	U	490	U	551	571	
MW-522* (Duplicate)	12/09/08	0.805	5	U	5	U	1.00	UU	245	U	186	U	490	U	554	572	
MW-522*	02/23/09	0.5	U	NA	NA	U	NA	UU	490	U	160	U	71	U	686	548	
MW-522*	04/21/09	0.5	U	NA	NA	U	NA	UU	620	U	62	U	97	U	779	515	
MW-522*	06/23/09	0.5	U	NA	NA	U	NA	UU	330	U	100	U	67	U	464	544	
MW-522*	08/18/09	0.5	U	NA	NA	U	NA	UU	300	U	94	U	67	U	428	545	
MW-522*	10/26/09	0.5	U	NA	NA	U	NA	UU	650	U	50	U	280	U	955	505	
MW-522*	01/19/10	NA	U	NA	NA	U	NA	UU	39	U	50	U	66	U	97	553	
MW-522*	04/20/10	NA	U	NA	NA	U	NA	UU	220	U	50	U	81	U	286	517	
MW-522*	07/20/10	NA	U	NA	NA	U	NA	UU	470	U	50	U	76	U	533	509	
MW-522*	10/26/10	0.5	U	NA	NA	U	NA	UU	260	U	50	U	66	U	318	515	
MW-522*	03/22/11	NA	U	NA	NA	U	NA	UU	150	U	50	U	66	U	208	524	
MW-522*	06/15/11	NA	U	NA	NA	U	NA	UU	380	U	50	U	72	U	441	511	
MW-522*	09/27/11	NA	U	NA	NA	U	NA	UU	29	U	50	U	67	U	88	560	
MW-522* (Duplicate)	09/27/11	NA	U	NA	NA	U	NA	UU	42	U	50	U	66	U	100	552	
MW-522*	12/14/11	0.2	U	NA	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-522*	03/28/12	NA	U	NA	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-522*	06/28/12	NA	U	NA	NA	U	NA	UU	28	U	50	U	66	U	72	UU	575
MW-522*	09/26/12	NA	U	NA	NA	U	NA	UU	29	U	50	U	68	U	74	UU	573
MW-522*	12/14/12	0.2	U	NA	NA	U	NA	UU	41	U	50	U	140	U	206	524	
MW-522*	03/26/13	NA	U	NA	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-522* (Duplicate)	03/26/13	NA	U	NA	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-522*	06/25/13	NA	U	NA	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-522*	09/25/13	NA	U	NA	NA	U	NA	UU	36	U	50	U	70	U	78	UU	568
MW-522*	12/17/13	0.2	U	NA	NA	U	NA	UU	31	U	50	U	72	U	77	UU	570
MW-522*	03/26/14	NA	U	NA	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-522*	06/18/14	NA	U	NA	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574
MW-522*	10/01/14	NA	U	NA	NA	U	NA	UU	30	U	50	U	71	U	76	UU	571
MW-522* (Duplicate)	10/01/14	NA	U	NA	NA	U	NA	UU	30	U	50	U	70	U	75	UU	571
MW-522*	12/10/14	0.3	U	NA	NA	U	NA	UU	28	U	50	U	66	U	72	UU	575
MW-522*	03/26/15	NA	U	NA	NA	U	NA	UU	30	U	50	U	69	U	75	UU	572
MW-522* (Duplicate)	03/26/15	NA	U	NA	NA	U	NA	UU	29	U	50	U	69	U	74	UU	573
MW-522*	06/24/15	NA	U	NA	NA	U	NA	UU	28	U	50	U	66	U	72	UU	575
MW-522*	10/24/16	0.5	U	0.5	U	0.5	U	UU	47	U	50	U	100	U	99	UU	553
MW-522*	07/25/17	0.5	U	NA	NA	U	NA	UU	80	U	50	U	700	U	805	506	
MW-522*	03/20/18	0.2	U	NA	NA	U	NA	UU	46	U	50	U	100	U	98	UU	553
MW-522*	06/28/18	0.5	U	NA	NA	U	NA	UU	50	U	50	U	110	U	105	UU	549
MW-522*	09/18/18	0.5	U	NA	NA	U	NA	UU	48	U	19	U	110	U	89	UU	521
MW-522*	11/29/18	0.5	U	NA	NA	U	NA	UU	50	U	19	U	110	U	90	UU	521
MW-522*	03/21/19	0.5	U	NA	NA	U	NA	UU	190	U	19	U	100	U	250	507	
MW-522*	06/18/19	0.5	U	NA	NA	U	NA	UU	510	U	19	U	120	U	580	503	
MW-522*	09/17/19	0.2	U	NA	NA	U	NA	UU	61	U	20	U	140	U	121	533	
MW-522*	12/12/19	0.2	U	NA	NA	U	NA	UU	47	U	19	U	170	U	203	509	
MW-522* (Duplicate)	12/12/19	0.2	U	NA	NA	U	NA	UU	45	U	19	U	100	U	82	UU	523
MW-523*	10/21/08	0.50	U	0.50	U	0.50	U	UU	245	U	63	U	490	U	431	529	
MW-523*	12/09/08	0.50	U	0.50	U	0.50	U	UU	248	U	50	U	495	U	397	UU	512
MW-523*	02/23/09	0.5	U	NA	NA	U	NA	UU	32	U	50	U	68	U	91	557	
MW-523*	04/21/09	0.5	U	NA	NA	U	NA	UU	30	U	50	U	69	U	75	UU	572
MW-523*	06/23/09	0.5	U	NA	NA	U	NA	UU	39	U	50	U	68	U	98	553	
MW-523* (Duplicate)	06/23/09	0.5	U	NA	NA	U	NA	UU	78	U	50	U	68	U	137	537	
MW-523*	08/18/09	0.5	U	NA	NA	U	NA	UU	140	U	50	U	66	U	198	525	
MW-523*	10/26/09	0.5	U	NA	NA	U	NA	UU	120	U	50	U	66	U	178	528	
MW-523*	01/19/10	NA	U	NA	NA	U	NA	UU	32	U	50	U	69	U	92	557	
MW-523*	04/20/10	NA	U	NA	NA	U	NA	UU	35	U	50	U	83	U	84	UU	563
MW-523*	07/20/10	NA	U	NA	NA	U	NA	UU	61	U	50	U	80	U	126	540	
MW-523*	10/26/10	0.5	U	NA	NA	U	NA	UU	160	U	50	U	74	U	222	522	
MW-523*	03/22/11	NA	U	NA	NA	U	NA	UU	28	U	50	U	66	U	72	UU	575
MW-523*	06/15/11	NA	U	NA	NA	U	NA	UU	73	U	50	U	67	U	132	538	
MW-523*	09/27/11	NA	U	NA	NA	U	NA	UU	29	U	50	U	67	U	73	UU	574

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)						
		B	T	E	X													
		CUL=16	--	--	--	CUL=0.05	--											
MW-523*	12/13/11	0.2	U	NA	NA	NA	NA	0.007	UU	28	U	50	U	66	U	72	UU	575
MW-523*	03/28/12	NA		NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574
MW-523*	06/28/12	NA		NA	NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575
MW-523*	09/26/12	NA		NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574
MW-523* (Duplicate)	09/26/12	NA		NA	NA	NA	NA	NA		31	U	50	U	71	U	76	UU	570
MW-523*	12/14/12	0.2	U	NA	NA	NA	NA	0.008	UU	30	U	50	U	71	U	76	UU	571
MW-523*	03/26/13	NA		NA	NA	NA	NA	NA		29	U	50	U	69	U	74	UU	573
MW-523*	06/25/13	NA		NA	NA	NA	NA	NA		29	U	50	U	68	U	74	UU	573
MW-523*	09/25/13	NA		NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574
MW-523*	12/17/13	0.2	U	NA	NA	NA	NA	0.008	UU	30	U	50	U	160		200		525
MW-523*	03/27/14	NA		NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574
MW-523* (Duplicate)	03/27/14	NA		NA	NA	NA	NA	NA		30	U	50	U	70	U	75	UU	571
MW-523*	06/18/14	NA		NA	NA	NA	NA	NA		29	U	50	U	68	U	74	UU	573
MW-523*	09/30/14	NA		NA	NA	NA	NA	NA		30	U	50	U	69	U	75	UU	572
MW-523*	12/10/14	0.3		NA	NA	NA	NA	0.008	UU	30	U	50	U	69	U	75	UU	572
MW-523*	03/25/15	NA		NA	NA	NA	NA	NA		29	U	50	U	68	U	74	UU	573
MW-523*	06/23/15	NA		NA	NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575
MW-524*	10/21/08	0.50	U	0.50	U	0.50	U	1.00	U	240	U	50	U	481	U	386	UU	512
MW-524*	12/09/08	0.50	U	0.50	U	0.50	U	1.00	U	243	U	50	U	485	U	389	UU	512
MW-524*	02/23/09	0.5	U	NA		NA		0.008	UU	32	U	50	U	74	U	78	UU	568
MW-524*	04/21/09	0.5	U	NA		NA		0.007	UU	29	U	50	U	67	U	73	UU	574
MW-524*	06/23/09	0.5	U	NA		NA		0.007	UU	29	U	50	U	67	U	73	UU	574
MW-524*	08/18/09	0.5	U	NA		NA		0.012	UU	29	U	50	U	67	U	73	UU	574
MW-524*	10/26/09	0.5	U	NA		NA		0.012	UU	270	U	50	U	150		445		511
MW-524*	01/19/10	NA		NA		NA		NA		30	U	50	U	71	U	76	UU	571
MW-524*	04/20/10	NA		NA		NA		NA		28	U	50	U	66	U	72	UU	575
MW-524*	07/20/10	NA		NA		NA		NA		32	U	50	U	75	U	79	UU	568
MW-524*	10/26/10	0.5	U	NA		NA		0.012	UU	28	U	50	U	66	U	72	UU	575
MW-524*	03/22/11	NA		NA		NA		NA		28	U	50	U	66	U	72	UU	575
MW-524*	06/17/11	NA		NA		NA		NA		36	U	50	U	67	U	95		555
MW-524*	09/27/11	NA		NA		NA		NA		29	U	50	U	67.0	U	73	UU	574
MW-524*	12/13/11	0.2	U	NA		NA		0.007	UU	29	U	50	U	68	U	74	UU	573
MW-524*	03/28/12	NA		NA		NA		NA		29	U	50	U	67	U	73	UU	574
MW-524*	06/28/12	NA		NA		NA		NA		30	U	50	U	70	U	75	UU	571
MW-524*	09/26/12	NA		NA		NA		NA		29	U	50	U	67	U	73	UU	574
MW-524*	12/14/12	0.2	U	NA		NA		0.008	UU	28	U	50	U	66	U	72	UU	575
MW-524* (Duplicate)	12/14/12	0.2	U	NA		NA		0.008	UU	29	U	50	U	67	U	73	UU	574
MW-524*	03/26/13	NA		NA		NA		NA		32	U	50	U	74	U	78	UU	568
MW-524*	06/25/13	NA		NA		NA		NA		29	U	50	U	68	U	74	UU	573
MW-524*	09/24/13	NA		NA		NA		NA		28	U	50	U	66	U	72	UU	575
MW-524*	06/25/13	NA		NA		NA		NA		29	U	50	U	68	U	74	UU	573
MW-524*	12/17/13	0.2	U	NA		NA		0.008	UU	28	U	50	U	66	U	72	UU	575
MW-524*	03/28/14	NA		NA		NA		NA		29	U	50	U	67	U	73	UU	574
MW-524*	06/18/14	NA		NA		NA		NA		29	U	50	U	67	U	73	UU	574
MW-524*	09/30/14	NA		NA		NA		NA		30	U	50	U	69	U	75	UU	572
MW-524*	12/09/14	0.2	U	NA		NA		0.008	UU	31	U	50	U	71	U	76	UU	570
MW-524*	03/25/15	NA		NA		NA		NA		29	U	50	U	68	U	74	UU	573
MW-524*	06/23/15	NA		NA		NA		NA		28	U	50	U	66	U	72	UU	575
MW-525	06/29/12	NA		NA		NA		NA		330		13,000		66	U	13,363		787
MW-525 (Duplicate)	06/29/12	NA		NA		NA		NA		360		11,000		68	U	11,394		784
MW-525	12/14/12	5,900		NA		NA		0.012		380		23,000		72	U	23,416		792
MW-525	06/26/13	980		NA		NA		NA		150		5,800		68	U	5,984		786
MW-525 (Duplicate)	06/26/13	NA		NA		NA		NA		130		5,400		68	U	5,564		786
MW-525	12/17/13	990		NA		NA		0.008	UU	140		4,000		69	U	4,175		780
MW-525	06/17/14	NA		NA		NA		NA		180		7,800		67	U	8,014		787
MW-525	12/09/14	6,200		NA		NA		0.008	UU	720		28,000		66	U	28,753		788
MW-525	06/23/15	NA		NA		NA		NA		230		2,700		66	U	2,963		760
MW-525	10/26/16	350		2.0		140		0.008	UU	150		3,900		100	U	4,100		777
MW-525 (Duplicate)	10/26/16	360		1.9		140		0.008	UU	140		3,300		100	U	3,490		775
MW-525	07/26/17	1,200		NA		NA		0.008	UU	130		4,700		110	U	4,885		782
MW-525	03/20/18	14		NA		NA		0.008	UU	49	U	920		110	U	1,000		764

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)
		B	T	E	X											
		CUL=16	--	--	--	CUL=0.05		--		--		--		see note 6		
MW-525	06/27/18	6.0	NA	NA	NA	0.008	UU	46	U	1000		100	U	1,073	769	
MW-525	09/17/18	6.6	NA	NA	NA	0.008	UU	47	U	570		100	U	644	749	
MW-525	11/27/18	0.5	U	NA	NA	0.009	UU	130	U	19	U	100	U	190	510	
MW-525	03/19/19	6.0	NA	NA	NA	0.008	UU	47	U	320		100	U	394	719	
MW-525	06/20/19	4.7	NA	NA	NA	0.008	UU	47	U	290		100	U	364	713	
MW-525	09/17/19	0.9	J	NA	NA	0.008	UU	46	U	120	J	100	U	193	652	
MW-525	12/11/19	3	NA	NA	NA	0.008	UU	50	U	88	J	110	U	168	622	
MW-526	06/29/12	NA	NA	NA	NA	NA		82		450		67	U	566	713	
MW-526	12/14/12	2.0	NA	NA	NA	0.008	UU	32		980		66	U	1,045	771	
MW-526	06/26/13	2.0	NA	NA	NA	NA		82		1,100		67	U	1,216	757	
MW-526	12/18/13	1.6	NA	NA	NA	0.090		93		850		68	U	977	742	
MW-526	06/17/14	NA	NA	NA	NA	NA		150		780		67	U	964	718	
MW-526	12/10/14	1.5	NA	NA	NA	0.008	UU	64		350		66	U	447	708	
MW-526	06/23/15	NA	NA	NA	NA	NA		140		750		66	U	923	719	
MW-526 (Duplicate)	06/23/15	NA	NA	NA	NA	NA		100		790		66	U	923	736	
MW-526	10/24/16	0.5	U	0.5	U	0.008	UU	47	U	1,000		100	U	1,074	768	
MW-526 (Duplicate)	10/24/16	0.5	U	0.5	U	0.008	UU	45	U	960		100	U	1,033	768	
MW-526	07/26/17	1.5	NA	NA	NA	0.008	UU	120		1,600		100	U	1,770	756	
MW-526	03/20/18	1.0	NA	NA	NA	0.008	UU	210		1,800		100	U	2,060	744	
MW-526	06/27/18	0.5	U	NA	NA	0.008	UU	53		1000		100	U	1,103	758	
MW-526	09/17/18	0.5	U	NA	NA	0.008	UU	48	U	710		110	U	789	755	
MW-526	11/27/18	0.5	U	NA	NA	0.045		8800		84		1400		10,284	502	
MW-526	02/07/19	0.1	J	NA	NA	0.008		100		360		100	U	510	680	
MW-526	03/19/19	0.1	J	NA	NA	0.008	UU	64	J	530		100	U	644	723	
MW-526	06/20/19	0.5	U	NA	NA	0.008	UU	150		640		100	U	840	700	
MW-526	09/17/19	0.2	U	NA	NA	0.008	UU	48	U	410		110	U	489	729	
MW-526	12/11/19	0.2	U	NA	NA	0.008	UU	47	U	150	J	100	U	224	668	
MW-527	07/02/12	NA	NA	NA	NA	NA		30	U	50	U	71	U	76	UU	
MW-527	12/19/12	0.2	U	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	
MW-527	06/28/13	NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	
MW-527 (Duplicate)	06/28/13	NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	
MW-527	12/20/13	0.2	U	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	
MW-527	06/19/14	NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	
MW-527	12/12/14	0.2	U	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	
MW-527 (Duplicate)	12/12/14	0.2	U	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	
MW-527	06/28/15	NA	NA	NA	NA	NA		28	U	50	U	65	U	72	UU	
MW-528	07/02/12	NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	
MW-528	12/19/12	0.2	U	NA	NA	0.008	UU	29	U	50	U	68	U	74	UU	
MW-528 (Duplicate)	12/19/12	0.2	U	NA	NA	0.008	UU	29	U	50	U	68	U	74	UU	
MW-528	06/28/13	NA	NA	NA	NA	NA		29	U	50	U	69	U	74	UU	
MW-528	12/20/13	0.2	U	NA	NA	0.008	UU	29	U	50	U	68	U	74	UU	
MW-528	06/19/14	NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	
MW-528	12/12/14	0.2	U	NA	NA	0.008	UU	29	U	50	U	67	U	73	UU	
MW-528 (Duplicate)	12/12/14	0.2	U	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	
MW-528	06/26/15	NA	NA	NA	NA	NA		28	U	50	U	66	U	72	UU	
MW-530*	07/02/12	NA	NA	NA	NA	NA		30	U	50	U	70	U	75	UU	
MW-530*	09/27/12	NA	NA	NA	NA	NA		29	U	50	U	100		140		
MW-530*	12/17/12	0.2	U	NA	NA	0.008	UU	90		50	U	260		375		
MW-530*	03/27/13	NA	NA	NA	NA	NA		32	U	50	U	74	U	78	UU	
MW-530*	06/26/13	NA	NA	NA	NA	NA		30	U	50	U	71	U	76	UU	
MW-530*	09/24/13	NA	NA	NA	NA	NA		31	U	50	U	72	U	77	UU	
MW-530*	12/18/13	0.2	U	NA	NA	0.008	UU	31	U	50	U	71	U	76	UU	
MW-530*	03/27/14	NA	NA	NA	NA	NA		28	U	50	U	64	U	71	UU	
MW-530*	06/17/14	NA	NA	NA	NA	NA		29	U	50	U	68	U	74	UU	
MW-530*	09/30/14	NA	NA	NA	NA	NA		31	U	50	U	73	U	77	UU	
MW-530*	12/09/14	0.4	NA	NA	NA	0.010		29	U	50	U	68	U	74	UU	
MW-530*	03/24/15	NA	NA	NA	NA	NA		29	U	50	U	68	U	74	UU	
MW-530*	06/23/15	NA	NA	NA	NA	NA		29	U	50	U	67	U	73	UU	
MW-530*	10/26/16	0.5	U	0.5	U	0.008	UU	48	U	50	U	110	U	104	UU	
MW-530*	07/26/17	0.5	U	NA	NA	0.010	UU	47	U	50	U	100	U	99	UU	
MW-530*	03/20/18	0.2	U	NA	NA	0.0302		45	U	50	U	100	U	98	UU	
MW-530*	06/27/18	0.5	U	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)				
		B	T	E	X											
		CUL=16	--	--	--	CUL=0.05	--									
MW-530*	09/20/18	0.5	U	NA	NA	NA	NA	50	HU	19	U	110	HU	90	UU	270
MW-530*	11/27/18	0.5	U	NA	NA	NA	NA	45	U	19	U	100	U	82	UU	523
MW-530*	03/19/19	0.0	U	NA	NA	NA	NA	47	U	19	U	110	U	88	UU	521
MW-530*	06/17/19	Well Damaged - No sampling														
MW-530*	09/17/19	0.2	U	NA	NA	NA	NA	45	U	19	U	100	U	82	UU	523
MW-530*	12/12/19	0.2	U	NA	NA	NA	NA	51	U	19	U	110	U	90	UU	521
MW-531	06/28/12	NA		NA	NA	NA	NA	62		73		67	U	169		597
MW-531	12/18/12	0.2	U	NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574
MW-531	06/26/13	NA		NA	NA	NA	NA	29		83		68	U	146		635
MW-531	12/17/13	0.4		NA	NA	NA	NA	30	U	77		69	U	127		648
MW-531	06/17/14	NA		NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574
MW-531	12/09/14	0.2	U	NA	NA	NA	NA	30	U	50	U	70	U	75	UU	571
MW-531	06/23/15	NA		NA	NA	NA	NA	29	U	50	U	69	U	74	UU	573
MW-531	10/24/16	0.5	U	0.5	U	0.5	U	1.5	U	47	U	50	U	104	UU	550
MW-531	07/26/17	0.6		NA	NA	NA	NA	46	U	95		100	U	168		635
MW-531	03/20/18	0.2	U	NA	NA	NA	NA	45	U	50	U	100	U	98	UU	553
MW-531	06/27/18	0.5	U	NA	NA	NA	NA	46	U	50	U	100	U	98	UU	553
MW-531	09/17/18	0.5	U	NA	NA	NA	NA	50	U	19	U	110	U	90	UU	521
MW-531	11/27/18	0.5	U	NA	NA	NA	NA	47	U	19	U	100	U	83	UU	522
MW-531	03/19/19	4.5		NA	NA	NA	NA	190		19	U	100	U	250		507
MW-531	06/20/19	0.5	U	NA	NA	NA	NA	51	U	19	U	110	U	90	UU	521
MW-531 (Duplicate)	06/20/19	0.5	U	NA	NA	NA	NA	49	U	19	U	110	U	89	UU	521
MW-531	09/17/19	0.2	U	NA	NA	NA	NA	46	U	23	J	100	U	96		549
MW-531 (Duplicate)	09/17/19	0.2	U	NA	NA	NA	NA	46	U	24	J	100	U	97		551
MW-531	12/11/19	0.2	U	NA	NA	NA	NA	47	U	19	U	100	U	83	UU	522
MW-532	06/29/12	NA		NA	NA	NA	NA	41		50	U	68	U	100		552
MW-532	12/14/12	0.2	U	NA	NA	NA	NA	48		50	U	140		213		523
MW-532	06/26/13	NA		NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574
MW-532	12/17/13	0.2	U	NA	NA	NA	NA	30	U	50	U	69	U	75	UU	572
MW-532	06/17/14	NA		NA	NA	NA	NA	29	U	50	U	67	U	73	UU	574
MW-532	12/09/14	0.2		NA	NA	NA	NA	36		50	U	66	U	94		555
MW-532	06/23/15	NA		NA	NA	NA	NA	28	U	50	U	66	U	72	UU	575
MW-532	10/24/16	0.5	U	0.5	U	0.5	U	1.5	U	450		90		110		527
MW-532	07/26/17	0.5	U	NA	NA	NA	NA	380		50	U	110	U	460		510
MW-532	03/20/18	0.2	U	NA	NA	NA	NA	46	U	50	U	100	U	98	UU	553
MW-532	06/27/18	0.5	U	NA	NA	NA	NA	46	U	50	U	100	U	98	UU	553
MW-532	09/17/18	0.5	U	NA	NA	NA	NA	48	U	19	U	110	U	89	UU	521
MW-532	11/27/18	0.5	U	NA	NA	NA	NA	46	U	19	U	100	U	83	UU	523
MW-532	03/19/19	0.0	U	NA	NA	NA	NA	46	U	19	U	100	U	83	UU	523
MW-532	06/20/19	0.5	U	NA	NA	NA	NA	46	U	19	U	100	U	83	UU	523
MW-532	09/17/19	0.2	U	NA	NA	NA	NA	46	U	19	U	100	U	83	UU	523
MW-532	12/11/19	0.2	U	NA	NA	NA	NA	45	U	19	U	100	U	82	UU	523
MW-8R*	10/21/08	0.505		0.50	U	0.50	U	1.00	U	243		145	JZ	485		560
MW-8R*	12/09/08	0.51		0.50	U	0.50	U	1.00	U	240		97.1		481		543
MW-8R*	02/23/09	0.5	U	NA	NA	NA	NA	68		50	U	70	U	128		540
MW-8R*	04/21/09	0.5	U	NA	NA	NA	NA	29		50	U	67	U	88		560
MW-8R*	06/23/09	0.5	U	NA	NA	NA	NA	49		50	U	67	U	108		548
MW-8R*	08/18/09	0.5	U	NA	NA	NA	NA	62		50	U	66	U	120		542
MW-8R*	10/26/09	0.5	U	NA	NA	NA	NA	300		50	U	66	U	358		513
MW-8R*	01/19/10	NA		NA	NA	NA	NA	34		50	U	67	U	93		556
MW-8R* (Duplicate)	01/19/10	NA		NA	NA	NA	NA	32		50	U	68	U	91		557
MW-8R*	04/20/10	NA		NA	NA	NA	NA	28	U	50	U	66	U	72	UU	575
MW-8R*	07/20/10	NA		NA	NA	NA	NA	79		50	U	67	U	138		537
MW-8R*	10/26/10	0.5	U	NA	NA	NA	NA	440		50	U	77	U	504		509
MW-8R*	03/22/11	NA		NA	NA	NA	NA	28		50	U	66	U	72	UU	575
MW-8R* (Duplicate)	03/22/11	NA		NA	NA	NA	NA	32		50	U	67	U	91		558
MW-8R*	06/15/11	NA		NA	NA	NA	NA	44		50	U	67	U	103		550
MW-8R*	09/27/11	NA		NA	NA	NA	NA	30	U	50	U	70	U	75	UU	571
MW-8R*	12/14/11	0.2	U	NA	NA	NA	NA	28	U	50	U	66	U	72	UU	575
MW-8R*	03/28/12	NA		NA	NA	NA	NA	29		50	U	67	U	73	UU	574
MW-8R*	06/28/12	NA		NA	NA	NA	NA	30	U	50	U	70	U	75	UU	571

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)		Diesel ³ (µg/L)		Gasoline ⁴ (µg/L)		Heavy Oil ³ (µg/L)		TPH ⁵ (µg/L)		TPH CUL ⁶ (µg/L)		
		B	T	E	X	CUL=0.05		--		--		--		see note 6				
		CUL=16		--	--	--												
MW-8R* (Duplicate)	06/28/12	NA	NA	NA	NA	NA		30	U	50	U	71	U	76	UU	571		
MW-8R*	09/26/12	NA	NA	NA	NA	NA		31	U	50	U	73	U	77	UU	569		
MW-8R*	12/14/12	0.2	U	NA	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575	
MW-8R*	03/26/13	NA		NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575	
MW-8R*	06/25/13	NA		NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574	
MW-8R*	09/25/13	NA		NA	NA	NA	NA		30	U	50	U	69	U	75	UU	572	
MW-8R*	12/17/13	0.2	U	NA	NA	NA	0.008	UU	30	U	50	U	70	U	75	UU	571	
MW-8R*	03/27/14	NA		NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574	
MW-8R*	06/18/14	NA		NA	NA	NA	NA		29	U	50	U	67	U	73	UU	574	
MW-8R* (Duplicate)	06/18/14	NA		NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575	
MW-8R*	09/30/14	NA		NA	NA	NA	NA		31	U	50	U	73	U	77	UU	569	
MW-8R*	12/10/14	0.2		NA	NA	NA	0.008	UU	28	U	50	U	66	U	72	UU	575	
MW-8R*	03/25/15	NA		NA	NA	NA	NA		29	U	50	U	68	U	74	UU	573	
MW-8R*	06/23/15	NA		NA	NA	NA	NA		28	U	50	U	66	U	72	UU	575	
MW-8R*	10/24/16	0.5	U	0.5	U	0.5	U	1.5	U	46	U	50	U	100	U	98	UU	553
MW-8R*	07/25/17	0.5	U	NA	NA	NA	0.007	UU	45	U	50	U	100	U	98	UU	553	
MW-8R*	03/20/18	0.2	U	NA	NA	NA	0.008	UU	48	U	50	U	110	U	104	UU	550	
MW-8R*	06/29/18	0.5	U	NA	NA	NA	0.008	UU	47	U	50	U	100	U	99	UU	553	
MW-8R*	09/18/18	0.5	U	NA	NA	NA	0.008	UU	47	U	19	U	100	U	83	UU	522	
MW-8R*	11/29/18	0.5	U	NA	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521	
MW-8R*	03/21/19	0.5	U	NA	NA	NA	0.008	UU	47	U	19	U	100	U	83	UU	522	
MW-8R*	06/18/19	0.5	U	NA	NA	NA	0.008	UU	140	U	19	U	120	U	210	UU	509	
MW-8R*	09/18/19	0.2	U	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523	
MW-8R*	12/12/19	0.2	U	NA	NA	NA	0.008	UU	50	U	19	U	110	U	90	UU	521	
MW-533	03/20/18	0.2	U	NA	NA	NA	0.008	UU	47	U	50	U	100	U	99	UU	553	
MW-533	06/27/18	0.5	U	NA	NA	NA	0.008	UU	45	U	50	U	100	U	98	UU	553	
MW-533	09/17/18	0.5	U	NA	NA	NA	0.008	UU	50	U	19	U	110	U	90	UU	521	
MW-533 (Duplicate)	09/17/18	0.5	U	NA	NA	NA	0.008	UU	49	U	19	U	110	U	89	UU	521	
MW-533	11/27/18	0.5	U	NA	NA	NA	0.008	UU	45	U	19	U	100	U	82	UU	523	
MW-533*	03/19/19	0.0	U	NA	NA	NA	0.008	UU	47	J	19	U	100	U	107	UU	517	
MW-533	06/19/19	0.5	U	NA	NA	NA	0.008	UU	50	U	19	U	110	U	90	UU	521	
MW-533	09/17/19	0.2	U	NA	NA	NA	0.008	UU	45	U	19	U	100	U	82	UU	523	
MW-533	12/11/19	0.2	U	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523	
MW-533 (Duplicate)	12/11/19	0.2	U	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523	
MW-534	03/20/18	0.2	U	NA	NA	NA	0.008	UU	45	U	50	U	100	U	98	UU	553	
MW-534	06/27/18	0.5	U	NA	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553	
MW-534	09/17/18	0.5	U	NA	NA	NA	0.008	UU	47	U	19	U	100	U	83	UU	522	
MW-534	11/28/18	0.5	U	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523	
MW-534 (Duplicate)	11/28/18	0.5	U	NA	NA	NA	0.008	UU	50	U	19	U	110	U	90	UU	521	
MW-534	03/19/19	0.0	U	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523	
MW-534 (Duplicate)	03/19/19	0.0	U	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523	
MW-534	06/20/19	0.5	U	NA	NA	NA	0.008	UU	51	U	19	U	110	U	90	UU	521	
MW-534	09/17/19	0.2	U	NA	NA	NA	0.008	UU	45	U	29	J	100	U	102	UU	560	
MW-534	12/12/19	0.2	U	NA	NA	NA	0.008	UU	48	U	19	U	110	U	89	UU	521	
MW-535	03/20/18	0.2	U	NA	NA	NA	0.008	UU	45	U	50	U	100	U	98	UU	553	
MW-535 (Duplicate)	03/20/18	0.2	U	NA	NA	NA	0.008	UU	46	U	50	U	100	U	98	UU	553	
MW-535	06/27/18	0.5	U	NA	NA	NA	0.008	UU	48	U	50	U	110	U	104	UU	550	
MW-535 (Duplicate)	06/27/18	0.5	U	NA	NA	NA	0.008	UU	49	U	50	U	110	U	105	UU	549	
MW-535	09/17/18	0.5	U	NA	NA	NA	0.008	UU	49	U	19	U	110	U	89	UU	521	
MW-535	11/27/18	0.5	U	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523	
MW-535*	03/19/19	0.0	U	NA	NA	NA	0.008	UU	45	U	19	U	100	U	82	UU	523	
MW-535	06/19/19	0.5	U	NA	NA	NA	0.008	UU	52	U	19	U	110	U	91	UU	520	
MW-535	09/17/19	0.2	U	NA	NA	NA	0.008	UU	46	U	19	U	100	U	83	UU	523	
MW-535	12/12/19	0.2	U	NA	NA	NA	0.008	UU	46	U	19	U	320	U	353	UU	505	
MW-E	07/26/17	0.5	U	NA	NA	NA	0.018		1500		260		100	U	1,810	528		
MW-E-R	03/20/18	0.2	U	NA	NA	NA	0.008	UU	45	U	410		100	U	483	734		
MW-E-R	06/27/18	0.5	U	NA	NA	NA	0.008	UU	59		510		110	U	624	721		
MW-E-R	09/17/18	0.5	U	NA	NA	NA	0.008	UU	280		590		100	U	920	658		
MW-E-R	11/27/18	0.5	U	NA	NA	NA	0.012		640		460		110	U	1,155	588		
MW-E-R	02/07/19	0.2	J	NA	NA	NA	0.008		450		350		100	U	850	591		
MW-E-R (Duplicate)	02/07/19	0.2	J	NA	NA	NA	0.008		300		380		100	U	730	621		
MW-E-R	03/19/19	0.1	J	NA	NA	NA	0.010		180		400		110	U	635	655		
MW-E-R	06/20/19	0.5	U	NA	NA	NA	0.008	UU	100	J	460		120	U	620	693		

Table 3-4
 Summary of Groundwater Analytical Data
 Petroleum and Polynuclear Aromatic Hydrocarbons
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	BTEX ¹ (µg/L)				Total cPAHs Adjusted for Toxicity ² (µg/L)	Diesel ³ (µg/L)	Gasoline ⁴ (µg/L)	Heavy Oil ³ (µg/L)	TPH ⁵ (µg/L)	TPH CUL ⁶ (µg/L)
		B CUL=16	T --	E --	X --						
MW-E-R	09/17/19	0.2 U	NA	NA	NA	0.008 UU	140	690	100 U	880	708
MW-E-R	12/11/19	2 U	NA	NA	NA	0.008 UU	74 J	770	100 U	894	739

Notes:

¹B= benzene, T= toluene, E= ethylbenzene, X= xylenes. BTEX analyzed by EPA Method 8021B.

²cPAHs = Carcinogenic Polynuclear Aromatic Hydrocarbons. Analyzed by EPA Method 8270C-HVI. cPAHs adjusted for toxicity according to WAC 173-340-708(8) and Air Toxics Hot Spots Program Risk Assessment Guidelines, Part II Technical Support Document for Describing Available Cancer Potency Factors. Office of Environmental Health Hazard Assessment, California EPA. May 2005. If one or more adjusted cPAH constituents were reported as Non-Detect, half of the reporting limit was used in calculations.

³Diesel and Heavy Oil (Lube) analyzed by method NWTPH-D Extended.

⁴Gasoline analyzed by method NWTPH-G.

⁵TPH = Total petroleum hydrocarbons. TPH calculated by summing the concentrations of gasoline, diesel and heavy oil. For results which did not exceed method reporting limits, half of the reporting limit was added to determine TPH.

-- = not applicable

⁶ Sample specific TPH CULs are developed by setting a hazard index for all TPH mixtures (GRO, DRO, HO) to 1, and adjusting the compositions relative to their mixtures and MTCA A CULs for groundwater. The calculation used is from Section 5.3 of the Interim Action Report (SLR, 2007) and is as follows: TPH CUL = 1/(%GRO/800+%DRO/500+%HO/500). For constituents that are less than detection limits, half of the detection limit was used in the calculation.

(µg/L) = micrograms per liter.

CUL = Cleanup level.

EPA = Environmental Protection Agency.

* = Denotes perimeter wells.

[] = Bracketed data indicate duplicate samples.

Highlighted cell = Exceeds site specific CUL.

Shaded values indicate the most recent sampling event.

LNAPL = Light non-aqueous phase liquid.

NA = Not Analyzed.

Lab Qualifiers

Definition

D	Compound quantitated using a secondary dilution.
J	Indicates an estimated value.
JX	Results in the diesel organic range are primarily due to overlap from a gasoline range product.
JZ	Detected hydrocarbons in the gasoline range appear to be due to overlap of diesel range hydrocarbons.
U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UJ	The compound was analyzed for but not detected. The associated value is the estimated compound quantitation limit.
UU	The constituents making up the total are all non-detects.
W	Due to excessive foaming of the sample, normal reporting limits were not attained.
XX	Sample was collected as part of a matrix spike/ matrix spike duplicate (MS/MSD). Anomalous detection of HO was re-analyzed. The sample extract was re-injected and confirmed the reported results. The sample was re-extracted past

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
LM-2	10/23/08	57.54	3.51	17,373.54	0.39	222.94	5 U	914	1 UJ	28.1	0.349	4.0
LM-2	12/11/08	53.17	3.89	13,859.08	0.17	338.86	5 U	942	0.2 U	46.9	0.358	5.0
LM-2	02/26/09	49.78	3.82	12,912.70	1.62	371.08	0.46 U	915	0.250 U	59	0.367	3.2
LM-2	04/23/09	51.06	4.91	11,367.56	7.37	133.42	9.7	768	0.250 U	50	0.298	6.0
LM-2	06/25/09	55.63	5.36	17,476.72	3.18	-38.23	43.4	1,280	0.640	41	0.239	6.0
LM-2	08/20/09	60.42	6.03	23,943.90	5.43	-93.49	90.6	2,220	0.250 UW	25 P	0.277	6.0
LM-2	10/30/09	56.50	4.16	5,546.90	0.91	325.52	30.2	401	0.250 U	15	0.292	7.5
LM-2	10/29/10	59.54	5.27	12,292.11	1.08	27.03	90.4	385	5.000 U	760	0.196	5.2
LM-2	12/16/11	49.80	4.12	17,054.02	0.85	370	460 U	829	0.250 U	85	0.309	3.4
LM-2	12/18/12	50.34	4.98	14,232.66	1.15	112	35.9	652	0.250 U	2,300	0.263	5.5
LM-2	12/18/13	50.45	6.08	6,670.25	0.23	-39.01	43	337	0.250 U	1,800	0.213	6.0
LM-2	12/09/14	54.22	6.02	15,451.56	0.43	-191.87	101	563	0.250 U	1,700	0.569	>10
LM-2	07/26/17	64.92	6.29	4,426.9	0.07	-79.2	NA	10.0	0.250 U	5,600	0.184	10
LM-2	03/20/18	53.75	6.26	6,640.4	0.48	-14.5	NA	NA	NA	NA	NA	NA
LM-2	06/27/18	61.84	6.22	6,198.0	0.31	-71.0	NA	133.0	0.250 U	670	0.162	6
LM-2	11/27/18	55.99	6.02	4,512.3	0.01	-101.5	NA	93.2	0.250 U	640	0.097	7
LM-2	06/20/19	62.10	5.97	6,213	0.54	-48.5	NA	155.0	0.250 U	860	0.107	6.5
LM-2	12/11/19	53.12	6.10	10,221	0.04	-80.3	NA	185.0	0.620	400	0.00088 J	7.0
MW-101	10/22/08	59.63	6.13	2,774	0.19	64.36	42	96.2	0.21	170	1.33	3.6
MW-101	12/10/08	55.79	5.99	1,808	0.41	132.69	50	41	0.45	708	3.32	2.2
MW-101	02/24/09	43.38	6.32	870.43	0.78	49.88	110	70.6	0.39	3,000	2.38	2.4
MW-101	04/22/09	49.80	6.19	452.57	3.79	24.22	83	83.3	0.98	300	0.977	1.0
MW-101	06/25/09	57.14	6.10	901.96	1.65	129.31	56	135	0.250 U	71	1.55	0.5
MW-101	08/20/09	64.03	6.15	1,865	0.66	48.55	75.8	110	0.250 UW	250 P	2.98	6.0
MW-101	10/27/09	59.81	6.11	877.98	1.56	141.54	101	37.5	1.20	1.7	0.185	0.5
MW-101	10/27/10	59.43	6.12	3,096	2.12	-48.48	108	107	0.250 U	200	1.33	5.0
MW-101	12/14/11	54.44	6.54	1,096	0.95	100	130	35.3	0.910	320	0.0501	0.0
MW-101	12/18/12	52.84	6.63	180.44	9.59	119.91	109	16.3	1.300	3.0 U	0.0012	0.0
MW-101	12/20/13	52.58	6.22	1,632	1.43	94.46	203	9.7	0.490	2,600	0.0509	0.0
MW-101	12/10/14	56.57	6.65	347.63	5.55	135.62	90	20	1.800	25	0.0013	0.0
MW-101	07/25/17	58.75	6.50	445.74	2.28	116.9	NA	38.5	0.250 U	8.5	0.043	0.25
MW-101* (Duplicate)	07/25/17	--	--	--	--	--	--	33.7	0.290	9.8	0.036	--
MW-101	03/22/18	50.41	6.61	246.3	5.94	114.5	NA	NA	NA	NA	NA	NA
MW-101	06/28/18	57.72	6.81	440.3	0.34	77.8	NA	10.2	0.450	320	0.065	0
MW-101	11/28/18	57.30	7.00	1,463	0.69	-63.7	NA	3.9	0.250 U	4,100	2.220	6
MW-101	06/18/19	55.79	6.25	2,726	3.47	145.2	NA	131.0	0.580	55	0.870	0.5
MW-101	12/12/19	57.27	7.07	4,079	0.30	-126.7	NA	14.8	0.250 U	2,700	12.700	7.0
MW-101* (Duplicate)	12/12/19	57.27	7.07	4,079	0.30	-126.7	NA	14.5	0.250 U	2,600	11.100	7.0
MW-104	10/22/08	58.72	6.26	2,428	-0.01	-13.09	35.6	66.6	0.200 U	594	1.02	4.0
MW-104	12/10/08	55.07	6.24	982.41	0.22	30.53	53.8	23.1	0.200 U	1,160	1.13	3.0
MW-104	02/24/09	49.93	6.08	967.89	0.21	-26.14	58.8	17	0.250 U	2,200	1.19	3.2
MW-104	04/23/09	48.22	6.23	566.34	1.01	-121.29	59.2	60.2	0.73	1,800	0.959	4.0
MW-104	06/24/09	58.33	6.34	506.78	0.21	-62.91	63.9	39.2	0.25 U	1,200	0.714	6.0
MW-104	08/19/09	62.87	6.32	1,353	0.29	-61.28	75.6	45	0.25 U	950	0.901	6.0

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-104	10/27/09	60.10	6.12	2,590	0.43	-27.46	110	92.4	0.3	3,200	1.4	4.5
MW-104	10/27/10	58.17	6.16	1,640	0.04	-86.19	95.1	31.2	0.25 U	1,300	1.3	2.1
MW-104	12/13/11	53.28	6.19	863.19	0.14	-10.00	112	52.8	0.53 U	1,700	0.765	3.0
MW-104	12/18/12	50.70	6.35	229.74	3.31	197.61	96.4	17.2	1.6	37	0.061	1.0
MW-104	12/17/13	53.92	6.17	323.93	0.13	-66.63	108	18.3	0.3	980	0.287	0.12
MW-104	12/09/14	56.77	6.36	358.53	0.06	11.37	109	26	0.250 U	1,300	0.367	0.6
MW-104	07/26/17	60.48	6.53	360.84	0.18	17.2	NA	6.8	0.250 U	440	0.254	2.5
MW-104	03/20/18	50.34	--	--	10.31	--	NA	NA	NA	NA	NA	NA
MW-104	06/27/18	59.74	6.47	506.2	0.21	-192.3	NA	13.0	0.250 U	280	0.339	1
MW-104	11/27/18	58.81	6.71	632.6	0.02	-108.7	NA	7.4	0.250 U	960	0.380	4
MW-104	06/20/19	55.38	6.62	624.0	0.43	-37.3	NA	7.2	0.250 U	310	0.445	4.5
MW-104	12/12/19	55.08	6.41	5,784	2.18	-42.9	NA	132.0	0.250 U	230	1.870	6.5
MW-108	10/23/08	53.88	6.26	14,852	0.20	-83.53	509	373	1 UJ	2,390 D	0.208	1.4
MW-108	12/11/08	50.51	6.29	14,241	0.01	-184.14	557	288	0.200 U	1,410 D	0.242	1.2
MW-108	02/26/09	50.02	6.28	15,209	0.19	-268.28	549	456	0.250 U	3,000	0.263	3.0
MW-108	04/23/09	49.14	6.36	14,219	0.02	-270.38	517	315	0.250 U	2,400	0.278	3.0
MW-108	06/25/09	54.05	6.30	15,829	0.72	-132.71	486	507	0.52	2,100	0.284	4.5
MW-108	08/20/09	56.41	6.31	16,789	0.07	-158.78	525	401	0.25 UW	3,500	0.254	2.0
MW-108	10/30/09	55.36	6.31	18,050	0.12	-88.09	495	566	0.25 U	2,100	0.267	5.0
MW-108	10/29/10	54.88	6.31	23,518	0.02	-260.17	475	508	5 U	1,600	0.191	1.2
MW-108	12/16/11	51.90	6.27	20,084	0.07	-110.00	356	426	0.25 U	1,100	0.318	2.0
MW-108	12/18/12	45.21	6.17	12,903	0.63	-156.33	376	391	0.25 U	1,000	0.141	2.7
MW-108	12/19/13	50.97	6.51	21,819	-0.03	-267.22	545	381	0.25 U	2,100	0.124	0.2
MW-108	12/09/14	55.06	6.49	22,617	0.04	-321.05	605	404	0.250 U	3,300	0.107	1.0
MW-109	10/23/08	54.91	6.22	16,332	1.34	-194.55	342	693	1 UJ	785	1.59	0.6
MW-109	12/12/08	51.03	6.29	12,565	0.80	-193.01	291	640	0.200 U	560	0.528	0.2
MW-109	02/26/09	47.82	6.38	13,624	3.97	-179.39	300	993	0.250 U	820	1.21	0.4
MW-109	04/23/09	47.97	6.03	8,714	1.84	-192.93	316	546	0.250 U	350	1.58	1.0
MW-109	06/25/09	54.17	6.21	22,125	0.52	-138.25	202	1,660	1.4	570	1.09	3.0
MW-109	08/20/09	55.99	6.37	23,873	2.33	-155.34	331	1,540	0.25 UW	320 P	1,650	1.0
MW-109	10/30/09	55.51	6.00	14,893	0.76	-41.77	332	1,200	0.25 U	400	1.38	1.0
MW-109	10/29/10	54.34	6.54	23,528	3.14	-262.04	348	824	0.25 U	420	1.93	0.1
MW-109	12/16/11	50.80	6.35	13,574	1.60	-120.00	259	597	0.25 U	310	1.58	1.6
MW-109	12/18/12	46.13	5.94	3,373	1.39	-92.39	153	193	0.250 U	390	0.381	3.1
MW-109	12/19/13	49.84	6.70	22,150	6.62	-204.45	440	547	0.25 U	160	1.84	0.0
MW-109	12/09/14	54.73	6.63	14,320	6.42	-244.96	361	450	0.250 U	1,300	1.520	0.2
MW-126	12/18/12	49.66	6.75	301.47	2.81	13.21	249	19.6	0.250 U	3.0 U	0.126	2.0
MW-126	12/17/13	50.04	6.69	666.12	1.75	48.55	264	39.1	0.280	3.0 U	0.294	3.0
MW-126	12/10/14	52.14	6.73	730.22	0.13	38.63	283	25.3	0.250 U	3.0 U	0.0592	0.0
MW-126	07/25/17	55.16	6.09	461.04	0.95	232.7	NA	33.2	0.250 U	3.0 U	0.008	0.95
MW-126	03/22/18	46.35	7.14	515.3	7.04	199.5	NA	NA	NA	NA	NA	NA
MW-126	06/29/18	53.45	6.72	487.1	0.49	164.3	NA	26.8	0.250 U	3.0 U	0.025	2
MW-126	11/30/18	52.38	7.09	514.5	10.25	136.1	NA	35.8	3.100	3.0 U	0.005 U	0
MW-126 (Duplicate)	11/30/18	--	--	--	--	--	NA	43.5	3.600	3.0 U	0.005 U	NA

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-126	06/19/19	58.53	7.38	0.1	9.51	101.3	NA	38.8	0.250 U	3.0 U	0.015	0.0
MW-126	12/11/19	51.47	6.91	384.25	0.68	99.7	NA	31.0	0.250 U	3.0 U	0.036	0.5
MW-129R	10/24/08	54.76	6.45	839.57	-0.02	-33.84	502	23.8	0.200 U	1,930 U	5.74	5.8
MW-129R	12/12/08	51.10	6.62	867.09	0.12	-76.86	469	91.6	0.200 U	1,600 D	10.3	5.4
MW-129R	02/27/09	47.80	6.50	836.19	0.18	-70.26	505	47.1	0.250 U	6,000	8.56	5.8
MW-129R	04/27/09	49.18	6.56	822.66	0.17	-116.70	485	60.4	0.250 U	10,000	8.21	10.0
MW-129R	06/26/09	54.44	6.54	1,301	0.07	-79.11	493	64.4	0.250 U	9,100	7.81	9.0
MW-129R	08/21/09	57.58	6.58	1,014	0.06	-286.98	597	51.3	0.250 U	5,400	7.88	9.0
MW-129R	10/28/09	55.23	6.75	1,919	0.05	-161.96	1,150	1.7	0.250 U	15,000	5.22	8.0
MW-129R	11/01/10	55.53	6.58	1,397	0.10	-155.22	742	75.3	0.250 U	5,500	8.92	2.8
MW-129R	12/19/11	52.20	6.52	1,680	0.01	-110.00	1,000	25.2	0.250 U	11,000	7.00	5.0
MW-129R	12/18/12	51.77	6.60	1,485	0.29	-82.07	687	102	0.250 U	3,900	10.3	5.0
MW-129R	12/18/13	52.41	6.73	1,114	0.08	-117.71	699	66.3	0.250 U	2,300	11.3	4.5
MW-129R	12/09/14	54.53	6.69	1,490	0.06	-134.58	710	11	0.05 U	5,200	10.5	>10
MW-129R	07/26/17	58.59	6.64	1,435	0.11	-41.5	NA	112	0.250 U	4,200	8.270	7.0
MW-129R	03/20/18	50.15	6.71	1,377	0.11	-125.1	NA	NA	NA	NA	NA	NA
MW-129R	06/27/18	55.04	6.64	1,445	0.18	-188.1	NA	87.6	0.250 U	2,900	8.530	7
MW-129R	11/28/18	54.32	6.85	1,297	0.06	-127.7	NA	98.6	0.250 U	1,800	7.670	7
MW-129R	06/20/19	54.65	6.82	1,321	0.32	-55.8	NA	66.2	0.410 J	1,000	7.810	6.0
MW-129R	12/11/19	51.65	6.85	1,371	0.15	-98.0	NA	41.4	0.250 U	1,500	8.610	7.5
MW-134X	12/14/12	51.75	6.42	306.96	10.37	109.28	124	32.2	0.890	3.0 U	0.102	2.0
MW-134X	12/19/13	50.93	6.23	256.29	2.61	1.35	139	34	1.200	3.0 U	0.0	2.5
MW-134X	12/10/14	55.84	6.29	422.07	3.12	41.77	133	38	1.300	13	0.003	0.6
MW-135	10/27/08	54.94	6.51	1,848	-0.03	-60.48	959	4.12	0.200 U	10,800 D	2.68	4.0
MW-135	12/15/08	49.73	6.59	1,955	-0.09	-81.98	1,070	1.43	0.200 U	7,170 D	2.69	2.2
MW-135	02/27/09	52.61	6.38	760.32	0.27	22.19	402	79.1	0.250 U	1,100	1.31	3.4
MW-135	04/24/09	50.76	6.48	649.63	0.13	-134.17	382	67.2	0.250 U	620	0.743	2.0
MW-135	06/29/09	51.44	6.47	1,319	1.09	-31.25	752	33	0.43	2,600	1.66	6.0
MW-135	08/24/09	53.02	6.56	2,050	0.29	-60.39	1,140	6	0.250 U	11,000	1.67	7.0
MW-135	10/29/09	52.90	6.54	2,163	0.14	-87.07	1,220	2.4	0.250 U	12,000	1.75	8.0
MW-135	11/01/10	54.37	6.46	2,819	0.06	-74.99	1,160	1.5 U	0.250 U	12,000	1.24	5.6
MW-135	12/16/11	51.80	6.57	1,201	0.04	-20.00	425	101	0.250 U	250	0.37	7.0
MW-135	12/19/12	50.79	6.42	504.30	4.73	15.82	291	32.5	1.5	1,200	0.142	3.4
MW-135	12/20/13	50.87	6.50	1,914	0.03	549.43	1,080	1.5 U	0.250 U	20,000	0.755	4.9
MW-135	12/12/14	54.03	6.36	818.48	1.44	-13.44	291	49	0.250 U	740	0.080	7.5
MW-136	10/27/08	53.88	6.34	2,331	0.06	-57.07	851	0.42	0.200 U	16,800 D	3.19	4.2
MW-136	12/15/08	46.47	6.31	1,093	0.17	-99.68	629	32.5	0.200 U	9,050 D	4.31	2.8
MW-136	02/27/09	47.97	6.34	990.82	0.43	-56.64	474	72.1	0.250 U	8,900	4.05	5.6
MW-136	04/24/09	49.91	6.41	925.24	0.07	-193.85	405	91.1	0.250 U	13,000	4.62	8.0
MW-136	06/29/09	51.53	6.43	975.31	0.37	-75.06	492	72.1	0.250 U	16,000	4.86	7.0
MW-136	08/24/09	54.28	6.43	1,021	0.14	-92.53	544	36.3	0.250 U	21,000	4.82	10.0
MW-136	10/29/09	53.78	6.35	981.76	0.25	-113.64	574	1.5 U	0.250 U	19,000	4.63	7.0
MW-136	11/01/10	54.50	6.44	1,148	0.05	-140.56	576	1.5 U	0.250 U	17,000	6.13	1.8
MW-136	12/16/11	51.90	6.43	2,964,573	-0.01	-94.97	523	2.8	0.250 U	20,000	12.6	2.0

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-136	12/19/12	49.27	6.61	771.17	0.06	-216.79	416	14.8	0.250 U	8,200	10.2	7.0
MW-136	12/20/13	49.48	6.30	696.18	0.07	-202.27	488	1.5 U	0.250 U	25,000	12.9	6.0
MW-136	12/12/14	52.88	6.76	734.70	1.96	-54.76	405	5	0.250 U	10,000	10.700	9.5
MW-139R	10/22/08	63.60	6.87	664.62	0.01	-22.31	243	64.8	0.200 U	864	2.48	1.0
MW-139R	12/10/08	54.36	6.96	708.71	0.78	15.38	167	76.1	0.2	13	0.902	0.5
MW-139R	02/25/09	43.11	7.06	334.12	3.34	136.11	105	53	0.4	5.0 U	0.115	0.4
MW-139R	04/23/09	47.34	7.08	180.00	1.66	-104.66	81.4	32.3	0.250 U	10 U	0.0102	0.4
MW-139R	06/25/09	62.38	7.14	365.34	0.50	-96.96	134	51.5	0.250 U	34	0.523	2.0
MW-139R	08/20/09	69.85	7.10	439.97	0.22	-108.16	156	49.7	0.250 UW	77 P	0.512	1.0
MW-139R	10/28/09	60.58	6.95	277.93	1.41	71.75	110	37.5	0.250 U	5.2	0.0215	0.5
MW-139R	10/28/10	61.92	6.86	447.33	2.11	-69.41	185	60.4	0.250 U	52	0.189	1.0
MW-139R	12/15/11	51.33	6.99	258.44	2.69	70.00	114	35.2	0.250 U	5.0 U	0.027	0.0
MW-139R	12/18/12	49.36	6.93	258.61	4.11	196.75	85.2	16.3	0.260	3.0 U	0.0024	0.0
MW-139R	12/18/13	53.40	6.89	374.82	1.21	-103.26	139	33.8	0.250 U	5.6	0.0272	1.2
MW-139R	12/10/14	56.26	7.01	416.71	1.78	102.78	135	31	0.25 U	3.0 U	0.0185	0.1
MW-139R	07/27/17	63.47	6.88	467.67	0.29	--	NA	25.9	0.250 U	160	0.176	1.25
MW-139R	03/22/18	48.73	7.06	1,376	4.72	138.0	NA	NA	NA	NA	NA	NA
MW-139R	06/28/18	63.40	7.61	462.4	2.21	-92.5	NA	24.0	0.540	80	0.129	0
MW-139R	11/28/18	53.25	7.45	1,371	6.69	99.0	NA	58.4	1.700	3.0 U	0.005 U	0
MW-139R	06/18/19	59.19	7.06	38,257	7.24	153.8	NA	1,390	0.360 J	18	0.041	0
MW-139R	12/09/19	52.51	7.27	2,920	4.75	67.8	NA	135.0	0.480 J	11	0.002 J	0.5
MW-13U	12/14/12	23.38	33.19^	53,947	2.96	-1,395.87	116	14.9	0.850	3.0 U	0.0019	0.0
MW-13U	12/20/13	52.45	6.25	181.31	2.40	-66.63	109	67.3	0.670	3.0 U	0.00073 U	0.0
MW-13U	12/10/14	57.94	6.48	281.43	3.25	147.77	104	16	0.950	3.0 U	0.001	0.0
MW-143	10/22/08	59.41	6.49	383.51	0.01	-49.00	142	34.4	0.200 U	2,210 D	1.26	5.4
MW-143	12/16/08	50.76	6.39	367.82	0.06	-73.14	194	12.9	0.200 U	7,630 D	3.82	3.2
MW-143	02/25/09	49.77	6.32	391.78	0.23	-61.12	229	1.5 U	0.250 U	18,000	4.47	4.2
MW-143	04/21/09	51.98	6.44	395.08	0.12	-167.60	220	1.8	0.250 U	17,000	4.28	5.8
MW-143	06/24/09	59.07	6.39	418.65	0.37	-130.39	210	1.5 U	0.250 U	15,000	3.67	6.0
MW-143	08/19/09	61.70	6.42	379.94	0.06	-84.88	182	9.1	0.250 U	4,100	1.86	2.0
MW-143	10/27/09	60.32	6.35	356.97	0.17	-144.82	154	14.5	0.360	4,900	0.868	6.5
MW-143	10/27/10	59.34	6.56	268.76	0.51	-174.12	68.5	55.7	0.250 U	620	0.214	3.0
MW-143	12/14/11	52.72	6.36	392.01	0.08	-81.55	229	1.5 U	0.250 U	19,000	4.01	5.5
MW-143	12/20/12	52.68	6.34	403.71	0.10	-76.85	244	1.5 U	0.250 U	17,000	4.37	5.3
MW-143	12/18/13	53.20	6.34	398.11	1.18	-41.69	206	1.5 U	0.250 U	22,000	3.7	4.6
MW-143	12/10/14	55.73	6.39	595.43	1.10	-63.38	227	2	0.25 U	19,000	4.04	>10
MW-143	07/25/17	59.95	6.40	660.49	0.19	-55.3	NA	1.5 U	0.250 U	20,000	4.450	>7
MW-143	03/22/18	47.88	6.75	289.8	0.43	-83.0	NA	NA	NA	NA	NA	NA
MW-143	06/29/18	57.29	6.41	460.9	0.18	-96.6	NA	94.6	0.250 U	1,000	1.570	6
MW-143	11/30/18	55.58	6.41	318.0	0.06	-180.2	NA	1.5 U	0.250 U	6,200	1.140	7
MW-143	06/19/19	54.75	6.51	516.4	0.44	-42.7	NA	4.4 J	0.250 U	5,100	3.740	4.5
MW-143	12/11/19	53.05	6.45	261.55	0.57	-123.1	NA	19.7	0.250 U	1,900 E	1.370	5.5
MW-147	10/21/08	58.43	6.24	516.46	-0.02	-18.40	131	67.2	0.200 U	330	2.38	5.2
MW-147	12/09/08	52.49	6.42	692.37	0.18	-104.13	301	141	0.200 U	895	4.16	6.4

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-147	02/23/09	49.80	6.42	776.76	0.12	-93.21	407	111	0.250 U	1,000	4.86	5.4
MW-147	04/21/09	50.50	6.50	629.49	0.09	634.02	334	86.9	0.250 U	1,500	4.08	6.0
MW-147	06/23/09	55.54	6.50	696.30	0.04	-108.35	393	49.6	0.250 U	340	3.92	7.0
MW-147	08/18/09	60.57	6.46	605.85	0.06	-45.34	272	74.2	0.250 U	610	3.01	7.0
MW-147	10/26/09	58.00	6.35	518.53	0.10	-41.83	205	84.6	0.250 U	890	3.26	8.0
MW-147	10/26/10	56.07	6.34	426.81	0.20	-74.33	162	83.6	0.250 U	340	2.96	5.2
MW-147	12/13/11	52.52	5.99	440.75	0.12	-13.48	181	134	0.640	15	2.61	1.6
MW-147	12/14/12	52.59	6.05	399.49	3.72	141.88	147	144	0.250 U	5.4	3.61	3.6
MW-147	12/17/13	53.28	6.05	510.40	0.31	147.70	145	189	0.290	36	2.13	1.0
MW-147	12/09/14	52.65	5.95	466.27	4.61	229.44	92.3	136	0.250 U	3.0 U	1.190	0.1
MW-149R	10/21/08	58.41	6.56	521.83	0.09	-34.31	225	52.5	0.200 U	1,610 D	0.963	1.6
MW-149R	12/09/08	52.55	6.22	466.01	0.17	101.87	117	165	0.200 U	224	1.06	0.6
MW-149R	02/23/09	48.40	6.43	441.39	0.09	82.90	161	133	0.250 U	420	0.507	0.6
MW-149R	04/21/09	48.99	6.37	329.88	1.25	589.02	115	117	0.71	60	0.216	0.2
MW-149R	06/23/09	56.35	6.56	556.71	0.01	15.84	217	118	0.250 U	860	0.338	3.0
MW-149R	08/18/09	62.17	6.56	643.81	0.15	-22.07	256	121	0.250 U	1,100	0.48	3.0
MW-149R	10/26/09	58.37	6.21	404.24	3.57	203.93	76.4	160	1.600	7.9	0.0113	1.0
MW-149R	10/26/10	57.49	6.36	501.89	0.55	50.72	150	135	0.770	28	0.14	0.5
MW-149R	12/13/11	50.53	6.39	277.74	0.67	210.00	79.1	122	1.6	5.0 U	0.0163	0.0
MW-149R	12/14/12	49.79	6.42	442.76	5.35	227.31	154	172	0.770	3.0 U	0.0074	0.5
MW-149R	12/17/13	51.91	6.32	446.22	0.22	150.77	83.2	128	1.5	3.0 U	0.0051	1.0
MW-149R	12/09/14	51.67	6.41	306.80	5.37	258.01	84.7	57	1.800	3.0 U	0.001	0.1
MW-150	10/21/08	58.35	6.52	748.62	-0.05	25.37	444	68.7	0.200 U	622	1.52	1.4
MW-150	12/09/08	52.71	6.54	761.44	0.20	32.64	440	134	0.200 U	389	1.52	1.8
MW-150	02/23/09	48.38	6.56	586.85	0.14	71.82	371	101	0.250 U	180	1.24	1.0
MW-150	04/21/09	48.86	6.69	570.05	0.15	-80.49	341	86.5	0.250 U	50	1.14	1.0
MW-150	06/23/09	57.16	6.77	569.79	0.27	31.03	347	60.8	0.250 U	220	0.945	1.0
MW-150	08/18/09	62.67	6.61	708.96	0.06	-5.64	403	69.3	0.250 U	350	1.24	1.8
MW-150	10/26/09	58.83	6.64	587.23	0.96	70.66	316	73	0.380	51	0.295	1.0
MW-150	10/26/10	58.28	6.34	2,521,507	0.60	33.14	347	63.6	1.1	110	0.812	1.8
MW-150	12/13/11	51.57	6.54	619.48	0.06	3.17	390	89.4	0.380	150	1.37	2.0
MW-150	12/14/12	51.94	6.59	409.93	0.48	101.66	263	41.1	0.250 U	26.0	0.179	0.0
MW-150	12/17/13	52.39	6.55	822.42	0.29	19.61	386	64.6	0.250 U	980	2.24	3.0
MW-150	12/09/14	54.45	6.39	591.47	1.31	235.42	309	54	0.250 U	280	0.440	0.1
MW-203	12/17/12	51.62	6.23	197.93	5.66	229.49	79.1	10.2	2.0	3.0 U	0.00083	NA
MW-203	12/19/13	48.13	6.33	143.10	4.97	2.03	80.7	9.2	1.9	3.0 U	0.0021	1.5
MW-203	12/10/14	53.67	6.35	233.78	5.29	130.18	77.1	11	2.300	3.0 U	0.001 U	0.1
MW-20R	10/22/08	55.85	6.68	10,026	0.15	-63.43	306	283	0.200 U	771	2.97	6.0
MW-20R	12/10/08	54.77	6.63	7,040	0.00	-88.61	263	238	0.200 U	886	1.63	4.0
MW-20R	02/24/09	49.87	6.89	2,668	0.11	-94.36	271	77.7	0.250 U	3,300	0.404	2.0
MW-20R	04/22/09	48.29	6.77	1,614	0.53	-71.76	250	33.6	0.250 U	2,800	0.293	5.5
MW-20R	06/24/09	54.32	6.73	6,859	0.44	-54.70	234	287	0.39	160	1.24	3.5
MW-20R	08/19/09	58.26	6.72	12,574	0.18	-122.78	229	592	0.250 U	900	2.49	6.0
MW-20R	10/27/09	57.49	6.43	11,375	0.61	-95.09	153	520	2.80	340	1.41	2.0

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-20R	10/27/10	57.29	6.80	30,823	0.07	-143.50	128	1,710	1.2	51	0.839	2.6
MW-20R	12/14/11	53.47	6.56	10,516	-0.01	-39.92	220	566	0.250 U	1,400	0.488	2.6
MW-20R	12/17/12	51.84	5.76	177.51	7.57	236.30	39.9	63.6	0.250 U	3.0 U	0.127	0.5
MW-20R	12/18/13	53.27	6.72	6,773	0.07	-113.24	231	315	0.250 U	1,400	0.22	0.6
MW-20R	12/10/14	55.64	6.44	5,415	2.64	-208.01	129	232	0.25 U	140	0.116	0.1
MW-20R	07/26/17	58.29	6.51	17,957	3.14	40.8	NA	835	0.250 U	410	1.520	4.75
MW-20R	03/22/18	48.65	6.81	9,009	0.58	-13.0	NA	NA	NA	NA	NA	NA
MW-20R	06/29/18	55.83	7.05	9,558	0.17	-149.2	NA	344.0	0.250 U	160	0.526	2
MW-20R	11/29/18	55.71	6.84	12,493	1.48	-85.7	NA	426.0	0.250 U	80	0.354	2
MW-20R (Duplicate)	11/29/18	--	--	--	--	--	NA	473.0	0.250 U	86	0.353	NA
MW-20R	06/19/19	55.17	6.79	22,038	0.20	61	NA	1,350	0.250 U	120	0.746	1.0
MW-20R (Duplicate)	06/19/19	--	--	--	--	--	NA	1,420	0.250 U	92	0.680	NA
MW-20R	12/12/19	54.47	6.75	22,661	0.05	-48.7	NA	778.0	0.250 U	630	0.744	5.5
MW-500	10/27/08	60.04	6.44	4,500	0.05	-10.17	977	172	0.200 U	8,590 D	0.97	4.2
MW-500	12/15/08	48.50	6.73	641.64	0.50	76.79	362	134	0.23	1,940 D	0.511	0.0
MW-500	02/27/09	44.74	6.77	475.25	0.29	111.07	334	37.7	0.250 U	6,400	0.2	1.2
MW-500	04/24/09	50.90	6.73	339.34	0.44	-143.85	263	18.6	0.250 U	39	0.0808	0.4
MW-500	06/29/09	59.99	6.38	1,002	-0.08	-44.59	464	17,900	0.250 U	16,000	1,340	3.0
MW-500	08/21/09	67.41	6.38	1,342	0.10	-233.97	647	2.20	0.250 U	15,000	1.82	2.5
MW-500	10/29/09	59.42	6.42	734.24	0.16	-104.24	362	131	0.350	13,000	1.97	1.5
MW-500	11/01/10	58.82	6.16	735.00	0.07	-145.52	451	22.4	0.250 U	12,000	1.8	5.5
MW-500	12/16/11	52.50	6.26	1,101,367	0.13	-103.35	175	4.3	0.250 U	9,400	0.344	5.2
MW-500	12/19/12	49.54	6.97	120.55	7.19	124.35	86.8	4.6	0.350	3.0 U	0.0012	0.6
MW-500	12/20/13	47.66	6.09	2,126	7.41	-25.52	401	1.5 U	0.250 U	19,000	1.38	0.14
MW-500	12/11/14	51.79	6.62	243.84	0.59	11.00	98.5	8	0.250 U	8,400	0.100	0.2
MW-501	10/24/08	60.21	6.53	3,806	-0.02	-27.98	1,700	59.2	0.200 U	10,500 DJ	3.49	5.0
MW-501	12/15/08	51.44	6.66	475.85	4.55	91.22	269	55.4	1.73	92	0.0552	0.0
MW-501	03/02/09	49.42	6.49	434.37	2.35	216.95	317	34.7	1.2	56	0.67	0.8
MW-501	04/24/09	51.05	6.53	374.33	1.03	-42.42	248	29.7	0.250 U	140	0.694	1.0
MW-501	06/26/09	59.01	6.40	1,026	0.04	37.36	NA	12.6	0.250 U	16,000	2.8	0.0
MW-501	08/21/09	67.17	6.44	1,361	0.19	-47.09	752	2.7	0.250 U	13,000	5	7.0
MW-501	10/29/09	58.23	6.43	366.98	0.24	-105.85	242	26.1	0.250 U	380	4.9	5.0
MW-501	11/01/10	59.18	6.26	844.99	0.10	-102.31	509	1.5 U	0.250 U	14,000	4.95	7.2
MW-501	12/16/11	52.30	6.31	1,364,321	0.02	-162.31	219	5.8	0.250 U	1,400	1.65	4.2
MW-501	12/19/12	50.03	6.29	135.87	3.04	-19.66	82.5	3.0	0.250 U	220	0.0812	1.0
MW-501	12/20/13	46.25	6.22	352.27	0.51	80.35	247	11.2	0.250 U	17,000	2.45	5.5
MW-501	12/11/14	52.36	6.24	312.79	0.07	-115.67	118	4	0.250 U	4,400	1.530	5.0
MW-502	10/24/08	59.77	6.31	558.51	0.05	-36.88	98	70.2	0.200 U	99 D	1.1	6.4
MW-502	12/12/08	53.20	6.36	482.08	0.04	-33.02	87.2	63.4	0.200 U	67	0.739	3.0
MW-502	02/25/09	48.02	6.37	343.38	0.11	-24.32	67.9	56.8	0.250 U	53	0.681	6.4
MW-502	04/22/09	50.96	6.36	314.18	0.03	226.34	67.7	48	0.250 U	40	0.635	7.0
MW-502	06/26/09	61.26	6.37	379.61	0.14	-57.95	95	52.8	0.250 U	33	0.627	6.5
MW-502	08/21/09	64.60	6.17	364.92	0.10	-38.59	107	27.6	0.250 U	20 P	0.585	6.0
MW-502	10/28/09	60.10	6.34	413.99	0.14	-65.94	153	41.4	0.250 U	45	0.568	6.0

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-502	10/28/10	59.88	6.09	377.99	0.11	31.93	100	30.2	0.250 U	5.2	0.407	4.8
MW-502	12/16/11	53.40	6.12	280.64	0.05	127.40	84.3	31.4	0.250 U	5.7	0.244	0.8
MW-502	12/19/12	49.12	6.13	201.10	0.50	100.97	101	27.4	1.2	56	0.149	1.0
MW-502	12/20/13	50.47	6.26	431.25	0.10	33.60	79	34	0.250 U	3.0	0.355	3.6
MW-502	12/11/14	51.82	6.20	390.23	0.75	206.18	118	26	2.8	3.0 U	0.0724	0.1
MW-502	07/26/17	58.28	6.24	315.05	0.14	48.2	NA	29.1	0.250 U	3.0 U	0.258	4.25
MW-502 (Duplicate)	07/26/17	--	--	--	--	--	--	26.9	0.250 U	3.0 U	0.251	--
MW-502	03/21/18	48.61	6.54	283.9	0.06	50.7	NA	NA	NA	NA	NA	NA
MW-502	06/27/18	57.25	5.96	274.6	0.02	17.7	NA	23.0	0.250 U	5.2	0.247	3
MW-502	11/28/18	54.31	6.25	260.7	0.18	92.1	NA	19.2	2.400 U	3.0 U	0.208	2
MW-502	06/18/19	54.78	6.41	233.5	0.38	44.3	NA	24.0	0.250 U	6.6	0.254	2.0
MW-502 (Duplicate)	06/18/19	--	--	--	--	--	NA	23.6	0.250 U	4.5 J	0.250	NA
MW-502	12/09/19	52.97	6.35	266.12	0.18	-28.8	NA	21.7	0.250 U	3.5 J	0.261	2.5
MW-503	10/27/08	58.09	6.21	359.03	0.00	-44.22	189	8.44	0.200 U	478	0.139	3.0
MW-503	12/12/08	54.35	6.36	302.27	0.07	-38.20	169	9.51	0.200 U	306	0.188	4.6
MW-503	02/26/09	50.47	6.29	280.63	0.12	-14.44	155	11.8	0.250 U	210	0.196	2.0
MW-503	04/22/09	51.85	6.36	273.33	0.02	259.93	152	12.3	0.250 U	150	0.245	7.0
MW-503	06/26/09	55.34	6.36	281.37	0.05	-56.57	156	16.3	0.250 U	190	0.225	6.5
MW-503	08/21/09	60.08	6.34	311.25	0.02	-37.47	158	11.7	0.250 U	180 P	0.238	7.0
MW-503	10/28/09	58.50	6.31	314.43	0.04	-44.90	159	12.1	0.250 U	190	0.241	10.0
MW-503	10/28/10	58.32	6.18	512.56	0.10	-23.74	145	14.9	0.250 U	180	0.318	5.6
MW-503	12/15/11	54.30	6.26	443.34	0.00	-17.75	137	24.2	0.250 U	130	0.478	5.2
MW-503	12/18/12	55.26	6.22	494.81	0.02	-90.25	155	37.8	0.250 U	100	0.534	1.0
MW-503	12/19/13	55.23	6.14	1,265	0.01	-23.91	145	40.3	0.250 U	74	0.567	5.2
MW-503	12/11/14	55.83	6.28	651.61	0.15	-21.99	142.0	38.5	0.250 U	61	0.518	9.5
MW-503	03/21/18	52.02	6.53	499.9	0.06	-50.4	NA	NA	NA	NA	NA	NA
MW-503	06/28/18	57.51	6.22	511.0	0.17	-69.8	NA	35.2	0.250 U	140	0.608	4
MW-503 (Duplicate)	06/28/18	--	--	--	--	--	--	33.5	0.250 U	140	0.584	--
MW-503	11/28/18	58.90	6.51	492.8	0.03	-90.4	NA	31.9	0.250 U	95	0.543	6
MW-503	06/18/19	63.47	6.92	0.1	9.10	8.8	NA	30.1	0.420 J	90	0.520	5.0
MW-503	12/09/19	56.18	6.45	416.67	0.16	-31.1	NA	25.5	0.250 U	67	0.489	6.5
MW-504	10/24/08	58.92	6.73	1,158	0.08	5.06	435	64.2	0.200 U	1,970 D	3.24	0.8
MW-504	12/12/08	49.76	6.98	958.10	0.24	36.78	261	188	0.71	269	1.14	0.2
MW-504	02/27/09	46.92	7.04	572.72	0.28	473.30	251	119	0.4	120	0.376	0.2
MW-504	04/24/09	49.13	7.08	566.26	0.92	-47.37	227	129	0.71	56	0.228	0.2
MW-504	06/26/09	59.97	7.08	595.29	0.14	33.80	274	106	0.250 U	170	0.419	0.0
MW-504	08/21/09	66.52	6.88	797.96	0.04	28.06	338	84.7	0.250 U	840	1.19	0.0
MW-504	10/28/09	60.48	6.81	637.65	0.41	52.25	311	86.7	0.650	380	0.676	1.5
MW-504	10/28/10	60.75	6.76	786.39	0.73	-63.57	301	47.8	0.250 U	180	0.804	0.5
MW-504	12/16/11	54.30	6.83	412.10	0.96	153.17	225	66.3	0.250 U	170	0.4	0.0
MW-504	12/18/12	48.08	7.44	235.83	8.60	69.47	115.0	8.4	0.250 U	3.0 U	0.0015	0.0
MW-504	12/19/13	53.95	6.22	351.95	0.03	-40.96	223	17	0.250 U	700	1.08	2.0
MW-504	12/11/14	50.76	7.15	309.59	6.81	72.46	115	16	0.25 U	620	0.0011	0.1
MW-504	07/26/17	62.32	6.84	420.98	0.10	46.3	NA	12.0	0.250 U	570	0.650	0.0

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-504	03/21/18	49.63	7.14	1,912	4.41	73.8	NA	NA	NA	NA	NA	NA
MW-504	06/28/18	60.45	7.02	1,577	0.36	-54.7	NA	51.9	0.250 U	450	1.920	1.5
MW-504	11/28/18	54.44	7.06	839.44	9.20	43.2	NA	39.0	0.750	15	0.443	0.0
MW-504	06/18/19	60.68	6.65	11,684	0.83	17.3	NA	508.0	0.480 J	610	7.010	2.5
MW-504	12/09/19	55.24	6.84	6,204	0.96	-22.6	NA	259.0	0.960	160	0.641	1.0
MW-505	10/24/08	56.61	6.77	1,292	0.42	23.88	289	119	0.54	961	2.41	0.6
MW-505	12/15/08	51.14	6.89	823.56	2.25	68.13	216	144	0.63	219	1.42	0.0
MW-505	02/27/09	46.85	6.85	659.23	2.72	182.77	181	167	0.39	130	1.16	0.0
MW-505	04/22/09	49.75	7.04	586.48	1.48	-144.75	184	134	0.43	100	1.1	0.0
MW-505	06/26/09	62.11	7.01	637.54	1.42	-17.29	190	133	0.34	190	9.11	0.5
MW-505	08/21/09	64.00	6.88	719.54	0.60	-15.81	185	72.9	0.25 U	190 P	0.997	1.0
MW-505	10/28/09	57.61	6.87	620.60	1.83	26.22	187	136	0.38	230	1.1	0.5
MW-505	10/29/10	59.58	6.75	613.95	0.05	-59.16	219	58.6	0.25 U	1,000	1.17	1.8
MW-505	12/15/11	53.63	6.77	530.14	0.65	0.00	245	92.3	0.25 U	390	1.41	1.2
MW-505	12/18/12	52.29	6.91	260.87	6.66	71.61	125	69.7	0.250 U	5.0	0.143	1.0
MW-505	12/19/13	53.04	6.25	1,301	0.01	-8.82	237	66.3	0.250 U	490	1.24	2.5
MW-505	12/11/14	52.91	6.87	328.26	5.83	138.69	97.8	21	0.25 U	460	0.366	0.2
MW-505	07/26/17	63.49	6.78	542.29	0.18	-19.6	NA	44.4	0.250 U	1,300	1.230	3.5
MW-505	03/21/18	51.98	6.83	2,016	0.05	-98.7	NA	NA	NA	NA	NA	NA
MW-505	06/28/18	60.95	6.72	845.44	0.31	-96.3	NA	40.4	0.250 U	530	0.871	5.0
MW-505	11/28/18	53.45	6.88	2,025	3.27	-29.5	NA	83.2	0.250 U	480	1.520	4.5
MW-505	06/19/19	59.47	6.67	12,193	0.30	-29.7	NA	483.0	0.250 U	1,100	11.000	6.0
MW-505	12/09/19	55.13	6.71	5,496	0.34	-89.2	NA	253.0	0.250 U	2,000	3.670	3.5
MW-506	10/24/08	58.38	6.90	851.73	-0.03	-3.02	238	147	0.200 U	2,820 D	1.42	0.8
MW-506	12/12/08	49.85	6.88	863.65	0.35	52.81	186	90.7	0.21	1,770 D	1.61	0.4
MW-506	02/27/09	47.32	7.10	363.65	0.50	76.54	121	59.9	0.56	140	0.105	0.0
MW-506	04/24/09	48.74	7.12	272.22	0.56	-138.25	115	53.6	1	36	0.0139	0.0
MW-506	06/26/09	57.74	7.11	601.49	0.11	85.41	183	74.3	320	1,800	0.135	0.0
MW-506	08/21/09	62.46	7.06	329.13	0.07	46.69	141	28.1	0.25 U	2,200	0.434	0.5
MW-506	10/30/09	59.70	6.89	363.42	0.37	4.84	132	71.7	0.25 U	1,600	0.729	0.5
MW-506	10/29/10	58.82	6.83	518.80	0.09	-28.40	207	29.8	0.25 U	5,200	1.97	0.6
MW-506	12/15/11	52.57	7.04	283.39	0.15	38.13	183	36.1	0.85	140	0.273	0.0
MW-506	12/19/12	51.08	6.94	226.17	4.59	158.02	143	27.1	0.250 U	42	0.0897	0.0
MW-506	12/19/13	52.82	6.75	422.56	0.03	-38.21	192	17.8	0.25 U	2,700	2.15	1.0
MW-506	12/11/14	54.27	7.29	429.59	6.55	110.57	153	32	1	45	0.139	0.1
MW-506	07/27/17	59.29	6.98	416.24	0.12	92.70	NA	4.3	0.250 U	4,900	1.6300	0.5
MW-506	03/21/18	49.25	7.17	499.96	0.16	-4.80	NA	NA	NA	NA	NA	NA
MW-506 (Duplicate)	03/21/18	--	--	--	--	--	NA	NA	NA	NA	NA	NA
MW-506	06/28/18	60.59	6.92	522.39	0.27	-86.9	NA	1.5 U	0.250 U	12,000	0.994	4.0
MW-506	11/28/18	57.09	6.86	587.37	0.57	-54.5	NA	19.8	0.250 U	12,000	1.180	3.0
MW-506	06/19/19	59.92	6.66	703.5	0.16	-75.1	NA	11.7	0.250 U	16,000	1.880	3.5
MW-506	12/09/19	54.37	6.87	4,577	0.04	-125.5	NA	142.0	0.250 U	11,000	7.400	5.5
MW-507	10/24/08	58.31	6.54	642.48	0.01	-93.26	214	80.7	0.200 U	1,110 D	5.1	6.0
MW-507	12/12/08	52.21	6.61	795.60	0.07	-46.04	297	151	0.200 U	850	3.31	3.8

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-507	02/27/09	48.70	6.51	909.55	0.26	37.35	290	279	0.250 U	1,600	3.97	3.2
MW-507	04/24/09	51.10	6.53	992.50	0.14	-38.69	293	364	0.250 U	1,600	3.4	3.0
MW-507	06/26/09	56.60	6.52	1,351	0.03	-29.33	252	282	0.250 U	1,100	4.27	7.0
MW-507	08/21/09	61.75	6.48	964.71	0.20	-46.15	279	297	0.250 U	2,300	6.04	7.0
MW-507	10/28/09	59.50	6.59	1,035	0.38	-20.79	350	302	0.250 U	280	3.39	2.0
MW-507	10/29/10	59.85	6.62	1,098	0.36	-66.97	347	243	0.250 U	59	1.67	1.5
MW-507	12/16/11	54.20	6.65	843.34	0.21	113.30	307	314	0.250 U	150	1.4	0.8
MW-507	12/19/12	48.76	6.65	809.79	1.61	6.98	213	174	0.330	6.7	0.175	1.5
MW-507	12/19/13	53.46	6.55	1,088	0.08	-76.22	365	203	0.250 U	250	1.08	1.2
MW-507	12/11/14	53.84	6.62	863.67	3.13	-97.50	218	171	0.68	3.0 U	0.0288	0.1
MW-507	07/27/17	60.09	6.74	905.45	0.42	197.4	NA	142	0.250 U	22	0.746	1.75
MW-507 (Duplicate)	07/27/17	--	--	--	--	--	--	142	0.250 U	37	0.689	--
MW-507	03/21/18	49.19	6.99	799.40	2.63	283.0	NA	NA	NA	NA	NA	NA
MW-507	06/28/18	59.42	6.78	908.98	0.57	106.8	NA	162.0	0.250 U	100	0.197	0.0
MW-507	11/28/18	56.47	6.81	782.13	5.82	130.4	NA	144.0	2.400	3.9	0.084	0.5
MW-507	06/19/19	58.45	6.60	910.97	0.28	202.7	NA	172.0	0.250 U	59	0.078	0.0
MW-507 (Duplicate)	06/19/19	--	--	--	--	--	NA	206.0	0.250 U	54	0.069	0.0
MW-507	12/09/19	56.02	6.82	1,052	0.43	100.4	NA	134.0	0.250 U	53	0.945	0.0
MW-509	10/23/08	59.60	6.62	489.68	0.23	44.82	185	66	0.26	514	0.926	0.4
MW-509	12/11/08	50.47	6.83	445.56	1.34	113.25	90	66.2	1.92	52.5	0.45	0.4
MW-509	02/25/09	44.22	6.98	256.98	6.04	391.88	80.8	44.4	0.250 U	5.0 U	0.0127	0.2
MW-509	04/23/09	51.31	7.07	192.88	4.78	-52.52	74.8	40.6	0.250 U	10 U	0.0063	0.0
MW-509	06/25/09	64.34	6.98	321.70	0.12	-14.93	117	55.9	0.250 U	9.0	0.0996	0.5
MW-509	08/21/09	67.68	6.90	365.42	0.21	-268.87	129	38.9	0.250 U	120	0.365	0.5
MW-509	10/28/09	57.40	6.80	219.09	2.56	99.13	95.8	29.5	0.250 U	29	0.131	0.0
MW-509	10/28/10	59.45	6.71	387.07	0.40	68.41	128	43.5	0.250 U	20	0.113	0.4
MW-509	12/15/11	49.65	6.86	236.46	1.05	90	108	43.5	0.250 U	5.0 U	0.0413	0.0
MW-509	12/19/12	49.43	7.01	138.92	6.55	131.63	81.7	14.8	0.250 U	3.0 U	0.007	0.7
MW-509	12/19/13	49.66	6.79	225.92	0.62	144.66	184	50.4	0.250 U	240	0.222	0.0
MW-509	12/11/14	52.90	6.60	108.65	5.60	158.07	44.1	6	0.25 U	3.0 U	0.0168	0.1
MW-509	07/27/17	65.33	6.76	415.49	0.39	-3.6	NA	49.3	0.250 U	170	0.427	0.5
MW-509	03/21/18	48.85	8.65	0.38	11.36	148.3	NA	NA	NA	NA	NA	NA
MW-509	06/28/18	63.93	6.84	2,235	0.56	72.8	NA	73.1	0.250 U	12	0.168	0.0
MW-509	11/28/18	54.96	6.89	4,102	3.14	78.0	NA	193.0	1.400	50	0.057	0.0
MW-509	06/19/19	61.37	6.74	24,454	1.37	213.8	NA	1,740	0.320 J	3.0 U	0.031	0.5
MW-509	12/09/19	51.02	7.05	1.08	11.91	98.3	NA	137.0	0.410 J	91	0.180	0.0
MW-511	10/24/08	55.73	6.59	248.56	0.41	25.86	122	23.1	0.35	1.63	0.289	0.2
MW-511	12/12/08	51.90	6.44	235.10	1.84	122.09	110	25.2	0.94	1.2 U	0.446	0.2
MW-511	02/25/09	48.43	6.12	350.22	3.73	140.09	77.9	23.3	1.1	5.0 U	0.169	0.0
MW-511	04/21/09	49.64	6.23	240.99	4.34	143.96	77.3	30.4	0.93	5.0 U	0.0887	0.0
MW-511	06/24/09	54.46	6.27	213.52	2.87	178.32	87.1	27.2	0.94	6.4	0.0855	NA
MW-511	08/19/09	58.96	6.30	211.69	3.17	145.06	86.1	22.3	0.94	5.4	0.0573	0.5
MW-511	10/28/09	54.96	6.20	211.44	3.68	91.82	94.4	23.2	1.4	5.0 U	0.0439	0.0
MW-511	10/28/10	55.71	6.26	263.83	3.75	26.79	88.4	24.2	830	5.0 U	0.0046	0.1

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-511	12/19/11	50.80	6.30	255.22	5.16	196.26	95.2	31.9	0.72	10 U	0.0015	0.0
MW-511	12/14/12	50.49	-18.06 [^]	399.71	4.93	1,408	112	28.5	0.250 U	3.00 U	0.0026	0.5
MW-511	12/19/13	51.27	6.67	319.02	3.01	23.45	114	28.4	0.25 U	3.0 U	0.00073 U	NA
MW-511	12/10/14	53.78	6.47	376.51	2.53	160.12	122	30	0.25 U	3.2	0.0016	0.0
MW-511	07/27/17	55.41	6.20	300.62	1.78	148.0	NA	19.2	1.000	3.0 U	0.008	0.0
MW-511	03/21/18	49.82	6.47	225.31	3.63	190.8	NA	NA	NA	NA	NA	NA
MW-511	06/27/18	54.33	6.47	272.15	0.77	84.2	NA	22.6	0.250 U	3.0 U	0.056 U	0.0
MW-511	11/29/18	58.70	8.17	1.72	10.43	90.3	NA	18.2	0.340	3.0 U	0.005 U	NA
MW-511	06/18/19	53.86	6.70	307.2	3.98	46.7	NA	31.3	0.660	3.0 U	0.005 U	0.0
MW-511	12/09/19	52.57	6.47	102.43	3.33	4.8	NA	24.0	0.870	3.0 U	0.002	0.0
MW-512	10/23/08	60.03	6.54	396.67	-0.04	14.55	150	30.8	0.200 U	1,200 D	1.56	1.2
MW-512	12/11/08	53.48	6.58	480.74	0.01	-48.08	199	31.4	0.200 U	765	2.3	2.0
MW-512	02/25/09	47.91	6.59	441.66	0.64	-3.83	205	34.3	0.250 U	1,200	1.15	2.6
MW-512	04/21/09	51.96	7.05	460.06	0.37	-144.28	179	52.3	0.28	2,100	0.775	2.0
MW-512	06/24/09	61.82	6.65	368.86	0.38	-40.13	152	37	0.250 U	720	0.367	2.0
MW-512	08/19/09	66.20	6.55	346.88	0.23	-23.55	127	33.6	0.250 U	1,200	0.324	2.0
MW-512	10/27/09	59.92	6.66	369.90	2.04	-47.20	157	37.5	0.450	1,600	0.351	1.0
MW-512	10/28/10	59.67	6.72	444.53	0.88	-131.58	164	23.4	0.250 U	930	0.414	2.0
MW-512	12/15/11	51.70	6.90	306.64	0.02	-92.48	174	23.7	0.250 U	1,400	0.556	3.2
MW-512	12/17/12	52.54	6.87	508.74	0.59	-98.08	191	22.6	0.250 U	1,900	0.485	5.0
MW-512	12/18/13	52.11	6.78	291.10	0.13	-66.95	178	17.6	0.250 U	1,000	0.662	2.6
MW-512	12/11/14	53.99	6.89	568.20	6.52	-199.75	181	15	0.25 U	1,700	0.635	0.1
MW-512	07/26/17	61.67	6.99	558.10	0.15	-95.0	NA	9.3	0.250 U	1,300	0.433	5.0
MW-512	03/21/18	49.30	7.09	305.81	0.42	15.80	NA	NA	NA	NA	NA	NA
MW-512 (Duplicate)	03/21/18	--	--	--	--	--	NA	NA	NA	NA	NA	NA
MW-512	06/28/18	62.12	6.80	376.27	1.71	64.6	NA	21.3	0.280	68	0.039	0.0
MW-512 (Duplicate)	06/28/18	--	--	--	--	--	--	22.5	0.250 U	42	0.043	--
MW-512	11/29/18	56.20	6.78	602.89	1.46	-25.2	NA	38.7	0.320	93	0.511	1.0
MW-512	06/18/19	61.14	6.71	3,304	1.16	1.5	NA	116.0	0.250 U	340	3.740	4.5
MW-512	12/09/19	53.16	6.79	3,308	0.31	-81.4	NA	83.4	0.250 U	990	2.730	4.0
MW-513	10/23/08	58.08	6.78	405.45	-0.06	-63.03	182	19.3	0.200 U	523	2.09	2.0
MW-513	12/10/08	55.20	6.73	491.21	-0.06	-103.79	197	23.9	0.200 U	465	2.18	2.8
MW-513	02/25/09	49.12	6.76	342.53	0.10	-45.95	210	14.8	0.250 U	490	1.9	2.4
MW-513	04/22/09	50.10	6.81	342.40	0.12	-225.74	182	26.6	0.250 U	650	1.89	3.5
MW-513	06/24/09	59.64	6.82	321.78	0.09	-89.07	167	13.1	0.28	300	1.38	3.0
MW-513	08/20/09	62.58	6.73	343.96	0.11	-81.20	168	15.5	0.250 UW	320 P	1.38	2.8
MW-513	10/27/09	59.76	6.73	374.84	0.08	-96.67	178	24.3	0.250 U	550	1.8	4.0
MW-513	10/28/10	58.03	6.63	395.68	0.10	-103.39	164	11.2	0.250 U	690	1.36	3.8
MW-513	12/15/11	52.17	6.69	289.77	0.05	-60	156	16.7	0.250 U	370	1.28	3.1
MW-513	12/17/12	52.34	6.69	280.90	0.29	-82.64	159	10.4	0.250 U	920	1.17	4.1
MW-513	12/18/13	54.18	6.69	188.41	-0.01	-77.71	182	8.9	0.250 U	840	1.29	3.9
MW-513	12/10/14	55.63	6.75	471.76	-0.01	-59.79	171	13	0.25 U	790	1.07	5.0
MW-513	07/25/17	62.95	6.47	469.48	0.11	7.6	NA	11.8	0.250 U	460	1.050	4.5
MW-513	03/21/18	52.20	6.78	2,190	1.11	-61.7	NA	NA	NA	NA	NA	NA

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-513	06/28/18	59.39	6.72	1,558	0.10	-81.9	NA	34.3	0.250 U	610	1.330	5.5
MW-513	11/29/18	55.74	6.81	2,541	0.41	-75.2	NA	38.9	0.500	450	1.870	5.5
MW-513	06/17/19	59.69	6.73	10,096	1.20	-28.2	NA	514.0	0.250 U	460	6.910	NA
MW-513	12/09/19	55.41	6.62	11,620	2.85	-62.9	NA	529.0	0.250 U	240	6.310	6.5
MW-514	10/23/08	59.15	6.81	368.79	-0.05	-69.84	182	17.4	0.23	200	1.62	2.2
MW-514	12/10/08	55.53	6.74	410.41	0.01	-105.01	191	29.2	0.200 U	428	2.89	2.8
MW-514	02/24/09	50.68	6.74	330.80	0.15	-84.41	189	21.5	0.250 U	680	2.07	2.2
MW-514	04/21/09	51.33	6.83	345.19	0.43	-150.08	176	28.5	0.250 U	710	1.93	4.0
MW-514	06/24/09	60.09	6.89	340.42	0.21	-133.74	167	17.8	0.31	400	1.54	3.0
MW-514	08/19/09	64.22	6.77	362.34	0.10	-88.48	153	12.7	0.250 U	580	1.47	4.0
MW-514	10/27/09	60.17	6.72	342.77	0.18	-90.96	169	13.8	0.250 U	690	1.67	4.0
MW-514	10/27/10	58.93	6.62	403.73	0.07	-128.19	160	19.2	0.250 U	210	1.94	4.2
MW-514	12/14/11	51.76	6.53	389.84	0.10	-0.09	152	19.3	0.250 U	340	1.69	3.0
MW-514	12/17/12	53.14	6.55	396.25	0.39	-101.68	162	20.4	0.250 U	390	1.510	4.0
MW-514	12/18/13	53.06	6.58	175.41	0.01	-56.60	155	16.9	0.250 U	420	1.68	2.4
MW-514	12/11/14	54.02	6.62	454.38	0.27	-226.67	151	17.1	0.25	360	1.47	2.0
MW-514	07/27/17	64.48	6.73	352.17	0.29	15.5	NA	11.1	0.250 U	620	0.330	0.5
MW-514	03/21/18	52.29	6.67	1,410	0.60	35.9	NA	NA	NA	NA	NA	NA
MW-514	06/28/18	60.62	6.72	505.07	3.92	143.5	NA	23.1	0.280	190	0.155	0.0
MW-514	11/29/18	56.43	6.54	751.89	0.18	47.3	NA	23.2	0.250 U	420	1.850	1.0
MW-514	06/18/19	59.20	6.59	4,698	2.80	40.9	NA	194.0	0.440 J	660	7.520	6.5
MW-514	12/09/19	55.63	6.63	5,851	0.04	-39.6	NA	264.0	0.250 U	600	5.450	3.5
MW-515	10/22/08	62.15	6.60	451.90	0.00	23.35	174	36.2	0.200 U	395	2.46	1.1
MW-515	12/10/08	53.51	6.66	444.71	0.03	73.86	131	78.2	0.56	12.7	1.32	0.0
MW-515	02/24/09	49.14	6.63	382.79	1.00	76.95	125	61.6	0.250 U	99	0.541	0.0
MW-515	04/22/09	49.78	6.86	288.96	1.29	-156.87	112	54.1	0.250 U	45	0.569	0.0
MW-515	06/24/09	62.81	6.64	514.96	0.11	29.36	185	55.6	0.250 U	510	1.43	0.5
MW-515	08/20/09	67.66	6.65	526.87	0.29	14.84	194	33	0.250 UW	410	1.56	0.2
MW-515	10/27/09	60.81	6.76	319.95	1.41	40.71	137	33	0.250 U	270	0.97	0.5
MW-515	10/27/10	61.29	6.76	334.75	1.35	-91.25	150	30.2	0.250 U	240	0.645	1.0
MW-515	12/14/11	50.52	6.90	278.52	0.05	40	145	50	0.250 U	86	0.419	0.0
MW-515	12/17/12	52.38	6.85	202.11	5.71	111.67	87.6	18.2	0.250 U	9.0	0.119	<1
MW-515	12/18/13	51.48	6.80	279.20	0.21	-68.34	140	24.4	0.250 U	36	0.188	0.8
MW-515	12/11/14	53.51	6.87	379.34	1.32	110.50	126	23	0.25 U	3.0 U	0.0811	0.1
MW-515	07/25/17	65.67	6.73	390.53	0.15	13.4	NA	20.1	0.250 U	330	0.318	0.5
MW-515	03/21/18	48.52	10.18	0.40	11.32	119.9	NA	NA	NA	NA	NA	NA
MW-515	06/28/18	62.54	6.81	862.0	0.11	46.9	NA	30.2	0.250 U	81	0.093	0
MW-515	11/28/18	55.71	6.96	789.58	2.39	92.1	NA	37.9	0.600	4.3	0.087	0.0
MW-515 (Duplicate)	11/28/18	NA	NA	NA	NA	NA	NA	40.0	0.660	6.3	0.081	NA
MW-515	06/17/19	61.18	6.51	20,827	0.12	109.0	NA	990.0	0.250 U	160	5.920	0.5
MW-515	12/09/19	54.41	6.74	11,847	0.07	75.1	NA	501.0	0.250 U	700	4.060	0.0
MW-516	10/22/08	60.37	6.75	410.68	0.21	22.93	175	43.2	0.200 U	439	2.23	0.4
MW-516	12/10/08	53.18	6.64	391.95	0.03	54.04	149	57.6	0.33	22	1.58	0.0
MW-516	02/24/09	45.41	6.85	296.90	2.83	109.91	111	55.6	0.75	5.7	0.26	0.0

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-516	04/22/09	49.82	6.86	290.47	3.59	-7.72	110	54.1	0.5	10 U	0.0591	1.0
MW-516	06/24/09	65.26	6.67	525.02	0.61	24.67	182	48.8	0.250 U	450	0.592	0.0
MW-516	08/20/09	68.95	6.68	474.28	0.83	42.34	184	25.7	0.250 UW	300 P	1.02	0.0
MW-516	10/27/09	60.04	6.69	339.91	1.48	38.92	149	34.4	0.250 U	25	0.831	0.0
MW-516	10/27/10	60.44	6.59	373.46	1.74	-27.12	142	31.4	0.250 U	26	0.386	0.1
MW-516	12/14/11	50.40	6.67	399.03	2.39	110	0.46 U	21.4	0.250 U	150	0.402	0.0
MW-516	12/17/12	49.35	7.26	127.11	10.16	91.17	62.6	3.6	0.250 U	3.0 U	0.0328	0.0
MW-516	12/18/13	51.00	6.75	249.92	0.45	-13.89	134	21.4	0.250 U	62	0.336	0.9
MW-516	12/11/14	53.36	6.85	279.66	3.54	94.10	111	13	0.25 U	7.1	.228	0.0
MW-516	07/25/17	66.21	6.72	330.69	0.90	51.9	NA	23.3	0.250 U	150	0.095	0.0
MW-516 (Duplicate)	07/25/17	--	--	--	--	--	--	21.4	0.250 U	130	0.089	--
MW-516	03/21/18	48.64	10.03	0.40	11.33	120.7	NA	NA	NA	NA	NA	NA
MW-516	06/28/18	64.49	6.70	719.44	0.56	98.5	NA	32.6	0.250 U	27	0.222	0.0
MW-516	11/29/18	55.69	6.90	417.93	3.31	140.1	NA	21.3	1.900	3.0 U	0.066	0.0
MW-516	06/17/19	67.15	6.89	2.0	9.29	143.5	NA	192.0	0.250 U	190	1.740	0.0
MW-516	12/09/19	53.13	6.87	4,911	1.81	70.1	NA	222.0	0.430 J	130	2.930	0.5
MW-517	10/22/08	59.72	6.52	361.40	0.10	15.95	156	39.3	0.200 U	1,080 D	3.17	0.6
MW-517	12/10/08	52.71	6.51	374.55	-0.04	63.88	161	47.4	0.200 U	394	1.81	0.0
MW-517	02/24/09	46.38	6.71	355.26	1.97	101.76	127	65.8	1.2	11	0.892	0.4
MW-517	04/22/09	50.90	6.70	348.44	1.21	-81.24	128	66.7	0.250 U	43	0.584	1.0
MW-517	06/24/09	64.49	6.72	463.93	0.61	-52.18	184	50.5	0.250 U	1,700	1.14	1.0
MW-517	08/20/09	67.06	6.60	437.32	0.33	7.39	184	20.6	0.250 UW	4,400	1.36	0.5
MW-517	10/27/09	60.36	6.66	355.06	0.41	15.34	148	41.9	0.250 U	99	1.09	1.5
MW-517	10/27/10	59.99	6.68	381.89	0.56	-12.51	145	35.3	0.250 U	270	0.641	0.5
MW-517	12/14/11	50.41	6.76	292.70	0.07	43.46	165	26	0.250 U	75	0.788	0.6
MW-517	12/17/12	50.94	7.19	184.80	9.90	73.30	101	8.6	0.250 U	12	0.0913	0.0
MW-517	12/18/13	50.64	6.71	273.51	0.24	-13.52	150	21.8	0.250 U	18	0.474	0.4
MW-517	12/11/14	52.76	6.89	308.53	5.90	77.27	124	15	0.25 U	4.4	0.687	0.1
MW-517	07/25/17	65.75	6.56	232.95	0.36	29.2	NA	11.8	0.250 U	520	0.338	0.5
MW-517	03/21/18	47.83	10.79	0.39	11.43	113.0	NA	NA	NA	NA	NA	NA
MW-517	06/28/18	63.39	6.82	493.84	1.71	89.0	NA	25.7	0.310	3.0 U	0.148	0.0
MW-517	11/29/18	54.54	6.93	415.38	4.11	117.8	NA	21.6	0.390	13	0.062	0.0
MW-517	06/17/19	61.86	6.59	6,649	1.01	-128.0	NA	320.0	0.250 U	310	5.450	1.0
MW-517	12/09/19	52.88	6.79	4,897	4.08	75.7	NA	113.0	0.710	110	5.380	1.0
MW-518	10/22/08	61.89	6.46	2,403	0.10	6.25	194	93.4	0.200 U	2,380 D	1.6	3.0
MW-518	12/10/08	56.07	6.64	590.16	0.08	22.59	247	32.5	0.200 U	1,920 D	2.22	1.6
MW-518	02/25/09	47.59	6.55	482.43	0.15	-9.02	209	61.1	0.250 U	2,900	1.99	2.2
MW-518	04/22/09	48.17	6.52	519.99	0.27	-182.35	163	63.6	0.6	3,100	1.48	2.0
MW-518	06/25/09	58.02	6.48	1,501	0.24	6.00	117	97.6	0.5	1,500	1.67	2.0
MW-518	08/20/09	65.80	6.49	2,675	0.12	-247.61	176	119	0.250 UW	4,500	1.5	3.0
MW-518	10/30/09	62.35	6.50	1,278	0.45	-46.31	224	51.6	0.250 U	4,000	1.57	4.0
MW-518	10/28/10	60.96	6.57	1,588	0.04	-116.69	200	70.4	0.250 U	3,500	1.38	8.0
MW-518	12/14/11	54.16	6.57	645.67	0.56	0.00	213	85.6	0.530	1,500	0.807	4.0
MW-518	12/17/12	54.97	6.60	676.38	1.03	-39.40	223	132	0.480	1,400	0.484	0.7

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-518	12/19/13	53.90	6.78	319.92	0.25	-40.51	198	7.4	0.250 U	3,700	0.64	1.8
MW-518	12/11/14	57.43	6.69	671.16	1.01	56.96	214	62	0.34	1,900	0.35	0.1
MW-518	07/25/17	62.68	6.91	388.33	--	22.2	NA	32.5	0.250 U	500	0.181	0.25
MW-518	03/21/18	50.50	9.96	0.4	10.96	113.3	NA	NA	NA	NA	NA	NA
MW-518	06/28/18	57.74	7.11	419.86	0.35	-144.8	NA	18.9	0.250 U	4,200	0.215	0.5
MW-518 (Duplicate)	06/28/18	--	--	--	--	--	--	23.6	0.250 U	4,000	0.213	--
MW-518	11/28/18	58.46	6.81	1,056	0.14	-87.4	NA	7.5	0.250 U	2,300	0.867	4.0
MW-518	06/18/19	55.88	7.12	643.1	0.13	88.5	NA	29.9	0.250 U	3,200	0.273	1.5
MW-518	12/09/19	57.44	6.93	3,738	0.15	-124.6	NA	32.7	0.250 U	2,100	0.785	3.5
MW-518 (Duplicate)	12/09/19	57.44	6.93	3,738	0.15	-124.6	NA	31.3	0.250 U	2,200	0.765	3.5
MW-519	10/22/08	58.05	6.55	535.69	-0.02	-34.53	217	29.8	0.200 U	6,780 D	1.31	3.6
MW-519	12/09/08	53.23	6.64	610.07	0.11	-70.36	250	30	0.200 U	9,760 D	1.34	3.2
MW-519	02/24/09	46.76	6.65	405.26	0.10	-41.65	186	43.1	0.46	8,800	0.847	2.7
MW-519	04/21/09	51.87	6.63	478.38	0.13	638.95	255	21.5	0.250 U	14,000	1.22	2.7
MW-519	06/24/09	60.02	6.58	618.06	0.06	-67.35	290	9.7	0.25 U	13,000	1.15	5.0
MW-519	08/18/09	66.09	6.61	691.65	0.14	-57.02	258	36.7	0.250 U	14,000	1.16	2.5
MW-519	10/27/09	59.84	6.59	364.97	0.31	-72.83	124	49.6	0.250 U	6,400	0.61	2.0
MW-519	10/26/10	59.52	6.53	469.46	0.18	-61.26	170	71.6	0.250 U	3,900	0.473	4.2
MW-519	12/14/11	51.03	6.69	402.43	-0.01	-40	266	38.8	0.370	11,000	0.822	0.0
MW-519	12/17/12	50.40	6.73	300.97	2.09	47.42	145	54.6	0.310	1,300	0.186	0.0
MW-519	12/17/13	50.70	6.66	464.83	-0.01	-50.27	253	17.9	0.250 U	12,000	0.814	3.0
MW-519	12/10/14	51.80	7.00	344.69	5.02	56.84	109	34	0.25 U	170	0.0374	0.1
MW-519	07/25/17	67.16	6.56	647.57	0.25	-36.3	NA	7.0	0.250 U	13,000	0.545	3.5
MW-519	03/22/18	47.66	7.19	370.84	3.57	102.3	NA	NA	NA	NA	NA	NA
MW-519 (Duplicate)	03/22/18	--	--	--	--	--	NA	NA	NA	NA	NA	NA
MW-519	06/27/18	64.38	6.65	479.94	0.98	9.6	NA	39.2	0.250 U	72	0.586	1.0
MW-519	11/29/18	54.33	7.51	483.32	8.01	97.4	NA	70.1	0.350 U	3.0 U	0.009	0.0
MW-519	06/19/19	63.05	6.61	453.0	0.22	46.1	NA	40.2	0.250 U	390	0.744	0.0
MW-519	12/11/19	53.55	6.94	705.45	3.01	25.2	NA	91.8	0.250 U	830	0.145	0.5
MW-520	10/21/08	59.76	6.79	944.21	0.02	-14.62	212	32	0.200 U	2,230 D	1.58	1.4
MW-520	12/09/08	53.17	6.81	584.24	0.12	-89.46	189	28.7	0.200 U	2,240 D	1.48	1.4
MW-520	02/23/09	47.79	6.84	477.54	0.16	-57.60	187	22.1	0.250 U	2,500	1.18	1.6
MW-520	04/22/09	48.74	6.75	397.91	0.40	-161.40	162	33.6	0.250 U	2,200	746	2.0
MW-520	06/24/09	60.08	6.67	584.31	0.04	-54.65	202	19.3	0.250 U	4,900	1.46	3.0
MW-520	08/18/09	67.93	6.60	587.53	0.06	27.15	194	5.5	0.250 U	1,600	1.09	2.0
MW-520	10/27/09	60.06	6.50	483.54	0.09	9.18	153	33.6	0.250 U	1,100	1.03	1.0
MW-520	10/27/10	60.39	6.48	731.32	0.20	-82.10	201	16	0.250 U	1,600	1.46	1.8
MW-520	12/14/11	51.35	6.58	612.41	0.16	40	161	51	0.250 U	740	1.08	1.0
MW-520	12/14/12	52.50	6.75	303.23	0.07	-80.88	137	38.4	0.250 U	130	0.833	1.0
MW-520	12/17/13	52.02	6.69	489.30	0.14	-189.75	176	68.3	0.250 U	750	0.676	1.0
MW-520	12/10/14	54.54	7.11	472.05	3.86	125.06	95.6	84	0.25 U	53	0.0639	0.0
MW-520	07/25/17	65.71	6.74	786.68	0.15	183.5	NA	21.7	0.250 U	820	3.550	0.0
MW-520	03/20/18	48.45	7.18	783.61	4.30	106.2	NA	NA	NA	NA	NA	NA
MW-520	06/28/18	60.89	6.87	573.88	0.13	14.8	NA	38.3	0.250 U	120	1.110	0.0

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-520	11/29/18	55.00	6.97	1,225	6.42	91.7	NA	268.0	0.750	7.9	0.005 U	0.0
MW-520	06/19/19	60.16	7.13	633.4	0.35	164.5	NA	55.3	0.250 U	320	0.928	0.0
MW-520	12/12/19	50.32	5.70	0.44	11.62	151.2	NA	410.0	0.510	3.0 U	0.001 J	0.0
MW-521	10/21/08	59.50	6.57	818.08	-0.01	4.73	172	63.9	0.200 U	888	1.42	0.9
MW-521	12/09/08	53.28	6.77	555.86	0.38	-70.66	174	37.3	0.200 U	1,310	1.48	0.5
MW-521	02/23/09	46.76	6.78	408.37	0.11	-33.28	150	50.8	0.250 U	1,200	1.44	0.6
MW-521	04/21/09	52.18	6.65	282.87	0.33	643.50	105	43.5	0.250 U	66	0.587	0.2
MW-521	06/23/09	62.33	6.68	366.61	0.35	12.69	142	33.4	0.250 U	530	0.649	1.0
MW-521	08/19/09	66.65	6.54	504.12	0.14	-9.28	172	46.1	0.250 U	740	0.899	1.5
MW-521	10/26/09	60.51	6.71	701.29	0.15	-191.41	154	52.3	0.250 U	3,100	1.73	1.5
MW-521	10/27/10	59.20	6.50	541.24	0.18	-90.60	177	38.2	0.250 U	1,200	1.25	1.6
MW-521	12/14/11	45.43	7.11	220.14	11.97	90	145	143	0.250 U	200	1.04	1.4
MW-521	12/17/12	49.57	6.66	171.31	6.93	158.90	60.6	51.2	0.250 U	3.0 U	0.0157	0.5
MW-521	12/17/13	51.60	6.66	388.24	0.67	40.58	150	64.4	0.250 U	150	0.305	0.5
MW-521	12/10/14	51.76	7.20	227.11	6.97	-69.70	48.7	33	0.25 U	3.0 U	0.0065	0.1
MW-521	07/25/17	67.15	6.19	632.67	0.70	18.4	NA	21.6	0.250 U	310	0.620	1.25
MW-521	03/20/18	49.39	6.99	320.66	1.30	189.0	NA	NA	NA	NA	NA	NA
MW-521	06/28/18	62.98	6.70	574.72	0.74	123.8	NA	52.2	0.250 U	75	1.030	0.0
MW-521	11/30/18	52.16	7.02	314.57	6.34	94.9	NA	49.9	0.250 U	3.0 U	0.005 U	0.5
MW-521	06/19/19	61.72	6.93	431.9	1.45	182.8	NA	47.9	0.470 J	38	0.358	0.0
MW-521	12/11/19	53.79	6.77	953.32	2.10	-4.3	NA	77.4	0.250 U	14	0.216	2.0
MW-522	10/21/08	62.31	6.57	756.65	0.06	-47.72	251	18	0.200 U	972	1.7	5.2
MW-522	12/09/08	53.30	6.71	548.80	0.14	-98.92	200	73.9	0.200 U	297	1.07	5.2
MW-522	02/23/09	48.06	6.56	503.15	0.12	-50.16	171	108	0.250 U	260	1.16	4.6
MW-522	04/21/09	49.60	6.65	393.02	0.11	699.67	154	76.6	0.250 U	74	0.88	5.2
MW-522	06/23/09	59.64	6.61	442.11	0.05	-75.88	186	51	0.250 U	140	0.963	3.0
MW-522	08/18/09	68.79	6.61	621.20	0.07	-68.46	244	29.5	0.250 U	580	1.26	3.0
MW-522	10/26/09	61.92	6.43	1,167	0.09	-25.26	206	560	0.280	400	0.947	3.0
MW-522	10/26/10	59.92	6.30	4,979,442	0.43	-104.90	208	628	0.250 U	180	0.758	0.8
MW-522	12/14/12	53.35	6.54	552.82	0.04	-16.41	203	106	0.250 U	230	1.04	1.5
MW-522	12/14/12	50.74	7.06	545.49	6.53	138.56	163	264	0.250 U	3.0 U	0.0019	0.0
MW-522	12/17/13	54.67	6.54	591.41	0.09	-207.15	221	68.7	0.250 U	560	0.991	0.0
MW-522	12/10/14	52.72	7.08	802.18	5.09	183.44	157	196	0.25 U	3.0 U	0.00055 U	0.0
MW-522	07/25/17	58.45	6.45	451.80	--	102.4	NA	14.0	0.250 U	1,000	1.780	0.0
MW-522	03/20/18	49.86	7.15	567.69	0.72	221.0	NA	NA	NA	NA	NA	NA
MW-522	06/28/18	56.45	6.62	529.64	0.11	55.1	NA	71.6	0.250 U	160	0.786	0.0
MW-522	11/29/18	53.17	7.32	845.16	8.44	164.7	NA	236.0	0.340	3.0 U	0.005 U	0.0
MW-522	06/18/19	56.06	6.50	868.6	0.14	92.2	NA	70.7	0.350 J	160	0.640	0.5
MW-522	12/12/19	54.06	6.68	1,292	0.47	0.4	NA	297.0	0.250 U	58	0.127	0.5
MW-522 (Duplicate)	12/12/19	54.06	6.68	1,292	0.47	0.4	NA	288.0	0.250 U	62	0.121	0.5
MW-523	10/21/08	61.66	6.66	870.33	0.01	24.73	221	45.7	0.200 U	1,940 D	3.28	0.8
MW-523	12/09/08	54.24	6.71	587.13	0.31	31.67	218	53.2	0.200 U	482	3.01	0.6
MW-523	02/23/09	47.46	6.67	420.64	0.41	98.18	164	70	0.250 U	31	1.12	0.0
MW-523	04/21/09	49.53	6.76	353.07	0.35	-56.71	146	56.8	0.250 U	280	1.39	0.0

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-523	06/23/09	62.92	6.77	437.56	2.42	141.87	164	42.4	0.250 U	5.0 U	0.593	0.0
MW-523	08/18/09	68.16	6.64	614.62	0.16	53.81	199	21	0.250 U	1,600	1.38	0.0
MW-523	10/26/09	62.44	6.65	720.56	0.28	62.64	248	46.5	0.250 U	420	2.95	1.0
MW-523	10/26/10	60.60	6.57	815.65	0.58	31.43	220	102	0.250 U	400	1.15	1.0
MW-523	12/13/11	53.06	6.64	599.47	0.29	70	224	44.2	0.400	72	1.31	0.8
MW-523	12/14/12	53.57	6.71	372.50	6.84	217.62	146	87.2	0.250 U	5.4	0.0707	NA
MW-523	12/17/13	52.41	6.59	385.69	0.31	-195.99	183	49.9	0.250 U	25	0.47	0.0
MW-523	12/10/14	54.18	6.58	620.59	2.77	-20.73	192	63	0.390	3.0 U	0.008	0.0
MW-524	10/21/08	60.03	6.46	965.29	-0.04	16.91	115	402	0.34	51	0.623	1.6
MW-524	12/09/08	52.74	6.58	421.64	2.81	154.94	70.6	172	0.62	2.1	0.0353	0.0
MW-524	02/23/09	47.66	6.62	337.04	2.35	118.32	76.5	141	0.48	6.2	0.0159	0.2
MW-524	04/21/09	48.81	6.60	309.12	4.93	68.52	73.2	119	0.250 U	12	0.0308	0.0
MW-524	06/23/09	59.55	6.59	374.54	0.55	139.04	86	121	0.250 U	5.0 U	0.0235	0.0
MW-524	08/18/09	65.03	6.49	468.64	0.50	108.31	104	154	0.250 U	7.9	0.0537	0.0
MW-524	10/26/09	59.41	6.27	685.50	0.66	259.84	38	410	0.450	5.0 U	0.0106	1.0
MW-524	10/26/10	59.22	6.45	1,908,568	4.24	131.09	52.6	225	0.260	5.0 U	0.84	0.4
MW-524	12/13/11	48.68	6.60	287.04	4.27	200	44.4	200	0.550 U	5.0 U	0.0048	0.0
MW-524	12/14/12	49.55	6.54	159.72	8.71	245.64	59.3	50.5	0.250 U	3.0 U	0.00048	1.0
MW-524	12/17/13	52.89	6.66	327.49	1.68	228.79	69.9	137	0.250 U	3.0 U	0.0031	0.0
MW-524	12/09/14	54.12	6.63	263.18	4.54	233.36	60.0	63	0.250 U	3.0 U	0.001 U	0.0
MW-525	12/14/12	55.41	6.42	485.07	0.10	-160.05	243	4.9	0.250 U	5,100	2.25	6.0
MW-525	12/17/13	53.85	6.37	274.47	0.01	-106.94	165	4.5	0.250 U	1,800	0.96	1.0
MW-525	12/09/14	56.56	6.41	550.92	0.09	-131.07	240	4	0.25 U	8,900	2.86	>10
MW-525	07/26/17	60.26	6.53	353.07	0.11	-66.6	NA	5.9	0.250 U	6,700	0.705	6.5
MW-525	03/20/18	50.36	--	--	10.55	61.0	NA	NA	NA	NA	NA	NA
MW-525	06/27/18	63.42	5.43	1,013	0.02	-266.6	NA	453.0	0.250 U	1,900	4.210	5.0
MW-525	11/27/18	56.94	6.35	152.34	1.50	-82.0	NA	24.2	0.540	45	0.093	5.0
MW-525	06/20/19	60.44	5.79	7,799	0.67	114.5	NA	519.0	0.250 U	150	6.230	7.0
MW-525	12/11/19	54.78	6.22	9,799	0.16	-16.9	NA	332.0	0.250 U	1,300	4.840	4.5
MW-526	12/14/12	53.11	6.38	765.25	0.02	-58.05	340	27.5	0.250 U	950	1.36	3.0
MW-526	12/18/13	51.73	6.44	716.30	0.02	-91.82	332	1.5 U	0.250 U	1,500	1.34	1.0
MW-526	12/10/14	54.56	6.64	783.77	0.19	-278.66	293	3	0.25 U	1,500	1.53	>10
MW-526	07/26/17	64.69	6.50	383.76	0.04	-19.3	NA	1.5 U	0.250 U	2,100	1.060	6.75
MW-526	03/20/18	49.73	--	--	10.50	-102.7	NA	NA	NA	NA	NA	NA
MW-526	06/27/18	60.72	6.78	567.73	0.29	-97.9	NA	69.0	0.250 U	110	0.557	5.0
MW-526	11/27/18	54.44	6.44	308.85	8.27	108.5	NA	68.5	4.000	3.0 U	0.414	7.0
MW-526	06/20/19	60.89	6.34	266.0	0.07	49.6	NA	43.2	0.340 J	8.4	0.494	7.0
MW-526	12/11/19	51.60	5.84	157.41	0.49	98.3	NA	19.7	0.410 J	4.1 J	0.373	3.0
MW-527	12/19/12	48.18	6.60	356.45	3.32	-29.37	206	12.6	0.250 U	24	0.56	0.3
MW-527	12/20/13	48.37	6.45	994.66	0.16	107.81	849	9.8	0.250 U	20,000	15.30	5.0
MW-527	12/12/14	51.72	6.61	401.96	1.25	23.20	251	14	0.250 U	2,300	2.280	3.0
MW-528	12/19/12	50.69	6.55	628.52	0.72	-13.19	433	32.4	0.250 U	5,400	9.27	4.0
MW-528	12/20/13	50.42	6.56	1,035	0.03	-35.07	517	22.7	0.250 U	11,000	18.50	6.8
MW-528	12/12/14	53.69	6.67	785.71	0.07	-54.36	398	22	0.250 U	7,000	11.400	6.0

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-530	12/17/12	47.82	6.66	26,642	0.14	-189.47	140	1,290	0.250 U	16	0.20	0.3
MW-530	12/18/13	47.60	6.83	17,872	0.07	-230.02	141	1,080	0.250 U	130	0.21	0.5
MW-530	12/09/14	51.28	7.05	23,463	-0.02	-215.89	131	935	0.25 U	20	0.187	0.1
MW-530	07/26/17	61.35	6.41	27,495	0.21	-142.2	NA	1,480	0.250 U	44	0.194	0.0
MW-530	03/20/18	48.64	6.73	20,529	0.14	-252.0	NA	NA	NA	NA	NA	NA
MW-530	06/27/18	58.82	6.87	16,447	0.05	-278.2	NA	769.0	0.250 U	61	0.087	0.0
MW-530	11/27/18	52.27	6.59	24,312	0.10	-280.4	NA	935.0	0.250 U	10	0.091	0.5
MW-530	06/17/19						Well Damaged - No sampling					
MW-530	12/12/19	51.81	6.65	27,440	0.05	-266.7	NA	1,210	0.250 U	920	0.313	0.0
MW-531	12/18/12	47.22	6.72	408.24	0.98	-4.57	176	130.0	0.510	120	0.08	0.7
MW-531	12/17/13	52.70	6.46	313.43	0.05	-58.89	172	6.1	0.250 U	1,100	0.60	0.3
MW-531	12/09/14	51.09	6.49	292.36	0.06	-8.26	107	33	0.25 U	1,200	0.115	0.6
MW-531	07/26/17	61.39	6.56	254.24	--	-3.0	NA	1.5 U	0.250 U	3,300	0.532	3.25
MW-531	03/20/18	48.13	7.04	371.15	0.55	109.2	NA	NA	NA	NA	NA	NA
MW-531	06/27/18	60.25	6.63	490.45	1.54	28.8	NA	47.5	0.520	86	0.312	0.0
MW-531	11/27/18	51.75	6.86	775.20	3.86	159.5	NA	224.0	0.670	3.0 U	0.005 U	0.0
MW-531	06/20/19	59.55	6.25	848.59	0.17	178.0	NA	31.1	0.250 U	1,500	0.754	0.0
MW-531 (Duplicate)	06/20/19	--	--	--	--	--	NA	30.3	0.250 U	1,400	0.740	0.0
MW-531	12/11/19	52.69	6.79	1,856	3.65	75.0	NA	156.0	0.390 J	120	2.460	2.5
MW-532	12/14/12	53.44	6.35	259.66	0.04	-92.42	113	39.3	0.250 U	220	0.24	1.0
MW-532	12/17/13	53.07	6.20	252.35	0.02	-60.71	105	36.1	0.250 U	210	0.13	0.2
MW-532	12/09/14	54.89	6.34	242.53	0.12	-99.77	112	27	0.25 U	730	0.329	2.5
MW-532	07/26/17	60.82	6.29	373.47	0.07	-62.9	NA	1.5 U	0.250 U	2,500	0.825	7.0
MW-532	03/20/18	48.70	--	288.13	0.27	--	NA	NA	NA	NA	NA	NA
MW-532	06/27/18	58.24	5.74	450.76	0.07	-44.0	NA	159.0	0.250 U	360	0.460	0.5
MW-532	11/27/18	55.89	6.60	264.49	8.15	127.5	NA	51.8	0.520	3.0 U	0.017	0.5
MW-532	06/20/19	55.44	6.02	761.11	0.20	168.4	NA	64.2	0.250 U	120	0.438	2.0
MW-532	12/11/19	54.15	6.04	202.54	0.77	172.4	NA	26.0	0.250 U	25	0.040	0.0
MW-533	03/20/18	47.90	6.83	11,287	3.19	155.7	NA	NA	NA	NA	NA	NA
MW-533	06/27/18	63.06	7.18	709.84	0.43	89.7	NA	30.5	0.250 U	5.8	0.035	0.0
MW-533	11/27/18	53.47	7.15	3,300	6.46	109.1	NA	182.0	0.520	3.0 U	0.007 U	0.0
MW-533	06/19/19	60.63	7.07	42,122	4.82	90.9	NA	2,090	0.330 J	3.0 U	0.005 U	0.0
MW-533	12/11/19	51.39	7.62	4,494	0.92	110.3	NA	188.0	0.650	3.0 U	0.001 U	0.0
MW-533 (Duplicate)	12/11/19	51.39	7.62	4,494	0.92	110.3	NA	185.0	0.620	3.7 J	0.880 J	0.0
MW-534	03/20/18	52.29	6.74	3,908	0.08	-20.0	NA	NA	NA	NA	NA	NA
MW-534	06/27/18	63.17	6.66	2,453	0.15	-184.2	NA	41.3	0.250 U	5,500	3.760	6
MW-534	11/28/18	53.85	6.47	183.11	3.62	109.1	NA	32.5	0.250 U	140	0.209	0.0
MW-534 (Duplicate)	11/28/18	--	--	--	--	--	NA	35.4	0.250 U	200	0.226	NA
MW-534	06/20/19	62.27	6.26	24,129	0.11	-137.1	NA	1,040	0.250 U	2,500	15.300	6.0
MW-534	12/12/19	53.03	6.66	7,253	0.24	-48.2	NA	510.0	0.250 U	4,500	5.590	3.5
MW-535	03/20/18	48.11	6.96	34,199	5.34	299.10	NA	NA	NA	NA	NA	NA
MW-535 (Duplicate)	03/20/18	--	--	--	--	--	NA	NA	NA	NA	NA	NA
MW-535	06/27/18	68.39	7.27	640.02	0.22	28.8	NA	29.6	0.250 U	8.0	0.044	NA
MW-535 (Duplicate)	06/27/18	--	--	--	--	--	NA	21.9	0.250 U	5.6	0.048	--

Table 3-5
 Summary of Groundwater Analytical Data
 Natural Attenuation Parameters
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
MW-535	11/27/18	53.12	6.95	8,102	7.06	9.0	NA	387.0	0.590	5.0	0.016	0.0
MW-535	06/19/19	60.02	7.03	36,607	5.05	143.5	NA	1,840	0.370 J	3.0 U	0.285	0.0
MW-535	12/12/19	49.52	5.84	0.45	11.66	147.4	NA	87.3	0.860	3.0 U	0.010	0.0
MW-8R	10/21/08	61.34	6.65	860.34	-0.02	-100.66	217	50.6	0.200 U	304	1.49	1.2
MW-8R	12/09/08	54.32	6.83	494.30	0.40	-132.57	180	58.1	0.200 U	299	0.664	1.2
MW-8R	02/23/09	47.03	6.75	426.42	0.42	-23.66	155	69.9	0.250 U	210	0.682	1.0
MW-8R	04/21/09	49.17	6.81	309.61	0.54	-167.35	134	47.5	0.250 U	21	0.375	0.0
MW-8R	06/23/09	61.01	6.69	404.48	0.22	17.20	168	45.7	0.250 U	100	0.719	2.0
MW-8R	08/18/09	68.36	6.55	568.94	0.11	-5.74	208	40.6	0.250 U	240	0.945	1.0
MW-8R	10/26/09	62.15	6.73	1,126	3.00	201.58	138	503	0.380	120	0.418	0.5
MW-8R	10/26/10	60.46	6.68	1,273	3.23	-24.65	223	376	0.250 U	220	0.497	1.0
MW-8R	12/14/11	52.84	6.57	663.65	0.75	-10.00	185	70.9	0.250 U	150	0.780	0.2
MW-8R	12/14/12	53.45	6.88	476.09	8.02	219.79	155	163	0.250 U	3.0 U	0.0061	1.0
MW-8R	12/17/13	54.35	6.66	470.98	0.43	-183.41	187	37.4	0.250 U	62	0.229	0.2
MW-8R	12/10/14	56.31	6.97	604.21	6.50	214.86	150	84	0.25 U	3.0 U	0.0206	0.0
MW-8R	07/25/17	63.08	6.29	428.73	0.78	129.8	NA	20.6	0.250 U	110	0.085	0.0
MW-8R	03/20/18	48.54	6.86	355.34	0.49	104.9	NA	NA	NA	NA	NA	NA
MW-8R	06/29/18	56.40	6.81	431.53	0.00	103.4	NA	28.5	0.250 U	4.4	0.020	0.0
MW-8R	11/29/18	56.56	7.08	391.20	1.52	124.0	NA	53.3	0.380	3.0 U	0.038	0.0
MW-8R	06/18/19	55.86	6.65	450.02	0.50	126.2	NA	18.9	0.330 J	11	0.014	0.0
MW-8R	12/12/19	54.69	6.75	1,444	0.64	-17.8	NA	54.2	0.250 U	87	0.038	0.0
MW-E	07/26/17	59.72	6.68	1,317	0.07	-96.6	NA	42.3	0.250 U	6,200	3.800	7.0
MW-E-R	03/20/18	51.48	6.60	1,507	0.01	-99.6	NA	NA	NA	NA	NA	NA
MW-E-R	06/27/18	59.55	6.58	1,705	0.00	-144.3	NA	1.5 U	0.250 U	23,000	11.800	4.5
MW-E-R	11/27/18	60.04	6.76	1,088	1.63	-87.7	NA	1.5 U	0.250 U	9,600	8.130	7.0
MW-E-R	06/20/19	59.44	6.56	1,650	0.13	-128.5	NA	3.4 J	0.250 U	14,000	15.700	4.0
MW-E-R	12/11/19	55.57	6.74	1,008	0.05	-77.5	NA	1.5 U	0.255 U	17,000	7.120	6.0

Table 3-5
Summary of Groundwater Analytical Data
Natural Attenuation Parameters
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Monitoring Well	Date Sampled	Temperature (°F) ¹	pH ¹	Conductivity (µS/cm) ¹	DO (mg/L) ¹	ORP (mV) ¹	Total Alkalinity (mg/L as CaCO ₃) ²	Sulfate (mg/L) ³	Nitrate (mg/L) ³	Methane (µg/L) ⁴	Manganese (mg/L) ⁵	Ferrous Iron by Field Measurement (mg/L) ⁶
-----------------	--------------	-------------------------------	-----------------	-----------------------------------	------------------------	-----------------------	--	-----------------------------	-----------------------------	-----------------------------	-------------------------------	---

Notes:

¹: Temperature, pH, DO, conductivity and ORP measured using an In-Situ® 9500 and flow through cell.

²: Total Alkalinity analyzed using EPA method 310.1

³: Sulfate and nitrate analyzed by EPA method 300.0.

⁴: Methane analyzed using method RSK 175.

⁵: Manganese analyzed using EPA method 6020.

⁶: Ferrous iron field measurement analyzed using a Hach field kit.

°F = Degrees Fahrenheit

µS/cm = microsiemens per centimeter

DO = Dissolved oxygen

mg/L = milligrams per liter

µg/L = micrograms per liter

ORP = Oxidation-reduction potential

mV = millivolts

CaCO₃ = Calcium carbonate

EPA = Environmental Protection Agency

NA = Not Analyzed

^ = Measurement error.

Lab Qualifiers

Definition

- D Sample required dilution due to high concentrations of target analyte.
- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- UJ The compound was analyzed for but not detected. The associated value is the estimated compound quantitation limit.
- W The analysis holding time was not met.
- P Due to interfering peaks on the chromatogram, the value reported for methane represents the lowest reporting limit attainable.

Table 4-1
Groundwater Extraction Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Date and Time (mm/dd/yy hh:mm ¹)	DPE System Enclosure LEL (Meter GT7911) ²	DPE System Transfer Pump Total Operating Hours (Meter P-5501)	Number of Active Groundwater Extraction Wells (out of 18 Wells ³)	Number of Active Soil Vapor Extraction Wells (out of 20 Wells ⁴)	Groundwater Extracted Volume (Totalizer FT7001)	Groundwater Extracted Volume (calculated per period) ⁵	Instantaneous System Flow Rate (Meter FT7001)	NPDES Discharge Sample Collected	NPDES Discharge pH Measured	Comments / System Status
Units	% LEL	hours	No. Wells	No. Wells	gal	gal	gpm	Yes/No	pH units	
NPDES Permit No. WA0991007 Effluent Limitations	--	--	--	--	--	--	100	Weekly Sample Outfall #002	6<pH<9	
DPE System Groundwater Extraction Testing Start-up: 12/1/17										
DPE System Soil Groundwater Extraction Effective Start-up: 12/5/17										
12/5/17 11:35	0.0	88.5	13	0	272,728 ⁶	271,313	47.40	Yes	#N/A	KO Transfer Pump offline - No Discharge
12/8/17 9:50	0.0	145.6	13	0	443,123	170,395	46.90	No	#N/A	KO Transfer Pump offline - No Discharge
12/13/17 8:55	0.0	175.8	13	15	533,537	90,414	52.10	No	#N/A	SVE-1 and SVE-2 are 10% Open - No Discharge
12/13/17 13:47	0.0	180.1	13	15	546,329	12,792	52.50	No	#N/A	No Discharge
12/14/17 10:00	0.0	198.0	13	15	600,138	53,809	48.50	Yes	8.02	
12/20/17 12:30	0.0	268.0	13	15	808,360	208,222	50.30	Yes	7.30	
12/27/17 11:45	1.5	362.3	13	15	1,078,783	270,423	47.10	Yes	7.44	
1/5/18 16:11	0.0	457.5	13	15	1,350,443	271,660	49.30	Yes	6.87	
1/9/18 16:10	0.5	467.2	13	15	1,379,660	29,217	50.20	Yes	7.08	
1/18/18 14:00	0.0	532.4	11	15	1,567,587	187,927	47.00	Yes	8.08	
1/24/18 13:30	0.0	606.1	13	15	1,771,575	203,988	70.80	Yes	7.58	
2/1/18 10:00	0.0	719.5	13	15	2,184,441	412,866	50.00	Yes	7.58	
2/8/18 9:45	0.0	765.7	7	7	2,336,768	152,327	59.10	Yes	7.70	
2/13/18 9:00	0.0	801.7	7	7	2,452,399	115,631	52.20	Yes	7.78	
2/20/18 13:30	0.0	869.5	10	7	2,645,606	193,207	49.00	Yes	7.73	
2/28/18 13:00	0.0	960.8	9	7	2,862,506	216,900	35.70	Yes	7.85	
3/8/18 10:30	0.0	1,038.8	6	6	3,026,377	163,871	40.30	Yes	7.75	
3/14/18 11:30	0.0	1,122.1	6	6	3,164,585	138,208	32.20	Yes	7.70	
5/8/18 12:30	0.0	1,122.1	14	14	3,164,585	0	62.10	Yes	7.13	Start at 0, Totalizer reset
5/17/18 13:00	0.0	1192.7	4	6	3,387,553	222,968	52.40	Yes	8.04	
5/23/18 14:45	0.0	1,217.1	4	6	3,441,445	53,892	50.40	Yes	7.98	
5/29/18 13:15	0.0	1,248.5	10	12	3,523,835	82,390	58.50	Yes	7.89	
6/7/18 12:30	0.0	1,290.4	10	12	3,673,007	149,172	81.20	Yes	8.15	
6/15/18 10:00	0.0	1,344.9	11	13	3,878,554	205,547	77.70	Yes	8.19	
7/5/18 11:40	0.0	1,428.5	4	6	4,198,836	320,282	70.30	Yes	8.17	
7/11/18 10:45	0.0	1,465.6	8	10	4,329,157	130,321	73.10	Yes	7.46	
7/19/18 13:00	0.0	1,472.5	8	10	4,355,511	26,354	73.00	No	#N/A	No Discharge
7/26/18 14:00	0.0	1,533.7	8	10	4,571,684	216,173	70.50	Yes	8.15	
8/3/18 15:00	0.0	1,582.7	4	6	4,739,433	167,749	67.60	Yes	8.13	
8/7/18 12:00	0.0	1,606.4	4	6	4,832,209	92,776	64.90	Yes	8.68	
8/15/18 13:00	0.0	1,649.5	4	6	4,998,519	166,310	68.40	Yes	7.96	
10/10/18 16:55	0.0	1,650.9	8	0	5,004,254	5,735	57.80	Yes	8.50	
10/18/18 14:00	0.0	1,656.1	6	6	5,018,900	14,646	57.60	Yes	7.90	
10/26/18 16:00	0.0	1,662.1	9	6	5,032,408	13,508	63.40	Yes	7.55	
11/7/18 16:00	0.0	1,663.7	9	9	5,035,905	3,497	68.00	Yes	7.81	
11/13/18 13:00	0.0	1,700.4	13	13	5,157,564	121,659	61.80	Yes	8.66	

Table 4-1
Groundwater Extraction Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Date and Time (mm/dd/yy hh:mm ¹)	DPE System Enclosure LEL (Meter GT7911) ²	DPE System Transfer Pump Total Operating Hours (Meter P-5501)	Number of Active Groundwater Extraction Wells (out of 18 Wells ³)	Number of Active Soil Vapor Extraction Wells (out of 20 Wells ⁴)	Groundwater Extracted Volume (Totalizer FT7001)	Groundwater Extracted Volume (calculated per period) ⁵	Instantaneous System Flow Rate (Meter FT7001)	NPDES Discharge Sample Collected	NPDES Discharge pH Measured	Comments / System Status
Units	% LEL	hours	No. Wells	No. Wells	gal	gal	gpm	Yes/No	pH units	
NPDES Permit No. WA0991007 Effluent Limitations	--	--	--	--	--	--	100	Weekly Sample Outfall #002	6<pH<9	
11/21/18 14:00	0.0	1,748.1	8	8	5,313,850	156,286	58.80	Yes	7.86	
1/11/19 10:00	0.0	1,823.4	4	0	5,602,531	288,681	74.80	Yes	7.21	
1/17/19 14:00	0.0	1,860.6	4	0	5,753,975	151,444	52.20	Yes	7.47	
1/24/19 13:00	0.0	1,878.1	9	0	5,814,693	60,718	65.00	Yes	7.63	
1/29/19 12:00	0.0	1,908.7	9	0	5,911,004	96,311	57.60	Yes	7.89	
2/21/19 13:40	0.0	1,957.9	6	0	6,072,481	161,477	58.30	Yes	7.76	
2/26/19 15:30	0.0	2,013.3	5	0	6,238,746	166,265	51.20	Yes	7.27	
3/6/19 12:30	0.0	2,098.0	6	0	6,442,883	204,137	45.40	Yes	7.22	
3/14/19 12:00	0.0	2,182.6	6	0	6,652,843	209,960	43.30	Yes	7.38	
3/22/19 14:00	0.0	2,183.5	6	0	6,654,670	1,827	55.20	Yes	7.89	
3/29/19 12:15	0.0	2,256.6	7	0	6,875,732	221,062	48.20	Yes	7.65	
4/2/19 14:00	0.0	2,304.4	7	0	6,990,685	114,953	45.50	Yes	7.31	
4/11/19 14:00	0.0	2,355.5	7	0	7,112,336	121,651	49.60	Yes	7.29	
4/17/19 13:00	0.0	2,408.2	7	0	7,234,324	121,988	43.40	Yes	7.47	
4/25/19 15:00	0.0	2,451.7	7	0	7,332,269	97,945	48.30	Yes	7.51	
5/2/19 13:00	0.0	2,511.0	7	0	7,465,452	133,183	41.00	Yes	7.75	
5/9/19 15:05	0.0	2,600.2	7	0	7,663,809	198,357	40.80	Yes	7.46	
5/17/19 15:00	0.0	2,696.0	7	0	7,857,022	193,213	31.30	Yes	7.39	
5/23/19 13:00	0.0	2,766.2	6	0	7,988,633	131,611	34.40	Yes	7.19	
5/30/19 14:30	0.0	2,838.8	6	0	8,126,323	137,690	37.80	Yes	7.69	
6/6/19 16:00	0.0	2,914.7	6	0	8,285,853	159,530	27.70	Yes	7.63	
8/2/19 14:40	0.0	2,962.5	4	0	8,364,915	79,062	50.00	No	--	
8/8/19 11:20	0.0	2,975.3	4	0	8,418,484	53,569	85.00	Yes	7.64	System off upon arrival. Started a 15:45
8/15/19 14:09	0.0	2,999.4	13	0	8,534,853	116,369	83.20	Yes	8.06	4 wells on upon arrival
8/21/19 11:58	0.0	3,034.3	13	0	8,697,340	162,487	77.30	Yes	8.55	
9/5/19 13:10	0.0	3,103.6	13	13	8,892,797	195,457	71.60	Yes	8.20	
9/9/19 11:51	0.0	3,106.3	13	0	8,900,386	7,589	73.30	Yes	7.92	SVE off due to VFD error
9/23/19 15:30	0.0	3,137.7	13	13	9,021,914	121,528	78.80	Yes	7.38	

Notes
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Data Sheet Name	Notes
Table 4-1 Groundwater Extraction Data	¹ . hh:mm in data sheets is reported in 24 hour format. Date of the flow reading, sample collected and sent to the laboratory for analysis within 24 hours of flow reading. ² . % LEL should remain below 10 % ³ . Groundwater extraction wells includes DPE-1, DPE-2, DPE-3, DPE-4, DPE-5, DPE-6, DPE-7, DPE-8, DPE-9, DPE-10, DPE-11, DPE-12, DPE-13, DPE-14, DPE-15, DPE-16, DPE-17 and DPE-18. ⁴ . Soil vapor extraction wells includes DPE-1, DPE-2, DPE-3, DPE-4, DPE-5, DPE-6, DPE-7, DPE-8, DPE-9, DPE-10, DPE-11, DPE-12, DPE-13, DPE-14, DPE-15, DPE-16, DPE-17, DPE-18, SVE-1 and SVE-2. ⁵ . Groundwater Extracted Volume (calculated per period) = Groundwater Extracted Volume Reading Period P - Groundwater Extracted Volume Reading Period P-1 ⁶ . The totalizer FT7001 initial reading pre-activities was 1,414.98 gallons DPE well = dual phase extraction well; remediation well used for both groundwater and soil vapor extraction gal = gallons gpm = gallons per minute LEL = lower explosive level #N/A = not applicable, not available NPDES = National Pollutant Discharge Elimination System SVE well = soil vapor extraction well; remediation well used for soil vapor extraction % = percent

Table 4-2
Vapor Extraction Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Date and Time	Soil Vapor Extraction Operation Data				Extracted Soil Vapor Data - Pre-Blower				Extracted Soil Vapor Data - Post-Blower					Mass Removal Calculation			Comments	
	Blower Cumulative Operating Period		Blower Operating Period	Manual Dilution Valve	Vacuum Pre-dilution (PT-701)	Vacuum Post-dilution (PT-702)	Temperature (TT-701)	SVE System Flow Rate (FT-702)	Pressure (PT703)	Temperature (TT-704)	SVE System Flow Rate (FT-701)	Post-Blower VOCs Concentration ³ (VSP-801)	Lower Explosive Limit ⁴ (VSP-801)	Post-Blower GRO Concentration ⁵ (Lab. Data)	Period VOCs Mass Removal Rate ⁶	Period Discharge Time ⁷		Cumulative VOCs Mass Removed ⁸
	mm/dd/yy hh:mm ¹	Blower ID ²	hours	hours	% open	in Hg	in Hg	°F	scfm	in H ₂ O	°F	scfm	ppmv	%	ppmv	lbs/day		days
DPE System Soil Vapor Extraction Testing: 12/05/17																		
DPE System Soil Vapor Extraction Start-up: 12/11/17																		
12/13/17 9:02	701	46.3	0.0	0	0.4	10.0	42.3	350	15.0	56.2	325	378.8	6	#N/A	40.32	0.0	0.00	
	702	33.3	0.0	0														
	703	14.1	0.0	Closed														
12/13/17 13:59	701	51.1	5.2	0	0.4	10.1	48.6	350	15.0	63.7	323	364.6	0	290	38.57	0.2	8.36	
	702	38.1	5.2	0														
	703	14.1	0.0	Closed														
12/14/17 14:00	701	71.9	20.4	0	0.4	9.8	46.3	345	16.0	61.6	330	308.2	0	#N/A	33.31	0.9	36.67	
	702	58.9	20.4	0														
	703	14.1	0.0	Closed														
12/20/17 12:40	701	149.8	78.3	0	0.6	12.7	47.4	385	14.0	83.8	315	177.5	0	160	18.31	3.3	96.41	
	702	136.0	77.9	0														
	703	14.1	0.0	Closed														
12/27/17 11:55	701	244.5	94.7	0	0.9	11.1	49.5	375	16.6	71.6	344	129.8	0	100	14.62	3.9	154.12	
	702	230.1	94.1	0														
	703	14.1	0.0	Closed														
1/5/18 14:15	701	274.9	30.4	0	1.0	11.7	50.8	375	15.8	82.5	336	121.9	0	#N/A	13.41	3.9	206.83	
	702	324.4	94.3	0														
	703	14.1	0.0	Closed														
1/9/18 16:15	701	282.8	7.9	0	1.3	6.7	47.8	255	8.3	52.0	215	95.2	0	#N/A	6.70	0.3	209.03	
	702	329.2	4.8	0														
	703	14.1	0.0	Closed														
1/18/18 14:00	701	351.8	69.0	0	1.3	6.7	51.2	250	8.1	55.2	202	44.1	0	#N/A	2.92	2.9	217.42	
	702	350.8	21.6	Closed														
	703	14.1	0.0	Closed														
1/24/18 15:20	701	362.0	10.2	0	1.4	17.2	47.8	380	9.4	99.5	232	39.0	0	#N/A	2.96	3.6	228.14	
	702	437.6	86.8	0														
	703	14.1	0.0	Closed														
2/1/18 10:00	701	502.4	140.4	0	0.8	9.3	46.9	315	13.0	43.5	305	25.9	0	#N/A	2.59	5.9	243.33	
	702	578.5	140.9	0														
	703	14.1	0.0	Closed														
2/8/18 9:50	701	580.6	78.2	0	0.9	7.5	50.5	233	6.1	35.1	171	17.1	0	#N/A	0.96	3.3	246.45	
	702	617.9	39.4	0														
	703	14.1	0.0	Closed														
2/13/18 9:20	701	697.6	117.0	0	1.3	1.7	39.2	240	10.8	0.0	332	172.6	11	#N/A	18.77	4.9	337.94	
	702	617.9	0.0	0														
	703	14.1	0.0	Closed														
2/20/18 13:40	701	729.1	31.5	0	0.9	8.1	44.5	235	6.0	28.3	165	39.1	0	18	2.11	1.5	341.16	
	702	654.5	36.6	Closed														
	703	14.1	0.0	Closed														
2/28/18 12:45	701	850.6	121.5	0	1.3	8.5	50.7	275	12.1	32.1	245	22.2	0	#N/A	1.78	5.1	350.18	
	702	754.2	99.7	0														
	703	14.1	0.0	Closed														
3/8/18 10:50	701	914.6	64.0	0	1.4	9.9	47.8	270	8.5	0.0	220	18.1	0	#N/A	1.30	4.7	356.24	
	702	865.8	111.6	0														
	703	14.1	0.0	Closed														

Table 4-2
Vapor Extraction Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Date and Time	Soil Vapor Extraction Operation Data				Extracted Soil Vapor Data - Pre-Blower				Extracted Soil Vapor Data - Post-Blower					Mass Removal Calculation			Comments	
	Blower Cumulative Operating Period		Blower Operating Period	Manual Dilution Valve	Vacuum Pre-dilution (PT-701)	Vacuum Post-dilution (PT-702)	Temperature (TT-701)	SVE System Flow Rate (FT-702)	Pressure (PT703)	Temperature (TT-704)	SVE System Flow Rate (FT-701)	Post-Blower VOCs Concentration ³ (VSP-801)	Lower Explosive Limit ⁴ (VSP-801)	Post-Blower GRO Concentration ⁵ (Lab. Data)	Period VOCs Mass Removal Rate ⁶	Period Discharge Time ⁷		Cumulative VOCs Mass Removed ⁸
	mm/dd/yy hh:mm ¹	Blower ID ²	hours	hours	% open	in Hg	in Hg	°F	scfm	in H ₂ O	°F	scfm	ppmv	%	ppmv	lbs/day		days
3/14/18 11:50	701	1,033.4	118.8	0	1.2	11.4	49.2	281	8.7	0.0	208	10.1	0	20	0.69	5.0	359.72	
	702	986.9	121.1	0														
	703	14.1	0.0	Closed														
5/8/18 14:50	701	1,057.1	0.0	0	1.1	6.4	71.1	315	18.5	64.6	350	6.8	0	#N/A	0.78	0.0	359.72	
	702	1,001.7	0.0	0														
	703	14.1	0.0	Closed														
5/18/18 15:15	701	1,082.7	25.6	Closed	0.9	7.0	69.8	213	5.8	71.4	175	5.0	0	34	0.29	7.1	361.76	
	702	1,172.7	171.0	0														
	703	14.1	0.0	Closed														
5/23/18 15:00	701	1,082.7	0.0	Closed	1.3	7.6	79.3	214	5.6	62.2	179	11.1	0	#N/A	0.65	5.9	365.59	
	702	1,314.0	141.3	0														
	703	14.1	0.0	Closed														
5/29/18 19:30	701	1,082.7	0.0	Closed	1.2	1.1	67.9	169	6.4	35.8	188	38.4	0	#N/A	2.36	5.8	379.18	
	702	1,452.0	138.0	0														
	703	14.1	0.0	Closed														
6/7/18 13:40	701	1,164.3	81.6	0	1.7	2.6	65.9	290	17.9	101	350	26.3	0	#N/A	3.01	3.4	389.43	
	702	1,532.8	80.8	0														
	703	14.1	0.0	Closed														
6/15/18 12:15	701	1,258.9	94.6	0	1.1	4.9	74.1	230	10.9	30.8	258	22.0	6	#N/A	1.86	4.1	397.02	
	702	1,630.8	98.0	0														
	703	14.1	0.0	Closed														
7/5/18 11:45	701	1,258.9	0.0	0	1.0	10.3	75.8	245	7.5	58.3	209	17.0	0	#N/A	1.16	7.9	406.26	
	702	1,821.2	190.4	0														
	703	14.1	0.0	Closed														
7/11/18 10:55	701	1,258.9	0.0	0	1.3	6.6	74.0	225	4.5	40.3	246	38.0	0	#N/A	3.06	5.9	424.32	
	702	1,962.8	141.6	0														
	703	14.1	0.0	Closed														
7/19/18 14:00	701	1,258.9	0.0	0	0.9	6.4	73.3	214	2.2	0.0	245	27.0	4	#N/A	2.17	0.5	425.48	
	702	1,975.6	12.8	0														
	703	14.1	0.0	Closed														
7/26/18 14:15	701	1,258.9	0.0	0	1.0	7.1	78.9	264	8.9	0.0	283	21.0	0	#N/A	1.95	5.2	435.60	
	702	2,100.4	124.8	0														
	703	14.1	0.0	Closed														
8/3/18 15:00	701	1,351.4	92.5	0	1.1	5.2	72.5	220	8.1	29.8	250	23.0	0	#N/A	1.88	3.9	442.87	
	702	2,193.1	92.7	0														
	703	14.1	0.0	Closed														
8/7/18 12:10	701	1,351.4	0.0	0	1.1	10.2	76.6	225	5.3	53.0	208	22.0	0	#N/A	1.50	3.9	448.66	
	702	2,285.8	92.7	0														
	703	14.1	0.0	Closed														
8/15/18 13:30	701	1,516.6	165.2	0	1.2	10.7	76.9	235	7.7	55.2	228	21.0	0	#N/A	1.57	7.0	459.59	
	702	2,453.1	167.3	0														
	703	14.1	0.0	Closed														
10/10/18 17:00	701	1,516.6	0.0	Closed	--	--	--	--	--	--	--	--	--	#N/A	--	--	--	
	702	2,453.1	0.0	Closed														
	703	14.1	0.0	Closed														
10/18/18 14:10	701	1,517.4	0.8	0	1.0	5.0	60.4	128	3.3	26.8	149	30.1	9	#N/A	1.47	0.0	459.64	
	702	2,453.3	0.2	0														
	703	14.1	0.0	Closed														

Table 4-2
Vapor Extraction Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Date and Time	Soil Vapor Extraction Operation Data				Extracted Soil Vapor Data - Pre-Blower				Extracted Soil Vapor Data - Post-Blower					Mass Removal Calculation			Comments	
	Blower Cumulative Operating Period		Blower Operating Period	Manual Dilution Valve	Vacuum Pre-dilution (PT-701)	Vacuum Post-dilution (PT-702)	Temperature (TT-701)	SVE System Flow Rate (FT-702)	Pressure (PT703)	Temperature (TT-704)	SVE System Flow Rate (FT-701)	Post-Blower VOCs Concentration ³ (VSP-801)	Lower Explosive Limit ⁴ (VSP-801)	Post-Blower GRO Concentration ⁵ (Lab. Data)	Period VOCs Mass Removal Rate ⁶	Period Discharge Time ⁷		Cumulative VOCs Mass Removed ⁸
	mm/dd/yy hh:mm ¹	Blower ID ²	hours	hours	% open	in Hg	in Hg	°F	scfm	in H ₂ O	°F	scfm	ppmv	%	ppmv	lbs/day		days
10/26/18 12:00	701	1,535.1	17.7	0	1.3	1.1	60.8	119	7.7	20.8	167	10.1	0	#N/A	0.55	0.7	460.05	
	702	2,453.3	0.0	0														
	703	14.1	0.0	Closed														
11/7/18 16:05	701	1,538.3	3.2	0	0.8	10.5	53.0	224	8.7	120*	214	18.0	0	#N/A	1.26	0.1	460.22	*TT-704 not working, reading collected from the gauge TI-107
	702	2,453.4	0.1	0														
	703	14.1	0.0	Closed														
11/13/18 13:10	701	1,637.9	99.6	0	0.9	3.7	54.9	218	10.3	120*	285	17.5	0	#N/A	1.63	4.2	466.99	*TT-704 not working, reading collected from the gauge TI-107
	702	2,550.8	97.4	0														
	703	14.1	0.0	Closed														
11/21/18 14:05	701	1,733.0	95.1	0	1.5	7.2	55.6	232	14.1	120*	252	3.8	0	#N/A	0.31	4.0	468.24	* TT-704 not working, reading collected from the gauge TI-107
	702	2,644.7	93.9	0														
	703	14.1	0.0	Closed														
9/23/19 17:00	701	1,950.8	217.8	0	1.2	4.6	62.5	188	11.7	31.6	274	25.1	0	#N/A	2.25	9.1	417.48	
	702	2,862.6	217.9	0														
	703	14.1	0.0	Closed														

Table 4-2

Vapor Extraction Data

- ¹. hh:mm in data sheets is reported in 24 hour format
 - ². The SVE system comprises three blowers (701, 702 and 703) inducing vacuum to extract the soil vapors at each DPE and SVE well
 - ³. Post-blower VOCs concentration measured in the field by photoionization detector (PID) reading
 - ⁴. Lower explosive limit measured in the field by 4-gas multi-meter reading
 - ⁵. Post-blower GRO concentration analysed by Method United States Environmental Protection Agency TO-15 by Test America Laboratories, Inc. in Tacoma, Washington
 - ⁶. VOCs mass removal rate calculated using PID reading
- Mass Removal Rate= flowrate * time * concentration * molecular weight * molar density of air

$$\text{Period VOCs Mass Removal Rate} = (\text{SVE System Flow Rate [scfm]} \times 60 [\text{min}] \times 24 [\text{hr}]) \times \left(\frac{\text{Post-Blower VOCs Concentration [ppmv]}}{10^6} \right) \times \frac{86.2 \left[\frac{\text{lbs}}{\text{mol}} \right]}{379 \left[\frac{\text{lbmol}}{\text{scf}} \right]}$$

VOCs (as Hexane) molecular weight = 86.2 lb / [lb mol].
 min = minute
 hr = hour
 lb = pound

Molar density of air = 379 lb mol / scf.
 lb mol = pound per mole
 scfm = standard cubic feet per minute
 scf = standard cubic feet

- ⁷. Total days of discharge in period (see Date and Time).
 Period Discharge Time = maximum blower operating period / 24
- ⁸. Cumulative VOCs mass removed calculated using PID reading
 Cumulative Mass Removed = mass removal rate * time + previous cumulative mass removed

$$\text{Cumulative VOCs Mass Removed} = \text{Period VOCs Mass Removal Rate} \left[\frac{\text{lbs}}{\text{day}} \right] \times \text{Period Discharge Time [day]} + \text{previous Cumulative VOCs Mass Removed [lbs]}$$

lb = pound
 °F = degrees Fahrenheit
 GRO = Total petroleum hydrocarbons - gasoline range organics.
 in Hg = inches mercury
 in H₂O = inches water
 Lab. = Laboratory
 lbs = pounds
 lbs/day = pounds per day
 #N/A = not applicable, not available
 PID = photoionization detector
 ppmv = parts per million vapor
 scfm = standard cubic feet per minute
 SVE = soil vapor extraction
 VOCs = volatile organic compounds
 % = percent

**Table 4-3
Vapor Extraction Data – Laboratory Data and Mass Removal
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington**

Date and Time	Soil Vapor Extraction Operation Data		GRO Mass Removal Calculation			Benzene Mass Removal Calculation		
	Blower Cumulative Operating Period	SVE System Flow Rate (FT-701)	GRO Concentration ^{2.} (VSP-801)	GRO Mass Removal Rate ^{3.}	Cumulative GRO Mass Removed ^{4.}	Benzene Concentration ^{5.} (VSP-801)	Benzene Removal Rate ^{6.}	Cumulative Benzene Mass Removed ^{7.}
mm/dd/yy hh:mm ^{1.}	cumulative hours	scfm	ppmv	lbs/day	lbs	ppmv	lbs/day	lbs
DPE System Soil Vapor Extraction Testing: 12/05/17								
DPE System Soil Vapor Extraction Start-up: 12/11/17								
12/14/17 14:00	71.9	330	290	36.36	109	2.4	0.24	0.70
12/20/17 12:40	149.8	315	160	19.15	199	0.91	0.09	1.22
12/27/17 11:55	244.5	344	100	13.07	263	0.48	0.05	1.49
2/20/18 13:40	729.1	165	18	1.13	406	0.28	0.01	2.12
3/14/18 11:50	1,033.4	208	20	1.58	423	0.17	0.01	2.27
5/18/18 15:15	1,172.7	175	34	2.26	434	0.0011	0.00	2.31
7/26/18 14:15	2,100.4	283	17	1.83	513	0.046	0.00	2.38
10/18/18 14:10	2,453.3	149	38	2.15	631	0.640	0.03	2.62

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-01												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4001)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-01	11/28/17 8:47	#N/A	#N/A	7.75	14.58	6.83	#N/A	#N/A	174.4	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-01	12/5/17 11:35	26.50	2.00	24.50	14.58	-9.92	2 / 0.5	No	4,291	4,116.60	#N/A	Groundwater elevation estimated based on transducer setting
DPE-01	12/13/17 9:30	26.50	4.40	22.10	14.58	-7.52	2 / 0.5	Yes	7,715.35	3,424.35	0.0	Low yield
DPE-01	12/13/17 14:00	26.50	1.20	25.30	14.58	-10.72	2 / 0.5	Yes	7,953.10	237.75	0.0	Low yield
DPE-01	12/14/17 10:25	26.50	1.80	24.70	14.58	-10.12	2 / 0.5	Yes	8,880.60	927.50	0.0	Low yield
DPE-01	12/20/17 12:50	26.50	3.30	23.20	14.58	-8.62	2 / 0.5	Yes	11,126.90	2,246.30	0.0	Low yield
DPE-01	12/27/17 12:15	26.50	3.64	22.86	14.58	-8.28	2 / 0.5	Yes	14,887.30	3,760.40	0.0	Low yield
DPE-01	1/5/18 16:20	26.50	1.00	25.50	14.58	-10.92	2 / 0.5	Yes	18,939.00	4,051.70	0.0	Low yield
DPE-01	1/9/18 16:25	26.50	1.00	25.50	14.58	-10.92	4 / 0.5	Yes	19,525.90	586.90	1.0	
DPE-01	1/18/18 14:20	26.50	2.00	24.50	14.58	-9.92	4 / 0.5	Yes	23,294.10	3,768.20	0.0	Low yield
DPE-01	1/24/18 13:30	26.50	2.00	24.50	14.58	-9.92	2 / 0.5	Yes	27,517.80	4,223.70	0.0	Low yield
DPE-01	2/1/18 10:10	26.50	4.65	21.85	14.58	-7.27	2 / 0.5	Yes	33,542.00	6,024.20	0.0	Low yield
DPE-01	2/8/18 10:00	26.50	4.24	22.26	14.58	-7.68	2 / 0.5	Yes	37,141.60	3,599.60	0.0	Low yield
DPE-01	2/13/18 9:50	26.50	1.00	25.50	14.58	-10.92	2 / 0.5	No	41,896.00	4,754.40	1.0	
DPE-01	2/20/18 14:00	26.50	2.00	24.50	14.58	-9.92	2 / 0.5	Yes	45,858.20	3,962.20	0.0	Low yield
DPE-01	2/28/18 14:00	26.50	0.80	25.70	14.58	-11.12	2 / 0.5	Yes	50,555.80	4,697.60	0.0	Low yield
DPE-01	3/8/18 11:30	26.50	2.00	24.50	14.58	-9.92	2 / 0.5	Yes	55,055.20	4,499.40	0.0	Low yield
DPE-01	3/14/18 12:00	26.50	4.95	21.55	14.58	-6.97	2 / 0.5	Yes	60,016.90	4,961.70	0.0	Low yield
DPE-01	5/8/18 13:00	26.50	4.88	21.62	14.58	-7.04	2 / 0.5	Yes	60,641.10	624.20	0.0	Low yield
DPE-01	5/17/18 15:45	26.50	13.11	13.39	14.58	1.19	2 / 0.5	No	67,397.40	6,756.30	0.0	Off
DPE-01	5/23/18 15:30	26.50	14.01	12.49	14.58	2.09	2 / 0.5	No	67,397.40	0.00	0.0	Off
DPE-01	5/29/18 16:30	26.50	1.15	25.35	14.58	-10.77	2 / 0.5	Yes	67,499.30	101.90	0.0	
DPE-01	6/7/18 13:15	26.50	0.56	25.94	14.58	-11.36	2 / 0.5	Yes	70,988.90	3,489.60	0.0	
DPE-01	6/15/18 13:00	26.50	2.89	23.61	14.58	-9.03	2 / 0.5	Yes	74,571.40	3,582.50	0.0	
DPE-01	6/18/18 12:20	26.50	0.49	26.02	14.58	-11.44	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-01	7/5/18 12:00	26.50	13.97	12.53	14.58	2.05	2 / 0.5	No	79,523.10	4,951.70	0.0	Off
DPE-01	7/11/18 12:30	26.50	3.27	23.23	14.58	-8.65	2 / 0.5	Yes	79,658.60	135.50	0.0	
DPE-01	7/19/18 14:30	26.50	1.33	25.17	14.58	-10.59	2 / 0.5	Yes	80,377.10	718.50	0.0	Off
DPE-01	7/26/18 15:00	26.50	0.50	26.00	14.58	-11.42	2 / 0.5	Yes	85,657.40	5,280.30	0.0	
DPE-01	8/3/18 15:10	26.50	9.14	17.36	14.58	-2.78	2 / 0.5	No	89,604.50	3,947.10	0.0	Off
DPE-01	8/7/18 12:45	26.50	13.63	12.87	14.58	1.71	2 / 0.5	No	89,604.50	0.00	0.0	Off
DPE-01	8/15/18 14:00	26.50	13.04	13.46	14.58	1.12	2 / 0.5	No	89,604.50	0.00	0.0	Off
DPE-01	10/10/18 17:05	23.00	1.91	21.09	14.58	-6.51	2 / 0.5	No	89,772.40	167.90	1.2	Recalibrated transducer depth after fall restart
DPE-01	10/18/18 14:15	23.00	0.86	22.14	14.58	-7.56	2 / 0.5	Yes	90,691.00	918.60	1.2	
DPE-01	10/26/18 16:10	23.00	0.85	22.15	14.58	-7.57	2 / 0.5	Yes	91,745.90	1,054.90	1.2	
DPE-01	11/7/18 16:10	23.00	0.60	22.40	14.58	-7.82	2 / 0.5	Yes	91,977.80	231.90	1.2	
DPE-01	11/13/18 13:20	23.00	0.90	22.10	14.58	-7.52	2 / 0.5	Yes	96,666.60	4,688.80	0.0	
DPE-01	11/21/18 14:10	23.00	0.75	22.25	14.58	-7.67	2 / 0.5	Yes	100,764.30	4,097.70	0.0	
DPE-01	1/11/19 10:30	23.00	15.13	7.87	14.58	6.71	2 / 0.5	No	103,258.10	2,493.80	0.0	Off
DPE-01	1/17/19 14:15	23.00	14.97	8.03	14.58	6.55	2 / 0.5	No	103,258.10	0.00	0.0	Off
DPE-01	1/24/19 13:15	23.00	1.46	21.54	14.58	-6.96	2 / 0.5	No	103,351.70	93.60	0.8	
DPE-01	1/29/19 12:15	23.00	2.00	21.00	14.58	-6.42	2 / 0.5	No	105,500.20	2,148.50	0.0	
DPE-01	2/21/19 13:45	23.00	0.90	22.10	14.58	-7.52	2 / 0.5	No	108,195.10	2,694.90	0.0	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-01												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4001)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-01	2/26/19 16:00	23.00	1.53	21.47	14.58	-6.89	2 / 0.5	No	108,195.10	0.00	0.0	
DPE-01	3/6/19 13:00	23.00	2.00	21.00	14.58	-6.42	2 / 0.5	No	120,229.20	12,034.10	0.0	
DPE-01	3/14/19 12:10	23.00	5.78	17.22	14.58	-2.64	2 / 0.5	No	127,151.90	6,922.70	0.0	
DPE-01	3/22/19 14:30	23.00	5.10	17.90	14.58	-3.32	2 / 0.5	No	127,151.90	0.00	0.0	
DPE-01	3/29/19 13:00	23.00	1.49	21.51	14.58	-6.93	2 / 0.5	No	134,601.60	7,449.70	0.0	
DPE-01	4/2/19 14:15	23.00	2.00	21.00	14.58	-6.42	2 / 0.5	No	139,801.60	5,200.00	0.0	
DPE-01	4/11/19 14:10	23.00	1.26	21.74	14.58	-7.16	6 / 0.5	No	141,856.40	2,054.80	1.6	
DPE-01	4/17/19 13:10	23.00	12.59	10.41	14.58	4.17	6 / 0.5	No	146,413.50	4,557.10	0.0	Off
DPE-01	4/25/19 15:15	23.00	2.45	20.55	14.58	-5.97	6 / 0.5	No	146,563.80	150.30	0.0	
DPE-01	5/2/19 13:30	23.00	0.85	22.15	14.58	-7.57	6 / 0.5	No	152,136.80	5,573.00	1.6	
DPE-01	5/9/19 15:10	23.00	2.96	20.04	14.58	-5.46	6 / 0.5	No	160,631.80	8,495.00	1.6	
DPE-01	5/17/19 15:15	23.00	0.70	22.30	14.58	-7.72	6 / 0.5	No	169,225.20	8,593.40	1.6	
DPE-01	5/23/19 13:10	23.00	1.02	21.98	14.58	-7.40	6 / 0.5	No	174,883.30	5,658.10	1.8	
DPE-01	5/30/19 14:35	23.00	1.31	21.69	14.58	-7.11	6 / 0.5	No	182,162.2	7,278.90	1.2	
DPE-01	6/6/19 16:10	23.00	1.38	21.62	14.58	-7.04	6 / 0.5	No	190,952.80	8,790.60	1.4	
DPE-01	8/2/19 15:00	23.00	14.15	8.85	14.58	5.73	6 / 0.5	No	195,177.0	4,224.2	0.00	DPE system expansion baseline event before system startup - System off
DPE-01	8/15/19 14:14	23.00	13.40	9.60	14.58	4.98	6 / 0.5	No	195,187.3	10.3	0.0	Off
DPE-01	8/21/19 12:03	23.00	12.97	10.03	14.58	4.55	6 / 0.5	No	195,187.3	0.0	0.0	Off
DPE-01	9/5/19 13:35	23.00	3.22	19.78	14.58	-5.20	6 / 0.5	Yes	195,245.1	57.8	1.4	
DPE-01	9/9/19 11:54	23.00	1.93	21.07	14.58	-6.49	6 / 0.5	No	195,344.2	99.1	1.2	
DPE-01	9/23/19 15:30	23.00	1.64	21.36	14.58	-6.78	6 / 0.5	Yes	198,818.2	3,474.0	1.2	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-02												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4002)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-02	11/28/17 8:49	#N/A	#N/A	7.75	14.88	7.13	#N/A	#N/A	189.13	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-02	12/5/17 11:35	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	No	21,102	20,912.87	#N/A	Groundwater elevation estimated based on transducer setting
DPE-02	12/13/17 9:30	26.50	2.01	24.49	14.88	-9.61	2 / 0.5	Yes	41,602.11	20,500.11	3.6	
DPE-02	12/13/17 14:00	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	42,655.30	1,053.19	3.8	
DPE-02	12/14/17 10:25	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	46,726.00	4,070.70	3.8	
DPE-02	12/20/17 12:50	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	62,273.60	15,547.60	3.8	
DPE-02	12/27/17 0:15	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	81,107.50	18,833.90	3.6	
DPE-02	1/5/18 16:20	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	100,386.80	19,279.30	3.6	
DPE-02	1/9/18 16:25	26.50	4.00	22.50	14.88	-7.62	4 / 0.5	Yes	102,562.00	2,175.20	3.4	
DPE-02	1/18/18 14:20	26.50	4.00	22.50	14.88	-7.62	4 / 0.5	Yes	117,908.80	15,346.80	3.8	
DPE-02	1/24/18 13:30	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	138,159.00	20,250.20	3.2	
DPE-02	2/1/18 10:10	26.50	2.81	23.69	14.88	-8.81	2 / 0.5	Yes	172,231.90	34,072.90	3.8	
DPE-02	2/8/18 10:00	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	192,486.30	20,254.40	4.8	
DPE-02	2/13/18 9:50	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	No	221,598.10	29,111.80	4.2	
DPE-02	2/20/18 14:00	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	247,104.00	25,505.90	4.4	
DPE-02	2/28/18 14:00	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	275,636.50	28,532.50	4.0	
DPE-02	3/8/18 11:30	26.50	7.51	18.99	14.88	-4.11	2 / 0.5	Yes	300,986.90	25,350.40	4.6	
DPE-02	3/14/18 12:00	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	332,181.90	31,195.00	3.9	
DPE-02	5/8/18 13:00	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	335,810.50	3,628.60	4.0	
DPE-02	5/17/18 15:45	26.50	12.63	13.87	14.88	1.01	2 / 0.5	No	377,365.90	41,555.40	0.0	Off
DPE-02	5/23/18 15:30	26.50	14.03	12.47	14.88	2.41	2 / 0.5	No	377,365.90	0.00	0.0	Off
DPE-02	5/29/18 16:30	26.50	1.75	24.75	14.88	-9.87	2 / 0.5	Yes	377,688.00	322.10	3.8	
DPE-02	6/7/18 13:15	26.50	2.12	24.38	14.88	-9.50	2 / 0.5	Yes	398,838.90	21,150.90	4.0	
DPE-02	6/15/18 13:00	26.50	2.00	24.50	14.88	-9.62	2 / 0.5	Yes	422,423.80	23,584.90	4.0	
DPE-02	6/18/18 12:20	26.50	2.01	24.49	14.88	-9.61	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-02	7/5/18 12:00	26.50	13.88	12.62	14.88	2.26	2 / 0.5	No	451,191.60	28,767.80	0.0	Off
DPE-02	7/11/18 12:30	26.50	8.86	17.64	14.88	-2.76	2 / 0.5	Yes	451,321.20	129.60	4.8	
DPE-02	7/19/18 14:30	26.50	4.93	21.57	14.88	-6.69	2 / 0.5	Yes	455,610.10	4,288.90	5.0	
DPE-02	7/26/18 15:00	26.50	6.50	20.00	14.88	-5.12	2 / 0.5	Yes	489,067.10	33,457.00	5.2	
DPE-02	8/3/18 15:10	26.50	11.60	14.90	14.88	-0.02	2 / 0.5	No	512,926.90	23,859.80	0.0	Off
DPE-02	8/7/18 12:45	26.50	13.30	13.20	14.88	1.68	2 / 0.5	No	512,926.90	0.00	0.0	Off
DPE-02	8/15/18 14:00	26.50	13.16	13.34	14.88	1.54	2 / 0.5	No	512,926.90	0.00	0.0	Off
DPE-02	10/10/18 17:05	23.00	2.20	20.80	14.88	-5.92	2 / 0.5	No	513,479.10	552.20	5.4	Recalibrated transducer depth after fall restart
DPE-02	10/18/18 14:15	23.00	2.38	20.62	14.88	-5.74	2 / 0.5	Yes	517,278.20	3,799.10	5.2	
DPE-02	10/26/18 16:10	23.00	1.83	21.17	14.88	-6.29	2 / 0.5	Yes	522,271.30	4,993.10	5.2	
DPE-02	11/7/18 16:10	23.00	2.40	20.60	14.88	-5.72	2 / 0.5	Yes	523,356.20	1,084.90	5.0	
DPE-02	11/13/18 13:20	23.00	2.00	21.00	14.88	-6.12	2 / 0.5	Yes	548,623.80	25,267.60	4.2	
DPE-02	11/21/18 14:10	23.00	2.00	21.00	14.88	-6.12	2 / 0.5	Yes	571,650.10	23,026.30	4.4	
DPE-02	1/11/19 10:30	23.00	16.05	6.95	14.88	7.93	2 / 0.5	No	585,292.80	13,642.70	0.0	Off
DPE-02	1/17/19 14:15	23.00	16.03	6.97	14.88	7.91	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	1/24/19 13:15	23.00	14.53	8.47	14.88	6.41	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	1/29/19 12:15	23.00	14.26	8.74	14.88	6.14	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	2/21/19 13:45	23.00	12.98	10.02	14.88	4.86	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	2/26/19 16:00	23.00	13.24	9.76	14.88	5.12	2 / 0.5	No	585,292.80	0.00	0.0	Off

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-02												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4002)	Depth to Water ² :	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³ :	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴ :	Comments
	mm/dd/yy hh:mm ¹ :	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-02	3/6/19 13:00	23.00	13.24	9.76	14.88	5.12	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	3/14/19 12:10	23.00	14.44	8.56	14.88	6.32	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	3/22/19 14:30	23.00	13.19	9.81	14.88	5.07	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	3/29/19 13:00	23.00	13.88	9.12	14.88	5.76	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	4/2/19 14:15	23.00	13.18	9.82	14.88	5.06	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	4/11/19 14:10	23.00	14.19	8.81	14.88	6.07	2 / 0.5	No	585,292.80	0.00	0.0	Off
DPE-02	4/17/19 13:10	23.00	5.00	18.00	14.88	-3.12	5 / 0.5	No	585,300.20	7.40	2.8	
DPE-02	4/25/19 15:15	23.00	12.89	10.11	14.88	4.77	5 / 0.5	No	597,961.90	12,661.70	0.0	Off
DPE-02	5/2/19 13:30	23.00	12.51	10.49	14.88	4.39	5 / 0.5	No	597,961.90	0.00	0.0	Off
DPE-02	5/9/19 15:10	23.00	13.31	9.69	14.88	5.19	5 / 0.5	No	597,961.90	0.00	0.0	Off
DPE-02	5/17/19 15:15	23.00	12.57	10.43	14.88	4.45	5 / 0.5	No	597,961.90	0.00	0.0	Off
DPE-02	5/23/19 13:10	23.00	13.30	9.70	14.88	5.18	5 / 0.5	No	597,961.90	0.00	0.0	Off
DPE-02	5/30/19 14:35	23.00	12.60	10.40	14.88	4.48	5 / 0.5	No	597,961.9	0.00	0.0	Off
DPE-02	6/6/19 16:10	23.00	12.63	10.37	14.88	4.51	5 / 0.5	No	597,961.90	0.00	0.0	Off
DPE-02	8/2/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-02	8/15/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-02	8/21/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-02	9/5/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-02	9/9/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-02	9/23/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-03												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4003)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-03	11/28/17 8:40	#N/A	#N/A	7.04	13.94	6.90	#N/A	#N/A	41.15	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-03	12/5/17 11:35	18.50	2.00	16.50	13.94	-2.56	2 / 0.5	No	32,464	32,422.85	#N/A	Groundwater elevation estimated based on transducer setting
DPE-03	12/13/17 9:30	18.50	3.70	14.80	13.94	-0.86	2 / 0.5	Yes	64,706.16	32,242.16	5.6	
DPE-03	12/13/17 14:00	18.50	3.60	14.90	13.94	-0.96	2 / 0.5	Yes	66,126.60	1,420.44	5.6	
DPE-03	12/14/17 10:25	18.50	3.30	15.20	13.94	-1.26	2 / 0.5	Yes	72,950.20	6,823.60	5.4	
DPE-03	12/20/17 12:50	18.50	4.50	14.00	13.94	-0.06	2 / 0.5	Yes	99,486.30	26,536.10	5.4	
DPE-03	12/27/17 12:15	18.50	4.34	14.16	13.94	-0.22	2 / 0.5	Yes	132,783.20	33,296.90	6.0	
DPE-03	1/5/18 16:20	18.50	5.25	13.25	13.94	0.69	2 / 0.5	Yes	165,740.30	32,957.10	5.6	
DPE-03	1/9/18 16:25	18.50	5.59	12.91	13.94	1.03	4 / 0.5	Yes	168,925.20	3,184.90	5.4	
DPE-03	1/18/18 14:20	18.50	5.75	12.75	13.94	1.19	4 / 0.5	Yes	199,280.40	30,355.20	5.6	
DPE-03	1/24/18 13:30	18.50	5.50	13.00	13.94	0.94	2 / 0.5	Yes	224,989.30	25,708.90	5.8	
DPE-03	2/1/18 10:10	18.50	4.80	13.70	13.94	0.24	2 / 0.5	Yes	273,883.30	48,894.00	5.8	
DPE-03	2/8/18 10:00	18.50	4.90	13.60	13.94	0.34	2 / 0.5	Yes	301,693.20	27,809.90	5.8	
DPE-03	2/13/18 9:50	18.50	3.22	15.28	13.94	-1.34	2 / 0.5	No	342,654.30	40,961.10	6.0	
DPE-03	2/20/18 14:00	18.50	5.19	13.31	13.94	0.63	2 / 0.5	Yes	378,688.10	36,033.80	6.0	
DPE-03	2/28/18 14:00	18.50	4.73	13.77	13.94	0.17	2 / 0.5	Yes	422,386.50	43,698.40	6.0	
DPE-03	3/8/18 11:30	18.50	4.38	14.12	13.94	-0.18	2 / 0.5	Yes	462,533.70	40,147.20	6.0	
DPE-03	3/14/18 12:00	18.50	5.96	12.54	13.94	1.40	2 / 0.5	Yes	507,489.90	44,956.20	6.0	
DPE-03	5/8/18 13:00	18.50	5.25	13.25	13.94	0.69	2 / 0.5	Yes	512,509.50	5,019.60	6.0	
DPE-03	5/17/18 15:45	18.50	11.81	6.69	13.94	7.25	2 / 0.5	No	572,494.50	59,985.00	0.0	Off
DPE-03	5/23/18 15:30	18.50	12.80	5.70	13.94	8.24	2 / 0.5	No	572,494.50	0.00	0.0	Off
DPE-03	5/29/18 16:30	18.50	6.34	12.16	13.94	1.78	2 / 0.5	Yes	572,927.10	432.60	5.8	
DPE-03	6/7/18 13:15	18.50	6.38	12.12	13.94	1.82	2 / 0.5	Yes	601,165.20	28,238.10	5.6	
DPE-03	6/15/18 13:00	18.50	5.71	12.79	13.94	1.15	2 / 0.5	Yes	633,496.60	32,331.40	5.6	
DPE-03	6/18/18 12:20	18.50	4.79	13.71	13.94	0.23	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-03	7/5/18 12:00	18.50	12.68	5.82	13.94	8.12	2 / 0.5	No	674,566.60	41,070.00	0.0	Off
DPE-03	7/11/18 12:30	18.50	6.01	12.49	13.94	1.45	2 / 0.5	Yes	674,763.80	197.20	5.2	
DPE-03	7/19/18 14:30	18.50	5.57	12.93	13.94	1.01	2 / 0.5	Yes	679,873.70	5,109.90	5.2	
DPE-03	7/26/18 15:00	18.50	5.94	12.56	13.94	1.38	2 / 0.5	Yes	722,222.30	42,348.60	5.2	
DPE-03	8/3/18 15:10	18.50	11.31	7.19	13.94	6.75	2 / 0.5	No	753,213.80	30,991.50	0.0	Off
DPE-03	8/7/18 12:45	18.50	12.32	6.18	13.94	7.76	2 / 0.5	No	753,213.80	0.00	0.0	Off
DPE-03	8/15/18 14:00	18.50	12.49	6.01	13.94	7.93	2 / 0.5	No	753,213.80	0.00	0.0	Off
DPE-03	10/10/18 17:05	20.50	8.69	11.81	13.94	2.13	2 / 0.5	No	753,824.70	610.90	5.2	Recalibrated transducer depth after fall restart
DPE-03	10/18/18 14:15	20.50	7.15	13.35	13.94	0.59	2 / 0.5	No	758,998.70	5,174.00	5.4	
DPE-03	10/26/18 16:10	20.50	7.77	12.73	13.94	1.21	2 / 0.5	Yes	764,990.50	5,991.80	5.4	
DPE-03	11/7/18 16:10	20.50	6.23	14.27	13.94	-0.33	2 / 0.5	Yes	766,186.00	1,195.50	5.4	
DPE-03	11/13/18 13:20	20.50	6.71	13.79	13.94	0.15	2 / 0.5	Yes	798,687.10	32,501.10	5.4	
DPE-03	11/21/18 14:10	20.50	7.14	13.36	13.94	0.58	2 / 0.5	Yes	829,760.50	31,073.40	5.4	
DPE-03	1/11/19 10:30	20.50	13.73	6.77	13.94	7.17	2 / 0.5	No	847,310.60	17,550.10	0.0	Off
DPE-03	1/17/19 14:15	20.50	13.55	6.95	13.94	6.99	2 / 0.5	No	847,310.60	0.00	0.0	Off
DPE-03	1/24/19 13:15	20.50	7.91	12.59	13.94	1.35	2 / 0.5	No	847,804.70	494.10	5.6	
DPE-03	1/29/19 12:15	20.50	5.35	15.15	13.94	-1.21	2 / 0.5	No	863,295.00	15,490.30	5.6	
DPE-03	2/21/19 13:45	20.50	5.00	15.50	13.94	-1.56	2 / 0.5	No	894,298.10	31,003.10	5.6	
DPE-03	2/26/19 16:00	20.50	5.40	15.10	13.94	-1.16	2 / 0.5	No	934,855.90	40,557.80	5.6	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-03												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4003)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-03	3/6/19 13:00	20.50	4.47	16.03	13.94	-2.09	2 / 0.5	No	987,220.90	52,365.00	5.6	
DPE-03	3/14/19 12:10	20.50	4.36	16.14	13.94	-2.20	2 / 0.5	No	1,042,793.90	55,573.00	5.8	
DPE-03	3/22/19 14:30	20.50	6.09	14.41	13.94	-0.47	2 / 0.5	No	1,042,793.90	0.00	5.8	
DPE-03	3/29/19 13:00	20.50	4.51	15.99	13.94	-2.05	2 / 0.5	No	1,099,312.50	56,518.60	5.8	
DPE-03	4/2/19 14:15	20.50	4.60	15.90	13.94	-1.96	2 / 0.5	No	1,124,361.90	25,049.40	6.0	
DPE-03	4/11/19 14:10	20.50	6.00	14.50	13.94	-0.56	6 / 0.5	No	1,153,564.60	29,202.70	5.2	
DPE-03	4/17/19 13:10	20.50	6.00	14.50	13.94	-0.56	6 / 0.5	No	1,180,085.70	26,521.10	5.4	
DPE-03	4/25/19 15:15	20.50	6.00	14.50	13.94	-0.56	6 / 0.5	No	1,199,720.70	19,635.00	5.2	
DPE-03	5/2/19 13:30	20.50	6.18	14.32	13.94	-0.38	6 / 0.5	No	1,228,793.20	29,072.50	5.4	
DPE-03	5/9/19 15:10	20.50	6.00	14.50	13.94	-0.56	6 / 0.5	No	1,276,936.30	48,143.10	5.2	
DPE-03	5/17/19 15:15	20.50	6.00	14.50	13.94	-0.56	6 / 0.5	No	1,324,486.20	47,549.90	5.2	
DPE-03	5/23/19 13:10	20.50	6.00	14.50	13.94	-0.56	6 / 0.5	No	1,356,658.70	32,172.50	5.6	
DPE-03	5/30/19 14:35	20.50	6.00	14.50	13.94	-0.56	6 / 0.5	No	1,398,443.8	41,785.10	5.4	
DPE-03	6/6/19 16:10	20.50	6.00	14.50	13.94	-0.56	6 / 0.5	No	1,449,158.50	50,714.70	5.6	
DPE-03	8/2/19 15:00	20.50	12.93	7.57	13.94	6.37	6 / 0.5	No	1,474,361.0	25,202.5	0.00	DPE system expansion baseline event before system startup - System off
DPE-03	8/15/19 14:16	20.50	7.76	12.74	13.94	1.20	6 / 0.5	No	1,474,621.9	260.9	5.8	
DPE-03	8/21/19 12:04	20.50	6.25	14.25	13.94	-0.31	6 / 0.5	No	1,522,728.7	48,106.8	6.2	
DPE-03	9/5/19 13:35	20.50	7.41	13.09	13.94	0.85	6 / 0.5	Yes	1,597,116.9	74,388.2	5.6	
DPE-03	9/9/19 11:54	20.50	7.73	12.77	13.94	1.17	6 / 0.5	No	1,598,108.1	991.2	5.6	
DPE-03	9/23/19 15:30	20.50	6.97	13.53	13.94	0.41	6 / 0.5	Yes	1,617,163.8	19,055.7	5.8	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-04												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4004)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-04	11/28/17 8:45	#N/A	#N/A	6.86	13.83	6.97	#N/A	#N/A	169.47	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-04	12/5/17 11:35	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	No	18,140	17,970.53	#N/A	Groundwater elevation estimated based on transducer setting
DPE-04	12/13/17 9:30	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	34,380.70	16,240.70	2.8	
DPE-04	12/13/17 14:00	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	35,198.70	818.00	2.8	
DPE-04	12/14/17 10:25	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	38,377.90	3,179.20	2.6	
DPE-04	12/20/17 12:50	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	50,755.30	12,377.40	3.0	
DPE-04	12/27/17 12:15	18.50	1.87	16.63	13.83	-2.80	2 / 0.5	Yes	66,641.50	15,886.20	2.8	
DPE-04	1/5/18 16:20	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	81,882.00	15,240.50	3.0	
DPE-04	1/9/18 16:25	18.50	4.20	14.30	13.83	-0.47	4 / 0.5	Yes	83,508.90	1,626.90	2.4	
DPE-04	1/18/18 14:20	18.50	4.00	14.50	13.83	-0.67	4 / 0.5	Yes	93,863.00	10,354.10	2.6	
DPE-04	1/24/18 13:30	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	107,424.70	13,561.70	2.4	
DPE-04	2/1/18 10:10	18.50	1.85	16.65	13.83	-2.82	2 / 0.5	Yes	132,923.90	25,499.20	2.8	
DPE-04	2/8/18 10:00	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	147,384.70	14,460.80	3.0	
DPE-04	2/13/18 9:50	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	No	166,068.90	18,684.20	2.8	
DPE-04	2/20/18 14:00	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	182,342.10	16,273.20	3.2	
DPE-04	2/28/18 14:00	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	202,601.10	20,259.00	3.0	
DPE-04	3/8/18 11:30	18.50	6.50	12.00	13.83	1.83	2 / 0.5	Yes	222,348.90	19,747.80	3.4	
DPE-04	3/14/18 12:00	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	244,202.10	21,853.20	3.4	
DPE-04	5/8/18 13:00	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	246,855.30	2,653.20	3.2	
DPE-04	5/17/18 15:45	18.50	10.37	8.13	13.83	5.70	2 / 0.5	No	277,200.10	30,344.80	0.0	Off
DPE-04	5/23/18 15:30	18.50	12.80	5.70	13.83	8.13	2 / 0.5	No	277,200.10	0.00	0.0	Off
DPE-04	5/29/18 16:30	18.50	1.64	16.86	13.83	-3.03	2 / 0.5	Yes	277,502.80	302.70	3.2	
DPE-04	6/7/18 13:15	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	292,757.30	15,254.50	3.4	
DPE-04	6/15/18 13:00	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	309,306.50	16,549.20	3.4	
DPE-04	6/18/18 12:20	18.50	2.00	16.50	13.83	-2.67	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-04	7/5/18 12:00	18.50	12.68	5.82	13.83	8.01	2 / 0.5	No	330,621.90	21,315.40	0.0	Off
DPE-04	7/11/18 12:30	18.50	2.00	16.50	13.83	-2.67	2 / 0.5	Yes	330,855.30	233.40	4.4	
DPE-04	7/19/18 14:30	18.50	6.21	12.29	13.83	1.54	2 / 0.5	Yes	334,010.40	3,155.10	4.2	
DPE-04	7/26/18 15:00	18.50	7.94	10.56	13.83	3.27	2 / 0.5	Yes	358,518.30	24,507.90	4.4	
DPE-04	8/3/18 15:10	18.50	11.01	7.49	13.83	6.34	2 / 0.5	No	376,685.60	18,167.30	0.0	Off
DPE-04	8/7/18 12:45	18.50	12.30	6.20	13.83	7.63	2 / 0.5	No	376,685.60	0.00	0.0	Off
DPE-04	8/15/18 14:00	18.50	12.45	6.05	13.83	7.78	2 / 0.5	No	376,685.60	0.00	0.0	Off
DPE-04	10/10/18 17:05	20.50	11.90	8.60	13.83	5.23	2 / 0.5	No	376,685.60	0.00	--	Pump Faulted - Recalibrated transducer depth after fall restart
DPE-04	10/18/18 14:15	20.50	10.59	9.91	13.83	3.92	2 / 0.5	No	376,685.60	0.00	--	Pump Faulted
DPE-04	10/26/18 16:10	20.50	--	#N/A	13.83	#N/A	2 / 0.5	No	376,685.60	0.00	--	Pump Faulted
DPE-04	11/7/18 16:10	20.50	--	#N/A	13.83	#N/A	--	--	--	#N/A	--	Pump Faulted
DPE-04	11/13/18 13:20	20.50	--	#N/A	13.83	#N/A	--	--	--	#N/A	--	Pump Faulted
DPE-04	11/21/18 14:10	20.50	--	#N/A	13.83	#N/A	--	--	--	#N/A	--	Pump Faulted
DPE-04	1/11/19 10:30	20.50	--	#N/A	14.83	#N/A	--	--	--	#N/A	--	Pump Faulted
DPE-04	1/17/19 14:15	20.50	13.56	6.94	13.83	6.89	2 / 0.5	No	376,732.20	#N/A	0.0	Off
DPE-04	1/24/19 13:15	20.50	2.00	18.50	13.83	-4.67	2 / 0.5	No	377,072.50	340.30	4.2	
DPE-04	1/29/19 12:15	20.50	2.00	18.50	13.83	-4.67	2 / 0.5	No	386,597.80	9,525.30	3.6	
DPE-04	2/21/19 13:45	20.50	2.00	18.50	13.83	-4.67	2 / 0.5	No	405,252.20	18,654.40	3.4	
DPE-04	2/26/19 16:00	20.50	2.00	18.50	13.83	-4.67	2 / 0.5	No	426,823.00	21,570.80	3.6	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-04												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4004)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-04	3/6/19 13:00	20.50	2.00	18.50	13.83	-4.67	2 / 0.5	No	453,310.20	26,487.20	3.6	
DPE-04	3/14/19 12:10	20.50	2.00	18.50	13.83	-4.67	2 / 0.5	No	482,375.50	29,065.30	3.4	
DPE-04	3/22/19 14:30	20.50	2.00	18.50	13.83	-4.67	2 / 0.5	No	482,375.50	0.00	3.4	
DPE-04	3/29/19 13:00	20.50	2.00	18.50	13.83	-4.67	2 / 0.5	No	512,589.80	30,214.30	3.4	
DPE-04	4/2/19 14:15	20.50	5.01	15.49	13.83	-1.66	2 / 0.5	No	525,330.80	12,741.00	3.6	
DPE-04	4/11/19 14:10	20.50	6.00	14.50	13.83	-0.67	6 / 0.5	No	536,425.30	11,094.50	2.2	
DPE-04	4/17/19 13:10	20.50	6.00	14.50	13.83	-0.67	6 / 0.5	No	548,199.80	11,774.50	2.2	
DPE-04	4/25/19 15:15	20.50	6.00	14.50	13.83	-0.67	6 / 0.5	No	556,625.10	8,425.30	2.2	
DPE-04	5/2/19 13:30	20.50	5.99	14.51	13.83	-0.68	6 / 0.5	No	570,383.90	13,758.80	2.4	
DPE-04	5/9/19 15:10	20.50	6.00	14.50	13.83	-0.67	6 / 0.5	No	592,750.90	22,367.00	2.2	
DPE-04	5/17/19 15:15	20.50	5.99	14.51	13.83	-0.68	6 / 0.5	No	615,376.20	22,625.30	2.2	
DPE-04	5/23/19 13:10	20.50	6.00	14.50	13.83	-0.67	6 / 0.5	No	631,286.30	15,910.10	2.4	
DPE-04	5/30/19 14:35	20.50	6.00	14.50	13.83	-0.67	6 / 0.5	No	651,941.5	20,655.20	2.4	
DPE-04	6/6/19 16:10	20.50	6.00	14.50	13.83	-0.67	6 / 0.5	No	675,559.10	23,617.60	2.4	
DPE-04	8/2/19 15:00	20.50	12.94	7.56	13.83	6.27	10 / 8	No	686,906.0	11,346.9	0.00	DPE system expansion baseline event before system startup - System off
DPE-04	8/15/19 14:17	20.50	11.34	9.16	13.83	4.67	10 / 8	No	687,076.6	170.6	0.0	Faulted
DPE-04	8/21/19 12:05	20.50	10.80	9.70	13.83	4.13	10 / 8	No	687,076.6	0.0	0.0	Faulted
DPE-04	9/5/19 13:38	20.50	11.10	9.40	13.83	4.43	10 / 8	No	687,076.6	0.0	0.0	Faulted
DPE-04	9/9/19 11:56	20.50	11.52	8.98	13.83	4.85	10 / 8	No	687,076.6	0.0	0.0	Faulted
DPE-04	9/23/19 15:32	20.50	10.72	9.78	13.83	4.05	10 / 8	No	687,076.6	0.0	0.0	Faulted

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-05												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4005)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-05	11/28/17 8:54	#N/A	#N/A	8.70	15.33	6.63	#N/A	#N/A	75.4	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-05	12/5/17 11:35	20.50	2.00	18.50	15.33	-3.17	2 / 0.5	No	29,050	28,974.60	#N/A	Groundwater elevation estimated based on transducer setting
DPE-05	12/13/17 9:30	20.50	2.00	18.50	15.33	-3.17	2 / 0.5	Yes	56,713.90	27,663.90	4.6	
DPE-05	12/13/17 14:00	20.50	2.00	18.50	15.33	-3.17	2 / 0.5	Yes	58,055.30	1,341.40	2.8	
DPE-05	12/14/17 10:25	20.50	2.00	18.50	15.33	-3.17	2 / 0.5	Yes	63,645.40	5,590.10	2.6	
DPE-05	12/20/17 12:50	20.50	2.75	17.75	15.33	-2.42	2 / 0.5	Yes	85,058.60	21,413.20	5.4	
DPE-05	12/27/17 12:15	20.50	2.49	18.01	15.33	-2.68	2 / 0.5	Yes	114,374.50	29,315.90	5.6	
DPE-05	1/5/18 16:20	20.50	3.45	17.05	15.33	-1.72	2 / 0.5	Yes	142,837.10	28,462.60	5.2	
DPE-05	1/9/18 16:25	20.50	4.30	16.20	15.33	-0.87	4 / 0.5	Yes	145,988.90	3,151.80	5.4	
DPE-05	1/18/18 14:20	20.50	4.00	16.50	15.33	-1.17	4 / 0.5	Yes	168,499.80	22,510.90	5.4	
DPE-05	1/24/18 13:30	20.50	7.62	12.88	15.33	2.45	2 / 0.5	Yes	195,075.90	26,576.10	5.6	
DPE-05	2/1/18 10:10	20.50	2.50	18.00	15.33	-2.67	2 / 0.5	Yes	241,155.90	46,080.00	5.6	
DPE-05	2/8/18 10:00	20.50	2.00	18.50	15.33	-3.17	2 / 0.5	Yes	267,478.50	26,322.60	5.6	
DPE-05	2/13/18 9:50	20.50	2.00	18.50	15.33	-3.17	2 / 0.5	No	299,791.20	32,312.70	4.4	
DPE-05	2/20/18 14:00	20.50	2.00	18.50	15.33	-3.17	2 / 0.5	Yes	330,269.80	30,478.60	5.8	
DPE-05	2/28/18 14:00	20.50	2.00	18.50	15.33	-3.17	2 / 0.5	Yes	368,217.10	37,947.30	5.6	
DPE-05	3/8/18 11:30	20.50	8.44	12.06	15.33	3.27	2 / 0.5	Yes	402,569.20	34,352.10	5.6	
DPE-05	3/14/18 12:00	20.50	2.86	17.64	15.33	-2.31	2 / 0.5	Yes	438,196.00	35,626.80	5.6	
DPE-05	5/8/18 13:00	20.50	2.75	17.75	15.33	-2.42	2 / 0.5	Yes	442,345.20	4,149.20	3.4	
DPE-05	5/17/18 15:45	20.50	12.65	7.85	15.33	7.48	2 / 0.5	No	450,773.60	8,428.40	0.0	Off
DPE-05	5/23/18 15:30	20.50	13.21	7.29	15.33	8.04	2 / 0.5	No	450,773.60	0.00	0.0	Off
DPE-05	5/29/18 16:30	20.50	11.86	8.64	15.33	6.69	2 / 0.5	Yes	451,128.30	354.70	0.0	Off
DPE-05	6/7/18 13:15	20.50	6.62	13.88	15.33	1.45	2 / 0.5	Yes	451,128.70	0.40	5.8	
DPE-05	6/15/18 13:00	20.50	3.79	16.71	15.33	-1.38	2 / 0.5	Yes	479,007.70	27,879.00	5.4	
DPE-05	6/18/18 12:20	20.50	2.02	18.48	15.33	-3.15	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-05	7/5/18 12:00	20.50	13.03	7.47	15.33	7.86	2 / 0.5	No	517,157.90	38,150.20	0.0	Off
DPE-05	7/11/18 12:30	20.50	12.15	8.35	15.33	6.98	2 / 0.5	No	517,157.90	0.00	0.0	Off
DPE-05	7/19/18 14:30	20.50	12.00	8.50	15.33	6.83	2 / 0.5	No	517,157.90	0.00	0.0	Off
DPE-05	7/26/18 15:00	20.50	12.34	8.16	15.33	7.17	2 / 0.5	No	517,157.90	0.00	0.0	Off
DPE-05	8/3/18 15:10	20.50	12.55	7.95	15.33	7.38	2 / 0.5	No	517,157.90	0.00	0.0	Off
DPE-05	8/7/18 12:45	20.50	12.80	7.70	15.33	7.63	2 / 0.5	No	517,157.90	0.00	0.0	Off
DPE-05	8/15/18 14:00	20.50	13.04	7.46	15.33	7.87	2 / 0.5	No	517,157.90	0.00	0.0	Off
DPE-05	10/10/18 17:05	23.00	10.66	12.34	15.33	2.99	2 / 0.5	No	517,466.90	309.00	5.8	Recalibrated transducer depth after fall restart
DPE-05	10/18/18 14:15	23.00	4.21	18.79	15.33	-3.46	2 / 0.5	Yes	522,285.50	4,818.60	5.4	
DPE-05	10/26/18 16:10	23.00	4.66	18.34	15.33	-3.01	2 / 0.5	Yes	528,205.00	5,919.50	5.4	
DPE-05	11/7/18 16:10	23.00	4.51	18.49	15.33	-3.16	2 / 0.5	Yes	529,369.10	1,164.10	5.2	
DPE-05	11/13/18 13:20	23.00	3.52	19.48	15.33	-4.15	2 / 0.5	Yes	561,090.90	31,721.80	3.2	
DPE-05	11/21/18 14:10	23.00	4.21	18.79	15.33	-3.46	2 / 0.5	Yes	591,292.60	30,201.70	5.0	
DPE-05	1/11/19 10:30	23.00	14.22	8.78	15.33	6.55	2 / 0.5	No	608,527.90	17,235.30	0.0	Off
DPE-05	1/17/19 14:15	23.00	14.18	8.82	15.33	6.51	2 / 0.5	No	608,527.90	0.00	0.0	Off
DPE-05	1/24/19 13:15	23.00	6.34	16.66	15.33	-1.33	2 / 0.5	No	608,901.80	373.90	5.6	
DPE-05	1/29/19 12:15	23.00	4.00	19.00	15.33	-3.67	2 / 0.5	No	608,901.80	0.00	0.0	Off
DPE-05	2/21/19 13:45	23.00	3.23	19.77	15.33	-4.44	2 / 0.5	No	652,740.50	43,838.70	5.4	
DPE-05	2/26/19 16:00	23.00	4.46	18.54	15.33	-3.21	2 / 0.5	No	690,293.20	37,552.70	5.6	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-05												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4005)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-05	3/6/19 13:00	23.00	2.23	20.77	15.33	-5.44	2 / 0.5	No	740,408.00	50,114.80	5.6	
DPE-05	3/14/19 12:10	23.00	2.00	21.00	15.33	-5.67	2 / 0.5	No	798,071.60	57,663.60	5.6	
DPE-05	3/22/19 14:30	23.00	5.04	17.96	15.33	-2.63	2 / 0.5	No	798,071.60	0.00	5.6	
DPE-05	3/29/19 13:00	23.00	3.47	19.53	15.33	-4.20	2 / 0.5	No	862,952.20	64,880.60	7.0	
DPE-05	4/2/19 14:15	23.00	3.39	19.61	15.33	-4.28	2 / 0.5	No	892,313.50	29,361.30	6.8	
DPE-05	4/11/19 14:10	23.00	6.00	17.00	15.33	-1.67	6 / 0.5	No	927,567.60	35,254.10	6.4	
DPE-05	4/17/19 13:10	23.00	6.00	17.00	15.33	-1.67	6 / 0.5	No	960,559.50	32,991.90	6.6	
DPE-05	4/25/19 15:15	23.00	6.00	17.00	15.33	-1.67	6 / 0.5	No	984,952.50	24,393.00	6.4	
DPE-05	5/2/19 13:30	23.00	6.00	17.00	15.33	-1.67	6 / 0.5	No	1,018,279.10	33,326.60	6.0	
DPE-05	5/9/19 15:10	23.00	6.00	17.00	15.33	-1.67	6 / 0.5	No	1,068,787.00	50,507.90	6.4	
DPE-05	5/17/19 15:15	23.00	6.95	16.05	15.33	-0.72	6 / 0.5	No	1,089,279.40	20,492.40	6.0	
DPE-05	5/23/19 13:10	23.00	6.00	17.00	15.33	-1.67	6 / 0.5	No	1,141,894.50	52,615.10	4.8	
DPE-05	5/30/19 14:35	23.00	6.00	17.00	15.33	-1.67	6 / 0.5	No	1,176,826.2	34,931.70	5.8	
DPE-05	6/6/19 16:10	23.00	6.00	17.00	15.33	-1.67	6 / 0.5	No	1,215,451.0	38,624.80	5.6	
DPE-05	8/2/19 15:00	23.00	13.17	9.83	15.33	5.50	6 / 0.5	No	1,233,441.7	17,990.7	0.00	DPE system expansion baseline event before system startup - System off
DPE-05	8/15/19 14:17	23.00	12.98	10.02	15.33	5.31	6 / 0.5	No	1,233,441.7	0.0	0.0	Off
DPE-05	8/21/19 12:05	23.00	12.85	10.15	15.33	5.18	6 / 0.5	No	1,233,441.7	0.0	0.0	Off
DPE-05	9/5/19 13:40	23.00	6.77	16.23	15.33	-0.90	6 / 0.5	Yes	1,233,641.9	200.2	5.6	
DPE-05	9/9/19 11:56	23.00	6.38	16.62	15.33	-1.29	6 / 0.5	No	1,234,520.4	878.5	5.2	
DPE-05	9/23/19 15:32	23.00	6.03	16.97	15.33	-1.64	6 / 0.5	Yes	1,249,986.3	15,465.9	4.4	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-06												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4006)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-06	11/28/17 8:52	#N/A	#N/A	8.34	15.34	7.00	#N/A	#N/A	78.36	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-06	12/5/17 11:35	20.50	2.00	18.50	15.34	-3.16	2 / 0.5	No	408.85	330.49	#N/A	Groundwater elevation estimated based on transducer setting
DPE-06	12/13/17 9:30	20.50	0.80	19.70	15.34	-4.36	2 / 0.5	Yes	762.60	353.75	0.0	Low yield
DPE-06	12/13/17 14:00	20.50	1.00	19.50	15.34	-4.16	2 / 0.5	Yes	894.90	132.30	0.0	Low yield
DPE-06	12/14/17 10:25	20.50	0.70	19.80	15.34	-4.46	2 / 0.5	Yes	982.90	88.00	0.0	Low yield
DPE-06	12/20/17 12:50	20.50	0.85	19.65	15.34	-4.31	2 / 0.5	Yes	1,200.10	217.20	0.0	Low yield
DPE-06	12/27/17 12:15	20.50	0.94	19.56	15.34	-4.22	2 / 0.5	Yes	1,696.30	496.20	0.0	Low yield
DPE-06	1/5/18 16:20	20.50	0.80	19.70	15.34	-4.36	2 / 0.5	Yes	2,090.10	393.80	0.0	Low yield
DPE-06	1/9/18 16:25	20.50	1.00	19.50	15.34	-4.16	4 / 0.5	Yes	2,179.90	89.80	0.0	Low yield
DPE-06	1/18/18 14:20	20.50	0.94	19.56	15.34	-4.22	4 / 0.5	Yes	2,580.10	400.20	0.0	Low yield
DPE-06	1/24/18 13:30	20.50	0.00	20.50	15.34	-5.16	2 / 0.5	Yes	2,612.20	32.10	0.0	Low yield
DPE-06	2/1/18 10:10	20.50	1.23	19.27	15.34	-3.93	2 / 0.5	Yes	3,360.90	748.70	0.0	Low yield
DPE-06	2/8/18 10:00	20.50	9.20	11.30	15.34	4.04	2 / 0.5	Yes	3,649.40	288.50	0.0	Low yield
DPE-06	2/13/18 9:50	20.50	1.35	19.15	15.34	-3.81	2 / 0.5	No	4,110.10	460.70	0.0	Low yield
DPE-06	2/20/18 14:00	20.50	0.74	19.76	15.34	-4.42	2 / 0.5	Yes	4,510.00	399.90	0.0	Low yield
DPE-06	2/28/18 14:00	20.50	0.00	20.50	15.34	-5.16	2 / 0.5	Yes	5,156.50	646.50	0.0	Low yield
DPE-06	3/8/18 11:30	20.50	0.00	20.50	15.34	-5.16	2 / 0.5	Yes	5,747.10	590.60	0.0	Low yield
DPE-06	3/14/18 12:00	20.50	0.00	20.50	15.34	-5.16	2 / 0.5	Yes	6,439.50	692.40	0.0	Low yield
DPE-06	5/8/18 13:00	20.50	0.50	20.00	15.34	-4.66	2 / 0.5	Yes	6,559.00	119.50	0.0	Low yield
DPE-06	5/17/18 15:45	20.50	6.74	13.76	15.34	1.58	2 / 0.5	No	7,502.10	943.10	0.0	Off
DPE-06	5/23/18 15:30	20.50	10.88	9.62	15.34	5.72	2 / 0.5	No	7,502.10	0.00	0.0	Off
DPE-06	5/29/18 16:30	20.50	0.53	19.97	15.34	-4.63	2 / 0.5	Yes	7,605.50	103.40	0.0	
DPE-06	6/7/18 13:15	20.50	0.46	20.04	15.34	-4.70	2 / 0.5	Yes	8,129.30	523.80	0.0	
DPE-06	6/15/18 13:00	20.50	0.84	19.66	15.34	-4.32	2 / 0.5	Yes	8,562.00	432.70	0.0	
DPE-06	6/18/18 12:20	20.50	1.00	19.50	15.34	-4.16	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-06	7/5/18 12:00	20.50	10.69	9.81	15.34	5.53	2 / 0.5	No	9,005.80	443.80	0.0	Off
DPE-06	7/11/18 12:30	20.50	4.71	15.79	15.34	-0.45	2 / 0.5	No	9,005.80	0.00	0.0	Off
DPE-06	7/19/18 14:30	20.50	10.00	10.50	15.34	4.84	2 / 0.5	No	9,005.80	0.00	0.0	Off
DPE-06	7/26/18 15:00	20.50	10.14	10.36	15.34	4.98	2 / 0.5	No	9,005.80	0.00	0.0	Off
DPE-06	8/3/18 15:10	20.50	10.26	10.24	15.34	5.10	2 / 0.5	No	9,005.80	0.00	0.0	Off
DPE-06	8/7/18 12:45	20.50	10.29	10.21	15.34	5.13	2 / 0.5	No	9,005.80	0.00	0.0	Off
DPE-06	8/15/18 14:00	20.50	10.53	9.97	15.34	5.37	2 / 0.5	No	9,005.80	0.00	0.0	Off
DPE-06	10/10/18 17:05	20.50	0.36	20.14	15.34	-4.80	2 / 0.5	No	9,150.60	144.80	0.0	Recalibrated transducer depth after fall restart
DPE-06	10/18/18 14:15	20.50	1.02	19.48	15.34	-4.14	2 / 0.5	Yes	9,240.80	90.20	0.0	
DPE-06	10/26/18 16:10	20.50	0.76	19.74	15.34	-4.40	2 / 0.5	Yes	9,262.60	21.80	0.0	
DPE-06	11/7/18 16:10	20.50	0.04	20.46	15.34	-5.12	2 / 0.5	Yes	9,381.50	118.90	0.0	
DPE-06	11/13/18 13:20	20.50	0.88	19.62	15.34	-4.28	2 / 0.5	Yes	9,917.20	535.70	0.0	
DPE-06	11/21/18 14:10	20.50	1.29	19.21	15.34	-3.87	2 / 0.5	Yes	10,246.10	328.90	0.0	
DPE-06	1/11/19 10:30	20.50	14.01	6.49	15.34	8.85	2 / 0.5	No	10,504.70	258.60	0.0	Off
DPE-06	1/17/19 14:15	20.50	11.97	8.53	15.34	6.81	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	1/24/19 13:15	20.50	13.67	6.83	15.34	8.51	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	1/29/19 12:15	20.50	11.11	9.39	15.34	5.95	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	2/21/19 13:45	20.50	10.50	10.00	15.34	5.34	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	2/26/19 16:00	20.50	10.01	10.49	15.34	4.85	2 / 0.5	No	10,504.70	0.00	0.0	Off

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-06												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4006)	Depth to Water ² :	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³ :	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴ :	Comments
	mm/dd/yy hh:mm ¹ :	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-06	3/6/19 13:00	20.50	10.97	9.53	15.34	5.81	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	3/14/19 12:10	20.50	11.12	9.38	15.34	5.96	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	3/22/19 14:30	20.50	11.22	9.28	15.34	6.06	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	3/29/19 13:00	20.50	9.40	11.10	15.34	4.24	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	4/2/19 14:15	20.50	10.52	9.98	15.34	5.36	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	4/11/19 14:10	20.50	11.68	8.82	15.34	6.52	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	4/17/19 13:10	20.50	11.24	9.26	15.34	6.08	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	4/25/19 15:15	20.50	11.03	9.47	15.34	5.87	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	5/2/19 13:30	20.50	10.52	9.98	15.34	5.36	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	5/9/19 15:10	20.50	9.41	11.09	15.34	4.25	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	5/17/19 15:15	20.50	14.26	6.24	15.34	9.10	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	5/23/19 13:10	20.50	10.84	9.66	15.34	5.68	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	5/30/19 14:35	20.50	9.57	10.93	15.34	4.41	2 / 0.5	No	10,504.7	0.00	0.0	Off
DPE-06	6/6/19 16:10	20.50	9.31	11.19	15.34	4.15	2 / 0.5	No	10,504.70	0.00	0.0	Off
DPE-06	8/2/19 15:00	20.50	10.72	9.78	15.34	5.56	2 / 0.5	No	10,504.7	0.0	0.00	DPE system expansion baseline event before system startup - System off
DPE-06	8/15/19 14:18	20.50	10.47	10.03	15.34	5.31	2 / 0.5	No	10,504.7	0.0	0.0	Off
DPE-06	8/21/19 12:05	20.50	10.21	10.29	15.34	5.05	2 / 0.5	No	10,504.7	0.0	0.0	Off
DPE-06	9/5/19 13:40	20.50	1.82	18.68	15.34	-3.34	2 / 0.5	Yes	10,511.0	6.3	0.0	Interlock
DPE-06	9/9/19 11:56	20.50	1.19	19.31	15.34	-3.97	2 / 0.5	No	10,539.1	28.1	0.0	Interlock
DPE-06	9/23/19 15:32	20.50	0.63	19.87	15.34	-4.53	2 / 0.5	Yes	10,773.4	234.3	0.0	Interlock

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-07												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4007)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-07	11/28/17 9:29	#N/A	#N/A	6.43	13.68	7.25	#N/A	#N/A	100.3	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-07	12/5/17 11:35	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	No	2,993	2,892.70	#N/A	Groundwater elevation estimated based on transducer setting
DPE-07	12/13/17 9:30	20.50	1.25	19.25	13.68	-5.57	2 / 0.5	Yes	5,998.80	3,005.80	0.0	Low yield
DPE-07	12/13/17 14:00	20.50	1.00	19.50	13.68	-5.82	2 / 0.5	Yes	6,273.70	274.90	0.8	Low yield
DPE-07	12/14/17 10:25	20.50	3.00	17.50	13.68	-3.82	2 / 0.5	Yes	7,090.40	816.70	0.0	Low yield
DPE-07	12/20/17 12:50	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	10,908.20	3,817.80	1.4	
DPE-07	12/27/17 12:15	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	17,689.50	6,781.30	1.8	
DPE-07	1/5/18 16:20	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	25,494.70	7,805.20	1.6	
DPE-07	1/9/18 16:25	20.50	4.00	16.50	13.68	-2.82	4 / 0.5	Yes	26,513.10	1,018.40	1.6	
DPE-07	1/18/18 14:20	20.50	4.00	16.50	13.68	-2.82	4 / 0.5	Yes	33,531.90	7,018.80	1.6	
DPE-07	1/24/18 13:30	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	42,292.30	8,760.40	1.8	
DPE-07	2/1/18 10:10	20.50	1.20	19.30	13.68	-5.62	2 / 0.5	Yes	55,889.50	13,597.20	2.0	
DPE-07	2/8/18 10:00	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	64,190.20	8,300.70	2.0	
DPE-07	2/13/18 9:50	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	No	76,498.10	12,307.90	1.8	
DPE-07	2/20/18 14:00	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	89,139.90	12,641.80	2.2	
DPE-07	2/28/18 14:00	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	103,978.40	14,838.50	2.0	
DPE-07	3/8/18 11:30	20.50	7.42	13.08	13.68	0.60	2 / 0.5	No	111,905.90	7,927.50	0.0	Off
DPE-07	3/14/18 12:00	20.50	6.03	14.47	13.68	-0.79	2 / 0.5	No	111,905.90	0.00	0.0	Off
DPE-07	5/8/18 13:00	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	112,217.50	311.60	2.2	
DPE-07	5/17/18 15:45	20.50	13.25	7.25	13.68	6.43	2 / 0.5	No	134,321.30	22,103.80	0.0	Off
DPE-07	5/23/18 15:30	20.50	14.63	5.87	13.68	7.81	2 / 0.5	No	134,321.30	0.00	0.0	Off
DPE-07	5/29/18 16:30	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	134,483.70	162.40	2.0	
DPE-07	6/7/18 13:15	20.50	2.13	18.37	13.68	-4.69	2 / 0.5	Yes	145,336.00	10,852.30	2.2	
DPE-07	6/15/18 13:00	20.50	2.00	18.50	13.68	-4.82	2 / 0.5	Yes	157,289.50	11,953.50	2.4	
DPE-07	6/18/18 12:20	20.50	2.00	18.50	13.68	-4.82	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-07	7/5/18 12:00	20.50	14.53	5.97	13.68	7.71	2 / 0.5	No	173,670.60	16,381.10	0.0	Off
DPE-07	7/11/18 12:30	20.50	12.51	7.99	13.68	5.69	2 / 0.5	No	173,670.60	0.00	0.0	Off
DPE-07	7/19/18 14:30	20.50	12.97	7.53	13.68	6.15	2 / 0.5	No	173,670.60	0.00	0.0	Off
DPE-07	7/26/18 15:00	20.50	12.30	8.20	13.68	5.48	2 / 0.5	No	173,670.60	0.00	0.0	Off
DPE-07	8/3/18 15:10	20.50	13.22	7.28	13.68	6.40	2 / 0.5	No	173,670.60	0.00	0.0	Off
DPE-07	8/7/18 12:45	20.50	13.81	6.69	13.68	6.99	2 / 0.5	No	173,670.60	0.00	0.0	Off
DPE-07	8/15/18 14:00	20.50	14.27	6.23	13.68	7.45	2 / 0.5	No	173,670.60	0.00	0.0	Off
DPE-07	10/10/18 17:05	22.50	2.00	20.50	13.68	-6.82	2 / 0.5	No	174,036.00	365.40	2.6	Recalibrated transducer depth after fall restart
DPE-07	10/18/18 14:15	22.50	2.00	20.50	13.68	-6.82	2 / 0.5	Yes	176,227.10	2,191.10	3.2	
DPE-07	10/26/18 16:10	22.50	2.00	20.50	13.68	-6.82	2 / 0.5	Yes	179,061.20	2,834.10	3.0	
DPE-07	11/7/18 16:10	22.50	2.00	20.50	13.68	-6.82	2 / 0.5	Yes	179,648.10	586.90	2.8	
DPE-07	11/13/18 13:20	22.50	2.00	20.50	13.68	-6.82	2 / 0.5	Yes	193,753.20	14,105.10	2.4	
DPE-07	11/21/18 14:10	22.50	2.00	20.50	13.68	-6.82	2 / 0.5	Yes	206,006.50	12,253.30	3.0	
DPE-07	1/11/19 10:30	22.50	16.20	6.30	13.68	7.38	2 / 0.5	No	213,404.20	7,397.70	0.0	Off
DPE-07	1/17/19 14:15	22.50	16.18	6.32	13.68	7.36	2 / 0.5	No	213,404.20	0.00	0.0	Off
DPE-07	1/24/19 13:15	22.50	2.14	20.36	13.68	-6.68	2 / 0.5	No	213,730.30	326.10	2.4	
DPE-07	1/29/19 12:15	22.50	2.00	20.50	13.68	-6.82	2 / 0.5	No	219,952.70	6,222.40	2.6	
DPE-07	2/21/19 13:45	22.50	13.60	8.90	13.68	4.78	2 / 0.5	No	226,081.10	6,128.40	0.0	Off
DPE-07	2/26/19 16:00	22.50	13.75	8.75	13.68	4.93	2 / 0.5	No	226,081.10	0.00	0.0	Off

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-07												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4007)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-07	3/6/19 13:00	22.50	13.88	8.62	13.68	5.06	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	3/14/19 12:10	22.50	14.97	7.53	13.68	6.15	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	3/22/19 14:30	22.50	13.80	8.70	13.68	4.98	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	3/29/19 13:00	22.50	14.40	8.10	13.68	5.58	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	4/2/19 14:15	22.50	13.76	8.74	13.68	4.94	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	4/11/19 14:10	22.50	14.74	7.76	13.68	5.92	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	4/17/19 13:10	22.50	12.99	9.51	13.68	4.17	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	4/25/19 15:15	22.50	13.47	9.03	13.68	4.65	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	5/2/19 13:30	22.50	13.03	9.47	13.68	4.21	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	5/9/19 15:10	22.50	13.84	8.66	13.68	5.02	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	5/17/19 15:15	22.50	13.72	8.78	13.68	4.90	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	5/23/19 13:10	22.50	13.86	8.64	13.68	5.04	2 / 0.5	No	226,081.10	0.00	0.0	Off
DPE-07	5/30/19 14:35	22.50	13.10	9.40	13.68	4.28	2 / 0.5	No	226,081.1	0.00	0.0	Off
DPE-07	6/6/19 16:10	22.50	13.15	9.35	13.68	4.33	2 / 0.5	No	226,081.1	0.00	0.0	Off
DPE-07	8/2/19 15:00	22.50	13.80	8.70	13.68	4.98	2 / 0.5	No	226,208.0	126.9	0.00	DPE system expansion baseline event before system startup - System off
DPE-07	8/15/19 14:18	22.50	2.01	20.49	13.68	-6.81	2 / 0.5	No	226,343.6	135.6	2.2	
DPE-07	8/21/19 12:06	22.50	2.02	20.48	13.68	-6.80	2 / 0.5	No	243,970.8	17,627.2	2.0	
DPE-07	9/5/19 13:40	22.50	1.98	20.52	13.68	-6.84	2 / 0.5	Yes	275,994.3	32,023.5	2.8	
DPE-07	9/9/19 11:57	22.50	1.93	20.57	13.68	-6.89	2 / 0.5	No	276,439.9	445.6	2.2	
DPE-07	9/23/19 15:35	22.50	1.97	20.53	13.68	-6.85	2 / 0.5	Yes	285,362.2	8,922.3	2.8	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-08												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4008)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-08	11/28/17 9:33	#N/A	#N/A	7.40	14.86	7.46	#N/A	#N/A	70.46	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-08	12/5/17 11:35	20.50	2.00	18.50	14.86	-3.64	2 / 0.5	No	33,192	33,121.54	#N/A	Groundwater elevation estimated based on transducer setting
DPE-08	12/13/17 9:30	20.50	7.15	13.35	14.86	1.51	2 / 0.5	No	65,746.00	32,554.00	5.4	
DPE-08	12/13/17 14:00	20.50	8.10	12.40	14.86	2.46	2 / 0.5	No	67,197.50	1,451.50	5.2	
DPE-08	12/14/17 10:25	20.50	6.55	13.95	14.86	0.91	2 / 0.5	No	73,420.00	6,222.50	5.2	
DPE-08	12/20/17 12:50	20.50	8.44	12.06	14.86	2.80	2 / 0.5	No	97,600.40	24,180.40	5.2	
DPE-08	12/27/17 12:15	20.50	8.86	11.64	14.86	3.22	2 / 0.5	No	127,947.40	30,347.00	5.4	
DPE-08	1/5/18 16:20	20.50	8.41	12.09	14.86	2.77	2 / 0.5	No	158,250.20	30,302.80	5.2	
DPE-08	1/9/18 16:25	20.50	8.30	12.20	14.86	2.66	4 / 0.5	No	161,726.30	3,476.10	5.2	
DPE-08	1/18/18 14:20	20.50	13.97	6.53	14.86	8.33	4 / 0.5	No	171,398.50	9,672.20	0.0	Off
DPE-08	1/24/18 13:30	20.50	8.93	11.57	14.86	3.29	2 / 0.5	No	175,178.90	3,780.40	5.4	
DPE-08	2/1/18 10:10	20.50	8.56	11.94	14.86	2.92	2 / 0.5	No	219,657.90	44,479.00	5.2	
DPE-08	2/8/18 10:00	20.50	14.00	6.50	14.86	8.36	2 / 0.5	No	231,354.60	11,696.70	0.0	Off
DPE-08	2/13/18 9:50	20.50	13.42	7.08	14.86	7.78	2 / 0.5	No	231,354.60	0.00	0.0	Off
DPE-08	2/20/18 14:00	20.50	12.49	8.01	14.86	6.85	2 / 0.5	No	231,354.60	0.00	0.0	Off
DPE-08	2/28/18 14:00	20.50	8.45	12.05	14.86	2.81	2 / 0.5	Yes	263,150.50	31,795.90	5.2	
DPE-08	3/8/18 11:30	20.50	12.50	8.00	14.86	6.86	2 / 0.5	No	284,910.20	21,759.70	0.0	Off
DPE-08	3/14/18 12:00	20.50	13.38	7.12	14.86	7.74	2 / 0.5	No	284,910.20	0.00	0.0	Off
DPE-08	5/8/18 13:00	20.50	10.00	10.50	14.86	4.36	2 / 0.5	Yes	286,585.50	1,675.30	5.6	
DPE-08	5/17/18 15:45	20.50	12.10	8.40	14.86	6.46	2 / 0.5	No	293,374.10	6,788.60	0.0	Off
DPE-08	5/23/18 15:30	20.50	13.74	6.76	14.86	8.10	2 / 0.5	No	293,374.10	0.00	0.0	Off
DPE-08	5/29/18 16:30	20.50	11.95	8.55	14.86	6.31	2 / 0.5	No	293,691.30	317.20	0.0	Off
DPE-08	6/7/18 13:15	20.50	13.13	7.37	14.86	7.49	2 / 0.5	No	293,691.30	0.00	0.0	Off
DPE-08	6/15/18 13:00	20.50	13.10	7.40	14.86	7.46	2 / 0.5	No	293,691.30	0.00	0.0	Off
DPE-08	6/18/18 12:20	20.50	13.23	7.28	14.86	7.59	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-08	7/5/18 12:00	20.50	13.55	6.95	14.86	7.91	2 / 0.5	No	293,691.40	0.10	0.0	Off
DPE-08	7/11/18 12:30	20.50	12.22	8.28	14.86	6.58	2 / 0.5	No	293,691.40	0.00	0.0	Off
DPE-08	7/19/18 14:30	20.50	12.97	7.53	14.86	7.33	2 / 0.5	No	293,691.40	0.00	0.0	Off
DPE-08	7/26/18 15:00	20.50	11.81	8.69	14.86	6.17	2 / 0.5	No	293,691.40	0.00	0.0	Off
DPE-08	8/3/18 15:10	20.50	12.41	8.09	14.86	6.77	2 / 0.5	No	293,691.40	0.00	0.0	Off
DPE-08	8/7/18 12:45	20.50	12.52	7.98	14.86	6.88	2 / 0.5	No	293,691.40	0.00	0.0	Off
DPE-08	8/15/18 14:00	20.50	13.14	7.36	14.86	7.50	2 / 0.5	No	293,691.40	0.00	0.0	Off
DPE-08	10/10/18 17:05	22.50	11.00	11.50	14.86	3.36	2 / 0.5	No	294,385.20	693.80	0.0	Off - Recalibrated transducer depth after fall restart
DPE-08	10/18/18 14:15	22.50	13.88	8.62	14.86	6.24	2 / 0.5	No	294,385.20	0.00	0.0	Off
DPE-08	10/26/18 16:10	22.50	13.72	8.78	14.86	6.08	2 / 0.5	No	294,543.70	158.50	0.0	Off
DPE-08	11/7/18 16:10	22.50	14.01	8.49	14.86	6.37	2 / 0.5	No	294,543.70	0.00	0.0	Off
DPE-08	11/13/18 13:20	22.50	11.00	11.50	14.86	3.36	2 / 0.5	Yes	294,882.50	338.80	5.4	
DPE-08	11/21/18 14:10	22.50	14.22	8.28	14.86	6.58	2 / 0.5	No	296,081.40	1,198.90	0.0	Off
DPE-08	1/11/19 10:30	22.50	15.59	6.91	14.86	7.95	2 / 0.5	No	296,986.60	905.20	0.0	Off
DPE-08	1/17/19 14:15	22.50	15.61	6.89	14.86	7.97	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	1/24/19 13:15	22.50	14.32	8.18	14.86	6.68	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	1/29/19 12:15	22.50	14.74	7.76	14.86	7.10	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	2/21/19 13:45	22.50	13.07	9.43	14.86	5.43	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	2/26/19 16:00	22.50	13.04	9.46	14.86	5.40	2 / 0.5	No	296,986.60	0.00	0.0	Off

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-08												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4008)	Depth to Water ² :	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³ :	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴ :	Comments
	mm/dd/yy hh:mm ¹ :	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-08	3/6/19 13:00	22.50	13.30	9.20	14.86	5.66	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	3/14/19 12:10	22.50	14.40	8.10	14.86	6.76	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	3/22/19 14:30	22.50	13.00	9.50	14.86	5.36	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	3/29/19 13:00	22.50	13.73	8.77	14.86	6.09	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	4/2/19 14:15	22.50	12.97	9.53	14.86	5.33	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	4/11/19 14:10	22.50	14.13	8.37	14.86	6.49	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	4/17/19 13:10	22.50	12.58	9.92	14.86	4.94	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	4/25/19 15:15	22.50	12.68	9.82	14.86	5.04	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	5/2/19 13:30	22.50	11.92	10.58	14.86	4.28	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	5/9/19 15:10	22.50	13.28	9.22	14.86	5.64	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	5/17/19 15:15	22.50	12.31	10.19	14.86	4.67	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	5/23/19 13:10	22.50	13.14	9.36	14.86	5.50	2 / 0.5	No	296,986.60	0.00	0.0	Off
DPE-08	5/30/19 14:35	22.50	12.10	10.40	14.86	4.46	2 / 0.5	No	296,986.6	0.00	0.0	Off
DPE-08	6/6/19 16:10	22.50	12.22	10.28	14.86	4.58	2 / 0.5	No	296,986.6	0.00	0.0	Off
DPE-08	8/2/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-08	8/15/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-08	8/21/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-08	9/5/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-08	9/9/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-08	9/23/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-09												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4009)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-09	11/28/17 9:41	#N/A	#N/A	6.61	14.32	7.71	#N/A	#N/A	36.47	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-09	12/5/17 11:35	20.50	10.00	10.50	14.32	3.82	10/0.5	No	34,166	34,129.53	#N/A	Groundwater elevation estimated based on transducer setting
DPE-09	12/13/17 9:30	20.50	9.50	11.00	14.32	3.32	2 / 0.5	No	68,091.90	33,925.90	5.4	
DPE-09	12/13/17 14:00	20.50	9.85	10.65	14.32	3.67	2 / 0.5	No	69,584.60	1,492.70	5.6	
DPE-09	12/14/17 10:25	20.50	9.00	11.50	14.32	2.82	2 / 0.5	No	76,168.70	6,584.10	5.4	
DPE-09	12/20/17 12:50	20.50	10.35	10.15	14.32	4.17	2 / 0.5	No	101,590.60	25,421.90	5.6	
DPE-09	12/27/17 12:15	20.50	10.49	10.01	14.32	4.31	2 / 0.5	No	133,072.90	31,482.30	5.4	
DPE-09	1/5/18 16:20	20.50	10.40	10.10	14.32	4.22	2 / 0.5	No	164,575.90	31,503.00	5.6	
DPE-09	1/9/18 16:25	20.50	10.75	9.75	14.32	4.57	4 / 0.5	No	167,640.10	3,064.20	5.4	
DPE-09	1/18/18 14:20	20.50	14.10	6.40	14.32	7.92	4 / 0.5	No	178,087.80	10,447.70	0.0	Off
DPE-09	1/24/18 13:30	20.50	11.23	9.27	14.32	5.05	2 / 0.5	No	182,004.80	3,917.00	5.4	
DPE-09	2/1/18 10:10	20.50	10.00	10.50	14.32	3.82	2 / 0.5	No	228,383.70	46,378.90	5.6	
DPE-09	2/8/18 10:00	20.50	14.33	6.17	14.32	8.15	2 / 0.5	No	240,595.30	12,211.60	0.0	Off
DPE-09	2/13/18 9:50	20.50	14.04	6.46	14.32	7.86	2 / 0.5	No	240,595.30	0.00	0.0	Off
DPE-09	2/20/18 14:00	20.50	13.55	6.95	14.32	7.37	2 / 0.5	No	240,595.30	0.00	0.0	Off
DPE-09	2/28/18 14:00	20.50	10.04	10.46	14.32	3.86	2 / 0.5	No	273,687.60	33,092.30	5.6	
DPE-09	3/8/18 11:30	20.50	14.10	6.40	14.32	7.92	2 / 0.5	No	295,658.80	21,971.20	0.0	Off
DPE-09	3/14/18 12:00	20.50	14.09	6.41	14.32	7.91	2 / 0.5	No	295,658.80	0.00	0.0	Off
DPE-09	5/8/18 13:00	20.50	11.10	9.40	14.32	4.92	2 / 0.5	Yes	296,215.00	556.20	5.6	
DPE-09	5/17/18 15:45	20.50	12.96	7.54	14.32	6.78	2 / 0.5	No	305,403.30	9,188.30	0.0	Off
DPE-09	5/23/18 15:30	20.50	13.50	7.00	14.32	7.32	2 / 0.5	No	305,403.30	0.00	0.0	Off
DPE-09	5/29/18 16:30	20.50	12.60	7.90	14.32	6.42	2 / 0.5	No	305,714.40	311.10	0.0	Off
DPE-09	6/7/18 13:15	20.50	13.57	6.93	14.32	7.39	2 / 0.5	No	305,714.40	0.00	0.0	Off
DPE-09	6/15/18 13:00	20.50	13.70	6.80	14.32	7.52	2 / 0.5	No	305,714.40	0.00	0.0	Off
DPE-09	6/18/18 12:20	20.50	13.50	7.01	14.32	7.32	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-09	7/5/18 12:00	20.50	13.77	6.73	14.32	7.59	2 / 0.5	No	305,715.40	1.00	0.0	Off
DPE-09	7/11/18 12:30	20.50	13.00	7.50	14.32	6.82	2 / 0.5	No	305,715.40	0.00	0.0	Off
DPE-09	7/19/18 14:30	20.50	13.60	6.90	14.32	7.42	2 / 0.5	No	305,715.40	0.00	0.0	Off
DPE-09	7/26/18 15:00	20.50	12.85	7.65	14.32	6.67	2 / 0.5	No	305,715.40	0.00	0.0	Off
DPE-09	8/3/18 15:10	20.50	13.06	7.44	14.32	6.88	2 / 0.5	No	305,715.40	0.00	0.0	Off
DPE-09	8/7/18 12:45	20.50	12.94	7.56	14.32	6.76	2 / 0.5	No	305,715.40	0.00	0.0	Off
DPE-09	8/15/18 14:00	20.50	13.40	7.10	14.32	7.22	2 / 0.5	No	305,715.40	0.00	0.0	Off
DPE-09	10/10/18 17:05	22.00	12.26	9.74	14.32	4.58	2 / 0.5	No	306,335.80	620.40	0.0	Off - Recalibrated transducer depth after fall restart
DPE-09	10/18/18 14:15	22.00	14.11	7.89	14.32	6.43	2 / 0.5	No	306,335.80	0.00	0.0	Off
DPE-09	10/26/18 16:10	22.00	13.97	8.03	14.32	6.29	2 / 0.5	No	306,599.90	264.10	0.0	Off
DPE-09	11/7/18 16:10	22.00	14.36	7.64	14.32	6.68	2 / 0.5	No	306,599.90	0.00	0.0	Off
DPE-09	11/13/18 13:20	22.00	11.65	10.35	14.32	3.97	2 / 0.5	Yes	306,953.40	353.50	5.6	
DPE-09	11/21/18 14:10	22.00	14.22	7.78	14.32	6.54	2 / 0.5	No	308,190.40	1,237.00	0.0	Off
DPE-09	1/11/19 10:30	22.00	16.07	5.93	14.32	8.39	2 / 0.5	No	308,192.50	2.10	0.0	Off
DPE-09	1/17/19 14:15	22.00	16.07	5.93	14.32	8.39	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	1/24/19 13:15	22.00	15.55	6.45	14.32	7.87	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	1/29/19 12:15	22.00	15.45	6.55	14.32	7.77	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	2/21/19 13:45	22.00	14.96	7.04	14.32	7.28	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	2/26/19 16:00	22.00	14.80	7.20	14.32	7.12	2 / 0.5	No	308,192.50	0.00	0.0	Off

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-09												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4009)	Depth to Water ² :	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³ :	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴ :	Comments
	mm/dd/yy hh:mm ¹ :	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-09	3/6/19 13:00	22.00	14.83	7.17	14.32	7.15	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	3/14/19 12:10	22.00	15.20	6.80	14.32	7.52	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	3/22/19 14:30	22.00	14.85	7.15	14.32	7.17	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	3/29/19 13:00	22.00	14.90	7.10	14.32	7.22	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	4/2/19 14:15	22.00	14.51	7.49	14.32	6.83	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	4/11/19 14:10	22.00	15.34	6.66	14.32	7.66	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	4/17/19 13:10	22.00	14.55	7.45	14.32	6.87	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	4/25/19 15:15	22.00	14.57	7.43	14.32	6.89	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	5/2/19 13:30	22.00	14.04	7.96	14.32	6.36	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	5/9/19 15:10	22.00	14.65	7.35	14.32	6.97	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	5/17/19 15:15	22.00	14.16	7.84	14.32	6.48	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	5/23/19 13:10	22.00	14.76	7.24	14.32	7.08	2 / 0.5	No	308,192.50	0.00	0.0	Off
DPE-09	5/30/19 14:35	22.00	13.98	8.02	14.32	6.30	2 / 0.5	No	308,192.5	0.00	0.0	Off
DPE-09	6/6/19 16:10	22.00	14.18	7.82	14.32	6.50	2 / 0.5	No	308,192.5	0.00	0.0	Off
DPE-09	8/2/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-09	8/15/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-09	8/21/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-09	9/5/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-09	9/9/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-09	9/23/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-10												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4010)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-10	11/28/17 9:52	#N/A	#N/A	6.43	14.34	7.91	#N/A	#N/A	79.72	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-10	12/5/17 11:35	20.50	10.00	10.50	14.34	3.84	10 / 0.5	No	24,846	24,766.28	#N/A	Groundwater elevation estimated based on transducer setting
DPE-10	12/13/17 9:30	20.50	7.01	13.49	14.34	0.85	2 / 0.5	Yes	47,568.50	22,722.50	5.4	
DPE-10	12/13/17 14:00	20.50	7.00	13.50	14.34	0.84	2 / 0.5	Yes	48,953.60	1,385.10	5.4	
DPE-10	12/14/17 10:25	20.50	6.30	14.20	14.34	0.14	2 / 0.5	Yes	55,482.20	6,528.60	5.2	
DPE-10	12/20/17 12:50	20.50	8.25	12.25	14.34	2.09	2 / 0.5	Yes	79,541.00	24,058.80	5.4	
DPE-10	12/27/17 12:15	20.50	9.13	11.37	14.34	2.97	2 / 0.5	Yes	109,546.50	30,005.50	5.0	
DPE-10	1/5/18 16:20	20.50	10.00	10.50	14.34	3.84	2 / 0.5	Yes	138,951.20	29,404.70	5.4	
DPE-10	1/9/18 16:25	20.50	11.05	9.45	14.34	4.89	4 / 0.5	Yes	141,848.60	2,897.40	5.2	
DPE-10	1/18/18 14:20	20.50	11.73	8.77	14.34	5.57	4 / 0.5	Yes	164,269.30	22,420.70	5.0	
DPE-10	1/24/18 13:30	20.50	11.68	8.82	14.34	5.52	2 / 0.5	Yes	191,510.30	27,241.00	5.2	
DPE-10	2/1/18 10:10	20.50	10.45	10.05	14.34	4.29	2 / 0.5	Yes	235,558.60	44,048.30	5.4	
DPE-10	2/8/18 10:00	20.50	15.14	5.36	14.34	8.98	2 / 0.5	No	247,338.00	11,779.40	0.0	Off
DPE-10	2/13/18 9:50	20.50	15.08	5.42	14.34	8.92	2 / 0.5	No	247,338.00	0.00	0.0	Off
DPE-10	2/20/18 14:00	20.50	14.92	5.58	14.34	8.76	2 / 0.5	No	261,923.90	14,585.90	0.0	Off
DPE-10	2/28/18 14:00	20.50	14.05	6.45	14.34	7.89	2 / 0.5	No	261,937.40	13.50	0.0	Off
DPE-10	3/8/18 11:30	20.50	15.00	5.50	14.34	8.84	2 / 0.5	No	261,937.40	0.00	0.0	Off
DPE-10	3/14/18 12:00	20.50	15.22	5.28	14.34	9.06	2 / 0.5	No	261,937.40	0.00	0.0	Off
DPE-10	5/8/18 13:00	20.50	11.68	8.82	14.34	5.52	2 / 0.5	Yes	262,424.50	487.10	5.8	
DPE-10	5/17/18 15:45	20.50	14.25	6.25	14.34	8.09	2 / 0.5	No	272,097.50	9,673.00	0.0	Off
DPE-10	5/23/18 15:30	20.50	14.48	6.02	14.34	8.32	2 / 0.5	No	272,097.50	0.00	0.0	Off
DPE-10	5/29/18 16:30	20.50	14.04	6.46	14.34	7.88	2 / 0.5	No	272,421.00	323.50	0.0	Off
DPE-10	6/7/18 13:15	20.50	14.56	5.94	14.34	8.40	2 / 0.5	No	272,421.00	0.00	0.0	Off
DPE-10	6/15/18 13:00	20.50	14.71	5.79	14.34	8.55	2 / 0.5	No	272,421.00	0.00	0.0	Off
DPE-10	6/18/18 12:20	20.50	14.29	6.21	14.34	8.13	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-10	7/5/18 12:00	-	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	272,421.00	0.00	0.0	Off - Transducer off
DPE-10	7/11/18 12:00	-	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	272,421.00	0.00	0.0	Off
DPE-10	7/19/18 14:30	-	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	272,421.00	0.00	0.0	Off
DPE-10	7/26/18 15:00	-	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	272,421.00	0.00	0.0	Off
DPE-10	8/3/18 15:10	-	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	272,421.00	0.00	0.0	Off
DPE-10	8/7/18 12:45	-	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	272,421.00	0.00	0.0	Off
DPE-10	8/15/18 14:00	-	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	272,421.00	0.00	0.0	Off
DPE-10	10/10/18 17:05	22.50	12.45	10.05	14.34	4.29	2 / 0.5	No	272,424.20	3.20	0.0	Off - Recalibrated transducer depth after fall restart
DPE-10	10/18/18 14:15	22.50	14.93	7.57	14.34	6.77	2 / 0.5	No	272,447.20	23.00	0.0	Off
DPE-10	10/26/18 16:10	22.50	13.23	9.27	14.34	5.07	2 / 0.5	No	273,903.20	1,456.00	0.0	Off
DPE-10	11/7/18 16:10	22.50	15.22	7.28	14.34	7.06	2 / 0.5	No	273,903.20	0.00	0.0	Off
DPE-10	11/13/18 13:20	22.50	11.52	10.98	14.34	3.36	2 / 0.5	Yes	274,287.30	384.10	6.0	
DPE-10	11/21/18 14:10	22.50	14.85	7.65	14.34	6.69	2 / 0.5	No	275,539.10	1,251.80	0.0	Off
DPE-10	1/11/19 10:30	22.50	15.59	6.91	14.34	7.43	2 / 0.5	No	275,539.10	0.00	0.0	Off
DPE-10	1/17/19 14:15	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	1/24/19 13:15	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	1/29/19 12:15	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	2/21/19 13:45	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	2/26/19 16:00	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unoco Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-10												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4010)	Depth to Water ² :	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³ :	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴ :	Comments
	mm/dd/yy hh:mm ¹ :	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-10	3/6/19 13:00	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	3/14/19 12:10	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	3/22/19 14:30	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	3/29/19 13:00	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	4/2/19 14:15	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	4/11/19 14:10	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	4/17/19 13:10	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	4/25/19 15:15	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	5/2/19 13:30	22.50	#N/A	#N/A	14.34	#N/A	2 / 0.5	No	275,539.10	0.00	0.0	Pump Faulted
DPE-10	5/9/19 15:10	22.50	14.54	7.96	14.34	6.38	2 / 0.5	No	275,539.10	0.00	0.0	Off
DPE-10	5/17/19 15:15	22.50	14.69	7.81	14.34	6.53	2 / 0.5	No	275,539.10	0.00	0.0	Off
DPE-10	5/23/19 13:10	22.50	14.96	7.54	14.34	6.80	2 / 0.5	No	275,539.10	0.00	0.0	Off
DPE-10	5/30/19 14:35	22.50	14.50	8.00	14.34	6.34	2 / 0.5	No	275,539.1	0.00	0.0	Off
DPE-10	6/6/19 16:10	22.50	14.54	7.96	14.34	6.38	2 / 0.5	No	275,539.1	0.00	0.0	Off
DPE-10	8/2/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-10	8/18/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-10	8/21/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-10	9/5/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-10	9/9/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected
DPE-10	9/23/2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-11												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4011)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-11	11/28/17 9:56	#N/A	#N/A	6.13	14.27	8.14	#N/A	#N/A	318.47	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-11	12/5/17 11:35	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	No	453.55	135.08	#N/A	Groundwater elevation estimated based on transducer setting
DPE-11	12/13/17 9:30	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	3,408.30	2,954.75	2.4	
DPE-11	12/13/17 14:00	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	4,091.90	683.60	2.4	
DPE-11	12/14/17 10:25	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	6,693.90	2,602.00	2.2	
DPE-11	12/20/17 12:50	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	16,297.60	9,603.70	2.2	
DPE-11	12/27/17 12:15	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	29,022.70	12,725.10	2.8	
DPE-11	1/5/18 16:20	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	43,822.40	14,799.70	3.2	
DPE-11	1/9/18 16:25	20.50	4.00	16.50	14.27	-2.23	4 / 0.5	Yes	45,650.50	1,828.10	2.8	
DPE-11	1/18/18 14:20	20.50	4.00	16.50	14.27	-2.23	4 / 0.5	Yes	58,427.80	12,777.30	2.8	
DPE-11	1/24/18 13:30	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	74,200.80	15,773.00	2.2	
DPE-11	2/1/18 10:10	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	104,532.10	30,331.30	3.6	
DPE-11	2/8/18 10:00	20.50	15.92	4.58	14.27	9.69	2 / 0.5	No	112,402.00	7,869.90	0.0	Off
DPE-11	2/13/18 9:50	20.50	15.88	4.62	14.27	9.65	2 / 0.5	No	112,402.00	0.00	0.0	Off
DPE-11	2/20/18 14:00	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	132,333.30	19,931.30	3.2	
DPE-11	2/28/18 14:00	20.50	15.59	4.91	14.27	9.36	2 / 0.5	No	136,719.20	4,385.90	0.0	Off
DPE-11	3/8/18 11:30	20.50	15.94	4.56	14.27	9.71	2 / 0.5	No	136,719.20	0.00	0.0	Off
DPE-11	3/14/18 12:00	20.50	15.97	4.53	14.27	9.74	2 / 0.5	No	136,719.20	0.00	0.0	Off
DPE-11	5/8/18 13:00	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	136,801.20	82.00	4.0	
DPE-11	5/17/18 15:45	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	177,717.60	40,916.40	4.6	
DPE-11	5/23/18 15:30	20.50	1.94	18.56	14.27	-4.29	2 / 0.5	Yes	212,613.50	34,895.90	4.4	
DPE-11	5/29/18 16:30	20.50	1.55	18.95	14.27	-4.68	2 / 0.5	Yes	250,270.30	37,656.80	5.0	
DPE-11	6/7/18 13:15	20.50	1.88	18.62	14.27	-4.35	2 / 0.5	Yes	274,351.50	24,081.20	4.4	
DPE-11	6/15/18 13:00	20.50	1.95	18.55	14.27	-4.28	2 / 0.5	Yes	295,909.20	21,557.70	6.0	
DPE-11	6/18/18 12:20	20.50	1.97	18.54	14.27	-4.27	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-11	7/5/18 12:00	20.50	2.00	18.50	14.27	-4.23	2 / 0.5	Yes	355,664.50	59,755.30	5.4	
DPE-11	7/11/18 11:35	20.50	7.23	13.27	14.27	1.00	2 / 0.5	Yes	396,622.50	40,958.00	5.6	
DPE-11	7/19/18 14:30	20.50	10.59	9.91	14.27	4.36	2 / 0.5	Yes	402,718.40	6,095.90	5.6	
DPE-11	7/26/18 15:00	20.50	8.18	12.32	14.27	1.95	2 / 0.5	Yes	444,975.50	42,257.10	5.4	
DPE-11	8/3/18 15:10	20.50	2.81	17.69	14.27	-3.42	2 / 0.5	Yes	477,673.50	32,698.00	5.6	
DPE-11	8/7/18 12:45	20.50	1.90	18.60	14.27	-4.33	2 / 0.5	Yes	511,052.50	33,379.00	5.6	
DPE-11	8/15/18 14:00	20.50	1.97	18.53	14.27	-4.26	2 / 0.5	Yes	565,837.50	54,785.00	5.4	
DPE-11	10/10/18 17:05	23.00	7.88	15.12	14.27	-0.85	2 / 0.5	No	567,668.50	1,831.00	6.2	
DPE-11	10/18/18 14:15	23.00	15.30	7.70	14.27	6.57	2 / 0.5	No	573,842.70	6,174.20	0.0	Off - Recalibrated transducer depth after fall restart
DPE-11	10/26/18 16:10	23.00	5.60	17.40	14.27	-3.13	2 / 0.5	No	575,888.80	2,046.10	5.8	
DPE-11	11/7/18 16:10	23.00	4.44	18.56	14.27	-4.29	2 / 0.5	No	577,438.50	1,549.70	5.6	
DPE-11	11/13/18 13:20	23.00	2.31	20.69	14.27	-6.42	2 / 0.5	Yes	619,811.50	42,373.00	6.8	
DPE-11	11/21/18 14:10	23.00	2.00	21.00	14.27	-6.73	2 / 0.5	Yes	657,146.60	37,335.10	6.0	
DPE-11	1/11/19 10:30	23.00	3.30	19.70	14.27	-5.43	2 / 0.5	No	762,008.30	104,861.70	7.2	
DPE-11	1/17/19 14:15	23.00	2.00	21.00	14.27	-6.73	2 / 0.5	No	820,176.50	58,168.20	6.4	
DPE-11	1/24/19 13:15	23.00	6.69	16.31	14.27	-2.04	2 / 0.5	No	843,026.40	22,849.90	7.2	
DPE-11	1/29/19 12:15	23.00	4.40	18.60	14.27	-4.33	2 / 0.5	No	862,465.80	19,439.40	7.6	
DPE-11	2/21/19 13:45	23.00	4.55	18.45	14.27	-4.18	2 / 0.5	No	904,121.80	41,656.00	8.0	
DPE-11	2/26/19 16:00	23.00	6.93	16.07	14.27	-1.80	2 / 0.5	No	957,511.90	53,390.10	8.0	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-11												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4011)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-11	3/6/19 13:00	23.00	3.34	19.66	14.27	-5.39	2 / 0.5	No	1,021,862.00	64,350.10	6.9	
DPE-11	3/14/19 12:10	23.00	2.00	21.00	14.27	-6.73	2 / 0.5	No	1,090,021.00	68,159.00	7.6	
DPE-11	3/22/19 14:30	23.00	7.00	16.00	14.27	-1.73	2 / 0.5	No	1,090,021.00	0.00	7.6	
DPE-11	3/29/19 13:00	23.00	5.00	18.00	14.27	-3.73	2 / 0.5	No	1,165,622.20	75,601.20	7.8	
DPE-11	4/2/19 13:00	23.00	2.00	21.00	14.27	-6.73	2 / 0.5	No	1,197,519.50	31,897.30	7.8	
DPE-11	4/11/19 14:10	23.00	6.00	17.00	14.27	-2.73	6 / 0.5	No	1,234,399.10	36,879.60	7.0	
DPE-11	4/17/19 13:10	23.00	6.00	17.00	14.27	-2.73	6 / 0.5	No	1,271,856.90	37,457.80	7.0	
DPE-11	4/25/19 15:15	23.00	6.00	17.00	14.27	-2.73	6 / 0.5	No	1,299,300.10	27,443.20	7.4	
DPE-11	5/2/19 13:30	23.00	6.51	16.49	14.27	-2.22	6 / 0.5	No	1,353,375.20	54,075.10	7.4	
DPE-11	5/9/19 15:10	23.00	6.00	17.00	14.27	-2.73	6 / 0.5	No	1,407,450.30	54,075.10	7.0	
DPE-11	5/17/19 15:15	23.00	6.00	17.00	14.27	-2.73	6 / 0.5	No	1,468,631.50	61,181.20	7.2	
DPE-11	5/23/19 13:10	23.00	6.00	17.00	14.27	-2.73	6 / 0.5	No	1,509,123.40	40,491.90	7.0	
DPE-11	5/30/19 14:35	23.00	6.00	17.00	14.27	-2.73	6 / 0.5	No	1,562,425.6	53,302.20	7.0	
DPE-11	6/6/19 16:10	23.00	6.00	17.00	14.27	-2.73	6 / 0.5	No	1,624,236.5	61,810.90	7.0	
DPE-11	8/2/19 15:00	23.00	15.97	7.03	14.27	7.24	6 / 0.5	No	1,653,703.0	29,466.5	0.00	DPE system expansion baseline event before system startup - System off
DPE-11	8/15/19 14:20	23.00	15.85	7.15	14.27	7.12	6 / 0.5	No	1,653,703.3	0.3	0.0	Off
DPE-11	8/21/19 12:07	23.00	15.72	7.28	14.27	6.99	6 / 0.5	No	1,653,703.3	0.0	0.0	Off
DPE-11	9/5/19 13:41	23.00	10.68	12.32	14.27	1.95	6 / 0.5	Yes	1,653,703.3	0.0	0.0	
DPE-11	9/9/19 11:58	23.00	9.80	13.20	14.27	1.07	6 / 0.5	No	1,653,703.3	0.0	0.0	
DPE-11	9/23/19 15:35	23.00	8.74	14.26	14.27	0.01	6 / 0.5	Yes	1,653,718.6	15.3	0.0	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-12												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4012)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-12	11/28/17 10:02	#N/A	#N/A	6.49	14.16	7.67	#N/A	#N/A	40.18	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-12	12/5/17 11:35	20.50	#N/A	#N/A	14.16	#N/A	#N/A	No	32,421	32,380.82	#N/A	Transducer errors with pump testing and trouble shooting
DPE-12	12/13/17 9:30	20.50	#N/A	#N/A	14.16	#N/A	#N/A	No	58,161.00	25,740.00	0.0	Transducer errors with pump testing and trouble shooting
DPE-12	12/13/17 14:00	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	12/14/17 10:25	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	12/20/17 12:50	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	12/27/17 12:15	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	1/5/18 16:20	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	1/9/18 16:25	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	1/18/18 14:20	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	1/24/18 13:30	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	2/1/18 10:10	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	2/8/18 10:00	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	2/13/18 9:50	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	2/20/18 14:00	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	2/28/18 14:00	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	3/8/18 11:30	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12	3/14/18 12:00	20.50	#N/A	#N/A	14.16	#N/A	--	No	58,161.00	0.00	0.0	Off
DPE-12-R	5/8/18 13:00	20.50	8.33	12.17	14.30	2.13	2 / 0.5	Yes	58,708.60	547.60	5.2	DPE-12 decommissioned; DPE-12R installed approximately four feet west
DPE-12-R	5/17/18 15:45	20.50	8.99	11.51	14.30	2.79	2 / 0.5	Yes	113,028.50	54,319.90	5.0	
DPE-12-R	5/23/18 15:30	20.50	8.77	11.73	14.30	2.57	2 / 0.5	Yes	158,502.60	45,474.10	5.4	
DPE-12-R	5/29/18 16:30	20.50	9.34	11.16	14.30	3.14	2 / 0.5	Yes	202,654.80	44,152.20	5.6	
DPE-12-R	6/7/18 13:15	20.50	9.30	11.20	14.30	3.10	2 / 0.5	Yes	230,704.80	28,050.00	5.8	
DPE-12-R	6/15/18 13:00	20.50	9.22	11.28	14.30	3.02	2 / 0.5	Yes	263,801.50	33,096.70	6.0	
DPE-12-R	6/18/18 12:20	20.50	8.60	11.90	14.30	2.40	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-12-R	7/5/18 12:00	20.50	8.90	11.60	14.30	2.70	2 / 0.5	Yes	332,619.10	68,817.60	5.8	
DPE-12-R	7/11/18 11:35	20.50	9.01	11.49	14.30	2.81	2 / 0.5	Yes	382,016.80	49,397.70	5.8	
DPE-12-R	7/19/18 14:30	20.50	9.34	11.16	14.30	3.14	2 / 0.5	Yes	388,021.80	6,005.00	5.6	
DPE-12-R	7/26/18 15:00	20.50	9.22	11.28	14.30	3.02	2 / 0.5	Yes	435,243.80	47,222.00	5.6	
DPE-12-R	8/3/18 15:10	20.50	9.02	11.48	14.30	2.82	2 / 0.5	Yes	469,798.60	34,554.80	5.6	
DPE-12-R	8/7/18 12:45	20.50	8.65	11.85	14.30	2.45	2 / 0.5	Yes	505,681.50	35,882.90	5.6	
DPE-12-R	8/15/18 14:00	20.50	8.87	11.63	14.30	2.67	2 / 0.5	Yes	571,773.40	66,091.90	5.8	
DPE-12-R	10/10/18 17:05	22.00	10.31	11.69	14.30	2.61	2 / 0.5	No	573,505.50	1,732.10	7.0	
DPE-12-R	10/18/18 14:15	22.00	14.33	7.67	14.30	6.63	2 / 0.5	No	579,780.00	6,274.50	0.0	Recalibrated transducer depth after fall restart
DPE-12-R	10/26/18 16:10	22.00	10.55	11.45	14.30	2.85	2 / 0.5	No	581,983.10	2,203.10	6.0	
DPE-12-R	11/7/18 16:10	22.00	10.50	11.50	14.30	2.80	2 / 0.5	No	583,532.90	1,549.80	6.2	
DPE-12-R	11/13/18 13:20	22.00	9.53	12.47	14.30	1.83	2 / 0.5	Yes	627,396.50	43,863.60	7.0	
DPE-12-R	11/21/18 14:10	22.00	10.30	11.70	14.30	2.60	2 / 0.5	Yes	668,290.10	40,893.60	6.2	
DPE-12-R	1/11/19 10:30	22.00	10.00	12.00	14.30	2.30	2 / 0.5	No	778,883.50	110,593.40	7.6	
DPE-12-R	1/17/19 14:15	22.00	9.58	12.42	14.30	1.88	2 / 0.5	No	844,847.40	65,963.90	7.4	
DPE-12-R	1/24/19 13:15	22.00	10.51	11.49	14.30	2.81	2 / 0.5	No	871,617.00	26,769.60	7.8	
DPE-12-R	1/29/19 12:15	22.00	9.72	12.28	14.30	2.02	2 / 0.5	No	893,607.50	21,990.50	7.8	
DPE-12-R	2/21/19 13:45	22.00	10.60	11.40	14.30	2.90	2 / 0.5	No	939,217.30	45,609.80	8.4	
DPE-12-R	2/26/19 16:00	22.00	10.84	11.16	14.30	3.14	2 / 0.5	No	998,216.60	58,999.30	8.2	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-12												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4012)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-12-R	3/6/19 13:00	22.00	10.53	11.47	14.30	2.83	2 / 0.5	No	1,073,505.70	75,289.10	8.2	
DPE-12-R	3/14/19 12:10	22.00	10.44	11.56	14.30	2.74	2 / 0.5	No	1,154,072.80	80,567.10	8.2	
DPE-12-R	3/22/19 14:30	22.00	10.93	11.07	14.30	3.23	2 / 0.5	No	1,154,072.80	0.00	8.2	
DPE-12-R	3/29/19 13:00	22.00	10.27	11.73	14.30	2.57	2 / 0.5	No	1,239,612.80	85,540.00	8.2	
DPE-12-R	4/2/19 13:00	22.00	10.19	11.81	14.30	2.49	10.2 / 4	No	1,277,401.50	37,788.70	8.0	
DPE-12-R	4/11/19 14:10	22.00	10.50	11.50	14.30	2.80	10.2 / 4	No	1,320,104.50	42,703.00	7.0	
DPE-12-R	4/17/19 13:10	22.00	10.45	11.55	14.30	2.75	10.2 / 4	No	1,368,387.40	48,282.90	8.8	
DPE-12-R	4/25/19 15:15	22.00	10.43	11.57	14.30	2.73	10.2 / 4	No	1,402,959.90	34,572.50	8.6	
DPE-12-R	5/2/19 13:30	22.00	10.48	11.52	14.30	2.78	10.2 / 4	No	1,442,139.20	39,179.30	8.6	
DPE-12-R	5/9/19 15:10	22.00	10.48	11.52	14.30	2.78	10.2 / 4	No	1,539,839.30	97,700.10	8.6	
DPE-12-R	5/17/19 15:15	22.00	10.48	11.52	14.30	2.78	10.2 / 4	No	1,621,524.40	81,685.10	8.6	
DPE-12-R	5/23/19 13:10	22.00	14.62	7.38	14.30	6.92	10.2 / 4	No	1,672,835.60	51,311.20	0.0	Off
DPE-12-R	5/30/19 14:35	22.00	14.41	7.59	14.30	6.71	10.2 / 4	No	1,672,835.60	0.00	0.0	Off
DPE-12-R	6/6/19 16:10	22.00	14.38	7.62	14.30	6.68	10.2 / 4	No	1,672,835.60	0.00	0.0	Off
DPE-12-R	8/2/19 15:00	22.00	14.84	7.16	14.30	7.14	10.2 / 4	No	1,672,835.6	0.0	0.00	DPE system expansion baseline event before system startup - System off
DPE-12-R	8/15/19 14:20	22.00	14.71	7.29	14.30	7.01	10.2 / 4	No	1,672,835.6	0.0	0.0	Off
DPE-12-R	8/21/19 12:07	22.00	14.70	7.30	14.30	7.00	10.2 / 4	No	1,672,835.6	0.0	0.0	Off
DPE-12-R	9/5/19 13:41	22.00	11.11	10.89	14.30	3.41	10.2 / 4	Yes	1,673,258.1	422.5	9.4	
DPE-12-R	9/9/19 11:58	22.00	10.96	11.04	14.30	3.26	10.2 / 4	No	1,674,850.6	1,592.5	9.2	
DPE-12-R	9/23/19 15:35	22.00	10.72	11.28	14.30	3.02	10.2 / 4	Yes	1,707,825.5	32,974.9	10.2	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-13												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4013)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-13	11/28/17 10:06	#N/A	#N/A	5.90	13.77	7.87	#N/A	#N/A	81.12	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-13	12/5/17 11:35	20.50	10	10.50	13.77	3.27	10 / 0.5	No	31,850	31,768.88	#N/A	Groundwater elevation estimated based on transducer setting
DPE-13	12/13/17 9:30	20.50	6.60	13.90	13.77	-0.13	2 / 0.5	Yes	34,433.30	2,583.30	5.4	
DPE-13	12/13/17 14:00	20.50	6.50	14.00	13.77	-0.23	2 / 0.5	Yes	35,809.00	1,375.70	5.4	
DPE-13	12/14/17 10:25	20.50	6.30	14.20	13.77	-0.43	2 / 0.5	Yes	42,284.10	6,475.10	5.2	
DPE-13	12/20/17 12:50	20.50	7.50	13.00	13.77	0.77	2 / 0.5	Yes	96,996.20	54,712.10	5.4	
DPE-13	12/27/17 12:15	20.50	8.10	12.40	13.77	1.37	2 / 0.5	Yes	127,837.20	30,841.00	5.3	
DPE-13	1/5/18 16:20	20.50	9.66	10.84	13.77	2.93	2 / 0.5	Yes	159,789.40	31,952.20	5.6	
DPE-13	1/9/18 16:25	20.50	10.00	10.50	13.77	3.27	4 / 0.5	Yes	162,903.20	3,113.80	5.4	
DPE-13	1/18/18 14:20	20.50	10.18	10.32	13.77	3.45	4 / 0.5	Yes	187,700.40	24,797.20	5.4	
DPE-13	1/24/18 13:30	20.50	10.50	10.00	13.77	3.77	2 / 0.5	Yes	217,933.20	30,232.80	5.8	
DPE-13	2/1/18 10:10	20.50	9.47	11.03	13.77	2.74	2 / 0.5	Yes	267,457.30	49,524.10	5.8	
DPE-13	2/8/18 10:00	20.50	5.89	14.61	13.77	-0.84	2 / 0.5	No	280,653.80	13,196.50	0.0	Off
DPE-13	2/13/18 9:50	20.50	15.80	4.70	13.77	9.07	2 / 0.5	No	280,653.80	0.00	0.0	Off
DPE-13	2/20/18 14:00	20.50	9.45	11.05	13.77	2.72	2 / 0.5	No	314,463.50	33,809.70	4.2	
DPE-13	2/28/18 14:00	20.50	15.68	4.82	13.77	8.95	2 / 0.5	No	321,791.60	7,328.10	0.0	Off
DPE-13	3/8/18 11:30	20.50	15.95	4.55	13.77	9.22	2 / 0.5	No	321,791.60	0.00	0.0	Off
DPE-13	3/14/18 12:00	20.50	15.95	4.55	13.77	9.22	2 / 0.5	No	321,791.60	0.00	0.0	Off
DPE-13	5/8/18 13:00	20.50	9.89	10.61	13.77	3.16	2 / 0.5	Yes	322,410.10	618.50	5.8	
DPE-13	5/17/18 15:45	20.50	9.81	10.69	13.77	3.08	2 / 0.5	Yes	384,295.30	61,885.20	6.0	
DPE-13	5/23/18 15:30	20.50	9.9	10.60	13.77	3.17	2 / 0.5	Yes	434,629.20	50,333.90	5.8	
DPE-13	5/29/18 16:30	20.50	10.56	9.94	13.77	3.83	2 / 0.5	Yes	482,519.80	47,890.60	5.8	
DPE-13	6/7/18 13:15	20.50	10.81	9.69	13.77	4.08	2 / 0.5	Yes	511,278.90	28,759.10	5.8	
DPE-13	6/15/18 13:00	20.50	10.38	10.12	13.77	3.65	2 / 0.5	Yes	544,461.50	33,182.60	5.8	
DPE-13	6/18/18 12:20	20.50	9.93	10.57	13.77	3.20	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-13	7/5/18 12:00	20.50	10.00	10.50	13.77	3.27	2 / 0.5	Yes	611,165.50	66,704.00	5.6	
DPE-13	7/11/18 11:35	20.50	10.04	10.46	13.77	3.31	2 / 0.5	Yes	659,433.50	48,268.00	5.2	
DPE-13	7/19/18 14:30	20.50	10.54	9.96	13.77	3.81	2 / 0.5	Yes	665,104.40	5,670.90	5.2	
DPE-13	7/26/18 15:00	20.50	10.60	9.90	13.77	3.87	2 / 0.5	Yes	708,149.20	43,044.80	5.4	
DPE-13	8/3/18 15:10	20.50	10.00	10.50	13.77	3.27	2 / 0.5	Yes	758,551.80	50,402.60	5.2	
DPE-13	8/7/18 12:45	20.50	9.83	10.67	13.77	3.10	2 / 0.5	Yes	768,863.70	10,311.90	5.2	
DPE-13	8/15/18 14:00	20.50	10.33	10.17	13.77	3.60	2 / 0.5	Yes	822,798.20	53,934.50	5.4	
DPE-13	10/10/18 17:05	22.50	11.69	10.81	13.77	2.96	2 / 0.5	No	824,115.10	1,316.90	0.0	Off - Recalibrated transducer depth after fall restart
DPE-13	10/18/18 14:15	22.50	15.52	6.98	13.77	6.79	2 / 0.5	No	824,295.50	180.40	0.0	Off
DPE-13	10/26/18 16:10	22.50	15.28	7.22	13.77	6.55	2 / 0.5	No	824,453.40	157.90	0.0	Off
DPE-13	11/7/18 16:10	22.50	15.2	7.30	13.77	6.47	2 / 0.5	No	824,453.40	0.00	0.0	Off
DPE-13	11/13/18 13:20	22.50	10.9	11.60	13.77	2.17	2 / 0.5	Yes	824,816.60	363.20	5.4	
DPE-13	11/21/18 14:10	22.50	15.13	7.37	13.77	6.40	2 / 0.5	No	825,913.40	1,096.80	0.0	Off
DPE-13	1/11/19 10:30	22.50	11.10	11.40	13.77	2.37	2 / 0.5	No	893,258.00	67,344.60	5.8	
DPE-13	1/17/19 14:15	22.50	10.63	11.87	13.77	1.90	2 / 0.5	No	944,747.80	51,489.80	5.8	
DPE-13	1/24/19 13:15	22.50	11.45	11.05	13.77	2.72	2 / 0.5	No	965,543.00	20,795.20	5.8	
DPE-13	1/29/19 12:15	22.50	10.80	11.70	13.77	2.07	2 / 0.5	No	981,767.80	16,224.80	5.8	
DPE-13	2/21/19 13:45	22.50	15.56	6.94	13.77	6.83	2 / 0.5	No	998,099.40	16,331.60	0.0	Off
DPE-13	2/26/19 16:00	22.50	15.63	6.87	13.77	6.90	2 / 0.5	No	998,099.40	0.00	0.0	Off

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-13												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4013)	Depth to Water ² :	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³ :	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴ :	Comments
	mm/dd/yy hh:mm ¹ :	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-13	3/6/19 13:00	22.50	15.46	7.04	13.77	6.73	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	3/14/19 12:10	22.50	15.32	7.18	13.77	6.59	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	3/22/19 14:30	22.50	15.72	6.78	13.77	6.99	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	3/29/19 13:00	22.50	14.97	7.53	13.77	6.24	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	4/2/19 14:15	22.50	15.00	7.50	13.77	6.27	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	4/11/19 14:10	22.50	15.26	7.24	13.77	6.53	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	4/17/19 13:10	22.50	15.19	7.31	13.77	6.46	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	4/25/19 15:15	22.50	15.2	7.30	13.77	6.47	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	5/2/19 13:30	22.50	15.12	7.38	13.77	6.39	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	5/9/19 15:10	22.50	14.84	7.66	13.77	6.11	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	5/17/19 15:15	22.50	15.03	7.47	13.77	6.30	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	5/23/19 13:10	22.50	15.57	6.93	13.77	6.84	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	5/30/19 14:35	22.50	15.38	7.12	13.77	6.65	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	6/6/19 16:10	22.50	15.54	6.96	13.77	6.81	2 / 0.5	No	998,099.40	0.00	0.0	Off
DPE-13	8/2/19 15:00	22.50	15.96	6.54	13.77	7.23	2 / 0.5	No	998,099.4	0.0	0.00	DPE system expansion baseline event before system startup - System off
DPE-13	8/15/19 14:20	22.50	15.82	6.68	13.77	7.09	2 / 0.5	No	998,099.4	0.0	0.0	Off
DPE-13	8/21/19 12:08	22.50	15.77	6.73	13.77	7.04	2 / 0.5	No	998,099.4	0.0	0.0	Off
DPE-13	9/5/19 13:42	22.50	10.77	11.73	13.77	2.04	2 / 0.5	Yes	998,256.8	157.4	6.4	
DPE-13	9/9/19 11:59	22.50	10.72	11.78	13.77	1.99	2 / 0.5	No	999,370.6	1,113.8	6.4	
DPE-13	9/23/19 15:37	22.50	10.18	12.32	13.77	1.45	2 / 0.5	Yes	1,020,230.7	20,860.1	6.4	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-14												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4014)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-14	11/28/17 10:18	#N/A	#N/A	5.72	13.67	7.95	#N/A	#N/A	37.03	#N/A	#N/A	DPE System Baseline Event before System Startup - Pump off
DPE-14	12/5/17 11:35	20.50	2.00	18.50	13.67	-4.83	2 / 0.5	No	23,220	23,182.97	#N/A	Groundwater elevation estimated based on transducer setting
DPE-14	12/13/17 9:30	20.50	2.00	18.50	13.67	-4.83	2 / 0.5	Yes	47,810.00	24,590.00	5.0	
DPE-14	12/13/17 14:00	20.50	2.00	18.50	13.67	-4.83	2 / 0.5	Yes	49,130.90	1,320.90	5.0	
DPE-14	12/14/17 10:25	20.50	2.00	18.50	13.67	-4.83	2 / 0.5	Yes	54,529.10	5,398.20	4.8	
DPE-14	12/20/17 12:50	20.50	3.00	17.50	13.67	-3.83	2 / 0.5	Yes	75,867.00	21,337.90	5.0	
DPE-14	12/27/17 12:15	20.50	2.48	18.02	13.67	-4.35	2 / 0.5	Yes	103,867.20	28,000.20	5.0	
DPE-14	1/5/18 16:20	20.50	4.00	16.50	13.67	-2.83	2 / 0.5	Yes	131,365.30	27,498.10	5.0	
DPE-14	1/9/18 16:25	20.50	5.25	15.25	13.67	-1.58	4 / 0.5	Yes	134,142.60	2,777.30	5.0	
DPE-14	1/18/18 14:20	20.50	4.00	16.50	13.67	-2.83	4 / 0.5	Yes	156,331.30	22,188.70	5.0	
DPE-14	1/24/18 13:30	20.50	4.00	16.50	13.67	-2.83	2 / 0.5	Yes	182,560.10	26,228.80	5.2	
DPE-14	2/1/18 10:10	20.50	4.36	16.14	13.67	-2.47	2 / 0.5	Yes	231,111.00	48,550.90	5.8	
DPE-14	2/8/18 10:00	20.50	5.85	14.65	13.67	-0.98	2 / 0.5	No	244,698.20	13,587.20	0.0	Off
DPE-14	2/13/18 9:50	20.50	15.78	4.72	13.67	8.95	2 / 0.5	No	244,698.20	0.00	0.0	Off
DPE-14	2/20/18 14:00	20.50	2.00	18.50	13.67	-4.83	2 / 0.5	No	276,964.30	32,266.10	5.2	
DPE-14	2/28/18 14:00	20.50	15.72	4.78	13.67	8.89	2 / 0.5	No	282,025.40	5,061.10	0.0	Off
DPE-14	3/8/18 11:30	20.50	15.96	4.54	13.67	9.13	2 / 0.5	No	282,025.40	0.00	0.0	Off
DPE-14	3/14/18 12:00	20.50	15.91	4.59	13.67	9.08	2 / 0.5	No	282,025.40	0.00	0.0	Off
DPE-14	5/8/18 13:00	20.50	3.00	17.50	13.67	-3.83	2 / 0.5	Yes	283,573.70	1,548.30	4.8	
DPE-14	5/17/18 15:45	20.50	3.00	17.50	13.67	-3.83	2 / 0.5	Yes	338,969.20	55,395.50	5.4	
DPE-14	5/23/18 15:30	20.50	2.13	18.37	13.67	-4.70	2 / 0.5	Yes	382,606.70	43,637.50	5.4	
DPE-14	5/29/18 16:30	20.50	4.69	15.81	13.67	-2.14	2 / 0.5	Yes	426,920.80	44,314.10	5.8	
DPE-14	6/7/18 13:15	20.50	1.92	18.58	13.67	-4.91	2 / 0.5	Yes	454,622.90	27,702.10	5.6	
DPE-14	6/15/18 13:00	20.50	2.18	18.32	13.67	-4.65	2 / 0.5	Yes	480,890.90	26,268.00	5.6	
DPE-14	6/18/18 12:20	20.50	1.98	18.53	13.67	-4.86	#N/A	#N/A	#N/A	#N/A	#N/A	
DPE-14	7/5/18 12:00	20.50	2.00	18.50	13.67	-4.83	2 / 0.5	Yes	542,982.40	62,091.50	5.4	
DPE-14	7/11/18 11:35	20.50	3.00	17.50	13.67	-3.83	2 / 0.5	Yes	587,363.50	44,381.10	5.6	
DPE-14	7/19/18 14:30	20.50	2.91	17.59	13.67	-3.92	2 / 0.5	Yes	593,061.50	5,698.00	5.6	
DPE-14	7/26/18 15:00	20.50	6.42	14.08	13.67	-0.41	2 / 0.5	Yes	634,059.40	40,997.90	5.6	
DPE-14	8/3/18 15:10	20.50	2.62	17.88	13.67	-4.21	2 / 0.5	Yes	664,259.30	30,199.90	5.6	
DPE-14	8/7/18 12:45	20.50	1.92	18.58	13.67	-4.91	2 / 0.5	Yes	694,892.70	30,633.40	5.4	
DPE-14	8/15/18 14:00	20.50	2.00	18.50	13.67	-4.83	2 / 0.5	Yes	748,458.60	53,565.90	5.4	
DPE-14	10/10/18 17:05	23.00	4.74	18.26	13.67	-4.59	2 / 0.5	No	749,738.20	1,279.60	0.0	Off - Recalibrated transducer depth after fall restart
DPE-14	10/18/18 14:15	23.00	15.53	7.47	13.67	6.20	2 / 0.5	No	749,852.60	114.40	0.0	Off
DPE-14	10/26/18 16:10	23.00	15.46	7.54	13.67	6.13	2 / 0.5	No	750,112.70	260.10	0.0	Off
DPE-14	11/7/18 16:10	23.00	15.4	7.60	13.67	6.07	2 / 0.5	No	750,112.70	0.00	0.0	Off
DPE-14	11/13/18 13:20	23.00	4.56	18.44	13.67	-4.77	2 / 0.5	Yes	750,486.50	373.80	5.6	
DPE-14	11/21/18 14:10	23.00	15.31	7.69	13.67	5.98	2 / 0.5	No	751,625.60	1,139.10	0.0	Off
DPE-14	1/11/19 10:30	23.00	2.00	21.00	13.67	-7.33	2 / 0.5	No	814,100.10	62,474.50	5.2	
DPE-14	1/17/19 14:15	23.00	2.00	21.00	13.67	-7.33	2 / 0.5	No	857,759.80	43,659.70	4.8	
DPE-14	1/24/19 13:15	23.00	2.00	21.00	13.67	-7.33	2 / 0.5	No	874,965.30	17,205.50	4.2	
DPE-14	1/29/19 12:15	23.00	2.00	21.00	13.67	-7.33	2 / 0.5	No	888,738.40	13,773.10	5.2	
DPE-14	2/21/19 13:45	23.00	15.78	7.22	13.67	6.45	2 / 0.5	No	902,386.90	13,648.50	0.0	Off
DPE-14	2/26/19 16:00	23.00	15.79	7.21	13.67	6.46	2 / 0.5	No	902,386.90	0.00	0.0	Off

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-14												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4014)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-14	3/6/19 13:00	23.00	15.66	7.34	13.67	6.33	2 / 0.5	No	902,386.90	0.00	0.0	Off
DPE-14	3/14/19 12:10	23.00	15.50	7.50	13.67	6.17	2 / 0.5	No	902,386.90	0.00	0.0	Off
DPE-14	3/22/19 14:30	23.00	15.90	7.10	13.67	6.57	2 / 0.5	No	902,386.90	0.00	0.0	Off
DPE-14	3/29/19 13:00	23.00	2.00	21.00	13.67	-7.33	2 / 0.5	No	902,428.20	41.30	6.4	
DPE-14	4/2/19 14:15	23.00	7.99	15.01	13.67	-1.34	8 / 0.5	No	926,435.50	24,007.30	3.4	
DPE-14	4/11/19 14:10	23.00	8.00	15.00	13.67	-1.33	8 / 4.0	No	943,703.60	17,268.10	3.6	
DPE-14	4/17/19 13:10	23.00	8.00	15.00	13.67	-1.33	8 / 4.0	No	962,614.70	18,911.10	3.4	
DPE-14	4/25/19 15:15	23.00	8.00	15.00	13.67	-1.33	8 / 4.0	No	976,052.70	13,438.00	3.4	
DPE-14	5/2/19 13:30	23.00	8.00	15.00	13.67	-1.33	8 / 4.0	No	996,670.10	20,617.40	3.4	
DPE-14	5/9/19 15:10	23.00	7.99	15.01	13.67	-1.34	8 / 4.0	No	1,027,792.00	31,121.90	3.6	
DPE-14	5/17/19 15:15	23.00	8.01	14.99	13.67	-1.32	8 / 4.0	No	1,056,878.70	29,086.70	3.6	
DPE-14	5/23/19 13:10	23.00	8.00	15.00	13.67	-1.33	8 / 4.0	No	1,076,758.10	19,879.40	3.6	
DPE-14	5/30/19 14:35	23.00	8.00	15.00	13.67	-1.33	8 / 4.0	No	1,104,889.4	28,131.30	3.6	
DPE-14	6/6/19 16:10	23.00	8.00	15.00	13.67	-1.33	8 / 4.0	No	1,139,265.9	34,376.50	3.4	
DPE-14	8/2/19 15:00	23.00	15.92	7.08	13.67	6.59	8 / 4.0	No	1,156,821.0	17,555.1	0.00	DPE system expansion baseline event before system startup - System off
DPE-14	8/15/19 14:21	23.00	15.77	7.23	13.67	6.44	8 / 4.0	No	1,156,821.2	0.2	0.0	Off
DPE-14	8/21/19 12:08	23.00	15.74	7.26	13.67	6.41	8 / 4.0	No	1,156,821.2	0.0	0.0	Off
DPE-14	9/5/19 13:43	23.00	7.99	15.01	13.67	-1.34	8 / 4.0	Yes	1,156,988.4	167.2	3.6	
DPE-14	9/9/19 11:59	23.00	7.99	15.01	13.67	-1.34	8 / 4.0	No	1,157,600.0	611.6	3.6	
DPE-14	9/23/19 15:37	23.00	8.01	14.99	13.67	-1.32	8 / 4.0	Yes	1,167,831.9	10,231.9	3.0	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-15

DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4014)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-15	8/2/19 15:00	20.70	--	12.41	15.75	3.34	26 / 24.0	No	277,474.0	#N/A	6.40	*DPE System Expansion Baseline Event before System Startup - System off
DPE-15	8/15/19 14:22	20.70	4.32	16.38	15.75	-0.63	26 / 24.0	No	373,797.7	96,323.7	6.2	
DPE-15	8/21/19 12:08	20.70	4.26	16.44	15.75	-0.69	26 / 24.0	No	427,387.5	53,589.8	6.6	
DPE-15	9/5/19 13:43	20.70	3.12	17.58	15.75	-1.83	26 / 24.0	Yes	509,211.9	81,824.4	6.6	
DPE-15	9/9/19 11:59	20.70	3.10	17.60	15.75	-1.85	26 / 24.0	No	510,528.8	1,316.9	6.4	
DPE-15	9/23/19 15:37	20.70	4.12	16.58	15.75	-0.83	26 / 24.0	Yes	532,005.7	21,476.9	6.6	

DPE-16

DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4014)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-16	8/2/19 15:00	20.70	--	10.18	16.14	5.96	26 / 24.0	No	296,534.0	#N/A	5.20	*DPE System Expansion Baseline Event before System Startup - System off
DPE-16	8/15/19 14:22	20.70	6.56	14.14	16.14	2.00	26 / 25.0	No	391,380.6	94,846.6	5.2	
DPE-16	8/21/19 12:09	20.70	6.54	14.16	16.14	1.98	26 / 25.0	No	437,385.0	46,004.4	5.6	
DPE-16	9/5/19 13:44	20.70	6.66	14.04	16.14	2.10	26 / 25.0	Yes	507,324.7	69,939.7	5.4	
DPE-16	9/9/19 12:00	20.70	6.40	14.30	16.14	1.84	26 / 25.0	No	508,439.3	1,114.6	5.6	
DPE-16	9/23/19 15:38	20.70	7.68	13.02	16.14	3.12	26 / 25.0	Yes	526,185.5	17,746.2	5.2	

DPE-17

DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4014)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-17	8/2/19 15:00	20.70	--	8.64	16.35	7.71	26 / 25.0	No	309,544.0	#N/A	2.00	*DPE System Expansion Baseline Event before System Startup - System off
DPE-17	8/15/19 14:23	20.70	4.9	15.80	16.35	0.55	26 / 24.0	No	320,894.2	11,350.2	1.6	
DPE-17	8/21/19 12:09	20.70	4.63	16.07	16.35	0.28	26 / 24.0	No	333,443.6	12,549.4	1.6	
DPE-17	9/5/19 13:44	20.70	3.41	17.29	16.35	-0.94	26 / 24.0	Yes	353,458.0	20,014.4	1.0	
DPE-17	9/9/19 12:00	20.70	3.21	17.49	16.35	-1.14	26 / 24.0	No	353,901.9	443.9	1.6	
DPE-17	9/23/19 15:38	20.70	5.05	15.65	16.35	0.70	26 / 24.0	Yes	360,163.8	6,261.9	4.2	

Table 4-4
Dual-Phase Extraction Well Groundwater Operational Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-18												
DPE Well ID	Date and Time	Transducer Depth	Water above Transducer (LT-4014)	Depth to Water ²	Casing Elevation	Groundwater Elevation	Variable Frequency Drive Setting	Vacuum Applied	Extracted Groundwater Volume Totalizer ³	Periodic Extracted Groundwater Volume	Instantaneous DPE Well Groundwater Flow Rate ⁴	Comments
	mm/dd/yy hh:mm ¹	ft btoc	ft	ft btoc	ft NAVD88	ft NAVD88	High/Low	yes/no	gal	gal	gpm	
DPE-18	8/2/19 15:00	20.70	--	8.64	14.89	6.25	22 / 20.0	No	598,132.0	#N/A	0.54	*DPE System Expansion Baseline Event before System Startup - System off
DPE-18	8/15/19 14:23	20.70	7.17	13.53	14.89	1.36	22 / 20.0	No	599,670.3	1,538.3	0.3	
DPE-18	8/21/19 12:09	20.70	7.15	13.55	14.89	1.34	22 / 20.0	No	599,787.0	116.7	0.0	
DPE-18	9/5/19 13:44	20.70	7.34	13.36	14.89	1.53	22 / 20.0	Yes	600,759.2	972.2	0.8	
DPE-18	9/9/19 12:00	20.70	7.16	13.54	14.89	1.35	22 / 20.0	No	600,841.0	81.8	0.5	
DPE-18	9/23/19 15:38	20.70	8.37	12.33	14.89	2.56	22 / 20.0	Yes	602,143.9	1,302.9	0.5	

Notes
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Data Sheet Name	Notes
Table 4-4 Dual-Phase Extraction Well Groundwater Operational Data	¹ . hh:mm in data sheets is reported in 24 hour format ² . DPE well depth to water based on transducer readings ³ . Totalizer reading at each DPE well ⁴ . Instantaneous DPE well groundwater flow rate reads from flowmeter. Grundfos Redi-flo 4 top-loading electric submersible pump. Four new DPE wells were installed in July 2019: DPE-15, DPE-16, DPE-17 and DPE-18. Four wells were deactivated: DPE-2, DPE-8, DPE-9 and DPE-10. *: Start up with new DPE wells DPE-15, 16, 17 and 18 on August 2, 2019. Testing phase of new DPE wells and carbon change out from July 8 through August 2, 2019 DPE-2 : DPE-18 DPE-2 on the HMI is now DPE-18 on the system components and the physical well DPE-2 was last recorded as having pumped 597,961.9 gallons of water on June 6, 2019 DPE-18 began recording gallons pumped at 598,132 gallons of water on August 2, 2019 DPE-8 : DPE-16 DPE-8 on the HMI is now DPE-16 on the system components and the physical well DPE-8 was last recorded as having pumped 296,986.6 gallons of water on June 6, 2019 DPE-16 began recording gallons pumped at 296,534 gallons of water on August 2, 2019 DPE-9 : DPE-17 DPE-9 on the HMI is now DPE-16 on the system components and the physical well DPE-9 was last recorded as having pumped 308,192.5 gallons of water on June 6, 2019 DPE-17 began recording gallons pumped at 309,544 gallons of water on August 2, 2019 DPE-10 : DPE-15 DPE-10 on the HMI is now DPE-16 on the system components and the physical well DPE-10 was last recorded as having pumped 275,539.1 gallons of water on June 6, 2019 DPE-15 began recording gallons pumped at 277,474 gallons of water on August 2, 2019 DPE well = dual phase extraction well; remediation well used for both groundwater and soil vapor extraction ft = feet ft btoc = feet below top of casing gal = gallons gpm = gallons per minute #N/A = not applicable, not available NAVD88 = North American Vertical Datum of 1988

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-01							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-01	12/13/2017	10:15	100	9.0	11.0	1100.0	
DPE-01	12/13/2017	14:35	100	9.0	9.5	1150.0	
DPE-01	12/14/2017	12:00	100	9.5	8.5	710.5	
DPE-01	12/20/2017	13:30	100	11.0	16.0	489.1	
DPE-01	12/20/2017	13:40	100	10.0	13.5	372.6	
DPE-01	1/5/2018	16:45	100	11.0	13.0	469.6	
DPE-01	1/9/2018	17:00	100	5.0	8.5	399.0	
DPE-01	1/18/2018	14:50	100	5.5	8.0	155.6	
DPE-01	1/25/2018	9:00	100	7.0	7.0	132.8	
DPE-01	2/1/2018	11:00	100	7.0	11.0	102.3	
DPE-01	2/8/2018	10:20	100	6.0	7.0	97.9	
DPE-01	2/16/2018	13:15	100	13.0	15.0	93.2	
DPE-01	2/20/2018	14:30	100	5.5	5.5	122.2	
DPE-01	2/28/2018	14:30	100	7.0	10.0	101.3	
DPE-01	3/8/2018	12:00	100	8.0	8.5	#N/A	Water in line
DPE-01	3/14/2018	12:30	100	8.5	9.0	#N/A	Water in line
DPE-01	5/8/2018	14:10	100	4.5	10.5	49.2	
DPE-01	5/17/2018	16:45	0	0.0	9.0	#N/A	SVE Off
DPE-01	5/23/2018	16:25	0	0.0	10.5	#N/A	SVE Off
DPE-01	5/29/2018	17:00	100	7.0	18.0	#N/A	Water in line
DPE-01	6/7/2018	16:45	100	9.5	23.0	116.5	
DPE-01	6/15/2018	14:00	10	5.0	12.0	148.0	
DPE-01	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE Off
DPE-01	7/11/2018	14:10	100	5.5	17.0	53.0	
DPE-01	7/19/2018	15:00	100	5.0	15.0	106.0	
DPE-01	7/26/2018	16:00	100	7.0	21.0	84.0	
DPE-01	8/3/2018	15:30	0	0.0	12.0	#N/A	SVE Off
DPE-01	8/7/2018	12:30	0	0.0	13.0	#N/A	SVE Off
DPE-01	8/15/2018	14:30	0	0.0	13.0	#N/A	SVE Off
DPE-01	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE Off
DPE-01	10/18/2018	16:00	100	6.0	14.0	135.2	
DPE-01	10/26/2018	16:30	100	6.0	13.0	132.7	
DPE-01	11/7/2018	16:30	100	6.0	18.5	123.7	
DPE-01	11/13/2018	14:00	100	4.0	12.5	93.1	
DPE-01	11/21/2018	14:20	100	5.0	11.0	82.9	
DPE-01	9/23/2019	16:15	100	1.0	4.6	89.5	

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-02							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-02	12/13/2017	10:15	100	9.0	9.5	335.8	
DPE-02	12/13/2017	14:35	100	9.0	9.0	374.2	
DPE-02	12/14/2017	12:00	100	9.0	8.5	311.2	
DPE-02	12/20/2017	13:30	100	10.5	13.5	136.4	
DPE-02	12/27/2017	13:40	100	9.5	11	154.1	
DPE-02	1/5/2018	16:45	100	10.0	13.0	140.2	
DPE-02	1/9/2018	17:00	100	5.0	4.5	139.5	
DPE-02	1/18/2018	14:50	100	5.5	7.5	57.8	
DPE-02	1/25/2018	9:00	100	7.0	7.0	46.7	
DPE-02	2/1/2018	11:00	100	6.5	9.0	36.7	
DPE-02	2/8/2018	10:20	100	6.0	6.0	26.3	
DPE-02	2/16/2018	13:15	100	10.0	13.0	21.5	
DPE-02	2/20/2018	14:30	100	6.0	4.5	28.7	
DPE-02	2/28/2018	14:30	100	7.0	9.0	22.2	
DPE-02	3/8/2018	12:00	100	9.0	9.0	16.4	
DPE-02	3/14/2018	12:30	100	9.0	9.5	16.2	
DPE-02	5/8/2018	14:10	100	4.5	10.0	10.3	
DPE-02	5/17/2018	16:45	0	0.0	6.0	#N/A	SVE Off
DPE-02	5/23/2018	16:25	0	0.0	6.0	#N/A	SVE Off
DPE-02	5/29/2018	17:00	100	6.5	13.5	5.3	
DPE-02	6/7/2018	16:45	100	7.0	16.0	11.7	
DPE-02	6/15/2018	14:00	20	2.0	6.0	11.0	
DPE-02	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE Off
DPE-02	7/11/2018	14:10	100	5.0	12.0	2.0	
DPE-02	7/19/2018	15:00	100	5.0	11.0	15.0	
DPE-02	7/26/2018	16:00	100	5.0	14.0	2.1	
DPE-02	8/3/2018	15:30	0	0.0	6.0	#N/A	SVE Off
DPE-02	8/7/2018	12:30	0	0.0	6.5	#N/A	SVE Off
DPE-02	8/15/2018	14:30	0	0.0	7.0	#N/A	SVE Off
DPE-02	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE Off
DPE-02	10/18/2018	16:00	100	5.0	8.0	18.8	
DPE-02	10/26/2018	16:30	100	5.0	7.5	15.3	
DPE-02	11/7/2018	16:30	100	5.5	12.5	8.0	
DPE-02	11/13/2018	14:00	100	4.0	6.5	6.4	
DPE-02	11/21/2018	14:20	100	5.0	7.0	6.8	
DPE-02	9/23/2019	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-03							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ²	Comments
	mm/dd/yy	hh:mm ¹	% open	in Hg	in Hg	ppmv	
DPE-03	12/13/2017	10:15	100	9.0	12.0	365.0	
DPE-03	12/13/2017	14:35	100	9.0	10.5	396.5	
DPE-03	12/14/2017	12:00	100	9.0	10.0	299.1	
DPE-03	12/20/2017	13:30	100	10.0	14.0	89.9	Water in line
DPE-03	12/27/2017	13:40	100	10.0	14.0	57.3	
DPE-03	1/5/2018	16:45	100	11.0	15.0	75.4	
DPE-03	1/9/2018	17:00	100	5.0	5.0	73.2	
DPE-03	1/18/2018	14:50	100	5.0	9.5	29.1	
DPE-03	1/25/2018	9:00	40	2.5	3.0	12.7	
DPE-03	2/1/2018	11:00	100	7.0	10.0	66.2	
DPE-03	2/8/2018	10:20	100	5.5	8.5	26.2	
DPE-03	2/16/2018	13:15	100	13.0	15.0	#N/A	Water in line
DPE-03	2/20/2018	14:30	100	6.0	5.5	36.4	
DPE-03	2/28/2018	14:30	100	7.0	11.0	9.6	
DPE-03	3/8/2018	12:00	100	7.0	10.0	26.7	
DPE-03	3/14/2018	12:30	100	9.5	11.5	7.5	
DPE-03	5/8/2018	14:10	100	5.0	14.5	18.8	
DPE-03	5/17/2018	16:45	0	0.0	9.0	#N/A	SVE Off
DPE-03	5/23/2018	16:25	0	0.0	10.0	#N/A	SVE Off
DPE-03	5/29/2018	17:00	100	7.0	18.0	53.6	
DPE-03	6/7/2018	16:45	100	8.0	21.0	#N/A	Water in line
DPE-03	6/15/2018	14:00	100	6.0	15.0	20.0	
DPE-03	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE Off
DPE-03	7/11/2018	14:10	100	5.0	17.0	27.0	
DPE-03	7/19/2018	15:00	100	5.0	15.0	18.0	
DPE-03	7/26/2018	16:00	100	6.5	21.0	16.0	
DPE-03	8/3/2018	15:30	0	0.0	11.0	#N/A	SVE Off
DPE-03	8/7/2018	12:30	0	0.0	12.5	#N/A	SVE Off
DPE-03	8/15/2018	14:30	0	0.0	14.0	#N/A	SVE Off
DPE-03	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE Off
DPE-03	10/18/2018	16:00	100	9.0	14.0	35.8	
DPE-03	10/26/2018	16:30	100	5.0	14.0	30.1	
DPE-03	11/7/2018	16:30	100	5.0	17.0	19.5	
DPE-03	11/13/2018	14:00	100	4.0	12.5	5.4	
DPE-03	11/21/2018	14:20	100	5.0	12.5	5.6	
DPE-03	9/23/2019	16:17	100	1.0	4.6	19.4	

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-04							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-04	12/13/2017	10:15	100	9.0	10.5	596.0	
DPE-04	12/13/2017	14:35	100	9.0	9.5	780.7	
DPE-04	12/14/2017	12:00	100	9.0	9.5	612.5	
DPE-04	12/20/2017	13:30	100	11.0	14.5	520.2	
DPE-04	12/27/2017	13:40	100	10.0	14.0	231.2	
DPE-04	1/5/2018	16:45	100	11.0	14.5	281.2	
DPE-04	1/9/2018	17:00	100	5.5	5.0	307.6	
DPE-04	1/18/2018	14:50	100	5.5	8.0	62.6	
DPE-04	1/25/2018	9:00	50	6.0	5.0	40.1	
DPE-04	2/1/2018	11:00	100	7.0	8.5	47.2	
DPE-04	2/8/2018	10:20	100	6.0	7.0	45.2	
DPE-04	2/16/2018	13:15	100	13.0	15.0	482.1	
DPE-04	2/20/2018	14:30	100	6.0	5.5	56.8	
DPE-04	2/28/2018	14:30	100	7.0	10.5	45.4	
DPE-04	3/8/2018	12:00	100	7.0	9.0	68.2	
DPE-04	3/14/2018	12:30	100	9.5	10.0	27.3	
DPE-04	5/8/2018	14:10	100	5.0	14.0	50.2	
DPE-04	5/17/2018	16:45	0	0.0	7.0	#N/A	SVE Off
DPE-04	5/23/2018	16:25	0	0.0	9.0	#N/A	SVE Off
DPE-04	5/29/2018	17:00	100	7.0	16.0	#N/A	Water in line
DPE-04	6/7/2018	16:45	100	8.0	20.0	73.8	
DPE-04	6/15/2018	14:00	100	6.0	14.0	53.0	
DPE-04	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE Off
DPE-04	7/11/2018	14:10	100	5.5	16.0	309.0	
DPE-04	7/19/2018	15:00	100	5.0	14.0	39.0	
DPE-04	7/26/2018	16:00	100	6.5	20.0	54.0	
DPE-04	8/3/2018	15:30	0	0.0	10.0	#N/A	SVE Off
DPE-04	8/7/2018	12:30	0	0.0	11.0	#N/A	SVE Off
DPE-04	8/15/2018	14:30	0	0.0	11.0	#N/A	SVE Off
DPE-04	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE Off / Faulted
DPE-04	10/18/2018	16:00	0	5.0	9.0	#N/A	SVE Off / Faulted
DPE-04	10/26/2018	16:30	0	5.0	10.0	#N/A	SVE Off / Faulted
DPE-04	11/7/2018	16:30	0	0.0	7.5	#N/A	SVE Off / Faulted
DPE-04	11/13/2018	14:00	0	0.0	7.5	#N/A	SVE Off / Faulted
DPE-04	11/21/2018	14:20	0	0.0	7.5	#N/A	SVE Off / Faulted
DPE-04	9/23/2019	16:15	n.m.	0.0	4.6	#N/A	SVE Off / Faulted

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-05							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-05	12/13/2017	10:15	100	7.0	8.0	83.3	
DPE-05	12/13/2017	14:35	100	7.0	7.0	88.8	
DPE-05	12/14/2017	12:00	100	6.5	7.0	53.4	
DPE-05	12/20/2017	13:30	100	9.0	13.0	14.0	
DPE-05	12/27/2017	13:40	100	9.0	11.0	5.1	
DPE-05	1/5/2018	16:45	100	9.0	10.5	6.8	
DPE-05	1/9/2018	17:00	100	5.0	4.0	2.6	
DPE-05	1/18/2018	14:50	100	5.0	6.0	2.6	
DPE-05	1/25/2018	9:00	60	5.5	4.5	2.7	
DPE-05	2/1/2018	11:00	100	6.5	7.0	3.1	
DPE-05	2/8/2018	10:20	100	5.5	6.0	3.4	
DPE-05	2/16/2018	13:15	60	7.0	7.0	0.0	
DPE-05	2/20/2018	14:30	100	4.5	4.0	4.8	
DPE-05	2/28/2018	14:30	100	5.5	8.0	3.5	
DPE-05	3/8/2018	12:00	80	7.5	7.5	3.5	
DPE-05	3/14/2018	12:30	80	7.0	9.0	1.0	
DPE-05	5/8/2018	14:10	100	4.5	8.5	1.2	
DPE-05	5/17/2018	16:45	0	0.0	0.0	#N/A	SVE Off
DPE-05	5/23/2018	16:25	0	0.0	0.0	#N/A	SVE Off
DPE-05	5/29/2018	17:00	0	0.0	0.0	#N/A	SVE Off
DPE-05	6/7/2018	16:45	0	5.0	10.0	#N/A	
DPE-05	6/15/2018	14:00	5	0.5	1.5	2.0	
DPE-05	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE Off
DPE-05	7/11/2018	14:10	0	0.0	0.0	4.0	SVE Off
DPE-05	7/19/2018	15:00	0	0.0	0.0	#N/A	SVE Off
DPE-05	7/26/2018	16:00	0	0.0	0.0	#N/A	SVE Off
DPE-05	8/3/2018	15:30	0	0.0	0.0	#N/A	SVE Off
DPE-05	8/7/2018	12:30	0	0.0	0.0	#N/A	SVE Off
DPE-05	8/15/2018	14:30	0	0.0	0.0	#N/A	SVE Off
DPE-05	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE Off
DPE-05	10/18/2018	16:00	100	4.0	4.0	2.9	
DPE-05	10/26/2018	16:30	100	4.5	4.5	3.1	
DPE-05	11/7/2018	16:30	100	5.0	8.0	1.5	
DPE-05	11/13/2018	14:00	100	3.0	2.0	1.2	
DPE-05	11/21/2018	14:20	100	4.0	4.5	1.3	
DPE-05	9/23/2019	16:19	100	3.0	4.6	20.5	

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-06							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-06	12/13/2017	10:15	100	9.0	8.0	20.2	
DPE-06	12/13/2017	14:35	100	9.0	8.0	32.5	
DPE-06	12/14/2017	12:00	100	9.0	8.0	11.0	
DPE-06	12/20/2017	13:30	100	11.0	13.0	9.1	
DPE-06	12/27/2017	13:40	100	10	11	4.1	
DPE-06	1/5/2018	16:45	100	10	12	5.8	
DPE-06	1/9/2018	17:00	100	5.0	5.0	3.1	
DPE-06	1/18/2018	14:50	100	5.0	7.5	3.0	
DPE-06	1/25/2018	9:00	100	8.0	9.5	1.7	
DPE-06	2/1/2018	11:00	100	7.0	9.5	2.2	
DPE-06	2/8/2018	10:20	100	6.0	7.5	1.9	
DPE-06	2/16/2018	13:15	100	14.0	15.5	0.0	
DPE-06	2/20/2018	14:30	100	6.0	6.0	3.2	
DPE-06	2/28/2018	14:30	100	7.0	10.0	2.2	
DPE-06	3/8/2018	12:00	100	10.0	10.5	2.0	
DPE-06	3/14/2018	12:30	100	9.5	13.5	0.7	
DPE-06	5/8/2018	14:10	100	5.0	12.0	0.2	
DPE-06	5/17/2018	16:45	0	0.0	6.5	#N/A	SVE Off
DPE-06	5/23/2018	16:25	0	0.0	7.0	#N/A	SVE Off
DPE-06	5/29/2018	17:00	100	7.0	14.0	1.9	
DPE-06	6/7/2018	16:45	100	8.0	18.0	2.5	
DPE-06	6/15/2018	14:00	100	6.0	10.0	1.0	
DPE-06	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE Off
DPE-06	7/11/2018	14:10	0	0.0	7.0	1.0	SVE Off
DPE-06	7/19/2018	15:00	0	0.0	6.0	#N/A	SVE Off
DPE-06	7/26/2018	16:00	0	0.0	8.0	#N/A	SVE Off
DPE-06	8/3/2018	15:30	0	0.0	8.0	#N/A	SVE Off
DPE-06	8/7/2018	12:30	0	0.0	8.5	#N/A	SVE Off
DPE-06	8/15/2018	14:30	0	0.0	8.0	#N/A	SVE Off
DPE-06	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE Off
DPE-06	10/18/2018	16:00	100	4.0	9.0	2.7	
DPE-06	10/26/2018	16:30	100	4.0	8.5	2.8	
DPE-06	11/7/2018	16:30	100	5.5	13.0	1.2	
DPE-06	11/13/2018	14:00	100	3.0	7.5	0.7	
DPE-06	11/21/2018	14:20	100	4.0	7.0	1.1	
DPE-06	9/23/2019	16:19	100	0.0	4.6	13.9	

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-07							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-07	12/13/2017	10:15	100	9.0	8.5	740.2	
DPE-07	12/13/2017	14:35	100	9.0	8.5	1006.0	
DPE-07	12/14/2017	12:00	100	9.5	8.0	658.8	
DPE-07	12/20/2017	13:30	100	11.0	14.0	#N/A	Water in line
DPE-07	12/27/2017	13:40	100	9.5	12	274.2	
DPE-07	1/5/2018	16:45	100	11	12	236.2	
DPE-07	1/9/2018	17:00	100	5.5	2.5	207.0	
DPE-07	1/18/2018	14:50	100	5.5	7.0	32.8	
DPE-07	1/25/2018	9:00	50	4.5	4.5	18.9	
DPE-07	2/1/2018	11:00	80	6.5	7.5	9.2	
DPE-07	2/8/2018	10:20	100	6.0	6.0	12.7	
DPE-07	2/16/2018	13:15	100	13.0	13.0	42.6	
DPE-07	2/20/2018	14:30	100	6.0	3.0	32.1	
DPE-07	2/28/2018	14:30	100	6.5	9.0	11.3	
DPE-07	3/8/2018	12:00	0	0.0	0.0	#N/A	SVE off
DPE-07	3/14/2018	12:30	0	0.0	0.0	#N/A	SVE off
DPE-07	5/8/2018	14:10	100	5.0	13.5	#N/A	Water in line
DPE-07	5/17/2018	16:45	0	0.0	8.0	#N/A	SVE off
DPE-07	5/23/2018	16:25	0	0.0	7.0	#N/A	SVE off
DPE-07	5/29/2018	17:00	100	8.0	10.0	#N/A	
DPE-07	6/7/2018	16:45	100	9.0	21.0	39.0	
DPE-07	6/15/2018	14:00	100	5.5	12.5	12.0	
DPE-07	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE off
DPE-07	7/11/2018	14:10	0	0.0	10.0	0.0	SVE off
DPE-07	7/19/2018	15:00	0	0.0	7.0	#N/A	SVE off
DPE-07	7/26/2018	16:00	0	0.0	12.0	#N/A	SVE off
DPE-07	8/3/2018	15:30	0	0.0	9.0	#N/A	SVE off
DPE-07	8/7/2018	12:30	0	0.0	9.5	#N/A	SVE off
DPE-07	8/15/2018	14:30	0	0.0	11.0	#N/A	SVE off
DPE-07	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE off
DPE-07	10/18/2018	16:00	100	0.0	11.0	194.6	
DPE-07	10/26/2018	16:30	100	0.0	10.0	185.6	
DPE-07	11/7/2018	16:30	100	7.0	15.0	226.9	
DPE-07	11/13/2018	14:00	100	5.0	10.0	45.0	
DPE-07	11/21/2018	14:20	100	5.0	10.5	42.6	
DPE-07	9/23/2019	16:20	100	2.5	4.6	42.3	

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-08							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-08	12/13/2017	10:15	0	0.0	0.0	#N/A	SVE off
DPE-08	12/13/2017	14:35	0	0.0	0.0	#N/A	SVE off
DPE-08	12/14/2017	12:00	0	0.0	0.0	#N/A	SVE off
DPE-08	12/20/2017	13:30	0	0.0	4.0	#N/A	SVE off
DPE-08	12/27/2017	13:40	0	0.0	4.0	#N/A	SVE off
DPE-08	1/5/2018	16:45	0	0.0	3.0	#N/A	SVE off
DPE-08	1/9/2018	17:00	0	0.0	4.5	#N/A	SVE off
DPE-08	1/18/2018	14:50	0	0.0	0.0	#N/A	SVE off
DPE-08	1/25/2018	9:00	50	4.5	4.5	1.4	
DPE-08	2/1/2018	11:00	50	1.0	4.5	1.5	
DPE-08	2/8/2018	10:20	0	0.0	0.0	#N/A	SVE off
DPE-08	2/16/2018	13:15	0	0.0	0.0	#N/A	SVE off
DPE-08	2/20/2018	14:30	0	0.0	0.0	#N/A	SVE off
DPE-08	2/28/2018	14:30	50	3.0	7.0	1.6	
DPE-08	3/8/2018	12:00	0	0.0	0.0	#N/A	SVE off
DPE-08	3/14/2018	12:30	0	0.0	0.0	#N/A	SVE off
DPE-08	5/8/2018	14:10	100	--	11	0.0	
DPE-08	5/17/2018	16:45	0	0.0	6.5	#N/A	SVE off
DPE-08	5/23/2018	16:25	0	0.0	7.0	#N/A	SVE off
DPE-08	5/29/2018	17:00	0	0.0	8.0	#N/A	SVE off
DPE-08	6/7/2018	16:45	0	0.0	8.0	#N/A	SVE off
DPE-08	6/15/2018	14:00	0	0.0	8.0	#N/A	SVE off
DPE-08	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE off
DPE-08	7/11/2018	14:10	0	0.0	8.0	#N/A	SVE off
DPE-08	7/19/2018	15:00	0	0.0	0.0	#N/A	SVE off
DPE-08	7/26/2018	16:00	0	0.0	10.0	#N/A	SVE off
DPE-08	8/3/2018	15:30	0	0.0	8.0	#N/A	SVE off
DPE-08	8/7/2018	12:30	0	0.0	8.0	#N/A	SVE off
DPE-08	8/15/2018	14:30	0	0.0	9.0	#N/A	SVE off
DPE-08	10/10/2018	17:10	0	0.0	7.5	#N/A	SVE off
DPE-08	10/18/2018	16:00	0	0.0	7.0	#N/A	SVE off
DPE-08	10/26/2018	16:30	0	0.0	8.0	#N/A	SVE off
DPE-08	11/7/2018	16:30	0	0.0	5.0	#N/A	SVE off
DPE-08	11/13/2018	14:00	100	4.0	8.5	1.6	
DPE-08	11/21/2018	14:20	0	0.0	4.5	#N/A	SVE off
DPE-08	9/23/2019	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-09							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-09	12/13/2017	10:15	0	0.0	0.0	#N/A	SVE off
DPE-09	12/13/2017	14:35	0	0.0	0.0	#N/A	SVE off
DPE-09	12/14/2017	12:00	0	0.0	0.0	#N/A	SVE off
DPE-09	12/20/2017	13:30	0	0.0	0.5	#N/A	SVE off
DPE-09	12/27/2017	13:40	0	0.0	0.5	#N/A	SVE off
DPE-09	1/5/2018	16:45	0	0.0	0.5	#N/A	SVE off
DPE-09	1/9/2018	17:00	0	0.0	0.0	#N/A	SVE off
DPE-09	1/18/2018	14:50	0	0.0	0.0	#N/A	SVE off
DPE-09	1/25/2018	9:00	40	2.0	4.5	44.6	
DPE-09	2/1/2018	11:00	40	3.5	4.0	18.6	
DPE-09	2/8/2018	10:20	0	0.0	0.0	#N/A	SVE off
DPE-09	2/16/2018	13:15	0	0.0	0.0	#N/A	SVE off
DPE-09	2/20/2018	14:30	0	0.0	0.0	#N/A	SVE off
DPE-09	2/28/2018	14:30	0	0.0	0.0	#N/A	SVE off
DPE-09	3/8/2018	12:00	0	0.0	0.0	#N/A	SVE off
DPE-09	3/14/2018	12:30	0	0.0	0.0	#N/A	SVE off
DPE-09	5/8/2018	14:10	100	0.0	1.5	0.8	
DPE-09	5/17/2018	16:45	0	0.0	0.0	#N/A	SVE off
DPE-09	5/23/2018	16:25	0	0.0	0.0	#N/A	SVE off
DPE-09	5/29/2018	17:00	0	0.0	0.0	#N/A	SVE off
DPE-09	6/7/2018	16:45	0	0.0	0.0	#N/A	SVE off
DPE-09	6/15/2018	14:00	0	0.0	0.5	#N/A	SVE off
DPE-09	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE off
DPE-09	7/11/2018	14:10	0	0.0	0.0	#N/A	SVE off
DPE-09	7/19/2018	15:00	0	0.0	0.0	#N/A	SVE off
DPE-09	7/26/2018	16:00	0	0.0	2.0	#N/A	SVE off
DPE-09	8/3/2018	15:30	0	0.0	1.0	#N/A	SVE off
DPE-09	8/7/2018	12:30	0	0.0	1.0	#N/A	SVE off
DPE-09	8/15/2018	14:30	0	0.0	2.0	#N/A	SVE off
DPE-09	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE off
DPE-09	10/18/2018	16:00	0	0.0	0.0	#N/A	SVE off
DPE-09	10/26/2018	16:30	0	0.0	0.0	#N/A	SVE off
DPE-09	11/7/2018	16:30	0	0.0	0.0	#N/A	SVE off
DPE-09	11/13/2018	14:00	100	1.0	1.0	3.2	
DPE-09	11/21/2018	14:20	0	0.0	0.0	#N/A	SVE off
DPE-09	9/23/2019	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-10							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-10	12/13/2017	10:15	100	7.0	6.5	98.5	
DPE-10	12/13/2017	14:35	100	7.0	6.5	79.3	
DPE-10	12/14/2017	12:00	100	7.0	7.0	82.1	
DPE-10	12/20/2017	13:30	100	8.5	9.0	#N/A	Water in line
DPE-10	12/27/2017	13:40	100	8	8	39.2	
DPE-10	1/5/2018	16:45	100	7.5	8	#N/A	Water in line
DPE-10	1/9/2018	17:00	100	4.5	3	44.8	
DPE-10	1/18/2018	14:50	100	5.0	5.0	16.8	
DPE-10	1/25/2018	9:00	50	5.0	5.0	18.7	
DPE-10	2/1/2018	11:00	50	4.0	4.0	7.0	
DPE-10	2/8/2018	10:20	0	0.0	0.0	#N/A	SVE off
DPE-10	2/16/2018	13:15	0	0.0	0.0	#N/A	SVE off
DPE-10	2/20/2018	14:30	0	0.0	0.0	#N/A	SVE off
DPE-10	2/28/2018	14:30	0	0.0	0.0	#N/A	SVE off
DPE-10	3/8/2018	12:00	0	0.0	0.0	#N/A	SVE off
DPE-10	3/14/2018	12:30	0	0.0	0.0	#N/A	SVE off
DPE-10	5/8/2018	14:10	100	4.0	9.5	0.3	
DPE-10	5/17/2018	16:45	0	0.0	0.0	#N/A	SVE off
DPE-10	5/23/2018	16:25	0	0.0	0.0	#N/A	SVE off
DPE-10	5/29/2018	17:00	0	0.0	0.0	#N/A	SVE off
DPE-10	6/7/2018	16:45	0	0.0	0.0	#N/A	SVE off
DPE-10	6/15/2018	14:00	0	0.0	0.0	#N/A	SVE off
DPE-10	7/5/2018	13:00	0	0.0	0.0	#N/A	SVE off
DPE-10	7/11/2018	14:10	0	0.0	0.0	#N/A	SVE off
DPE-10	7/19/2018	15:00	0	0.0	0.0	#N/A	SVE off
DPE-10	7/26/2018	16:00	0	0.0	2.0	#N/A	SVE off
DPE-10	8/3/2018	15:30	0	0.0	1.0	#N/A	SVE off
DPE-10	8/7/2018	12:30	0	0.0	0.5	#N/A	SVE off
DPE-10	8/15/2018	14:30	0	0.0	2.0	#N/A	SVE off
DPE-10	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE off
DPE-10	10/18/2018	16:00	0	0.0	0.0	#N/A	SVE off
DPE-10	10/26/2018	16:30	0	0.0	0.0	#N/A	SVE off
DPE-10	11/7/2018	16:30	0	0.0	0.0	#N/A	SVE off
DPE-10	11/13/2018	14:00	100	2.0	2.0	1.1	
DPE-10	11/21/2018	14:20	0	0.0	0.0	#N/A	SVE off
DPE-10	9/23/2019	#N/A	#N/A	#N/A	#N/A	#N/A	Disconnected

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-11							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-11	12/13/2017	10:15	100	9.0	7.0	#N/A	Water in line
DPE-11	12/13/2017	14:35	100	9.0	7.5	#N/A	Water in line
DPE-11	12/14/2017	12:00	100	9.0	8.5	#N/A	Water in line
DPE-11	12/20/2017	13:30	100	10.5	12.0	#N/A	Water in line
DPE-11	12/27/2017	13:40	100	8.5	9.5	#N/A	Water in line
DPE-11	1/5/2018	16:45	100	9	10	#N/A	Water in line
DPE-11	1/9/2018	17:00	100	5.5	5	326.5	
DPE-11	1/18/2018	14:50	100	5.0	5.0	#N/A	Water in line
DPE-11	1/25/2018	9:00	40	4.5	5.0	96.9	
DPE-11	2/1/2018	11:00	40	3.5	5.0	71.8	
DPE-11	2/8/2018	10:20	0	0.0	0.0	#N/A	SVE off
DPE-11	2/16/2018	13:15	0	0.0	0.0	#N/A	SVE off
DPE-11	2/20/2018	14:30	0	0.0	0.0	#N/A	SVE off
DPE-11	2/28/2018	14:30	0	0.0	0.0	#N/A	SVE off
DPE-11	3/8/2018	12:00	0	0.0	0.0	#N/A	SVE off
DPE-11	3/14/2018	12:30	0	0.0	0.0	#N/A	SVE off
DPE-11	5/8/2018	14:10	100	4.0	10.0	#N/A	Water in line
DPE-11	5/17/2018	16:45	100	7.0	12.0	1.0	
DPE-11	5/23/2018	16:25	100	9.0	14.0	1.2	
DPE-11	5/29/2018	17:00	100	7.5	12.5	#N/A	Water in line
DPE-11	6/7/2018	16:45	0	0.0	6.0	#N/A	SVE off
DPE-11	6/15/2018	14:00	80	6.0	10.0	198.0	
DPE-11	7/5/2018	13:00	100	9.5	17.5	#NA	Water in line
DPE-11	7/11/2018	14:10	100	4.0	12.0	81.0	
DPE-11	7/19/2018	15:00	100	4.0	12.0	86.0	
DPE-11	7/26/2018	16:00	100	5.0	14.0	80.0	
DPE-11	8/3/2018	15:30	100	5.0	15.0	125.0	
DPE-11	8/7/2018	12:30	100	9.0	15.0	86.0	
DPE-11	8/15/2018	14:30	100	9.5	16.0	80.0	
DPE-11	10/10/2018	17:10	0	0.0	3.5	#N/A	SVE off
DPE-11	10/18/2018	16:00	0	0.0	4.0	#N/A	SVE off
DPE-11	10/26/2018	16:30	0	0.0	4.0	#N/A	SVE off
DPE-11	11/7/2018	16:30	100	6.0	9.0	#N/A	Water in line
DPE-11	11/13/2018	14:00	100	4.0	9.0	23.0	
DPE-11	11/21/2018	14:20	100	4.0	5.5	21.3	
DPE-11	9/23/2019	16:20	100	0.0	4.6	55.4	

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-12 / DPE-12-R							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-12	12/13/2017	10:15	0	0.0	0.0	#N/A	SVE off
DPE-12	12/13/2017	14:35	0	0.0	0.0	#N/A	SVE off
DPE-12	12/14/2017	12:00	0	0.0	0.0	#N/A	SVE off
DPE-12	12/20/2017	13:30	0	0.0	0.0	#N/A	SVE off
DPE-12	12/27/2017	13:40	0	0.0	0.0	#N/A	SVE off
DPE-12	1/5/2018	16:45	0	0.0	0.0	#N/A	SVE off
DPE-12	1/9/2018	17:00	0	0.0	0.0	#N/A	SVE off
DPE-12	1/18/2018	14:50	0	0.0	0.0	#N/A	SVE off
DPE-12	1/25/2018	9:00	0	0.0	0.0	#N/A	SVE off
DPE-12	2/1/2018	11:00	0	0.0	0.0	#N/A	SVE off
DPE-12	2/8/2018	10:20	0	0.0	0.0	#N/A	SVE off
DPE-12	2/16/2018	13:15	0	0.0	0.0	#N/A	SVE off
DPE-12	2/20/2018	14:30	0	0.0	0.0	#N/A	SVE off
DPE-12	2/28/2018	14:30	0	0.0	0.0	#N/A	SVE off
DPE-12	3/8/2018	12:00	0	0.0	0.0	#N/A	SVE off
DPE-12	3/14/2018	12:30	0	0.0	0.0	#N/A	SVE off
DPE-12-R ⁵ .	5/8/2018	14:10	100	3.5	10.5	5.5	
DPE-12-R	5/17/2018	16:45	100	4.0	10.5	2.3	
DPE-12-R	5/23/2018	16:25	100	10.0	15.0	7.2	
DPE-12-R	5/29/2018	17:00	100	5.0	11.0	3.9	
DPE-12-R	6/7/2018	16:45	0	0.0	6.5	#N/A	SVE off
DPE-12-R	6/15/2018	14:00	100	6.5	10.5	5.0	
DPE-12-R	7/5/2018	13:00	100	5.0	17.5	2.0	
DPE-12-R	7/11/2018	14:10	100	0.0	13.0	3.0	
DPE-12-R	7/19/2018	15:00	100	5.5	13.0	7.0	
DPE-12-R	7/26/2018	16:00	100	7.0	15.5	6.0	
DPE-12-R	8/3/2018	15:30	100	7.5	15.0	8.0	
DPE-12-R	8/7/2018	12:30	100	5.0	15.0	8.0	
DPE-12-R	8/15/2018	14:30	100	5.5	16.0	7.0	
DPE-12-R	10/10/2018	17:10	0	0.0	0.0	#N/A	SVE off
DPE-12-R	10/18/2018	16:00	0	0.0	6.0	#N/A	SVE off
DPE-12-R	10/26/2018	16:30	0	0.0	0.0	#N/A	SVE off
DPE-12-R	11/7/2018	16:30	100	4.5	10.0	2.4	
DPE-12-R	11/13/2018	14:00	100	3.0	8.0	2.3	
DPE-12-R	11/21/2018	14:20	100	3.0	8.0	2.3	
DPE-12-R	9/23/2019	16:20	100	0.0	4.6	16.2	

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-13 ³								
DPE Well ID	Date	Time	Manifold SVE Valve Position	DPE-13 Wellhead Vacuum	SVE-1 Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ²	Comments
	mm/dd/yy	hh:mm ¹	% open	in Hg	in Hg	in Hg	ppmv	
DPE-13	12/13/2017	10:15	100	8.0	#N/A	5.5	#N/A	Water in line
DPE-13	12/13/2017	14:35	100	8.0	#N/A	6.0	#N/A	Water in line
DPE-13	12/14/2017	12:00	100	9.0	#N/A	7.5	60.9	
DPE-13	12/20/2017	13:30	100	10.0	7.0	11.0	40.1	
DPE-13	12/27/2017	13:40	100	8.5	6.0	9.0	30.7	
DPE-13	1/5/2018	16:45	100	8.0	5.5	8.0	#N/A	Water in line
DPE-13	1/9/2018	17:00	100	4.5	5.0	3.0	49.7	
DPE-13	1/18/2018	14:50	100	5.0	5.0	5.5	8.2	
DPE-13	1/25/2018	9:00	40	2.5	7.0	4.5	23.0	
DPE-13	2/1/2018	11:00	40	1.0	4.5	4.5	13.6	
DPE-13	2/8/2018	10:20	0	0.0	0.0	0.0	#N/A	SVE off
DPE-13	2/16/2018	13:15	0	0.0	0.0	0.0	#N/A	SVE off
DPE-13	2/20/2018	14:30	0	0.0	0.0	0.0	#N/A	SVE off
DPE-13	2/28/2018	14:30	0	0.0	0.0	0.0	#N/A	SVE off
DPE-13	3/8/2018	12:00	0	0.0	0.0	0.0	#N/A	SVE off
DPE-13	3/14/2018	12:30	0	0.0	0.0	0.0	#N/A	SVE off
DPE-13	5/8/2018	14:10	100	6.0	5.0	10.0	3.9	
DPE-13	5/17/2018	16:45	100	8.0	6.0	12.0	1.40	
DPE-13	5/23/2018	16:25	100	10.0	6.5	16.0	15.80	
DPE-13	5/29/2018	17:00	100	8.0	6.0	13.0	7.80	
DPE-13	6/7/2018	16:45	0	0.0	0.0	7.5	#N/A	SVE off
DPE-13	6/15/2018	14:00	100	7.0	5.5	12.5	24.0	
DPE-13	7/5/2018	13:00	100	6.0	7.0	18.5	#N/A	Water in line
DPE-13	7/11/2018	14:10	100	7.0	5.5	15.0	6.0	
DPE-13	7/19/2018	15:00	100	5.0	5.5	13.0	9.0	
DPE-13	7/26/2018	16:00	100	7.0	6.0	17.0	11.0	
DPE-13	8/3/2018	15:30	100	7.0	6.0	18.0	7.0	
DPE-13	8/7/2018	12:30	100	6.5	7.0	18.0	5.0	
DPE-13	8/15/2018	14:30	100	8.0	6.0	19.0	8.0	
DPE-13	10/10/2018	17:10	0	0.0	0.0	0.0	#N/A	SVE Off
DPE-13	10/18/2018	16:00	0	0.0	0.0	8.0	#N/A	SVE Off
DPE-13	10/26/2018	16:30	0	0.0	5.0	5.0	#N/A	SVE Off
DPE-13	11/7/2018	16:30	0	0.0	0.0	4.5	#N/A	SVE Off
DPE-13	11/13/2018	14:00	100	4.0	0.0	5.0	#N/A	Water in line
DPE-13	11/21/2018	14:20	0	0.0	0.0	4.0	#N/A	SVE Off
DPE-13	9/23/2019	16:21	100	0.5	4.6	0.5	35.9	

Table 4-5
Dual Phase Extraction Well Vapor Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

DPE-14 ⁴								
DPE Well ID	Date	Time	Manifold SVE Valve Position	DPE-14 Wellhead Vacuum	SVE-2 Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ²	Comments
	mm/dd/yy	hh:mm ¹	% open	in Hg	in Hg	in Hg	ppmv	
DPE-14	12/13/2017	10:15	100	9.0	#N/A	7.0	#N/A	Water in line
DPE-14	12/13/2017	14:35	100	8.5	#N/A	7.5	#N/A	Water in line
DPE-14	12/14/2017	12:00	100	8.0	#N/A	8.0	41.3	
DPE-14	12/20/2017	13:30	100	10.0	5.0	12.0	49.1	
DPE-14	12/27/2017	13:40	100	8.0	6.0	9.0	39.6	
DPE-14	1/5/2018	16:45	100	9.5	6.0	10.5	21.7	
DPE-14	1/9/2018	17:00	100	5.0	2.5	4.5	39.3	
DPE-14	1/18/2018	14:50	100	5.0	4.0	7.0	24.3	
DPE-14	1/25/2018	9:00	100	7.0	5.0	7.0	20.3	
DPE-14	2/1/2018	11:00	100	5.0	4.0	6.5	#N/A	Water in line
DPE-14	2/8/2018	10:20	0	0.0	0.0	0.0	#N/A	SVE off
DPE-14	2/16/2018	13:15	0	0.0	0.0	0.0	#N/A	SVE off
DPE-14	2/20/2018	14:30	0	0.0	0.0	0.0	#N/A	SVE off
DPE-14	2/28/2018	14:30	0	0.0	0.0	0.0	#N/A	SVE off
DPE-14	3/8/2018	12:00	0	0.0	0.0	0.0	#N/A	SVE off
DPE-14	3/14/2018	12:30	0	0.0	0.0	0.0	#N/A	SVE off
DPE-14	5/8/2018	14:10	100	4.0	4.0	12.5	#N/A	Water in line
DPE-14	5/17/2018	16:45	100	5.0	4.5	12.0	4.2	
DPE-14	5/23/2018	16:25	100	9.0	5.5	16.0	9.8	
DPE-14	5/29/2018	17:00	100	6.5	6.0	13.0	15.0	
DPE-14	6/7/2018	16:45	0	0.0	0.0	6.5	#N/A	SVE off
DPE-14	6/15/2018	14:00	100	6.0	6.0	11.0	18.0	
DPE-14	7/5/2018	13:00	100	6.5	7.0	18.0	17.0	
DPE-14	7/11/2018	14:10	100	5.0	5.0	14.0	11.0	
DPE-14	7/19/2018	15:00	100	5.0	5.0	11.5	11.0	
DPE-14	7/26/2018	16:00	100	6.0	5.5	16.0	9.0	
DPE-14	8/3/2018	15:30	100	6.0	5.0	16.0	8.0	
DPE-14	8/7/2018	12:30	100	8.0	7.0	16.0	8.0	
DPE-14	8/15/2018	14:30	100	8.0	6.0	16.5	9.0	
DPE-14	10/10/2018	17:10	0	0.0	0.0	0.0	#N/A	SVE Off
DPE-14	10/18/2018	16:00	0	0.0	0.0	7.0	#N/A	SVE Off
DPE-14	10/26/2018	16:30	0	0.0	0.0	6.0	#N/A	SVE Off
DPE-14	11/7/2018	16:30	0	0.0	0.0	6.0	#N/A	SVE Off
DPE-14	11/13/2018	14:00	100	4.0	0.0	7.5	1.0	
DPE-14	11/21/2018	14:20	0	0.0	0.0	6.5	#N/A	SVE Off
DPE-14	9/23/2019	16:21	100	0.0	4.6	0.0	23.7	

Table 4-5
 Dual Phase Extraction Well Vapor Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

DPE-15							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-15	9/23/2019	16:22	100	2.0	4.6	19.8	

DPE-16							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-16	9/23/2019	16:22	100	0.0	4.6	23.2	Water in line

DPE-17							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-17	9/23/2019	16:22	100	0.0	4.6	182.3	

DPE-18							
DPE Well ID	Date	Time	Manifold SVE Valve Position	Wellhead Vacuum	Manifold Vacuum	VOCs Concentration ² .	Comments
	mm/dd/yy	hh:mm ¹ .	% open	in Hg	in Hg	ppmv	
DPE-18	9/23/2019	16:20	100	1.0	4.6	32.0	

Notes
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Data Sheet Name	Notes
Table 4-5 Dual-Phase Extraction Well Vapor Data	<p>¹. hh:mm in data sheets is reported in 24 hour format</p> <p>². VOCs concentration measured in the field by photoionization detector (PID) reading</p> <p>³. SVE well SVE -2 is connected to the individual vapor conveyance line for DPE-13.</p> <p>⁴. SVE well SVE -1 is connected to the individual vapor conveyance line for DPE-14.</p> <p>⁵. DPE-12 was decommissioned and DPE-12R was installed approximately four feet to the west on 03/22/18.</p> <p>DPE well = dual phase extraction well; remediation well used for both groundwater and soil vapor extraction</p> <p>in Hg = inches mercury</p> <p>ppmv = parts per million vapor</p> <p>#N/A = not applicable, not available</p> <p>SVE = soil vapor extraction</p>

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
PZ-1	12.96	11/28/2017	9:22	#N/A	DPE-1	17.8	6.22	6.74	#N/A	DPE system baseline event before system startup - System off
PZ-1	12.96	11/30/2017	15:04	#N/A	DPE-1	17.8	7.51	5.45	1.29	DPE system testing
PZ-1	12.96	12/1/2017	15:41	#N/A	DPE-1	17.8	8.85	4.11	2.63	DPE system startup (groundwater extraction only)
PZ-1	12.96	12/5/2017	13:13	#N/A	DPE-1	17.8	9.29	3.67	3.07	
PZ-1	12.96	12/13/2017	11:51	114.0	DPE-1	17.8	9.48	3.48	3.26	
PZ-1	12.96	12/13/2017	15:50	114.0	DPE-1	17.8	9.88	3.08	3.66	
PZ-1	12.96	12/14/2017	14:12	116.8	DPE-1	17.8	10.34	2.62	4.12	
PZ-1	12.96	12/20/2017	15:16	161.4	DPE-1	17.8	9.04	3.92	2.82	
PZ-1	12.96	12/27/2017	12:40	23.8	DPE-1	17.8	9.02	3.94	2.8	
PZ-1	12.96	1/5/2018	15:52	556.2	DPE-1	17.8	9.13	3.83	2.91	
PZ-1	12.96	1/9/2018	15:31	87.9	DPE-1	17.8	8.75	4.21	2.53	
PZ-1	12.96	1/18/2018	13:40	99.0	DPE-1	17.8	8.54	4.42	2.32	
PZ-1	12.96	1/24/2018	14:48	65.0	DPE-1	17.8	8.13	4.83	1.91	
PZ-1	12.96	2/1/2018	9:36	117.0	DPE-1	17.8	9.09	3.87	2.87	
PZ-1	12.96	2/8/2018	9:27	90.1	DPE-1	17.8	9.14	3.82	2.92	
PZ-1	12.96	2/13/2018	14:52	#N/A	DPE-1	17.8	9.31	3.65	3.09	SVE off
PZ-1	12.96	2/20/2018	14:41	92.7	DPE-1	17.8	9.50	3.46	3.28	
PZ-1	12.96	2/28/2018	15:47	106.2	DPE-1	17.8	9.59	3.37	3.37	
PZ-1	12.96	3/8/2018	15:05	122.2	DPE-1	17.8	9.31	3.65	3.09	
PZ-1	12.96	3/14/2018	15:01	157.2	DPE-1	17.8	9.11	3.85	2.89	
PZ-1	12.96	5/29/2018	15:14	2.9	DPE-1	17.8	9.19	3.77	2.97	
PZ-1	12.96	6/18/2018	14:59	0.0	DPE-1	17.8	9.61	3.35	3.39	SVE off
PZ-1	12.96	7/19/2018	16:43	93.1	DPE-1	17.8	8.90	4.06	2.68	
PZ-1	12.96	8/7/2018	11:22	0.0	DPE-1	17.8	6.66	6.3	0.44	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
PZ-1	12.96	10/26/2018	15:18	6.2	DPE-1	17.8	8.98	3.98	2.76	
PZ-1	12.96	11/13/2018	15:53	24.1	DPE-1	17.8	9.39	3.57	3.17	
PZ-1	12.96	1/29/2019	13:47	0.0	DPE-1	17.8	9.07	3.89	2.85	
PZ-1	12.96	2/21/2019	11:40	0.0	DPE-1	17.8	8.90	4.06	2.68	
PZ-1	12.96	3/14/2019	13:36	0.0	DPE-1	17.8	9.11	3.85	2.89	
PZ-1	12.96	4/11/2019	13:13	0.0	DPE-1	17.8	8.42	4.54	2.2	
PZ-1	12.96	5/9/2019	14:45	0.0	DPE-1	17.8	8.99	3.97	2.77	
PZ-1	12.96	6/6/2019	13:56	0.0	DPE-1	17.8	9.12	3.84	2.9	
PZ-1	12.96	8/1/2019	10:58	0.0	DPE-1	17.8	7.12	5.84	0.9	DPE system expansion baseline event before system startup - System off
PZ-1	12.96	8/15/2019	9:45	0.0	DPE-1	17.8	7.20	5.76	0.98	
PZ-1	12.96	8/21/2019	11:24	0.0	DPE-1	17.8	8.27	4.69	2.05	
PZ-1	12.96	9/24/2019	9:59	n.m.	DPE-1	17.8	9.35	3.61	3.13	
PZ-2	13.18	11/28/2017	9:20	#N/A	DPE-1	8	6.24	6.94	#N/A	DPE system baseline event before system startup - System off
PZ-2	13.18	11/30/2017	15:46	#N/A	DPE-1	8	7.84	5.34	1.60	DPE system testing
PZ-2	13.18	12/1/2017	15:40	#N/A	DPE-1	8	9.36	3.82	3.12	DPE system startup (groundwater extraction only)
PZ-2	13.18	12/5/2017	13:09	#N/A	DPE-1	8	10.25	2.93	4.01	
PZ-2	13.18	12/13/2017	11:46	235.0	DPE-1	8	10.19	2.99	3.95	
PZ-2	13.18	12/13/2017	15:41	288.5	DPE-1	8	9.85	3.33	3.61	
PZ-2	13.18	12/14/2017	14:05	279.4	DPE-1	8	10.25	2.93	4.01	
PZ-2	13.18	12/20/2017	15:13	377.5	DPE-1	8	9.18	4.00	2.94	
PZ-2	13.18	12/27/2017	12:45	356.6	DPE-1	8	10.21	2.97	3.97	
PZ-2	13.18	1/5/2018	15:48	344.1	DPE-1	8	9.52	3.66	3.28	
PZ-2	13.18	1/9/2018	15:28	168.1	DPE-1	8	9.47	3.71	3.23	
PZ-2	13.18	1/18/2018	13:36	218.7	DPE-1	8	9.19	3.99	2.95	
PZ-2	13.18	1/24/2018	14:42	416.6	DPE-1	8	8.82	4.36	2.58	
PZ-2	13.18	2/1/2018	9:31	269.6	DPE-1	8	9.81	3.37	3.57	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
PZ-2	13.18	2/8/2018	9:21	285.9	DPE-1	8	9.50	3.68	3.26	
PZ-2	13.18	2/13/2018	14:48	#N/A	DPE-1	8	10.22	2.96	3.98	SVE off
PZ-2	13.18	2/20/2018	14:37	229.8	DPE-1	8	9.51	3.67	3.27	
PZ-2	13.18	2/28/2018	15:45	273.0	DPE-1	8	9.88	3.30	3.64	
PZ-2	13.18	3/8/2018	15:07	364.4	DPE-1	8	9.40	3.78	3.16	
PZ-2	13.18	3/14/2018	15:03	333.8	DPE-1	8	9.12	4.06	2.88	
PZ-2	13.18	5/29/2018	15:03	1.0	DPE-1	8	9.99	3.19	3.75	
PZ-2	13.18	6/18/2018	14:56	0.0	DPE-1	8	10.40	2.78	4.16	SVE off
PZ-2	13.18	7/19/2018	16:42	339.9	DPE-1	8	9.39	3.79	3.15	
PZ-2	13.18	8/7/2018	11:24	2.8	DPE-1	8	7.91	5.27	1.67	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
PZ-2	13.18	10/26/2018	15:21	10.3	DPE-1	8	9.31	3.87	3.07	
PZ-2	13.18	11/13/2018	16:02	68.5	DPE-1	8	9.73	3.45	3.49	
PZ-2	13.18	1/29/2019	14:15	0.0	DPE-1	8	9.25	3.93	3.01	
PZ-2	13.18	2/21/2019	11:53	0.0	DPE-1	8	9.20	3.98	2.96	
PZ-2	13.18	3/14/2019	13:38	0.0	DPE-1	8	9.18	4.00	2.94	
PZ-2	13.18	4/11/2019	13:21	0.0	DPE-1	8	9.95	3.23	3.71	
PZ-2	13.18	5/9/2019	14:50	0.0	DPE-1	8	9.24	3.94	3.00	
PZ-2	13.18	6/6/2019	13:58	0.0	DPE-1	8	9.45	3.73	3.21	
PZ-2	13.18	8/1/2019	11:01	0.0	DPE-1	8	7.37	5.81	1.13	DPE system expansion baseline event before system startup - System off
PZ-2	13.18	8/15/2019	9:47	0.0	DPE-1	8	7.44	5.74	1.20	
PZ-2	13.18	8/21/2019	11:26	0.0	DPE-1	8	8.50	4.68	2.26	
PZ-2	13.18	9/24/2019	9:52	n.m.	DPE-1	8	9.67	3.51	3.43	
PZ-4	14.16	11/28/2017	8:56	n.m.	DPE-5 & DPE-6	15	7.48	6.68	#N/A	DPE system baseline event before system startup - System off
PZ-4	14.16	11/30/2017	15:36	n.m.	DPE-5 & DPE-6	15	8.57	5.59	1.09	DPE system testing
PZ-4	14.16	12/1/2017	15:46	n.m.	DPE-5 & DPE-6	15	9.86	4.30	2.38	DPE system startup (groundwater extraction only)
PZ-4	14.16	12/5/2017	13:21	n.m.	DPE-5 & DPE-6	15	10.39	3.77	2.91	
PZ-4	14.16	12/13/2017	11:55	n.m.	DPE-5 & DPE-6	15	11.10	3.06	3.62	
PZ-4	14.16	12/13/2017	14:10	n.m.	DPE-5 & DPE-6	15	11.04	3.12	3.56	
PZ-4	14.16	12/14/2017	14:27	n.m.	DPE-5 & DPE-6	15	11.01	3.15	3.53	
PZ-4	14.16	12/20/2017	15:19	n.m.	DPE-5 & DPE-6	15	9.51	4.65	2.03	
PZ-4	14.16	12/27/2017	#N/A	n.m.	DPE-5 & DPE-6	15	#N/A	#N/A	#N/A	Not Gauged
PZ-4	14.16	1/5/2018	15:55	n.m.	DPE-5 & DPE-6	15	10.29	3.87	2.81	
PZ-4	14.16	1/9/2018	15:35	n.m.	DPE-5 & DPE-6	15	9.85	4.31	2.37	
PZ-4	14.16	1/18/2018	13:51	n.m.	DPE-5 & DPE-6	15	9.79	4.37	2.31	
PZ-4	14.16	1/24/2018	14:59	n.m.	DPE-5 & DPE-6	15	8.82	5.34	1.34	
PZ-4	14.16	2/1/2018	9:45	n.m.	DPE-5 & DPE-6	15	10.51	3.65	3.03	
PZ-4	14.16	2/8/2018	9:31	n.m.	DPE-5 & DPE-6	15	10.62	3.54	3.14	
PZ-4	14.16	2/13/2018	15:01	n.m.	DPE-5 & DPE-6	15	10.33	3.83	2.85	SVE off
PZ-4	14.16	2/20/2018	14:53	n.m.	DPE-5 & DPE-6	15	10.59	3.57	3.11	
PZ-4	14.16	2/28/2018	16:00	n.m.	DPE-5 & DPE-6	15	10.94	3.22	3.46	
PZ-4	14.16	3/8/2018	15:02	n.m.	DPE-5 & DPE-6	15	10.77	3.39	3.29	
PZ-4	14.16	3/14/2018	14:57	n.m.	DPE-5 & DPE-6	15	10.39	3.77	2.91	
PZ-4	14.16	5/29/2018	14:54	n.m.	DPE-5 & DPE-6	15	9.37	4.79	1.89	
PZ-4	14.16	6/18/2018	14:53	n.m.	DPE-5 & DPE-6	15	10.50	3.66	3.02	SVE off
PZ-4	14.16	7/19/2018	16:37	n.m.	DPE-5 & DPE-6	15	9.15	5.01	1.67	
PZ-4	14.16	8/7/2018	11:19	n.m.	DPE-5 & DPE-6	15	8.88	5.28	1.40	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
PZ-4	14.16	10/26/2018	15:13	n.m.	DPE-5 & DPE-6	15	10.21	3.95	2.73	
PZ-4	14.16	11/13/2018	15:50	n.m.	DPE-5 & DPE-6	15	10.68	3.48	3.20	
PZ-4	14.16	1/29/2019	14:10	n.m.	DPE-5 & DPE-6	15	9.83	4.33	2.35	
PZ-4	14.16	2/21/2019	11:37	n.m.	DPE-5 & DPE-6	15	9.96	4.20	2.48	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
PZ-4	14.16	3/14/2019	13:34	n.m.	DPE-5 & DPE-6	15	9.88	4.28	2.40	
PZ-4	14.16	4/11/2019	13:11	n.m.	DPE-5 & DPE-6	15	8.99	5.17	1.51	
PZ-4	14.16	5/9/2019	14:39	n.m.	DPE-5 & DPE-6	15	10.24	3.92	2.76	
PZ-4	14.16	6/6/2019	13:52	n.m.	DPE-5 & DPE-6	15	10.26	3.9	2.78	
PZ-4	14.16	8/1/2019	11:03	n.m.	DPE-5 & DPE-6	15	8.37	5.79	0.89	DPE system expansion baseline event before system startup - System off
PZ-4	14.16	8/15/2019	9:36	n.m.	DPE-5 & DPE-6	15	8.47	5.69	0.99	
PZ-4	14.16	8/21/2019	11:17	n.m.	DPE-5 & DPE-6	15	9.09	5.07	1.61	
PZ-4	14.16	9/24/2019	9:39	n.m.	DPE-5 & DPE-6	15	10.49	3.67	3.01	
PZ-5	12.84	11/28/2017	9:31	n.m.	DPE-7	15	5.51	7.33	#N/A	DPE system baseline event before system startup - System off
PZ-5	12.84	11/30/2017	16:00	n.m.	DPE-7	15	6.23	6.61	0.72	DPE system testing
PZ-5	12.84	12/1/2017	15:38	n.m.	DPE-7	15	6.38	6.46	0.87	DPE system startup (groundwater extraction only)
PZ-5	12.84	12/5/2017	13:02	n.m.	DPE-7	15	8.75	4.09	3.24	
PZ-5	12.84	12/13/2017	11:41	n.m.	DPE-7	15	8.85	3.99	3.34	
PZ-5	12.84	12/13/2017	15:33	n.m.	DPE-7	15	8.86	3.98	3.35	
PZ-5	12.84	12/14/2017	13:39	n.m.	DPE-7	15	9.10	3.74	3.59	
PZ-5	12.84	12/20/2017	15:01	n.m.	DPE-7	15	8.71	4.13	3.20	
PZ-5	12.84	12/27/2017	12:55	n.m.	DPE-7	15	10.35	2.49	4.84	
PZ-5	12.84	1/5/2018	15:45	n.m.	DPE-7	15	8.72	4.12	3.21	
PZ-5	12.84	1/9/2018	15:25	n.m.	DPE-7	15	8.63	4.21	3.12	
PZ-5	12.84	1/18/2018	13:30	n.m.	DPE-7	15	7.16	5.68	1.65	
PZ-5	12.84	1/24/2018	14:34	n.m.	DPE-7	15	8.75	4.09	3.24	
PZ-5	12.84	2/1/2018	9:35	n.m.	DPE-7	15	8.69	4.15	3.18	
PZ-5	12.84	2/8/2018	9:00	n.m.	DPE-7	15	7.15	5.69	1.64	
PZ-5	12.84	2/13/2018	14:56	n.m.	DPE-7	15	7.35	5.49	1.84	SVE off
PZ-5	12.84	2/20/2018	14:45	n.m.	DPE-7	15	9.45	3.39	3.94	
PZ-5	12.84	2/28/2018	15:38	n.m.	DPE-7	15	8.62	4.22	3.11	
PZ-5	12.84	3/8/2018	15:18	n.m.	DPE-7	15	7.90	4.94	2.39	
PZ-5	12.84	3/14/2018	15:08	n.m.	DPE-7	15	7.45	5.39	1.94	DPE-7 off
PZ-5	12.84	5/29/2018	15:31	n.m.	DPE-7	15	8.84	4	3.33	
PZ-5	12.84	6/18/2018	15:06	n.m.	DPE-7	15	10.05	2.79	4.54	SVE off
PZ-5	12.84	7/19/2018	16:48	n.m.	DPE-7	15	8.21	4.63	2.70	
PZ-5	12.84	8/7/2018	11:29	n.m.	DPE-7	15	8.35	4.49	2.84	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
PZ-5	12.84	10/26/2018	15:33	n.m.	DPE-7	15	6.49	6.35	0.98	
PZ-5	12.84	11/13/2018	16:00	n.m.	DPE-7	15	8.21	4.63	2.70	
PZ-5	12.84	1/29/2019	14:00	n.m.	DPE-7	15	6.05	6.79	0.54	
PZ-5	12.84	2/21/2019	11:47	n.m.	DPE-7	15	5.61	7.23	0.10	
PZ-5	12.84	3/14/2019	13:46	n.m.	DPE-7	15	6.18	6.66	0.67	
PZ-5	12.84	4/11/2019	13:28	n.m.	DPE-7	15	6.08	6.76	0.57	
PZ-5	12.84	5/9/2019	15:00	n.m.	DPE-7	15	7.52	5.32	2.01	
PZ-5	12.84	6/6/2019	14:03	n.m.	DPE-7	15	8.34	4.5	2.83	
PZ-5	12.84	8/1/2019	11:07	n.m.	DPE-7	15	7.91	4.93	2.40	DPE system expansion baseline event before system startup - System off
PZ-5	12.84	8/15/2019	9:51	n.m.	DPE-7	15	7.89	4.95	2.38	
PZ-5	12.84	8/21/2019	11:30	n.m.	DPE-7	15	7.89	4.95	2.38	
PZ-5	12.84	9/24/2019	9:57	n.m.	DPE-7	15	9.47	3.37	3.96	
PZ-6	12.96	11/28/2017	9:36	n.m.	DPE-8	15	5.35	7.61	#N/A	DPE system baseline event before system startup - System off
PZ-6	12.96	11/30/2017	16:03	n.m.	DPE-8	15	6.19	6.77	0.84	DPE system testing
PZ-6	12.96	12/1/2017	15:36	n.m.	DPE-8	15	6.45	6.51	1.10	DPE system startup (groundwater extraction only)
PZ-6	12.96	12/5/2017	12:59	n.m.	DPE-8	15	8.73	4.23	3.38	
PZ-6	12.96	12/13/2017	11:38	n.m.	DPE-8	15	9.06	3.90	3.71	
PZ-6	12.96	12/13/2017	15:24	n.m.	DPE-8	15	9.04	3.92	3.69	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
PZ-6	12.96	12/14/2017	13:35	n.m.	DPE-8	15	9.30	3.66	3.95	
PZ-6	12.96	12/20/2017	14:59	n.m.	DPE-8	15	8.59	4.37	3.24	
PZ-6	12.96	12/27/2017	13:05	n.m.	DPE-8	15	10.15	2.81	4.80	
PZ-6	12.96	1/5/2018	15:43	n.m.	DPE-8	15	8.52	4.44	3.17	
PZ-6	12.96	1/9/2018	15:20	n.m.	DPE-8	15	8.12	4.84	2.77	
PZ-6	12.96	1/18/2018	13:28	n.m.	DPE-8	15	6.50	6.46	1.15	
PZ-6	12.96	1/24/2018	14:32	n.m.	DPE-8	15	7.62	5.34	2.27	
PZ-6	12.96	2/1/2018	9:28	n.m.	DPE-8	15	8.73	4.23	3.38	
PZ-6	12.96	2/8/2018	8:55	n.m.	DPE-8	15	6.47	6.49	1.12	DPE-8 off
PZ-6	12.96	2/13/2018	14:52	n.m.	DPE-8	15	6.56	6.40	1.21	SVE off DPE-8 off
PZ-6	12.96	2/20/2018	14:40	n.m.	DPE-8	15	7.76	5.20	2.41	DPE-8 off
PZ-6	12.96	2/28/2018	15:33	n.m.	DPE-8	15	8.70	4.26	3.35	
PZ-6	12.96	3/8/2018	15:21	n.m.	DPE-8	15	6.76	6.2	1.41	DPE-8 off
PZ-6	12.96	3/14/2018	15:10	n.m.	DPE-8	15	6.88	6.08	1.53	DPE-8 off
PZ-6	12.96	5/29/2018	15:35	n.m.	DPE-8	15	7.99	4.97	2.64	
PZ-6	12.96	6/18/2018	15:07	n.m.	DPE-8	15	7.91	5.05	2.56	SVE off
PZ-6	12.96	7/19/2018	16:50	n.m.	DPE-8	15	7.76	5.2	2.41	
PZ-6	12.96	8/7/2018	11:31	n.m.	DPE-8	15	8.19	4.77	2.84	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
PZ-6	12.96	10/26/2018	15:37	n.m.	DPE-8	15	6.50	6.46	1.15	
PZ-6	12.96	11/13/2018	15:58	n.m.	DPE-8	15	8.08	4.88	2.73	
PZ-6	12.96	1/29/2019	14:04	n.m.	DPE-8	15	5.72	7.24	0.37	
PZ-6	12.96	2/21/2019	11:48	n.m.	DPE-8	15	6.51	6.45	1.16	
PZ-6	12.96	3/14/2019	13:48	n.m.	DPE-8	15	6.27	6.69	0.92	
PZ-6	12.96	4/11/2019	13:30	n.m.	DPE-8	15	6.15	6.81	0.80	
PZ-6	12.96	5/9/2019	14:53	n.m.	DPE-8	15	7.01	5.95	1.66	
PZ-6	12.96	6/6/2019	14:05	n.m.	DPE-8	15	7.68	5.28	2.33	
PZ-6	12.96	8/1/2019	11:09	n.m.	DPE-8	15	7.44	5.52	2.09	DPE system expansion baseline event before system startup - System off
PZ-6	12.96	8/15/2019	9:49	n.m.	DPE-8	15	7.46	5.5	2.11	
PZ-6	12.96	8/21/2019	11:33	n.m.	DPE-8	15	7.32	5.64	1.97	
PZ-6	12.96	9/24/2019	10:02	n.m.	DPE-8	15	8.39	4.57	3.04	
PZ-7	13.05	11/28/2017	9:45	n.m.	DPE-10	15	5.17	7.88	#N/A	DPE system baseline event before system startup - System off
PZ-7	13.05	11/30/2017	16:08	n.m.	DPE-10	15	5.79	7.26	0.62	DPE system testing
PZ-7	13.05	12/1/2017	15:33	n.m.	DPE-10	15	6.07	6.98	0.90	DPE system startup (groundwater extraction only)
PZ-7	13.05	12/5/2017	12:57	n.m.	DPE-10	15	7.57	5.48	2.40	
PZ-7	13.05	12/13/2017	11:36	n.m.	DPE-10	15	8.31	4.74	3.14	
PZ-7	13.05	12/13/2017	15:21	n.m.	DPE-10	15	8.37	4.68	3.20	
PZ-7	13.05	12/14/2017	13:30	n.m.	DPE-10	15	8.75	4.30	3.58	
PZ-7	13.05	12/20/2017	14:56	n.m.	DPE-10	15	8.10	4.95	2.93	
PZ-7	13.05	12/27/2017	11:40	n.m.	DPE-10	15	8.89	4.16	3.72	
PZ-7	13.05	1/5/2018	15:39	n.m.	DPE-10	15	8.03	5.02	2.86	
PZ-7	13.05	1/9/2018	14:18	n.m.	DPE-10	15	7.57	5.48	2.40	
PZ-7	13.05	1/18/2018	13:25	n.m.	DPE-10	15	6.60	6.45	1.43	
PZ-7	13.05	1/24/2018	14:29	n.m.	DPE-10	15	6.73	6.32	1.56	
PZ-7	13.05	2/1/2018	9:25	n.m.	DPE-10	15	8.21	4.84	3.04	
PZ-7	13.05	2/8/2018	8:50	n.m.	DPE-10	15	6.32	6.73	1.15	DPE-10 off
PZ-7	13.05	2/13/2018	14:48	n.m.	DPE-10	15	6.59	6.46	1.42	SVE off DPE-10 off
PZ-7	13.05	2/20/2018	14:35	n.m.	DPE-10	15	6.58	6.47	1.41	DPE-10 off
PZ-7	13.05	2/28/2018	15:30	n.m.	DPE-10	15	7.62	5.43	2.45	DPE-10 off
PZ-7	13.05	3/8/2018	15:25	n.m.	DPE-10	15	6.51	6.54	1.34	DPE-10 off
PZ-7	13.05	3/14/2018	15:14	n.m.	DPE-10	15	6.32	6.73	1.15	DPE-10 off

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
PZ-7	13.05	5/29/2018	15:37	n.m.	DPE-10	15	7.38	5.67	2.21	
PZ-7	13.05	6/18/2018	15:10	n.m.	DPE-10	15	7.20	5.85	2.03	SVE off
PZ-7	13.05	7/19/2018	16:53	n.m.	DPE-10	15	6.95	6.1	1.78	
PZ-7	13.05	8/7/2018	11:33	n.m.	DPE-10	15	7.55	5.5	2.38	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
PZ-7	13.05	10/26/2018	15:30	n.m.	DPE-10	15	7.20	5.85	2.03	
PZ-7	13.05	11/13/2018	16:05	n.m.	DPE-10	15	7.21	5.84	2.04	
PZ-7	13.05	1/29/2019	14:06	n.m.	DPE-10	15	5.81	7.24	0.64	
PZ-7	13.05	2/21/2019	11:50	n.m.	DPE-10	15	5.58	7.47	0.41	
PZ-7	13.05	3/14/2019	13:52	n.m.	DPE-10	15	6.10	6.95	0.93	
PZ-7	13.05	4/11/2019	13:33	n.m.	DPE-10	15	6.05	7.00	0.88	
PZ-7	13.05	5/9/2019	14:58	n.m.	DPE-10	15	6.65	6.40	1.48	
PZ-7	13.05	6/6/2019	14:08	n.m.	DPE-10	15	6.72	6.33	1.55	
PZ-7	13.05	8/1/2019	11:33	n.m.	DPE-10	15	6.45	6.6	1.28	DPE system expansion baseline event before system startup - System off
PZ-7	13.05	8/15/2019	9:57	n.m.	DPE-10	15	6.53	6.52	1.36	
PZ-7	13.05	8/21/2019	11:33	n.m.	DPE-10	15	5.92	7.13	0.75	
PZ-7	13.05	9/24/2019	10:07	n.m.	DPE-10	15	7.13	5.92	1.96	
PZ-8	12.91	11/28/2017	9:54	n.m.	DPE-11	12	5.59	7.32	#N/A	DPE system baseline event before system startup - System off
PZ-8	12.91	11/30/2017	16:21	n.m.	DPE-11	12	5.67	7.24	0.08	DPE system testing
PZ-8	12.91	12/1/2017	15:26	n.m.	DPE-11	12	6.71	6.20	1.12	DPE system startup (groundwater extraction only) - DPE-11 off
PZ-8	12.91	12/5/2017	12:35	n.m.	DPE-11	12	6.35	6.56	0.76	DPE-11 off
PZ-8	12.91	12/13/2017	11:25	n.m.	DPE-11	12	7.48	5.43	1.89	DPE-11 repaired
PZ-8	12.91	12/13/2017	15:17	n.m.	DPE-11	12	7.45	5.46	1.86	
PZ-8	12.91	12/14/2017	13:04	n.m.	DPE-11	12	7.60	5.31	2.01	
PZ-8	12.91	12/20/2017	14:40	n.m.	DPE-11	12	7.21	5.70	1.62	
PZ-8	12.91	12/27/2017	11:44	n.m.	DPE-11	12	7.69	5.22	2.10	
PZ-8	12.91	1/5/2018	15:24	n.m.	DPE-11	12	7.56	5.35	1.97	
PZ-8	12.91	1/9/2018	14:20	n.m.	DPE-11	12	7.41	5.50	1.82	
PZ-8	12.91	1/18/2018	13:08	n.m.	DPE-11	12	7.19	5.72	1.60	
PZ-8	12.91	1/24/2018	14:20	n.m.	DPE-11	12	7.62	5.29	2.03	
PZ-8	12.91	2/1/2018	9:10	n.m.	DPE-11	12	7.85	5.06	2.26	
PZ-8	12.91	2/8/2018	8:40	n.m.	DPE-11	12	6.16	6.75	0.57	DPE-11 off
PZ-8	12.91	2/13/2018	14:41	n.m.	DPE-11	12	7.71	5.20	2.12	SVE off
PZ-8	12.91	2/20/2018	14:25	n.m.	DPE-11	12	7.70	5.21	2.11	
PZ-8	12.91	2/28/2018	15:20	n.m.	DPE-11	12	6.45	6.46	0.86	DPE-11 off
PZ-8	12.91	3/8/2018	14:25	n.m.	DPE-11	12	6.03	6.88	0.44	DPE-11 off
PZ-8	12.91	3/14/2018	14:23	n.m.	DPE-11	12	6.00	6.91	0.41	DPE-11 off
PZ-8	12.91	5/29/2018	14:23	n.m.	DPE-11	12	9.42	3.49	3.83	
PZ-8	12.91	6/18/2018	9:51	n.m.	DPE-11	12	8.49	4.42	2.90	
PZ-8	12.91	7/19/2018	16:10	n.m.	DPE-11	12	9.31	3.6	3.72	
PZ-8	12.91	8/7/2018	10:49	n.m.	DPE-11	12	7.45	5.46	1.86	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
PZ-8	12.91	10/26/2018	14:50	n.m.	DPE-11	12	8.58	4.33	2.99	
PZ-8	12.91	11/13/2018	15:28	n.m.	DPE-11	12	8.20	4.71	2.61	
PZ-8	12.91	1/29/2019	13:15	n.m.	DPE-11	12	7.95	4.96	2.36	
PZ-8	12.91	2/21/2019	10:55	n.m.	DPE-11	12	8.07	4.84	2.48	
PZ-8	12.91	3/14/2019	13:11	n.m.	DPE-11	12	8.15	4.76	2.56	
PZ-8	12.91	4/11/2019	12:41	n.m.	DPE-11	12	8.05	4.86	2.46	
PZ-8	12.91	5/9/2019	14:09	n.m.	DPE-11	12	8.59	4.32	3.00	
PZ-8	12.91	6/6/2019	13:27	n.m.	DPE-11	12	8.40	4.51	2.81	
PZ-8	12.91	8/1/2019	11:26	n.m.	DPE-11	12	6.00	6.91	0.41	DPE system expansion baseline event before system startup - System off
PZ-8	12.91	8/15/2019	10:09	n.m.	DPE-11	12	6.08	6.83	0.49	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
PZ-8	12.91	8/21/2019	11:10	n.m.	DPE-11	12	6.31	6.60	0.72	
PZ-8	12.91	9/24/2019	10:37	n.m.	DPE-11	12	8.60	4.31	3.01	
PZ-9	12.85	11/28/2017	10:03	n.m.	DPE-12	16	5.30	7.55	#N/A	DPE system baseline event before system startup - System off
PZ-9	12.85	11/30/2017	16:26	n.m.	DPE-12	16	7.87	4.98	2.57	DPE system testing
PZ-9	12.85	12/1/2017	15:23	n.m.	DPE-12	16	9.45	3.40	4.15	DPE system startup (groundwater extraction only)
PZ-9	12.85	12/5/2017	12:32	n.m.	DPE-12	16	8.78	4.07	3.48	
PZ-9	12.85	12/13/2017	11:19	n.m.	DPE-12	16	7.55	5.30	2.25	DPE 12 off
PZ-9	12.85	12/13/2017	16:02	n.m.	DPE-12	16	7.52	5.33	2.22	DPE 12 off
PZ-9	12.85	12/14/2017	12:58	n.m.	DPE-12	16	7.57	5.28	2.27	DPE 12 off
PZ-9	12.85	12/20/2017	14:32	n.m.	DPE-12	16	6.93	5.92	1.63	DPE 12 off
PZ-9	12.85	12/27/2017	11:47	n.m.	DPE-12	16	7.35	5.50	2.05	DPE 12 off
PZ-9	12.85	1/5/2018	15:15	n.m.	DPE-12	16	7.25	5.60	1.95	DPE 12 off
PZ-9	12.85	1/9/2018	10:56	n.m.	DPE-12	16	6.70	6.15	1.40	DPE 12 off
PZ-9	12.85	1/18/2018	12:52	n.m.	DPE-12	16	6.67	6.18	1.37	DPE 12 off
PZ-9	12.85	1/24/2018	14:00	n.m.	DPE-12	16	6.47	6.38	1.17	DPE 12 off
PZ-9	12.85	2/1/2018	9:00	n.m.	DPE-12	16	6.90	5.95	1.60	DPE 12 off
PZ-9	12.85	2/8/2018	8:25	n.m.	DPE-12	16	5.85	7.00	0.55	DPE 12 off
PZ-9	12.85	2/13/2018	14:35	n.m.	DPE-12	16	6.95	5.90	1.65	DPE 12 off
PZ-9	12.85	2/20/2018	14:10	n.m.	DPE-12	16	7.19	5.66	1.89	DPE 12 off
PZ-9	12.85	2/28/2018	15:05	n.m.	DPE-12	16	6.09	6.76	0.79	DPE 12 off
PZ-9	12.85	3/8/2018	14:10	n.m.	DPE-12	16	5.78	7.07	0.48	DPE 12 off
PZ-9	12.85	3/14/2018	14:13	n.m.	DPE-12	16	5.79	7.06	0.49	DPE 12 off
PZ-9	12.85	5/29/2018	14:13	n.m.	DPE-12-R	16	8.40	4.45	3.10	
PZ-9	12.85	6/18/2018	9:47	n.m.	DPE-12-R	16	8.25	4.6	2.95	
PZ-9	12.85	7/19/2018	16:08	n.m.	DPE-12-R	16	7.96	4.89	2.66	
PZ-9	12.85	8/7/2018	10:47	n.m.	DPE-12-R	16	8.54	4.31	3.24	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
PZ-9	12.85	10/26/2018	14:54	n.m.	DPE-12-R	16	6.58	6.27	1.28	
PZ-9	12.85	11/13/2018	15:22	n.m.	DPE-12-R	16	7.42	5.43	2.12	
PZ-9	12.85	1/29/2019	13:08	n.m.	DPE-12-R	16	6.76	6.09	1.46	
PZ-9	12.85	2/21/2019	10:45	n.m.	DPE-12-R	16	6.26	6.59	0.96	
PZ-9	12.85	3/14/2019	13:07	n.m.	DPE-12-R	16	6.32	6.53	1.02	
PZ-9	12.85	4/11/2019	12:38	n.m.	DPE-12-R	16	6.21	6.64	0.91	
PZ-9	12.85	5/9/2019	14:07	n.m.	DPE-12-R	16	6.95	5.90	1.65	
PZ-9	12.85	6/6/2019	13:27	n.m.	DPE-12-R	16	6.23	6.62	0.93	
PZ-9	12.85	8/1/2019	11:28	n.m.	DPE-12-R	16	5.84	7.01	0.54	DPE system expansion baseline event before system startup - System off
PZ-9	12.85	8/15/2019	10:11	n.m.	DPE-12-R	16	5.95	6.9	0.65	
PZ-9	12.85	8/21/2019	11:17	n.m.	DPE-12-R	16	6.10	6.75	0.80	
PZ-9	12.85	9/24/2019	10:38	n.m.	DPE-12-R	16	7.83	5.02	2.53	
PZ-10	12.62	11/28/2017	10:13	n.m.	DPE-13	17	5.24	7.38	#N/A	DPE system baseline event before system startup - System off
PZ-10	12.62	11/30/2017	16:30	n.m.	DPE-13	17	6.36	6.26	1.12	DPE system testing
PZ-10	12.62	12/1/2017	15:21	n.m.	DPE-13	17	6.92	5.70	1.68	DPE system startup (groundwater extraction only)
PZ-10	12.62	12/5/2017	12:30	n.m.	DPE-13	17	6.69	5.93	1.45	
PZ-10	12.62	12/13/2017	11:15	n.m.	DPE-13	17	6.92	5.70	1.68	
PZ-10	12.62	12/13/2017	15:13	n.m.	DPE-13	17	6.93	5.69	1.69	
PZ-10	12.62	12/14/2017	12:56	n.m.	DPE-13	17	6.96	5.66	1.72	
PZ-10	12.62	12/20/2017	14:30	n.m.	DPE-13	17	6.25	6.37	1.01	
PZ-10	12.62	12/27/2017	12:00	n.m.	DPE-13	17	6.90	5.72	1.66	
PZ-10	12.62	1/5/2018	15:10	n.m.	DPE-13	17	6.67	5.95	1.43	
PZ-10	12.62	1/9/2018	10:40	n.m.	DPE-13	17	4.80	7.82	-0.44	Depth to water inconsistent with historical data
PZ-10	12.62	1/18/2018	12:45	n.m.	DPE-13	17	6.15	6.47	0.91	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
PZ-10	12.62	1/24/2018	13:55	n.m.	DPE-13	17	6.09	6.53	0.85	
PZ-10	12.62	2/1/2018	8:50	n.m.	DPE-13	17	6.43	6.19	1.19	
PZ-10	12.62	2/8/2018	8:20	n.m.	DPE-13	17	5.83	6.79	0.59	DPE-13 off
PZ-10	12.62	2/13/2018	14:30	n.m.	DPE-13	17	6.49	6.13	1.25	SVE off
PZ-10	12.62	2/20/2018	14:05	n.m.	DPE-13	17	6.65	5.97	1.41	
PZ-10	12.62	2/28/2018	15:00	n.m.	DPE-13	17	6.11	6.51	0.87	DPE-13 off
PZ-10	12.62	3/8/2018	14:05	n.m.	DPE-13	17	5.78	6.84	0.54	DPE-13 off
PZ-10	12.62	3/14/2018	14:08	n.m.	DPE-13	17	5.81	6.81	0.57	DPE-13 off
PZ-10	12.62	5/29/2018	14:09	n.m.	DPE-13	17	7.23	5.39	1.99	
PZ-10	12.62	6/18/2018	9:45	n.m.	DPE-13	17	7.15	5.47	1.91	
PZ-10	12.62	7/19/2018	16:05	n.m.	DPE-13	17	7.94	4.68	2.70	
PZ-10	12.62	8/7/2018	10:45	n.m.	DPE-13	17	7.71	4.91	2.47	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
PZ-10	12.62	10/26/2018	14:48	n.m.	DPE-13	17	5.82	6.8	0.58	
PZ-10	12.62	11/13/2018	15:20	n.m.	DPE-13	17	6.78	5.84	1.54	
PZ-10	12.62	1/29/2019	13:05	n.m.	DPE-13	17	5.60	7.02	0.36	
PZ-10	12.62	2/21/2019	10:39	n.m.	DPE-13	17	5.55	7.07	0.31	
PZ-10	12.62	3/14/2019	13:05	n.m.	DPE-13	17	5.65	6.97	0.41	
PZ-10	12.62	4/11/2019	12:36	n.m.	DPE-13	17	5.60	7.02	0.36	
PZ-10	12.62	5/9/2019	14:05	n.m.	DPE-13	17	6.31	6.31	1.07	
PZ-10	12.62	6/6/2019	13:19	n.m.	DPE-13	17	6.14	6.48	0.90	
PZ-10	12.62	8/1/2019	11:29	n.m.	DPE-13	17	5.81	6.81	0.57	DPE system expansion baseline event before system startup - System off
PZ-10	12.62	8/15/2019	10:12	n.m.	DPE-13	17	5.89	6.73	0.65	
PZ-10	12.62	8/21/2019	11:22	n.m.	DPE-13	17	6.08	6.54	0.84	
PZ-10	12.62	9/24/2019	10:41	n.m.	DPE-13	17	6.74	5.88	1.50	
MW-20R	12.17	3/8/2018	14:45	n.m.	DPE-5	n.a.	6.33	5.84	#N/A	
MW-20R	12.17	3/14/2018	14:40	n.m.	DPE-5	n.a.	6.50	5.67	#N/A	
MW-20R	12.17	5/29/2018	14:35	n.m.	DPE-5	n.a.	7.24	4.93	#N/A	
MW-20R	12.17	6/18/2018	14:30	n.m.	DPE-5	n.a.	7.11	5.06	#N/A	SVE off
MW-20R	12.17	7/19/2018	16:26	n.m.	DPE-5	n.a.	6.90	5.27	#N/A	
MW-20R	12.17	8/7/2018	11:08	n.m.	DPE-5	n.a.	7.15	5.02	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-20R	12.17	10/26/2018	15:03	n.m.	DPE-5	n.a.	6.13	6.04	#N/A	
MW-20R	12.17	11/13/2018	15:38	n.m.	DPE-5	n.a.	6.21	5.96	#N/A	
MW-20R	12.17	1/29/2019	13:25	n.m.	DPE-5	n.a.	6.21	5.96	#N/A	
MW-20R	12.17	2/21/2019	11:19	n.m.	DPE-5	n.a.	6.15	6.02	#N/A	
MW-20R	12.17	3/14/2019	13:20	n.m.	DPE-5	n.a.	6.30	5.87	#N/A	
MW-20R	12.17	4/11/2019	12:55	n.m.	DPE-5	n.a.	5.96	6.21	#N/A	
MW-20R	12.17	5/9/2019	14:23	n.m.	DPE-5	n.a.	6.61	5.56	#N/A	
MW-20R	12.17	6/6/2019	13:40	n.m.	DPE-5	n.a.	6.85	5.32	#N/A	
MW-20R	12.17	8/1/2019	10:39	n.m.	DPE-5	n.a.	6.78	5.39	#N/A	DPE system expansion baseline event before system startup - System off
MW-20R	12.17	8/15/2019	9:40	n.m.	DPE-5	n.a.	6.85	5.32	#N/A	
MW-20R	12.17	8/21/2019	10:52	n.m.	DPE-5	n.a.	6.91	5.26	#N/A	
MW-20R	12.17	9/24/2019	10:19	n.m.	DPE-5	n.a.	7.30	4.87	#N/A	
MW-101	14.99	8/1/2019	11:42	n.m.	DPE-15	9	9.03	5.96	#N/A	DPE system expansion baseline event before system startup - System off
MW-101	14.99	8/15/2019	10:35	n.m.	DPE-15	9	9.67	5.32	0.64	
MW-101	14.99	8/21/2019	10:41	n.m.	DPE-15	9	9.81	5.18	0.78	
MW-101	14.99	9/24/2019	10:24	n.m.	DPE-15	9	10.00	4.99	0.97	
MW-104	14.08	3/8/2018	14:40	n.m.	DPE-3	n.a.	5.32	8.76	#N/A	
MW-104	14.08	3/14/2018	14:35	n.m.	DPE-3	n.a.	8.09	5.99	#N/A	
MW-104	14.08	5/29/2018	14:33	n.m.	DPE-3	n.a.	8.89	5.19	#N/A	
MW-104	14.08	6/18/2018	10:14	n.m.	DPE-3	n.a.	8.42	5.66	#N/A	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
MW-104	14.08	7/19/2018	16:24	n.m.	DPE-3	n.a.	8.50	5.58	#N/A	
MW-104	14.08	8/7/2018	11:05	n.m.	DPE-3	n.a.	8.45	5.63	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-104	14.08	10/26/2018	15:00	n.m.	DPE-3	n.a.	8.30	5.78	#N/A	
MW-104	14.08	11/13/2018	15:35	n.m.	DPE-3	n.a.	8.51	5.57	#N/A	
MW-104	14.08	1/29/2019	13:23	n.m.	DPE-3	n.a.	7.90	6.18	#N/A	
MW-104	14.08	2/21/2019	11:16	n.m.	DPE-3	n.a.	7.69	6.39	#N/A	
MW-104	14.08	3/14/2019	13:17	n.m.	DPE-3	n.a.	8.19	5.89	#N/A	
MW-104	14.08	4/11/2019	12:53	n.m.	DPE-3	n.a.	7.73	6.35	#N/A	
MW-104	14.08	5/9/2019	14:20	n.m.	DPE-3	n.a.	8.31	5.77	#N/A	
MW-104	14.08	6/6/2019	13:34	n.m.	DPE-3	n.a.	8.45	5.63	#N/A	
MW-104	14.08	8/1/2019	10:43	n.m.	DPE-3	n.a.	8.32	5.76	#N/A	DPE system expansion baseline event before system startup - System off
MW-104	14.08	8/15/2019	9:42	n.m.	DPE-3	n.a.	8.54	5.54	#N/A	
MW-104	14.08	8/21/2019	10:48	n.m.	DPE-3	n.a.	8.68	5.40	#N/A	
MW-104	14.08	9/24/2019	10:22	n.m.	DPE-3	n.a.	8.94	5.14	#N/A	
MW-126	12.40	11/28/2017	9:13	n.m.	DPE-6	45	3.83	8.57	#N/A	DPE system baseline event before system startup - System off
MW-126	12.40	11/30/2017	15:20	n.m.	DPE-6	45	3.78	8.62	#N/A	DPE system testing
MW-126	12.40	12/1/2017	15:52	n.m.	DPE-6	45	4.07	8.33	#N/A	DPE system startup (groundwater extraction only)
MW-126	12.40	12/5/2017	13:26	n.m.	DPE-6	45	5.03	7.37	#N/A	
MW-126	12.40	12/13/2017	12:03	n.m.	DPE-6	45	5.70	6.70	#N/A	
MW-126	12.40	12/13/2017	15:15	n.m.	DPE-6	45	5.41	6.99	#N/A	
MW-126	12.40	12/14/2017	14:23	n.m.	DPE-6	45	6.02	6.38	#N/A	
MW-126	12.40	12/20/2017	15:28	n.m.	DPE-6	45	4.74	7.66	#N/A	
MW-126	12.40	12/27/2017	#N/A	n.m.	DPE-6	45	#N/A	#N/A	#N/A	Not Gauged
MW-126	12.40	1/5/2018	16:05	n.m.	DPE-6	45	5.10	7.30	#N/A	
MW-126	12.40	1/9/2018	15:45	n.m.	DPE-6	45	4.39	8.01	#N/A	
MW-126	12.40	1/18/2018	13:49	n.m.	DPE-6	45	4.17	8.23	#N/A	
MW-126	12.40	1/24/2018	14:57	n.m.	DPE-6	45	4.00	8.40	#N/A	
MW-126	12.40	2/1/2018	9:43	n.m.	DPE-6	45	5.25	7.15	#N/A	
MW-126	12.40	2/8/2018	9:38	n.m.	DPE-6	45	4.44	7.96	#N/A	
MW-126	12.40	2/13/2018	14:59	n.m.	DPE-6	45	4.69	7.71	#N/A	SVE off
MW-126	12.40	2/20/2018	14:51	n.m.	DPE-6	45	4.94	7.46	#N/A	
MW-126	12.40	2/28/2018	15:57	n.m.	DPE-6	45	5.62	6.78	#N/A	
MW-126	12.40	3/8/2018	15:00	n.m.	DPE-6	45	4.90	7.5	#N/A	
MW-126	12.40	3/14/2018	14:53	n.m.	DPE-6	45	4.78	7.62	#N/A	
MW-126	12.40	5/29/2018	14:50	n.m.	DPE-6	45	6.29	6.11	#N/A	
MW-126	12.40	6/18/2018	14:50	n.m.	DPE-6	45	5.64	6.76	#N/A	SVE off
MW-126	12.40	7/19/2018	16:36	n.m.	DPE-6	45	6.64	5.76	#N/A	
MW-126	12.40	8/7/2018	11:17	n.m.	DPE-6	45	6.86	5.54	#N/A	
MW-126	12.40	10/26/2018	15:10	n.m.	DPE-6	45	5.20	7.2	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-126	12.40	11/13/2018	15:48	n.m.	DPE-6	45	5.92	6.48	#N/A	
MW-126	12.40	1/29/2019	13:41	n.m.	DPE-6	45	3.63	8.77	#N/A	
MW-126	12.40	2/21/2019	11:35	n.m.	DPE-6	45	4.34	8.06	#N/A	
MW-126	12.40	3/14/2019	13:32	n.m.	DPE-6	45	4.70	7.70	#N/A	
MW-126	12.40	4/11/2019	13:08	n.m.	DPE-6	45	4.70	7.70	#N/A	
MW-126	12.40	5/9/2019	14:33	n.m.	DPE-6	45	5.26	7.14	#N/A	
MW-126	12.40	6/6/2019	13:50	n.m.	DPE-6	45	5.49	6.91	#N/A	
MW-126	12.40	8/1/2019	10:06	n.m.	DPE-6	45	5.83	6.57	#N/A	DPE system expansion baseline event before system startup - System off
MW-126	12.40	8/15/2019	9:34	n.m.	DPE-6	45	5.96	6.44	#N/A	
MW-126	12.40	8/21/2019	11:15	n.m.	DPE-6	45	6.34	6.06	#N/A	
MW-126	12.40	9/24/2019	9:37	n.m.	DPE-6	45	6.17	6.23	#N/A	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
MW-129-R	12.92	8/1/2019	11:51	n.m.	DPE-18	8	5.75	7.17	#N/A	DPE system expansion baseline event before system startup - System off
MW-129-R	12.92	8/15/2019	10:24	n.m.	DPE-18	8	7.09	5.83	1.34	
MW-129-R	12.92	8/21/2019	9:42	n.m.	DPE-18	8	7.24	5.68	1.49	
MW-129-R	12.92	9/24/2019	10:50	n.m.	DPE-18	8	7.27	5.65	1.52	
MW-143	11.94	11/28/2017	9:09	n.m.	DPE-6	30	4.17	7.77	#N/A	DPE system baseline event before system startup - System off
MW-143	11.94	11/30/2017	15:25	n.m.	DPE-6	30	4.38	7.56	#N/A	DPE system testing
MW-143	11.94	12/1/2017	15:54	n.m.	DPE-6	30	4.81	7.13	#N/A	DPE system startup (groundwater extraction only)
MW-143	11.94	12/5/2017	13:27	n.m.	DPE-6	30	6.22	5.72	#N/A	
MW-143	11.94	12/13/2017	12:00	n.m.	DPE-6	30	6.84	5.10	#N/A	
MW-143	11.94	12/13/2017	16:00	n.m.	DPE-6	30	5.89	6.05	#N/A	
MW-143	11.94	12/14/2017	14:21	n.m.	DPE-6	30	5.85	6.09	#N/A	
MW-143	11.94	12/20/2017	15:24	n.m.	DPE-6	30	5.79	6.15	#N/A	
MW-143	11.94	12/27/2017	#N/A	n.m.	DPE-6	30	#N/A	#N/A	#N/A	Not Gauged
MW-143	11.94	1/5/2018	16:00	n.m.	DPE-6	30	6.20	5.74	#N/A	
MW-143	11.94	1/9/2018	15:43	n.m.	DPE-6	30	5.17	6.77	#N/A	
MW-143	11.94	1/18/2018	13:48	n.m.	DPE-6	30	4.84	7.10	#N/A	
MW-143	11.94	1/24/2018	14:55	n.m.	DPE-6	30	4.94	7.00	#N/A	
MW-143	11.94	2/1/2018	9:40	n.m.	DPE-6	30	6.42	5.52	#N/A	
MW-143	11.94	2/8/2018	9:35	n.m.	DPE-6	30	4.92	7.02	#N/A	
MW-143	11.94	2/13/2018	14:58	n.m.	DPE-6	30	5.15	6.79	#N/A	SVE off
MW-143	11.94	2/20/2018	14:47	n.m.	DPE-6	30	5.42	6.52	#N/A	
MW-143	11.94	2/28/2018	15:55	n.m.	DPE-6	30	6.41	5.53	#N/A	
MW-143	11.94	3/8/2018	14:58	n.m.	DPE-6	30	5.11	6.83	#N/A	
MW-143	11.94	3/14/2018	14:50	n.m.	DPE-6	30	4.99	6.95	#N/A	
MW-143	11.94	5/29/2018	14:47	n.m.	DPE-6	30	6.30	5.64	#N/A	
MW-143	11.94	6/18/2018	14:48	n.m.	DPE-6	30	6.21	5.73	#N/A	SVE off
MW-143	11.94	7/19/2018	16:34	n.m.	DPE-6	30	6.06	5.88	#N/A	
MW-143	11.94	8/7/2018	11:16	n.m.	DPE-6	30	6.55	5.39	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-143	11.94	10/26/2018	15:09	n.m.	DPE-6	30	5.70	6.24	#N/A	
MW-143	11.94	11/13/2018	15:47	n.m.	DPE-6	30	6.28	5.66	#N/A	
MW-143	11.94	1/29/2019	13:38	n.m.	DPE-6	30	3.99	7.95	#N/A	
MW-143	11.94	2/21/2019	11:33	n.m.	DPE-6	30	4.29	7.65	#N/A	
MW-143	11.94	3/14/2019	13:30	n.m.	DPE-6	30	4.82	7.12	#N/A	
MW-143	11.94	4/11/2019	13:05	n.m.	DPE-6	30	4.78	7.16	#N/A	
MW-143	11.94	5/9/2019	14:35	n.m.	DPE-6	30	5.45	6.49	#N/A	
MW-143	11.94	6/6/2019	13:47	n.m.	DPE-6	30	5.80	6.14	#N/A	
MW-143	11.94	8/1/2019	10:09	n.m.	DPE-6	30	5.59	6.35	#N/A	DPE system expansion baseline event before system startup - System off
MW-143	11.94	8/15/2019	9:31	n.m.	DPE-6	30	5.69	6.25	#N/A	
MW-143	11.94	8/21/2019	11:12	n.m.	DPE-6	30	6.04	5.90	#N/A	
MW-143	11.94	9/24/2019	9:34	n.m.	DPE-6	30	6.10	5.84	#N/A	
MW-502	13.00	3/8/2018	13:35	n.m.	DPE-14	n.a.	5.33	7.67	#N/A	
MW-502	13.00	3/14/2018	14:00	n.m.	DPE-14	n.a.	5.32	7.68	#N/A	
MW-502	13.00	5/29/2018	14:05	n.m.	DPE-14	n.a.	6.44	6.56	#N/A	
MW-502	13.00	6/18/2018	9:57	n.m.	DPE-14	n.a.	6.58	6.42	#N/A	
MW-502	13.00	7/19/2018	16:00	n.m.	DPE-14	n.a.	6.20	6.8	#N/A	
MW-502	13.00	8/7/2018	10:40	n.m.	DPE-14	n.a.	6.91	6.09	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-502	13.00	10/26/2018	14:40	n.m.	DPE-14	n.a.	5.65	7.35	#N/A	
MW-502	13.00	11/13/2018	15:15	n.m.	DPE-14	n.a.	6.09	6.91	#N/A	
MW-502	13.00	1/29/2019	13:00	n.m.	DPE-14	n.a.	5.53	7.47	#N/A	
MW-502	13.00	2/21/2019	10:32	n.m.	DPE-14	n.a.	5.28	7.72	#N/A	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
MW-502	13.00	3/14/2019	13:00	n.m.	DPE-14	n.a.	5.59	7.41	#N/A	
MW-502	13.00	4/11/2019	12:30	n.m.	DPE-14	n.a.	5.36	7.64	#N/A	
MW-502	13.00	5/9/2019	14:00	n.m.	DPE-14	n.a.	6.05	6.95	#N/A	
MW-502	13.00	6/6/2019	13:15	n.m.	DPE-14	n.a.	8.96	4.04	#N/A	
MW-502	13.00	8/1/2019	11:37	n.m.	DPE-14	n.a.	5.49	7.51	#N/A	DPE system expansion baseline event before system startup - System off
MW-502	13.00	8/15/2019	10:15	n.m.	DPE-14	n.a.	5.58	7.42	#N/A	
MW-502	13.00	8/21/2019	11:24	n.m.	DPE-14	n.a.	5.71	7.29	#N/A	
MW-502	13.00	9/24/2019	10:43	n.m.	DPE-14	n.a.	6.14	6.86	#N/A	
MW-503	12.22	3/8/2018	14:00	n.m.	DPE-14	n.a.	5.18	7.04	#N/A	
MW-503	12.22	3/14/2018	14:04	n.m.	DPE-14	n.a.	5.22	7.00	#N/A	
MW-503	12.22	5/29/2018	14:00	n.m.	DPE-14	n.a.	5.94	6.28	#N/A	
MW-503	12.22	6/18/2018	10:00	n.m.	DPE-14	n.a.	5.87	6.35	#N/A	
MW-503	12.22	7/19/2018	16:03	n.m.	DPE-14	n.a.	5.79	6.43	#N/A	
MW-503	12.22	8/7/2018	10:42	n.m.	DPE-14	n.a.	6.20	6.02	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-503	12.22	10/26/2018	14:43	n.m.	DPE-14	n.a.	5.32	6.9	#N/A	
MW-503	12.22	11/13/2018	15:17	n.m.	DPE-14	n.a.	5.42	6.80	#N/A	
MW-503	12.22	1/29/2019	13:02	n.m.	DPE-14	n.a.	5.40	6.82	#N/A	
MW-503	12.22	2/21/2019	10:35	n.m.	DPE-14	n.a.	4.88	7.34	#N/A	
MW-503	12.22	3/14/2019	13:03	n.m.	DPE-14	n.a.	5.33	6.89	#N/A	
MW-503	12.22	4/11/2019	12:33	n.m.	DPE-14	n.a.	5.15	7.07	#N/A	
MW-503	12.22	5/9/2019	14:03	n.m.	DPE-14	n.a.	5.50	6.72	#N/A	
MW-503	12.22	6/6/2019	13:17	n.m.	DPE-14	n.a.	5.52	6.7	#N/A	
MW-503	12.22	8/1/2019	11:35	n.m.	DPE-14	n.a.	5.24	6.98	#N/A	DPE system expansion baseline event before system startup - System off
MW-503	12.22	8/15/2019	10:17	n.m.	DPE-14	n.a.	5.35	6.87	#N/A	
MW-503	12.22	8/21/2019	11:28	n.m.	DPE-14	n.a.	5.50	6.72	#N/A	
MW-503	12.22	9/24/2019	10:45	n.m.	DPE-14	n.a.	5.58	6.64	#N/A	
MW-511	15.20	11/28/2017	10:25	n.m.	DPE-11	52	7.24	7.96	#N/A	DPE system baseline event before system startup - System off
MW-511	15.20	11/30/2017	16:13	n.m.	DPE-11	52	7.51	7.69	#N/A	DPE system testing
MW-511	15.20	12/1/2017	15:29	n.m.	DPE-11	52	7.45	7.75	#N/A	DPE system startup (groundwater extraction only) - DPE-11 off
MW-511	15.20	12/5/2017	12:51	n.m.	DPE-11	52	8.48	6.72	#N/A	DPE-11 off
MW-511	15.20	12/13/2017	11:27	n.m.	DPE-11	52	9.10	6.10	#N/A	DPE-11 repaired
MW-511	15.20	12/13/2017	15:20	n.m.	DPE-11	52	9.16	6.04	#N/A	
MW-511	15.20	12/14/2017	13:20	n.m.	DPE-11	52	9.35	5.85	#N/A	
MW-511	15.20	12/20/2017	14:45	n.m.	DPE-11	52	9.15	6.05	#N/A	
MW-511	15.20	12/27/2017	12:30	n.m.	DPE-11	52	9.67	5.53	#N/A	
MW-511	15.20	1/5/2018	15:35	n.m.	DPE-11	52	9.04	6.16	#N/A	
MW-511	15.20	1/9/2018	14:30	n.m.	DPE-11	52	8.63	6.57	#N/A	
MW-511	15.20	1/18/2018	13:14	n.m.	DPE-11	52	8.45	6.75	#N/A	
MW-511	15.20	1/24/2018	14:25	n.m.	DPE-11	52	8.41	6.79	#N/A	
MW-511	15.20	2/1/2018	9:15	n.m.	DPE-11	52	9.22	5.98	#N/A	
MW-511	15.20	2/8/2018	8:35	n.m.	DPE-11	52	8.12	7.08	#N/A	DPE-11 off
MW-511	15.20	2/13/2018	14:38	n.m.	DPE-11	52	8.12	7.08	#N/A	SVE off
MW-511	15.20	2/20/2018	14:20	n.m.	DPE-11	52	8.35	6.85	#N/A	
MW-511	15.20	2/28/2018	15:15	n.m.	DPE-11	52	8.64	6.56	#N/A	DPE-11 off
MW-511	15.20	3/8/2018	14:20	n.m.	DPE-11	52	8.21	6.99	#N/A	DPE-11 off
MW-511	15.20	3/14/2018	14:20	n.m.	DPE-11	52	8.09	7.11	#N/A	DPE-11 off
MW-511	15.20	5/29/2018	14:20	n.m.	DPE-11	52	9.19	6.01	#N/A	
MW-511	15.20	6/18/2018	10:05	n.m.	DPE-11	52	9.13	6.07	#N/A	
MW-511	15.20	7/19/2018	16:16	n.m.	DPE-11	52	8.80	6.4	#N/A	
MW-511	15.20	8/7/2018	10:55	n.m.	DPE-11	52	9.50	5.7	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
MW-511	15.20	10/26/2018	14:52	n.m.	DPE-11	52	8.41	6.79	#N/A	
MW-511	15.20	11/13/2018	15:30	n.m.	DPE-11	52	8.76	6.44	#N/A	
MW-511	15.20	1/29/2019	13:13	n.m.	DPE-11	52	8.10	7.10	#N/A	
MW-511	15.20	2/21/2019	11:00	n.m.	DPE-11	52	7.95	7.25	#N/A	
MW-511	15.20	3/14/2019	13:05	n.m.	DPE-11	52	8.32	6.88	#N/A	
MW-511	15.20	4/11/2019	12:45	n.m.	DPE-11	52	8.11	7.09	#N/A	
MW-511	15.20	5/9/2019	14:13	n.m.	DPE-11	52	8.82	6.38	#N/A	
MW-511	15.20	6/6/2019	13:25	n.m.	DPE-11	52	8.83	6.37	#N/A	
MW-511	15.20	8/1/2019	10:30	n.m.	DPE-11	52	8.14	7.06	#N/A	DPE system expansion baseline event before system startup - System off
MW-511	15.20	8/15/2019	10:04	n.m.	DPE-11	52	8.24	6.96	#N/A	
MW-511	15.20	8/21/2019	11:04	n.m.	DPE-11	52	8.49	6.71	#N/A	
MW-511	15.20	9/24/2019	10:30	n.m.	DPE-11	52	8.80	6.4	#N/A	
MW-512	13.19	11/28/2017	10:22	n.m.	DPE-11	38	6.21	6.98	#N/A	DPE system baseline event before system startup - System off
MW-512	13.19	11/30/2017	16:18	n.m.	DPE-11	38	6.24	6.95	0.03	DPE system testing
MW-512	13.19	12/1/2017	15:28	n.m.	DPE-11	38	6.30	6.89	0.09	DPE system startup (groundwater extraction only) - DPE-11 off
MW-512	13.19	12/5/2017	12:39	n.m.	DPE-11	38	6.51	6.68	0.30	DPE-11 off
MW-512	13.19	12/13/2017	11:30	n.m.	DPE-11	38	6.94	6.25	0.73	DPE-11 repaired
MW-512	13.19	12/13/2017	15:18	n.m.	DPE-11	38	6.95	6.24	0.74	
MW-512	13.19	12/14/2017	13:08	n.m.	DPE-11	38	6.99	6.20	0.78	
MW-512	13.19	12/20/2017	14:42	n.m.	DPE-11	38	6.16	7.03	-0.05	
MW-512	13.19	12/27/2017	12:20	n.m.	DPE-11	38	6.88	6.31	0.67	
MW-512	13.19	1/5/2018	15:28	n.m.	DPE-11	38	6.61	6.58	0.40	
MW-512	13.19	1/9/2018	14:22	n.m.	DPE-11	38	6.44	6.75	0.23	
MW-512	13.19	1/18/2018	13:22	n.m.	DPE-11	38	6.10	7.09	-0.11	
MW-512	13.19	1/24/2018	14:14	n.m.	DPE-11	38	6.14	7.05	-0.07	
MW-512	13.19	2/1/2018	9:10	n.m.	DPE-11	38	6.45	6.74	0.24	
MW-512	13.19	2/8/2018	8:45	n.m.	DPE-11	38	6.62	6.57	0.41	DPE-11 off
MW-512	13.19	2/13/2018	14:45	n.m.	DPE-11	38	6.75	6.44	0.54	SVE off
MW-512	13.19	2/20/2018	14:30	n.m.	DPE-11	38	6.85	6.34	0.64	
MW-512	13.19	2/28/2018	15:25	n.m.	DPE-11	38	6.87	6.32	0.66	DPE-11 off
MW-512	13.19	3/8/2018	14:30	n.m.	DPE-11	38	6.54	6.65	0.33	DPE-11 off
MW-512	13.19	3/14/2018	14:28	n.m.	DPE-11	38	6.56	6.63	0.35	DPE-11 off
MW-512	13.19	5/29/2018	14:25	n.m.	DPE-11	38	7.12	6.07	0.91	
MW-512	13.19	6/18/2018	10:03	n.m.	DPE-11	38	7.01	6.18	0.80	
MW-512	13.19	7/19/2018	16:18	n.m.	DPE-11	38	6.98	6.21	0.77	
MW-512	13.19	8/7/2018	10:59	n.m.	DPE-11	38	7.57	5.62	1.36	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-512	13.19	10/26/2018	14:56	n.m.	DPE-11	38	6.74	6.45	0.53	
MW-512	13.19	11/13/2018	15:32	n.m.	DPE-11	38	7.00	6.19	0.79	
MW-512	13.19	1/29/2019	13:18	n.m.	DPE-11	38	6.68	6.51	0.47	
MW-512	13.19	2/21/2019	11:05	n.m.	DPE-11	38	6.45	6.74	0.24	
MW-512	13.19	3/14/2019	13:13	n.m.	DPE-11	38	6.64	6.55	0.43	
MW-512	13.19	4/11/2019	12:48	n.m.	DPE-11	38	6.12	7.07	-0.09	
MW-512	13.19	5/9/2019	14:14	n.m.	DPE-11	38	6.81	6.38	0.60	
MW-512	13.19	6/6/2019	13:29	n.m.	DPE-11	38	6.82	6.37	0.61	
MW-512	13.19	8/1/2019	11:57	n.m.	DPE-11	38	6.56	6.63	0.35	DPE system expansion baseline event before system startup - System off
MW-512	13.19	8/15/2019	10:39	n.m.	DPE-11	38	6.69	6.5	0.48	
MW-512	13.19	8/21/2019	11:13	n.m.	DPE-11	38	6.89	6.30	0.68	
MW-512	13.19	9/24/2019	10:12	n.m.	DPE-11	38	6.81	6.38	0.60	
MW-514	11.39	3/8/2018	14:35	n.m.	DPE-11	n.a.	4.71	6.68	#N/A	
MW-514	11.39	3/14/2018	14:30	n.m.	DPE-11	n.a.	4.78	6.61	#N/A	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
MW-514	11.39	5/29/2018	14:30	n.m.	DPE-11	n.a.	5.30	6.09	#N/A	
MW-514	11.39	6/18/2018	10:09	n.m.	DPE-11	n.a.	5.18	6.21	#N/A	
MW-514	11.39	7/19/2018	16:20	n.m.	DPE-11	n.a.	5.19	6.2	#N/A	
MW-514	11.39	8/7/2018	11:02	n.m.	DPE-11	n.a.	5.62	5.77	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-514	11.39	10/26/2018	14:59	n.m.	DPE-11	n.a.	4.91	6.48	#N/A	
MW-514	11.39	11/13/2018	15:30	n.m.	DPE-11	n.a.	5.16	6.23	#N/A	
MW-514	11.39	1/29/2019	13:20	n.m.	DPE-11	n.a.	4.82	6.57	#N/A	
MW-514	11.39	2/21/2019	11:10	n.m.	DPE-11	n.a.	4.62	6.77	#N/A	
MW-514	11.39	3/14/2019	13:15	n.m.	DPE-11	n.a.	4.86	6.53	#N/A	
MW-514	11.39	4/11/2019	12:51	n.m.	DPE-11	n.a.	4.74	6.65	#N/A	
MW-514	11.39	5/9/2019	14:17	n.m.	DPE-11	n.a.	4.96	6.43	#N/A	
MW-514	11.39	6/6/2019	13:32	n.m.	DPE-11	n.a.	4.96	6.43	#N/A	
MW-514	11.39	8/1/2019	11:58	n.m.	DPE-11	n.a.	4.72	6.67	#N/A	DPE system expansion baseline event before system startup - System off
MW-514	11.39	8/15/2019	10:37	n.m.	DPE-11	n.a.	4.85	6.54	#N/A	
MW-514	11.39	8/21/2019	11:35	n.m.	DPE-11	n.a.	5.03	6.36	#N/A	
MW-514	11.39	9/24/2019	10:14	n.m.	DPE-11	n.a.	4.98	6.41	#N/A	
MW-518	14.60	8/1/2019	11:52	n.m.	DPE-16	8	8.59	6.01	#N/A	DPE system expansion baseline event before system startup - System off
MW-518	14.60	8/15/2019	10:33	n.m.	DPE-16	8	9.55	5.05	0.96	
MW-518	14.60	8/21/2019	10:36	n.m.	DPE-16	8	9.62	4.98	1.03	
MW-518	14.60	9/24/2019	10:26	n.m.	DPE-16	8	9.95	4.65	1.36	
MW-519	12.60	11/28/2017	9:04	n.m.	DPE-6	62	6.71	5.89	#N/A	DPE system baseline event before system startup - System off
MW-519	12.60	11/30/2017	15:32	n.m.	DPE-6	62	5.98	6.62	#N/A	DPE system testing
MW-519	12.60	12/1/2017	15:49	n.m.	DPE-6	62	6.10	6.50	#N/A	DPE system startup (groundwater extraction only)
MW-519	12.60	12/5/2017	13:23	n.m.	DPE-6	62	6.76	5.84	#N/A	
MW-519	12.60	12/13/2017	11:58	n.m.	DPE-6	62	7.35	5.25	#N/A	
MW-519	12.60	12/13/2017	15:56	n.m.	DPE-6	62	7.32	5.28	#N/A	
MW-519	12.60	12/14/2017	14:17	n.m.	DPE-6	62	7.39	5.21	#N/A	
MW-519	12.60	12/20/2017	15:22	n.m.	DPE-6	62	6.71	5.89	#N/A	
MW-519	12.60	12/27/2017	#N/A	n.m.	DPE-6	62	#N/A	#N/A	#N/A	Not Gauged
MW-519	12.60	1/5/2018	15:57	n.m.	DPE-6	62	6.90	5.70	#N/A	
MW-519	12.60	1/9/2018	15:40	n.m.	DPE-6	62	9.25	3.35	#N/A	
MW-519	12.60	1/18/2018	13:44	n.m.	DPE-6	62	6.10	6.50	#N/A	
MW-519	12.60	1/24/2018	14:52	n.m.	DPE-6	62	5.83	6.77	#N/A	
MW-519	12.60	2/1/2018	9:38	n.m.	DPE-6	62	6.49	6.11	#N/A	
MW-519	12.60	2/8/2018	9:33	n.m.	DPE-6	62	6.75	5.85	#N/A	
MW-519	12.60	2/13/2018	14:56	n.m.	DPE-6	62	7.13	5.47	#N/A	SVE off
MW-519	12.60	2/20/2018	14:46	n.m.	DPE-6	62	7.22	5.38	#N/A	
MW-519	12.60	2/28/2018	15:52	n.m.	DPE-6	62	7.43	5.17	#N/A	
MW-519	12.60	3/8/2018	14:55	n.m.	DPE-6	62	7.15	5.45	#N/A	
MW-519	12.60	3/14/2018	14:47	n.m.	DPE-6	62	7.00	5.60	#N/A	
MW-519	12.60	5/29/2018	14:39	n.m.	DPE-6	62	7.29	5.31	#N/A	
MW-519	12.60	6/18/2018	14:45	n.m.	DPE-6	62	7.30	5.30	#N/A	SVE off
MW-519	12.60	7/19/2018	16:32	n.m.	DPE-6	62	7.14	5.46	#N/A	
MW-519	12.60	8/7/2018	11:14	n.m.	DPE-6	62	7.34	5.26	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-519	12.60	10/26/2018	15:07	n.m.	DPE-6	62	7.02	5.58	#N/A	
MW-519	12.60	11/13/2018	15:45	n.m.	DPE-6	62	7.42	5.18	#N/A	
MW-519	12.60	1/29/2019	13:34	n.m.	DPE-6	62	6.81	5.79	#N/A	
MW-519	12.60	2/21/2019	11:24	n.m.	DPE-6	62	6.52	6.08	#N/A	
MW-519	12.60	3/14/2019	13:26	n.m.	DPE-6	62	7.11	5.49	#N/A	
MW-519	12.60	4/11/2019	13:01	n.m.	DPE-6	62	6.52	6.08	#N/A	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
MW-519	12.60	5/9/2019	14:30	n.m.	DPE-6	62	7.30	5.30	#N/A	
MW-519	12.60	6/6/2019	13:45	n.m.	DPE-6	62	7.31	5.29	#N/A	
MW-519	12.60	8/1/2019	10:13	n.m.	DPE-6	62	7.01	5.59	#N/A	DPE system expansion baseline event before system startup - System off
MW-519	12.60	8/15/2019	9:21	n.m.	DPE-6	62	7.11	5.49	#N/A	
MW-519	12.60	8/21/2019	11:07	n.m.	DPE-6	62	7.39	5.21	#N/A	
MW-519	12.60	9/24/2019	9:30	n.m.	DPE-6	62	7.25	5.35	#N/A	
MW-520	13.31	3/8/2018	14:50	n.m.	DPE-5	n.a.	7.83	5.48	#N/A	
MW-520	13.31	3/14/2018	14:42	n.m.	DPE-5	n.a.	7.70	5.61	#N/A	
MW-520	13.31	5/29/2018	14:42	n.m.	DPE-5	n.a.	7.97	5.34	#N/A	
MW-520	13.31	6/18/2018	14:35	n.m.	DPE-5	n.a.	7.96	5.35	#N/A	SVE off
MW-520	13.31	7/19/2018	16:30	n.m.	DPE-5	n.a.	7.83	5.48	#N/A	
MW-520	13.31	8/7/2018	11:09	n.m.	DPE-5	n.a.	8.03	5.28	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-520	13.31	10/26/2018	15:03	n.m.	DPE-5	n.a.	7.71	5.6	#N/A	
MW-520	13.31	11/13/2018	15:41	n.m.	DPE-5	n.a.	8.10	5.21	#N/A	
MW-520	13.31	1/29/2019	13:28	n.m.	DPE-5	n.a.	7.49	5.82	#N/A	
MW-520	13.31	2/21/2019	11:31	n.m.	DPE-5	n.a.	7.21	6.10	#N/A	
MW-520	13.31	3/14/2019	13:22	n.m.	DPE-5	n.a.	7.82	5.49	#N/A	
MW-520	13.31	4/11/2019	12:57	n.m.	DPE-5	n.a.	7.21	6.10	#N/A	
MW-520	13.31	5/9/2019	14:25	n.m.	DPE-5	n.a.	8.05	5.26	#N/A	
MW-520	13.31	6/6/2019	13:42	n.m.	DPE-5	n.a.	8.05	5.26	#N/A	
MW-520	13.31	8/1/2019	10:36	n.m.	DPE-5	n.a.	7.71	5.6	#N/A	DPE system expansion baseline event before system startup - System off
MW-520	13.31	8/15/2019	9:27	n.m.	DPE-5	n.a.	7.80	5.51	#N/A	
MW-520	13.31	8/21/2019	10:55	n.m.	DPE-5	n.a.	8.07	5.24	#N/A	
MW-520	13.31	9/24/2019	9:23	n.m.	DPE-5	n.a.	7.93	5.38	#N/A	
MW-521	12.18	3/8/2018	14:52	n.m.	DPE-5	n.a.	6.71	5.47	#N/A	
MW-521	12.18	3/14/2018	14:43	n.m.	DPE-5	n.a.	6.59	5.59	#N/A	
MW-521	12.18	5/29/2018	14:45	n.m.	DPE-5	n.a.	6.90	5.28	#N/A	
MW-521	12.18	6/18/2018	14:38	n.m.	DPE-5	n.a.	6.87	5.31	#N/A	SVE off
MW-521	12.18	7/19/2018	16:40	n.m.	DPE-5	n.a.	6.71	5.47	#N/A	
MW-521	12.18	8/7/2018	11:12	n.m.	DPE-5	n.a.	6.95	5.23	#N/A	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-521	12.18	10/26/2018	15:05	n.m.	DPE-5	n.a.	6.61	5.57	#N/A	
MW-521	12.18	11/13/2018	15:43	n.m.	DPE-5	n.a.	6.80	5.38	#N/A	
MW-521	12.18	1/29/2019	13:31	n.m.	DPE-5	n.a.	6.39	5.79	#N/A	
MW-521	12.18	2/21/2019	11:29	n.m.	DPE-5	n.a.	6.11	6.07	#N/A	
MW-521	12.18	3/14/2019	13:24	n.m.	DPE-5	n.a.	6.71	5.47	#N/A	
MW-521	12.18	4/11/2019	12:59	n.m.	DPE-5	n.a.	6.11	6.07	#N/A	
MW-521	12.18	5/9/2019	14:28	n.m.	DPE-5	n.a.	6.95	5.23	#N/A	
MW-521	12.18	6/6/2019	13:44	n.m.	DPE-5	n.a.	6.94	5.24	#N/A	
MW-521	12.18	8/1/2019	10:31	n.m.	DPE-5	n.a.	6.61	5.57	#N/A	DPE system expansion baseline event before system startup - System off
MW-521	12.18	8/15/2019	9:25	n.m.	DPE-5	n.a.	6.70	5.48	#N/A	
MW-521	12.18	8/21/2019	11:06	n.m.	DPE-5	n.a.	6.98	5.20	#N/A	
MW-521	12.18	9/24/2019	9:19	n.m.	DPE-5	n.a.	6.82	5.36	#N/A	
MW-525	12.62	11/28/2017	9:26	n.m.	DPE-4	5	5.75	6.87	#N/A	DPE system baseline event before system startup - System off
MW-525	12.62	11/30/2017	15:52	n.m.	DPE-4	5	8.16	4.46	2.41	DPE system testing
MW-525	12.62	12/1/2017	15:39	n.m.	DPE-4	5	9.81	2.81	4.06	DPE system startup (groundwater extraction only)
MW-525	12.62	12/5/2017	13:30	n.m.	DPE-4	5	10.12	2.50	4.37	
MW-525	12.62	12/13/2017	11:48	n.m.	DPE-4	5	9.92	2.70	4.17	
MW-525	12.62	12/13/2017	15:44	n.m.	DPE-4	5	9.96	2.66	4.21	
MW-525	12.62	12/14/2017	14:09	n.m.	DPE-4	5	10.34	2.28	4.59	
MW-525	12.62	12/20/2017	15:03	n.m.	DPE-4	5	8.93	3.69	3.18	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
MW-525	12.62	12/27/2017	12:05	n.m.	DPE-4	5	10.50	2.12	4.75	
MW-525	12.62	1/5/2018	15:46	n.m.	DPE-4	5	9.46	3.16	3.71	
MW-525	12.62	1/9/2018	15:26	n.m.	DPE-4	5	9.72	2.90	3.97	
MW-525	12.62	1/18/2018	13:38	n.m.	DPE-4	5	9.10	3.52	3.35	
MW-525	12.62	1/24/2018	14:45	n.m.	DPE-4	5	9.21	3.41	3.46	
MW-525	12.62	2/1/2018	9:33	n.m.	DPE-4	5	9.73	2.89	3.98	
MW-525	12.62	2/8/2018	9:05	n.m.	DPE-4	5	9.66	2.96	3.91	
MW-525	12.62	2/13/2018	14:47	n.m.	DPE-4	5	9.93	2.69	4.18	SVE off
MW-525	12.62	2/20/2018	14:35	n.m.	DPE-4	5	9.86	2.76	4.11	
MW-525	12.62	2/28/2018	15:40	n.m.	DPE-4	5	10.69	1.93	4.94	
MW-525	12.62	3/8/2018	15:11	n.m.	DPE-4	5	9.93	2.69	4.18	
MW-525	12.62	3/14/2018	15:05	n.m.	DPE-4	5	9.80	2.82	4.05	
MW-525	12.62	5/29/2018	15:26	n.m.	DPE-4	5	9.89	2.73	4.14	
MW-525	12.62	6/18/2018	15:04	n.m.	DPE-4	5	10.84	1.78	5.09	SVE off
MW-525	12.62	7/19/2018	16:46	n.m.	DPE-4	5	10.44	2.18	4.69	
MW-525	12.62	8/7/2018	11:26	n.m.	DPE-4	5	7.26	5.36	1.51	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-525	12.62	10/26/2018	15:26	n.m.	DPE-4	5	9.08	3.54	3.33	
MW-525	12.62	11/13/2018	15:55	n.m.	DPE-4	5	9.65	2.97	3.90	
MW-525	12.62	1/29/2019	13:50	n.m.	DPE-4	5	9.10	3.52	3.35	
MW-525	12.62	2/21/2019	11:42	n.m.	DPE-4	5	9.59	3.03	3.84	
MW-525	12.62	3/14/2019	13:43	n.m.	DPE-4	5	9.70	2.92	3.95	
MW-525	12.62	4/11/2019	13:18	n.m.	DPE-4	5	9.14	3.48	3.39	
MW-525	12.62	5/9/2019	14:47	n.m.	DPE-4	5	9.49	3.13	3.74	
MW-525	12.62	6/6/2019	14:01	n.m.	DPE-4	5	9.80	2.82	4.05	
MW-525	12.62	8/1/2019	10:52	n.m.	DPE-4	5	6.60	6.02	0.85	DPE system expansion baseline event before system startup - System off
MW-525	12.62	8/15/2019	9:53	n.m.	DPE-4	5	6.71	5.91	0.96	
MW-525	12.62	8/21/2019	11:23	n.m.	DPE-4	5	9.16	3.46	3.41	
MW-525	12.62	9/24/2019	9:50	n.m.	DPE-4	5	9.78	2.84	4.03	
MW-526	12.90	11/28/2017	9:58	n.m.	DPE-11	10	5.03	7.87	#N/A	DPE system baseline event before system startup - System off
MW-526	12.90	11/30/2017	16:23	n.m.	DPE-11	10	5.69	7.21	0.66	DPE system testing
MW-526	12.90	12/1/2017	15:25	n.m.	DPE-11	10	6.24	6.66	1.21	DPE system startup (groundwater extraction only) - DPE-11 off
MW-526	12.90	12/5/2017	12:54	n.m.	DPE-11	10	5.45	7.45	0.42	DPE-11 off
MW-526	12.90	12/13/2017	11:22	n.m.	DPE-11	10	5.98	6.92	0.95	DPE-11 repaired
MW-526	12.90	12/13/2017	15:16	n.m.	DPE-11	10	6.06	6.84	1.03	
MW-526	12.90	12/14/2017	13:02	n.m.	DPE-11	10	5.97	6.93	0.94	
MW-526	12.90	12/20/2017	14:36	n.m.	DPE-11	10	6.12	6.78	1.09	
MW-526	12.90	12/27/2017	12:10	n.m.	DPE-11	10	6.18	6.72	1.15	
MW-526	12.90	1/5/2018	15:20	n.m.	DPE-11	10	6.04	6.86	1.01	
MW-526	12.90	1/9/2018	10:45	n.m.	DPE-11	10	6.15	6.75	1.12	
MW-526	12.90	1/18/2018	13:05	n.m.	DPE-11	10	6.00	6.90	0.97	
MW-526	12.90	1/24/2018	14:08	n.m.	DPE-11	10	6.18	6.72	1.15	
MW-526	12.90	2/1/2018	9:05	n.m.	DPE-11	10	5.99	6.91	0.96	
MW-526	12.90	2/8/2018	8:30	n.m.	DPE-11	10	5.42	7.48	0.39	DPE-11 off
MW-526	12.90	2/13/2018	14:40	n.m.	DPE-11	10	5.52	7.38	0.49	SVE off
MW-526	12.90	2/20/2018	14:15	n.m.	DPE-11	10	5.80	7.10	0.77	
MW-526	12.90	2/28/2018	15:10	n.m.	DPE-11	10	5.80	7.1	0.77	DPE-11 off
MW-526	12.90	3/8/2018	14:15	n.m.	DPE-11	10	5.60	7.3	0.57	DPE-11 off
MW-526	12.90	3/14/2018	14:17	n.m.	DPE-11	10	5.53	7.37	0.50	DPE-11 off
MW-526	12.90	5/29/2018	14:17	n.m.	DPE-11	10	6.42	6.48	1.39	
MW-526	12.90	6/18/2018	15:15	n.m.	DPE-11	10	6.19	6.71	1.16	SVE off

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
MW-526	12.90	7/19/2018	16:13	n.m.	DPE-11	10	6.61	6.29	1.58	
MW-526	12.90	8/7/2018	10:53	n.m.	DPE-11	10	7.40	5.5	2.37	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-526	12.90	10/26/2018	14:53	n.m.	DPE-11	10	5.85	7.05	0.82	
MW-526	12.90	11/13/2018	15:25	n.m.	DPE-11	10	6.23	6.67	1.20	
MW-526	12.90	1/29/2019	13:11	n.m.	DPE-11	10	5.56	7.34	0.53	
MW-526	12.90	2/21/2019	10:49	n.m.	DPE-11	10	5.11	7.79	0.08	
MW-526	12.90	3/14/2019	13:09	n.m.	DPE-11	10	5.76	7.14	0.73	
MW-526	12.90	4/11/2019	12:43	n.m.	DPE-11	10	5.69	7.21	0.66	
MW-526	12.90	5/9/2019	14:11	n.m.	DPE-11	10	6.15	6.75	1.12	
MW-526	12.90	6/6/2019	13:23	n.m.	DPE-11	10	6.25	6.65	1.22	
MW-526	12.90	8/1/2019	11:11	n.m.	DPE-11	10	5.64	7.26	0.61	DPE system expansion baseline event before system startup - System off
MW-526	12.90	8/15/2019	10:07	n.m.	DPE-11	10	5.65	7.25	0.62	
MW-526	12.90	8/21/2019	11:07	n.m.	DPE-11	10	5.77	7.13	0.74	
MW-526	12.90	9/24/2019	10:33	n.m.	DPE-11	10	6.13	6.77	1.10	
MW-531	13.26	11/28/2017	9:00	n.m.	DPE-5	30	6.74	6.52	#N/A	DPE system baseline event before system startup - System off
MW-531	13.26	11/30/2017	15:34	n.m.	DPE-5	30	6.64	6.62	-0.10	DPE system testing
MW-531	13.26	12/1/2017	15:45	n.m.	DPE-5	30	6.76	6.50	0.02	DPE system startup (groundwater extraction only)
MW-531	13.26	12/5/2017	13:15	n.m.	DPE-5	30	7.40	5.86	0.66	
MW-531	13.26	12/13/2017	11:53	n.m.	DPE-5	30	7.99	5.27	1.25	
MW-531	13.26	12/13/2017	15:54	n.m.	DPE-5	30	7.97	5.29	1.23	
MW-531	13.26	12/14/2017	14:30	n.m.	DPE-5	30	8.04	5.22	1.30	
MW-531	13.26	12/20/2017	15:18	n.m.	DPE-5	30	7.36	5.90	0.62	
MW-531	13.26	12/27/2017	#N/A	n.m.	DPE-5	30	#N/A	#N/A	#N/A	Not Gauged
MW-531	13.26	1/5/2018	15:54	n.m.	DPE-5	30	7.54	5.72	0.80	
MW-531	13.26	1/9/2018	15:33	n.m.	DPE-5	30	6.89	6.37	0.15	
MW-531	13.26	1/18/2018	13:43	n.m.	DPE-5	30	6.72	6.54	-0.02	
MW-531	13.26	1/24/2018	14:49	n.m.	DPE-5	30	6.49	6.77	-0.25	
MW-531	13.26	2/1/2018	9:50	n.m.	DPE-5	30	7.10	6.16	0.36	
MW-531	13.26	2/8/2018	9:29	n.m.	DPE-5	30	7.40	5.86	0.66	
MW-531	13.26	2/13/2018	14:54	n.m.	DPE-5	30	7.81	5.45	1.07	SVE off
MW-531	13.26	2/20/2018	14:44	n.m.	DPE-5	30	7.84	5.42	1.10	
MW-531	13.26	2/28/2018	15:50	n.m.	DPE-5	30	8.10	5.16	1.36	
MW-531	13.26	3/8/2018	14:47	n.m.	DPE-5	30	7.79	5.47	1.05	
MW-531	13.26	3/14/2018	14:59	n.m.	DPE-5	30	7.65	5.61	0.91	
MW-531	13.26	5/29/2018	15:11	n.m.	DPE-5	30	9.97	3.29	3.23	
MW-531	13.26	6/18/2018	15:01	n.m.	DPE-5	30	7.93	5.33	1.19	SVE off
MW-531	13.26	7/19/2018	16:39	n.m.	DPE-5	30	7.79	5.47	1.05	
MW-531	13.26	8/7/2018	11:21	n.m.	DPE-5	30	7.80	5.46	1.06	DPE/SVE Wells 11 to 14 and SVE-1 and SVE-2 on only
MW-531	13.26	10/26/2018	15:16	n.m.	DPE-5	30	7.69	5.57	0.95	
MW-531	13.26	11/13/2018	15:52	n.m.	DPE-5	30	8.08	5.18	1.34	
MW-531	13.26	1/29/2019	13:45	n.m.	DPE-5	30	7.19	6.07	0.45	
MW-531	13.26	2/21/2019	11:39	n.m.	DPE-5	30	7.10	6.16	0.36	
MW-531	13.26	3/14/2019	13:36	n.m.	DPE-5	30	7.78	5.48	1.04	
MW-531	13.26	4/11/2019	13:15	n.m.	DPE-5	30	7.09	6.17	0.35	
MW-531	13.26	5/9/2019	14:42	n.m.	DPE-5	30	7.95	5.31	1.21	
MW-531	13.26	6/6/2019	13:54	n.m.	DPE-5	30	7.95	5.31	1.21	
MW-531	13.26	8/1/2019	10:46	n.m.	DPE-5	30	7.66	5.6	0.92	DPE system expansion baseline event before system startup - System off
MW-531	13.26	8/15/2019	9:38	n.m.	DPE-5	30	7.76	5.5	1.02	
MW-531	13.26	8/21/2019	11:19	n.m.	DPE-5	30	8.02	5.24	1.28	
MW-531	13.26	9/24/2019	9:41	n.m.	DPE-5	30	7.87	5.39	1.13	

Table 6
 Observation Well Data
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Well ID	Casing Elevation	Date	Time	Induced Vacuum	Closest DPE Well	Distance to DPE Well	Depth to Water	Groundwater Elevation	Drawdown ^{2,3}	Comments
	ft NAVD88	mm/dd/yy	hh:mm ¹	in H ₂ O	DPE-X	feet	ft btoc	ft NAVD88	ft bbl	Notes
MW-532	13.38	11/28/2017	9:16	n.m.	DPE-2	8	6.45	6.93	#N/A	DPE system baseline event before system startup - System off
MW-532	13.38	11/30/2017	15:49	n.m.	DPE-2	8	7.22	6.16	0.77	DPE system testing
MW-532	13.38	12/1/2017	15:54	n.m.	DPE-2	8	8.49	4.89	2.04	DPE system startup (groundwater extraction only)
MW-532	13.38	12/5/2017	13:05	n.m.	DPE-2	8	9.94	3.44	3.49	
MW-532	13.38	12/13/2017	11:44	n.m.	DPE-2	8	11.36	2.02	4.91	
MW-532	13.38	12/13/2017	15:35	n.m.	DPE-2	8	10.32	3.06	3.87	
MW-532	13.38	12/14/2017	14:02	n.m.	DPE-2	8	10.40	2.98	3.95	
MW-532	13.38	12/20/2017	15:09	n.m.	DPE-2	8	9.20	4.18	2.75	
MW-532	13.38	12/27/2017	12:25	n.m.	DPE-2	8	10.03	3.35	3.58	
MW-532	13.38	1/5/2018	15:50	n.m.	DPE-2	8	8.86	4.52	2.41	
MW-532	13.38	1/9/2018	15:48	n.m.	DPE-2	8	8.69	4.69	2.24	
MW-532	13.38	1/18/2018	13:32	n.m.	DPE-2	8	8.33	5.05	1.88	
MW-532	13.38	1/24/2018	14:32	n.m.	DPE-2	8	7.85	5.53	1.40	
MW-532	13.38	2/1/2018	9:28	n.m.	DPE-2	8	9.94	3.44	3.49	
MW-532	13.38	2/8/2018	9:23	n.m.	DPE-2	8	9.39	3.99	2.94	
MW-532	13.38	2/13/2018	14:50	n.m.	DPE-2	8	9.55	3.83	3.10	SVE off
MW-532	13.38	2/20/2018	14:40	n.m.	DPE-2	8	9.14	4.24	2.69	
MW-532	13.38	2/28/2018	15:43	n.m.	DPE-2	8	9.70	3.68	3.25	
MW-532	13.38	3/8/2018	15:13	n.m.	DPE-2	8	10.06	3.32	3.61	
MW-532	13.38	3/14/2018	15:06	n.m.	DPE-2	8	9.62	3.76	3.17	
MW-532	13.38	5/29/2018	15:19	n.m.	DPE-2	8	9.08	4.30	2.63	
MW-532	13.38	6/18/2018	14:55	n.m.	DPE-2	8	9.75	3.63	3.30	SVE off
MW-532	13.38	7/19/2018	16:42	n.m.	DPE-2	8	9.20	4.18	2.75	
MW-532	13.38	8/7/2018	11:27	n.m.	DPE-2	8	8.30	5.08	1.85	
MW-532	13.38	10/26/2018	15:28	n.m.	DPE-2	8	8.58	4.80	2.13	
MW-532	13.38	11/13/2018	15:56	n.m.	DPE-2	8	9.28	4.10	2.83	
MW-532	13.38	1/29/2019	13:52	n.m.	DPE-2	8	8.27	5.11	1.82	
MW-532	13.38	2/21/2019	11:45	n.m.	DPE-2	8	8.77	4.61	2.32	
MW-532	13.38	3/14/2019	13:41	n.m.	DPE-2	8	8.29	5.09	1.84	
MW-532	13.38	4/11/2019	13:25	n.m.	DPE-2	8	7.49	5.89	1.04	
MW-532	13.38	5/9/2019	14:52	n.m.	DPE-2	8	8.88	4.50	2.43	
MW-532	13.38	6/6/2019	14:00	n.m.	DPE-2	8	9.10	4.28	2.65	
MW-532	13.38	8/1/2019	10:49	n.m.	DPE-2	8	7.64	5.74	1.19	DPE system expansion baseline event before system startup - System off
MW-532	13.38	8/15/2019	10:01	n.m.	DPE-2	8	7.73	5.65	1.28	
MW-532	13.38	8/21/2019	11:29	n.m.	DPE-2	8	8.62	4.76	2.17	
MW-532	13.38	9/24/2019	9:54	n.m.	DPE-2	8	9.60	3.78	3.15	
MW-E-R	14.30	8/1/2019	11:47	n.m.	DPE-17	9	7.13	7.17	#N/A	DPE system expansion baseline event before system startup - System off
MW-E-R	14.30	8/15/2019	10:19	n.m.	DPE-17	9	9.33	4.97	2.2	
MW-E-R	14.30	8/21/2019	10:27	n.m.	DPE-17	9	9.46	4.84	2.33	
MW-E-R	14.30	9/24/2019	10:47	n.m.	DPE-17	9	9.54	4.76	2.41	

Notes
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Data Sheet Name	Notes
Table 4-6 Observation Well Data	¹ . hh:mm in data sheets is reported in 24 hour format ² . Drawdown calculation based on groundwater elevation measured during the DPE system baseline event before system startup on 11/28/17. Drawdown = groundwater elevation - baseline groundwater elevation ³ . Drawdown calculation based on average groundwater elevation measured from 10/20/08 to 07/24/17 for MW-519. Drawdown = groundwater elevation - average groundwater elevation DPE well = dual phase extraction well; remediation well used for both groundwater and soil vapor extraction ft bbl = feet below baseline ft btoc = feet below top of casing in Hg = inches mercury in H ₂ O = inches water MW = monitoring well; observation well used for DPE system monitoring and groundwater compliance monitoring NAVD88 = North American Vertical Datum of 1988 SVE = soil vapor extraction PZ = piezometer; observation well used for DPE system monitoring

Table 4-7
Catalytic Oxidizer Data
Former Unocal Edmonds Bulk Fuel Terminal
11720 Unoco Road
Edmonds, Washington

Date	Time	CatOx Total Operating Hours ^{2.}	VCV Valve Opening	CatOx Inlet Temperature (Meter TT-1901)	Heater Settings CatOx Inlet Set Temperature	CatOx Outlet Temperature (Meter TT-1902)	VOCs Inlet Concentration ^{3.}	VOCs Outlet Concentration ^{3.}	Destruction Efficiency ^{4.}	Discharge Vapor Laboratory Sample
PSCAA Permit 29892 Effluent Limitations	--	--	--	> 600 °F	--	< 1,200 °F	--	--	<ul style="list-style-type: none"> • 98.5% if > 2,000 ppm • 97% if > 200 ppm • 90% if ≥ 100 ppm • < 10 ppm for influent < 100 ppm 	--
mm/dd/yy	hh:mm ^{1.}	hours	% open to process	°F	°F	°F	ppmv	ppmv	%	Y/N
DPE System Soil Vapor Extraction Testing: 12/05/17										
DPE System Soil Vapor Extraction Start-up: 12/11/17										
12.13.17	12:15	57	100	624	625	714	378.80	0.5	99.9	N
12.13.17	16:12	61	100	624	625	708	364.60	0.6	99.8	N
12.14.17	10:20	79	100	624	625	688	308.20	0.1	100.0	Y
12.20.17	16:30	164	100	624	625	658	177.50	0.0	100.0	Y
12.27.17	13:20	260	100	624	625	641	129.80	0.3	99.8	Y
01.05.18	17:15	361	100	624	625	640	121.90	0.0	100.0	N
01.09.18	17:25	372	100	625	625	638	95.20	0.0	100.0	N
1/18/2018	15:05	447	100	625	625	632	44.10	0.0	100.0	N
1/25/2018	11:00	--	100	625	625	630	39.00	0.0	100.0	N
2/1/2018	11:25	684	100	626	625	630	25.90	0.0	100.0	N
2/8/2018	10:20	767	100	624	625	628	17.10	0.0	100.0	N
2/16/2018	12:45	894	100	624	625	733	172.60	0.1	99.9	N
2/20/2018	14:50	928	100	624	625	626	39.10	0.0	100.0	Y
2/28/2018	14:45	1,050	100	624	625	628	22.20	0.0	100.0	N
3/8/2018	12:35	1,164	100	625	625	629	18.10	0.0	100.0	N
3/14/2018	13:00	1,288	100	624	625	629	10.10	0.2	98.0	Y
5/8/2018	15:00	1,303	100	626	625	632	6.80	0.1	98.5	N
5/17/2018	17:00	1,477	100	624	625	629	5	0.0	100.0	Y
5/23/2018	17:15	1,624	100	625	625	633	11.1	0.0	100.0	N
5/29/2018	16:42	1,764	100	624	625	629	38.4	0.0	100.0	N
6/7/2018	17:15	1,847	100	624	625	632	26.3	0.0	100.0	N
6/15/2018	14:55	1,946	100	624	625	628	22	0.0	100.0	N
7/5/2018	14:00	2,142	100	627	625	628	17	0.0	100.0	N
7/11/2018	15:00	2,287	100	626	625	629	38	0.0	100.0	N
7/19/2018	15:20	2,303	100	627	625	625	27	0.0	100.0	N
7/26/2018	14:45	2,434	100	626	625	630	21	0.0	100.0	Y
8/3/2018	15:45	2,529	100	626	625	628	23	0.0	100.0	N
8/7/2018	13:00	2,623	100	626	625	628	22	0.0	100.0	N
8/15/2018	15:00	2,793	100	627	625	627	21	0.0	100.0	N
10/18/2018	16:15	2,797	100	625	625	625	30.1	0.0	100.0	Y
10/26/2018	16:45	2,816	100	625	625	625	10.1	0.0	100.0	N
11/7/2018	16:45	2,819	100	624	625	623	18.0	0.1	99.4	N
11/13/2018	14:25	2,922	100	626	625	620	17.5	0.0	100.0	N
11/21/2018	14:50	3,016	100	625	625	628	3.8	0.0	100.0	N
9/23/2019	16:53	3,239	100	624	624	623	25.1	0.8	96.8	N

Notes
 Former Unocal Edmonds Bulk Fuel Terminal
 11720 Unoco Road
 Edmonds, Washington

Data Sheet Name	Notes
Table 4-7 Catalytic Oxidizer Data	¹ . hh:mm in data sheets is reported in 24 hour format ² . Catalytic Oxidizer (CatOx) total operating hours read on CatOx Panel ³ . VOCs concentration measured in the field by photoionization detector (PID) reading ⁴ . Destruction Efficiency = (VOCs Inlet Concentration - VOCs Outlet Concentration)*100 / VOCs Inlet Concentration °F = degrees Fahrenheit lbs/day = pounds per day PID = photoionization detector ppm = parts per million ppmv = parts per million vapor PSCAA = Puget Sound Clean Air Agency VOCs = volatile organic compounds VCV = Vapor Control Valve Y/N = yes/no > = superior than < = inferior than % = percent

Table 4-8
DPE System Treated Water Discharge
Analytical Data and Field Parameters
Former Unocal Terminal
11720 Unoco Road
Edmonds, Washington

Sample Date	Sample Name	Benzene		cPAHs		Gasoline		Diesel		Heavy Oil	
	NPDES Permit No.	16 ug/L		0.05 ug/L		800 ug/L		500 ug/L		500 ug/L	
	WA0991007 Discharge Limits	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q
12/01/17	Outfall#002	1	U	0.004	U, J, B, F1	250	U	24	J	250	U, F2
12/01/17	DUP-1	1	U	0.008	U, J, B	250	U	27	J	250	U
12/05/17	Outfall#002	1	U	0.013	U, *, J, B	250	U	24	J	250	U
12/14/17	Outfall#002	1	U	0.009	U, J, B	250	U	28	J	260	U
12/20/17	Outfall#002	1	U	0.003	U, J, B	250	U	81	J, B	260	U
12/28/17	Outfall#002	1	U	0.032	U	250	U	77	J, B	190	J
01/05/18	Outfall#002	1	U	0.003	U	250	U	100	U	260	U
01/09/18	Outfall#002	1	U	0.003	U	250	U	46	J, B	140	J, B
01/18/18	Outfall#002	2	U	0.009	U, J, B	250	U	58	J, B	130	J, B
01/24/18	Outfall#002	2	U	0.010	U, J, B	250	U	110	U	360	U
02/01/18	Outfall#002	2	U	0.003	U	250	U	110	U	360	U
02/01/18	DUP-1	2	U	0.003	U	250	U	110	U	350	U
02/06/18	Outfall#002	1	U	0.007	U, J	250	U	110	U	350	U
02/13/18	Outfall#002	1	U	0.003	U, J, B	250	U	110	U	360	U
02/27/18	Outfall#002	1	U	0.003	U	250	U	110	U	360	U
03/05/18	Outfall#002	1	U	0.004	U, J, B	250	U	110	U	360	U
03/14/18	Outfall#002	1	U	0.003	U	250	U	110	U	360	U
5/9/2018	Outfall#002	1	U	0.003	U	250	U	110	U, *	360	U
05/17/17	Outfall#002	1	U	0.003	J, B	250	U	110	U	350	U
05/23/18	Outfall#002	1	U	0.003	U	250	U	110	U	360	U
05/29/18	Outfall#002	1	U	0.004	U, J, B, F1	250	U	120	U	390	U
05/29/18	DUP-1	1	U	0.004	U, J, B	250	U	110	U	360	U
06/07/18	Outfall#002	2.9		0.003	U	250	U	120	U	400	U
06/15/18	Outfall#002	1	U	0.009	U, *	250	U	120	U	370	U
06/18/18	Outfall#002	1	U	0.009	U	250	U	110	U	350	U
06/29/18	Outfall#002	1	U	0.009	U, *	100	J	140	U	450	U
07/05/18	Outfall#002	1	U	0.009	U, *	250	U	110	U	360	U
07/11/18	Outfall#002	1	U	0.049	U, *	250	U	120	U	380	U
07/26/18	Outfall#002	1	U, F2	0.046	U, F1, *	250	U	120	U	380	U
07/26/18	DUP-1	1	U	0.046	U, *	250	U	120	U	380	U
08/07/18	Outfall#002	1	U	0.044	U, *	250	U	110	U	190	J
08/15/18	Outfall#002	1	U	0.009	U	250	U	120	U	390	U
08/21/18	Outfall#002	1	U	0.010	U	250	U	130	U	120	J
10/10/18	Outfall#002	1	U	0.009	U	250	U	110	U	350	U
10/18/18	Outfall#002	1	U	0.009	U	250	U	110	U	360	U
10/26/18	Outfall#002	1	U	0.009	U	250	U	130	U	360	U

Table 4-8
DPE System Treated Water Discharge
Analytical Data and Field Parameters
Former Unocal Terminal
11720 Unoco Road
Edmonds, Washington

Sample Date	Sample Name	Benzene		cPAHs		Gasoline		Diesel		Heavy Oil	
	NPDES Permit No.	16 ug/L		0.05 ug/L		800 ug/L		500 ug/L		500 ug/L	
	WA0991007 Discharge Limits	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q
11/07/18	Outfall#002	1	U	0.009	U	250	U	76	J, F1	360	F1
11/07/18	DUP-1	1	U	0.009	U	250	U	67	J	180	J
11/13/18	Outfall#002	1	U	0.044	U	100	U	250	H, B	420	H
11/21/18	Outfall#002	1	U	0.009	U	250	U	170	B	230	J
12/10/18	Outfall#002	1	U	0.044	U	250	U	110	U	360	U
12/20/18	Outfall#002	1	U	0.044	U	150	J	98	J	210	J
12/27/18	Outfall#002	1	U	0.009	U	250	U	91	J	120	J
01/02/19	Outfall#002	1	U	0.009	U	250	U	200		290	J
01/11/19	Outfall#002	1	U	0.009	U, *	250	U	72	J	360	U
01/17/19	Outfall#002	1	U	0.026	U	250	U	120	U, F1, F2	370	U, F1, F2
01/17/19	DUP-1	1	U	0.027	U	250	U	110	U	350	U
01/24/19	Outfall#002	1	U	0.009	U	250	U	110	U	360	U
01/29/19	Outfall#002	1	U	0.009	U	250	U	110	U	350	U
02/14/19	Outfall#002	1	U	0.009	U	250	U	120	U	140	J
02/21/19	Outfall#002	1	U	0.009	U	250	U	110	U	360	U
02/26/19	Outfall#002	1	U	0.009	U	250	U	110	U	360	U
03/06/19	Outfall#002	1	U	0.009	U	250	U	120	U	380	U
03/14/19	Outfall#002	1	U	0.009	U	250	U, H	110	U	360	U
03/22/19	Outfall#002	1	U	0.009	U	250	U	130	U	410	U
03/29/19	Outfall#002	1	U	0.009	U	250	U	110	U	350	U
03/29/19	DUP-1	1	U	0.009	U	250	U	120	U	100	J
04/02/19	Outfall#002	1	U	0.009	U	250	U	120	U	370	U
04/11/19	Outfall#002	1	U	0.009	U	250	U, *	120	U	370	U
04/17/19	Outfall#002	1	U, X	0.009	U	250	U	110	U	350	U
04/25/19	Outfall#002	1	U	0.009	U	250	U	110	U	360	U
05/02/19	Outfall#002	1	U	0.009	U	250	U	120	U	380	U
05/09/19	Outfall#002	1	U	0.009	U	250	U	120	U	390	U
05/17/19	Outfall#002	1	U	0.010	U	250	U	110	U	360	U
05/23/19	Outfall#002	1	U	0.010	U	250	U	120	U	370	U
05/30/19	Outfall#002	1	U	0.009	U	250	U	120	U	370	U
05/30/19	DUP-1	1	U	0.091	U, J	250	U	110	U	360	U
06/06/19	Outfall#002	1	U	0.009	U	250	U, F1	110	U	360	U
06/12/19	Outfall#002	1	U	0.010	U	250	U, *	110	U	360	U
07/11/19	Outfall#002	1	U	0.009	U	250	U	110	U	350	U
07/18/19	Outfall#002	1	U	0.009	U	250	U, *	110	U	350	U
07/25/19	Outfall#002	1	U	0.009	U	250	U	66	J	110	J

Table 4-8
DPE System Treated Water Discharge
Analytical Data and Field Parameters
Former Unocal Terminal
11720 Unoco Road
Edmonds, Washington

Sample Date	Sample Name	Benzene		cPAHs		Gasoline		Diesel		Heavy Oil	
	NPDES Permit No.	16 ug/L		0.05 ug/L		800 ug/L		500 ug/L		500 ug/L	
	WA0991007 Discharge Limits	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q
08/01/19	Outfall#002	1	U	0.009	U	250	U	110	U	120	J, B
08/08/19	Outfall#002	1	U	0.009	U	250	U	74	J	140	J
08/08/19	DUP-1	1	U	0.010	U	250	U	68	J	140	J
08/15/19	Outfall#002	1	U, F1, F2	0.009	U, J, F1, F2, X	250	U	110	U	360	U
08/21/19	Outfall#002	1	U	0.005	U	250	U	120	U	110	J
08/29/19	Outfall#002	1	U, X	0.006	U, *	250	U	110	U	140	J
09/05/19	Outfall#002	1	U	0.005	U	250	U	110	U	360	U
09/09/19	Outfall#002	1	U	0.006	U, *	250	U	120	U	370	U
09/09/19	DUP-1	1	U	0.006	U, *	250	U	120	U	380	U
09/23/19	Outfall#002	1	U	0.010	U	250	U	110	U	350	U
10/04/19	Outfall#002	1	U	0.010	U	250	U, *	120	U	390	U
10/10/19	Outfall#002	1	U	0.010	U	250	U	120	U	370	U
10/10/19	DUP-1	1	U, X	0.010	U	250	U	120	U	380	U
10/17/19	Outfall#002	1	U	0.010	U	250	U	170	H	110	J, H
10/22/19	Outfall#002	1.9		0.010	U	250	U	120	U	380	U
10/31/19	Outfall#002	1	U	0.010	U	250	U	110	U	130	J
11/07/19	Outfall#002	1	U	0.009	U	250	U	110	U	350	U
11/07/19	DUP-1	1	U	0.009	U	250	U	110	U	350	U
11/14/19	Outfall#002	3	U	0.010	U	250	U	110	U	360	U
11/21/19	Outfall#002	1	U	0.010	U, H	250	U	120	U	380	U
11/25/19	Outfall#002	1	U	0.009	U	250	U	110	U	97	J
12/02/19	Outfall#002	3	U	0.010	U	250	U	120	U	380	U
12/12/19	Outfall#002	1	U	0.012	U, J, B	250	U	110	U	350	U
12/16/19	Outfall#002	1	U	0.010	U, H, *	250	U	120	U, X	380	U, X
12/23/19	Outfall#002	1	U	0.009	U	250	U	110	U	360	U

Table 4-8
DPE System Treated Water Discharge
Analytical Data and Field Parameters
Former Unocal Terminal
11720 Unoco Road
Edmonds, Washington

Sample Date	Sample Name	Benzene		cPAHs		Gasoline		Diesel		Heavy Oil	
	NPDES Permit No.	16 ug/L		0.05 ug/L		800 ug/L		500 ug/L		500 ug/L	
	WA0991007 Discharge Limits	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q	ug/L	Lab Q

Notes

NPDES = National Pollutant Discharge Elimination System

Benzene by Method United States Environmental Protection Agency (USEPA) 624

Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs) analyzed by USEPA Method 625. Total cPAHs calculated by summing the concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene and adjusted for toxicity using toxic equivalency factors to represent a total benzo(a)pyrene concentration (WAC 173-340-900). For results which do not exceed lab. method detection limit (MDL), half of the lab. MDL is added to determine cPAHs concentration.

Gasoline by Washington State Department of Ecology (Ecology) Method NWTPH-Gx

Diesel and Heavy Oil by Ecology Method NWTPH-Dx (after silica gel cleanup)

pH by pH meter onsite

µg/L = micrograms per liter.

Lab Q: Laboratory (lab.) qualifier

U: Not detected at the lab. reporting limit (RL). Values shown are the lab. RLs besides for cPAHs where value shown are the lab. MDLs.

B: Compound was found in the lab. method blank and the sample. [The sample may have been cross-contaminated at the lab.]

J: Result is an estimate. Result is less than the lab. RL but greater than or equal to the lab. MDL and the concentration is an approximate value.

*: Laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) is outside acceptance limits / Relative percent difference (RPD) of the LCS and LCSD exceeds the control limits

F1: Matrix spike (MS) and/or Matrix spike duplicate (MSD) recovery is outside acceptance limits.

F2: MS/MSD RPD exceeds control limits

H: Sample was prepped or analyzed beyond the specified holding time

X: Surrogate is outside control limits

FIGURES

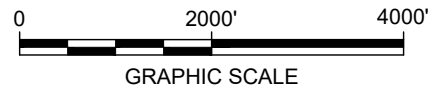


CITY: MINNEAPOLIS, MN DIV/GRP: ENV/CAD DB: R. OBERLANDER LD: R. OBERLANDER PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)N=-OFF=REF
C:\BIM\OneDrive - ARCADIS\BIM 360 Docs\CHEVRON CORPORATION\Edmonds-Public Review Draft\2019\B0046382.0011\01-DWG\46382-Fig 1-SLM.dwg LAYOUT: 1-1
SAVED: 2/16/2019 2:53 PM ACADVER: 21.05 (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 2/5/2019 3:19 PM BY: JAYAPAL, DINESH KUMAR

XREFS: IMAGES: PROJECTNAME: ----
46382\X0A Edmond-E.tif Edmond-W.tif



REFERENCE: BASE MAP USGS QUADS., 7.5 MIN. SERIES (TOPOGRAPHIC) - EDMONDS EAST, WASH. AND EDMONDS WEST, WASH.



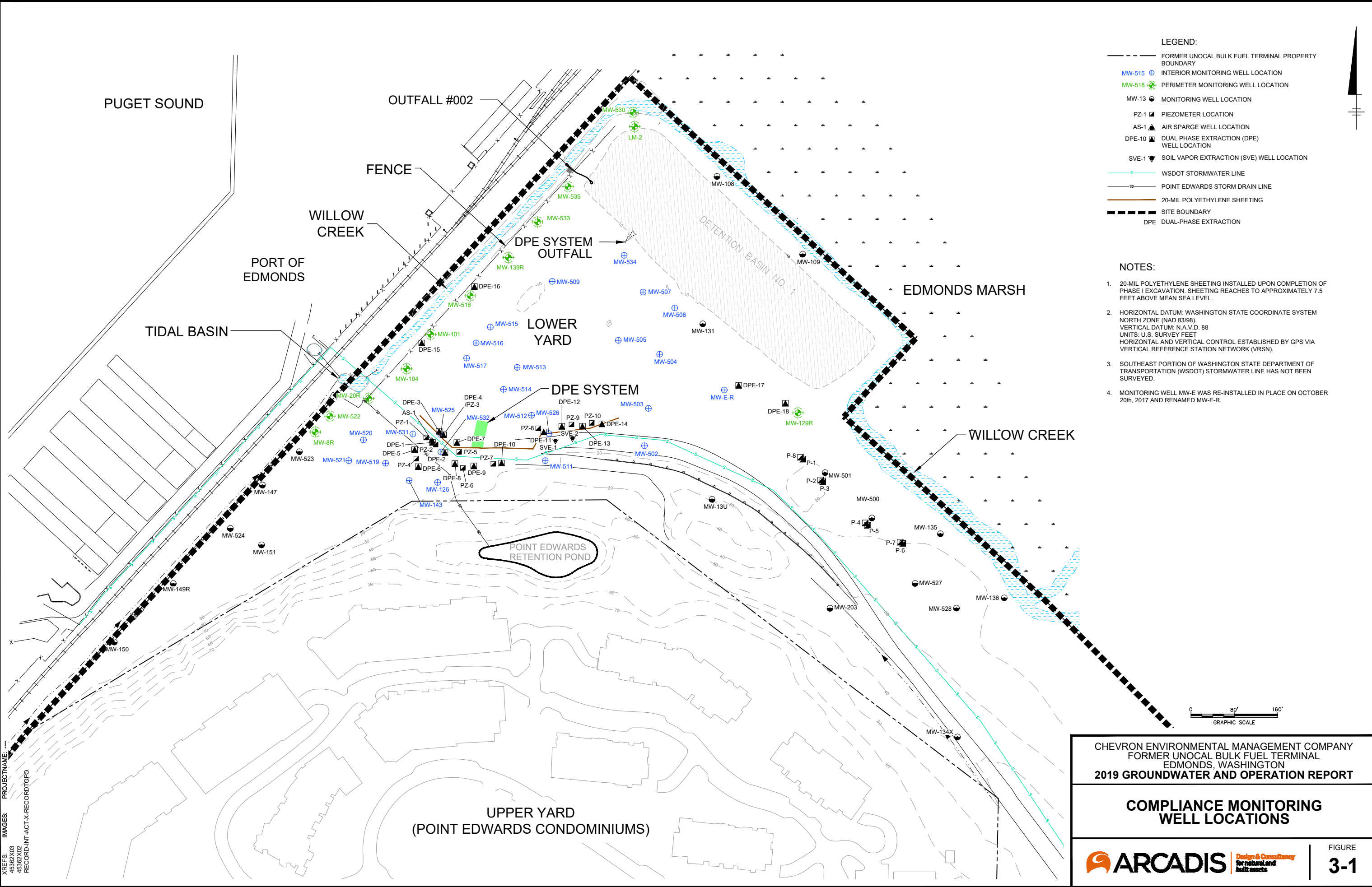
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
FORMER UNOCAL EDMONDS BULK FUEL TERMINAL
EDMONDS, WASHINGTON
2019 GROUNDWATER AND OPERATION REPORT

SITE LOCATION



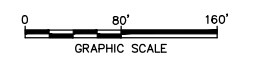
FIGURE
1-1

CITY: MINNEAPOLIS, MN DIV/GROUP: ENV/CAD DB: R. OBERLANDER, LD: R. OBERLANDER, PIC: (Opt) PM: (Read) TM: (Opt) LXR: (Opt) ON: OFF=REF
 C:\Users\m0286\BIM_360\Arcadis\A\A - CHEVRON CORPORATION\Project Files\Edmonds\Public Review Draft\2020\300656350\1-DWG\G45362-Fig 3-1_CMW.dwg LAYOUT: 3-1 PAGES: 2/25/2020 12:04 PM ACADVER: 23.1S (LMS TECH) PAGES: 2/25/2020 12:04 PM PLOTTED: 2/25/2020 12:21 PM BY: M. SARAVANAPRIVA



- LEGEND:**
- FORMER UNOCAL BULK FUEL TERMINAL PROPERTY BOUNDARY
 - MW-515 ⊕ INTERIOR MONITORING WELL LOCATION
 - MW-518 ⊕ PERIMETER MONITORING WELL LOCATION
 - MW-13 ● MONITORING WELL LOCATION
 - PZ-1 ▣ PIEZOMETER LOCATION
 - AS-1 ▲ AIR SPARGE WELL LOCATION
 - DPE-10 ▲ DUAL PHASE EXTRACTION (DPE) WELL LOCATION
 - SVE-1 ▼ SOIL VAPOR EXTRACTION (SVE) WELL LOCATION
 - WSDOT STORMWATER LINE
 - POINT EDWARDS STORM DRAIN LINE
 - 20-MIL POLYETHYLENE SHEETING
 - SITE BOUNDARY
 - DPE DUAL-PHASE EXTRACTION

- NOTES:**
1. 20-MIL POLYETHYLENE SHEETING INSTALLED UPON COMPLETION OF PHASE I EXCAVATION. SHEETING REACHES TO APPROXIMATELY 7.5 FEET ABOVE MEAN SEA LEVEL.
 2. HORIZONTAL DATUM: WASHINGTON STATE COORDINATE SYSTEM NORTH ZONE (NAD 83/98).
 VERTICAL DATUM: N.A.V.D. 88
 UNITS: U.S. SURVEY FEET
 HORIZONTAL AND VERTICAL CONTROL ESTABLISHED BY GPS VIA VERTICAL REFERENCE STATION NETWORK (VRSN).
 3. SOUTHEAST PORTION OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STORMWATER LINE HAS NOT BEEN SURVEYED.
 4. MONITORING WELL MW-E WAS RE-INSTALLED IN PLACE ON OCTOBER 20th, 2017 AND RENAMED MW-E-R.



CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
 FORMER UNOCAL BULK FUEL TERMINAL
 EDMONDS, WASHINGTON
2019 GROUNDWATER AND OPERATION REPORT

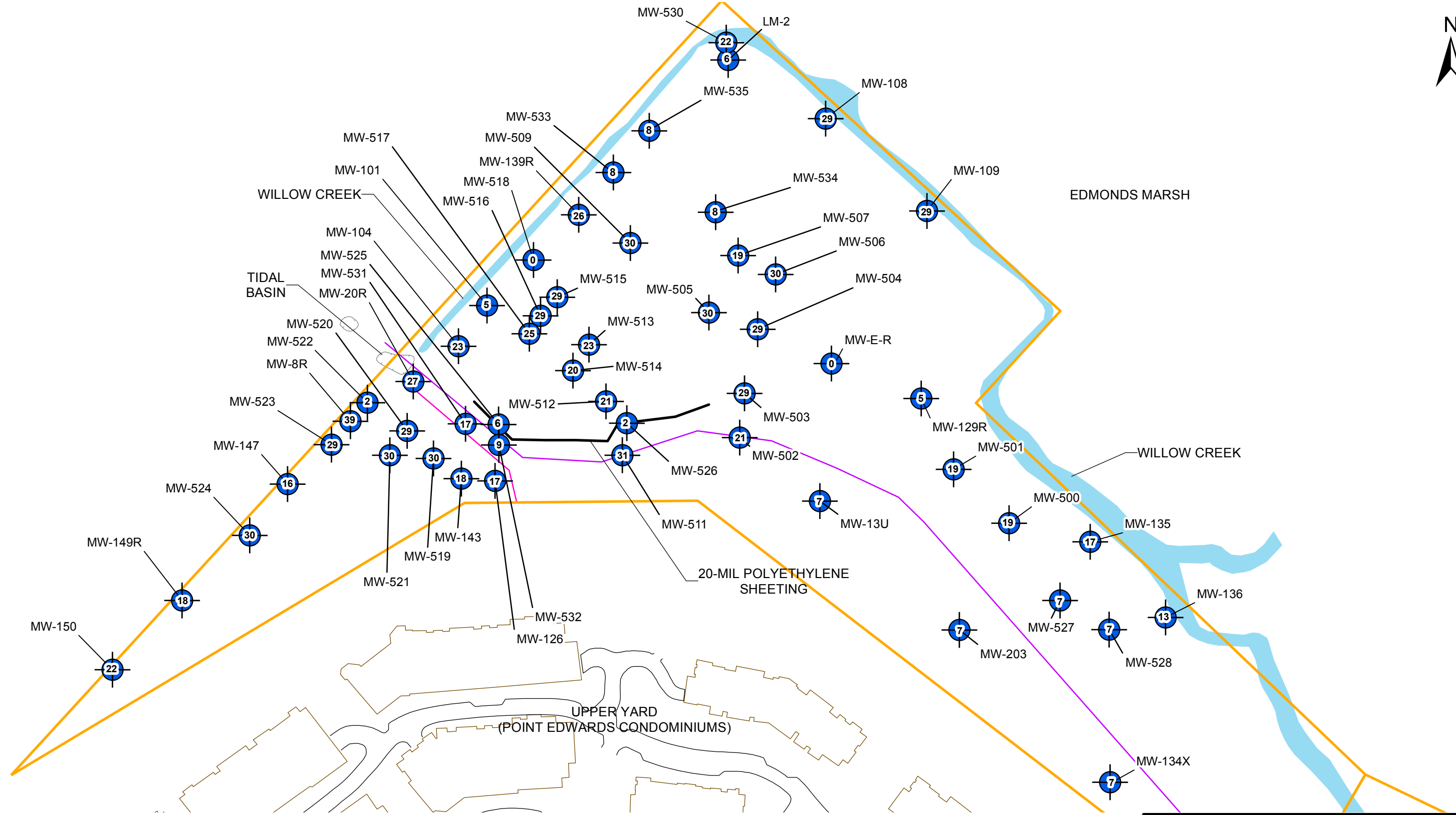
COMPLIANCE MONITORING WELL LOCATIONS

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3-1

XREFS: IMAGES: PROJECTNAME: 45362X03
 RECORD-INT-ACT-X-RECORD/TOPO

CITY: HIGHLANDS RANCH, CO DIV: GROUP, (ENV/GIS), DB: B.GRIFFITH
 Path: Z:\GIS\Projects\ENV\Chevron_Edmonds\MMX\Fig_3-2_Site_Soil_Groundwater_TPH_Remediation_Status_4Q_2019.mxd Date: 2/24/2020 Time: 4:31:12 AM



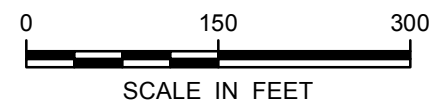
LEGEND

- WELL AND NUMBER OF CONSECUTIVE SAMPLING ROUNDS SHOWING CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS (TPH) LESS THAN PROPOSED GROUNDWATER CLEANUP LEVELS (CULs)
- WSDOT STORMWATER LINE
- POINT EDWARDS STORM DRAIN LINE
- LOWER YARD PROPERTY BOUNDARY

NOTES:

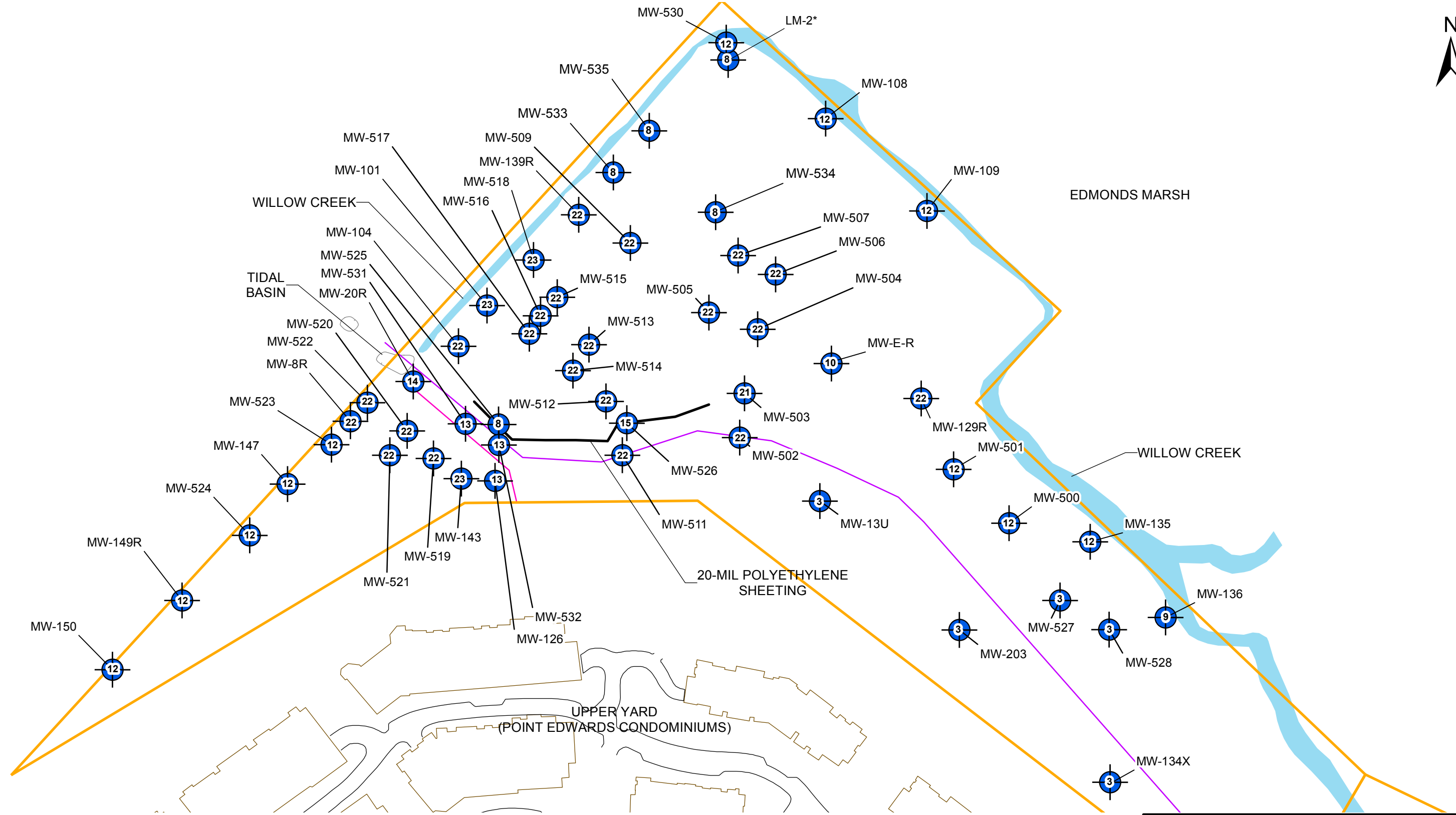
1. 20-MIL POLYETHYLENE SHEETING INSTALLED UPON COMPLETION OF PHASE I EXCAVATION. SHEETING REACHES TO APPROXIMATELY 7.5 FEET ABOVE MEAN SEA LEVEL.
2. SOUTHEAST PORTION OF WSDOT STORMWATER LINE HAS NOT BEEN SURVEYED.
3. MONITORING WELL MW-E WAS RE-INSTALLED IN PLACE ON OCTOBER 20TH, 2017 AND RENAMED MW-E-R.
4. MONITORING WELLS MW-508, MW-510 AND MW-529 WERE EXCAVATED IN THIRD QUARTER 2017. MONITORING WELLS MW-533, MW-534 AND MW-535 WERE INSTALLED POST-EXCAVATION ON OCTOBER 20TH, 2017.
5. MONITORING WELLS MW-101, MW-129R, MW-518, MW-526 MW-E-R WERE SAMPLED TWICE ON FIRST QUARTER 2019.

MG/KG - MILLIGRAMS PER KILOGRAM
 WSDOT = WASHINGTON STATE DEPARTMENT OF TRANSPORTATION







CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY FORMER UNOCAL BULK FUEL TERMINAL EDMONDS, WASHINGTON 2019 GROUNDWATER AND OPERATION REPORT
SITE GROUNDWATER TPH REMEDIATION STATUS - FOURTH QUARTER 2019

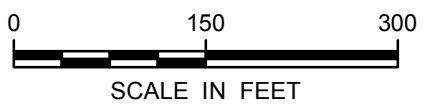
CITY: HIGHLANDS RANCH, CO DIV: GROUP: (ENV/GIS) DB: B.GRIFFITH
 Path: Z:\GIS\Projects\ENV\Chevron_Edmonds\MMXDICAP\Fig_3-3_Site_Soil_GW_Benzene_Remediation_Status_Baseline_Event_04_2019.mxd Date: 2/24/2020 Time: 9:44:31 PM




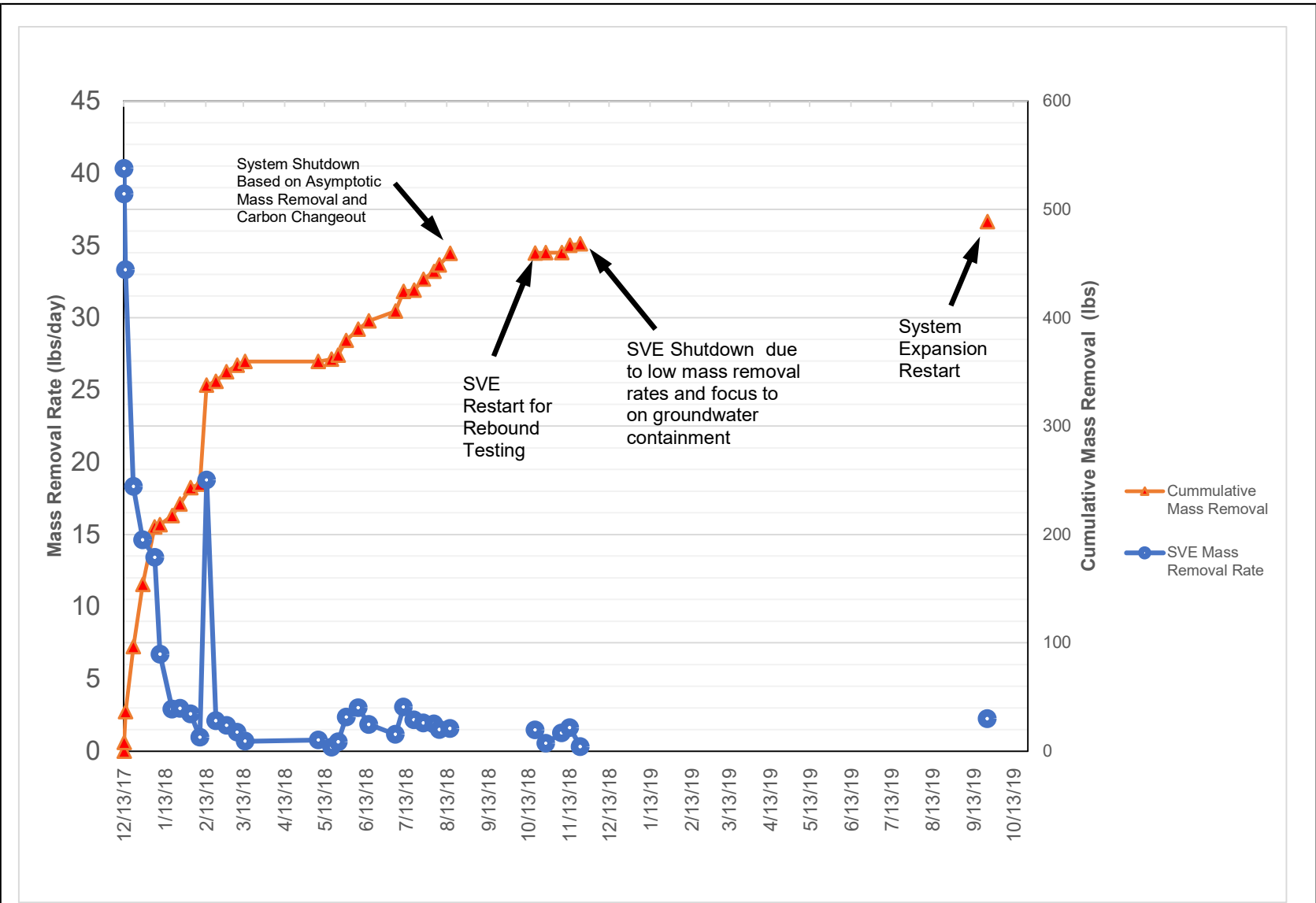
LEGEND

-  WELL AND NUMBER OF CONSECUTIVE SAMPLING ROUNDS SHOWING CONCENTRATIONS OF BENZENE LESS THAN OR EQUAL TO PROPOSED GROUNDWATER CUL (16 µg/L)
-  WSDOT STORMWATER LINE
-  POINT EDWARDS STORM DRAIN LINE
-  LOWER YARD PROPERTY BOUNDARY

- NOTES:**
1. 20-MIL POLYETHYLENE SHEETING INSTALLED UPON COMPLETION OF PHASE I EXCAVATION. SHEETING REACHES TO APPROXIMATELY 7.5 FEET ABOVE MEAN SEA LEVEL.
 2. SOUTHEAST PORTION OF WSDOT STORMWATER LINE HAS NOT BEEN SURVEYED.
 3. BENZENE WAS ANALYZED DURING 22 EVENTS FOR MOST OF THE WELLS SINCE OCTOBER 2008.
 4. MONITORING WELLS MW-508, MW-510 AND MW-529 WERE EXCAVATED IN THIRD QUARTER 2017.
 5. MONITORING WELLS MW-533, MW-534 AND MW-535 WERE INSTALLED POST-EXCAVATION ON OCTOBER 20th, 2017.
 6. MONITORING WELLS MW-101, MW-129R, MW-518, MW-526, MW-E-R WERE SAMPLED TWICE ON FIRST QUARTER 2019.
- * - BENZENE WAS NOT DETECTED IN THE SAMPLE COLLECTED FROM THE MONITORING WELL HOWEVER THE DETECTION LIMIT WAS ABOVE THE CUL DUE TO A LABORATORY SAMPLE DILUTION.
 µg/L - MICROGRAMS PER LITER, CUL - CLEANUP LEVEL



CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY FORMER UNOCAL BULK FUEL TERMINAL EDMONDS, WASHINGTON 2019 GROUNDWATER AND OPERATION REPORT
GROUNDWATER BENZENE REMEDIATION STATUS - FOURTH QUARTER 2019




DPE SYSTEM VAPOR PHASE MASS REMOVAL
Former Unocal Edmonds Bulk Fuel Terminal - Edmonds, Washington

Figure 4-1