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SEMI ANNUAL GROUNDWATER MONITORING REPORT
(April 2005 through September 2005)

Willbridge Bulk Fuel Facilities

Portland, Oregon

Consent Order WMCSR-NWR-94-06
Delta Project PTWB-02A-5

November 29, 2005

Delta
Environmental
Consultants, Inc.

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Prepared for:

Willbridge Terminal Group

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1.0 EXECUTIVE SUMMARY

Delta Environmental Consultants, Inc. (Delta) performed monthly separate-phase hydrocarbon recovery, quarterly well gauging (June and September 2005), and semi-annual (September 2005) groundwater sampling as part of the remedial investigation/feasibility study work at the Willbridge Bulk Fuel Facilities (Willbridge Facility). The Willbridge Facility is comprised of terminals owned by ChevronTexaco Company (Chevron), Kinder Morgan Liquid Terminals, LLC (KMLT), and ConocoPhillips Company. This report fulfills the requirement of Section 7F of Oregon Department of Environmental Quality (DEQ) Consent Order WMCSR-NW-94-06.

2.0 GROUNDWATER MONITORING AND SAMPLING

Groundwater monitoring and sampling activities, along with separate-phase hydrocarbon (SPH) recovery were performed at the Willbridge Facility from April through September 2005. The Willbridge Facility is located in northwest Portland, Oregon on Northwest Front Avenue, along the Willamette River (See Figure 1).

Monitoring activities were performed on June 20, 2005 (Second Quarter) and September 19, 2005 (Third Quarter) and consisted of measuring depth to groundwater and SPH thickness in all wells. Sampling activities performed at the Chevron terminal on September 21 and 22, 2005 (Third Quarter) and at the KMLT and ConocoPhillips terminals on September 20 and 21, 2005 (Third Quarter) consisted of measuring depth to groundwater and collecting groundwater samples from select wells. Groundwater samples were analyzed for dissolved petroleum hydrocarbon constituents and selected metals. Monitoring and sampling activities are described in the following sections.

Based upon results of the previous quarterly monitoring activities, select wells were monitored for the presence of SPH on a monthly basis. SPH recovery was performed on a monthly basis for wells containing measurable amounts of SPH between April to September 2005.

2.1 Hydrogeologic Analysis

Depth-to-groundwater measurements were collected from each monitoring well in June and September 2005 (See Tables 1A through 1C). A map showing groundwater elevation contours and SPH thicknesses measured in wells in September 2005 is presented as Figure 2. Groundwater monitoring procedures are included in Appendix A.

During the second and third quarters of 2005, groundwater elevations across the facility ranged from approximately 9.44 feet to 32.26 feet above mean sea level. Groundwater flow direction is generally northeasterly, toward the Willamette River.

2.2 Willamette River

The Willamette River stage (daily mean, measured at the Morrison Bridge river gauge and converted to the City of Portland datum) during the second and third quarters of 2005 ranged from a high of 12.15 feet City of Portland Datum (COP) on May 22, 2005 to

a low of 4.09 feet COP on September 26, 2005. The river stage averaged an elevation of approximately 7.37 feet COP between April 1, 2005 to September 30, 2005. Precipitation and river stage data are presented on Figure 3.

2.3 Groundwater Analytical Results

Groundwater samples were collected from selected Chevron monitoring wells on September 21 and 22, 2005 and from select KMLT and ConocoPhillips wells on September 20 and 21, 2005, and analyzed in accordance with the consent order WMCSR-NWR-94-06, the revised sampling agreement (May 11, 2001) and the DEQ – approved methyl tertiary butyl ether (MTBE) Sampling Plan (March 2005). The list of analytes included benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) using EPA Method 8270M-SIM, total RCRA metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc) using EPA Method 6000/7000 Series Methods, and MTBE using EPA Method 8260B. Groundwater sampling procedures are presented in Appendix A. Samples were not collected from wells containing observable sheens or measurable quantities of SPH.

Laboratory analysis for MTBE was performed on samples from the Chevron, KMLT, and ConocoPhillips Terminals for the first time during the March 2005 sampling event. Forty-seven wells across the three terminals were sampled and analyzed for MTBE. Samples from 13 of the wells contained MTBE. The highest concentration was detected in Chevron Well B-21 at a concentration of 17.4 µg/L.

During the September 2005 sampling event, forty-five wells across the three terminals were sampled and analyzed for MTBE. Samples from 12 of the wells contained MTBE. The highest concentration was detected in KMLT Well MW-38 at a concentration of 22.0 µg/L. MTBE analysis will be discontinued in future sampling events as described in the MTBE Sampling Plan (March 2005).

BTEX and MTBE laboratory analytical results for the second quarter (Chevron) and third quarter 2005 sampling events are presented in Table 2. PAH laboratory analytical results for the second quarter (Chevron) and third quarter 2005 sampling events are presented in Table 3. Total metals laboratory analytical results for the second quarter

(Chevron) and third quarter 2005 sampling events are presented in Table 4. Laboratory analytical reports and chain-of-custody documentation are included in Appendix A.

2.4 Separate Phase Hydrocarbon Occurrence

Based upon the results of the previous quarterly monitoring activities, select wells were monitored for the presence of SPH on a monthly basis. SPH recovery was performed monthly on wells containing measurable amounts of SPH between April 2005 and September 2005. The detected SPH thicknesses measured during the April 2005 and September 2005 monitoring events are included in Table 1. Observable sheens and SPH thicknesses measured during the September 2005 monitoring event are presented in Figure 2.

During quarterly groundwater monitoring in June 2005 and September 2005, Chevron Wells B-24, CR-6, CR-7, CR-10, CR-15, CR-19, CR-21A, CR-25, GPW-2, GPW-3, and GPW-4 contained measurable thicknesses of SPH, ranging from 0.01 foot in Well CR-7 (September) to 1.48 foot in Well CR-19 (September). Additionally, a sheen was observed in Wells CR-11 and CR-16 during the September 2005 monitoring events. SPH thicknesses were generally consistent with historical measurements.

During quarterly groundwater monitoring in June 2005 and September 2005, KMLT Wells MW-7 and MW-24 contained measurable thicknesses of SPH, ranging from 0.02 foot in Well MW-24 (September) to 0.70 foot in Well MW-7 (June). Additionally, a sheen was observed in Wells MW-19 (June and September), MW-22 (September), MW-28 (June and September), and MW-31 (June).

During quarterly groundwater monitoring events in June 2005 and September 2005, ConocoPhillips Wells B-4, B-40, U-4, and U-13 contained measurable thicknesses of SPH, ranging from 0.01 foot in Well B-40 (June) to 0.58 foot in Well U-13 (September). Additionally, a sheen was observed in Wells B-4 (September), B-40 (September), RES-O (June), and U-5A (June).

3.0 SEPARATE PHASE HYDROCARBON RECOVERY

Monthly manual recovery of SPH was initiated at the Willbridge Facility in February 1997. SPH recovery is performed in each well where measurable SPH is observed during the previous quarterly gauging event. Manual SPH recovery consists of manual bailing, pumping, or the use of a sorbent sock installed in the well.

Approximately 158 gallons of SPH have been removed to date by the above-referenced manual recovery methods. Recovered SPH volumes for this reporting period (April 2005 through September 2005) totaled approximately 5 gallons. SPH recovery data for this period was not available for the Chevron Terminal. The SPH recovery data are presented in Table 1.

In November and December 2001, a "U"-shaped cut-off wall encompassing the stormwater trench backfill was installed on the ConocoPhillips Terminal. The cut-off wall was designed to intercept SPH and groundwater migrating along the backfill of a 60-inch diameter storm sewer trench. The cut-off wall was constructed with 20-foot-long steel sheet-pile with sealed joints between the sheet-piles. A groundwater and SPH recovery system is used to extract groundwater and SPH from a series of wells located behind the cut-off wall.

In addition to the monthly SPH recovery events, SPH recovery has also been conducted near the outfall of the 60-inch diameter storm sewer. Since December of 2001, SPH recovery is performed using permanent recovery wells installed behind the cutoff wall. Approximately 4,026 gallons of SPH have been recovered to date from the backfill material around the storm sewer outfall. During the second and third quarters of 2005, the treatment system continued to recover SPH. The recovered SPH is presently stored in an on-site batch tank and has not reached capacity for transport to Oil-Re-refining in Portland, Oregon for recycling.

Containment booms currently border the shoreline between the Chevron and ConocoPhillips docks, and from the south edge of the ConocoPhillips dock to the southern property line (beyond the current Doane Avenue storm sewer outfall). Additionally, secondary and tertiary containment booms are located inside of the first boom around the current 60-inch Doane Avenue storm sewer outfall pipe.

4.0 ISSUES ENCOUNTERED DURING THE SECOND AND THIRD QUARTERS OF 2005

No notable issues occurred during this last reporting period.

5.0 ACTIVITIES SCHEDULED FOR THE FOURTH QUARTER 2005 AND FIRST QUARTER OF 2006 (OCTOBER 2005 THROUGH MARCH 2006)

The following tasks are planned for the fourth quarter of 2005 and first quarter of 2006:

Perform monthly SPH recovery from wells that have historically contained SPH.

- Measure depth to water and SPH in all Willbridge Facility wells during the fourth quarter 2005 and first quarter 2006 monitoring events, scheduled for December 2005 (fourth quarter) and March 2006 (first quarter).
- Sample selected Willbridge Facility wells during the March (first quarter) 2006 sampling event.
- Discontinue MTBE analysis per the *Groundwater Sampling Plan for MTBE Analysis*, dated March 8, 2005 and approved by the DEQ in a letter dated March 16, 2005.
- Operate the 60-inch storm sewer groundwater treatment system.

6.0 REMARKS

The services described in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

This report was prepared by **DELTA ENVIRONMENTAL CONSULTANTS, INC.**

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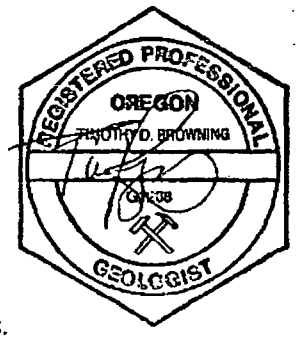

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TABLES

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TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-7	2/14/2000	18.33	NP	-	17.40	0.1
(35.73)	5/22/2000	18.60	NP	-	17.13	NA
	8/22/2000	19.31	19.30	0.01	16.43	0.1
	11/27/2000	19.47	sheen	-	16.26	NA
	2/20/2001	19.37	NP	-	16.36	NA
	5/15/2001	19.36	sheen	-	16.37	NA
	9/19/2001	19.74	NP	-	15.99	NA
	12/20/2001	18.30	NP	-	17.43	NA
	3/15/2002	18.28	NP	-	17.45	NA
	9/23/2002	18.79	18.78	0.01	16.95	NA
	12/19/2002	19.78	19.79	0.01	15.96	NA
	3/19/2003	18.58	18.57	0.01	17.16	NA
	6/24/2003	19.02	18.97	0.05	16.75	NA
	9/24/2003	19.72	19.71	0.01	16.02	NA
	12/26/2003	18.90	18.85	0.05	16.87	NA
	3/30/2004	18.70	18.66	0.04	17.06	NA
	6/24/2004	19.19	19.18	0.01	16.55	NA
	9/27/2004	19.85	NP	-	15.88	NA
	12/24/2004	19.27	NP	-	16.46	NA
	3/7/2005	19.45	NP	-	16.28	NA
	6/23/2005	19.12	NP	-	16.61	NA
	9/19/2005	**19.79**	**NP**	**-**	**15.94**	**NA**
B-9	2/14/2000	16.29	16.20	0.09	19.35	0.0
(35.57)	5/22/2000	16.90	NP	-	18.67	NA
	8/22/2000	17.48	NP	-	18.09	NA
	11/27/2000	17.29	NP	-	18.28	NA
	2/20/2001	17.41	NP	-	18.16	NA
	5/15/2001	17.04	NP	-	18.53	NA
	9/19/2001	17.84	NP	-	17.73	NA
	12/20/2001	15.92	NP	-	19.65	NA
	3/5/2002	15.92	NP	-	19.65	NA
	9/23/2002	17.75	NP	-	17.82	NA
	12/19/2002	17.28	NP	-	18.29	NA
	3/19/2003	16.18	NP	-	19.39	NA
	6/24/2003	16.63	NP	-	18.94	NA
	9/24/2003	17.82	NP	-	17.75	NA
	12/26/2003	Well covered by truck				
	3/30/2004	15.93	NP	-	19.64	NA
	6/24/2004	17.12	NP	-	18.45	NA
	9/27/2004	17.97	NP	-	17.60	NA
	12/24/2004	17.32	NP	-	18.25	NA
	3/7/2005	17.42	NP	-	18.15	NA
	6/22/2005	16.19	NP	-	19.38	NA
	9/19/2005	**17.77**	**NP**	**-**	**17.80**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-10	2/14/2000	15.10	NP	-	19.66	NA
(34.76)	5/22/2000	15.67	NP	-	19.09	NA
	8/22/2000	16.35	NP	-	18.41	NA
	11/27/2000	16.64	NP	-	18.12	NA
	2/20/2001	16.41	NP	-	18.35	NA
	5/15/2001	16.42	NP	-	18.34	NA
	9/19/2001	16.95	NP	-	17.81	NA
	12/20/2001	15.42	NP	-	19.34	NA
	3/15/2002	14.99	NP	-	19.77	NA
	9/23/2002	16.64	NP	-	18.12	NA
	12/19/2002	16.56	NP	-	18.20	NA
	3/19/2003	15.24	NP	-	19.52	NA
	6/24/2003	15.70	NP	-	19.06	NA
	9/24/2003	16.62	NP	-	18.14	NA
	12/26/2003	15.98	NP	-	18.78	NA
	6/24/2004	16.13	NP	-	18.63	NA
	9/27/2004	16.73	NP	-	18.03	NA
	12/14/2004	16.48	NP	-	18.28	NA
	3/7/2005	Well Inaccessible				
	9/19/2005	**16.64**	**NP**	**-**	**18.12**	**NA**
B-11	3/30/2004	15.29	NP		19.47	NA
(34.96)	5/22/2000	15.41	NP	-	19.55	NA
	8/22/2000	16.14	NP	-	18.82	NA
	11/27/2000	16.57	NP	-	18.39	0.1
	2/20/2001	16.30	sheen	-	18.66	NA
	5/15/2001	16.30	NP	-	18.66	NA
	9/19/2001	16.82	NP	-	18.14	NA
	12/20/2001	15.44	NP	-	19.52	NA
	3/15/2002	14.80	NP	-	20.16	NA
	9/23/2002	16.49	NP	-	18.47	NA
	12/19/2002	16.61	sheen	-	18.35	NA
	3/19/2003	15.11	NP	-	19.85	NA
	6/24/2003	15.52	NP	-	19.44	NA
	9/24/2003	16.48	NP	-	18.48	NA
	12/26/2003	15.85	NP	-	19.11	NA
	3/30/2004	15.09	NP	-	19.87	NA
	6/24/2004	15.98	NP	-	18.98	NA
	9/27/2004	16.67	NP	-	18.29	NA
	12/14/2004	16.34	NP	-	18.62	NA
	3/7/2005	16.14	NP	-	18.82	NA
	6/22/2005	15.80	NP	-	19.16	NA
	9/19/2005	**16.48**	**NP**	**-**	**18.48**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-12	2/14/2000	15.38	NP	-	19.76	NA
(35.14)	5/22/2000	15.85	NP	-	19.29	NA
	8/22/2000	16.55	NP	-	18.59	NA
	11/27/2000	16.98	NP	-	18.16	NA
	2/20/2001	16.73	NP	-	18.41	NA
	5/15/2001	16.72	NP	-	18.42	NA
	9/19/2001	17.20	NP	-	17.94	NA
	12/20/2001	15.94	NP	-	19.20	NA
	3/15/2002	15.32	NP	-	19.82	NA
	9/23/2002	16.89	NP	-	18.25	NA
	12/19/2002	17.01	NP	-	18.13	NA
	3/19/2003	15.56	NP	-	19.58	NA
	6/24/2003	Not Located				
	9/24/2003	Not Located				
	12/26/2003	Not Located				
	3/30/2004	Not Located				
	6/24/2004	16.40	NP	-	18.74	NA
	9/27/2004	17.00	NP	-	18.14	NA
	12/14/2004	16.75	NP	-	18.39	NA
	3/7/2005	16.52	NP	-	18.62	NA
	9/19/2005	**16.87**	**NP**	**-**	**18.27**	**NA**
B-13	2/14/2000	15.46	NP	-	19.30	NA
(34.76)	5/22/2000	15.86	NP	-	18.90	NA
	8/22/2000	16.46	NP	-	18.30	NA
	11/27/2000	19.91	NP	-	14.85	NA
	2/20/2001	16.65	NP	-	18.11	NA
	5/15/2001	16.65	NP	-	18.11	NA
	9/19/2001	17.09	NP	-	17.67	NA
	12/22/2001	15.94	NP	-	18.82	NA
	3/15/2002	15.37	NP	-	19.39	NA
	9/23/2002	16.82	NP	-	17.94	NA
	12/19/2002	16.95	NP	-	17.81	NA
	3/19/2003	15.62	NP	-	19.14	NA
	6/24/2003	15.96	NP	-	18.80	NA
	9/24/2003	16.82	NP	-	17.94	NA
	12/26/2003	16.29	NP	-	18.47	NA
	3/30/2004	15.58	NP	-	19.18	NA
	6/24/2004	16.34	NP	-	18.42	NA
	9/27/2004	16.90	NP	-	17.86	NA
	12/24/2004	16.71	NP	-	18.05	NA
	3/7/2005	16.49	NP	-	18.27	NA
	9/19/2005	**16.79**	**NP**	**-**	**17.97**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-14	2/14/2000	17.27	NP	-	19.32	NA
(36.59)	5/22/2000	17.69	NP	-	18.90	NA
	8/22/2000	18.31	NP	-	18.28	NA
	11/27/2000	18.72	NP	-	17.87	NA
	2/20/2001	18.50	NP	-	18.09	NA
	5/15/2001	18.49	NP	-	18.10	NA
	9/19/2001	18.87	NP	-	17.72	NA
	12/22/2001	17.74	NP	-	18.85	NA
	3/15/2002	17.21	NP	-	19.38	NA
	9/23/2002	18.64	NP	-	17.95	NA
	12/19/2002	18.79	NP	-	17.80	NA
	3/19/2003	17.47	NP	-	19.12	NA
	6/24/2003	17.78	NP	-	18.81	NA
	9/24/2003	18.64	NP	-	17.95	NA
	12/26/2003	18.10	NP	-	18.49	NA
	3/30/2004	17.39	NP	-	19.20	NA
	6/24/2004	18.17	NP	-	18.42	NA
	9/27/2004	18.73	NP	-	17.86	NA
	12/14/2004	18.54	NP	-	18.05	NA
	3/7/2005	18.30	NP	-	18.29	NA
	9/19/2005	**18.63**	**NP**	**-**	**17.96**	**NA**
B-15	2/14/2000	16.48	NP	-	19.07	NA
(35.55)	5/22/2000	16.88	NP	-	18.67	NA
	8/22/2000	17.53	NP	-	18.02	NA
	11/27/2000	17.89	NP	-	17.66	NA
	2/20/2001	17.38	NP	-	18.17	NA
	5/15/2001	17.66	NP	-	17.89	NA
	9/19/2001	18.12	NP	-	17.43	NA
	12/20/2001	16.92	NP	-	18.63	NA
	3/15/2002	16.36	NP	-	19.19	NA
	9/23/2002	17.84	NP	-	17.71	NA
	12/19/2002	18.01	NP	-	17.54	NA
	3/19/2003	16.66	NP	-	18.89	NA
	6/24/2003	16.98	NP	-	18.57	NA
	9/24/2003	17.84	NP	-	17.71	NA
	12/26/2003	17.27	NP	-	18.28	NA
	3/30/2004	16.58	NP	-	18.97	NA
	6/24/2004	17.37	NP	-	18.18	NA
	9/27/2004	17.94	NP	-	17.61	NA
	12/14/2004	17.73	NP	-	17.82	NA
	3/7/2005	17.51	NP	-	18.04	NA
	9/19/2005	**17.84**	**NP**	**-**	**17.71**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-19	2/14/2000	15.99	NP	-	18.18	NA
(34.17)	5/22/2000	16.34	NP	-	17.83	NA
	8/22/2000	17.04	NP	-	17.13	NA
	11/27/2000	17.35	NP	-	16.82	NA
	2/20/2001	17.17	NP	-	17.00	NA
	5/15/2001	17.14	NP	-	17.03	NA
	9/19/2001	17.67	NP	-	16.50	NA
	12/20/2001	16.32	NP	-	17.85	NA
	3/15/2002	15.88	NP	-	18.29	NA
	9/23/2002	17.37	NP	-	16.80	NA
	12/19/2002	18.47	NP	-	15.70	NA
	3/19/2003	16.13	NP	-	18.04	NA
	6/24/2003	16.50	NP	-	17.67	NA
	9/24/2003	17.35	NP	-	16.82	NA
	12/26/2003	16.71	NP	-	17.46	NA
	3/30/2004	16.08	NP	-	18.09	NA
	6/24/2004	16.87	NP	-	17.30	NA
	9/27/2004	17.44	NP	-	16.73	NA
	12/14/2004	17.28	NP	-	16.89	NA
	3/7/2005	17.02	NP	-	17.15	NA
	6/22/2005	16.72	NP	-	17.45	NA
	9/19/2005	**17.34**	**NP**	**-**	**16.83**	**NA**
B-20	2/14/2000	16.62	NP	-	16.70	NA
(33.32)	5/22/2000	16.93	NP	-	16.39	NA
	8/22/2000	17.78	NP	-	15.54	NA
	11/27/2000	17.99	sheen	-	15.33	NA
	2/20/2001	17.79	sheen	-	15.53	NA
	5/15/2001	17.89	NP	-	15.43	NA
	9/19/2001	18.40	NP	-	14.92	NA
	12/20/2001	16.61	NP	-	16.71	NA
	3/15/2002	16.45	NP	-	16.87	NA
	9/23/2002	18.27	NP	-	15.05	NA
	12/19/2002	18.22	NP	-	15.10	NA
	3/19/2003	15.96	NP	-	17.36	NA
	6/24/2003	17.06	NP	-	16.26	NA
	9/24/2003	18.30	NP	-	15.02	NA
	12/26/2003	17.31	NP	-	16.01	NA
	3/30/2004	16.47	NP	-	16.85	NA
	6/24/2004	17.32	NP	-	16.00	NA
	9/27/2004	18.29	NP	-	15.03	NA
	12/14/2004	17.77	NP	-	15.55	NA
	3/7/2005	17.82	NP	-	15.50	NA
	6/23/2005	17.41	NP	-	15.91	NA
	9/19/2005	**16.20**	**NP**	**-**	**15.12**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-21	2/14/2000	16.22	NP	-	18.57	NA
(34.79)	5/22/2000	16.57	NP	-	18.22	NA
	8/22/2000	17.15	NP	-	17.64	NA
	11/27/2000	17.45	NP	-	17.34	NA
	2/20/2001	19.29	NP	-	15.50	NA
	5/15/2001	17.27	NP	-	17.52	NA
	9/19/2001	17.66	NP	-	17.13	NA
	12/20/2001	16.48	NP	-	18.31	NA
	3/15/2002	16.18	NP	-	18.61	NA
	9/23/2002	17.45	NP	-	17.34	NA
	12/19/2002	17.56	NP	-	17.23	NA
	3/19/2003	16.35	NP	-	18.44	NA
	6/24/2003	16.70	NP	-	18.09	NA
	9/24/2003	17.42	NP	-	17.37	NA
	12/26/2003	16.91	NP	-	17.88	NA
	3/30/2004	16.36	NP	-	18.43	NA
	6/24/2004	17.02	NP	-	17.77	NA
	9/27/2004	17.49	NP	-	17.30	NA
	12/14/2004	17.41	NP	-	17.38	NA
	3/7/2005	17.04	NP	-	17.75	NA
	6/23/2005	16.87	NP	-	17.92	NA
	9/19/2005	**17.45**	**NP**	**-**	**17.34**	**NA**
B-24	2/14/2000	15.50	15.49	0.01	19.21	0.0
(34.70)	5/22/2000	15.83	NP	-	18.87	NA
	8/22/2000	16.38	NP	-	18.32	NA
	11/27/2000	16.81	NP	-	17.89	NA
	2/20/2001	16.59	NP	-	18.11	NA
	5/15/2001	16.56	NP	-	18.14	NA
	9/19/2001	16.94	NP	-	17.76	NA
	12/22/2001	16.23	16.07	0.16	18.60	0.0
	3/15/2002	15.54	Sheen	-	19.16	0.0
	9/23/2002	16.86	16.73	0.13	17.94	0.0
	12/19/2002	16.98	NP	-	17.72	NA
	3/19/2003	15.84	15.71	0.13	18.96	0.0
	6/24/2003	15.90	Sheen	-	18.80	0.0
	9/24/2003	16.75	16.71	0.04	17.98	0.0
	12/26/2003	16.32	16.29	0.03	18.40	0.0
	3/30/2004	15.51	NP	-	19.19	NA
	6/24/2004	16.58	16.21	0.37	18.42	NA
	9/27/2004	16.76	16.75	0.01	17.95	0.0
	12/14/2004	16.64	Sheen	-	18.06	0.0
	3/7/2005	16.44	16.43	0.01	18.27	0.0
	9/19/2005	**16.63**	**16.61**	**0.02**	**18.09**	**0.0**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-26	2/14/2000	15.49	NP	-	19.81	NA
(35.30)	5/22/2000	15.96	NP	-	19.34	NA
	8/22/2000	16.72	NP	-	18.58	NA
	11/27/2000	17.11	NP	-	18.19	NA
	2/20/2001	16.86	NP	-	18.44	NA
	5/15/2001	16.86	NP	-	18.44	NA
	9/19/2001	17.37	NP	-	17.93	NA
	12/20/2001	15.93	NP	-	19.37	NA
	3/15/2002	15.41	NP	-	19.89	NA
	9/23/2002	17.06	NP	-	18.24	NA
	12/19/2002	17.10	NP	-	18.20	NA
	3/19/2003	15.69	NP	-	19.61	NA
	6/24/2003	16.13	NP	-	19.17	NA
	9/24/2003	17.06	NP	-	18.24	NA
	12/26/2003	16.39	NP	-	18.91	NA
	3/30/2004	16.68	NP	-	18.62	NA
	6/24/2004	16.54	NP	-	18.76	NA
	9/27/2004	17.18	NP	-	18.12	NA
	12/14/2004	16.96	NP	-	18.34	NA
	3/7/2005	16.69	NP	-	18.61	NA
	6/22/2005	16.35	NP	-	18.95	NA
	9/19/2005	**17.08**	**NP**	**-**	**18.22**	**NA**
B-28	2/14/2000	15.45	NP	-	19.81	NA
(35.26)	5/22/2000	14.34	NP	-	20.92	NA
	8/22/2000	16.11	NP	-	19.15	NA
	11/27/2000	16.36	NP	-	18.90	NA
	2/20/2001	16.14	NP	-	19.12	NA
	5/15/2001	16.07	NP	-	19.19	NA
	9/19/2001	16.25	NP	-	19.01	NA
	12/22/2001	15.97	NP	-	19.29	NA
	3/15/2002	15.36	NP	-	19.90	NA
	9/23/2002	16.36	NP	-	18.90	NA
	12/19/2002	16.35	NP	-	18.91	NA
	3/19/2003	15.69	NP	-	19.57	NA
	6/24/2003	15.93	NP	-	19.33	NA
	9/24/2003	16.31	NP	-	18.95	NA
	12/26/2003	16.39	NP	-	18.87	NA
	3/30/2004	15.56	NP	-	19.70	NA
	6/24/2004	16.13	NP	-	19.13	NA
	9/27/2004	16.21	NP	-	19.05	NA
	12/14/2004	16.07	NP	-	19.19	NA
	3/7/2005	16.06	NP	-	19.20	NA
	9/19/2005	**16.18**	**NP**	**-**	**19.08**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-29	2/14/2000	15.12	NP	-	22.58	NA
(37.70)	5/22/2000	15.43	NP	-	22.27	NA
	8/22/2000	16.24	NP	-	21.46	NA
	11/27/2000	16.63	NP	-	21.07	NA
	2/20/2001	16.27	NP	-	21.43	NA
	5/15/2001	16.22	NP	-	21.48	NA
	9/19/2001	16.80	NP	-	20.90	NA
	12/22/2001	15.68	NP	-	22.02	NA
	3/15/2002	14.98	NP	-	22.72	NA
	9/23/2002	16.73	NP	-	20.97	NA
	12/19/2002	16.82	NP	-	20.88	NA
	3/19/2003	15.28	NP	-	22.42	NA
	6/24/2003	15.60	NP	-	22.10	NA
	9/24/2003	16.59	NP	-	21.11	NA
	12/26/2003	15.11	NP	-	22.59	NA
	3/30/2004	15.24	NP	-	22.46	NA
	6/24/2004	16.28	NP	-	21.42	NA
	9/27/2004	16.92	NP	-	20.78	NA
	12/14/2004	16.58	NP	-	21.12	NA
	3/7/2005	16.33	NP	-	21.37	NA
	9/19/2005	**16.84**	**NP**	**-**	**20.86**	**NA**
B-30	2/14/2000	14.76	NP	-	20.63	NA
(35.39)	5/22/2000	15.85	NP	-	19.54	NA
	8/22/2000	16.08	NP	-	19.31	NA
	11/27/2000	16.37	NP	-	19.02	NA
	2/20/2001	15.92	NP	-	19.47	NA
	5/15/2001	15.95	NP	-	19.44	NA
	9/19/2001	16.52	NP	-	18.87	NA
	12/22/2001	14.96	NP	-	20.43	NA
	3/15/2002	14.96	NP	-	20.43	NA
	9/23/2002	16.19	NP	-	19.20	NA
	12/19/2002	16.31	NP	-	19.08	NA
	3/19/2003	14.67	NP	-	20.72	NA
	6/24/2003	15.05	NP	-	20.34	NA
	9/24/2003	16.13	NP	-	19.26	NA
	12/26/2003	15.56	NP	-	19.83	NA
	3/30/2004	14.70	NP	-	20.69	NA
	6/24/2004	15.60	NP	-	19.79	NA
	9/27/2004	16.31	NP	-	19.08	NA
	12/14/2004	16.14	16.11	0.03	18.58	NA
	3/7/2005	15.77	Sheen	Sheen	19.62	NA
	6/22/2005	15.39	NP	-	20.00	NA
	9/19/2005	**16.20**	**NP**	**-**	**19.19**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-32	2/14/2000	16.37	NP	-	17.86	NA
(34.23)	5/22/2000	26.84	NP	-	7.39	NA
	8/22/2000	17.65	NP	-	16.58	NA
	11/27/2000	17.93	NP	-	16.30	NA
	2/20/2001	17.71	NP	-	16.52	NA
	5/15/2001	17.74	NP	-	16.49	NA
	9/19/2001	18.17	NP	-	16.06	NA
	12/20/2001	16.74	NP	-	17.49	NA
	3/15/2002	16.55	NP	-	17.68	NA
	9/23/2002	18.32	18.32	Sheen	15.91	NA
	12/19/2002	18.15	NP	-	16.08	NA
	3/19/2003	16.83	NP	-	17.40	NA
	6/24/2003	17.09	NP	-	17.14	NA
	9/24/2003	17.99	NP	-	16.24	NA
	12/26/2003	17.20	NP	-	17.03	NA
	3/30/2004	16.78	NP	-	17.45	NA
	6/24/2004	17.41	NP	-	16.82	NA
	9/27/2004	18.01	NP	-	16.22	NA
	12/14/2004	17.89	NP	-	16.34	NA
	3/7/2005	17.65	NP	-	16.58	NA
	6/23/2005	17.39	NP	-	16.84	NA
	9/19/2005	**18.00**	**NP**	**-**	**16.23**	**NA**
B-33	2/14/2000	15.54	15.49	0.05	20.40	0.0
(35.90)	5/22/2000	16.41	NP	-	19.49	NA
	8/22/2000	17.15	NP	-	18.75	NA
	11/27/2000	17.39	NP	-	18.51	NA
	2/20/2001	17.25	NP	-	18.65	NA
	5/15/2001	17.24	NP	-	18.66	NA
	9/19/2001	17.72	NP	-	18.18	NA
	12/20/2001	16.29	NP	-	19.61	NA
	3/15/2002	15.93	NP	-	19.97	NA
	9/23/2002	17.51	NP	-	18.39	NA
	12/19/2002	17.52	NP	-	18.38	NA
	3/19/2003	16.21	NP	-	19.69	NA
	6/24/2003	16.57	NP	-	19.33	NA
	9/24/2003	17.45	NP	-	18.45	NA
	12/26/2003	16.74	NP	-	19.16	NA
	3/30/2004	16.24	NP	-	19.66	NA
	6/24/2004	16.87	NP	-	19.03	NA
	9/27/2004	17.56	NP	-	18.34	NA
	12/14/2004	17.22	NP	-	18.68	NA
	3/7/2005	17.10	NP	-	18.80	NA
	6/22/2005	16.88	NP	-	19.02	NA
	9/19/2005	**17.40**	**NP**	**-**	**18.50**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-1	2/14/2000	2.38	NP	-	19.70	NA
(22.08)	5/22/2000	3.26	NP	-	18.82	NA
	8/22/2000	4.32	NP	-	17.76	NA
	11/27/2000	4.38	NP	-	17.70	NA
	2/20/2001	6.50	NP	-	15.58	NA
	5/15/2001	4.25	NP	-	17.83	NA
	9/19/2001	4.79	NP	-	17.29	NA
	12/22/2001	3.05	NP	-	19.03	NA
	3/15/2002	2.77	NP	-	19.31	NA
	9/23/2002	4.34	NP	-	17.74	NA
	12/19/2002	3.84	NP	-	18.24	NA
	3/19/2003	2.85	NP	-	19.23	NA
	6/24/2003	3.38	NP	-	18.70	NA
	9/24/2003	4.33	NP	-	17.75	NA
	12/26/2003	3.32	NP	-	18.76	NA
	3/30/2004	3.14	NP	-	18.94	NA
	6/24/2004	3.68	NP	-	18.40	NA
	9/27/2004	4.39	NP	-	17.69	NA
	12/14/2004	3.74	NP	-	18.34	NA
	3/7/2005	3.93	NP	-	18.15	NA
	6/23/2005	3.75	NP	-	18.33	NA
	9/19/2005	**4.44**	**NP**	**-**	**17.64**	**NA**
CR-3	2/14/2000	12.29	12.28	0.01	22.04	0.0
(34.32)	5/22/2000	16.57	NP	-	17.75	NA
	8/22/2000	15.34	NP	-	18.98	NA
	11/27/2000	13.86	NP	-	20.46	NA
	2/20/2001	15.46	NP	-	18.86	NA
	5/15/2001	15.37	NP	-	18.95	NA
	9/19/2001	16.03	NP	-	18.29	NA
	12/22/2001	14.50	NP	-	19.82	NA
	3/15/2002	13.93	NP	-	20.39	NA
	9/23/2002	15.70	NP	-	18.62	NA
	12/19/2002	15.40	NP	-	18.92	NA
	3/19/2003	14.27	NP	-	20.05	NA
	6/24/2003	14.70	NP	-	19.62	NA
	9/24/2003	15.67	NP	-	18.65	NA
	12/26/2003	14.71	NP	-	19.61	NA
	3/30/2004	14.28	NP	-	20.04	NA
	6/24/2004	15.17	NP	-	19.15	NA
	9/27/2004	15.85	NP	-	18.47	NA
	12/14/2004	14.97	NP	-	19.35	NA
	3/7/2005	15.32	NP	-	19.00	NA
	6/22/2005	15.01	NP	-	19.31	NA
	9/19/2005	**15.70**	**NP**	**-**	**18.62**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-4	2/14/2000	5.08	NP	-	32.06	NA
(37.14)	5/22/2000	5.63	NP	-	31.51	NA
	8/22/2000	7.25	NP	-	29.89	NA
	11/27/2000	8.31	NP	-	28.83	NA
	2/20/2001	6.98	NP	-	30.16	NA
	5/15/2001	6.34	NP	-	30.80	NA
	9/19/2001	8.55	NP	-	28.59	NA
	12/20/2001	5.38	NP	-	31.76	NA
	3/15/2002	4.88	NP	-	32.26	NA
	6/4/2002	6.17	NP	-	30.97	NA
	9/23/2002	7.69	NP	-	29.45	NA
	12/19/2002	7.92	NP	-	29.22	NA
	3/19/2003	4.97	NP	-	32.17	NA
	6/24/2003	5.98	NP	-	31.16	NA
	9/24/2003	7.77	NP	-	29.37	NA
	12/26/2003	4.73	NP	-	32.41	NA
	3/30/2004	4.58	NP	-	32.56	NA
	6/24/2004	6.68	NP	-	30.46	NA
	9/27/2004	7.32	NP	-	29.82	NA
	12/14/2004	6.41	NP	-	30.73	NA
	3/7/2005	6.82	NP	-	30.32	NA
	9/19/2005	**7.35**	**NP**	**-**	**29.79**	**NA**
CR-6	2/14/2000	11.75	NP	-	23.86	NA
(35.61)	5/22/2000	12.20	NP	-	23.41	NA
	8/22/2000	13.11	NP	-	22.50	NA
	11/27/2000	NM	NM	-	-	NA
	2/20/2001	13.12	13.11	0.01	22.50	0.0 **
	5/15/2001	12.90	NP	-	22.71	NA **
	9/19/2001	13.95	13.91	0.04	21.69	0.0 **
	12/20/2001	13.02	NP	-	22.59	NA
	3/15/2002	11.54	NP	-	24.07	NA
	6/4/2002	12.70	12.69	0.01	22.92	NA
	9/23/2002	14.56	NP	-	21.05	NA
	12/19/2002	13.26	13.23	0.03	22.37	0.04
	3/19/2003	12.01	11.99	0.02	23.62	0.0
	6/24/2003	12.75	12.73	0.02	22.88	0.0
	9/24/2003	13.43	13.40	0.03	22.20	0.0
	12/26/2003	12.73	12.69	0.04	22.91	0.0
	3/30/2004	12.18	sheen	-	23.43	0.0
	6/24/2004	13.21	13.17	0.04	22.43	0.0
	9/27/2004	13.24	13.19	0.05	22.41	0.0
	12/14/2004	13.01	12.97	0.04	22.63	0.0
	3/7/2005	13.07	13.04	0.03	22.56	0.0
	6/21/2005	13.16	13.13	0.03	22.47	0.0
	9/19/2005	**13.63**	**13.60**	**0.03**	**22.00**	**0.0**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-7	2/14/2000	9.46	9.45	0.01	26.12	0.0
(35.57)	5/22/2000	10.09	NP	-	25.48	NA
	8/22/2000	16.34	NP	-	19.23	NA
	11/27/2000	NM	NM	-	NM	-
	2/20/2001	11.30	sheen	-	24.27	0.0
	5/15/2001	11.21	NP	-	24.36	NA
	9/19/2001	12.46	NP	-	23.11	NA
	12/20/2001	9.92	NP	-	25.65	NA
	3/15/2002	9.60	NP	-	25.97	NA
	6/4/2002	11.01	11.00	0.01	24.57	NA
	9/23/2002	12.23	NP	-	23.34	NA
	12/19/2002	11.45	NP	-	24.12	NA
	3/19/2003	10.53	NP	-	25.04	NA
	6/24/2003	11.23	NP	-	24.34	NA
	9/24/2003	12.60	12.58	0.02	22.99	NA
	12/26/2003	10.90	NP	-	24.67	NA
	3/30/2004	10.77	NP	-	24.80	NA
	6/24/2004	11.78	11.75	0.03	23.81	NA
	9/27/2004	11.58	NP	-	23.99	NA
	12/14/2004	11.14	NP	-	24.43	NA
	3/7/2005	11.57	11.56	0.01	24.01	NA
	6/21/2005	11.27	11.25	0.02	24.32	0.0
	9/19/2005	**12.39**	**12.38**	**0.01**	**23.19**	**0.0**
CR-8	2/14/2000	5.70	NP	-	27.44	NA
(33.14)	5/22/2000	6.23	NP	-	26.91	NA
	8/22/2000	7.44	NP	-	25.70	NA
	11/27/2000	7.61	NP	-	25.53	NA
	2/20/2001	7.03	NP	-	26.11	NA
	5/15/2001	6.98	NP	-	26.16	NA
	9/19/2001	8.29	NP	-	24.85	NA
	12/20/2001	6.18	NP	-	26.96	NA
	3/15/2002	5.77	NP	-	27.37	NA
	6/4/2002	6.82	NP	-	26.32	NA
	9/23/2002	8.04	NP	-	25.10	NA
	12/19/2002	7.36	NP	-	25.78	NA
	3/19/2003	6.12	NP	-	27.02	NA
	6/24/2003	6.84	NP	-	26.30	NA
	9/24/2003	8.24	NP	-	24.90	NA
	12/26/2003	6.99	NP	-	26.15	NA
	3/30/2004	6.31	NP	-	26.83	NA
	6/24/2004	7.19	NP	-	25.95	NA
	9/27/2004	7.42	NP	-	25.72	NA
	12/14/2004	6.80	NP	-	26.34	NA
	3/7/2005	6.86	NP	-	26.28	NA
	6/22/2005	6.71	NP	-	26.43	NA
	9/19/2005	**8.03**	**NP**	**-**	**25.11**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-9	2/14/2000	3.02	NP	-	32.70	NA
(35.72)	5/22/2000	3.78	NP	-	31.94	NA
	8/22/2000	6.51	NP	-	29.21	NA
	11/27/2000	5.20	NP	-	30.52	NA
	2/20/2001	4.71	NP	-	31.01	NA
	5/15/2001	4.95	NP	-	30.77	NA
	9/19/2001	7.26	NP	-	28.46	NA
	12/20/2001	3.47	NP	-	32.25	NA
	3/15/2002	3.25	NP	-	32.47	NA
	9/23/2002	7.11	NP	-	28.61	NA
	12/19/2002	4.35	NP	-	31.37	NA
	3/19/2003	3.46	NP	-	32.26	NA
	6/24/2003	5.95	NP	-	29.77	NA
	9/24/2003	6.82	NP	-	28.90	NA
	12/26/2003	3.53	NP	-	32.19	NA
	3/30/2004	3.69	NP	-	32.03	NA
	6/24/2004	6.06	NP	-	29.66	NA
	9/27/2004	6.32	NP	-	29.40	NA
	2/14/2004	3.81	NP	-	31.91	NA
	3/7/2005	4.66	NP	-	31.06	NA
	6/22/2005	6.71	NP	-	29.01	NA
	9/19/2005	**6.94**	**NP**	**-**	**28.78**	**NA**
CR-10	2/14/2000	4.12	4.08	0.04	31.48	0.0
(35.57)	5/22/2000	4.95	NP	-	30.62	NA
	8/22/2000	7.00	6.74	0.26	28.78	0.9
	11/27/2000	NM	NM	-	-	1.1
	2/20/2001	6.27	6.03	0.24	29.49	0.5
	5/15/2001		Covered With a Gravel Pile			0.5
	9/19/2001	10.68	7.92	2.76	27.10	NR ***
	12/22/2001	4.18	4.12	0.06	31.44	NR ***
	3/15/2002	4.03	3.95	0.08	31.60	0.1
	6/4/2002	5.72	5.55	0.17	29.99	0.1
	9/23/2002	9.13	7.04	2.09	28.11	3.0
	12/19/2002	7.44	6.35	1.09	29.00	0.53
	3/19/2003	4.25	4.21	0.04	31.35	0.26
	6/24/2003	5.69	5.58	0.11	29.97	0.05
	9/24/2003	8.15	7.41	0.74	28.01	0.53
	12/26/2003	6.45	4.75	1.70	30.48	6.0
	3/30/2004	5.23	NP	-	30.34	Skimmer
	6/24/2004	6.81	6.79	0.02	28.78	Skimmer
	9/27/2004	6.78	NP	-	28.79	Skimmer
	12/14/2004	6.33	6.30	0.03	29.26	Skimmer
	3/7/2005	6.63	6.62	0.01	28.95	Skimmer
	6/21/2005	5.50	5.46	0.04	30.10	0.0
	9/19/2005	**8.10**	**7.74**	**0.36**	**27.76**	**0.0**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-11	2/14/2000	2.06	NP	-	32.37	NA
(34.43)	5/22/2000	2.04	NP	-	32.39	NA
	8/22/2000	4.13	NP	-	30.30	NA
	11/27/2000	4.47	sheen	-	29.96	0.1
	2/20/2001	3.27	NP	-	31.16	NA
	5/15/2001	3.02	NP	-	31.41	NA
	9/19/2001	5.26	NP	-	29.17	NA
	12/20/2001	2.34	NP	-	32.09	NA
	3/15/2002	2.02	NP	-	32.41	NA
	9/23/2002	5.12	NP	-	29.31	NA
	12/19/2002	3.86	3.84	0.02	30.59	NA
	3/19/2003	2.06	NP	-	32.37	NA
	6/24/2003	3.25	NP	-	31.18	NA
	9/24/2003	4.80	NP	-	29.63	NA
	12/26/2003	well obstructed				
	3/30/2004	2.53	NP	-	31.90	NA
	6/24/2004	3.85	3.84	0.01	30.59	NA
	9/27/2004	4.60	4.59	0.01	29.84	NA
	12/14/2004	3.24	3.22	0.02	31.21	NA
	3/7/2005	3.27	NP	-	31.16	NA
	9/19/2005	**4.47**	**4.47**	**sheen**	**29.96**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-12	6/9/1999	4.85	NP	-	30.74	NA
(35.59)	7/8/1999	5.08	NP	-	30.51	NA
	8/16/1999	5.63	NP	-	29.96	NA
	9/20/1999	8.90	NP	-	26.69	NA
	2/9/2000	2.66	NP	-	32.93	NA
	5/9/2000	4.44	NP	-	31.15	NA
	5/15/2000	4.12	NP	-	31.47	NA
	7/11/2000	5.21	NP	-	30.38	NA
	8/14/2000	5.76	NP	-	29.83	NA
	12/12/2000	5.61	NP	-	29.98	NA
	4/3/2001	5.49	NP	-	30.10	NA
	6/8/2001	Covered With a Gravel Pile				
	7/16/2001	Covered With a Gravel Pile				
	8/1/2001	6.14	NP	-	29.45	NA
	9/19/2001	Covered With a Gravel Pile				
	12/22/2001	3.82	NP	-	31.77	NA
	3/15/2002	3.89	NP	-	31.70	NA
	6/4/2002	5.13	NP	-	30.46	NA
	9/23/2002	6.69	NP	-	28.90	NA
	12/19/2002	5.53	NP	-	30.06	NA
	3/19/2003	3.99	NP	-	31.60	NA
	6/24/2003	5.15	NP	-	30.44	NA
	9/24/2003	6.67	NP	-	28.92	NA
	12/26/2003	4.48	NP	-	31.11	NA
	3/30/2004	4.76	NP	-	30.83	NA
	6/24/2004	5.94	NP	-	29.65	NA
	9/27/2004	6.28	NP	-	29.31	NA
	12/14/2004	5.27	NP	-	30.32	NA
	3/7/2005	5.84	NP	-	29.75	NA
	6/21/2005	5.39	NP	-	30.20	NA
	9/19/2005	**6.55**	**NP**	-	**29.04**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-13	6/9/1999	5.08	NP	-	30.38	NA
(35.46)	7/8/1999	5.27	NP	-	30.19	NA
	8/16/1999	5.77	NP	-	29.69	NA
	9/20/1999	9.05	NP	-	26.41	NA
	2/9/2000	3.86	NP	-	31.60	NA
	5/9/2000	4.63	NP	-	30.83	NA
	5/15/2000	4.37	NP	-	31.09	NA
	7/11/2000	5.28	NP	-	30.18	NA
	8/14/2000	5.81	NP	-	29.65	NA
	12/12/2000	5.64	NP	-	29.82	NA
	4/3/2001	5.80	NP	-	29.66	NA
	6/8/2001	5.75	NP	-	29.71	NA
	7/16/2001	6.29	NP	-	29.17	NA
	8/1/2001	6.52	NP	-	28.94	NA
	9/19/2001	Covered With a Gravel Pile				
	12/22/2001	4.34	NP	-	31.12	NA
	3/15/2002	4.38	NP	-	31.08	NA
	6/4/2002	5.66	NP	-	29.80	NA
	9/23/2002	6.83	NP	-	28.63	NA
	12/19/2002	6.09	NP	-	29.37	NA
	3/19/2003	4.71	NP	-	30.75	NA
	6/24/2003	5.66	NP	-	29.80	NA
	9/24/2003	6.90	NP	-	28.56	NA
	12/26/2003	4.93	NP	-	30.53	NA
	3/30/2004	5.29	NP	-	30.17	NA
	6/24/2004	6.24	NP	-	29.22	NA
	9/27/2004	6.49	NP	-	28.97	NA
	12/14/2004	5.81	NP	-	29.65	NA
	3/7/2005	6.16	NP	-	29.30	NA
	6/21/2005	5.70	NP	-	29.76	NA
	9/19/2005	**6.81**	**NP**	**-**	**28.65**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-14	6/9/1999	5.03	NP	-	30.40	NA
(35.43)	7/8/1999	5.27	NP	-	30.16	NA
	8/16/1999	5.85	NP	-	29.58	NA
	9/20/1999	6.14	NP	-	29.29	NA
	2/9/2000	3.98	NP	-	31.45	NA
	5/9/2000	4.66	NP	-	30.77	NA
	5/15/2000	4.33	NP	-	31.10	NA
	7/11/2000	5.41	NP	-	30.02	NA
	8/14/2000	6.01	NP	-	29.42	NA
	12/12/2000	5.87	NP	-	29.56	NA
	4/3/2001	5.70	NP	-	29.73	NA
	6/8/2001	5.81	NP	-	29.62	NA
	7/16/2001	6.20	NP	-	29.23	NA
	8/1/2001	6.32	NP	-	29.11	NA
	9/19/2001	6.99	NP	-	28.44	NA
	12/20/2001	4.22	NP	-	31.21	NA
	3/15/2002	4.09	NP	-	31.34	NA
	6/4/2002	5.41	NP	-	30.02	NA
	9/23/2002	6.86	NP	-	28.57	NA
	12/19/2002	5.59	NP	-	29.84	NA
	3/19/2003	4.54	NP	-	30.89	NA
	6/24/2003	5.51	NP	-	29.92	NA
	9/24/2003	7.01	NP	-	28.42	NA
	12/26/2003	4.72	NP	-	30.71	NA
	3/30/2004	5.38	NP	-	30.05	NA
	6/24/2004	6.36	NP	-	29.07	NA
	9/27/2004	6.53	NP	-	28.90	NA
	12/14/2004	5.57	NP	-	29.86	NA
	3/7/2005	6.26	NP	-	29.17	NA
	6/21/2005	5.56	NP	-	29.87	NA
	9/19/2005	**6.93**	**NP**	**-**	**28.50**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-15	6/9/1999	9.06	NP	-	26.36	NA
(35.42)	7/8/1999	9.44	9.41	0.03	26.00	NR ***
	8/16/1999	10.35	10.08	0.27	25.29	NR ***
	9/20/1999	11.07	10.63	0.44	24.70	NR ***
	2/9/2000	8.32	8.01	0.31	27.35	NR ***
	5/9/2000	8.91	8.66	0.25	26.71	NR ***
	5/15/2000	8.74	8.53	0.21	26.85	NR ***
	5/16/2000	8.60	8.45	0.15	26.94	NR ***
	6/7/2000	9.33	8.99	0.34	26.36	NR ***
	7/11/2000	10.02	9.70	0.32	25.66	NR ***
	8/14/2000	10.76	10.39	0.37	24.96	NR ***
	12/12/2000	10.60	10.56	0.04	24.85	NR ***
	4/3/2001	10.17	10.05	0.12	25.35	NR ***
	6/8/2001	10.56	10.37	0.19	25.01	NR ***
	7/16/2001	10.97	10.77	0.20	24.61	NR ***
	9/19/2001	12.17	11.76	0.41	23.58	NR ***
	12/22/2001	8.66	8.50	0.16	26.89	NR ***
	3/15/2002	8.86	8.42	0.44	26.91	0.3
	6/4/2002	10.52	10.25	0.27	25.12	0.5
	9/23/2002	11.40	11.31	0.09	24.09	0.13
	12/19/2002	9.39	9.37	0.02	26.05	0.03
	3/19/2003	9.11	9.04	0.07	26.37	0.13
	6/24/2003	10.63	10.52	0.11	24.88	0.01
	9/24/2003	12.53	12.32	0.21	23.06	0.01
	12/26/2003	10.34	9.78	0.56	25.53	NA
	3/30/2004	10.34	9.92	0.42	25.42	NA
	6/24/2004	11.26	11.11	0.15	24.28	NA
	9/27/2004	11.85	11.76	0.09	23.64	NA
	12/14/2004	9.96	9.95	0.01	25.47	NA
	3/7/2005	11.02	10.90	0.12	24.50	NA
	6/21/2005	10.62	10.49	0.13	24.90	0.0
	9/19/2005	**12.10**	**11.89**	**0.21**	**23.49**	**0.0**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-16	6/9/1999	11.05	NP	-	23.72	NA
(34.77)	7/8/1999	11.61	NP	-	23.16	NA
	8/16/1999	11.82	NP	-	22.95	NA
	9/20/1999	12.00	NP	-	22.77	NA
	2/9/2000	10.39	NP	-	24.38	NA
	5/9/2000	11.10	NP	-	23.67	NA
	5/15/2000	11.12	NP	-	23.65	NA
	7/11/2000	11.86	NP	-	22.91	NA
	8/14/2000	11.96	NP	-	22.81	NA
	12/12/2000	11.95	NP	-	22.82	NA
	4/3/2001	11.93	NP	-	22.84	NA
	6/8/2001	NM	NM	-	NM	-
	7/16/2001	12.06	NP	-	22.71	NA
	9/19/2001	12.60	NP	-	22.17	NA
	12/22/2001	10.40	NP	-	24.37	NA
	3/15/2002	10.64	NP	-	24.13	NA
	6/4/2002	11.89	NP	-	22.88	NA
	9/23/2002	12.16	NP	-	22.61	NA
	12/19/2002	10.89	10.87	0.02	23.90	0.01
	3/19/2003	10.54	NP	-	24.23	NA
	6/24/2003	11.81	NP	-	22.96	NA
	9/24/2003	12.42	NP	-	22.35	NA
	12/26/2003	11.29	NP	-	23.48	NA
	3/30/2004	10.83	NP	-	23.94	NA
	6/24/2004	12.04	12.02	0.02	22.75	NA
	9/27/2004	12.03	NP	-	22.74	NA
	12/14/2004	11.08	NP	-	23.69	NA
	3/7/2005	11.88	NP	-	22.89	NA
	6/21/2005	11.59	NP	-	23.18	NA
	9/19/2005	**12.35**	**12.35**	**sheen**	**22.42**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-17	6/9/1999	6.90	NP	-	27.56	NA
(34.46)	7/8/1999	7.15	NP	-	27.31	NA
	8/16/1999	7.81	NP	-	26.65	NA
	9/20/1999	8.35	NP	-	26.11	NA
	2/9/2000	6.41	NP	-	28.05	NA
	5/9/2000	6.80	NP	-	27.66	NA
	5/15/2000	6.68	NP	-	27.78	NA
	7/11/2000	7.50	NP	-	26.96	NA
	8/14/2000	8.21	NP	-	26.25	NA
	12/12/2000	8.26	NP	-	26.20	NA
	4/3/2001	7.90	NP	-	26.56	NA
	6/8/2001	NM	NM	-	NM	-
	7/16/2001	8.59	NP	-	25.87	NA
	9/19/2001	9.70	NP	-	24.76	NA
	12/22/2001	6.57	NP	-	27.89	NA
	3/15/2002	6.47	NP	-	27.99	NA
	6/4/2002	7.82	NP	-	26.64	NA
	9/23/2002	8.81	NP	-	25.65	NA
	12/19/2002	7.92	NP	-	26.54	NA
	3/19/2003	6.70	NP	-	27.76	NA
	6/24/2003	7.96	NP	-	26.50	NA
	9/24/2003	9.63	NP	-	24.83	NA
	12/26/2003	7.51	7.10	0.41	27.28	NA
	3/30/2004	7.32	NP	-	27.14	NA
	6/24/2004	8.65	NP	-	25.81	NA
	9/27/2004	8.32	NP	-	26.14	NA
	12/14/2004	7.44	NP	-	27.02	NA
	3/7/2005	8.28	NP	-	26.18	NA
	6/21/2005	7.80	NP	-	26.66	NA
	9/19/2005	**9.50**	**NP**	**-**	**24.96**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-18	6/9/1999	3.77	NP	-	31.07	NA
(34.84)	7/8/1999	4.14	NP	-	30.70	NA
	8/16/1999	5.19	NP	-	29.65	NA
	9/20/1999	NM	NM	-	NM	-
	2/9/2000	NM	NM	-	NM	-
	5/9/2000	NM	NM	-	NM	-
	5/15/2000	NM	NM	-	NM	-
	7/11/2000	NM	NM	-	NM	-
	8/14/2000	NM	NM	-	NM	-
	12/12/2000	NM	NM	-	NM	-
	4/3/2001	NM	NM	-	NM	-
	6/8/2001	NM	NM	-	NM	-
	7/16/2001	NM	NM	-	NM	-
	9/19/2001	NM	NM	-	NM	-
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	NM	NM	-	NM	-
		Abandoned				

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-19	6/9/1999	5.10	NP	-	30.39	NA
(35.49)	7/8/1999	6.24	5.27	0.97	30.03	NR ***
	8/16/1999	7.65	5.87	1.78	29.26	NR ***
	9/20/1999	8.86	6.38	2.48	28.61	NR ***
	2/9/2000	5.94	3.35	2.59	31.62	NR ***
	5/9/2000	6.19	4.38	1.81	30.75	NR ***
	5/15/2000	4.27	4.22	0.05	31.26	NR ***
	5/16/2000	4.32	4.26	0.06	31.22	NR ***
	6/7/2000	5.57	4.78	0.79	30.55	NR ***
	7/11/2000	6.17	5.35	0.82	29.98	NR ***
	8/14/2000	7.50	5.94	1.56	29.24	NR ***
	12/12/2000	8.69	5.90	2.79	29.03	NR ***
	4/3/2001	8.03	5.61	2.42	29.40	NR ***
	6/8/2001	7.77	5.75	2.02	29.34	NR ***
	7/16/2001	7.99	6.32	1.67	28.84	NR ***
	9/19/2001	8.86	7.14	1.72	28.01	NR ***
	12/22/2001	4.62	4.24	0.38	31.17	NR ***
	3/15/2002	4.47	4.13	0.34	31.29	0.25
	6/4/2002	6.92	5.39	1.53	29.79	1.50
	9/23/2002	8.48	6.91	1.57	28.27	0.53
	12/19/2002	7.09	6.17	0.92	29.14	0.26
	3/19/2003	4.83	4.40	0.43	31.00	0.26
	6/24/2003	6.51	5.50	1.01	29.79	0.75
	9/24/2003	7.68	6.99	0.69	28.36	0.26
	12/26/2003	7.41	5.21	2.20	29.84	2.50
	3/30/2004	7.12	5.49	1.63	29.67	2.50
	6/24/2004	7.40	6.62	0.78	28.71	2.50
	9/27/2004	8.28	7.65	0.63	27.71	2.50
	12/14/2004	6.63	6.37	0.26	29.07	0.0
	3/7/2005	6.94	6.92	0.02	28.57	0.0
	6/21/2005	6.43	5.83	0.60	29.54	0.0
	9/19/2005	**8.80**	**7.32**	**1.48**	**27.87**	**0.0**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-20	7/8/1999	7.69	NP	-	27.45	NA
(35.14)	8/16/1999	8.50	NP	-	26.64	NA
	9/20/1999	9.14	NP	-	26.00	NA
	2/9/2000	6.67	NP	-	28.47	NA
	5/9/2000	7.25	NP	-	27.89	NA
	5/15/2000	6.98	NP	-	28.16	NA
	7/11/2000	8.15	NP	-	26.99	NA
	8/14/2000	8.95	NP	-	26.19	NA
	12/12/2000	9.12	NP	-	26.02	NA
	4/3/2001	8.75	NP	-	26.39	NA
	6/8/2001	9.04	NP	-	26.10	NA
	7/16/2001	9.51	NP	-	25.63	NA
	9/19/2001	10.91	NP	-	24.23	NA
	12/20/2001	6.96	NP	-	28.18	NA
	3/15/2002	6.91	NP	-	28.23	NA
	6/4/2002	8.74	NP	-	26.40	NA
	9/23/2002	10.29	NP	-	24.85	NA
	12/19/2002	8.88	NP	-	26.26	NA
	3/19/2003	7.35	NP	-	27.79	NA
	6/24/2003	9.05	NP	-	26.09	NA
	9/24/2003	11.30	NP	-	23.84	NA
	12/26/2003	8.08	8.06	0.02	27.08	NA
	3/30/2004	8.35	NP	-	26.79	NA
	6/24/2004	9.89	NP	-	25.25	NA
	9/27/2004	9.59	NP	-	25.55	NA
	12/14/2004	8.25	NP	-	26.89	NA
	3/7/2005	9.60	NP	-	25.54	NA
	6/21/2005	8.79	NP	-	26.35	NA
	9/19/2005	**10.92**	**NP**	**-**	**24.22**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-21A	12/12/2000	5.54	NP	-	28.57	NA
(34.11)	4/5/2001	5.21	5.11	0.10	28.98	NR ***
	6/8/2001	5.61	5.11	0.50	28.90	NR ***
	7/16/2001	6.37	5.25	1.12	28.64	NR ***
	9/19/2001	Covered With Construction Equipment				
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	NM	NM	>1.0E	NM	NM
	6/4/2002	NM	4.85E	>1.5E	NM	NM
	9/23/2002	8.10E	6.10E	2.0E	NM	0.04
	12/19/2002	5.19	4.95	0.24	29.11	0.02
	3/19/2003	3.6E	3.4E	0.2E	NM	0.01
	6/24/2003	5.6E	5.33	0.25E	NM	0.01
	9/24/2003	7.1E	6.80	0.3E	NM	0.01
	12/26/2003	3.75	3.63E	0.12E	NM	0.01
	3/30/2004	5.35	4.99	0.36	29.05	0.25
	6/24/2004	6.52	6.17	0.35	27.87	NA
	9/27/2004	7.09	6.59	0.50	27.42	NA
	12/14/2004	5.69	5.48	0.21	28.59	NA
	3/7/2005	5.80	5.66	0.14	28.42	NA
	6/22/2005	5.78	5.53	0.25	28.53	0.0
	9/19/2005	**7.41**	**6.89**	**0.52**	**27.12**	**0.0**
CR-21B	12/12/2000	6.53	NP	-	27.83	NA
(34.36)	4/3/2001	5.62	NP	-	28.74	NA
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	6.88	NP	-	27.48	NA
	9/19/2001	7.41	NP	-	26.95	NA
	12/20/2001	4.68	NP	-	29.68	NA
	3/15/2002	4.48	NP	-	29.88	NA
	6/4/2002	5.59	NP	-	28.77	NA
	9/23/2002	7.77	NP	-	26.59	NA
	12/19/2002	5.79	NP	-	28.57	NA
	3/19/2003	4.92	NP	-	29.44	NA
	6/24/2003	6.21	NP	-	28.15	NA
	9/24/2003	7.77	NP	-	26.59	NA
	12/26/2003	4.41	NP	-	29.95	NA
	3/30/2004	5.30	NP	-	29.06	NA
	6/24/2004	6.67	NP	-	27.69	NA
	9/27/2004	6.99	NP	-	27.37	NA
	12/14/2004	6.52	NP	-	27.84	NA
	3/7/2005	6.27	NP	-	28.09	NA
	6/22/2005	6.09	NP	-	28.27	NA
	9/19/2005	**7.75**	**NP**	**-**	**26.61**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-22A	12/12/2000	11.92	NP	-	22.88	NA
(34.80)	4/3/2001	11.51	NP	-	23.29	NA
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	11.89	NP	-	22.91	NA
	9/19/2001	12.52	NP	-	22.28	NA
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	10.36	NP	-	24.44	NA
	6/4/2002	11.32	NP	-	23.48	NA
	9/23/2002	12.12	NP	-	22.68	NA
	12/19/2002	11.93	NP	-	22.87	NA
	3/19/2003	10.99	NP	-	23.81	NA
	6/24/2003	11.83	NP	-	22.97	NA
	9/24/2003	12.96	NP	-	21.84	NA
	12/26/2003	11.65	NP	-	23.15	NA
	3/30/2004	11.79	NP	-	23.01	NA
	6/24/2004	12.28	NP	-	22.52	NA
	9/27/2004	12.33	NP	-	22.47	NA
	12/14/2004	11.98	NP	-	22.82	NA
	3/7/2005	12.02	NP	-	22.78	NA
	6/21/2005	11.85	NP	-	22.95	NA
	9/19/2005	**12.73**	**NP**	**-**	**22.07**	**NA**
CR-22B	12/12/2000	11.27	NP	-	23.92	NA
(35.19)	4/3/2001	10.70	NP	-	24.49	NA
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	11.31	NP	-	23.88	NA
	9/19/2001	12.02	NP	-	23.17	NA
	12/20/2001	9.63	NP	-	25.56	NA
	3/15/2002	9.52	NP	-	25.67	NA
	6/4/2002	10.59	NP	-	24.60	NA
	9/23/2002	11.57	NP	-	23.62	NA
	12/19/2002	11.39	NP	-	23.80	NA
	3/19/2003	10.02	NP	-	25.17	NA
	6/24/2003	10.52	NP	-	24.67	NA
	9/24/2003	12.24	NP	-	22.95	NA
	12/26/2003	10.64	NP	-	24.55	NA
	3/30/2004	10.33	NP	-	24.86	NA
	6/24/2004	11.26	NP	-	23.93	NA
	9/27/2004	11.25	NP	-	23.94	NA
	12/14/2004	10.87	NP	-	24.32	NA
	3/7/2005	11.13	NP	-	24.06	NA
	6/21/2005	10.90	NP	-	24.29	NA
	9/19/2005	**11.84**	**NP**	**-**	**23.35**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-23A	12/12/2000	13.56	NP	-	22.79	NA
(36.35)	4/3/2001	13.20	NP	-	23.15	NA
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	13.52	NP	-	22.83	NA
	9/19/2001	14.19	NP	-	22.16	NA
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	11.84	NP	-	24.51	NA
	6/4/2002	12.83	NP	-	23.52	NA
	9/23/2002	13.66	NP	-	22.69	NA
	12/19/2002	13.66	NP	-	22.69	NA
	3/19/2003	11.97	NP	-	24.38	NA
	6/24/2003	12.64	NP	-	23.71	NA
	9/24/2003	13.95	NP	-	22.40	NA
	12/26/2003	12.70	NP	-	23.65	NA
	3/30/2004	12.47	NP	-	23.88	NA
	6/24/2004	13.46	NP	-	22.89	NA
	9/27/2004	13.45	NP	-	22.90	NA
	12/14/2004	13.14	NP	-	23.21	NA
	3/7/2005	13.35	NP	-	23.00	NA
	6/21/2005	12.92	NP	-	23.43	NA
	9/19/2005	**13.95**	**NP**	**-**	**22.40**	**NA**
CR-23B	12/12/2000	12.57	NP	-	23.70	NA
(36.27)	4/3/2001	12.18	NP	-	24.09	NA
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	12.71	NP	-	23.56	NA
	9/19/2001	13.79	NP	-	22.48	NA
	12/20/2001	11.04	NP	-	25.23	NA
	3/15/2002	10.94	NP	-	25.33	NA
	6/4/2002	12.96	NP	-	23.31	NA
	9/23/2002	12.79	NP	-	23.48	NA
	12/19/2002	12.79	NP	-	23.48	NA
	3/19/2003	12.55	NP	-	23.72	NA
	6/24/2003	12.65	NP	-	23.62	NA
	9/24/2003	13.57	NP	-	22.70	NA
	12/26/2003	11.85	NP	-	24.42	NA
	3/30/2004	11.46	NP	-	24.81	NA
	6/24/2004	12.73	NP	-	23.54	NA
	9/27/2004	12.62	NP	-	23.65	NA
	12/14/2004	12.36	NP	-	23.91	NA
	3/7/2005	12.61	NP	-	23.66	NA
	6/21/2005	12.33	NP	-	23.94	NA
	9/19/2005	**13.29**	**NP**	**-**	**22.98**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-24A	12/12/2000	15.15	NP	-	21.06	NA
(36.21)	4/3/2001	14.46	NP	-	21.75	NA
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	14.64	NP	-	21.57	NA
	9/19/2001	15.11	NP	-	21.10	NA
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	13.29	NP	-	22.92	NA
	6/4/2002	14.07	NP	-	22.14	NA
	9/23/2002	14.82	NP	-	21.39	NA
	12/19/2002	14.72	NP	-	21.49	NA
	3/19/2003	13.53	NP	-	22.68	NA
	6/24/2003	14.04	NP	-	22.17	NA
	9/24/2003	14.88	NP	-	21.33	NA
	12/26/2003	14.17	NP	-	22.04	NA
	3/30/2004	12.61	NP	-	23.60	NA
	6/24/2004	14.45	NP	-	21.76	NA
	9/27/2004	14.65	NP	-	21.56	NA
	12/14/2004	14.45	NP	-	21.76	NA
	3/7/2005	14.24	NP	-	21.97	NA
	6/21/2005	14.13	NP	-	22.08	NA
	9/19/2005	**14.77**	**NP**	**-**	**21.44**	**NA**
CR-24B	12/12/2000	13.78	NP	-	22.54	NA
(36.32)	4/3/2001	13.40	NP	-	22.92	NA
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	13.77	NP	-	22.55	NA
	9/19/2001	14.44	NP	-	21.88	NA
	12/20/2001	12.41	NP	-	23.91	NA
	3/15/2002	12.06	NP	-	24.26	NA
	6/4/2002	12.94	NP	-	23.38	NA
	9/23/2002	13.42	NP	-	22.90	NA
	12/19/2002	13.78	NP	-	22.54	NA
	3/19/2003	12.52	NP	-	23.80	NA
	6/24/2003	13.06	NP	-	23.26	NA
	9/24/2003	14.32	NP	-	22.00	NA
	12/26/2003	12.97	NP	-	23.35	NA
	3/30/2004	13.52	NP	-	22.80	NA
	6/24/2004	13.58	NP	-	22.74	NA
	9/27/2004	13.61	NP	-	22.71	NA
	12/14/2004	13.41	NP	-	22.91	NA
	3/7/2005	13.66	NP	-	22.66	NA
	6/21/2005	13.20	NP	-	23.12	NA
	9/19/2005	**14.03**	**NP**	**-**	**22.29**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
CR-25	12/12/2000	8.23	NP	-	26.04	NA
(34.27)	4/3/2001	7.69	7.25	0.44	26.93	NR ***
	6/8/2001	7.49	7.15	0.34	27.05	NR ***
	7/16/2001	8.67	7.73	0.94	26.35	NR ***
	9/19/2001	9.02	8.75	0.27	25.47	NR ***
	12/20/2001	6.96	6.81	0.15	27.43	NR ***
	3/15/2002	6.66	6.51	0.15	27.73	0.1
	6/4/2002	7.83	7.62	0.21	26.61	0.25
	9/23/2002	9.02	8.79	0.23	25.43	0.13
	12/19/2002	8.48	8.34	0.14	25.90	0.05
	3/19/2003	6.91	6.74	0.17	27.50	0.2
	6/24/2003	7.79	7.58	0.21	26.65	NR
	9/24/2003	9.06	8.91	0.15	25.33	NR
	12/26/2003	7.51	7.35	0.16	26.89	NR
	3/30/2004	8.00	7.79	0.21	26.44	0.0
	6/24/2004	8.65	8.19	0.46	25.99	0.0
	9/27/2004	8.65	8.42	0.23	25.80	0.0
	12/14/2004	7.62	7.49	0.13	26.75	0.0
	3/7/2005	8.14	7.95	0.19	26.28	0.0
	6/22/2005	8.07	7.79	0.28	26.42	0.0
	9/19/2005	**10.34**	**9.14**	**1.20**	**24.89**	**0.0**
GPW-1	12/12/2000	12.99	NP	-	21.67	NA
(34.66)	2/20/2001	12.59	NP	-	22.07	NA
	4/3/2001	12.56	NP	-	22.10	NA
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	12.70	NP	-	21.96	NA
	9/19/2001	13.15	NP	-	21.51	NA
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	7.46	NP	-	27.20	NA
	6/4/2002	11.71	NP	-	22.95	NA
	9/23/2002	12.95	NP	-	21.71	NA
	12/19/2002	12.71	NP	-	21.95	NA
	3/19/2003	7.19	NP	-	27.47	NA
	6/24/2003	10.06	NP	-	24.60	NA
	9/24/2003	13.07	NP	-	21.59	NA
	12/26/2003	11.01	NP	-	23.65	NA
	3/30/2004	7.61	NP	-	27.05	NA
	6/24/2004	12.36	NP	-	22.30	NA
	9/27/2004	12.99	NP	-	21.67	NA
	12/14/2004	12.93	NP	-	21.73	NA
	3/7/2005	11.52	NP	-	23.14	NA
	6/21/2005	9.65	NP	-	25.01	NA
	9/19/2005	**13.01**	**NP**	**-**	**21.65**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
GPW-2	12/12/2000	NM	NM	NM	NM	-
(34.98)	2/20/2001	10.93	10.68	-	24.05	NA
	4/3/2001	NM	NM	NM	NM	-
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	NM	NM	NM	NM	-
	9/19/2001	12.91	NP	-	22.07	NA
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	7.91	NP	-	27.07	NA
	6/4/2002	NM	NM	1.2E	NM	0.01
	9/23/2002	13.10E	12.97E	0.13E	E	0.05
	12/19/2002	12.32	-	-	-	-
	3/19/2003	9.4E	-	-	-	0.02
	6/24/2003	10.20	NM	Sheen	24.78	NA
	9/24/2003	12.18	11.93	0.25E	23.00	0.01
	12/26/2003	10.80	10.55	0.25	24.38	0.25
	3/30/2004	9.31	8.92	0.39	25.98	0.25
	6/24/2004	10.75	10.73	0.02	24.25	NA
	9/27/2004	12.55	11.83	0.72	23.01	NA
	12/14/2004	12.55	11.94	0.61	22.92	NA
	3/7/2005	10.76	10.75	0.01	24.23	NA
	9/19/2005	**12.18**	**11.35**	**0.83**	**23.46**	**NA**
GPW-3	12/12/2000	12.23	NP	-	22.85	NA
(35.08)	2/20/2001	12.03	NP	-	23.05	NA
	4/3/2001	11.97	NP	-	23.11	NA
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	12.16	NP	-	22.92	NA
	9/19/2001	12.66	NP	-	22.42	NA
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	10.46	NP	-	24.62	NA
	6/4/2002	11.22	NP	-	23.86	NA
	9/23/2002	11.72	NP	-	23.36	NA
	12/19/2002	12.20	-	-	-	0.01
	3/19/2003	10.86E	-	-	-	0.01
	6/24/2003	11.35	11.24	0.11	23.82	0.01
	9/24/2003	11.90	11.78	0.12	23.28	0.01
	12/26/2003	13.49	11.24	2.25	23.39	0.25
	3/30/2004	11.73	10.90	0.83	24.01	0.03
	6/24/2004	11.83	11.59	0.24	23.44	NA
	9/27/2004	12.32	11.86	0.46	23.13	NA
	12/14/2004	12.15	11.87	0.28	23.15	NA
	3/7/2005	10.76	10.75	0.01	24.33	NA
	6/21/2005	11.35	11.16	0.19	23.88	NA
	9/19/2005	**11.98**	**11.85**	**0.13**	**23.20**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
GPW-4	12/12/2000	NM	NM	NM	NM	-
(35.07)	2/20/2001	12.29	NP	-	22.78	NA
	4/3/2001	NM	NM	NM	NM	-
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	NM	NM	NM	NM	-
	9/19/2001	13.02	NP	-	22.05	NA
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	11.08	NP	-	23.99	NA
	6/4/2002	11.98	NP	-	23.09	
	9/23/2002	12.71	NP	-	22.36	NA
	12/19/2002	12.23	NP	-	22.84	NA
	3/19/2003	11.30	NP	-	23.77	NA
	6/24/2003	12.12	NP	-	22.95	NA
	9/24/2003	13.11	13.07	0.04	21.99	Trace
	12/26/2003	12.10	NP	-	22.97	NA
	3/30/2004	12.34	11.78	0.56	23.18	NA
	6/24/2004	12.57	NP	-	22.50	NA
	9/27/2004	12.58	NP	-	22.49	NA
	12/14/2004	12.38	NP	-	22.69	NA
	3/7/2005	12.32	NP	-	22.75	NA
	9/19/2005	**12.95**	**12.93**	**0.02**	**22.14**	**NA**
GPW-5	12/12/2000	NM	NM	NM	NM	-
(34.85)	2/20/2001	12.02	NP	-	22.83	NA
	4/3/2001	NM	NM	NM	NM	-
	6/8/2001	NM	NM	NM	NM	-
	7/16/2001	NM	NM	NM	NM	-
	9/19/2001	12.79	NP	-	22.06	NA
	12/22/2001	NM	NM	-	NM	-
	3/15/2002	10.72	NP	-	24.13	NA
	6/4/2002	11.66	NP	-	23.19	NA
	9/23/2002	12.46	NP	-	22.39	NA
	12/19/2002	11.96	NP	-	22.89	NA
	3/19/2003	10.97	NP	-	23.88	NA
	6/24/2003	11.80	NP	-	23.05	NA
	9/24/2003	12.92	NP	-	21.93	NA
	12/26/2003	11.64	NP	-	23.21	NA
	3/30/2004	11.57	NP	-	23.28	NA
	6/24/2004	12.21	NP	-	22.64	NA
	9/27/2004	12.21	NP	-	22.64	NA
	12/14/2004	12.05	NP	-	22.80	NA
	3/7/2005	12.04	NP	-	22.81	NA
	9/19/2005	**12.70**	**NP**	**-**	**22.15**	**NA**

TABLE 1A
GROUNDWATER ELEVATION AND SPH RECOVERY DATA
ChevronTexaco Company - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
EX-1	2/14/2000	15.55	NP	-	18.60	NA
(34.15)	5/22/2000	18.29	NP	-	15.86	NA
	8/22/2000	16.56	NP	-	17.59	NA
	11/27/2000	16.86	NP	-	17.29	NA
	2/20/2001	16.66	NP	-	17.49	NA
	5/15/2001	16.62	NP	-	17.53	NA
	9/19/2001	Covered by Facility Equipment				
	12/22/2001	Covered by Facility Equipment				
	3/15/2002	15.34	NP	-	18.81	NA
	9/23/2002	16.88	NP	-	17.27	NA
	12/19/2002	16.99	NP	-	17.16	NA
	3/19/2003	15.65	NP	-	18.50	NA
	6/24/2003	15.98	NP	-	18.17	NA
	9/24/2003	Could Not Access				
	12/26/2003	Could Not Access				
	3/30/2004	Could Not Access				
	6/24/2004	16.35	NP	-	17.80	NA
	9/27/2004	Could Not Access				
	12/14/2004	16.66	NP	-	17.49	NA
	3/7/2005	16.52	NP	-	17.63	NA
	9/19/2005	**16.86**	**NP**	**-**	**17.29**	**NA**

NOTES:
Wells B-8 and B-31 were abandoned after first quarter 2000
NP = No measurable product
NA = Not Applicable
NM = Not Measured
NR = None Recovered
* = SPH Recovered for latest quarter monitored
** = Well Contains a Sock for Product Recovery
*** = Product Recovery Part of Chevron Ethanol Study
E = 3/4 inch-diameter well/ SPH thickness estimated with bailer
- = No measurable product thickness
Groundwater elevations for wells with product thicknesses have been corrected using 0.8
GWE = TOC -(DTW - (0.8 x DTP - DTW)) Where 0.8 = The density of the SPH

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-1	2/14/2000	3.76	NP	-	31.67	NA
(35.43)	5/22/2000	4.72	NP	-	30.71	NA
	8/23/2000	7.52	NP	-	27.91	NA
	11/28/2000	7.43	NP	-	28.00	NA
	2/21/2001	6.32	NP	-	29.11	NA
	5/15/2001	6.33	NP	-	29.10	NA
	9/19/2001	8.40	NP	-	27.03	NA
	12/19/2001	3.92	NP	-	31.51	NA
	3/13/2002	3.80	NP	-	31.63	NA
	6/24/2002	6.56	NP	-	28.87	NA
	9/26/2002	8.15	NP	-	27.28	NA
	12/20/2002	5.32	NP	-	30.11	NA
	3/17/2003	3.81	NP	-	31.62	NA
	6/26/2003	6.19	NP	-	29.24	NA
	9/24/2003	8.04	NP	-	27.39	NA
	12/30/2003	4.02	NP	-	31.41	NA
	3/29/2004	4.45	NP	-	30.98	NA
	6/29/2004	6.84	NP	-	28.59	NA
	9/27/2004	7.32	NP	-	28.11	NA
	12/14/2004	5.31	NP	-	30.12	NA
	3/7/2005	6.81	NP	-	28.62	NA
	6/20/2005	5.60	NP	-	29.83	NA
	9/19/2005	**7.62**	**NP**	**-**	**27.81**	**NA**
MW-2	2/14/2000	5.59	NP	-	30.18	NA
(35.77)	5/22/2000	6.74	NP	-	29.03	NA
	8/23/2000	8.44	NP	-	27.33	NA
	11/28/2000	9.15	NP	-	26.62	NA
	2/21/2001	8.29	NP	-	27.48	NA
	5/15/2001	8.11	NP	-	27.66	NA
	9/19/2001	9.93	NP	-	25.84	NA
	12/19/2001	6.02	NP	-	29.75	NA
	3/13/2002	5.51	NP	-	30.26	NA
	6/24/2002	7.67	NP	-	28.10	NA
	9/26/2002	9.41	NP	-	26.36	NA
	12/20/2002	9.32	NP	-	26.45	NA
	3/17/2003	5.85	NP	-	29.92	NA
	6/26/2003	7.34	NP	-	28.43	NA
	9/24/2003	9.33	NP	-	26.44	NA
	12/30/2003	6.79	NP	-	28.98	NA
	3/29/2004	6.35	NP	-	29.42	NA
	6/29/2004	8.11	NP	-	27.66	NA
	9/27/2004	9.13	NP	-	26.64	NA
	12/14/2004	8.47	NP	-	27.30	NA
	3/7/2005	8.40	NP	-	27.37	NA
	6/20/2005	7.27	NP	-	28.50	NA
	9/19/2005	**9.09**	**NP**	**-**	**26.68**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-3	2/14/2000	7.02	NP	-	29.00	NA
(36.02)	5/22/2000	8.04	NP	-	27.98	NA
	8/23/2000	9.58	NP	-	26.44	NA
	11/28/2000	10.22	NP	-	25.80	NA
	2/21/2001	9.49	NP	-	26.53	NA
	5/15/2001	9.33	NP	-	26.69	NA
	9/19/2001	10.96	NP	-	25.06	NA
	12/19/2001	7.55	NP	-	28.47	NA
	3/13/2002	7.10	NP	-	28.92	NA
	6/24/2002	8.93	NP	-	27.09	NA
	9/26/2002	10.47	NP	-	25.55	NA
	12/20/2002	10.63	NP	-	25.39	NA
	3/17/2003	7.29	NP	-	28.73	NA
	6/26/2003	8.65	NP	-	27.37	NA
	9/24/2003	10.38	NP	-	25.64	NA
	12/30/2003	8.21	NP	-	27.81	NA
	3/29/2004	7.69	NP	-	28.33	NA
	6/29/2004	9.34	NP	-	26.68	NA
	9/27/2004	10.28	NP	-	25.74	NA
	12/14/2004	9.73	NP	-	26.29	NA
	3/7/2005	9.56	NP	-	26.46	NA
	6/20/2005	8.55	NP	-	27.47	NA
	9/19/2005	**10.18**	**NP**	**-**	**25.84**	**NA**
MW-4	2/14/2000	6.36	NP	-	30.03	NA
(36.39)	5/22/2000	7.54	NP	-	28.85	NA
	8/23/2000	9.18	NP	-	27.21	NA
	11/28/2000	9.83	NP	-	26.56	NA
	2/21/2001	9.07	NP	-	27.32	NA
	5/15/2001	8.93	NP	-	27.46	NA
	9/19/2001	10.59	NP	-	25.80	NA
	12/19/2001	6.98	NP	-	29.41	NA
	3/13/2002	6.42	NP	-	29.97	NA
	6/24/2002	8.49	NP	-	27.90	NA
	9/26/2002	10.10	NP	-	26.29	NA
	12/20/2002	10.21	NP	-	26.18	NA
	3/17/2003	6.57	NP	-	29.82	NA
	6/26/2003	8.15	NP	-	28.24	NA
	9/24/2003	10.00	NP	-	26.39	NA
	12/30/2003	7.65	NP	-	28.74	NA
	3/29/2004	7.07	NP	-	29.32	NA
	6/29/2004	8.88	NP	-	27.51	NA
	9/27/2004	9.89	NP	-	26.50	NA
	12/14/2004	9.29	NP	-	27.10	NA
	3/7/2005	9.10	NP	-	27.29	NA
	6/20/2005	8.03	NP	-	28.36	NA
	9/19/2005	**9.78**	**NP**	**-**	**26.61**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-5	2/14/2000	6.02	NP	-	27.50	NA
(33.52)	5/22/2000	6.64	NP	-	26.88	NA
	8/23/2000	8.28	NP	-	25.24	NA
	11/28/2000	5.79	NP	-	27.73	NA
	2/21/2001	8.27	NP	-	25.25	NA
	5/15/2001	6.02	sheen	-	27.50	NA
	9/18/2001	9.77	NP	-	23.75	NA
	12/19/2001	6.39	NP	-	27.13	NA
	3/13/2002	6.09	NP	-	27.43	NA
	6/24/2002	7.24	NP	-	26.28	NA
	9/26/2002	9.30	NP	-	24.22	NA
	12/20/2002	8.21	NP	-	25.31	NA
	3/17/2003	5.85	NP	-	27.67	NA
	6/26/2003	7.22	NP	-	26.30	NA
	9/24/2003	9.19	NP	-	24.33	NA
	12/30/2003	7.00	NP	-	26.52	NA
	3/29/2004	6.30	NP	-	27.22	NA
	6/29/2004	8.11	NP	-	25.41	NA
	9/27/2004	9.11	NP	-	24.41	NA
	12/14/2004	8.45	NP	-	25.07	NA
	3/7/2005	8.33	NP	-	25.19	NA
	6/20/2005	7.12	NP	-	26.40	NA
	9/19/2005	**9.18**	**NP**	**-**	**24.34**	**NA**
MW-6	2/14/2000	3.72	3.69	0.03	29.64	2.0
(33.34)	5/22/2000	4.70	NP	-	28.64	NA
	8/23/2000	6.24	NP	-	27.10	NA
	11/28/2000	6.98	NP	-	26.36	0.1
	2/21/2001	6.21	sheen	-	27.13	NA
	5/15/2001	8.10	NP	-	25.24	NA
	9/18/2001	7.71	7.66	0.05	25.67	NA
	12/19/2001	4.05	NP	-	29.29	0.06
	3/13/2002	3.70	sheen	-	29.64	NA
	6/24/2002	5.56	NP	-	27.78	NA
	9/26/2002	7.19	NP	-	26.15	NA
	12/20/2002	7.32	sheen	-	26.02	NA
	3/17/2003	3.87	NP	-	29.47	NA
	6/26/2003	5.20	NP	-	28.14	NA
	9/24/2003	7.09	NP	-	26.25	NA
	12/30/2003	4.80	NP	-	28.54	NA
	3/29/2004	4.29	NP	-	29.05	NA
	6/29/2004	5.23	NP	-	28.11	NA
	9/27/2004	6.98	NP	-	26.36	NA
	12/14/2004	6.37	NP	-	26.97	NA
	3/7/2005	6.03	Sheen	-	27.31	0.1
	6/20/2005	5.15	NP	-	28.19	NA
	9/19/2005	**6.92**	**NP**	**-**	**26.42**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-7	2/14/2000	8.74	8.54	0.20	25.54	3.7
(34.12)	5/22/2000	9.95	8.92	1.03	24.99	11
	8/23/2000	NM	NM	-	NA	2
	11/28/2000	10.94	10.35	0.59	23.65	2.2
	2/21/2001	10.37	10.01	0.36	24.04	1.9
	5/15/2001	10.27	10.00	0.27	24.07	1.75
	9/19/2001	11.04	11.00	0.04	23.11	0.8
	12/19/2001	9.05	8.78	0.27	25.29	1.1
	3/13/2002	9.11	8.30	0.81	25.66	4.5
	6/24/2002	10.38	9.48	0.90	24.46	3.3
	9/26/2002	11.32	10.53	0.79	23.43	2.65
	12/23/2002	11.05	10.82	0.23	23.25	1.10
	3/17/2003	9.18	8.45	0.73	25.52	1.55
	6/26/2003	10.03	9.28	0.75	24.69	1.25
	9/24/2003	11.17	10.46	0.71	23.52	1.00
	12/30/2003	9.83	9.47	0.36	24.58	1.00
	3/29/2004	9.35	8.62	0.73	25.35	1.00
	6/29/2004	10.36	9.80	0.56	24.21	1.00
	9/27/2004	10.97	10.61	0.36	23.44	0.20
	12/14/2004	10.75	10.30	0.45	23.73	1.95
	3/7/2005	10.25	9.98	0.27	24.09	2.5
	6/20/2005	9.89	9.19	0.70	24.79	0.9
	9/19/2005	**10.90**	**10.45**	**0.45**	**23.58**	**1.75**
MW-8	2/14/2000	7.18	NP	-	26.77	NA
(33.95)	5/22/2000	8.00	NP	-	25.95	NA
	8/23/2000	9.26	NP	-	24.69	NA
	11/28/2000	9.91	NP	-	24.04	NA
	2/21/2001	9.40	NP	-	24.55	NA
	5/15/2001	9.30	NP	-	24.65	NA
	9/19/2001	10.49	NP	-	23.46	NA
	12/19/2001	8.42	NP	-	25.53	NA
	3/13/2002	7.38	NP	-	26.57	NA
	6/24/2002	8.81	NP	-	25.14	NA
	9/26/2002	10.15	NP	-	23.80	NA
	12/20/2002	10.50	NP	-	23.45	NA
	3/17/2003	7.48	NP	-	26.47	NA
	6/26/2003	8.61	NP	-	25.34	NA
	9/24/2003	10.10	NP	-	23.85	NA
	12/30/2003	8.74	NP	-	25.21	NA
	3/29/2004	8.74	NP	-	25.21	NA
	6/29/2004	9.19	NP	-	24.76	NA
	9/27/2004	10.12	NP	-	23.83	NA
	12/14/2004	9.74	NP	-	24.21	NA
	3/7/2005	9.34	NP	-	24.61	NA
	6/20/2005	8.48	NP	-	25.47	NA
	9/19/2005	**9.86**	**NP**	**-**	**24.09**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-9	2/14/2000	9.66	NP	-	26.87	NA
(36.53)	5/22/2000	10.24	NP	-	26.29	NA
	8/23/2000	11.42	NP	-	25.11	NA
	11/28/2000	12.18	NP	-	24.35	NA
	2/21/2001	11.85	NP	-	24.68	NA
	5/15/2001	11.83	NP	-	24.70	NA
	9/19/2001	12.86	NP	-	23.67	NA
	12/19/2001	11.87	NP	-	24.66	NA
	3/13/2002	10.30	NP	-	26.23	NA
	6/24/2002	11.21	NP	-	25.32	NA
	9/26/2002	11.43	NP	-	25.10	NA
	12/23/2002	12.97	NP	-	23.56	NA
	3/17/2003	10.62	NP	-	25.91	NA
	6/26/2003	10.86	NP	-	25.67	NA
	9/24/2003	12.27	NP	-	24.26	NA
	12/30/2003	11.77	NP	-	24.76	NA
	3/29/2004	10.39	NP	-	26.14	NA
	6/29/2004	11.58	NP	-	24.95	NA
	9/27/2004	12.56	NP	-	23.97	NA
	12/14/2004	12.42	NP	-	24.11	NA
	3/7/2005	11.71	NP	-	24.82	NA
	6/20/2005	10.95	NP	-	25.58	NA
	9/19/2005	**12.22**	**NP**	**-**	**24.31**	**NA**
MW-10	2/14/2000	8.46	NP	-	27.36	NA
(35.82)	5/22/2000	5.59	NP	-	30.23	NA
	8/23/2000	11.21	NP	-	24.61	NA
	11/28/2000	11.86	NP	-	23.96	NA
	2/21/2001	11.16	NP	-	24.66	NA
	5/15/2001	11.04	NP	-	24.78	NA
	9/19/2001	12.59	NP	-	23.23	NA
	12/19/2001	9.42	NP	-	26.40	NA
	3/13/2002	8.58	NP	-	27.24	NA
	6/24/2002	10.54	NP	-	25.28	NA
	9/26/2002	12.12	NP	-	23.70	NA
	12/23/2002	12.14	NP	-	23.68	NA
	3/17/2003	8.78	NP	-	27.04	NA
	6/26/2003	10.24	NP	-	25.58	NA
	9/24/2003	12.02	NP	-	23.80	NA
	12/30/2003	9.98	NP	-	25.84	NA
	3/29/2004	9.26	NP	-	26.56	NA
	6/29/2004	10.98	NP	-	24.84	NA
	9/27/2004	12.00	NP	-	23.82	NA
	12/14/2004	11.38	NP	-	24.44	NA
	3/7/2005	11.19	NP	-	24.63	NA
	6/20/2005	10.13	NP	-	25.69	NA
	9/19/2005	**11.84**	**NP**	**-**	**23.98**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-11	2/14/2000	5.04	NP	-	31.43	NA
(36.47)	5/22/2000	3.11	NP	-	33.36	NA
	8/23/2000	7.97	NP	-	28.50	NA
	11/28/2000	7.66	NP	-	28.81	NA
	2/21/2001	7.48	NP	-	28.99	NA
	5/15/2001	7.30	NP	-	29.17	NA
	9/19/2001	9.29	NP	-	27.18	NA
	12/19/2001	5.44	NP	-	31.03	NA
	3/13/2002	5.23	NP	-	31.24	NA
	6/24/2002	7.71	NP	-	28.76	NA
	9/26/2002	9.01	NP	-	27.46	NA
	12/23/2002	7.07	NP	-	29.40	NA
	3/17/2003	5.72	NP	-	30.75	NA
	6/26/2003	7.55	NP	-	28.92	NA
	9/24/2003	8.89	NP	-	27.58	NA
	12/30/2003	5.77	NP	-	30.70	NA
	3/29/2004	6.17	NP	-	30.30	NA
	6/29/2004	8.10	NP	-	28.37	NA
	9/27/2004	8.54	NP	-	27.93	NA
	12/14/2004	6.56	NP	-	29.91	NA
	3/7/2005	7.90	NP	-	28.57	NA
	6/20/2005	6.69	NP	-	29.78	NA
	9/19/2005	**8.69**	**NP**	**-**	**27.78**	**NA**
MW-12	2/14/2000	4.99	NP	-	30.96	NA
(35.95)	5/22/2000	6.57	NP	-	29.38	NA
	8/23/2000	8.65	NP	-	27.30	NA
	11/28/2000	9.16	NP	-	26.79	NA
	2/21/2001	8.32	NP	-	27.63	NA
	5/15/2001	8.16	NP	-	27.79	NA
	9/19/2001	10.17	NP	-	25.78	NA
	12/19/2001	5.54	NP	-	30.41	NA
	3/13/2002	4.85	NP	-	31.10	NA
	6/24/2002	7.75	NP	-	28.20	NA
	9/26/2002	9.68	NP	-	26.27	NA
	12/23/2002	8.75	NP	-	27.20	NA
	3/17/2003	5.25	NP	-	30.70	NA
	6/26/2003	7.35	NP	-	28.60	NA
	9/24/2003	9.57	NP	-	26.38	NA
	12/30/2003	6.28	NP	-	29.67	NA
	3/29/2004	5.99	NP	-	29.96	NA
	6/29/2004	8.28	NP	-	27.67	NA
	9/27/2004	9.32	NP	-	26.63	NA
	12/14/2004	8.22	NP	-	27.73	NA
	3/7/2005	8.41	NP	-	27.54	NA
	6/20/2005	7.19	NP	-	28.76	NA
	9/19/2005	**9.29**	**NP**	**-**	**26.66**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-13	2/14/2000	3.85	NP	-	34.04	NA
(37.89)	5/22/2000	5.03	NP	-	32.86	NA
	8/23/2000	7.00	NP	-	30.89	NA
	11/28/2000	6.59	NP	-	31.30	NA
	2/21/2001	6.26	NP	-	31.63	NA
	5/15/2001	6.03	NP	-	31.86	NA
	9/19/2001	8.55	NP	-	29.34	NA
	12/19/2001	3.77	NP	-	34.12	NA
	3/13/2002	3.72	NP	-	34.17	NA
	6/24/2002	6.56	NP	-	31.33	NA
	9/26/2002	8.16	NP	-	29.73	NA
	12/23/2002	5.71	NP	-	32.18	NA
	3/17/2003	4.13	NP	-	33.76	NA
	6/26/2003	6.39	NP	-	31.50	NA
	9/24/2003	8.27	NP	-	29.62	NA
	12/30/2003	4.00	NP	-	33.89	NA
	3/29/2004	4.80	NP	-	33.09	NA
	6/29/2004	7.00	NP	-	30.89	NA
	9/27/2004	7.45	NP	-	30.44	NA
	12/14/2004	5.39	NP	-	32.50	NA
	3/7/2005	6.62	NP	-	31.27	NA
	6/20/2005	5.63	NP	-	32.26	NA
	9/19/2005	**7.77**	**NP**	**-**	**30.12**	**NA**
MW-14	2/14/2000	2.73	NP	-	33.55	NA
(36.28)	5/22/2000	4.50	NP	-	31.78	NA
	8/23/2000	6.55	NP	-	29.73	NA
	11/28/2000	6.36	NP	-	29.92	NA
	2/21/2001	5.65	NP	-	30.63	NA
	5/15/2001	4.67	NP	-	31.61	NA
	9/19/2001	7.71	NP	-	28.57	NA
	12/19/2001	3.10	NP	-	33.18	NA
	3/13/2002	2.84	NP	-	33.44	NA
	6/24/2002	5.90	NP	-	30.38	NA
	9/26/2002	7.45	NP	-	28.83	NA
	12/23/2002	5.39	NP	-	30.89	NA
	3/17/2003	3.17	NP	-	33.11	NA
	6/26/2003	5.54	NP	-	30.74	NA
	9/24/2003	7.47	NP	-	28.81	NA
	12/30/2003	3.52	NP	-	32.76	NA
	3/29/2004	3.92	NP	-	32.36	NA
	6/29/2004	6.38	NP	-	29.90	NA
	9/27/2004	6.82	NP	-	29.46	NA
	12/14/2004	5.21	NP	-	31.07	NA
	3/7/2005	5.97	NP	-	30.31	NA
	6/20/2005	5.05	NP	-	31.23	NA
	9/19/2005	**7.12**	**NP**	**-**	**29.16**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-15	2/14/2000	4.09	NP	-	33.41	NA
(37.50)	5/22/2000	5.80	NP	-	31.70	NA
	8/23/2000	9.21	NP	-	28.29	NA
	11/28/2000	8.90	NP	-	28.60	NA
	2/21/2001	7.46	NP	-	30.04	NA
	5/15/2001	7.80	NP	-	29.70	NA
	9/18/2001	10.46	NP	-	27.04	NA
	12/19/2001	4.03	NP	-	33.47	NA
	3/13/2002	4.14	NP	-	33.36	NA
	6/24/2002	7.93	NP	-	29.57	NA
	9/26/2002	10.13	NP	-	27.37	NA
	12/23/2002	5.72	sheen	-	31.78	NA
	3/17/2003	3.62	NP	-	33.88	NA
	6/26/2003	7.25	NP	-	30.25	NA
	9/24/2003	10.02	NP	-	27.48	NA
	12/30/2003	4.07	NP	-	33.43	NA
	3/29/2004	5.09	NP	-	32.41	NA
	6/29/2004	8.50	NP	-	29.00	NA
	9/27/2004	9.01	NP	-	28.49	NA
	12/14/2004	6.25	NP	-	31.25	NA
	3/7/2005	7.99	NP	-	29.51	NA
	6/20/2005	6.71	NP	-	30.79	NA
	9/19/2005	**9.54**	**NP**	**-**	**27.96**	**NA**
MW-16	2/14/2000	3.44	NP	-	31.49	NA
(34.93)	5/22/2000	4.98	NP	-	29.95	NA
	8/23/2000	6.99	NP	-	27.94	NA
	11/28/2000	7.51	NP	-	27.42	NA
	2/21/2001	6.60	NP	-	28.33	NA
	5/15/2001	6.51	NP	-	28.42	NA
	9/19/2001	8.48	NP	-	26.45	NA
	12/19/2001	3.99	NP	-	30.94	NA
	3/13/2002	3.35	NP	-	31.58	NA
	6/24/2002	5.11	NP	-	29.82	NA
	9/26/2002	6.02	NP	-	28.91	NA
	12/23/2002	7.09	NP	-	27.84	NA
	3/17/2003	3.63	NP	-	31.30	NA
	6/26/2003	5.60	NP	-	29.33	NA
	9/24/2003	8.95	NP	-	25.98	NA
	12/30/2003	4.71	NP	-	30.22	NA
	3/29/2004	4.37	NP	-	30.56	NA
	6/29/2004	6.54	NP	-	28.39	NA
	9/27/2004	7.63	NP	-	27.30	NA
	12/14/2004	6.60	NP	-	28.33	NA
	3/7/2005	6.67	NP	-	28.26	NA
	6/20/2005	5.53	NP	-	29.40	NA
	9/19/2005	**7.59**	**NP**	**-**	**27.34**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-17	2/14/2000	4.22	NP	-	31.83	NA
(36.05)	5/22/2000	4.70	NP	-	31.35	NA
	8/23/2000	5.91	NP	-	30.14	NA
	11/28/2000	5.82	NP	-	30.23	NA
	2/21/2001	5.46	NP	-	30.59	NA
	5/15/2001	5.26	NP	-	30.79	NA
	9/18/2001	6.84	NP	-	29.21	NA
	12/19/2001	4.67	NP	-	31.38	NA
	3/13/2002	4.17	NP	-	31.88	NA
	6/24/2002	5.31	NP	-	30.74	NA
	9/26/2002	6.62	NP	-	29.43	NA
	3/17/2003	4.40	NP	-	31.65	NA
	6/26/2003	5.22	NP	-	30.83	NA
	9/24/2003	6.57	NP	-	29.48	NA
	12/30/2003	4.61	NP	-	31.44	NA
	3/29/2004	4.45	NP	-	31.60	NA
	6/29/2004	5.25	NP	-	30.80	NA
	9/27/2004	5.96	NP	-	30.09	NA
	12/14/2004	Unable to Access, Due to Fuel Transfer Activities				
	3/7/2005	5.43	NP	-	30.62	NA
	6/20/2005	4.90	NP	-	31.15	NA
	9/19/2005	**6.18**	**NP**	-	**29.87**	**NA**
MW-18	2/14/2000	0.87	NP	-	32.89	NA
(33.76)	5/22/2000	2.15	NP	-	31.61	NA
	8/23/2000	3.62	sheen	-	30.14	NA
	11/28/2000	3.55	NP	-	30.21	0.1
	2/21/2001	3.10	NP	-	30.66	0.1
	5/15/2001	2.83	NP	-	30.93	0.1
	9/18/2001	4.68	4.66	0.02	29.10	NA
	12/19/2001	0.25	NP	-	33.51	NA
	3/13/2002	0.97	sheen	-	32.79	NA
	6/24/2002	3.03	NP	-	30.73	NA
	9/26/2002	4.32	NP	-	29.44	NA
	12/20/2002	2.83	NP	-	30.93	NA
	3/17/2003	1.48	NP	-	32.28	NA
	6/26/2003	2.76	NP	-	31.00	NA
	9/24/2003	4.31	NP	-	29.45	NA
	12/30/2003	1.20	NP	-	32.56	NA
	3/29/2004	1.71	NP	-	32.05	NA
	6/29/2004	2.98	NP	-	30.78	NA
	9/27/2004	3.74	NP	-	30.02	NA
	12/14/2004	Unable to Access, Due to Fuel Transfer Activities				
	3/7/2005	3.04	NP	-	30.72	NA
	6/20/2005	2.48	NP	-	31.28	NA
	9/19/2005	**3.94**	**NP**	-	**29.82**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-19	2/14/2000	2.82	NP	-	30.57	NA
(33.39)	5/22/2000	4.62	4.59	0.03	28.79	NA
	8/23/2000	5.89	5.88	0.01	27.51	NA
	11/28/2000	5.91	NP	-	27.48	0.3
	2/21/2001	5.03	sheen	-	28.36	0.1
	5/15/2001	4.09	sheen	-	29.30	NA
	9/18/2001	7.27	7.23	0.04	26.15	NA
	12/19/2001	2.72	NP	-	30.67	NA
	3/13/2002	2.84	sheen	-	30.55	NA
	6/24/2002	4.61	NP	-	28.78	NA
	9/26/2002	6.42	NP	-	26.97	NA
	12/20/2002	5.06	NP	-	28.33	NA
	3/17/2003	2.59	NP	-	30.80	NA
	6/26/2003	3.42	NP	-	29.97	NA
	9/24/2003	6.51	6.48	0.03	26.90	0.2
	12/30/2003	2.84	NP	-	30.55	NA
	3/29/2004	3.32	NP	-	30.07	NA
	6/29/2004	5.34	Sheen	-	28.05	NA
	9/27/2004	6.04	Sheen	-	27.35	NA
	12/14/2004	4.18	NP	-	29.21	0.1
	3/7/2005	4.78	4.77	0.01	28.62	0.1
	6/20/2005	3.21	Sheen	-	30.18	NA
	9/19/2005	**6.27**	**Sheen**	**-**	**27.12**	**NA**
MW-20	2/14/2000	9.80	NP	-	24.96	NA
(34.76)	5/22/2000	10.23	NP	-	24.53	NA
	8/23/2000	11.47	NP	-	23.29	NA
	11/28/2000	11.45	NP	-	23.31	NA
	2/21/2001	11.21	NP	-	23.55	NA
	5/15/2001	11.20	NP	-	23.56	NA
	9/18/2001	12.48	NP	-	22.28	NA
	12/19/2001	10.21	NP	-	24.55	NA
	3/13/2002	9.80	NP	-	24.96	NA
	6/24/2002	10.71	NP	-	24.05	NA
	9/26/2002	12.11	NP	-	22.65	NA
	12/20/2002	11.91	NP	-	22.85	NA
	3/17/2003	9.80	NP	-	24.96	NA
	6/26/2003	10.83	NP	-	23.93	NA
	9/24/2003	12.12	NP	-	22.64	NA
	12/30/2003	10.61	NP	-	24.15	NA
	3/29/2004	10.27	NP	-	24.49	NA
	6/29/2004	11.31	NP	-	23.45	NA
	9/27/2004	11.94	NP	-	22.82	NA
	12/14/2004	11.48	NP	-	23.28	NA
	3/7/2005	11.34	NP	-	23.42	NA
	6/20/2005	10.58	NP	-	24.18	NA
	9/19/2005	**12.05**	**NP**	**-**	**22.71**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-21	2/14/2000	1.26	NP	-	33.07	NA
(34.33)	5/22/2000	1.62	NP	-	32.71	NA
	8/23/2000	2.38	NP	-	31.95	NA
	11/28/2000	1.80	NP	-	32.53	NA
	2/21/2001	1.64	NP	-	32.69	NA
	5/15/2001	1.59	NP	-	32.74	NA
	9/18/2001	3.01	NP	-	31.32	NA
	12/19/2001	0.27	NP	-	34.06	NA
	3/13/2002	0.99	NP	-	33.34	NA
	6/24/2002	1.95	NP	-	32.38	NA
	9/26/2002	3.65	NP	-	30.68	NA
	12/20/2002	2.05	NP	-	32.28	NA
	3/17/2003	Unable to Locate				
	6/26/2003	Unable to Access, Covered by Steel Plate				
	9/24/2003	Unable to Access, Covered by Steel Plate				
	12/30/2003	Unable to Access, Covered by Steel Plate				
	3/29/2004	Unable to Access, Covered by Gravel Pile				
	6/29/2004	Unable to Access, Covered by Gravel Pile				
	9/27/2004	Unable to Access, Covered by Gravel Pile				
	12/14/2004	Unable to Access, Covered by Gravel Pile				
	3/7/2005	Unable to Access, Covered by Gravel Pile				
	6/20/2005	Unable to Access, Covered by Gravel Pile				
	9/19/2005	**Unable to Access, Covered by Gravel Pile**				
MW-22	2/14/2000	2.85	NP	-	32.80	NA
(35.65)	5/22/2000	4.28	NP	-	31.37	NA
	8/23/2000	5.52	NP	-	30.13	NA
	11/28/2000	6.50	NP	-	29.15	NA
	2/21/2001	5.57	sheen	-	30.08	NA
	5/15/2001	5.29	5.28	0.01	30.37	NA
	9/19/2001	6.53	NP	-	29.12	NA
	12/19/2001	3.56	NP	-	32.09	NA
	3/13/2002	3.10	sheen	-	32.55	NA
	6/24/2002	4.89	4.88	0.01	30.77	NA
	9/26/2002	6.14	6.13	0.01	29.52	NA
	12/20/2002	6.29	NP	-	29.36	NA
	3/17/2003	3.81	sheen	-	31.84	0.01
	6/26/2003	4.56	NP	-	31.09	NA
	9/24/2003	6.00	NP	-	29.65	NA
	12/30/2003	4.60	NP	-	31.05	NA
	3/29/2004	4.09	4.08	0.01	31.56	NA
	6/29/2004	5.48	NP	-	30.17	NA
	9/27/2004	5.79	Sheen	-	29.86	NA
	12/14/2004	5.60	NP	-	30.05	NA
	3/7/2005	5.40	Sheen	-	30.25	0.1
	6/20/2005	4.81	NP	-	30.84	NA
	9/19/2005	**6.03**	**sheen**	-	**29.62**	**0.1**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-23	2/14/2000	3.56	NP	-	32.50	NA
(36.06)	5/22/2000	5.63	NP	-	30.43	NA
	8/23/2000	5.82	5.82	0.00	30.24	NA
	11/28/2000	5.51	5.51	0.00	30.55	0.1
	2/21/2001	5.33	NP	-	30.73	0.1
	5/15/2001	5.01	sheen	-	31.05	NA
	9/19/2001	6.50	6.49	0.01	29.57	NA
	12/19/2001	4.19	NP	-	31.87	NA
	3/13/2002	3.99	NP	-	32.07	NA
	6/24/2002	5.44	NP	-	30.62	NA
	9/26/2002	8.21	sheen	-	27.85	NA
	12/20/2002	5.20	NP	-	30.86	NA
	3/17/2003	4.47	NP	-	31.59	NA
	6/26/2003	5.54	NP	-	30.52	NA
	9/24/2003	6.35	sheen	-	29.71	0.1
	12/30/2003	4.41	NP	-	31.65	NA
	3/29/2004	4.48	NP	-	31.58	NA
	6/29/2004	6.58	sheen	-	29.48	NA
	9/27/2004	5.91	sheen	-	30.15	NA
	12/14/2004	5.05	NP	-	31.01	NA
	3/7/2005	5.12	NP	-	30.94	NA
	6/20/2005	5.19	NP	-	30.87	NA
	9/19/2005	**6.22**	**NP**	**-**	**29.84**	**NA**
MW-24	2/14/2000	5.00	4.50	0.50	30.55	1.0
(35.15)	5/22/2000	5.34	5.21	0.13	29.91	2.0
	8/23/2000	8.56	NP	-	26.59	NA
	11/28/2000	7.79	NP	-	27.36	0.3
	2/21/2001	7.20	7.15	0.05	27.99	0.4
	5/15/2001	5.45	sheen	-	29.70	0.1
	9/19/2001	9.55	9.54	0.01	25.61	NA
	12/19/2001	5.30	4.84	0.46	30.22	0.1
	3/13/2002	6.78	sheen	-	28.37	0.16
	6/24/2002	6.80	6.79	0.01	28.36	0.2
	9/26/2002	8.86	sheen	-	26.29	0.01
	12/20/2002	6.34	6.35	0.01	28.82	NA
	3/17/2003	4.78	4.70	0.08	30.43	0.1
	6/26/2003	6.51	sheen	-	28.64	0.02
	9/24/2003	8.35	NP	-	26.80	NA
	12/30/2003	4.80	4.60	0.2*	30.35	0.10
	3/29/2004	5.35	5.33	0.02*	29.80	NA
	6/29/2004	6.82	6.81	0.01	28.34	NA
	9/27/2004	8.58	8.56	0.02	26.59	NA
	12/14/2004	5.32	sheen	-	29.83	0.30
	3/7/2005	7.71	NP	-	27.44	0.20
	6/20/2005	5.39	5.36	0.03	29.78	0.10
	9/19/2005	**-****	**8.01**	**0.02**	**-****	**0.20**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-25	2/14/2000	10.03	NP	-	24.70	NA
(34.73)	5/22/2000	11.66	NP	-	23.07	NA
	8/23/2000	12.20	NP	-	22.53	NA
	11/28/2000	12.34	NP	-	22.39	NA
	2/21/2001	11.97	NP	-	22.76	NA
	5/15/2001	11.91	NP	-	22.82	NA
	9/19/2001	13.12	NP	-	21.61	NA
	12/19/2001	10.45	NP	-	24.28	NA
	3/13/2002	10.35	NP	-	24.38	NA
	6/24/2002	11.38	NP	-	23.35	NA
	9/26/2002	12.77	NP	-	21.96	NA
	12/20/2002	12.14	NP	-	22.59	NA
	3/17/2003	10.38	NP	-	24.35	NA
	6/26/2003	11.60	NP	-	23.13	NA
	9/24/2003	12.77	NP	-	21.96	NA
	12/30/2003	11.00	NP	-	23.73	NA
	3/29/2004	10.46	NP	-	24.27	NA
	6/29/2004	11.93	NP	-	22.80	NA
	9/27/2004	12.67	NP	-	22.06	NA
	12/14/2004	12.52	NP	-	22.21	NA
	3/7/2005	12.10	NP	-	22.63	NA
	6/20/2005	11.40	NP	-	23.33	NA
	9/19/2005	**12.71**	**NP**	**-**	**22.02**	**NA**
MW-26	2/14/2000	10.44	NP	-	24.34	NA
(34.78)	5/22/2000	11.10	NP	-	23.68	NA
	8/23/2000	12.55	NP	-	22.23	NA
	11/28/2000	12.63	NP	-	22.15	NA
	2/21/2001	12.33	sheen	-	22.45	NA
	5/15/2001	12.24	NP	-	22.54	NA
	9/19/2001	13.47	sheen	-	21.31	NA
	12/19/2001	11.04	NP	-	23.74	NA
	3/13/2002	10.91	sheen	-	23.87	NA
	6/24/2002	11.88	NP	-	22.90	NA
	9/26/2002	13.07	NP	-	21.71	NA
	12/20/2002	12.55	NP	-	22.23	NA
	3/17/2003	10.93	NP	-	23.85	NA
	6/26/2003	12.00	NP	-	22.78	NA
	9/24/2003	13.13	NP	-	21.65	NA
	12/30/2003	11.53	NP	-	23.25	NA
	3/29/2004	10.46	NP	-	24.32	NA
	6/29/2004	12.43	NP	-	22.35	NA
	9/27/2004	13.03	NP	-	21.75	NA
	12/14/2004	12.30	NP	-	22.48	NA
	3/7/2005	12.51	NP	-	22.27	NA
	6/20/2005	11.78	NP	-	23.00	NA
	9/19/2005	**13.09**	**NP**	**-**	**21.69**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-27	2/14/2000	3.67	NP	-	32.02	NA
(35.69)	5/22/2000	4.91	NP	-	30.78	NA
	8/23/2000	6.15	NP	-	29.54	NA
	11/28/2000	5.49	NP	-	30.20	NA
	2/21/2001	5.64	NP	-	30.05	NA
	5/15/2001	5.31	NP	-	30.38	NA
	9/19/2001	6.68	NP	-	29.01	NA
	12/19/2001	4.40	NP	-	31.29	NA
	3/13/2002	3.97	NP	-	31.72	NA
	6/24/2002	5.75	NP	-	29.94	NA
	9/26/2002	6.50	NP	-	29.19	NA
	12/20/2002	5.19	NP	-	30.50	NA
	3/17/2003	4.46	NP	-	31.23	NA
	6/26/2003	5.83	NP	-	29.86	NA
	9/24/2003	6.60	NP	-	29.09	NA
	12/30/2003	4.60	NP	-	31.09	NA
	3/29/2004	4.83	NP	-	30.86	NA
	6/29/2004	5.94	NP	-	29.75	NA
	9/27/2004	6.07	NP	-	29.62	NA
	12/14/2004	5.20	NP	-	30.49	NA
	3/7/2005	5.78	NP	-	29.91	NA
	6/20/2005	5.35	NP	-	30.34	NA
	9/19/2005	**6.32**	**NP**	**-**	**29.37**	**NA**
MW-28	2/14/2000	4.03	NP	-	30.36	NA
(34.39)	5/22/2000	5.44	NP	-	28.95	1.0
	8/23/2000	9.55	NP	-	24.84	NA
	11/28/2000	11.34	sheen	-	23.05	0.4
	2/21/2001	8.52	8.51	0.01	25.88	0.1
	5/15/2001	8.54	sheen	-	25.85	NA
	9/19/2001	13.75	13.48	0.27	20.86	0.6
	12/19/2001	4.47	NP	-	29.92	0.4
	3/13/2002	4.49	sheen	-	29.90	NA
	6/24/2002	7.34	NP	-	27.05	NA
	9/26/2002	9.39	NP	-	25.00	NA
	12/23/2002	7.12	7.11	0.01	27.28	NA
	3/17/2003	4.68	4.66	0.02	29.73	0.05
	6/26/2003	7.15	sheen	-	27.24	0.03
	9/24/2003	13.25	13.21	0.04	21.17	0.2
	12/30/2003	5.87	NP	-	29.90	NA
	3/29/2004	5.97	sheen	-	29.80	NA
	6/29/2004	9.68	sheen	-	26.09	NA
	9/27/2004	13.35	13.33	0.02	21.06	NA
	12/14/2004	7.51	sheen	-	26.88	0.4
	3/7/2005	10.65	sheen	-	23.74	0.2
	6/20/2005	7.85	sheen	-	26.54	0.2
	9/19/2005	**12.65**	**sheen**	**-**	**21.74**	**0.3**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-29	2/14/2000	12.98	NP	-	22.79	NA
(35.77)	5/22/2000	13.49	NP	-	22.28	NA
	8/23/2000	14.53	NP	-	21.24	NA
	11/28/2000	14.84	NP	-	20.93	NA
	2/21/2001	14.54	NP	-	21.23	NA
	5/15/2001	14.52	NP	-	21.25	NA
	9/19/2001	15.57	NP	-	20.20	NA
	12/19/2001	13.59	NP	-	22.18	NA
	3/13/2002	13.21	NP	-	22.56	NA
	6/24/2002	13.94	NP	-	21.83	NA
	9/26/2002	15.11	NP	-	20.66	NA
	12/20/2002	14.79	NP	-	20.98	NA
	3/17/2003	13.26	NP	-	22.51	NA
	6/26/2003	13.93	NP	-	21.84	NA
	9/24/2003	15.29	NP	-	20.48	NA
	12/30/2003	13.99	NP	-	21.78	NA
	3/29/2004	13.47	NP	-	22.30	NA
	6/29/2004	14.48	NP	-	21.29	NA
	9/27/2004	15.18	NP	-	20.59	NA
	12/14/2004	14.56	NP	-	21.21	NA
	3/7/2005	14.57	NP	-	21.20	NA
	6/20/2005	13.96	NP	-	21.81	NA
	9/19/2005	**15.15**	**NP**	**-**	**20.62**	**NA**
MW-30	2/14/2000	3.97	NP	-	32.42	NA
(36.39)	5/22/2000	5.37	NP	-	31.02	NA
	8/23/2000	7.06	NP	-	29.33	NA
	11/28/2000	7.34	NP	-	29.05	NA
	2/21/2001	6.74	NP	-	29.65	NA
	5/15/2001	6.50	NP	-	29.89	NA
	9/19/2001	8.28	NP	-	28.11	NA
	12/19/2001	4.35	NP	-	32.04	NA
	3/13/2002	4.31	NP	-	32.08	NA
	6/24/2002	6.28	NP	-	30.11	NA
	9/26/2002	7.64	NP	-	28.75	NA
	12/20/2002	7.11	NP	-	29.28	NA
	3/17/2003	4.72	NP	-	31.67	NA
	6/26/2003	6.14	NP	-	30.25	NA
	9/24/2003	7.85	NP	-	28.54	NA
	12/30/2003	4.87	NP	-	31.52	NA
	3/29/2004	5.21	NP	-	31.18	NA
	6/29/2004	6.71	NP	-	29.68	NA
	9/27/2004	7.71	NP	-	28.68	NA
	12/14/2004	6.60	NP	-	29.79	NA
	3/7/2005	6.81	NP	-	29.58	NA
	6/20/2005	5.85	NP	-	30.54	NA
	9/19/2005	**7.39**	**NP**	**-**	**29.00**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-31	2/14/2000	5.19	NP	-	30.47	NA
(35.66)	5/22/2000	6.66	NP	-	29.00	NA
	8/23/2000	8.41	NP	-	27.25	NA
	11/28/2000	8.86	NP	-	26.80	NA
	2/21/2001	8.07	NP	-	27.59	NA
	5/15/2001	7.90	NP	-	27.76	NA
	9/19/2001	9.69	NP	-	25.97	NA
	12/19/2001	5.43	NP	-	30.23	NA
	3/13/2002	5.31	NP	-	30.35	NA
	6/24/2002	7.67	NP	-	27.99	NA
	9/26/2002	9.09	9.06	0.03	26.59	NA
	12/20/2002	8.89	NP	-	26.77	NA
	3/17/2003	6.12	sheen	-	29.54	0.01
	6/26/2003	7.58	NP	-	28.08	NA
	9/24/2003	9.54	9.45	0.09	26.12	0.2
	12/30/2003	6.20	NP	-	29.46	NA
	3/29/2004	6.49	NP	-	29.17	NA
	6/29/2004	8.31	sheen	-	27.35	NA
	9/27/2004	9.38	sheen	-	26.28	NA
	12/14/2004	8.55	NP	-	27.11	NA
	3/7/2005	8.43	NP	-	27.23	NA
	6/20/2005	7.43	sheen	-	28.23	0.1
	9/19/2005	**9.02**	**NP**	**-**	**26.64**	**0.1**
MW-32	2/14/2000	3.57	NP	-	33.44	NA
(37.01)	5/22/2000	4.83	NP	-	32.18	NA
	8/23/2000	6.41	NP	-	30.60	NA
	11/28/2000	6.69	NP	-	30.32	NA
	2/21/2001	6.11	NP	-	30.90	NA
	5/15/2001	5.99	NP	-	31.02	NA
	9/19/2001	7.64	NP	-	29.37	NA
	12/19/2001	4.30	NP	-	32.71	NA
	3/13/2002	3.71	NP	-	33.30	NA
	6/24/2002	5.72	NP	-	31.29	NA
	9/26/2002	7.18	NP	-	29.83	NA
	12/20/2002	6.72	NP	-	30.29	NA
	3/17/2003	4.15	sheen	-	32.86	0.01
	6/26/2003	5.53	NP	-	31.48	NA
	9/24/2003	7.28	NP	-	29.73	NA
	12/30/2003	4.58	NP	-	32.43	NA
	3/29/2004	4.65	NP	-	32.36	NA
	6/29/2004	6.25	NP	-	30.76	NA
	9/27/2004	7.16	NP	-	29.85	NA
	12/14/2004	6.28	NP	-	30.73	NA
	3/7/2005	6.32	NP	-	30.69	NA
	6/20/2005	5.42	NP	-	31.59	NA
	9/19/2005	**6.91**	**NP**	**-**	**30.10**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-33	2/14/2000	19.59	NP	-	19.75	NA
(39.34)	5/22/2000	20.15	NP	-	19.19	NA
	8/23/2000	20.88	NP	-	18.46	NA
	11/28/2000	20.98	NP	-	18.36	NA
	2/21/2001	20.78	NP	-	18.56	NA
	5/15/2001	20.83	NP	-	18.51	NA
	9/19/2001	21.43	NP	-	17.91	NA
	12/19/2001	12.62	NP	-	26.72	NA
	3/13/2002	19.61	NP	-	19.73	NA
	6/24/2002	20.42	NP	-	18.92	NA
	9/26/2002	21.13	NP	-	18.21	NA
	12/20/2002	20.66	NP	-	18.68	NA
	3/17/2003	19.73	NP	-	19.61	NA
	6/26/2003	20.31	NP	-	19.03	NA
	9/24/2003	21.04	NP	-	18.30	NA
	12/30/2003	19.82	NP	-	19.52	NA
	3/29/2004	19.89	NP	-	19.45	NA
	6/29/2004	20.65	NP	-	18.69	NA
	9/27/2004	21.16	NP	-	18.18	NA
	12/14/2004	20.60	NP	-	18.74	NA
	3/7/2005	20.57	NP	-	18.77	NA
	6/20/2005	20.32	NP	-	19.02	NA
	9/19/2005	**21.05**	**NP**	**-**	**18.29**	**NA**
MW-34	2/14/2000	19.31	NP	-	20.36	NA
(39.67)	5/22/2000	19.75	NP	-	19.92	NA
	8/23/2000	20.88	NP	-	18.79	NA
	11/28/2000	20.39	NP	-	19.28	NA
	2/21/2001	20.19	NP	-	19.48	NA
	5/15/2001	20.18	NP	-	19.49	NA
	9/19/2001	20.60	NP	-	19.07	NA
	12/19/2001	19.20	NP	-	20.47	NA
	3/13/2002	19.37	NP	-	20.30	NA
	6/24/2002	19.95	NP	-	19.72	NA
	9/26/2002	20.41	NP	-	19.26	NA
	3/17/2003	19.39	NP	-	20.28	NA
	6/26/2003	19.85	NP	-	19.82	NA
	9/24/2003	20.39	NP	-	19.28	NA
	12/30/2003	19.57	NP	-	20.10	NA
	3/29/2004	19.54	NP	-	20.13	NA
	6/29/2004	20.11	NP	-	19.56	NA
	9/27/2004	20.46	NP	-	19.21	NA
	12/14/2004	20.15	NP	-	19.52	NA
	3/7/2005	20.00	NP	-	19.67	NA
	6/20/2005	19.84	NP	-	19.83	NA
	9/19/2005	**20.37**	**NP**	**-**	**19.30**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-35	2/14/2000	2.34	NP	-	31.05	NA
(33.39)	5/22/2000	3.21	NP	-	30.18	NA
	8/23/2000	4.98	NP	-	28.41	NA
	11/28/2000	5.54	NP	-	27.85	NA
	2/21/2001	4.67	NP	-	28.72	NA
	5/15/2001	4.35	NP	-	29.04	NA
	9/18/2001	6.33	NP	-	27.06	NA
	12/19/2001	5.84	NP	-	27.55	NA
	3/13/2002	2.61	NP	-	30.78	NA
	6/24/2002	--Unable to Locate--				
	9/26/2002	5.85	NP	-	27.54	NA
	12/20/2002	5.91	sheen	-	27.48	NA
	3/17/2003	3.44	NP	-	29.95	NA
	6/26/2003	3.83	NP	-	29.56	NA
	9/24/2003	5.85	NP	-	27.54	NA
	12/30/2003	3.58	NP	-	29.81	NA
	3/29/2004	2.97	NP	-	30.42	NA
	6/29/2004	2.50	NP	-	30.89	NA
	9/27/2004	5.55	NP	-	27.84	NA
	12/14/2004	4.91	NP	-	28.48	NA
	3/7/2005	4.85	NP	-	28.54	NA
	6/20/2005	4.13	NP	-	29.26	NA
	9/19/2005	**5.51**	**NP**	**-**	**27.88**	**NA**
MW-36	2/14/2000	14.04	NP	-	20.84	NA
(34.88)	5/22/2000	14.62	NP	-	20.26	NA
	8/23/2000	15.39	NP	-	19.49	NA
	11/28/2000	15.72	NP	-	19.16	NA
	2/21/2001	15.49	NP	-	19.39	NA
	5/15/2001	15.51	NP	-	19.37	NA
	9/19/2001	16.08	NP	-	18.80	NA
	12/20/2001	14.98	NP	-	19.90	NA
	3/13/2002	14.18	NP	-	20.70	NA
	6/24/2002	--Unable to Access--				
	9/26/2002	17.92	NP	-	16.96	NA
	12/20/2002	15.59	NP	-	19.29	NA
	3/17/2003	14.25	NP	-	20.63	NA
	6/26/2003	--Unable to Access--				
	9/24/2003	15.74	NP	-	19.14	NA
	12/30/2003	14.97	NP	-	19.91	NA
	3/29/2004	14.37	NP	-	20.51	NA
	6/29/2004	15.33	NP	-	19.55	NA
	9/27/2004	15.87	NP	-	19.01	NA
	12/14/2004	15.54	NP	-	19.34	NA
	3/7/2005	--Unable to Access--				
	6/20/2005	14.98	NP	-	19.90	NA
	9/19/2005	**15.75**	**NP**	**-**	**19.13**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-37	2/14/2000	14.71	NP	-	20.15	NA
(34.86)	5/22/2000	15.27	NP	-	19.59	NA
	8/23/2000	16.06	NP	-	18.80	NA
	11/28/2000	16.32	NP	-	18.54	NA
	2/21/2001	16.10	NP	-	18.76	NA
	5/15/2001	16.11	NP	-	18.75	NA
	9/19/2001	16.69	NP	-	18.17	NA
	12/19/2001	15.10	NP	-	19.76	NA
	3/13/2002	14.64	14.62	0.02	20.24	0.1
	6/24/2002	15.66	NP	-	19.20	NA
	9/26/2002	16.39	NP	-	18.47	NA
	12/20/2002	16.11	sheen	-	18.75	NA
	3/17/2003	14.92	NP	-	19.94	NA
	6/26/2003	--Unable to Acess--				
	9/24/2003	16.40	16.37	0.03	18.48	0.1
	12/30/2003	15.35	NP	NP	19.51	NA
	3/29/2004	14.93	14.94	0.01	19.94	0.1
	6/29/2004	15.96	sheen	-	18.90	NA
	9/27/2004	16.52	16.51	0.01	18.35	0.1
	12/14/2004	16.10	NP	-	18.76	NA
	3/7/2005	16.07	NP	-	18.79	0.1
	6/20/2005	15.60	NP	-	19.26	NA
	9/19/2005	**16.34**	**NP**	**-**	**18.52**	**NA**
MW-38	2/14/2000	4.72	NP	-	32.78	NA
(37.50)	5/22/2000	6.17	NP	-	31.33	NA
	8/23/2000	8.02	NP	-	29.48	NA
	11/28/2000	8.41	NP	-	29.09	NA
	2/21/2001	7.62	NP	-	29.88	NA
	5/15/2001	7.65	sheen	-	29.85	NA
	9/18/2001	9.52	NP	-	27.98	NA
	12/19/2001	6.05	NP	-	31.45	NA
	3/13/2002	4.97	NP	-	32.53	NA
	6/24/2002	7.10	NP	-	30.40	NA
	9/26/2002	9.09	NP	-	28.41	NA
	12/23/2002	7.82	NP	-	29.68	NA
	3/17/2003	4.89	NP	-	32.61	NA
	6/26/2003	6.55	NP	-	30.95	NA
	9/24/2003	9.04	NP	-	28.46	NA
	12/30/2003	6.57	NP	-	30.93	NA
	3/29/2004	5.42	NP	-	32.08	NA
	6/29/2004	7.34	NP	-	30.16	NA
	9/27/2004	8.57	NP	-	28.93	NA
	12/14/2004	7.84	NP	-	29.66	NA
	3/7/2005	7.85	NP	-	29.65	NA
	6/20/2005	6.69	NP	-	30.81	NA
	9/19/2005	**8.73**	**NP**	**-**	**28.77**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-39	2/14/2000	NM	NP	-	NA	NA
(35.02)	5/22/2000	13.56	NP	-	21.46	NA
	8/23/2000	14.15	NP	-	20.87	NA
	11/28/2000	14.52	NP	-	20.50	NA
	2/21/2001	14.30	NP	-	20.72	NA
	5/15/2001	14.24	NP	-	20.78	NA
	9/19/2001	14.82	NP	-	20.20	NA
	12/19/2001	13.52	NP	-	21.50	NA
	3/13/2002	13.26	NP	-	21.76	NA
	6/24/2002	--Unable to Locate--				
	9/26/2002	17.01	NP	-	18.01	NA
	12/20/2002	14.71	NP	-	20.31	NA
	3/17/2003	13.37	NP	-	21.65	NA
	6/26/2003	--Unable to Access--				
	9/24/2003	14.59	NP	-	20.43	NA
	12/30/2003	13.97	NP	-	21.05	NA
	3/29/2004	13.42	NP	-	21.60	NA
	6/29/2004	14.17	NP	-	20.85	NA
	9/27/2004	14.71	NP	-	20.31	NA
	12/14/2004	--Unable to Access--				
	3/7/2005	--Unable to Access--				
	6/20/2005	--Unable to Access--				
	9/19/2005	**14.54**	**NP**	**-**	**20.48**	**NA**

TABLE 1B
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
Kinder Morgan - Willbridge Terminal
Portland, Oregon

Well Designation	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
MW-40	2/14/2000	13.64	NP	-	20.01	NA
(33.65)	5/22/2000	14.28	NP	-	19.37	NA
	8/23/2000	15.01	NP	-	18.64	NA
	11/28/2000	15.15	NP	-	18.50	NA
	2/21/2001	14.97	NP	-	18.68	NA
	5/15/2001	15.00	NP	-	18.65	NA
	9/19/2001	15.58	NP	-	18.07	NA
	12/19/2001	13.72	NP	-	19.93	NA
	3/13/2002	13.58	NP	-	20.07	NA
	6/24/2002	14.62	NP	-	19.03	NA
	9/26/2002	17.30	NP	-	16.35	NA
	12/20/2002	15.78	NP	-	17.87	NA
	3/17/2003	13.84	NP	-	19.81	NA
	6/26/2003	14.45	NP	-	19.20	NA
	9/24/2003	15.25	NP	-	18.40	NA
	12/30/2003	14.03	NP	-	19.62	NA
	3/29/2004	14.04	NP	-	19.61	NA
	6/29/2004	14.85	NP	-	18.80	NA
	9/27/2004	15.35	NP	-	18.30	NA
	12/14/2004	14.80	NP	-	18.85	NA
	3/7/2005	14.84	NP	-	18.81	NA
	6/20/2005	14.50	NP	-	19.15	NA
	9/19/2005	**15.25**	**NP**	**-**	**18.40**	**NA**

NOTES:
If SPH Thickness equals 0.0 feet, then non-measurable sheen was observed
NP - No measurable product
NA - Not Applicable
NM - Not Measured
* - SPH Recovered for latest quarter monitored
** - Unable to determine due to SPH viscosity
GWE = TOC -(DTW - (0.8 x DTP - DTW)) Where 0.8 = The density of the SPH

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-1	2/14/2000	16.82	NP	-	17.86	NA
(34.68)	5/22/2000	17.05	NP	-	17.63	NA
	8/22/2000	17.48	NP	-	17.20	NA
	11/27/2000	17.82	NP	-	16.86	NA
	2/20/2001	17.71	NP	-	16.97	NA
	5/15/2001	17.68	NP	-	17.00	NA
	9/18/2001	18.01	NP	-	16.67	NA
	12/20/2001	17.10	NP	-	17.58	NA
	3/13/2002	16.77	NP	-	17.91	NA
	6/24/2002	17.32	NP	-	17.36	NA
	9/26/2002	17.74	NP	-	16.94	NA
	12/20/2002	17.57	NP	-	17.11	NA
	3/17/2003	16.97	NP	-	17.71	NA
	6/26/2003	17.24	NP	-	17.44	NA
	9/24/2003	17.77	NP	-	16.91	NA
	12/30/2003	17.09	NP	-	17.59	NA
	3/29/2004	16.98	NP	-	17.70	NA
	6/29/2004	17.45	NP	-	17.23	NA
	9/27/2004	17.71	NP	-	16.97	NA
	12/14/2004	17.58	NP	-	17.10	NA
	3/7/2005	17.62	NP	-	17.06	NA
	6/20/2005	17.30	NP	-	17.38	NA
	9/19/2005	**17.74**	**NP**	**-**	**16.94**	**NA**
B-2	2/14/2000	16.68	NP	-	18.67	NA
(35.35)	5/22/2000	17.06	NP	-	18.29	NA
	8/22/2000	17.61	NP	-	17.74	NA
	11/27/2000	17.97	NP	-	17.38	NA
	2/20/2001	17.82	NP	-	17.53	NA
	5/15/2001	17.74	NP	-	17.61	NA
	9/18/2001	18.23	NP	-	17.12	NA
	12/20/2001	17.06	NP	-	18.29	NA
	3/13/2002	16.80	NP	-	18.55	NA
	6/24/2002	17.44	NP	-	17.91	NA
	9/26/2002	17.99	NP	-	17.36	NA
	12/20/2002	18.06	NP	-	17.29	NA
	3/17/2003	17.03	NP	-	18.32	NA
	6/26/2003	17.29	NP	-	18.06	NA
	9/24/2003	18.03	NP	-	17.32	NA
	12/30/2003	17.38	NP	-	17.97	NA
	3/29/2004	16.89	NP	-	18.46	NA
	6/29/2004	17.62	NP	-	17.73	NA
	9/27/2004	18.09	NP	-	17.26	NA
	12/14/2004	17.94	NP	-	17.41	NA
	3/7/2005	17.78	NP	-	17.57	NA
	6/20/2005	17.41	NP	-	17.94	NA
	9/19/2005	**17.98**	**NP**	**-**	**17.37**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-3	2/14/2000	18.14	NP	-	16.67	NA
(34.81)	5/22/2000	18.36	NP	-	16.45	NA
	8/22/2000	19.05	NP	-	15.76	NA
	11/27/2000	19.31	NP	-	15.50	NA
	2/20/2001	19.22	NP	-	15.59	NA
	5/15/2001	19.26	NP	-	15.55	NA
	9/18/2001	19.63	NP	-	15.18	NA
	12/20/2001	18.03	NP	-	16.78	NA
	3/13/2002	18.12	NP	-	16.69	NA
	6/24/2002	18.84	NP	-	15.97	NA
	9/26/2002	19.21	NP	-	15.60	NA
	12/20/2002	18.79	NP	-	16.02	NA
	3/17/2003	18.14	NP	-	16.67	NA
	6/26/2003	18.87	NP	-	15.94	NA
	9/24/2003	19.20	NP	-	15.61	NA
	12/30/2003	18.22	NP	-	16.59	NA
	3/29/2004	18.30	NP		16.51	NA
	6/29/2004	18.93	NP	-	15.88	NA
	9/27/2004	19.19	NP	-	15.62	NA
	12/14/2004	18.89	NP	-	15.92	NA
	3/7/2005	19.14	NP	-	15.67	NA
	6/20/2005	18.88	NP	-	15.93	NA
	9/19/2005	**19.24**	**NP**	**-**	**15.57**	**NA**
B-4	2/14/2000	18.25	17.59	0.66	16.98	3
(34.70)	5/22/2000	17.80	NP	-	16.90	0.5
	8/22/2000	18.22	18.21	0.01	16.49	NA
	11/27/2000	18.55	NP	-	16.15	NA
	2/20/2001	18.49	18.48	0.01	16.22	NA
	5/15/2001	18.47	18.46	0.01	16.24	0.1
	9/18/2001	18.75	18.74	0.01	15.96	0.1
	12/20/2001	18.05	NP	-	16.65	NA
	3/13/2002	17.69	NP	-	17.01	0.1
	6/24/2002	18.10	NP	-	16.60	NA
	9/26/2002	18.43	NP	-	16.27	NA
	12/20/2002	18.43	NP	-	16.27	NA
	3/17/2003	18.14	17.81	0.33	16.82	0.01
	6/26/2003	18.08	18.05	0.03	16.64	0.04
	9/24/2003	18.45	18.44	0.01	16.26	NA
	12/30/2003	18.05	NP	-	16.65	NA
	3/29/2004	17.90	17.70	0.20	16.96	0.1
	6/29/2004	18.61	sheen	-	16.09	NA
	9/27/2004	18.46	NP	-	16.24	NA
	12/14/2004	18.42	NP	-	16.28	NA
	3/7/2005	18.35	NP	-	16.35	NA
	6/20/2005	18.19	18.11	0.08	16.57	0.1
	9/19/2005	**18.45**	**sheen**	**-**	**16.25**	**0.11**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-5	2/14/2000	16.24	NP	-	18.59	NA
(34.83)	5/22/2000	16.63	NP	-	18.20	NA
	8/22/2000	16.98	sheen	-	17.85	NA
	11/27/2000	17.36	NP	-	17.47	NA
	2/20/2001	17.23	NP	-	17.60	NA
	5/15/2001	17.18	NP	-	17.65	NA
	9/18/2001	17.49	NP	-	17.34	NA
	12/20/2001	16.68	NP	-	18.15	NA
	3/13/2002	16.28	NP	-	18.55	NA
	6/24/2002	16.88	NP	-	17.95	NA
	9/26/2002	17.28	NP	-	17.55	NA
	12/20/2002	17.43	NP	-	17.40	NA
	3/17/2003	16.51	NP	-	18.32	NA
	6/26/2003	16.71	NP	-	18.12	NA
	9/24/2003	17.33	NP	-	17.50	NA
	12/30/2003	16.86	NP	-	17.97	NA
	3/29/2004	16.33	NP	-	18.50	NA
	6/29/2004	16.99	NP	-	17.84	NA
	9/27/2004	17.35	NP	-	17.48	NA
	12/14/2004	17.25	NP	-	17.58	NA
	3/7/2005	17.15	NP	-	17.68	NA
	6/20/2005	16.77	NP	-	18.06	NA
	9/19/2005	**17.25**	**NP**	**-**	**17.58**	**NA**
B-6	2/14/2000	16.53	NP	-	18.96	NA
(35.49)	5/22/2000	16.95	NP	-	18.54	NA
	8/22/2000	17.40	NP	-	18.09	NA
	11/27/2000	17.80	NP	-	17.69	NA
	2/20/2001	17.64	NP	-	17.85	NA
	5/15/2001	17.56	NP	-	17.93	NA
	9/18/2001	17.95	NP	-	17.54	NA
	12/20/2001	17.02	NP	-	18.47	NA
	3/13/2002	16.57	NP	-	18.92	NA
	6/24/2002	17.22	NP	-	18.27	NA
	9/26/2002	17.71	NP	-	17.78	NA
	12/20/2002	17.80	NP	-	17.69	NA
	3/17/2003	16.81	NP	-	18.68	NA
	6/26/2003	17.04	NP	-	18.45	NA
	9/24/2003	17.73	NP	-	17.76	NA
	12/30/2003	17.21	NP	-	18.28	NA
	3/29/2004	16.61	NP	-	18.88	NA
	6/29/2004	17.35	NP	-	18.14	NA
	9/27/2004	17.80	NP	-	17.69	NA
	12/14/2004	17.66	NP	-	17.83	NA
	3/7/2005	17.50	NP	-	17.99	NA
	6/20/2005	17.12	NP	-	18.37	NA
	9/19/2005	**17.66**	**NP**	**-**	**17.83**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-16	2/14/2000	16.84	NP	-	18.98	NA
(35.82)	5/22/2000	17.27	NP	-	18.55	NA
	8/22/2000	17.76	NP	-	18.06	NA
	11/27/2000	18.16	NP	-	17.66	NA
	2/20/2001	17.98	NP	-	17.84	NA
	5/15/2001	18.04	NP	-	17.78	NA
	9/18/2001	18.44	NP	-	17.38	NA
	12/20/2001	17.43	NP	-	18.39	NA
	3/13/2002	17.02	NP	-	18.80	NA
	6/24/2002	17.67	NP	-	18.15	NA
	9/26/2002	18.18	NP	-	17.64	NA
	12/20/2002	18.31	NP	-	17.51	NA
	3/17/2003	17.24	NP	-	18.58	NA
	6/26/2003	17.46	NP	-	18.36	NA
	9/24/2003	18.21	NP	-	17.61	NA
	12/30/2003	17.67	NP	-	18.15	NA
	3/29/2004	17.06	NP	-	18.76	NA
	6/29/2004	17.80	NP	-	18.02	NA
	9/27/2004	18.28	NP	-	17.54	NA
	12/14/2004	18.14	NP	-	17.68	NA
	3/7/2005	17.95	NP	-	17.87	NA
	6/20/2005	17.58	NP	-	18.24	NA
	9/19/2005	**18.16**	**NP**	**-**	**17.66**	**NA**
B-17	2/14/2000	16.83	NP	-	18.78	NA
(35.61)	5/22/2000	17.20	NP	-	18.41	NA
	8/22/2000	17.76	NP	-	17.85	NA
	11/27/2000	18.05	NP	-	17.56	NA
	2/20/2001	17.88	NP	-	17.73	NA
	5/15/2001	17.84	NP	-	17.77	NA
	9/18/2001	18.21	NP	-	17.40	NA
	12/20/2001	17.31	NP	-	18.30	NA
	3/13/2002	16.91	NP	-	18.70	NA
	6/24/2002	17.50	NP	-	18.11	NA
	9/26/2002	17.97	NP	-	17.64	NA
	12/20/2002	18.07	NP	-	17.54	NA
	3/17/2003	17.13	NP	-	18.48	NA
	6/26/2003	17.33	NP	-	18.28	NA
	9/24/2003	18.00	NP	-	17.61	NA
	12/30/2003	17.48	NP	-	18.13	NA
	3/29/2004	16.39	NP	-	19.22	NA
	6/29/2004	17.62	NP	-	17.99	NA
	9/27/2004	18.03	NP	-	17.58	NA
	12/14/2004	17.95	NP	-	17.66	NA
	3/7/2005	17.81	NP	-	17.80	NA
	6/20/2005	17.40	NP	-	18.21	NA
	9/19/2005	**17.93**	**NP**	**-**	**17.68**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-18	2/14/2000	18.55	NP	-	16.94	NA
(35.49)	5/22/2000	18.66	NP	-	16.83	NA
	8/22/2000	19.11	NP	-	16.38	NA
	11/27/2000	19.43	NP	-	16.06	NA
	2/20/2001	19.44	NP	-	16.05	NA
	5/15/2001	19.43	NP	-	16.06	NA
	9/18/2001	19.68	NP	-	15.81	NA
	12/20/2001	—Unable to Locate—				
	3/13/2002	—Inaccessible - Covered with Sand—				
	6/24/2002	—Inaccessible - Covered with Sand—				
	9/26/2002	—TOC broken, bentonite blocking well—				
(36.00)	12/20/2002	3.88	NP	-	32.12	NA
	3/17/2003	Unable to access				
	6/26/2003	Well blocked ~5 feet bgs				
	9/24/2003	Well blocked ~5 feet bgs				
	12/30/2003	Well blocked ~5 feet bgs				
	3/29/2004	Well blocked ~5 feet bgs				
	6/29/2004	Abandoned				
B-22	2/14/2000	17.91	NP	-	17.92	1
(35.83)	5/22/2000	18.00	NP	-	17.83	NA
	8/22/2000	18.66	18.65	0.01	17.18	NA
	11/27/2000	19.02	sheen	-	16.81	0.1
	2/20/2001	19.02	18.99	0.03	16.83	NA
	5/15/2001	19.01	19.00	0.01	16.83	0.1
	9/18/2001	—— Well Has Been Buried ——				
	12/20/2001	—Well Damaged During Construction Activities—				
	3/13/2002	—Well Damaged During Construction Activities—				
	6/24/2002	—Well Damaged During Construction Activities—				
	9/26/2002	—Well Damaged During Construction Activities—				
	—— Well Abandoned December 10, 2002 ——					

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-22A	12/20/2002	19.10	NP	-	15.77	NA
(34.87)	3/17/2003	18.33	18.30	0.03	16.54	0.01
	6/26/2003	18.72	18.69	0.03	16.15	0.05
	9/24/2003	19.08	19.05	0.03	15.79	0.10
	12/30/2003	18.52	NP	-	16.35	NA
	3/29/2004	18.25	18.25	sheen	16.62	NA
	6/29/2004	18.78	NP	-	16.09	NA
	9/27/2004	19.07	NP	-	15.80	NA
	12/14/2004	18.95	NP	-	15.92	NA
	3/7/2005	19.08	NP	-	15.79	NA
	6/20/2005	18.75	NP	-	16.12	NA
	9/19/2005	**19.07**	**NP**	**-**	**15.80**	**NA**
B-25	2/14/2000	18.39	NP	-	17.39	NA
(35.78)	5/22/2000	17.67	NP	-	18.11	NA
	8/22/2000	19.09	NP	-	16.69	NA
	11/27/2000	19.51	NP	-	16.27	NA
	2/20/2001	18.79	NP	-	16.99	NA
	5/15/2001	19.54	NP	-	16.24	NA
	9/18/2001	19.86	NP	-	15.92	NA
	12/20/2001	---Could Not Access---				
	3/13/2002	18.52	NP	-	17.26	NA
	6/24/2002	18.89	NP	-	16.89	NA
	9/26/2002	19.33	NP	-	16.45	NA
	12/20/2002	19.43	NP	-	16.35	NA
	3/17/2003	18.65	NP	-	17.13	NA
	6/26/2003	18.82	NP	-	16.96	NA
	9/24/2003	19.24	NP	-	16.54	NA
	12/30/2003	18.95	NP	-	16.83	NA
	3/29/2004	18.42	NP	-	17.36	NA
	6/29/2004	---Could Not Access---				
	9/27/2004	19.25	NP	-	16.53	NA
	12/14/2004	19.21	NP	-	16.57	NA
	3/7/2005	21.57	NP	-	14.21	NA
	6/20/2005	18.89	NP	-	16.89	NA
	9/19/2005	**19.26**	**NP**	**-**	**16.52**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-27	2/14/2000	17.61	NP	-	18.13	NA
(35.74)	5/22/2000	17.76	NP	-	17.98	NA
	8/22/2000	18.27	NP	-	17.47	NA
	11/27/2000	18.71	NP	-	17.03	0.1
	2/20/2001	18.66	18.65	0.01	17.09	0.2
	5/15/2001	18.74	18.66	0.08	17.06	0.2
	9/18/2001	18.99	NP	-	16.75	0.3
	12/20/2001	18.66	NP	-	17.08	0.2
	3/13/2002	17.76	NP	-	17.98	0.02
	6/24/2002	18.09	NP	-	17.65	NA
	9/26/2002	18.50	NP	-	17.24	NA
	12/20/2002	18.65	18.68	0.03	17.11	0.1
	3/17/2003	17.91	17.90	0.01	17.84	0.01
	6/26/2003	17.96	NP	-	17.78	NA
	9/24/2003	18.51	NP	-	17.23	NA
	12/30/2003	18.21	NP	-	17.53	NA
	3/29/2004	17.72	17.31	0.41	18.35	0.1
	6/29/2004	18.03	NP	-	17.71	NA
	9/27/2004	18.53	NP	-	17.21	NA
	12/14/2004	18.50	NP	-	17.24	NA
	3/7/2005	18.34	NP	-	17.40	NA
	6/20/2005	18.03	NP	-	17.71	NA
	9/19/2005	**18.48**	**NP**	**-**	**17.26**	**NA**
B-35	2/14/2000	15.71	NP	-	17.85	NA
(33.56)	5/22/2000	16.00	NP	-	17.56	NA
	8/22/2000	16.36	NP	-	17.20	NA
	11/27/2000	16.71	NP	-	16.85	NA
	2/20/2001	16.65	NP	-	16.91	NA
	5/15/2001	15.56	NP	-	18.00	NA
	9/18/2001	16.90	NP	-	16.66	NA
	12/20/2001	15.95	NP	-	17.61	NA
	3/13/2002	15.70	NP	-	17.86	NA
	6/24/2002	16.22	NP	-	17.34	NA
	9/26/2002	16.64	NP	-	16.92	NA
	12/20/2002	16.48	NP	-	17.08	NA
	3/17/2003	15.91	NP	-	17.65	NA
	6/26/2003	16.13	NP	-	17.43	NA
	9/24/2003	16.67	NP	-	16.89	NA
	12/30/2003	16.04	NP	-	17.52	NA
	3/29/2004	15.81	NP	-	17.75	NA
	6/29/2004	16.33	NP	-	17.23	NA
	9/27/2004	16.61	NP	-	16.95	NA
	12/14/2004	16.52	NP	-	17.04	NA
	3/7/2005	16.52	NP	-	17.04	NA
	6/20/2005	16.17	NP	-	17.39	NA
	9/19/2005	**16.63**	**NP**	**-**	**16.93**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-36	2/14/2000	14.33	NP	-	16.69	NA
(31.02)	5/22/2000	14.64	NP	-	16.38	NA
	8/22/2000	15.28	NP	-	15.74	NA
	11/27/2000	15.55	NP	-	15.47	NA
	2/20/2001	15.48	NP	-	15.54	NA
	5/15/2001	15.47	NP	-	15.55	NA
	9/18/2001	15.83	NP	-	15.19	NA
	12/20/2001	14.17	NP	-	16.85	NA
	3/13/2002	14.31	NP	-	16.71	NA
	6/24/2002	15.06	NP	-	15.96	NA
	9/26/2002	15.43	NP	-	15.59	NA
	12/20/2002	14.98	NP	-	16.04	NA
	3/17/2003	14.35	NP	-	16.67	NA
	6/26/2003	15.09	NP	-	15.93	NA
	9/24/2003	15.44	NP	-	15.58	NA
	12/30/2003	14.41	NP	-	16.61	NA
	3/29/2004	14.53	NP	-	16.49	NA
	6/29/2004	15.19	NP	-	15.83	NA
	9/27/2004	15.41	NP	-	15.61	NA
	12/14/2004	15.10	NP	-	15.92	NA
	3/7/2005	15.39	NP	-	15.63	NA
	6/20/2005	15.08	NP	-	15.94	NA
	9/19/2005	**15.45**	**NP**	-	**15.57**	**NA**
B-37	2/14/2000	18.96	NP	-	16.87	NA
(35.83)	5/22/2000	19.05	NP	-	16.78	NA
	8/22/2000	19.77	NP	-	16.06	NA
	11/27/2000	20.18	NP	-	15.65	NA
	2/20/2001	22.05	NP	-	13.78	NA
	5/15/2001	20.16	NP	-	15.67	NA
	9/18/2001	------- Well Has Been Buried -------				
	12/20/2001	—Could Not Locate—				
	3/13/2002	19.09	NP	-	16.74	NA
	6/24/2002	19.58	NP	-	16.25	NA
	9/26/2002	20.00	NP	-	15.83	NA
	12/20/2002	20.08	NP	-	15.75	NA
	3/17/2003	19.17	NP	-	16.66	NA
	6/26/2003	19.52	NP	-	16.31	NA
	9/24/2003	19.88	NP	-	15.95	NA
	12/31/2003	—Well Covered with Ice—				
	3/29/2004	19.07	NP	-	16.76	NA
	6/29/2004	19.96	NP	-	15.87	NA
	9/27/2004	19.88	NP	-	15.95	NA
	12/14/2004	19.76	NP	-	16.07	NA
	3/7/2005	20.92	NP	-	14.91	NA
	6/20/2005	19.57	NP	-	16.26	NA
	9/19/2005	**19.89**	**NP**	-	**15.94**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-38	9/26/2002	20.91	20.69	0.22	15.74	NA
(36.65)	12/20/2002	20.53	20.75	0.22	16.12	NA
	3/17/2003	19.71	NP	-	16.94	NA
	6/26/2003	20.10	NP	-	16.55	NA
	9/24/2003	Dry at 20.41 feet bgs				
	12/30/2003	19.93	NP	-	16.72	NA
	3/29/2004	dry	NP	-	-	NA
	6/29/2004	Dry at 20.23 feet bgs				
	9/27/2004	dry	NP	-	-	NA
	6/20/2005	20.10	NP	-	16.55	NA
	9/19/2005	**20.22**	**NP**	**-**	**16.43**	**NA**
B-40	2/14/2000	17.34	NP	-	17.36	1
(34.70)	5/22/2000	18.28	17.48	0.80	17.06	5.5
	8/22/2000	19.65	18.21	1.44	16.20	0.6
	11/27/2000	20.03	18.55	1.48	15.85	1.25
	2/20/2001	19.85	18.54	1.31	15.90	1.3
	5/15/2001	19.88	18.58	1.30	15.86	0.85
	9/18/2001	20.90	19.07	1.83	15.26	1
	12/20/2001	18.35	17.36	0.99	17.14	0.65
	3/13/2002	17.51	17.32	0.19	17.34	0.85
	6/24/2002	18.36	18.24	0.12	16.44	0.30
	9/26/2002	19.22	18.53	0.69	16.03	0.46
	12/20/2002	18.27	18.81	0.54	16.86	0.57
	3/17/2003	18.12	17.45	0.67	17.12	0.30
	6/26/2003	18.47	18.30	0.17	16.37	0.10
	9/24/2003	18.61	18.51	0.10	16.17	0.10
	12/30/2003	17.64	17.58	0.06	17.11	0.10
	3/29/2004	17.70	17.69	0.01	17.01	0.10
	6/29/2004	18.58	sheen	-	16.05	NA
	9/27/2004	18.76	sheen	-	15.87	0.10
	12/14/2004	18.18	18.17	0.01	16.53	0.20
	3/7/2005	18.35	sheen	-	16.35	0.70
	6/20/2005	18.37	18.36	0.01	16.34	0.20
	9/19/2005	**18.55**	**sheen**	**-**	**16.15**	**0.12**
B-41	2/14/2000	17.73	NP	-	16.90	NA
(34.63)	5/22/2000	18.89	NP	-	15.74	NA
	8/22/2000	18.44	NP	-	16.19	NA
	11/27/2000	18.81	NP	-	15.82	NA
	2/20/2001	18.78	sheen	-	15.85	NA
	5/15/2001	18.78	NP	-	15.85	NA
	9/18/2001	——— Well Has Been Buried ———				
	12/20/2001	16.86	NP	-	17.77	NA
	3/13/2002	20.07	20.03	0.04	14.59	NA
	6/24/2002	20.54	20.52	0.02	14.11	NA
	9/26/2002	18.75	18.72	0.03	15.90	NA
	—— Well Abandoned December 9, 2002 ----					

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
B-41A	12/20/2002	19.13	NP	-	16.00	NA
(35.13)	3/17/2003	18.40	NP	-	16.73	NA
	6/26/2003	18.73	NP	-	16.40	NA
	9/24/2003	19.10	NP	-	16.03	NA
	12/30/2003	18.61	NP	-	16.52	NA
	3/29/2004	18.32	NP	-	16.81	NA
	6/29/2004	18.82	NP	-	16.31	NA
	9/27/2004	19.11	NP	-	16.02	NA
	12/14/2004	19.00	NP	-	16.13	NA
	3/7/2005	19.07	NP	-	16.06	NA
	6/20/2005	18.80	NP	-	16.33	NA
	9/19/2005	**19.13**	**NP**	**-**	**16.00**	**NA**
DW-1	2/14/2000	18.87	NP	-	17.06	NA
(35.93)	5/22/2000	18.94	NP	-	16.99	NA
	8/22/2000	19.51	NP	-	16.42	NA
	11/27/2000	19.88	NP	-	16.05	NA
	2/20/2001	19.83	NP	-	16.10	NA
	5/15/2001	19.87	NP	-	16.06	NA
	9/18/2001	20.19	NP	-	15.74	NA
	12/20/2001	19.56	NP	-	16.37	NA
	3/13/2002	18.96	NP	-	16.97	NA
	6/24/2002	19.38	NP	-	16.55	NA
	9/26/2002	19.77	NP	-	16.16	NA
	12/20/2002	19.77	NP	-	16.16	NA
	3/17/2003	18.85	NP	-	17.08	NA
	6/26/2003	19.33	NP	-	16.60	NA
	9/24/2003	19.66	NP	-	16.27	NA
	12/30/2003	19.27	NP	-	16.66	NA
	3/29/2004	18.87	NP	-	17.06	NA
	6/29/2004	19.39	NP	-	16.54	NA
	9/27/2004	19.69	NP	-	16.24	NA
	12/14/2004	19.65	NP	-	16.28	NA
	3/7/2005	19.66	NP	-	16.27	NA
	6/20/2005	19.41	NP	-	16.52	NA
	9/19/2005	**19.71**	**NP**	**-**	**16.22**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
DW-2	2/14/2000	18.91	NP	-	17.14	NA
(36.05)	5/22/2000	19.03	NP	-	17.02	NA
	8/22/2000	19.62	NP	-	16.43	NA
	11/27/2000	10.01	NP	-	26.04	NA
	2/20/2001	20.02	NP	-	16.03	NA
	5/15/2001	20.00	NP	-	16.05	NA
	9/18/2001	20.35	NP	-	15.70	NA
	12/20/2001	19.62	NP	-	16.43	NA
	3/13/2002	19.06	NP	-	16.99	NA
	6/24/2002	19.44	NP	-	16.61	NA
	9/26/2002	19.85	NP	-	16.20	NA
	12/20/2002	19.88	NP	-	16.17	NA
	3/17/2003	18.97	NP	-	17.08	NA
	6/26/2003	19.40	NP	-	16.65	NA
	9/24/2003	19.78	NP	-	16.27	NA
	12/30/2003	19.37	NP	-	16.68	NA
	3/29/2004	18.97	NP	-	17.08	NA
	6/29/2004	19.46	NP	-	16.59	NA
	9/27/2004	19.85	NP	-	16.20	NA
	12/14/2004	19.75	NP	-	16.30	NA
	3/7/2005	19.74	NP	-	16.31	NA
	6/20/2005	19.49	NP	-	16.56	NA
	9/19/2005	**19.81**	**NP**	**-**	**16.24**	**NA**
EX-39	2/14/2000	17.42	17.09	0.33	15.93	10
(33.09)	5/22/2000	17.35	17.29	0.06	15.79	5
	8/22/2000	17.98	17.95	0.03	15.13	0.1
	11/27/2000	18.38	sheen	-	14.71	0.1
	2/20/2001	18.49	18.36	0.13	14.70	2.55
	5/15/2001	19.29	18.19	1.10	14.68	5.0
	9/18/2001	------ Well Has Been Buried ------				
	12/20/2001	---Well Damaged During Construction Activities---				
	3/13/2002	---Well Damaged During Construction Activities---				
	6/24/2002	---Well Damaged During Construction Activities---				
	9/26/2002	---Well Damaged During Construction Activities---				
	---- Well Abandoned December 9, 2002 ----					
EX-39B	12/20/2002	18.85	18.87	0.02	15.80	0.10
(34.63)	3/17/2003	18.15	18.13	0.02	16.50	0.10
	6/26/2003	18.71	18.71	sheen	15.92	0.05
	9/24/2003	18.98	NP	-	15.65	NA
	12/30/2003	18.30	sheen	sheen	16.33	NA
	3/29/2004	18.12	NP	-	16.51	NA
	6/29/2004	18.37	NP	-	16.26	NA
	9/27/2004	18.83	NP	-	17.24	NA
	12/14/2004	21.18	NP	-	14.89	NA
	3/7/2005	18.97	sheen	-	17.10	0.20
	6/20/2005	16.85	NP	-	19.22	0.10
	9/19/2005	**16.65**	**NP**	**-**	**19.42**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
IT-E	2/14/2000	19.01	NP	-	17.06	NA
(36.07)	5/22/2000	19.03	NP	-	17.04	NA
	8/22/2000	19.93	NP	-	16.14	NA
	11/27/2000	20.12	NP	-	15.95	NA
	2/20/2001	20.11	NP	-	15.96	NA
	5/15/2001	20.29	NP	-	15.78	NA
	9/18/2001	20.65	NP	-	15.42	NA
	12/20/2001	—Could Not Access Well—				
	3/13/2002	19.31	NP	-	16.76	NA
	6/24/2002	19.80	NP	-	16.27	NA
	9/26/2002	20.18	NP	-	15.89	NA
	12/20/2002	19.95	NP	-	16.12	NA
	3/17/2003	19.25	NP	-	16.82	NA
	6/26/2003	19.68	NP	-	16.39	NA
	9/24/2003	20.01	NP	-	16.06	NA
	12/30/2003	19.45	NP	-	16.62	NA
	3/29/2004	19.28	NP	-	16.79	NA
	6/29/2004	19.79	NP	-	16.28	NA
	9/27/2004	20.05	NP	-	16.02	NA
	12/14/2004	20.00	NP	-	16.07	NA
	3/7/2005	20.11	NP	-	15.96	NA
	6/20/2005	19.74	NP	-	16.33	NA
	9/19/2005	**20.18**	**NP**	**-**	**15.89**	**NA**
IT-W	2/14/2000	17.46	NP	-	18.53	NA
(35.99)	5/22/2000	17.75	NP	-	18.24	NA
	8/22/2000	18.17	NP	-	17.82	NA
	11/27/2000	18.51	NP	-	17.48	NA
	2/20/2001	18.43	NP	-	17.56	NA
	5/15/2001	18.33	NP	-	17.66	NA
	9/18/2001	18.68	NP	-	17.31	NA
	12/20/2001	17.76	NP	-	18.23	NA
	3/13/2002	17.50	NP	-	18.49	NA
	6/24/2002	17.98	NP	-	18.01	NA
	9/26/2002	18.40	NP	-	17.59	NA
	12/20/2002	18.28	NP	-	17.71	NA
	3/17/2003	17.70	NP	-	18.29	NA
	6/26/2003	17.94	NP	-	18.05	NA
	9/24/2003	18.42	NP	-	17.57	NA
	12/30/2003	17.81	NP	-	18.18	NA
	3/29/2004	17.61	NP	-	18.38	NA
	6/29/2004	18.10	NP	-	17.89	NA
	9/27/2004	18.45	NP	-	17.54	NA
	12/14/2004	18.37	NP	-	17.62	NA
	3/7/2005	18.31	NP	-	17.68	NA
	6/20/2005	18.02	NP	-	17.97	NA
	9/19/2005	**18.46**	**NP**	**-**	**17.53**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
P-1	2/14/2000	6.26	NP	-	11.98	NA
(18.24)	5/22/2000	6.89	NP	-	11.35	NA
	8/22/2000	10.51	NP	-	7.73	NA
	11/27/2000	8.62	NP	-	9.62	NA
	2/20/2001	9.14	NP	-	9.10	NA
	5/15/2001	9.17	NP	-	9.07	NA
	9/18/2001	9.97	NP	-	8.27	NA
	12/20/2001	6.01	NP	-	12.23	NA
	3/13/2002	7.07	NP	-	11.17	NA
	6/24/2002	5.89	NP	-	12.35	NA
	9/26/2002	9.13	NP	-	9.11	NA
	12/20/2002	7.87	NP	-	10.37	NA
	3/17/2003	8.38	NP	-	9.86	NA
	6/26/2003	Dry at 10 feet bgs				
	9/24/2003	9.62	NP	-	8.62	NA
	12/30/2003	7.21	NP	-	11.03	NA
	3/29/2004	8.17	NP	-	10.07	NA
	6/29/2004	7.89	NP	-	10.35	NA
	9/27/2004	9.19	NP	-	9.05	NA
	12/14/2004	6.79	NP	-	11.45	NA
	3/7/2005	9.16	NP	-	9.08	NA
	6/20/2005	8.80	NP	-	9.44	NA
	9/19/2005	**Dry**	**NP**	**-**	**Dry**	**NA**
P-2	2/14/2000	4.18	NP	-	13.67	NA
(17.85)	5/22/2000	4.66	NP	-	13.19	NA
	8/22/2000	5.27	NP	-	12.58	NA
	11/27/2000	5.28	NP	-	12.57	NA
	2/20/2001	5.32	NP	-	12.53	NA
	5/15/2001	5.18	NP	-	12.67	NA
	9/18/2001	5.50	NP	-	12.35	NA
	12/20/2001	4.21	NP	-	13.64	NA
	3/13/2002	4.40	NP	-	13.45	NA
	6/24/2002	3.26	NP	-	14.59	NA
	9/26/2002	5.74	NP	-	12.11	NA
	12/20/2002	5.93	NP	-	11.92	NA
	3/17/2003	4.84	NP	-	13.01	NA
	6/26/2003	5.31	NP	-	12.54	NA
	9/24/2003	5.70	NP	-	12.15	NA
	12/30/2003	4.66	NP	-	13.19	NA
	3/29/2004	4.97	NP	-	12.88	NA
	6/29/2004	5.35	NP	-	12.50	NA
	9/27/2004	5.95	NP	-	11.90	NA
	12/14/2004	4.98	NP	-	12.87	NA
	3/7/2005	5.52	NP	-	12.33	NA
	6/20/2005	5.55	NP	-	12.30	NA
	9/19/2005	**5.89**	**NP**	**-**	**11.96**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
RES-N	2/14/2000	20.90	NP	-	17.68	NA
(38.58)	5/22/2000	21.01	NP	-	17.57	NA
	8/22/2000	21.58	NP	-	17.00	NA
	11/27/2000	21.95	NP	-	16.63	NA
	2/20/2001	21.98	NP	-	16.60	NA
	5/15/2001	21.94	NP	-	16.64	NA
	9/18/2001	22.27	NP	-	16.31	NA
	12/20/2001	21.55	NP	-	17.03	NA
	3/13/2002	21.02	NP	-	17.56	NA
	6/24/2002	21.41	NP	-	17.17	NA
	9/26/2002	21.79	NP	-	16.79	NA
	12/20/2002	21.83	NP	-	16.75	NA
	6/26/2003	21.35	NP	-	17.23	NA
	9/24/2003	21.72	NP	-	16.86	NA
	12/30/2003	21.34	NP	-	17.24	NA
	3/29/2004	20.93	NP	-	17.65	NA
	9/27/2004	21.15	NP	-	17.43	NA
	12/14/2004	21.66	NP	-	16.92	NA
	3/7/2005	21.70	NP	-	16.88	NA
	6/20/2005	21.44	NP	-	17.14	NA
	9/19/2005	**21.74**	**NP**	**-**	**16.84**	**NA**
RES-O	2/14/2000	16.89	NP	-	19.14	NA
(36.03)	5/22/2000	17.29	NP	-	18.74	NA
	8/22/2000	17.86	NP	-	18.17	NA
	11/27/2000	18.38	NP	-	17.65	NA
	2/20/2001	NM	NP	-	-	NA
	5/15/2001	18.04	NP	-	17.99	NA
	9/18/2001	18.43	NP	-	17.60	NA
	12/20/2001	17.63	NP	-	18.40	NA
	3/13/2002	16.87	NP	-	19.16	NA
	6/24/2002	18.52	NP	-	17.51	NA
	9/26/2002	19.23	NP	-	16.80	NA
	12/20/2002	18.35	NP	-	17.68	NA
	3/17/2003	17.18	NP	-	18.85	NA
	6/26/2003	17.40	NP	-	18.63	NA
	9/24/2003	18.25	NP	-	17.78	NA
	12/30/2003	17.56	NP	-	18.47	NA
	3/29/2004	16.74	NP	-	19.29	NA
	6/29/2004	No Access To Well				
	9/27/2004	No Access To Well				
	12/14/2004	15.74	NP	-	20.29	NA
	3/7/2005	16.29	NP	-	19.74	NA
	6/20/2005	15.29	sheen	-	20.74	NA
	9/19/2005	**15.92**	**NP**	**-**	**20.11**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
U-2	2/14/2000	15.31	NP	-	19.71	NA
(35.02)	5/22/2000	15.41	NP	-	19.61	NA
	8/22/2000	16.13	NP	-	18.89	NA
	11/27/2000	16.81	NP	-	18.21	NA
	2/20/2001	16.81	NP	-	18.21	NA
	5/15/2001	16.82	NP	-	18.20	NA
	9/18/2001	17.20	NP	-	17.82	NA
	12/20/2001	16.99	NP	-	18.03	NA
	3/13/2002	15.59	NP	-	19.43	NA
	6/24/2002	15.80	NP	-	19.22	NA
	9/26/2002	16.50	NP	-	18.52	NA
	12/20/2002	16.95	NP	-	18.07	NA
	3/17/2003	15.77	NP	-	19.25	NA
	6/26/2003	15.89	NP	-	19.13	NA
	9/24/2003	16.42	NP	-	18.60	NA
	12/30/2003	16.28	NP	-	18.74	NA
	3/29/2004	15.06	NP	-	19.96	NA
	6/29/2004	15.79	NP	-	19.23	NA
	9/27/2004	16.30	NP	-	18.72	NA
	12/14/2004	16.59	NP	-	18.43	NA
	3/7/2005	17.52	NP	-	17.50	NA
	6/20/2005	15.82	NP	-	19.20	NA
	9/19/2005	**16.42**	**NP**	**-**	**18.60**	**NA**
U-3	2/14/2000	12.95	NP	-	22.30	NA
(35.25)	5/22/2000	13.55	NP	-	21.70	NA
	8/22/2000	14.19	NP	-	21.06	NA
	11/27/2000	15.68	NP	-	19.57	NA
	2/20/2001	14.38	NP	-	20.87	NA
	5/15/2001	14.26	NP	-	20.99	NA
	9/18/2001	14.89	NP	-	20.36	NA
	12/20/2001	13.22	NP	-	22.03	NA
	3/13/2002	13.01	NP	-	22.24	NA
	6/24/2002	13.57	NP	-	21.68	NA
	9/26/2002	14.39	NP	-	20.86	NA
	12/20/2002	14.23	NP	-	21.02	NA
	3/17/2003	13.97	NP	-	21.28	NA
	6/26/2003	13.56	NP	-	21.69	NA
	9/24/2003	14.54	NP	-	20.71	NA
	12/30/2003	13.41	NP	-	21.84	NA
	3/29/2004	12.83	NP	-	22.42	NA
	6/29/2004	14.75	NP	-	20.50	NA
	9/27/2004	14.21	NP	-	21.04	NA
	12/14/2004	13.98	NP	-	21.27	NA
	3/7/2005	14.02	NP	-	21.23	NA
	6/20/2005	13.68	NP	-	21.57	NA
	9/19/2005	**14.49**	**NP**	**-**	**20.76**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
U-4	2/14/2000	15.86	15.77	0.09	18.67	2.5
(34.46)	5/22/2000	16.03	NP	-	18.43	NA
	8/22/2000	16.38	NP	-	18.08	NA
	11/27/2000	16.83	NP	-	17.63	NA
	2/20/2001	16.85	sheen	-	17.61	NA
	5/15/2001	16.61	16.57	0.04	17.88	0.1
	9/18/2001	19.96	sheen	-	14.50	0.1
	12/20/2001	16.37	16.30	0.07	18.15	0.11
	3/13/2002	15.60	NP	-	18.86	0.11
	6/24/2002	15.50	NP	-	18.96	0.06
	9/26/2002	17.64	NP	-	16.82	NA
	12/20/2002	16.77	NP	-	17.69	NA
	3/17/2003	16.05	15.80	0.25	18.61	0.35
	6/26/2003	16.10	15.98	0.12	18.46	0.18
	9/24/2003	16.68	16.61	0.07	17.84	0.1
	12/30/2003	16.28	NP	-	18.18	NA
	3/29/2004	15.45	15.43	0.02	19.03	0.2
	6/29/2004	16.14	NP	-	18.32	NA
	9/27/2004	16.55	NP	-	17.91	NA
	12/14/2004	16.50	NP	-	17.96	NA
	3/7/2005	16.35	NP	-	18.11	NA
	6/20/2005	15.90	NP	-	18.56	NA
	9/19/2005	**16.48**	**16.45**	**0.03**	**18.00**	**0.1**
U-5	2/14/2000	17.85	NP	-	16.28	NA
(34.13)	5/22/2000	18.03	NP	-	16.10	NA
	8/22/2000	19.02	NP	-	15.11	NA
	11/27/2000	19.03	NP	-	15.10	NA
	2/20/2001	19.44	NP	-	14.69	NA
	5/15/2001	19.57	19.22	0.35	14.84	0.65
	9/18/2001	20.04	20.02	0.02	14.11	0.6
	12/20/2001	—Unable to Locate—				
	3/13/2002	—Inaccessible - Covered by Sand—				
	6/24/2002	—Inaccessible - Covered by Sand—				
	9/26/2002	19.63	19.41	0.22	14.68	0.20
	12/20/2002	19.49	NP	-	14.64	0.42
	3/17/2003	17.99	NP	-	16.14	NA
	6/26/2003	19.17	NP	-	14.96	NA
	9/24/2003	19.42	NP	-	14.71	NA
	12/30/2003	18.80	NP	-	15.33	NA
	3/29/2004	18.39	NP	-	15.74	NA
	6/29/2004	19.00	NP	-	15.13	NA
	9/27/2004	19.14	Sheen	-	14.99	NA
	12/14/2004	18.55	NP	-	15.58	NA
	3/7/2005	19.23	NP	-	14.90	0.1
	6/20/2005	18.95	NP	-	15.18	NA
	9/19/2005	**18.93**	**NP**	**-**	**15.20**	**0.1**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
U-5A	2/14/2000	6.46	NP	-	27.31	NA
(33.77)	5/22/2000	7.00	6.99	0.01	26.78	1
	8/22/2000	8.58	8.57	0.01	25.20	0.1
	11/27/2000	9.71	NP	-	24.06	0.1
	2/20/2001	9.04	NP	-	24.73	0.1
	5/15/2001	8.99	sheen	-	24.78	NA
	9/18/2001	10.29	sheen	-	23.48	0.1
	12/20/2001	7.81	NP	-	25.96	NA
	3/13/2002	6.51	NP	-	27.26	NA
	6/24/2002	7.60	NP	-	26.17	NA
	9/26/2002	9.31	NP	-	24.46	NA
	12/20/2002	9.43	NP	-	24.34	NA
	3/17/2003	7.03	NP	-	26.74	NA
	6/26/2003	7.41	NP	-	26.36	NA
	9/24/2003	9.16	NP	-	24.61	NA
	12/30/2003	7.79	NP	-	25.98	NA
	3/29/2004	6.49	NP	-	27.28	NA
	6/29/2004	7.76	7.75	0.01	26.02	NA
	9/27/2004	9.03	8.98	0.05	24.78	NA
	12/14/2004	8.60	NP	-	25.17	0.1
	3/7/2005	8.22	sheen	-	25.55	0.2
	6/20/2005	7.41	sheen	-	26.36	0.1
	9/19/2005	**19.14**	**NP**	**-**	**14.63**	**0.1**
U-10	6/26/2003	4.76	NP	-	NM	NA
	9/24/2003	5.00	NP	-	NM	NA
	12/30/2003	3.65	NP	-	NM	NA
	3/29/2004	4.45	NP	-	NM	NA
	9/27/2004	5.03	NP	-	NM	NA
	12/14/2004	4.10	NP	-	NM	NA
	3/7/2005	5.12	NP	-	NM	NA
	6/20/2005	4.94	NP	-	NM	NA
	9/19/2005	**5.26**	**NP**	**-**	**NM**	**NA**
U-11	6/26/2003	3.30	NP	-	NM	NA
	9/24/2003	3.29	NP	-	NM	NA
	12/30/2003	2.51	NP	-	NM	NA
	3/29/2004	2.94	NP	-	NM	NA
	9/27/2004	3.91	NP	-	NM	NA
	12/14/2004	2.35	NP	-	NM	NA
	3/7/2005	3.43	NP	-	NM	NA
	6/20/2005	3.95	NP	-	NM	NA
	9/19/2005	**4.11**	**NP**	**-**	**NM**	**NA**

TABLE 1C
GROUNDWATER ELEVATION AND SPH REMOVAL DATA
ConocoPhillips - Willbridge Terminal
Portland, Oregon

Well Designation (TOC)	Date Gauged	Depth to Groundwater	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation	SPH Recovered* (gallons)
U-12	6/26/2003	3.08	NP	-	NM	NA
	9/24/2003	3.17	NP	-	NM	NA
	12/30/2003	2.98	NP	-	NM	NA
	3/29/2004	2.97	NP	-	NM	NA
	9/27/2004	4.14	NP	-	NM	NA
	12/14/2004	3.18	NP	-	NM	NA
	3/7/2005	3.72	NP	-	NM	NA
	6/20/2005	3.66	NP	-	NM	NA
	9/19/2005	**4.14**	**NP**	-	**NM**	**NA**
U-13	12/14/2004	15.93	NP	-		
	3/7/2005	14.51	14.45	0.01	NM	NA
	6/20/2005	14.71	14.47	0.24	NM	0.1
	9/19/2005	**16.30**	**15.72**	**0.58**	**NM**	**0.2**

NOTES:
NP = No measurable product
NA = Not Applicable
NM = Not Measured
* = SPH Recovered for latest quarter monitored
- = No Measurable Product Thickness
GWE = TOC -(DTW - (0.8 x DTP - DTW)) Where 0.8 = The density of the SPH

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
CHEVRON						
B-7	02/18/00	ND	20.1	ND	44.8	-
	05/23/00	ND	0.678	1.41	1.22	-
dup	05/23/00	ND	0.691	1.06	ND	-
	08/25/00	NS/F	NS/F	NS/F	NS/F	-
	11/30/00	NS/S	NS/S	NS/S	NS/S	-
	02/22/01	0.690	0.736	ND	ND	-
	05/17/01	ND	0.700	ND	ND	-
	03/20/03	ND	0.740	ND	ND	-
	09/29/03	<0.500	0.870	<0.500	1.93	-
	03/30/04	<0.500	0.750	<0.500	<1.00	-
	03/09/05	<1.00	<1.00	<1.00	<2.00	1.54
dup	03/09/05	<1.00	<1.00	<1.00	<2.00	1.51
	09/22/05	<1.00	<1.00	<1.00	<3.00	1.08
B-9	05/23/00	ND	0.535	0.737	ND	-
	08/25/00	ND	ND	ND	ND	-
	11/30/00	ND	ND	ND	ND	-
	02/22/01	ND	ND	ND	ND	-
	05/17/01	ND	ND	ND	ND	-
	09/19/01	ND	ND	0.913	ND	-
	03/21/02	ND	ND	ND	ND	-
	09/24/02	ND	ND	ND	ND	-
	03/20/03	ND	ND	ND	ND	-
	03/30/04	<0.500	0.560	<0.500	<1.00	-
	10/06/04	<0.500	<0.500	<0.500	<1.00	-
	03/08/05	<1.00	<1.00	<1.00	<2.00	<1.00
	06/22/05	<1.00	<1.00	<1.00	<3.00	<1.00
	09/21/05	<1.00	<1.00	<1.00	<3.00	<1.00
B-10	02/18/00	3.85	4.42	8.78	14.7	-
dup	02/18/00	3.72	4.1	7.8	13.8	-
	05/23/00	3.72	4.1	7.8	13.8	-
dup	05/23/00	1.2	2.93	4.14	6.53	-
	08/25/00	1.40	2.80	1.45	4.80	-
	11/30/00	1.20	2.69	ND	4.60	-
	02/23/01	3.74	0.983	3.94	6.78	-
	05/17/01	4.87	1.25	4.36	8.56	-
	09/19/01	0.711	ND	1.80	2.50	-
	03/21/02	3.15	2.60	1.19	2.43	-
	09/24/02	1.41	1.43	0.753	2.46	-
	03/20/03	0.680	1.76	ND	2.34	-
	09/29/03	2.26	1.60	0.781	4.29	-
	03/30/04	<0.500	1.42	<0.500	2.66	-
	10/06/04	0.810	2.62	<0.500	6.55	-
	03/08/05	<1.00	2.00	<1.00	2.89	<1.00
	09/21/05	<1.00	<1.00	<1.00	<3.00	<1.00

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
B-11	02/18/00	29.2	6.14	4.36	14.1	-
	05/23/00	7.45	4.95	1.42	8.52	-
	08/25/00	11.2	6.53	2.39	11.2	-
	11/30/00	8.72	5.36	ND	ND	-
	02/22/01	24.2	2.13	5.11	8.98	-
	05/17/01	17.9	2.77	6.46	11.4	-
	03/30/04	9.20	4.74	0.790	5.90	-
	03/09/05	4.25	3.72	<1.00	4.18	<1.00
	06/22/05	3.03	3.77	<1.00	4.66	<1.00
	09/21/05	1.80	4.57	<1.00	5.63	<1.00
B-14	02/18/00	119	18.1	80	38	-
	05/23/00	125	15.9	69.2	30.7	-
	08/25/00	382	44.6	194	70.3	-
	11/30/00	292	37.3	148	52.4	-
	02/22/01	402	229	42.6	78.2	-
	05/17/01	332	190	37.4	56.2	-
B-19	03/20/03	7.76	2.09	0.620	2.51	-
	09/29/03	5.93	1.98	1.56	7.44	-
	03/29/04	2.26	1.32	<0.500	2.88	-
	03/09/05	5.53	2.57	<1.00	2.76	<1.00
	06/22/05	<1.00	2.02	<1.00	2.61	<1.00
	09/22/05	1.54	1.99	<1.00	3.60	<1.00
B-20	03/20/03	ND	ND	ND	ND	-
	09/29/03	<0.500	<0.500	<0.500	1.38	-
	03/30/04	<0.500	<0.500	<0.500	<1.00	-
	03/09/05	<1.00	1.47	<1.00	1.15	<1.00
	09/22/05	<1.00	<1.00	<1.00	<3.00	<1.00
B-21	09/19/01	ND	ND	1.47	ND	-
	03/21/02	ND	0.679	ND	ND	-
	09/24/02	ND	1.20	0.517	1.20	-
	03/20/03	ND	ND	ND	ND	-
	09/29/03	0.659	1.3	<0.500	2.20	-
	03/29/04	<0.500	0.720	<0.500	<1.00	-
	10/06/04	<0.500	<0.880	<0.500	<1.00	-
	03/08/05	<1.00	<1.00	<1.00	<2.00	17.4
	09/22/05	<1.00	1.15	<1.00	<3.00	11.2
B-26	03/30/04	<0.500	<0.500	<0.500	<1.00	-
	03/09/05	2.94	<1.00	12.5	2.36	<1.00
	06/22/05	11.9	<1.00	46.1	4.26	<1.00
	09/22/05	12.4	1.19	56.8	6.21	<1.00

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
B-28	02/18/00	0.754	0.368	0.545	0.986	-
	05/23/00	ND	ND	ND	ND	-
	08/25/00	ND	ND	ND	ND	-
	11/30/00	ND	ND	ND	ND	-
	02/23/01	ND	ND	ND	ND	-
	05/17/01	ND	ND	ND	ND	-
	09/20/01	2.12	2.93	ND	ND	-
	03/21/02	ND	ND	ND	ND	-
	09/24/02	ND	ND	ND	ND	-
	03/20/03	ND	ND	ND	ND	-
	09/29/03	0.699	<0.500	1.04	<1.00	-
	03/29/04	<0.500	<0.500	0.930	<1.00	-
	03/09/05	1.59		4.68	<1.00	<1.00
	09/21/05	<1.00	<1.00	<1.00	<3.00	<1.00
B-29	09/20/01	1.30	ND	0.710	ND	-
	03/21/02	ND	ND	ND	ND	-
	09/24/02	ND	ND	ND	ND	-
	03/20/03	ND	ND	ND	ND	-
	09/29/03	<0.500	<0.500	<0.500	<1.00	-
	03/29/04	<0.500	<0.500	<0.500	<1.00	-
	03/09/05	<1.00	<1.00	<1.00	<2.00	<1.00
	09/21/05	<1.00	<1.00	<1.00	<3.00	<1.00
B-30	02/18/00	38.9	5.29	2.44	10.3	-
	05/23/00	18.8	2.53	0.682	4.57	-
	08/25/00	81.2	12.5	2.35	21.9	-
	11/30/00	59.6	10.0	1.92	18.8	-
	02/23/01	61.6	5.31	9.52	19.4	-
dup**	02/23/01	61.8	3.24	9.23	16.0	-
	05/17/01	95.1	4.12	18.0	14.6	-
	09/20/01	38.7	ND	5.66	ND	-
dup	09/20/01	38.6	ND	6.18	ND	-
	03/21/02	113	17.0	6.09	24.2	-
	09/24/02	30.1	6.60	1.56	12.0	-
dup***	09/24/02	28.0	6.42	1.44	11.3	-
	03/20/03	17.3	4.49	0.500	5.96	-
dup*	03/20/03	17.4	4.43	0.510	6.68	-
	09/29/03	32.6	7.34	1.62	12.2	-
	03/29/04	15.6	3.13	1.16	7.07	-
dup	03/29/04	17.5	3.38	1.24	7.32	-
	03/09/05	12.6	3.04	<1.00	6.26	<1.00
	06/22/05	19.6	4.53	1.06	7.80	<1.00
	09/21/05	15.1	2.75	<1.00	3.72	<1.00
dup****	09/21/05	18.9	3.17	<1.00	4.40	<1.00

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
B-32	03/20/03	ND	ND	ND	ND	-
	09/29/03	<0.500	<0.500	0.636	<1.00	-
	03/29/04	<0.500	<0.500	<0.500	<1.00	-
	03/09/05	<1.00	<1.00	<1.00	<2.00	2.17
	09/22/05	<1.00	<1.00	<1.00	<3.00	1.66
B-33	03/20/03	ND	ND	ND	ND	-
	09/29/03	0.558	0.735	<0.500	1.35	-
	03/30/04	<0.500	<0.500	<0.500	<1.00	-
	03/09/05	<1.00	<1.00	<1.00	<2.00	<1.00
	06/22/05	<1.00	<1.00	<1.00	<3.00	<1.00
	09/22/05	<1.00	<1.00	<1.00	<3.00	<1.00
CR-1	09/20/01	ND	ND	ND	ND	-
	03/21/02	ND	ND	ND	ND	-
	09/24/02	ND	ND	ND	ND	-
	03/20/03	ND	ND	ND	ND	-
	09/29/03	<0.500	<0.500	<0.500	<1.00	-
	03/30/04	25.8	1.13	120	9.06	-
	10/06/04	<0.500	<0.500	<0.500	<1.00	-
	03/08/05	<1.00	<1.00	<1.00	<2.00	<1.00
	09/21/05	<1.00	<1.00	<1.00	<3.00	<1.00
CR-3	03/09/05	<1.00	<1.00	<1.00	<2.00	<1.00
	06/22/05	<1.00	<1.00	<1.00	<3.00	<1.00
	09/22/05	<1.00	<1.00	<1.00	<3.00	<1.00
CR-8	02/18/00	0.314	0.673	3.82	6.55	-
	05/23/00	ND	ND	ND	ND	-
	08/25/00	ND	ND	ND	ND	-
	11/30/00	ND	ND	ND	ND	-
	02/22/01	ND	ND	ND	ND	-
	05/16/01	ND	0.841	0.519	1.77	-

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
CR-9	02/18/00	ND	ND	ND	ND	-
	05/23/00	ND	ND	ND	ND	-
	08/25/00	ND	ND	ND	ND	-
dup	08/25/00	ND	ND	ND	ND	-
	11/30/00	ND	ND	ND	ND	-
dup	11/30/00	ND	ND	ND	ND	-
	02/22/01	ND	ND	ND	ND	-
	05/16/01	ND	ND	ND	ND	-
dup	05/16/01	ND	ND	ND	ND	-
CR-11	02/18/00	81	4.95	4.41	6.17	-
	05/23/00	40.2	1.95	2.54	ND	-
	08/25/00	107	5.30	22.1	8.41	-
	11/30/00	NS/S	NS/S	NS/S	NS/S	-
	02/22/01	84.2	3.24	2.47	6.25	-
	05/16/01	119	5.85	4.43	14.3	-
CR-26	03/09/05	<1.00	<1.00	<1.00	<2.00	<1.00
	06/22/05	<1.00	<1.00	<1.00	<3.00	<1.00
	09/22/05	<1.00	<1.00	<1.00	<3.00	<1.00
TB-LB	02/22/01	ND	ND	ND	ND	-
	05/16/01	ND	ND	ND	ND	-
	09/19/01	ND	ND	ND	ND	-
	03/21/02	1.16	3.9	ND	1.95	-
	09/24/02	ND	ND	ND	ND	-
	03/20/03	ND	ND	ND	ND	-
	09/29/03	<0.500	<0.500	<0.500	<1.00	-

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
Kinder Morgan						
MW-8	02/16/00	9.79	2.51	7.97	12.1	-
	05/31/00	16.6	3.85	3.05	10.2	-
	08/24/00	26.0	5.78	28.2	24.0	-
	12/01/00	17.8	4.59	3.19	11.1	-
	02/22/01	11.4	ND	2.79	8.88	-
	05/16/01	15.1	1.18	2.79	6.4	-
	09/21/01	13.0	1.08	9.54	7.66	-
	03/14/02	1.95	1.09	0.618	2.22	-
dup	03/14/02	1.96	0.955	ND	1.93	-
	09/27/02	4.85	2.30	0.819	4.25	-
	03/18/03	3.12	ND	ND	2.24	-
dup	03/18/03	2.36	ND	ND	2.62	-
	09/24/03	5.00	1.20	0.759	7.05	-
	03/30/04	<0.500	<0.500	<0.500	<1.00	-
	09/27/04	3.03	0.576	<0.500	1.80	-
dup	09/27/04	3.25	<0.500	<0.500	1.75	-
	03/29/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00
MW-9	03/29/05	-	-	-	-	<2.00
	09/21/05	-	-	-	-	<2.00
MW-10	02/16/00	6.6	2.33	0.996	3.33	-
	05/31/00	6.78	0.794	ND	1.02	-
	08/24/00	ND	ND	ND	ND	-
	12/01/00	5.40	1.32	ND	1.78	-
	02/22/01	1.15	ND	1.15	1.98	-
	05/16/01	11.6	0.894	1.42	2.92	-
	03/29/05	-	-	-	-	<2.00
	09/21/05	-	-	-	-	<2.00
MW-11	02/16/00	5260	2360	2580	11200	-
	05/31/00	4120	1460	2720	9290	-
	08/24/00	2490	787	2020	5960	-
	12/01/00	2330	755	1610	5420	-
	02/22/01	3520	2230	1230	8130	-
	05/16/01	3800	2510	1290	8980	-
	03/29/05	-	-	-	-	<100
1,2,4=1590	09/21/05	-	-	-	-	<40.0
MW-13	02/16/00	ND	0.392	ND	0.903	-
	05/31/00	ND	ND	ND	ND	-
	08/24/00	ND	ND	ND	ND	-
	12/01/00	ND	ND	ND	ND	-
dup	12/01/00	ND	ND	ND	ND	-
	02/22/01	ND	ND	ND	ND	-
	05/16/01	ND	ND	ND	ND	-

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
MW-15	02/17/00	2.89	0.493	0.442	1.15	-
	05/30/00	ND	ND	ND	ND	-
	08/24/00	ND	ND	ND	ND	-
	12/01/00	ND	ND	ND	ND	-
	02/22/01	ND	ND	ND	ND	-
	05/16/01	ND	ND	ND	ND	-
MW-20	03/29/05	-	-	-	-	<2.00
	09/21/05	-	-	-	-	<2.00
MW-21	02/17/00	ND	1.21	0.997	3.36	-
	05/30/00	ND	ND	ND	ND	-
	08/23/00	ND	ND	ND	ND	-
	12/01/00	ND	ND	ND	ND	-
	02/22/01	ND	ND	ND	ND	-
	05/16/01	ND	ND	ND	ND	-
MW-22	02/17/00	2060	2060	4720	13200	-
	05/30/00	2140	1560	4240	9150	-
	08/23/00	1670	1500	3670	7720	-
	12/01/00	1450	1330	3960	8280	-
	02/21/01	NS/S	NS/S	NS/S	NS/S	-
	05/16/01	NS/F	NS/F	NS/F	NS/F	-
MW-23	02/17/00	NS/F	NS/F	NS/F	NS/F	-
	05/30/00	NS/F	NS/F	NS/F	NS/F	-
	08/23/00	NS/F	NS/F	NS/F	NS/F	-
	12/01/00	NS/F	NS/F	NS/F	NS/F	-
	02/22/01	76.8	102	12.6	90.4	-
	05/16/01	NS/S	NS/S	NS/S	NS/S	-
MW-25	09/21/01	ND	ND	ND	ND	-
	03/14/02	ND	ND	ND	ND	-
	09/27/02	ND	ND	ND	ND	-
	03/18/03	ND	ND	ND	ND	-
	09/29/03	<0.500	<0.500	<0.500	<1.00	-
	03/30/04	<0.500	<0.500	<0.500	<1.00	-
	09/27/04	<0.500	<0.500	<0.500	<1.00	-
	03/28/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
MW-26	02/17/00	1.31	4.01	18.6	26.2	-
dup	02/17/00	1.04	3.11	11.9	17.1	-
	05/30/00	ND	7.11	7.4	9.62	-
	08/23/00	ND	3.67	10.8	3.54	-
dup	08/23/00	ND	4.81	15.9	6.20	-
	12/01/00	3.43	29.8	7.28	15.6	-
	02/21/01	NS/S	NS/S	NS/S	NS/S	-
	05/17/01	15.1	8.76	10.1	10.6	-
	09/27/02	7.66	7.24	5.90	6.44	-
	03/18/03	9.11	ND	1.57	4.80	-
	09/24/03	2.18	<0.500	2.90	12.7	-
	03/30/04	<0.500	<0.500	<0.500	1.67	-
	09/27/04	2.41	1.42	4.64	7.57	-
	03/28/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00
MW-28	02/16/00	1.29	3.13	8.26	14.7	-
	05/30/00	NS/S	NS/S	NS/S	NS/S	-
	08/23/00	NS/S	NS/S	NS/S	NS/S	-
	12/01/00	NS/S	NS/S	NS/S	NS/S	-
	02/21/01	NS/F	NS/F	NS/F	NS/F	-
	05/16/01	NS/S	NS/S	NS/S	NS/S	-
MW-29	03/28/05	-	-	-	-	<2.00
	09/21/05	-	-	-	-	<2.00
MW-31	02/16/00	0.579	0.629	0.481	1.51	-
	05/30/00	ND	ND	ND	ND	-
	08/23/00	ND	ND	ND	ND	-
	12/01/00	ND	ND	ND	ND	-
	02/22/01	ND	ND	ND	ND	-
	05/17/01	ND	ND	ND	ND	-
MW-32	02/16/00	ND	0.608	0.379	1.31	-
	05/30/00	ND	ND	ND	ND	-
	08/23/00	ND	ND	ND	ND	-
	12/01/00	ND	ND	ND	ND	-
	02/22/01	ND	ND	ND	ND	-
	05/16/01	ND	ND	ND	ND	-

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
MW-33	02/16/00	ND	0.718	0.589	1.21	-
	05/30/00	ND	ND	ND	ND	-
	08/24/00	ND	ND	ND	ND	-
	11/30/00	ND	ND	ND	ND	-
	02/22/01	ND	ND	ND	ND	-
dup	02/22/01	ND	ND	ND	ND	-
	05/16/01	ND	ND	ND	ND	-
	09/21/01	ND	ND	ND	ND	-
	03/14/02	ND	ND	ND	ND	-
	09/27/02	ND	ND	ND	ND	-
	03/18/03	ND	ND	ND	ND	-
	09/24/03	<0.500	<0.500	<0.500	<1.00	-
	03/29/04	<0.500	<0.500	<0.500	<1.00	-
	09/27/04	<0.500	<0.500	<0.500	<1.00	-
	03/29/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00
dup	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00
MW-34	09/21/01	ND	ND	ND	ND	-
	03/14/02	ND	ND	ND	ND	-
	09/27/02	ND	ND	ND	ND	-
	03/18/03	ND	ND	ND	ND	-
	09/24/03	<0.500	<0.500	<0.500	<1.00	-
	03/29/04	<0.500	<0.500	<0.500	<1.00	-
	09/27/04	<0.500	<0.500	<0.500	<1.00	-
	03/29/05	<0.200	<0.500	<0.500	<1.00	<2.00
dup	03/29/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00
MW-36	02/16/00	0.322	2.36	1.32	6.29	-
	05/31/00	ND	ND	ND	ND	-
	08/24/00	ND	ND	ND	ND	-
	11/30/00	ND	ND	0.548	ND	-
	02/21/01	ND	ND	ND	ND	-
	05/16/01	0.882	ND	ND	ND	-
	09/21/01	ND	ND	ND	ND	-
	03/13/02	ND	ND	ND	ND	-
	03/18/03	ND	ND	ND	ND	-
	09/24/03	0.727	<0.500	<0.500	1.38	-
	03/29/04	<0.500	<0.500	<0.500	<1.00	-
	09/27/04	<0.500	<0.500	<0.500	<1.00	-
	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
MW-37	02/16/00	1.06	0.456	0.492	1.78	-
	05/30/00	33	0.957	ND	2.1	-
dup	05/30/00	31.4	0.775	0.786	1.72	-
	08/24/00	40.9	0.731	ND	1.44	-
	11/30/00	10.7	0.594	ND	ND	-
	02/21/01	ND	ND	ND	ND	-
	05/16/01	0.691	ND	0.740	1.25	-
	09/21/01	ND	ND	1.04	1.31	-
	09/27/02	ND	ND	ND	ND	-
dup	09/27/02	ND	ND	ND	ND	-
	03/18/03	ND	ND	ND	ND	-
	09/24/03	NS/F	NS/F	NS/F	NS/F	-
	09/27/04	<0.500	<0.500	<0.500	<1.00	-
	03/29/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00
MW-38	03/29/05	-	-	-	-	10.2
	09/21/05	-	-	-	-	22.0
MW-39	09/27/04	<0.500	<0.500	<0.500	7.45	-
	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00
MW-40	02/16/00	ND	0.424	0.492	0.759	-
	05/30/00	ND	ND	ND	ND	-
	08/24/00	ND	ND	ND	ND	-
	11/30/00	ND	ND	ND	ND	-
	02/21/01	ND	ND	ND	ND	-
	05/16/01	ND	ND	0.505	ND	-
	09/21/01	ND	ND	ND	ND	-
	03/13/02	ND	ND	ND	ND	-
	09/27/02	ND	ND	ND	ND	-
	03/18/03	ND	ND	ND	ND	-
	09/24/03	<0.500	<0.500	<0.500	<1.00	-
dup	09/24/03	<0.500	<0.500	<0.500	<1.00	-
	03/29/04	<0.500	<0.500	<0.500	<1.00	-
dup	03/29/04	<0.500	<0.500	<0.500	<1.00	-
	09/27/04	<0.500	<0.500	<0.500	<1.00	
	03/29/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/21/05	<0.200	<0.500	<0.500	<1.00	<2.00

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
CONOCOPHILLIPS						
B-2	03/28/05	-	-	-	-	3.47
dup	03/28/05	-	-	-	-	3.52
	09/20/05	-	-	-	-	4.30
B-3	03/28/05	-	-	-	-	10.7
	09/20/05	-	-	-	-	8.26
B-4	05/26/00	82.3	12.7	4	14.8	-
dup	05/26/00	74.8	10.7	2.77	10.3	-
	08/23/00	NS/F	NS/F	NS/F	NS/F	-
	11/29/00	7.04	5.81	2.10	8.09	-
	02/20/01	NS/F	NS/F	NS/F	NS/F	-
	05/17/01	NS/F	NS/F	NS/F	NS/F	-
	09/26/02	16.5	8.36	5.14	27.6	-
	09/25/03	48.1	7.55	6.02	17.9	-
	03/28/05	-	-	-	-	<2.00
B-6	03/28/05	-	-	-	-	<2.00
	09/20/05	-	-	-	-	<2.00
B-16	03/28/05	-	-	-	-	2.11
	09/20/05	-	-	-	-	<2.00
B-17	02/17/00	274	24	15.4	37.7	-
	05/26/00	434	44.4	49.9	158	-
	08/28/00	372	21.1	10.8	15.4	-
	11/29/00	293	18.2	9.89	13.6	-
	02/23/01	258	11.8	21.3	21.6	-
dup	02/23/01	238	10.2	19.6	17.3	-
	05/17/01	165	6.82	17.0	15.7	-
dup	05/17/01	173	7.14	17.2	15.6	-
B-18	02/17/00	ND	1.04	3.46	6.13	-
	05/26/00	ND	ND	ND	ND	-
	08/28/00	ND	ND	ND	ND	-
	11/29/00	ND	ND	ND	ND	-
	02/23/01	ND	ND	ND	ND	-
	05/17/01	ND	0.502	ND	ND	-
B-22	02/17/00	NS/S	NS/S	NS/S	NS/S	-
	05/26/00	0.508	0.522	0.543	2.17	-
	08/28/00	NS/F	NS/F	NS/F	NS/F	-
	11/29/00	NS/S	NS/S	NS/S	NS/S	-
	02/20/01	NS/F	NS/F	NS/F	NS/F	-
	05/17/01	NS/F	NS/F	NS/F	NS/F	-
B-27	03/28/05	-	-	-	-	2.16

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
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Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
B-35	02/17/00	31.6	13.5	11	27.4	-
	05/26/00	194	16.3	12.5	39.8	-
	08/28/00	287	15.3	8.42	ND	-
	11/29/00	384	17.0	12.0	30.2	-
	02/23/01	45.6	4.87	12.4	20.5	-
	05/17/01	15.2	4.32	5.62	7.99	-
	09/20/01	58.0	3.31	9.78	15.9	-
	03/14/02	34.1	15.8	2.41	11.4	-
	09/26/02	95.8	11.3	14.0	26.3	-
	03/18/03	8.11	6.39	1.42	3.20	-
	09/25/03	66.7	7.41	3.74	19.2	-
	03/30/04	15.1	1.39	6.49	13.0	-
	09/28/04	93.4	11.7	<5.00	19.7	-
	03/28/05	3.71	6.72	0.660	10.5	7.20
	09/20/05	82.0	10.4	1.79	12.2	6.48
B-36	02/17/00	0.925	1.16	0.762	3.16	-
	05/26/00	ND	0.82	0.502	ND	-
	08/28/00	2.08	2.54	0.693	2.53	-
	11/29/00	1.14	2.53	1.02	2.78	-
	02/23/01	ND	0.512	1.15	1.44	-
	05/17/01	ND	0.545	0.819	1.8	-
	09/20/01	ND	0.609	0.761	1.50	-
dup	09/20/01	ND	0.547	0.820	1.51	-
	03/14/02	ND	ND	ND	ND	-
	09/26/02	1.18	1.33	0.635	2.48	-
	03/18/03	ND	ND	ND	ND	-
	09/25/03	0.940	1.10	0.954	2.90	-
	03/30/04	<0.500	<0.500	<0.500	1.23	-
	09/28/04	0.614	0.679	<0.500	<1.00	-
	03/28/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/20/05	0.390	0.930	<0.500	<1.00	2.63

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B-37	02/17/00	ND	0.517	0.63	1.18	-
dup	02/17/00	0.342	1.06	0.795	1.97	-
	05/26/00	ND	ND	ND	ND	-
	08/28/00	ND	ND	ND	ND	-
	11/29/00	ND	ND	ND	ND	-
	02/23/01	ND	ND	ND	ND	-
	05/17/01	ND	ND	ND	ND	-
	03/14/02	ND	ND	ND	ND	-
	09/26/02	ND	ND	ND	ND	-
	03/18/03	ND	ND	ND	ND	-
dup	03/18/03	ND	ND	ND	ND	-
	09/25/03	<0.500	<0.500	0.639	1.30	-
dup	09/25/03	<0.500	<0.500	0.628	1.24	-
	03/31/04	<0.500	<0.500	<0.500	<1.00	-
	09/28/04	<0.500	<0.500	<0.500	<1.00	-
	03/28/05	<0.200	<0.500	<0.500	<1.00	3.98
	09/20/05	<0.200	<0.500	<0.500	<1.00	6.14
dup	09/20/05	-	-	-	-	5.82
B-40	02/17/00	NS/S	NS/S	NS/S	NS/S	-
	05/26/00	NS/F	NS/F	NS/F	NS/F	-
	08/28/00	NS/F	NS/F	NS/F	NS/F	-
	11/29/00	NS/F	NS/F	NS/F	NS/F	-
	02/20/01	NS/F	NS/F	NS/F	NS/F	-
	05/17/01	NS/F	NS/F	NS/F	NS/F	-
U-2	02/17/00	3.13	1.93	3.59	3.43	-
	05/26/00	0.885	1.45	ND	ND	-
	08/28/00	ND	ND	0.604	ND	-
	11/29/00	ND	ND	ND	ND	-
	02/23/01	ND	ND	ND	ND	-
	05/17/01	ND	ND	ND	ND	-
	09/20/01	ND	ND	ND	ND	-
	03/14/02	0.986	1.60	0.905	ND	-
	09/26/02	ND	ND	ND	ND	-
	03/18/03	ND	ND	ND	ND	-
	09/25/03	<0.500	<0.500	<0.500	<1.00	-
	03/31/04	2.60	<0.500	0.820	<1.00	-
	09/28/04	<0.500	<0.500	<0.500	<1.00	-
	03/28/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/20/05	<0.200	<0.500	<0.500	<1.00	<2.00
U-3	02/17/00	0.355	0.993	0.952	3.17	-
	05/26/00	1.5	0.954	1.01	2.39	-
	08/28/00	ND	ND	0.793	ND	-
	11/29/00	ND	ND	0.744	ND	-
dup	11/29/00	0.500	0.567	0.727	ND	-
	02/23/01	14.8	1.84	2.58	ND	-
	05/17/01	7.83	ND	0.620	1.16	-
	03/28/05	-	-	-	-	<2.00
	09/20/05	-	-	-	-	5.09

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Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
U-4	05/26/00	62.3	ND	ND	ND	-
	08/28/00	15.0	ND	1.76	ND	-
dup	08/28/00	14.3	0.509	2.99	1.04	-
	11/29/00	ND	ND	ND	ND	-
	02/23/01	0.844	6.84	1.07	11.2	-
	05/17/01	NS/F	NS/F	NS/F	NS/F	-
	09/26/02	0.760	0.552	1.07	2.99	-
dup	09/26/02	0.771	0.623	2.21	4.14	-
	03/28/05	-	-	-	-	5.62
U-5	02/17/00	3.86	0.654	0.501	2.54	-
	05/26/00	3.49	ND	ND	ND	-
	08/28/00	ND	ND	ND	ND	-
	11/29/00	ND	ND	ND	ND	-
	02/23/01	1.56	1.16	ND	ND	-
	05/17/01	NS/F	NS/F	NS/F	NS/F	-
	03/18/03	2.49	2.21	5.77	33.7	-
	09/25/03	2.39	1.71	7.89	7.66	-
	03/31/04	1.53	<0.500	<0.500	<1.00	-
	09/28/04	<0.500	0.806	<0.500	1.80	-
	03/28/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/20/05	<0.200	<0.500	<0.500	<1.00	<2.00
U-10	03/18/03	ND	ND	ND	ND	-
	09/25/03	<0.500	<0.500	<0.500	<1.00	-
	03/30/04	0.680	2.08	<0.500	4.01	-
	09/28/04	<0.500	<0.500	<0.500	<1.00	-
	03/28/05	<0.200	<0.500	<0.500	<1.00	<2.00
	09/20/05	<0.200	<0.500	<0.500	<1.00	<2.00
U-11	03/18/03	ND	ND	ND	ND	-
	09/25/03	1.74	1.37	1.04	1.74	-
	03/30/04	<0.500	<0.500	<0.500	<1.00	-
dup	03/30/04	0.650	1.93	<0.500	3.26	-
	09/28/04	<0.500	<0.500	<0.500	<1.00	-
	03/28/05	0.360	0.830	<0.500	1.09	<2.00
	09/20/05	0.480	1.10	<0.500	1.17	<2.00
U-12	03/18/03	5.30	2.12	0.642	3.72	-
	09/25/03	<0.500	0.563	<0.500	2.00	-
	03/30/04	<0.500	<0.500	<0.500	<1.00	-
	09/28/04	1.03	0.978	0.719	2.58	-
	03/28/05	<0.200	<0.500	<0.500	<1.00	4.21
	09/20/05	<0.200	<0.500	<0.500	<1.00	4.54

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - BTEX COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well/Sample Identification	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)
P-1	03/17/03	ND	ND	ND	ND	-
	03/31/04	<0.500	<0.500	<0.500	<1.00	-
	09/28/04	<0.500	<0.500	<0.500	<1.00	-
	03/28/05	-	-	-	-	<2.00
P-2	03/17/03	ND	0.534	ND	ND	-
	09/25/03	<0.500	<0.500	0.823	<1.00	-
	03/30/04	0.540	<0.500	<0.500	<1.00	-
	09/28/04	<0.500	<0.500	<0.500	<1.00	-
	03/28/05	<0.200	<0.500	<0.500	<1.00	2.84
	09/20/05	<0.200	<0.500	<0.500	<1.00	4.48
TB-LB	08/24/00	ND	ND	ND	ND	-
	08/25/00	ND	ND	ND	ND	-
	08/28/00	ND	ND	ND	ND	-
	11/29/00	ND	ND	ND	ND	-
	11/30/00	ND	ND	ND	ND	-
	12/01/00	ND	ND	ND	ND	-
	02/23/01	ND	ND	ND	ND	-

Notes:
2/00 and 5/00 data from IT Corporation
8/00, 11/00, 2/01 and 5/01 data from KHM Environmental Management, Inc.
NS/F = Not sampled floating product present
NS/S = Not sampled sheen present
µg/l = Micrograms per Liter
ND = Not detected at or below detection limit
BTEX analysis by USEPA Method 8021B
dup* = duplicate for B-30 submitted as blind duplicate labeled as B-50
dup**= duplicate for B-30 submitted as blind duplicate labled as B-31
dup*** = duplicate for B-30 submitted as blind duplicate labeled as B-99
TB-LB = trip blank

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
CHEVRON																	
B-7	02/18/00	5.22	ND	ND	ND	ND	ND	ND	ND	0.528	ND	7.26	16.3	ND	ND	17.6	0.962
	05/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17.2	ND	ND	13.6	ND
dup	05/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20.9	ND	ND	15.8	ND
	08/25/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	11/30/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	02/22/01	1.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.64	ND	ND	2.82	ND
	05/17/01	0.934	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.59	ND	ND	0.564	ND
	03/20/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/29/03	2.12	ND	0.287	ND	ND	ND	ND	ND	ND	ND	ND	7.74	ND	ND	6.11	ND
	03/30/04	1.95	<0.200	0.436	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	7.73	<0.200	<1.60	5.95	<0.200
	03/09/05	2.42	<0.800	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.800	<0.400	9.07	<0.400	<1.40	8.82	<0.400
dup	03/09/05	2.66	<1.00	<0.250	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	9.74	<0.100	<2.00	7.30	0.154
	09/22/05	2.65	<0.990	<0.990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.990	10.4	<0.0990	<1.98	8.16	0.177
B-9	02/18/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.43	ND	ND	1.3	ND
	08/25/00	2.60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.40	ND	ND	1.33	ND
	11/30/00	0.700	ND	0.600	0.460	0.240	0.400	ND	ND	ND	ND	ND	6.70	ND	0.780	0.200	0.160
	02/22/01	1.78	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.20	ND	ND	0.528	ND
	05/17/01	1.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.60	ND	ND	0.386	ND
	09/19/01	1.08	0.240	ND	ND	ND	ND	0.120	ND	ND	0.100	ND	4.00	0.100	0.260	0.780	0.100
	03/21/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/02	1.40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.09	ND	ND	0.358	ND
	03/20/03	0.242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.508	ND	ND	ND	ND
	09/30/03	1.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.38	ND	ND	0.265	ND
	03/30/04	0.964	<0.300	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	3.10	<0.200	<1.50	0.951	0.234
	03/08/05	0.910	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	2.78	<0.100	<0.700	0.679	<0.100
	06/22/05	0.887	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	3.05	<0.100	<0.500	0.873	<0.100
	09/21/05	0.832	<0.198	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.0990	2.93	<0.0990	<0.891	0.702	<0.0990

COPPOR00009024

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
B-10	02/18/00	3.58	ND	ND	0.0670	ND	ND	ND	ND	0.14	ND	0.632	11.8	ND	ND	12.9	0.513
dup	02/18/00	4.83	ND	2.9	5.47	ND	0.66	ND	ND	0.689	ND	1.95	15.9	ND	ND	23.4	1.85
	05/23/00	ND	ND	ND	ND	ND	ND	ND	ND	0.101	ND	ND	11.9	ND	ND	12.7	0.818
	08/25/00	1.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.18	ND	ND	2.91	ND
	11/30/00	1.42	ND	0.320	ND	ND	ND	ND	ND	ND	ND	ND	2.24	ND	0.980	0.160	0.120
	02/23/01	1.01	ND	0.252	ND	ND	ND	ND	ND	ND	ND	0.234	1.25	ND	ND	1.33	0.225
	05/17/01	0.635	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.976	ND	ND	0.521	ND
	09/19/01	0.420	ND	ND	ND	ND	ND	0.100	ND	ND	ND	0.200	0.300	0.100	0.360	ND	0.240
	03/21/02	ND	ND	0.188	ND	ND	ND	ND	ND	ND	ND	0.190	1.23	ND	ND	1.23	0.220
	09/24/02	1.04	0.132	1.49	ND	ND	0.170	ND	0.189	ND	ND	ND	1.32	ND	0.717	1.34	0.245
	03/20/03	1.05	ND	0.190	ND	ND	ND	ND	ND	ND	ND	0.194	1.30	ND	ND	1.27	0.236
	09/29/03	1.09	ND	0.234	ND	ND	ND	ND	ND	ND	ND	0.463	1.91	ND	ND	2.11	0.436
	03/30/04	1.65	<0.200	0.671	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.588	5.22	<0.200	<2.40	5.67	0.891
	03/08/05	1.41	<0.300	0.638	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.400	0.814	4.46	<0.200	<1.40	2.76	0.829
	09/21/05	1.27	<0.990	<0.990	<0.990	<0.990	<0.990	<0.990	<0.990	<0.990	<1.98	<0.990	2.22	<0.990	<1.98	1.89	<0.990
B-11	02/18/00	1.75	ND	ND	ND	ND	0.547	ND	ND	ND	ND	ND	2.15	ND	ND	1.53	0.764
	05/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.891	0.169
	08/25/00	1.35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.47	ND	ND	1.76	ND
	11/30/00	2.10	0.400	1.02	0.400	0.180	0.180	ND	ND	ND	ND	ND	2.88	ND	1.20	0.260	ND
	02/22/01	ND	ND	0.106	ND	ND	ND	ND	ND	ND	ND	ND	1.12	ND	ND	0.815	ND
	05/17/01	0.478	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.729	ND	ND	0.358	ND
	03/30/04	0.931	<0.300	<0.300	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	1.06	<0.200	<3.50	0.604	0.418
	03/09/05	0.664	<0.150	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	1.15	<0.100	<1.40	0.623	0.172
	06/22/05	0.685	<0.150	117	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	0.111	1.04	<0.100	<1.00	0.471	0.181
	09/21/05	0.854	<0.149	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.0990	1.36	<0.0990	<1.58	0.743	0.124

COPPOR00009025

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
B-14	02/18/00	1.08	ND	0.222	0.01	ND	ND	ND	ND	0.104	ND	0.561	1.84	ND	7	1.9	0.582
	05/23/00	ND	ND	1.85	ND	ND	ND	ND	ND	ND	ND	0.467	ND	ND	ND	1.36	0.621
	08/25/00	1.16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.75	ND	24.5	2.06	ND
	11/30/00	0.920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.60	ND	0.980	ND	ND
	02/22/01	ND	ND	0.187	ND	ND	ND	ND	ND	ND	ND	0.390	1.10	ND	ND	1.16	0.489
	05/17/01	0.738	ND	0.106	ND	ND	ND	ND	ND	ND	ND	0.341	0.966	ND	1.72	0.892	0.338
B-19	03/20/03	1.69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.440	ND	ND	6.62	ND
	09/29/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.68	ND	ND	13.2	ND
	03/29/04	2.12	<1.00	<1.00	<1.00	0.0213	<0.0200	<0.0200	<0.0200	<1.00	<0.0200	<1.00	7.01	<0.0200	<3.50	11.9	<1.00
	03/09/05	2.40	<1.00	0.973	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	8.85	<0.500	<3.00	16.0	0.537
	06/22/05	2.96	<2.00	0.849	<0.100	<0.100	<0.100	<0.100	<0.100	0.141	<0.200	<0.300	9.59	<0.100	<2.50	15.8	0.277
	09/22/05	<1.34	<0.396	<0.297	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.149	4.14	<0.0990	<1.98	6.40	0.209
B-20	03/20/03	0.322	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.577	ND	ND	ND	ND
	09/29/03	1.52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.86	ND	ND	4.27	ND
	03/30/04	1.07	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	3.81	<0.200	<1.50	0.988	<0.200
	03/09/05	1.29	<0.400	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.400	<0.200	4.58	<0.200	<0.800	3.03	<0.200
	09/22/05	<0.891	<0.248	<0.347	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.0990	3.13	<0.0990	<0.693	0.812	<0.0990
B-21	09/19/01	3.40	0.200	1.78	0.360	0.360	0.320	0.400	0.300	0.540	0.160	1.52	16.1	0.320	1.18	16.8	1.54
	03/21/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.38	ND	ND	3.84	ND
	09/24/02	2.30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.66	ND	ND	4.15	ND
	03/20/03	2.71	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.0	ND	ND	7.00	ND
	09/29/03	3.18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.94	ND	ND	8.86	0.394
	03/29/04	2.52	<0.500	<0.500	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.0396	<0.0200	<0.500	8.78	<0.0200	<3.00	7.58	0.259
	03/08/05	2.79	<0.800	<0.600	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.800	<0.400	10.5	<0.400	<2.20	10.8	0.430
	09/22/05	2.26	<0.990	<0.990	<0.990	<0.990	<0.990	<0.990	<0.990	<0.990	<1.98	<0.990	8.41	<0.990	<1.98	5.22	<0.990
B-26	03/30/04	0.778	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.299	0.649	<0.200	27.5	1.08	0.447
	03/09/05	0.778	<0.100	<0.100	<0.100	<0.100	0.140	<0.100	<0.100	<0.100	<0.200	0.236	0.421	<0.100	5.37	0.912	0.371
	06/22/05	0.651	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.400	0.264	0.588	<0.200	10.9	0.639	0.293
	09/22/05	0.841	<0.149	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	0.161	0.440	<0.0990	7.80	0.701	0.224

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
B-28	02/18/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.09	ND	ND
	05/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/25/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/23/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/17/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/20/01	ND	ND	ND	ND	ND	ND	0.100	ND	ND	ND	ND	ND	0.100	ND	ND	ND
	03/21/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/20/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.767	ND	ND
	03/29/04	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0400	<0.0200	<0.100	<0.0400	<0.0200
	03/09/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	1.18	<0.100	<0.100
	09/21/05	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.0990	<0.0990	<0.0990	0.395	<0.0990	<0.0990
B-29	09/20/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/21/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/20/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/30/03	ND	ND	ND	ND	0.121	0.136	0.157	0.114	0.111	ND	0.132	ND	0.123	ND	ND	0.138
	03/29/04	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0300	<0.0200	<0.0600	<0.0200	<0.0200
	03/09/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	09/21/05	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
B-30	02/18/00	0.121	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.113	0.177	ND	ND	0.175	0.202
	05/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.105	ND
	08/25/00	0.385	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.530	ND	ND	0.423	ND
	11/30/00	0.280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.440	ND	0.280	0.300	0.100
	02/23/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup**	02/23/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/17/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.116	ND	ND	0.108	ND
	09/20/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.100	ND	0.100	ND	ND
dup	09/20/01	ND	ND	ND	ND	ND	ND	0.100	ND	ND	0.100	ND	ND	0.120	0.100	ND	ND
	03/21/02	0.162	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.312	ND	ND	0.157	0.114
dup	03/21/02	0.162	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.314	ND	ND	0.164	0.123
	09/24/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/20/03	0.142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.133	ND	ND	0.132	ND
dup*	03/20/03	0.108	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.126	ND	ND	0.105	ND
	09/30/03	ND	ND	ND	0.582	0.585	0.421	0.323	0.443	0.531	ND	0.827	0.349	0.272	ND	0.451	1.51
dup***	09/30/03	ND	ND	ND	0.473	0.416	0.410	0.291	0.357	0.450	ND	0.728	ND	0.248	ND	0.432	1.26
	03/29/04	0.119	<0.0200	0.0449	0.0576	0.0507	0.0420	0.0344	0.0393	0.0633	<0.0200	0.123	0.173	0.0295	<0.320	0.170	0.240
dup***	03/29/04	<0.280	<0.800	0.0485	0.0605	0.0596	0.0452	0.0417	0.0438	0.0637	<0.0200	0.112	0.216	0.0361	<0.640	0.170	0.244
	03/09/05	0.242	<0.200	<0.200	0.223	0.209	<0.200	<0.200	<0.200	0.217	<0.400	0.400	<0.300	<0.200	<0.400	0.284	0.637
	09/21/05	0.103	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	0.198	<0.0990	<0.0990	<0.0990	<0.297	<0.0990	<0.0990
dup****	09/21/05	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	0.198	<0.0990	<0.0990	<0.0990	<0.248	<0.0990	<0.0990
B-32	03/20/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.161	ND	ND	ND	0.108
	09/29/03	ND	ND	ND	0.114	0.112	0.114	ND	0.114	0.188	ND	0.557	1.06	ND	ND	ND	0.498
	03/09/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	09/22/05	<1.00	<1.00	<0.150	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	0.171	<1.00	<1.00	<0.300	<0.150	0.256
B-33	03/20/03	0.589	ND	ND	ND	ND	0.385	0.370	ND	0.306	ND	0.449	2.01	0.300	ND	0.914	0.458
	09/30/03	11.0	ND	3.30	8.28	19.2	44.0	37.5	26.4	34.1	7.35	20.2	33.3	30.6	ND	39.7	29.5
	03/30/04	3.03	<2.00	2.42	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	12.5	<2.00	<4.50	13.6	3.28
	03/09/05	2.42	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	9.36	<1.00	<2.00	10.6	1.07
	06/22/05	3.00	<1.50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	10.0	<1.00	<2.00	10.2	<1.00
	09/22/05	2.56	<0.990	<1.49	<0.990	<0.990	<0.990	<0.990	<0.990	<0.990	<1.98	<0.990	8.31	<0.990	<1.98	6.82	<0.990

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
CR-1	09/20/01	0.520	ND	ND	ND	0.120	0.100	0.140	0.100	ND	0.120	ND	1.94	0.140	0.300	0.160	ND
	03/21/02	0.216	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.789	ND	ND	0.194	ND
	09/24/02	1.40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.32	ND	0.887	0.660	ND
	03/20/03	0.758	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.53	ND	ND	0.748	ND
	09/30/03	1.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.02	ND	ND	1.11	ND
	03/30/04	0.473	<0.150	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	1.59	<0.100	<0.650	0.322	<0.100
	03/08/05	0.825	<0.150	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	3.18	<0.100	<0.850	0.766	<0.100
	09/21/05	1.22	<0.297	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.0990	4.63	<0.0990	<1.63	1.52	<0.0990
CR-3	03/09/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	06/22/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	09/22/05	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990
CR-8	02/18/00	0.749	ND	0.264	0.981	2.47	1.6	2.92	1.3	1.28	3.42	1.34	ND	1.96	ND	0.125	1.97
	05/23/00	ND	ND	0.223	0.232	0.61	0.46	0.981	0.331	0.326	ND	0.27	ND	0.613	ND	ND	0.458
	08/25/00	ND	ND	ND	0.313	0.666	0.445	0.755	0.455	0.434	ND	0.674	ND	ND	ND	ND	0.913
	11/30/00	ND	ND	ND	ND	0.120	ND	0.160	ND	ND	ND	ND	ND	0.100	ND	ND	0.180
	02/22/01	ND	0.284	0.105	0.536	1.25	0.970	1.46	0.628	0.923	ND	0.749	0.103	0.960	ND	0.108	1.41
	05/16/01	ND	ND	ND	ND	0.389	0.301	0.459	ND	0.229	ND	0.371	ND	0.326	ND	ND	0.472
CR-9	02/18/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/23/00	ND	ND	0.115	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/25/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup	08/25/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/30/00	ND	ND	ND	ND	ND	ND	0.160	0.120	ND	ND	ND	ND	0.120	ND	ND	0.100
dup	11/30/00	ND	ND	ND	0.140	0.260	0.260	0.400	0.300	0.200	ND	0.160	ND	0.320	ND	ND	0.240
	02/22/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup	05/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
CR-11	02/18/00	0.333	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.982	ND	ND	0.327	ND
	05/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/25/00	0.402	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.20	ND	ND	0.450	ND
	11/30/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	02/22/01	0.208	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.457	ND	ND	ND	ND
	05/16/01	0.149	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.221	ND	ND	ND	ND
CR-26	03/09/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	0.215	<0.100	<0.200	0.165	<0.100
	06/22/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	0.264	<0.100	<0.100	<0.100	<0.100
	09/22/05	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.198	<0.0990	0.172	<0.0990	<0.0990	<0.0990	<0.0990

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
KINDER MORGAN																	
MW-8	02/16/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.63	ND	ND
	05/31/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/24/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.53	ND	ND
	12/01/00	0.240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.680	0.140	0.160
	02/22/01	0.221	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.104	ND
	05/16/01	0.149	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup	05/16/01	0.128	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/21/01	0.160	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.260	0.100	ND
	03/14/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup	03/14/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/27/02	0.148	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/03	0.181	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/30/04	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100
	09/27/04	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.350	<0.100	<0.100
dup	09/27/04	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.300	<0.100	<0.100
	03/29/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	09/21/05	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204
MW-10	02/16/00	0.113	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0759	0.0845
	05/31/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/24/00	0.119	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/01/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.180	ND	ND
	02/22/01	0.134	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/16/01	0.104	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-11	02/16/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.66	ND	410	ND	ND
	05/31/00	ND	ND	0.159	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	555	0.256	ND
	08/24/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	451	ND	ND
	12/01/00	0.200	0.120	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.300	ND	ND	0.160	ND
	02/22/01	0.247	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	411	0.184	ND
	05/16/01	0.117	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.185	ND	572	0.108	ND
MW-13	02/16/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/31/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/24/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/01/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup	12/01/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/22/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-15	02/17/00	0.118	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0743	ND	ND	ND	ND
	05/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/24/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/01/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/22/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-21	02/17/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/01/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/22/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-22	02/17/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.23	ND	356	1.09	ND
	05/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	345	ND	ND
	08/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	386	ND	ND
	12/01/00	0.300	0.160	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.500	ND	ND	0.400	ND
	02/21/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	05/16/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F

COPPOR00009032

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-23	02/17/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/30/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	08/23/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	12/01/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	02/22/01	2.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.12	ND	35.0	3.27	ND
	05/16/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
MW-25	09/21/01	0.240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.120	ND	ND
	03/14/02	0.172	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/27/02	0.194	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.101
	03/18/03	0.163	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/03	0.289	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/30/04	0.233	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.350	<0.100	<0.100
	09/27/04	0.384	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.500	<0.100	<0.100
	03/28/05	0.177	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.250	<0.100	<0.100
	09/21/05	0.205	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	0.0344	0.0401
MW-26	02/17/00	2.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.19	1.7	ND	2.69	2.27	1.05
dup	02/17/00	1.78	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.99	1.43	ND	2.24	1.74	0.714
	05/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.84	ND	ND	1.84	ND
	08/23/00	2.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.23	1.92	ND	ND	2.39	ND
dup	08/23/00	2.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.12	1.98	ND	ND	2.63	ND
	12/01/00	0.840	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.580	0.320	ND	0.380	ND	0.360
	02/21/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	05/17/01	1.86	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.40	ND	ND	1.88	ND
	09/18/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	03/13/02	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	09/27/02	1.61	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.510	1.43	ND	ND	2.36	ND
	03/18/03	1.07	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.641	0.974	ND	7.16	1.51	ND
	09/24/03	1.86	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.596	1.61	ND	ND	2.3	ND
	03/30/04	1.33	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.400	<0.200	1.52	<0.200	<3.80	0.357	0.219
	09/27/04	2.33	<0.200	0.277	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.400	0.985	2.07	<0.200	<2.00	2.01	0.664
	03/28/05	2.02	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	1.26	1.63	<0.500	<1.62	2.51	0.924
	09/21/05	1.32	<0.200	0.165	0.0459	<0.0400	0.0560	<0.0400	<0.0400	0.0875	<0.0400	0.521	0.967	<0.0400	<0.980	1.48	0.396

COPPOR00009033

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-28	02/16/00	2.68	ND	ND	ND	ND	ND	ND	ND	1.00	ND	0.792	6.69	ND	ND	8.54	2.71
	05/30/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	08/24/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	12/01/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	02/21/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/16/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
MW-31	02/16/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.988	ND	ND	0.457	0.0887
	05/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/23/00	0.243	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.666	ND	ND	0.463	ND
	12/01/00	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.300	ND	ND	ND	ND
	02/22/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.568	ND	ND	0.363	ND
	05/17/01	0.206	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.597	ND	ND	0.352	ND
MW-32	02/16/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/23/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/01/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.12	ND	ND
	02/22/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

COPPOR00009034

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-33	02/16/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/24/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/22/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.222	ND	ND
dup	02/22/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.161	ND	ND
	05/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/21/01	0.340	ND	ND	0.100	ND	0.220	0.140	0.120	0.200	ND	0.180	ND	0.120	0.160	ND	0.160
	03/14/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/27/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/29/04	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.0209
	09/27/04	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	03/29/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	09/21/05	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0396	<0.0198	0.0321
dup	09/21/05	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.0384
MW-34	09/21/01	0.280	ND	ND	ND	ND	ND	0.100	ND	ND	ND	ND	ND	0.120	0.120	ND	ND
	03/14/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/27/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/03	0.151	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/29/04	0.0524	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0600	<0.0200	<0.0200
	09/27/04	0.135	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.150	<0.100	<0.100
dup	03/29/05	<0.111	<0.111	<0.111	<0.111	<0.111	<0.111	<0.111	<0.111	<0.111	<0.222	<0.111	<0.111	<0.111	<0.111	<0.111	<0.111
	03/29/05	0.129	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	09/21/05	0.332	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0297	<0.0198	<0.218	<0.0198	<0.0222

COPPOR00009035

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-36	02/16/00	0.143	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/31/00	0.228	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/24/00	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/30/00	0.420	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.180	ND	ND
	02/21/01	0.304	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/16/01	0.247	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/21/01	0.240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.140	ND	ND
	03/13/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/18/03	0.178	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/03	0.307	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/29/04	0.246	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.200	0.0525	0.0487
	09/27/04	0.710	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.150	<0.100	<1.00	<0.100	<0.100
	09/21/05	0.382	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0300	<0.0200	<0.0200	<0.0200	0.0574	0.0616
MW-37	02/16/00	1.56	ND	0.0862	0.0584	0.0773	0.0564	ND	ND	583	ND	0.158	3.02	ND	ND	0.605	0.214
	05/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.126	ND	ND	ND	0.451	0.153
	08/24/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.25	ND	ND	ND	ND
	11/30/00	0.680	0.180	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.600	ND	0.660	0.200	0.120
	02/21/01	0.183	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.228	ND	ND	ND	ND
	02/21/01[1]	0.588	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.513	ND	ND	0.207	ND
	05/16/01	0.401	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.327	ND	ND	0.146	ND
	09/21/01	0.140	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.280	0.120	ND
	03/13/02	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	09/27/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.499	ND	ND	0.166	0.122
dup	09/27/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.147	ND
	03/18/03	0.435	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.731	ND	ND	ND	ND
	09/27/04	<1.00	<1.00	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	0.122	<1.00	<0.100	<1.00	0.184	0.251
	03/29/05	2.39	<0.250	0.344	<0.200	<0.200	<0.200	<0.200	<0.200	0.241	<0.400	1.39	1.93	<0.200	<2.00	2.86	1.05
	09/21/05	0.77	<0.350	<0.100	<0.100	<0.100	<0.100	0.110	<0.100	<0.100	<0.100	<0.100	0.478	<0.100	<1.90	<0.100	0.131
MW-39	09/27/04	4.30	<0.100	0.159	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	0.338	1.23	<0.100	<1.60	1.16	0.348
	09/21/05	2.33	<0.200	0.0920	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.211	0.826	<0.0200	<0.900	0.802	0.239

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-40	02/16/00	0.0972	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/30/00	0.124	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/24/00	0.141	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/30/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/21/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/21/01	ND	ND	ND	ND	ND	ND	0.120	ND	ND	0.100	0.380	ND	0.140	ND	0.120	0.240
	03/13/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/27/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/03	0.109	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup	09/24/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/29/04	0.0609	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0900	<0.0300	<0.0200
dup	03/29/04	0.0588	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0900	0.0266	<0.0200
	09/27/04	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	03/29/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	09/21/05	0.0732	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	0.105	0.0381	<0.0190

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
CONOCOPHILLIPS																	
B-4	02/17/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/26/00	13.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.19	17.3	ND	ND	28.4	2.24
dup	05/26/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	20.9	1.72
	08/28/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	11/29/00	2.50	ND	0.620	0.140	ND	ND	ND	ND	ND	ND	1.60	2.54	ND	8.80	4.72	1.24
	02/20/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	09/18/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	03/13/02	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	09/26/02	2.16	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.889	3.42	ND	ND	4.26	0.859
	03/17/03	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	09/25/03	2.79	ND	0.857	ND	ND	ND	ND	ND	ND	ND	1.24	5.10	ND	ND	6.24	1.23
B-17	02/17/00	2.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.42	ND	ND	4.25	ND
	05/26/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.1	ND	ND	5.33	ND
	08/28/00	2.92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.5	ND	ND	7.10	
	11/29/00	1.72	0.340	0.180	ND	ND	ND	ND	ND	ND	ND	0.320	5.50	ND	0.880	4.96	0.260
	02/23/01	2.36	ND	0.139	ND	ND	ND	ND	ND	ND	ND	ND	8.20	ND	ND	2.93	ND
dup	02/23/01	2.52	ND	0.236	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.372	ND	3.84	ND
	05/17/01	2.19	ND	0.294	ND	ND	ND	ND	ND	ND	ND	ND	7.83	ND	ND	4.24	ND
dup	05/17/01	2.19	ND	0.265	ND	ND	ND	ND	ND	ND	ND	ND	8.25	ND	ND	4.14	ND
B-18	02/17/00	1.41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.39	ND	ND	1.83	ND
	05/26/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/28/00	1.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.84	ND	ND	1.17	ND
	11/29/00	0.220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.440	ND	ND	0.220	ND
	02/23/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.11	ND	ND	ND	ND
	05/17/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.529	ND	ND	ND	ND

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
B-22	02/17/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	05/26/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.4	ND	ND	21.5	ND
	08/28/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	11/29/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	02/20/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/17/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
B-35	02/17/00	11	ND	5.15	1.19	ND	ND	ND	ND	1.1	ND	8.29	30	ND	ND	35.8	4.33
	05/26/00	ND	ND	2.61	ND	ND	ND	ND	ND	ND	ND	2.93	22.5	ND	ND	20.7	1.73
	08/28/00	6.77	ND	0.807	0.123	ND	ND	ND	ND	0.127	ND	1.12	13.7	ND	ND	8.35	0.584
	11/29/00	2.84	0.360	0.520	0.240	ND	ND	ND	ND	0.200	ND	1.46	6.30	ND	1.22	7.16	0.760
	02/23/01	8.44	ND	ND	0.304	ND	0.102	ND	ND	0.330	ND	ND	16.2	ND	ND	17.3	1.15
	05/17/01	4.34	ND	0.493	0.103	ND	ND	ND	ND	0.106	ND	0.692	11.3	ND	ND	5.50	0.425
	09/20/01	2.92	0.360	0.680	0.200	ND	0.120	ND	ND	0.200	ND	1.20	6.74	ND	1.00	10.0	0.700
	03/14/02	3.02	ND	0.620	ND	ND	ND	ND	ND	ND	ND	0.844	7.62	ND	ND	6.78	0.468
	09/26/02	4.76	ND	0.740	0.109	ND	ND	ND	ND	ND	ND	1.00	11.6	ND	ND	9.41	0.570
	03/18/03	3.46	ND	0.493	ND	ND	ND	ND	ND	ND	ND	0.578	14.3	ND	ND	7.51	0.434
	09/25/03	5.36	ND	0.779	ND	ND	ND	ND	ND	ND	ND	0.884	10.2	ND	ND	8.86	0.399
	03/30/04	3.52	<0.200	0.456	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.419	7.21	<0.200	<2.10	5.18	0.274
	09/28/04	5.25	<0.200	0.579	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.400	0.662	9.23	<0.200	<2.70	6.80	0.455
	03/28/05	<7.25	<1.00	1.13	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	2.12	15.6	<1.00	<3.50	14.7	1.24
	09/20/05	7.51	<0.400	2.37	0.792	<0.400	<0.400	<0.400	<0.400	0.797	<0.400	5.150	16.900	<0.400	<3.60	24.9	3.23

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
B-36	02/17/00	0.251	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.537	ND	ND	ND	ND
	05/26/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/28/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/29/00	0.720	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.34	ND	0.520	0.180	ND
	02/23/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/17/01	0.642	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.91	ND	ND	ND	ND
	09/20/01	0.360	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.920	ND	0.320	0.200	ND
dup	09/20/01	0.320	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.880	ND	0.300	0.100	ND
	03/14/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.262	ND	ND	ND	ND
	09/26/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.26	ND	ND	ND	ND
	03/18/03	0.240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.811	ND	ND	ND	ND
	09/25/03	0.584	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.22	ND	ND	ND	ND
	03/30/04	3.51	<0.200	0.490	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.429	6.79	<0.200	<2.10	5.07	0.268
	09/28/04	0.653	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	1.51	<0.100	<1.60	<0.100	<0.100
dup	09/28/04	0.723	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	1.24	<0.100	<1.35	<0.100	<0.150
	03/28/05	0.728	<0.175	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	1.60	<0.100	<1.25	<0.125	<0.100
	09/20/05	0.274	<0.0200	<0.0300	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.606	<0.0200	<0.610	<0.0200	0.0285
B-37	02/17/00	0.0698	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0547
dup	02/17/00	0.0683	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0731
	05/26/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/28/00	0.124	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/29/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/23/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.128	ND
	05/17/01	0.110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/14/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/26/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/25/03	0.120	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dup	09/25/03	0.113	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.118	ND
	03/31/04	0.0737	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.320	<0.0300	0.0431
	09/28/04	0.142	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.300	<0.100	<0.100
	03/28/05	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.225	<0.100	<0.100
	09/20/05	0.347	<0.0303	<0.0303	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.0202	<0.222	<0.0707	0.0454

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene (µg/l)	Acenaphthylene (µg/l)	Anthracene (µg/l)	Benzo (a) anthracene (µg/l)	Benzo (a) pyrene (µg/l)	Benzo (b) fluoranthene (µg/l)	Benzo (g,h,i) perylene (µg/l)	Benzo (k) fluoranthene (µg/l)	Chrysene (µg/l)	Dibenzo (a,h) anthracene (µg/l)	Fluoranthene (µg/l)	Fluorene (µg/l)	Indeno (1,2,3-cd) pyrene (µg/l)	Naphthalene (µg/l)	Phenanthrene (µg/l)	Pyrene (µg/l)
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
B-40	02/17/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	05/26/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	08/28/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	11/29/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	02/20/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/17/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
U-2	02/17/00	0.140	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.683	0.224	ND	ND	0.104	0.0856
	05/26/00	0.119	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.239	ND	ND	0.122	ND
	08/28/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.73	ND	ND	ND	ND
	11/29/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/23/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/17/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/20/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/14/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/26/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/25/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/31/04	0.166	<0.0200	0.0201	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.100	0.237	<0.0200	<1.12	0.0680	0.0787
	09/28/04	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.150	<0.100	<0.100
	03/28/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	09/20/05	0.0232	<0.0196	0.0308	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	0.0197	0.0283	<0.0196	<0.118	0.0318	0.0292
U-3	02/17/00	0.142	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	ND	ND	0.066	ND
	05/26/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.119	ND	ND	ND	ND
	08/28/00	0.145	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.163	ND	ND	ND	ND
	11/29/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.120	ND	0.160	ND	ND
dup	11/29/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.120	ND	ND
	02/23/01	0.117	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.152	ND	ND	ND	ND
	05/17/01	0.11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.134	ND	ND	ND	ND

COPPOR00009041

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
U-4	02/16/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.92	ND	ND	7.42	ND
	05/26/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.44	ND	ND	7.11	ND
	08/28/00	5.05	ND	1.32	ND	ND	ND	ND	ND	ND	ND	ND	11.6	ND	ND	12.4	1.17
dup	08/28/00	4.47	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.367	10.4	ND	ND	6.48	0.544
	11/29/00	1.66	ND	0.660	ND	ND	ND	ND	ND	ND	ND	0.220	3.38	ND	0.760	1.92	0.340
	02/23/01	13.0	ND	4.14	ND	ND	ND	ND	ND	0.727	ND	ND	31.6	ND	ND	40.6	4.08
	05/17/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	09/18/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	03/13/02	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	09/26/02	2.88	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.60	ND	ND	8.14	0.571
dup	09/26/02	3.40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.72	ND	ND	9.70	0.842
	03/17/03	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
U-5	02/17/00	1.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.63	ND	ND	1.42	0.0674
	05/26/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.04	ND
	08/28/00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.52	ND	ND	2.29	ND
	11/29/00	0.800	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.02	ND	2.60	1.06	ND
	02/23/01	ND	ND	0.124	ND	ND	ND	ND	ND	ND	ND	ND	3.28	ND	ND	1.64	ND
	05/17/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	09/18/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	09/26/02	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	03/18/03	ND	ND	ND	1.08	ND	ND	2.54	ND	1.89	ND	ND	36.0	ND	ND	55.0	11.3
	09/25/03	5.52	ND	1.13	ND	ND	ND	ND	ND	ND	ND	ND	9.61	ND	4.71	10.7	1.31
	03/31/04	3.15	<0.400	0.921	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	5.18	<0.400	<2.50	5.49	1.06
	09/28/04	4.54	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	6.51	<0.500	<3.25	5.66	<0.500
	03/28/05	4.25	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	6.87	<1.00	<2.50	7.64	<1.00
	09/20/05	3.69	<0.192	0.545	<0.192	<0.192	<0.192	<0.192	<0.192	<0.192	<0.192	<0.192	5.80	<0.192	<2.31	6.37	0.443
U-10	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.345	ND	ND
	09/25/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/30/04	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.0302	<0.0200	<0.0200
	09/28/04	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	03/28/05	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	09/20/05	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<0.0297	<0.0198	<0.0198

COPPOR00009042

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - PAH COMPOUNDS
Willbridge Terminals
Portland, Oregon

Well Identification	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Number of benzene rings		2	2	3	4	5	4	5	4	4	5	3	2	5	2	3	4
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
U-11	03/18/03	0.711	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.44	ND	ND	0.951	ND
	09/25/03	1.45	ND	0.229	ND	ND	ND	ND	ND	ND	ND	0.391	4.69	ND	ND	3.25	0.396
	03/30/04	1.73	<0.200	0.395	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.610	5.29	<0.200	<2.60	4.32	0.821
	09/28/04	<0.171	<0.114	<0.171	<0.114	<0.114	<0.114	<0.114	<0.114	0.114	<0.229	<0.286	<0.343	<0.114	<0.343	<0.343	0.341
	03/28/05	1.74	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	5.56	<1.00	<2.00	4.14	<1.00
	09/20/05	1.39	<0.102	0.296	0.200	<0.102	<0.102	<0.102	<0.102	0.175	<0.102	0.608	3.19	<0.102	<1.68	3.30	0.830
U-12	03/18/03	1.72	ND	0.308	ND	ND	ND	ND	ND	ND	ND	0.384	7.94	ND	ND	3.91	0.541
	09/25/03	0.277	ND	0.138	ND	ND	ND	ND	ND	ND	ND	ND	1.25	ND	0.231	1.59	ND
	03/30/04	0.151	<0.0400	<0.0600	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	0.621	<0.0400	<0.320	0.238	0.0434
	09/28/04	1.21	<0.100	0.304	0.193	<0.100	<0.100	<0.100	<0.100	0.153	<0.200	0.616	2.56	<0.100	<1.20	2.56	0.832
	03/28/05	<0.325	<0.275	<0.225	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.200	<0.100	1.00	<0.100	<0.275	0.615	<0.100
	09/20/05	<0.0816	<0.0408	<0.0408	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	<0.0204	0.313	<0.0204	<0.153	<0.0714	0.0344
P-1	03/18/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/31/04	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.0405
P-2	03/17/03	2.61	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.62	ND	ND	2.05	ND
	9/25/03[2]	1.93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.85	ND	ND	4.23	ND
	03/30/04	1.97	<0.200	<0.300	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	7.66	<0.200	<1.70	3.28	<0.200
	09/28/04	2.28	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.400	<0.200	8.23	<0.200	<1.40	3.56	<0.200
	03/28/05	2.62	<0.600	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.800	<0.400	8.77	<0.400	<1.60	3.48	<0.400

NOTES:
- = Not sampled, not analyzed, not applicable
µg/l = Micrograms per Liter
ND = Not detected at or above method detection limit
2/00 and 5/00 data from IT Corporation
8/00, 11/00, 2/01 and 5/01 data from KHM Environmental Management, Inc.
IT Corp Data recorded as reported in Second Quarter 2000 Report
Analytes reported in alphabetical order
NS/F = Not sampled floating product present
NS/S = Not sampled sheen present
1 = Sample rerun outside of hold time due to low surrogate recovery reported in the initial sample as a result of an extraction error.
2 = Sample ID was misidentified by the laboratory as D-2
dup* = duplicate for B-30 submitted as blind duplicate labeled as B-50
dup**= duplicate for B-30 submitted as blind duplicate labled as B-31
dup***= duplicate for B-30 submitted as blind duplicate labeled as B-130
PAHs by EPA Method 8270M-SIM

COPPOR00009043

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
CHEVRON											
B-7	02/18/00	0.028	0.122	0.00107	0.0066	0.0134	0.00425	ND	0.00125	ND	0.0234
	05/23/00	0.0268	0.228	ND	0.0264	0.0441	0.0115	ND	0.00193	ND	0.0863
dup	05/23/00	0.0276	0.259	ND	0.0304	0.051	0.0137	ND	0.00211	ND	0.104
	08/25/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	11/30/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	02/22/01	0.0310	0.0719	ND	ND	0.00311	ND	ND	ND	ND	0.00513
	05/17/01	0.0364	0.0587	ND	ND	0.00157	ND	ND	ND	ND	ND
	03/20/03	0.0275	0.0642	ND	ND	0.0209	ND	ND	ND	ND	ND
	09/29/03	0.0304	0.0815	ND	0.00278	0.00608	0.00121	ND	0.00132	ND	0.00782
	03/30/04	0.0303	0.0869	0.00138	0.00320	0.00647	0.00175	<0.000200	<0.00100	<0.00100	0.0135
	03/09/05	0.0342	0.110	<0.00100	0.00434	0.00822	0.00239	<0.000200	<0.00200	<0.00100	0.0193
dup	03/09/05	0.0338	0.108	<0.00100	0.00490	0.00978	0.00273	<0.000200	<0.00200	<0.00100	0.0218
	09/22/05	0.0363	0.0857	<0.00100	0.00241	0.00483	<0.00100	<0.000200	<0.00200	<0.00100	0.00787
B-9	05/23/00	0.0177	0.139	ND	0.0176	0.0286	0.00848	ND	0.00123	ND	0.0616
	08/25/00	0.0116	0.0534	ND	0.00270	0.00750	0.00214	ND	ND	ND	0.0228
	11/30/00	0.0108	0.153	0.00149	0.0159	0.0354	0.0114	ND	0.00125	ND	0.0823
	02/22/01	0.0173	0.0460	ND	ND	0.00213	ND	ND	0.00127	ND	ND
	05/17/01	0.0208	0.0706	ND	0.00444	0.00634	0.00241	ND	ND	ND	0.0161
	09/19/01	0.0161	0.0753	ND	0.00256	0.00993	0.00266	ND	ND	ND	0.0136
	03/21/02	0.0105	0.0488	ND	0.00257	0.00683	0.00398	ND	ND	ND	0.0506
	09/24/02	0.0185	0.0469	ND	ND	ND	ND	ND	ND	ND	ND
	03/20/03	0.00992	0.0401	ND	0.00165	0.00421	0.00317	ND	ND	ND	0.0283
	09/30/03	0.00905	0.137	0.00136	0.00812	0.0285	0.0155	ND	ND	ND	0.0532
	03/30/04	0.0384	0.349	0.00382	0.0395	0.0991	0.0467	<0.000200	0.00147	<0.00100	0.331
	03/08/05	0.0305	0.0592	<0.00100	<0.00100	<0.00200	<0.00100	<0.000200	<0.00200	<0.00100	0.00759
	06/22/05	0.0268	0.0481	<0.00100	<0.00100	0.00225	<0.00100	<0.000200	<0.00200	<0.00100	0.0187
	09/21/05	0.0338	0.0579	<0.00100	<0.00100	<0.00200	<0.00100	<0.000200	<0.00200	<0.00100	0.00648

COPPOR00009044

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
B-10	02/18/00	0.0367	0.337	0.00084	0.0355	0.0572	0.0202	ND	0.00053	0.00019	0.0965
dup	02/18/00	0.0394	0.375	0.00141	0.0448	0.0745	0.027	ND	0.00525	0.0002	0.123
	05/23/00	0.0354	0.211	ND	0.0265	0.0384	0.0115	ND	0.00229	ND	0.0631
	08/25/00	0.0314	0.0657	ND	0.00199	0.00366	0.00141	ND	0.00105	ND	0.177
	11/30/00	0.0307	0.0946	ND	0.00590	0.00800	0.00257	ND	0.00131	ND	0.0165
	02/23/01	0.0323	0.0611	ND	ND	ND	ND	ND	0.00184	ND	ND
	05/17/01	0.0395	0.0567	ND	ND	ND	ND	ND	ND	ND	ND
	09/19/01	0.0234	0.194	ND	0.0249	0.0466	0.0161	ND	0.00104	ND	0.0793
	03/21/02	0.0301	0.0644	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/02	0.0290	0.0607	ND	ND	ND	ND	ND	ND	ND	ND
	03/20/03	0.0327	0.0620	ND	ND	ND	ND	ND	ND	ND	ND
	09/29/03	0.0337	0.0820	ND	0.00285	0.00441	0.00217	ND	0.00165	ND	0.0132
	03/30/04	0.0332	0.128	<0.00100	0.0100	0.0162	0.00783	<0.000200	<0.00100	<0.00100	0.0402
	03/08/05	0.0395	0.0881	<0.00100	0.00231	0.00359	0.00305	<0.000200	<0.00200	<0.00100	0.0111
	09/21/05	0.0369	0.0641	<0.00100	<0.00100	<0.00200	<0.00100	<0.000200	<0.00200	<0.00100	<0.00500
B-11	02/18/00	0.0386	0.985	0.00408	0.130	0.214	0.0959	ND	0.0034	0.00047	0.356
	05/23/00	0.0219	0.236	ND	0.0258	0.0407	0.0172	ND	0.00233	ND	0.0732
	08/25/00	0.0292	0.0809	ND	0.00543	0.00765	0.00398	ND	ND	ND	0.0273
	11/30/00	0.0277	0.113	ND	0.00986	0.0127	0.00575	ND	0.00146	ND	0.0288
	02/22/01	0.0234	0.0573	ND	ND	ND	ND	ND	ND	ND	ND
	05/17/01	0.0291	0.0553	ND	ND	ND	ND	ND	ND	ND	ND
	03/30/04	0.0241	0.115	0.00164	0.00904	0.0152	0.00896	<0.000200	<0.00100	<0.00100	0.0315
	03/09/05	0.0265	0.0972	0.00208	0.00534	0.00943	0.00615	<0.000200	<0.00200	<0.00100	0.0261
	06/22/05	0.0269	0.106	<0.00100	0.00978	0.0123	0.00543	<0.000200	<0.00200	<0.00100	0.0258
	09/21/05	0.0308	0.0603	<0.00100	0.00182	0.00313	0.00166	<0.000200	<0.00200	<0.00100	0.00732
B-14	02/18/00	0.0367	0.297	0.0006	0.029	0.053	0.0403	0.000095	0.00134	0.00016	0.0874
	05/23/00	0.0327	0.155	ND	0.0152	0.0264	0.0186	ND	0.00168	ND	0.0421
	08/25/00	0.0300	0.0774	ND	0.00175	0.00339	0.00568	ND	0.00113	ND	0.0207
	11/30/00	0.0292	0.0724	ND	ND	ND	0.00326	ND	0.00124	ND	ND
	02/22/01	0.0299	0.0603	ND	ND	0.00202	0.00102	ND	0.00104	ND	0.00696
	05/17/01	0.0373	0.0553	ND	ND	ND	ND	ND	ND	ND	ND
B-19	03/20/03	0.0453	0.0693	ND	ND	ND	ND	ND	ND	ND	ND
	09/29/03	0.0404	0.208	ND	0.0203	0.0297	0.00909	0.000234	ND	ND	0.0577
	03/29/04	0.0435	0.104	<0.00100	0.00487	0.00831	0.00279	<0.000200	<0.00100	<0.00100	0.0192
	03/09/05	0.0407	0.210	<0.00100	0.0181	0.0307	0.00918	<0.000200	<0.00200	<0.00100	0.0545
	06/22/05	0.0478	0.223	<0.00100	0.0265	0.0370	0.00922	<0.000200	<0.00200	<0.00100	0.0633
	09/22/05	0.0481	0.101	<0.00100	0.00347	0.0060	0.00159	<0.000200	<0.00200	<0.00100	0.0105

COPPOR00009045

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
B-20	03/20/03	0.0107	0.0459	ND	0.00109	0.00389	ND	ND	ND	ND	0.00501
	09/29/03	0.130	4.35	0.0494	0.808	1.14	0.643	0.000934	0.00840	ND	3.96
	03/30/04	0.00165	0.0417	<0.00100	0.00184	0.00508	0.00121	<0.00200	<0.00100	<0.00100	0.00910
	03/09/05	0.0360	0.0795	<0.00100	0.00113	0.00212	<0.00100	<0.000200	<0.00200	<0.00100	<0.00500
	09/22/05	0.0374	0.0691	<0.00100	<0.00100	<0.00200	<0.00100	<0.000200	<0.00200	<0.00100	<0.00500
B-21	09/19/01	0.0306	0.107	ND	0.00833	0.0107	0.00322	ND	ND	ND	0.0259
	03/21/02	0.0405	0.0662	ND	ND	ND	ND	ND	ND	0.00109	0.00852
	09/24/02	0.0412	0.0695	ND	ND	ND	ND	ND	ND	ND	ND
	03/20/03	0.0740	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/29/03	0.0474	0.0759	ND	ND	ND	ND	ND	ND	ND	ND
	03/29/04	0.0469	0.132	<0.00100	0.00984	0.0141	0.00478	<0.00200	<0.00100	<0.00100	0.0340
	03/08/05	0.0559	0.179	<0.00100	0.0143	0.0188	0.00535	<0.000200	<0.00200	<0.00100	0.0374
	09/22/05	0.0554	0.0884	<0.00100	<0.00100	<0.00200	<0.00100	<0.000200	<0.00200	<0.00100	<0.00500
B-26	03/30/04	0.00345	0.232	0.0305	0.0220	0.0485	0.0415	<0.000200	<0.00100	<0.00100	0.140
	03/09/05	0.0345	0.0852	0.00411	0.00274	0.00801	0.00696	<0.000200	<0.00200	<0.00100	0.0176
	06/22/05	0.0397	0.146	0.0130	0.0152	0.0319	0.0208	<0.000200	<0.00200	<0.00100	0.0689
	09/22/05	0.0351	0.0812	0.00601	0.00320	0.0103	0.00754	<0.000200	<0.00200	<0.00100	0.0261
B-28	02/18/00	0.0122	0.422	0.00368	0.0437	0.104	0.0496	0.000088	0.00156	0.00025	0.165
	05/23/00	0.00956	0.245	0.00144	0.0258	0.0468	0.0205	ND	0.00277	ND	0.0913
	08/25/00	0.00530	0.120	ND	0.00825	0.0152	0.00565	ND	0.00134	ND	0.0504
	11/30/00	0.0179	0.459	ND	0.0421	0.0640	0.0303	ND	0.00271	ND	0.149
	02/23/01	0.00756	0.131	ND	0.00896	0.0142	0.00555	ND	0.00181	ND	0.0363
	05/17/01	0.00561	0.0914	ND	0.00498	0.00737	0.00272	ND	0.00199	ND	0.0200
	09/20/01	0.0434	0.0821	ND	0.00166	0.00546	ND	ND	0.00109	ND	0.00782
	03/21/02	0.00407	0.0692	ND	0.00311	0.0115	0.00292	ND	ND	ND	0.0148
	09/24/02	0.00298	0.0519	ND	ND	ND	ND	ND	0.00244	ND	ND
	03/20/03	0.00220	0.0489	ND	ND	ND	ND	ND	0.00164	ND	ND
	09/30/03	0.0219	0.483	0.00173	0.0572	0.109	0.0404	ND	ND	ND	0.205
	03/29/04	0.00600	0.111	0.00118	0.00942	0.0287	0.00852	<0.000200	<0.00100	<0.00100	0.0341
	09/21/05	0.00508	0.0838	<0.00100	0.00364	0.00980	0.00268	<0.000200	<0.00200	<0.00100	0.0179
B-29	09/20/01	0.0110	0.292	ND	0.0286	0.0531	0.0264	ND	0.00385	ND	0.122
	03/21/02	0.00126	0.0600	ND	ND	0.00372	ND	ND	ND	ND	0.00710
	09/24/02	ND	0.0601	ND	ND	ND	ND	ND	0.00103	0.00102	ND
	03/20/03	ND	0.0593	ND	ND	0.00263	ND	ND	0.00143	ND	ND
	09/30/03	0.00332	0.322	0.0133	0.0295	0.167	0.0280	ND	ND	ND	0.125
	03/29/04	0.00528	0.367	0.0206	0.0293	0.162	0.0457	<0.000200	<0.00100	<0.00100	0.146
	09/21/05	0.00308	0.193	0.00290	0.0159	0.059	0.0127	<0.000200	<0.00200	<0.00100	0.0720

COPPOR00009046

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
B-30	02/18/00	0.0185	0.327	0.0355	0.0269	0.0671	0.0482	ND	0.00265	0.00021	0.238
	05/23/00	0.0141	0.117	0.00978	0.00904	0.0713	0.0108	ND	0.00267	ND	0.0527
	08/25/00	0.0221	0.0497	0.01460	0.00153	0.0176	0.00449	ND	ND	ND	0.0632
	11/30/00	0.0175	0.0513	ND	ND	ND	ND	ND	0.00103	ND	0.0116
	02/23/01	0.0144	0.0704	ND	ND	ND	ND	ND	ND	ND	ND
dup**	02/23/01	0.0140	0.0670	ND	ND	ND	ND	ND	ND	ND	ND
	05/17/01	0.0177	0.0477	ND	ND	ND	ND	ND	0.00175	ND	ND
	09/20/01	0.00211	0.0825	0.00167	0.00347	0.0208	0.0161	ND	0.00190	ND	0.0308
dup	09/20/01	0.0138	0.0564	ND	ND	0.00218	ND	ND	0.00110	ND	ND
	03/21/02	0.0177	0.0438	0.00823	0.00111	0.00533	0.00227	ND	ND	0.00100	0.0191
dup	03/21/01	0.0210	0.0489	0.00302	0.00142	0.00698	0.00458	ND	ND	ND	0.0220
	09/24/02	0.0126	0.0495	ND	ND	ND	ND	ND	0.00197	0.00126	ND
	03/20/03	0.0158	0.0483	ND	ND	ND	ND	ND	ND	ND	ND
dup*	03/20/03	0.0144	0.0486	ND	ND	ND	ND	ND	ND	ND	ND
	09/30/30	0.0238	0.193	0.0221	0.0195	0.0631	0.0392	ND	ND	ND	0.159
dup***	09/30/30	0.0267	0.276	0.0301	0.0268	0.0842	0.0574	ND	ND	ND	0.211
	03/29/04	0.0183	0.0529	0.00229	0.00106	0.00405	0.00330	<0.000200	<0.00100	<0.00100	0.00752
	09/21/05	0.0179	0.0567	0.00180	<0.00100	0.00501	0.00332	<0.000200	<0.00200	<0.00100	0.0113
dup****	09/21/05	0.0177	0.0544	<0.00100	0.00117	0.00384	0.00294	<0.000200	<0.00200	<0.00100	0.0106
B-32	03/20/03	0.00367	0.0429	ND	0.00110	ND	ND	ND	ND	ND	ND
	09/29/03	0.122	6.84	0.0170	1.04	1.64	1.15	0.000754	0.0190	ND	3.74
	03/29/04	0.00917	0.434	0.00202	0.0615	0.108	0.0387	0.000221	0.0224	<0.00100	0.215
	03/09/05	0.00780	0.128	<0.00100	-	0.0180	0.00680	<0.000200	0.00203	<0.00100	0.0394
	09/22/05	0.0100	0.227	<0.00100	0.0230	0.0336	0.01180	<0.000200	<0.00200	<0.00100	0.0737
B-33	03/20/03	0.00483	0.0430	ND	0.00437	0.0114	0.0124	ND	ND	ND	0.0223
	09/30/03	0.0342	0.242	0.00699	0.0711	0.248	0.128	ND	0.00124	ND	0.385
	03/30/04	0.0155	0.199	0.00830	0.0451	0.164	0.110	<0.00200	<0.00100	<0.00100	0.389
	03/09/05	0.0264	0.175	0.00106	0.0342	0.0668	0.0513	<0.000200	0.00204	<0.00100	0.157
	06/22/05	0.0156	0.140	<0.00100	0.0221	0.0560	0.0264	<0.000200	<0.00200	<0.00100	0.0998
	09/22/05	0.0237	0.111	<0.00100	0.00916	0.0250	0.0109	<0.000200	<0.00200	<0.00100	0.0484
CR-1	09/21/01	0.0143	0.0606	ND	0.00203	0.00468	0.00283	ND	0.00118	ND	0.00846
	03/21/02	0.00173	0.0188	ND	0.00113	0.00397	ND	ND	ND	ND	0.0163
	09/24/02	0.00204	0.0274	ND	ND	ND	ND	ND	ND	ND	0.00609
	03/20/03	0.0119	0.0300	ND	0.00156	0.0112	0.00211	ND	ND	ND	0.0179
	09/30/03	0.00832	0.0479	ND	0.00249	0.00836	0.00391	ND	0.00189	ND	0.0139
	03/30/04	0.00210	0.261	0.00583	0.0220	0.0535	0.0676	<0.000200	<0.00100	<0.00100	0.212
	03/08/05	0.00167	0.0245	<0.00100	<0.00100	0.00262	<0.00100	<0.000200	<0.00200	<0.00100	0.0102
	09/21/05	0.00325	0.0215	<0.00100	<0.00100	0.00231	<0.00100	<0.000200	<0.00200	<0.00100	<0.00500

COPPOR00009047

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
CR-3	03/09/05	0.0156	0.414	0.00283	0.0239	0.0591	0.0410	<0.000200	<0.00200	<0.00100	0.216
	06/22/05	0.0259	0.431	0.00206	0.0414	0.0708	0.0504	<0.000200	<0.00200	<0.00100	0.218
	09/22/05	0.00191	0.0280	<0.00100	<0.00100	0.00346	0.00123	<0.000200	<0.00200	<0.00100	0.00706
CR-8	02/18/00	0.0827	0.762	0.00345	0.0578	0.127	0.0997	ND	0.00321	0.00037	0.404
	05/23/00	0.0256	0.342	0.00312	0.0228	0.0684	0.0365	ND	0.00204	ND	0.155
	08/25/00	0.0203	0.105	ND	0.00697	0.0151	0.0101	ND	ND	ND	0.0442
	11/30/00	0.0167	0.0890	ND	0.00565	0.0149	0.00781	ND	0.00158	ND	0.0331
	02/22/01	0.0215	0.116	ND	0.00485	0.0123	0.00666	ND	ND	ND	0.0288
	05/16/01	0.0135	0.0374	ND	0.00128	0.00231	0.00147	ND	ND	ND	ND
CR-9	02/18/00	0.0167	0.236	0.00026	0.0194	0.0286	0.0156	ND	0.00187	0.0001	0.0769
	05/23/00	0.00298	0.0413	ND	0.003	0.00381	0.00188	ND	0.00112	ND	0.00893
	08/25/00	0.00160	0.0305	ND	ND	0.00143	ND	ND	ND	ND	ND
dup	08/25/00	0.00160	0.0305	ND	ND	0.00170	ND	ND	ND	ND	0.0165
	11/30/00	0.00162	0.0222	ND	ND	ND	ND	ND	0.00283	ND	0.00503
dup	11/30/00	ND	0.0222	ND	ND	ND	ND	ND	0.00114	ND	ND
	02/22/01	ND	0.0235	ND	ND	ND	ND	ND	ND	ND	ND
	05/16/01	0.00142	0.0291	ND	ND	0.00246	ND	ND	ND	ND	ND
	05/16/01	0.00145	0.0339	ND	0.00151	0.00205	ND	ND	ND	ND	ND
CR-11	02/18/00	0.0656	0.440	0.00559	0.0252	0.0571	0.0296	ND	0.00453	0.00014	0.123
	05/23/00	0.0493	0.382	0.00659	0.0358	0.0685	0.0391	ND	0.00321	ND	0.168
	08/25/00	0.0631	0.0834	ND	0.00101	0.00325	0.00137	ND	0.00183	ND	0.0179
	11/30/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	02/22/01	0.0536	0.126	ND	0.00104	0.00356	ND	ND	0.00324	ND	0.00784
	05/16/01	0.0587	0.111	ND	0.00362	0.00628	0.00314	ND	0.00243	ND	0.0193
CR-26	03/09/05	0.143	0.319	<0.00100	0.0182	0.0229	0.0109	<0.000200	0.00209	<0.00100	0.0670
	06/22/05	0.157	0.212	<0.00100	0.00599	0.00661	0.00268	<0.000200	<0.00200	<0.00100	0.0175
	09/22/05	0.210	0.164	<0.00100	<0.00100	<0.00200	<0.00100	<0.000200	<0.00200	<0.00100	<0.00500

COPPOR00009048

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
KINDER MORGAN											
MW-8	02/16/00	0.00974	0.0566	0.00073	0.00396	0.00476	0.00569	ND	ND	ND	0.0344
	05/31/00	0.00348	0.0226	ND	ND	ND	ND	ND	ND	ND	0.00788
	08/24/00	0.0136	0.0381	ND	ND	ND	ND	ND	ND	ND	0.00799
	12/01/00	0.0177	0.0710	0.00236	0.00195	0.00272	0.00250	ND	0.00239	ND	0.0207
	02/22/01	0.0111	0.0249	ND	0.00130	0.00234	ND	ND	ND	ND	0.00720
	05/16/01	0.00942	0.0308	ND	ND	0.00119	ND	ND	ND	ND	ND
dup	05/16/01	0.00931	0.0316	ND	ND	0.00135	ND	ND	ND	ND	0.0208
	09/21/01	0.0168	0.0637	0.00141	0.00219	0.00350	ND	ND	ND	ND	0.0138
	03/14/02	0.00198	0.0213	ND	ND	0.00376	ND	ND	ND	ND	0.00824
dup	03/14/02	0.00281	0.0220	ND	ND	0.00337	ND	ND	ND	ND	0.0115
	09/27/02	0.0116	0.0592	0.00130	0.00258	0.00514	0.00294	ND	ND	ND	0.0230
	03/18/03	0.00412	0.0408	ND	ND	NS	ND	ND	ND	ND	NS
dup	03/18/03	0.00352	0.0408	ND	ND	NS	ND	ND	ND	ND	NS
	09/24/03	0.01080	0.0281	ND	ND	ND	ND	ND	ND	ND	0.00670
	03/30/04	0.00150	0.0238	<0.00100	<0.00100	<0.00200	<0.00100	<0.000200	<0.00100	<0.00100	0.0107
	09/27/04	0.0160	0.0858	0.00268	0.00598	0.00898	0.00562	<0.000200	<0.00100	<0.00100	0.0613
dup	09/27/04	0.0167	0.110	0.00395	0.00454	0.0130	0.00705	<0.000200	<0.00100	<0.00100	0.0888
	03/29/05	0.00373	0.0147	0.00146	0.000360	0.00164	0.00115	<0.000200	<0.00100	<0.00100	0.0229
	09/21/05	0.00867	0.0258	0.00128	<0.00100	0.00425	0.00181	<0.000200	<0.00200	<0.00100	0.0217
MW-10	02/16/00	0.0311	0.266	0.00027	0.025	0.0493	0.0256	ND	0.00045	0.00024	0.113
	05/31/00	0.0158	0.199	ND	0.0155	0.0292	0.0182	ND	0.00179	ND	0.0756
	08/24/00	0.0196	0.0518	ND	ND	ND	ND	ND	0.00130	ND	0.00549
	12/01/00	0.0284	0.0284	ND	0.00424	0.00704	0.00437	ND	0.00125	ND	0.0181
	02/22/01	0.0222	0.0670	ND	0.00169	0.00331	0.00102	ND	ND	ND	0.00893
	05/16/01	0.0199	0.0729	ND	ND	ND	ND	ND	ND	ND	ND
MW-11	02/16/00	0.0677	0.398	0.00018	0.0344	0.0672	0.0786	0.000065	0.00134	0.00015	0.168
	05/31/00	0.0595	0.454	ND	0.0291	0.0577	0.0705	0.000201	0.00296	ND	0.153
	08/24/00	0.0509	0.111	ND	0.00484	0.00828	0.0210	ND	0.00315	ND	0.0203
	12/01/00	0.0478	0.125	ND	0.00719	0.0114	0.0372	ND	0.00438	ND	0.0311
	02/22/01	0.0509	0.113	ND	0.00590	0.0110	0.0399	ND	ND	ND	0.0310
	05/16/01	0.0445	0.0816	ND	0.00184	0.00388	0.0300	ND	ND	ND	0.0158

COPPOR00009049

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
MW-13	02/16/00	0.017	0.305	0.00011	0.0285	0.0438	0.0235	ND	0.00072	0.00016	0.130
	05/31/00	0.0115	0.411	ND	0.0264	0.0409	0.0228	ND	0.002	ND	0.114
	08/24/00	0.00331	0.0854	ND	0.00500	0.00817	0.00373	ND	0.00431	ND	0.0207
	12/01/00	0.00384	0.0784	ND	0.00494	0.00752	0.00139	ND	0.00146	ND	0.0201
dup	12/01/00	0.00465	0.0795	ND	0.00504	0.00682	0.00344	ND	0.00162	ND	0.0207
	02/22/01	0.00146	0.0621	ND	0.00409	0.00581	0.00237	ND	ND	ND	0.0176
	05/16/01	0.00174	0.0523	ND	0.00218	0.00308	0.00169	ND	ND	ND	0.0123
MW-15	02/17/00	0.0017	0.0874	0.00004	0.00651	0.00546	0.00206	ND	0.00034	ND	0.0219
dup	02/17/00	0.00152	0.0877	0.00008	0.00655	0.00532	0.0034	-	0.00046	ND	0.021
	05/31/00	ND	0.0941	ND	0.006	0.00597	0.00322	ND	ND	ND	0.0298
	08/24/00	ND	0.141	ND	0.00989	0.00879	0.00420	ND	0.00481	ND	0.0388
	12/01/00	0.00316	0.148	ND	0.0133	0.0120	0.00697	ND	0.00115	ND	0.0534
	02/22/01	0.00129	0.108	ND	0.00840	0.00951	0.00664	ND	ND	ND	0.208
	05/16/01	ND	0.0681	ND	0.00126	0.00154	0.00113	ND	ND	ND	0.0246
MW-21	02/17/00	0.004	0.188	0.00219	0.00777	0.0091	0.00988	ND	0.00071	ND	0.0459
	05/30/00	0.00599	0.335	0.00701	0.0196	0.0248	0.0247	ND	0.00185	ND	0.126
	08/23/00	0.00339	0.185	ND	0.00202	0.00295	0.00126	ND	0.00153	ND	0.0140
	12/01/00	0.00344	0.141	0.00148	ND	ND	ND	ND	0.00176	ND	0.0140
	02/22/01	0.00350	0.184	ND	0.00117	ND	ND	ND	ND	ND	0.0107
	05/16/01	0.00471	0.0219	ND	ND	0.00127	0.00103	ND	ND	ND	0.0182
MW-22	02/17/00	0.0928	0.251	0.00017	0.0121	0.00834	0.0391	ND	0.00121	ND	0.0492
dup	02/17/00	-	-	-	-	-	-	ND	-	-	-
	05/30/00	0.0945	0.244	ND	0.0097	0.0095	0.0216	ND	0.00242	ND	0.0388
	08/23/00	0.104	0.194	ND	0.00125	0.00201	0.00695	ND	0.00274	ND	ND
	12/01/00	0.0831	0.295	ND	0.00199	0.00213	0.0105	ND	0.00300	ND	0.0265
	02/21/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	05/16/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
MW-23	02/17/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/30/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	08/23/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	11/30/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	02/22/01	0.00909	0.0582	ND	0.00175	0.00817	0.00441	ND	ND	ND	0.00983
	05/16/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S

COPPOR00009050

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
MW-25	09/21/01	0.0563	0.0958	ND	0.00339	0.00365	0.00411	ND	ND	ND	0.0258
	03/14/02	0.0406	0.115	ND	0.00573	0.00832	0.00969	ND	ND	0.00115	0.0278
	09/27/02	0.116	0.186	ND	0.00606	0.00897	0.00990	ND	ND	ND	0.0334
	03/18/03	0.0386	0.0440	ND	ND	NS	ND	ND	0.00115	0.00110	NS
	09/24/03	0.0661	0.181	0.00125	0.0144	0.0230	0.0201	ND	0.00179	ND	0.0712
	03/30/04	0.0521	0.0580	<0.00100	0.00157	<0.00200	<0.00115	<0.000200	<0.00100	<0.00100	0.00810
	09/27/04	0.0712	0.140	<0.00100	0.00506	0.0112	0.0112	<0.000200	<0.00100	<0.00100	0.0304
	03/28/05	0.0616	0.0941	<0.00100	0.00116	0.00253	0.00474	<0.000200	0.000400	<0.00100	0.0118
	09/21/05	0.0622	0.0647	<0.00100	0.00140	0.00299	0.00189	<0.000200	<0.00200	<0.00100	0.00838
MW-26	02/17/00	0.0474	0.0943	0.00005	0.00468	0.00368	0.00342	ND	0.0006	ND	0.0141
dup	02/17/00	0.0487	0.0904	0.0005	0.00434	0.00496	0.00312	ND	0.00033	ND	0.0422
	05/30/00	0.0443	0.102	ND	0.00453	0.00501	0.00492	ND	ND	ND	0.0162
	08/23/00	0.0530	0.0594	ND	0.00218	0.00249	0.00228	ND	ND	ND	ND
dup	08/23/00	0.0576	0.0642	ND	0.00227	0.00384	0.00228	ND	ND	ND	0.00791
	12/01/00	0.0526	0.0620	ND	0.00158	ND	0.00254	ND	0.00116	ND	0.00796
	02/21/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	05/17/01	0.0590	0.0678	ND	0.00221	0.00170	0.00225	ND	ND	ND	0.0120
	09/27/02	0.0450	0.0524	ND	0.00123	ND	0.00220	ND	ND	ND	0.0169
	03/18/03	0.0205	0.0670	ND	ND	NS	ND	ND	ND	0.00109	
	09/24/03	0.0510	0.0512	ND	ND	ND	0.00214	ND	ND	ND	0.00507
	03/30/04	0.0431	0.0661	<0.00100	<0.00100	<0.00100	0.00102	<0.000200	<0.00100	<0.00100	<0.00500
	09/27/04	0.0657	0.0662	<0.00100	0.00206	0.00448	0.00654	<0.000200	<0.00100	<0.00100	0.0188
	03/28/05	0.0554	0.0749	0.00104	0.00129	0.00313	0.00586	<0.000200	0.000530	<0.00100	0.0158
	09/21/05	0.0623	0.0462	<0.00100	<0.00100	<0.00200	0.00122	<0.000200	<0.00200	<0.00100	<0.00500
MW-28	02/16/00	0.00032	0.00803	ND	0.00047	0.002	0.00387	ND	ND	ND	0.0172
	05/30/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	08/23/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	11/30/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	02/21/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/16/01	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
MW-31	02/16/00	0.00504	0.016	ND	0.00042	0.00222	0.00135	ND	ND	ND	0.00218
	05/30/00	0.00664	0.019	ND	ND	ND	ND	ND	ND	ND	ND
	08/23/00	0.0181	0.0200	ND	ND	ND	ND	ND	ND	ND	ND
	12/01/00	0.0134	0.0179	ND	ND	ND	0.00280	ND	ND	ND	ND
	02/22/01	0.0148	0.0228	ND	ND	ND	ND	ND	ND	ND	0.00723
	05/17/01	0.0150	0.0210	ND	ND	ND	0.00244	ND	ND	ND	0.0132

COPPOR00009051

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
MW-32	02/16/00	0.00071	0.0189	0.00007	0.00297	0.00399	0.00309	ND	ND	ND	0.00603
	05/30/00	0.00147	0.0268	ND	0.00195	0.0043	0.00159	ND	ND	ND	0.0069
	08/23/00	ND	0.0147	ND	ND	0.00251	ND	ND	ND	ND	ND
	12/01/00	0.00193	0.0142	ND	ND	ND	ND	ND	0.00120	ND	ND
	02/22/01	ND	0.00921	ND	0.00119	ND	ND	ND	ND	ND	ND
	05/16/01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-33	02/16/00	0.00842	0.0768	0.00006	0.00162	0.00423	0.00368	ND	ND	ND	0.00746
	05/30/00	0.00655	0.111	ND	0.00179	0.00338	0.00154	ND	ND	ND	0.00721
	08/24/00	0.0103	0.227	ND	0.00104	0.00246	ND	ND	0.00259	ND	ND
	11/30/00	0.0580	0.563	ND	0.00223	0.00343	ND	ND	0.00163	ND	0.00882
	02/22/01	0.0142	0.0910	ND	0.00179	0.00339	0.00103	ND	ND	ND	0.00944
dup	02/22/01	0.0142	0.104	ND	0.00188	0.00390	0.00155	ND	ND	ND	0.0110
	05/16/01	0.0178	0.184	ND	ND	0.00128	ND	ND	ND	ND	ND
	09/21/01	0.0100	0.0757	ND	ND	ND	ND	ND	0.00151	ND	ND
	03/14/02	0.00975	0.0722	ND	ND	ND	ND	ND	ND	0.00202	ND
	09/27/02	0.0302	0.356	ND	0.00206	0.00303	0.00136	ND	ND	ND	0.0205
	03/18/03	0.00867	0.0401	ND	ND	NS	ND	ND	ND	0.00140	NS
	09/24/03	0.0232	0.191	ND	ND	ND	ND	ND	ND	ND	ND
	03/29/04	0.0124	0.0552	<0.00100	0.00114	<0.00200	<0.00100	<0.000200	<0.00100	<0.00100	<0.00500
	09/27/04	0.132	1.41	<0.00200	0.00628	0.0135	<0.00200	0.000490	<0.00200	<0.00200	0.0319
	03/29/05	0.00757	0.325	<0.00100	0.000360	0.00244	0.000210	<0.000200	<0.00100	<0.00100	0.00737
	09/21/05	0.0181	0.398	<0.00100	0.00165	0.00290	<0.00100	<0.000200	<0.00200	<0.00100	0.00580
dup	09/21/05	0.0163	0.366	<0.00100	0.00151	0.00292	<0.00100	<0.000200	<0.00200	<0.00100	0.00516
MW-34	09/21/01	0.0697	0.381	0.00239	0.0143	0.144	0.0146	ND	0.00146	ND	0.104
	03/14/02	0.0376	0.178	ND	0.00582	0.0132	0.00549	ND	ND	0.00151	0.0321
	09/27/02	0.162	0.670	0.00164	0.0264	0.0676	0.0226	ND	0.00130	ND	0.126
	03/18/03	0.0148	0.0934	ND	0.00602	NS	0.00541	ND	ND	0.00113	NS
	09/24/03	0.0109	0.0654	ND	0.00106	0.00236	0.00117	ND	ND	ND	0.00994
	03/29/04	0.00364	0.0350	<0.00100	0.00114	<0.00200	<0.00100	<0.000200	<0.00100	<0.00100	<0.00500
	09/27/04	0.0879	0.355	<0.00100	0.0114	0.0285	0.0111	<0.000200	0.00131	<0.00100	0.0547
dup	03/29/05	0.0126		<0.00100	0.000530	0.00475	0.00158	<0.000200	0.000350	<0.00100	0.0127
	03/29/05	0.0125	0.0756	<0.00100	0.000460	0.00382	0.00148	<0.000200	0.000430	<0.00100	0.0119
	09/21/05	0.0537	0.133	<0.00100	0.00105	0.00354	0.00113	<0.000200	<0.00200	<0.00100	0.00754

COPPOR00009052

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
MW-36	02/16/00	0.0146	0.0575	0.00005	0.00413	0.00614	0.00355	ND	0.00022	ND	0.0131
	05/31/00	0.0149	0.0512	ND	0.0018	0.00308	ND	ND	ND	ND	ND
	08/24/00	0.0187	0.0570	ND	ND	0.00222	ND	ND	0.00111	ND	0.0108
	11/30/00	0.0225	0.0701	ND	ND	ND	ND	ND	0.00147	ND	ND
	02/21/01	0.0201	0.0560	ND	0.00151	0.00280	ND	ND	ND	ND	0.00677
	05/16/01	0.0297	0.0826	ND	ND	0.0169	ND	ND	ND	ND	0.0149
	09/21/01	0.0168	0.0541	ND	ND	ND	ND	ND	0.00108	ND	ND
	03/13/02	0.00442	0.0252	ND	ND	0.00297	ND	ND	ND	ND	0.0122
	03/18/03	0.00541	0.0316	ND	0.00122	NS	ND	ND	ND	ND	NS
	09/24/03	0.0436	0.116	ND	0.00103	0.00234	ND	ND	ND	ND	ND
	3/29/04	0.0108	0.0339	<0.00100	0.00131	0.00385	0.00144	<0.000200	<0.00100	<0.00100	<0.00500
	9/27/2004	0.0320	0.0679	<0.00100	0.00238	0.00739	0.00334	<0.000200	0.00140	<0.00100	0.00675
	09/21/05	0.0336	0.0567	<0.00100	<0.00100	0.00307	<0.00100	<0.000200	<0.00200	<0.00100	<0.00500
MW-37	02/16/00	0.0184	0.0748	0.00022	0.00721	0.0118	0.00469	ND	0.00032	ND	0.0184
	05/30/00	0.0199	0.0567	ND	0.00356	0.00572	0.0018	ND	0.00158	ND	0.0111
dup	05/30/00	0.0189	0.0586	ND	0.00408	0.00637	0.00205	ND	ND	ND	0.0121
	08/24/00	0.0227	0.0453	ND	ND	ND	ND	ND	0.00158	ND	0.00598
	11/30/00	0.0221	0.0693	ND	0.00419	0.00605	0.00353	ND	0.00123	ND	0.0123
	02/21/01	0.0223	0.0404	ND	0.00153	0.00206	ND	ND	ND	ND	0.00526
	05/16/01	0.0209	0.0403	ND	ND	ND	ND	ND	ND	ND	ND
	09/21/01	0.0222	0.0432	ND	0.00127	ND	0.00147	ND	ND	ND	ND
	09/27/02	0.0190	0.0429	ND	ND	ND	ND	ND	ND	ND	ND
dup	09/27/02	0.0194	0.0423	ND	ND	ND	ND	ND	ND	ND	0.00923
	03/18/03	0.00864	0.0259	ND	ND	NS	ND	ND	ND	0.00141	NS
	09/27/04	0.0242	0.0679	<0.00100	0.00308	0.00565	0.00334	<0.000200	<0.00100	<0.00100	0.0181
	03/29/05	0.0153	0.0300	<0.00100	0.000230	<0.00100	0.000580	<0.000200	<0.00100	<0.00100	0.00449
	09/21/05	0.0194	0.0390	<0.00100	<0.00100	<0.00200	0.00144	<0.000200	<0.00200	<0.00100	<0.00500
MW-39	03/29/04	0.0174	0.110	<0.00100	0.00988	0.0163	0.00823	<0.000200	<0.00100	<0.00100	0.0346
	09/27/04	0.0304	0.281	<0.00100	0.0248	0.0832	0.0190	<0.000200	0.00140	<0.00100	0.113
	09/21/05	0.0199	0.0891	<0.00100	0.00218	0.0110	0.00238	<0.000200	<0.00200	<0.00100	0.0139

COPPOR0009053

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
MW-40	02/16/00	0.0221	0.185	0.00011	0.0202	0.0289	0.0254	ND	0.00047	0.00012	0.0669
	05/30/00	0.025	0.107	ND	0.00783	0.0107	0.00837	ND	ND	ND	0.0245
	08/24/00	0.0270	0.123	ND	0.00162	0.00316	0.00141	ND	0.00385	ND	0.0160
	11/30/00	0.0319	0.144	ND	0.00433	0.00734	0.00491	ND	0.00187	ND	0.0178
	02/21/01	0.0387	0.119	ND	0.00375	0.00607	0.00330	ND	ND	ND	0.0183
	05/16/01	0.0239	0.102	ND	0.00224	0.00314	0.00193	ND	ND	ND	0.00862
	09/21/01	0.0248	0.106	ND	0.00306	0.00343	0.00254	ND	0.00232	ND	0.0107
	03/13/02	0.0126	0.0538	ND	0.00197	0.00336	0.00194	ND	ND	ND	0.0124
	09/27/02	0.0281	0.219	ND	0.00881	0.0104	0.00808	ND	ND	ND	0.0250
	03/18/03	0.0174	0.0485	ND	0.00135	NS	0.00130	ND	ND	ND	NS
	09/24/03	0.0448	0.254	ND	0.00895	0.0131	0.0316	ND	ND	ND	0.0326
dup	09/24/03	0.0678	0.397	ND	0.0179	0.0249	0.0538	ND	ND	ND	0.0627
	03/29/04	0.0190	0.0897	<0.00100	0.00124	0.00264	0.00124	<0.000200	<0.00100	<0.00100	<0.00500
dup	03/29/04	0.0178	0.0797	<0.00100	0.00719	<0.00200	0.00128	<0.000200	<0.00100	<0.00100	<0.00500
	9/27/2004	0.0611	0.343	<0.00100	0.0179	0.0293	0.0308	<0.000200	<0.00100	<0.00100	0.0764
	3/29/2005	0.0198	0.0627	<0.00100	0.000380	0.00360	0.00229	<0.000200	0.000480	<0.00100	0.00718
	09/21/05	0.0295	0.0807	<0.00100	<0.00100	0.00434	0.00126	<0.000200	<0.00200	<0.00100	0.00592

COPPOR00009054

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
CONOCOPHILLIPS											
B-4	05/26/00	0.035	0.245	ND	0.0275	0.0425	0.014	ND	ND	ND	0.075
dup	05/26/00	0.0367	0.259	ND	0.0283	0.0443	0.0147	ND	ND	ND	0.0785
	08/28/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	11/29/00	0.0316	0.106	ND	0.00532	0.00968	0.00285	ND	0.00165	ND	0.0176
	02/20/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/17/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	09/26/02	0.0308	0.0999	ND	0.00541	0.00885	0.00272	ND	0.00129	ND	0.0259
	09/25/03	0.0316	0.0928	ND	0.00258	0.00497	0.00155	ND	0.00129	ND	0.0147
B-17	02/17/00	0.0579	0.549	0.00036	0.091	0.140	0.0676	ND	0.00152	0.00028	0.215
	05/26/00	0.0509	0.195	ND	0.0191	0.029	0.0171	ND	0.00126	ND	0.0485
	08/28/00	0.0532	0.113	ND	0.00279	0.00417	0.00660	ND	ND	ND	0.0120
	11/29/00	0.0525	0.111	ND	0.00217	0.00695	0.00636	ND	0.00220	ND	0.00979
	02/23/01	0.0519	0.0821	ND	0.00130	0.00302	0.00470	ND	ND	ND	0.00966
dup	02/23/01	0.0511	0.0885	ND	0.00305	0.00691	0.00535	ND	0.00119	ND	0.0143
	05/17/01	0.0656	0.125	ND	0.00518	0.00746	0.00812	ND	ND	ND	0.0287
dup	05/17/01	0.0650	0.114	ND	0.00406	0.00546	0.00718	ND	0.00126	ND	0.0150
B-18	02/17/00	0.0223	0.507	0.00044	0.0797	0.110	0.0293	0.000098	0.00158	0.00022	0.174
	05/26/00	0.0228	0.203	ND	0.0211	0.0313	0.00922	ND	ND	ND	0.0558
	08/28/00	0.0221	0.130	0.00111	0.00563	0.00684	0.00315	ND	ND	ND	0.0270
	11/29/00	0.0171	0.128	ND	0.00238	0.00451	0.00120	ND	0.00153	ND	0.0157
	02/23/01	0.0256	0.118	ND	0.00538	0.0107	0.00294	ND	ND	ND	0.0506
	05/17/01	0.0372	0.138	ND	0.00774	0.00959	0.00310	ND	0.00106	0.00101	0.0309
B-22	02/17/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	05/26/00	0.0255	0.126	ND	0.0105	0.0187	0.00561	ND	ND	ND	0.0385
	08/28/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	11/29/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	02/20/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/17/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F

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TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
B-35	02/17/00	0.0602	0.480	0.00062	0.0893	0.122	0.0828	ND	0.00164	0.00021	0.311
	05/26/00	0.0102	0.116	ND	0.00786	0.0114	0.00264	ND	0.0013	ND	0.0233
	08/28/00	0.0377	0.128	0.00153	0.00467	0.00612	0.00643	ND	ND	ND	0.0339
	11/29/00	0.0468	0.131	ND	0.00316	0.00691	0.00619	ND	0.00212	ND	0.0208
	02/23/01	0.0347	0.0816	ND	0.00200	0.00380	0.00305	ND	0.00100	ND	0.0308
	05/17/01	0.0504	0.153	ND	0.0107	0.0141	0.0106	ND	ND	ND	0.0511
	09/20/01	0.0344	0.0901	ND	0.00178	0.00420	0.00160	ND	ND	ND	0.00632
	03/14/02	0.0335	0.308	ND	0.0463	0.0534	0.0298	ND	0.00139	0.00145	0.146
	09/26/02	0.0296	0.225	ND	0.0298	0.0314	0.0147	ND	0.00131	ND	0.0816
	03/18/03	0.0387	0.0958	ND	0.00155	0.00422	0.00277	ND	ND	ND	0.00700
	09/25/03	0.0517	0.132	ND	0.00334	0.00631	0.00536	ND	ND	ND	0.0171
	3/30/04	0.0291	0.135	<0.00100	0.0119	0.0149	0.00779	<0.000200	<0.00100	<0.00100	0.0152
	9/28/04	0.0422	0.182	<0.00100	0.00829	NA	0.00993	0.00171	<0.00100	<0.00100	NA
	3/28/05	0.0381	0.160	<0.00100	0.0124	0.0180	0.0156		<0.00100	<0.00100	0.0776
	9/20/05	0.0426	0.282	<0.00100	0.0329	0.0408	0.0306	<0.000200	<0.00200	<0.00100	0.107
B-36	02/17/00	0.0105	0.168	0.00021	0.0222	0.0306	0.00779	ND	0.00064	ND	0.0551
	05/26/00	0.0105	0.120	ND	0.00819	0.012	0.00251	ND	ND	ND	0.025
	08/28/00	0.0224	0.156	ND	0.00784	0.00876	0.00322	ND	ND	ND	0.0474
	11/29/00	0.0223	0.130	ND	0.00525	0.00834	0.00171	ND	0.00202	ND	0.0171
	02/23/01	0.0488	0.174	ND	0.00371	0.00666	0.00142	ND	0.00234	ND	0.0244
	05/17/01	0.0387	0.476	ND	0.05720	0.06960	0.01650	ND	0.00301	ND	0.138
	09/20/01	0.0185	0.0861	ND	0.00154	0.00302	ND	ND	ND	ND	0.00761
dup	09/20/01	0.0204	0.0974	ND	0.00294	0.00411	ND	ND	ND	ND	0.0132
	03/14/02	0.00840	0.0901	ND	0.00874	0.0114	0.00271	ND	ND	ND	0.0294
	09/26/02	0.0170	0.109	ND	0.00688	0.00910	0.00440	ND	ND	ND	0.0334
	03/18/03	0.00402	0.0409	ND	0.00234	0.00393	0.00144	ND	ND	ND	0.00729
	09/25/03	0.0200	0.0644	ND	ND	ND	ND	ND	0.00105	ND	ND
	03/30/04	0.00719	0.0586	<0.00100	0.00313	0.00580	0.00149	<0.000200	<0.00100	<0.00100	0.0152
	09/28/04	0.0233	0.112	<0.00100	0.00349	NA	0.00120	0.000285	<0.00100	<0.00100	NA
dup	09/28/04	0.0221	0.0814	<0.00100	0.00222	NA	<0.00100	<0.000200	<0.00100	<0.00100	NA
	03/28/05	0.0240	0.104	<0.00100	0.00367	0.00482	0.00153		<0.00100	<0.00100	0.0195
	9/20/05	0.0205	0.103	<0.00100	0.00450	0.00637	0.00145	<0.000200	<0.00200	<0.00100	0.0132

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TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
B-37	02/17/00	0.369	0.152	0.00033	0.0159	0.0297	0.00705	ND	0.00159	ND	0.0544
dup	02/17/00	0.327	0.0344	0.0004	0.00066	0.00145	0.00236	ND	0.00025	ND	0.00159
	05/26/00	0.418	0.092	ND	0.00526	0.0131	0.00234	ND	ND	ND	0.0215
	08/28/00	0.897	0.227	ND	0.00462	0.00938	0.00209	ND	ND	ND	0.0303
	11/29/00	0.391	0.0990	ND	0.00221	0.00608	ND	ND	0.00132	ND	0.0120
	02/23/01	0.198	0.0747	ND	ND	0.00339	ND	ND	ND	ND	0.0170
	05/17/01	0.521	0.168	ND	0.00408	0.00984	0.00164	ND	ND	ND	0.0355
	03/14/02	0.0869	0.252	ND	0.0170	0.0409	0.00746	ND	ND	ND	0.0764
	09/26/02	0.117	0.119	ND	0.00603	0.0100	0.00625	ND	ND	ND	0.0348
	03/18/03	0.0758	0.121	ND	0.00829	0.0178	0.00429	ND	ND	0.00222	0.0539
dup	03/18/03	0.0683	0.0958	ND	0.00572	0.0115	0.00288	ND	ND	0.00141	0.0364
	09/25/03	0.260	0.158	ND	0.00290	0.00853	0.00119	ND	0.00169	ND	0.0215
dup	09/25/03	0.247	0.182	ND	0.00513	0.0143	0.00217	ND	ND	ND	0.0330
	03/31/04	0.125	0.0546	<0.00100	0.00137	0.00454	0.00131	<0.000200	<0.00100	<0.00100	0.00842
	09/28/04	0.131	0.0784	<0.00100	0.00218	NA	<0.00100	<0.000200	<0.00100	<0.00100	NA
	03/28/05	0.0734	0.0798	<0.00100	0.00187	0.00593	0.00157		<0.00100	<0.00100	0.0270
	9/20/05	0.0802	0.0827	<0.00100	0.00115	0.00229	<0.00100	<0.000200	<0.00200	<0.00100	0.0133
B-40	02/17/00	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S	NS/S
	05/26/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	08/28/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	11/29/00	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	02/20/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	05/17/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
U-2	02/17/00	0.0186	0.0632	0.00023	0.00363	0.0116	0.00499	ND	0.00034	ND	0.0241
	05/26/00	0.011	0.0503	ND	0.00137	0.00537	0.00145	ND	ND	ND	0.0109
	08/28/00	0.0119	0.0503	0.00120	0.00109	0.00377	0.00169	ND	ND	ND	0.0147
	11/29/00	0.00729	0.0499	ND	0.00158	0.00314	0.00109	ND	0.00105	ND	0.0131
	02/23/01	0.00887	0.0373	ND	ND	0.00935	0.00173	ND	ND	ND	0.0212
	05/17/01	0.00953	0.0427	ND	0.00129	0.00916	0.00257	ND	ND	ND	0.0205
	09/20/01	0.00680	0.0397	ND	ND	0.00421	ND	ND	ND	ND	0.00700
	03/14/02	0.0108	0.0534	ND	0.00168	0.00666	0.00183	ND	ND	ND	0.0436
	09/26/02	0.00678	0.0443	ND	ND	0.00277	ND	ND	0.00127	ND	0.0116
	03/18/03	0.00998	0.0487	ND	0.00100	0.00583	0.00111	ND	ND	ND	0.0398
	09/25/03	0.00978	0.0749	ND	0.00658	0.00896	0.00268	ND	ND	ND	0.0636
	03/31/04	0.0158	0.0646	<0.00100	0.00243	0.0107	0.00313	<0.000200	0.00116	<0.00100	0.0500
	09/28/04	0.0111	0.0762	<0.00100	0.00318	NA	0.00282	<0.000200	<0.00100	<0.00100	NA
	03/28/05	0.0132	0.0996	<0.00100	0.00326	0.0187	0.00531	<0.000200	<0.00100	<0.00100	0.0944
	9/20/05	0.0198	0.129	<0.00100	0.00174	0.0170	0.00550	<0.000200	<0.00200	<0.00100	0.0520

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TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
U-3	02/17/00	0.0421	0.194	0.00023	0.0241	0.0171	0.0225	ND	0.00102	ND	0.268
	05/26/00	0.040	0.171	ND	0.0149	0.0116	0.0182	ND	0.00145	ND	0.139
	08/28/00	0.0365	0.124	ND	0.00704	0.00673	0.0212	ND	0.00202	ND	0.103
	11/29/00	0.0428	0.170	ND	0.00994	0.00949	0.0167	ND	0.00342	ND	0.107
dup	11/29/00	0.0413	0.172	ND	0.00996	0.00932	0.0149	ND	0.00284	ND	0.0973
	02/23/01	0.119	0.631	ND	0.170	0.107	303	ND	ND	ND	1.47
	05/17/01	0.0450	0.111	ND	0.00359	0.00439	0.00427	ND	0.00170	ND	0.0258
U-4	05/26/00	0.0188	0.101	ND	0.00367	0.00749	0.00268	ND	ND	ND	0.0149
	08/28/00	0.0198	0.0930	ND	ND	0.00214	0.00129	ND	ND	ND	0.0150
dup	08/28/00	0.0189	0.0922	ND	ND	0.00299	0.00131	ND	ND	ND	0.0157
	11/29/00	0.0198	0.0911	ND	ND	ND	ND	ND	0.00194	ND	0.00895
	02/23/01	0.0216	0.0802	ND	ND	ND	ND	ND	ND	ND	0.00587
	05/17/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	09/26/02	0.0183	0.106	ND	0.00432	0.0105	0.00484	ND	0.00180	ND	0.0377
dup	09/26/02	0.0183	0.106	ND	0.00403	0.00976	0.00379	ND	0.00128	ND	0.0313
U-5	02/17/00	0.0127	0.164	0.00094	0.0175	0.0456	0.0189	ND	0.00095	ND	0.933
	05/26/00	0.0104	0.0748	ND	0.00225	0.00912	0.0037	ND	ND	ND	0.286
	08/28/00	0.0109	0.219	ND	0.00759	0.0216	0.0143	ND	0.00165	ND	0.884
	11/29/00	0.0123	0.124	ND	0.00547	0.0216	0.00856	ND	0.00216	ND	0.825
	02/23/01	0.0126	0.101	ND	0.00692	0.0345	0.0140	ND	0.00100	ND	1.17
	05/17/01	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F	NS/F
	03/18/03	0.0110	0.170	ND	0.0129	0.0663	0.0158	ND	ND	0.00323	2.59
	09/25/03	0.0126	0.102	ND	0.00736	0.0201	0.00947	ND	0.00118	ND	0.800
	03/31/04	0.00802	0.0852	<0.00100	0.00758	0.0230	0.0115	<0.000200	<0.00100	<0.00100	0.785
	09/28/04	0.00987	0.103	<0.00100	0.00623	NA	0.0106	0.000228	<0.00100	<0.00100	NA
	03/28/05	0.0123	0.131	<0.00100	0.0229	0.0645	0.0381	<0.000200	<0.00100	<0.00100	1.98
	9/20/05	0.00704	0.107	<0.00100	0.00583	0.0188	0.0124	<0.000200	<0.00200	<0.00100	0.720
U-10	03/18/03	0.107	3.39	ND	0.313	0.403	0.176	0.000551	ND	ND	1.22
	09/25/03	0.00975	0.196	ND	0.0132	0.0149	0.00904	ND	ND	ND	0.0493
	03/30/04	0.0316	0.128	<0.00100	0.00481	0.00573	0.0225	<0.000200	<0.00100	<0.00100	0.0288
	09/28/04	0.00657	0.201	<0.00100	0.00966	NA	0.00852	<0.000200	<0.00100	<0.00100	NA
	03/28/05	0.00643	0.127	<0.00100	0.00529	0.00600	0.00462	<0.000200	<0.00100	<0.00100	0.0293
	9/20/05	0.00686	0.123	<0.00100	0.00120	0.00258	0.00205	<0.000200	<0.00200	<0.00100	0.0106

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TABLE 4
GROUNDWATER ANALYTICAL RESULTS - TOTAL METALS
Willbridge Terminals
Portland, Oregon

Sample I.D.	Sample Date	Arsenic (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Selenium (mg/l)	Silver (mg/l)	Zinc (mg/l)
U-11	03/18/03	0.00942	0.372	ND	0.0297	0.0339	0.0336	0.000211	0.00153	ND	0.110
	09/25/03	0.0343	0.0893	ND	0.00220	0.00287	0.00830	ND	0.00101	ND	0.0124
	03/30/04	0.00679	0.363	<0.00100	0.0341	0.312	0.0212	<0.000200	0.00165	<0.00100	0.103
dup	03/30/04	0.0357	0.108	<0.00100	0.00400	0.00594	0.0201	<0.000200	<0.00100	<0.00100	0.0292
	09/28/04	0.0106	0.534	<0.00100	0.05610	NA	0.0684	0.000472	0.00192	<0.00100	NA
	03/28/05	0.0388	0.106	<0.00100	0.00152	0.00218	0.00562	<0.000200	<0.00100	<0.00100	0.0137
	9/20/05	0.0453	0.273	<0.00100	0.0242	0.0309	0.116	0.000270	<0.00200	<0.00100	0.140
U-12	03/18/03	0.0323	0.136	ND	0.00600	0.00711	0.0228	ND	ND	ND	0.0338
	09/25/03	0.0418	1.91	ND	0.362	0.372	0.302	0.000559	0.00480	ND	1.2
	03/30/04	0.00655	0.248	<0.00100	0.0179	0.0233	0.0220	<0.000200	0.00185	<0.00100	0.0728
	09/28/04	0.0369	0.208	<0.00100	0.0102	NA	0.0499	<0.000200	<0.00100	<0.00100	NA
	03/28/05	0.0172	1.01	0.00211	0.132	0.140	0.146	<0.000200	0.00345	<0.00100	0.570
	9/20/05	0.00626	0.176	<0.00100	0.00798	0.00998	0.0125	<0.000200	<0.00200	<0.00100	0.0417
P-1	03/17/03	0.0225	1.27	ND	0.216	0.239	0.0946	0.000604	ND	ND	0.625
	03/31/04	0.0527	4.37	<0.0100	0.642	0.848	0.244	0.000816	<0.0100	<0.0100	1.73
P-2	03/17/03	0.0111	0.0783	ND	0.00232	0.00722	0.00288	ND	ND	0.00106	0.00979
	9/25/03[1]	0.00966	0.116	ND	0.00443	0.0116	0.00553	ND	0.00109	ND	0.0137
	03/30/04	0.00805	0.131	<0.00100	0.00187	0.00447	0.00126	<0.000200	<0.00100	<0.00100	0.0123
	09/28/04	0.0103	0.163	<0.00100	0.00570	NA	0.00742	0.000214	0.00103	<0.00100	NA
	03/28/05	0.00951	0.141	<0.00100	0.00335	0.00900	0.00454	<0.000200	<0.00100	<0.00100	0.0119
	9/20/05	0.00659	0.144	<0.00100	0.00567	0.0152	0.00728	<0.000200	<0.00200	<0.00100	0.0131

NOTES:
ND - Not detected at laboratory reporting limits
NS/F = Not sampled floating product present
NS/S = Not sampled sheen present
2/00 and 5/00 data from IT Corporation
8/00, 11/00, 2/01 and 5/01 data from KHM Environmental Management, Inc.
Sample locations are shown on Figure 2
Analytical Reports are included in Attachment B
dup* = duplicate for B-30 submitted as blind duplicate labeled as B-50
dup**= duplicate for B-30 submitted as blind duplicate labeled as B-31
dup***= duplicate for B-30 submitted as blind duplicate labeled as B-130
1 = Sample ID was misidentified by the laboratory as D-2
Total Metals Analysis by EPA 6000/7000 Series Methods

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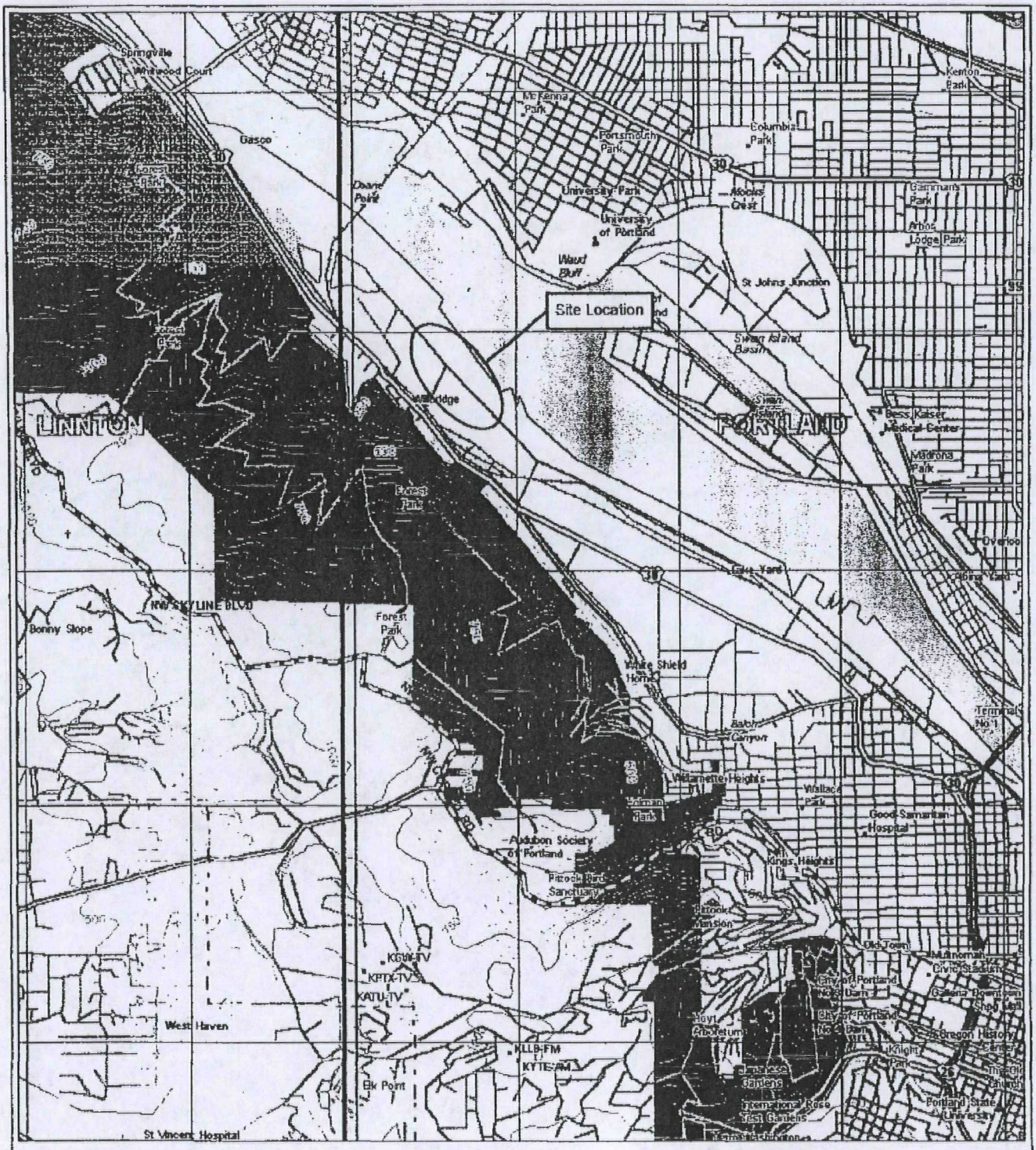
FIGURES

COPPOR00009060



REFERENCES

USGS 7.5 Minute Topographic Maps
Portland, Oregon-Washington
Linnton, Oregon
DeLorme TopoQuads, 1999
SCALE: 1 inch = 3750 feet

North

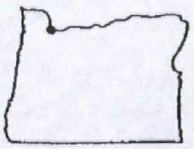


FIGURE 1

SITE LOCATION MAP

Willbridge Petroleum Terminals
Portland, Oregon

PROJECT NO. PTWB-02A-5	DRAWN BY KNT 6-12-03
FILE NO. PTWB-02A-5	PREPARED BY NWH 11-11-05
REVISION NO.	REVIEWED BY

Delta Environmental Consultants, Inc.

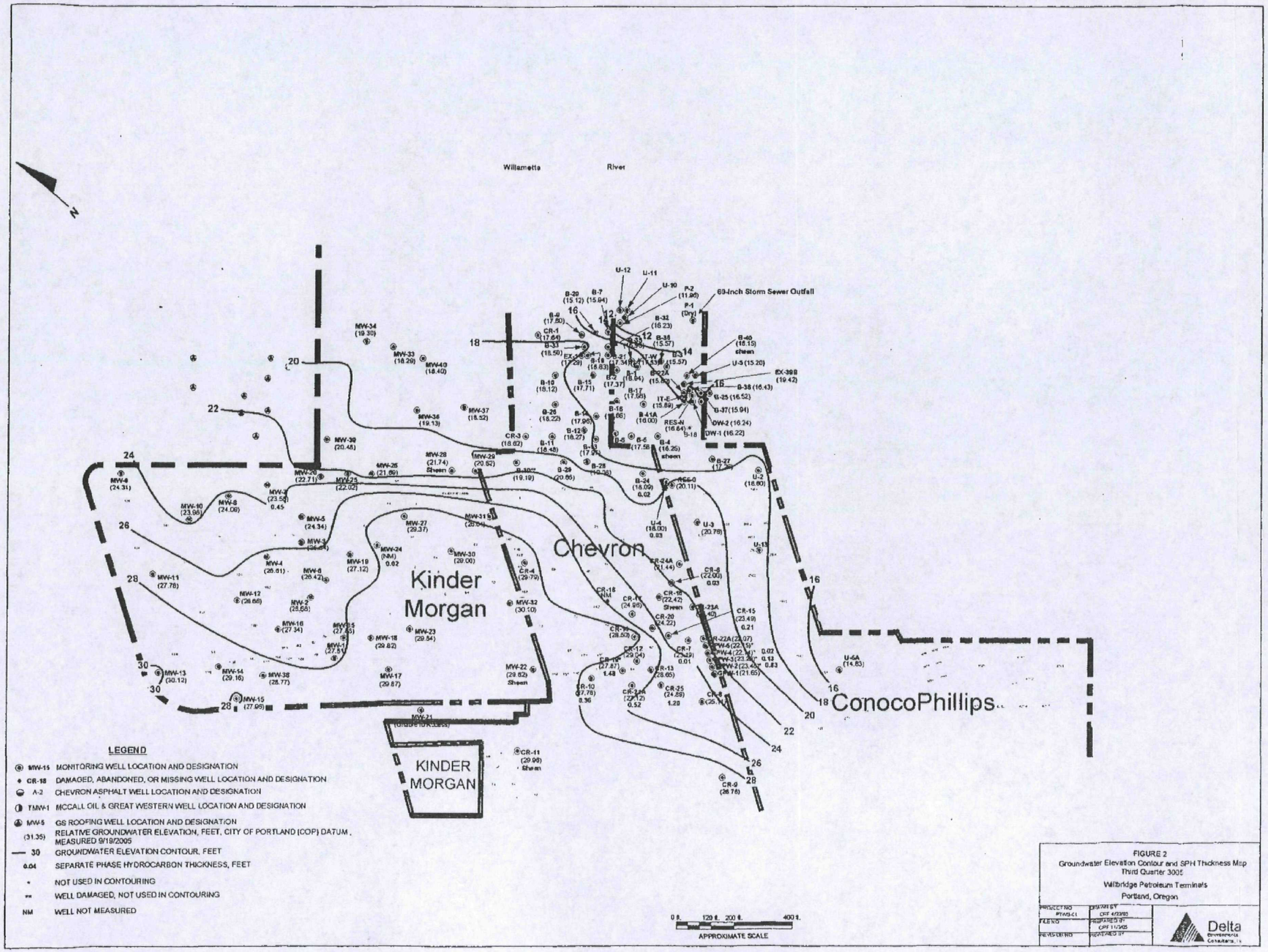
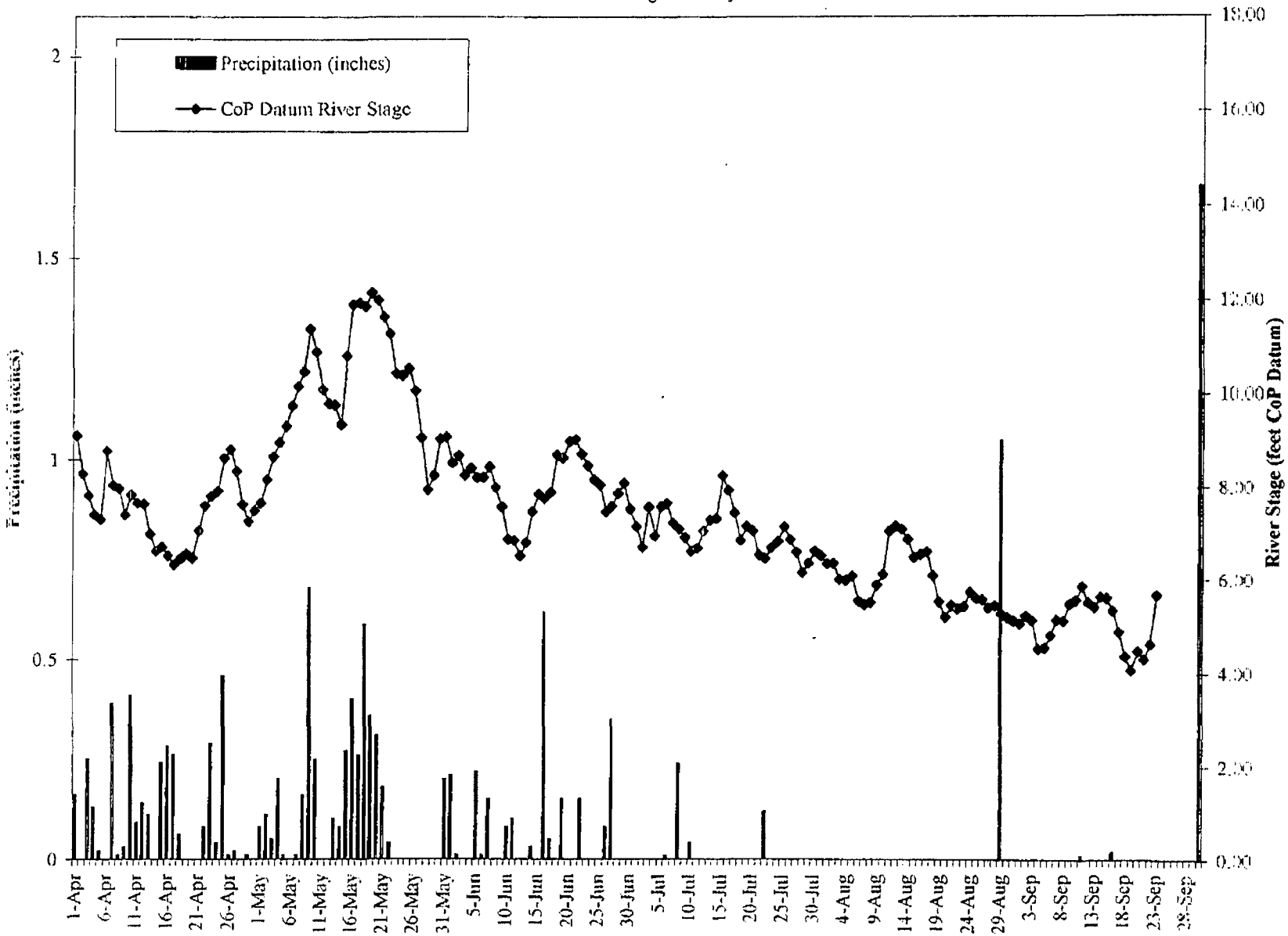


FIGURE 2
Groundwater Elevation Contour and SPH Thickness Map
Third Quarter 3005
Willbridge Petroleum Terminals
Portland, Oregon

COPPOR00009062

FIGURE 3
PRECIPITATION AND RIVER STAGE
April - September 2005
Willbridge Facility



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APPENDIX

COPPOR00009064

APPENDIX A

GROUNDWATER MONITORING AND SAMPLING PROCEDURES, CERTIFIED ANALYTICAL LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Groundwater Monitoring and Sampling

Before the sampling event, Delta measured depth to water in each groundwater monitoring well at the facility with a Solinst Electronic Oil/Water Interface Probe. This information was recorded on waterproof field sheets. Groundwater elevations (GWE) were measured to an accuracy of 0.01 feet. Wells were sampled after purging three casing volumes of water from the well (or until dry). Wells with observable amounts of SPH were not sampled. After the well had recharged to approximately 80% of static level, samples were collected using a disposable polyethylene bailer and placed in the appropriate laboratory-provided containers. Samples were labeled, placed into ice filled coolers, logged onto chain-of-custody forms and transported to the laboratory.

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October 11, 2005

Kelly Kline
Delta Environmental Consultants - Tigard
7150 SW Hampton - Suite 220
Tigard, OR 97223

RE: Tosco #0608, Portland, OR

Enclosed are the results of analyses for samples received by the laboratory on 09/21/05 11:00.
The following list is a summary of the NCA Work Orders contained in this report.
If you have any questions concerning this report, please feel free to contact me.

Work	Project	ProjectNumber
P5I0752	Tosco #0608, Portland, OR	PTWB-02A-5

Thank You,

Sarah Rockwell

Sarah Rockwell, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 16:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P-2	P5I0752-01	Water	09/20/05 14:40	09/21/05 11:00
U-2	P5I0752-02	Water	09/20/05 08:55	09/21/05 11:00
U-3	P5I0752-03	Water	09/20/05 09:15	09/21/05 11:00
U-5	P5I0752-04	Water	09/20/05 13:25	09/21/05 11:00
U-10	P5I0752-05	Water	09/20/05 14:00	09/21/05 11:00
U-11	P5I0752-06	Water	09/20/05 14:15	09/21/05 11:00
U-12	P5I0752-07	Water	09/20/05 14:30	09/21/05 11:00
B-2	P5I0752-08	Water	09/20/05 13:10	09/21/05 11:00
B-3	P5I0752-09	Water	09/20/05 12:30	09/21/05 11:00
B-6	P5I0752-10	Water	09/20/05 11:50	09/21/05 11:00
B-16	P5I0752-11	Water	09/20/05 11:20	09/21/05 11:00
B-35	P5I0752-12	Water	09/20/05 13:40	09/21/05 11:00
B-36	P5I0752-13	Water	09/20/05 12:50	09/21/05 11:00
B-37	P5I0752-14	Water	09/20/05 10:00	09/21/05 11:00
B-37-D	P5I0752-15	Water	09/20/05 10:00	09/21/05 11:00

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7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 16:41

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-01	**Water**	**P-2**	**Sampled: 09/20/05 14:40**								
Arsenic		EPA 6020	**0.00659**	----	0.00100	mg/l	1x	5091125	09/27/05	09/28/05 07:53	
Barium		"	**0.144**	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	"	
Chromium		"	**0.00567**	----	0.00100	"	"	"	"	"	
Copper		"	**0.0152**	----	0.00200	"	"	"	"	"	
Lead		"	**0.00728**	----	0.00100	"	"	"	"	"	
Selenium		"	ND	----	0.00200	"	"	"	"	09/29/05 04:37	
Silver		"	ND	----	0.00100	"	"	"	"	09/28/05 07:53	
Zinc		"	**0.0131**	----	0.00500	"	"	"	"	"	
P5I0752-02	**Water**	**U-2**	**Sampled: 09/20/05 08:55**								
Arsenic		EPA 6020	**0.0198**	----	0.00100	mg/l	1x	5091125	09/27/05	09/28/05 08:01	
Barium		"	**0.129**	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	"	
Chromium		"	**0.00174**	----	0.00100	"	"	"	"	"	
Copper		"	**0.0170**	----	0.00200	"	"	"	"	"	
Lead		"	**0.00550**	----	0.00100	"	"	"	"	"	
Selenium		"	ND	----	0.00200	"	"	"	"	09/29/05 04:44	
Silver		"	ND	----	0.00100	"	"	"	"	09/28/05 08:01	
Zinc		"	**0.0520**	----	0.00500	"	"	"	"	"	
P5I0752-04	**Water**	**U-5**	**Sampled: 09/20/05 13:25**								
Arsenic		EPA 6020	**0.00704**	----	0.00100	mg/l	1x	5091125	09/27/05	09/28/05 00:19	
Barium		"	**0.107**	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	"	
Chromium		"	**0.00583**	----	0.00100	"	"	"	"	"	
Copper		"	**0.0188**	----	0.00200	"	"	"	"	"	
Lead		"	**0.0124**	----	0.00100	"	"	"	"	"	
Selenium		"	ND	----	0.00200	"	"	"	"	09/29/05 04:52	
Silver		"	ND	----	0.00100	"	"	"	"	09/28/05 00:19	
Zinc		"	**0.720**	----	0.00500	"	"	"	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-05	**Water**	**U-10**	**Sampled: 09/20/05 14:00**								
Arsenic		EPA 6020	0.00686	----	0.00100	mg/l	1x	5091125	09/27/05	09/28/05 01:05	
Barium		"	0.123	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	"	
Chromium		"	0.00120	----	0.00100	"	"	"	"	"	
Copper		"	0.00258	----	0.00200	"	"	"	"	"	
Lead		"	0.00205	----	0.00100	"	"	"	"	"	
Selenium		"	ND	----	0.00200	"	"	"	"	09/29/05 05:22	
Silver		"	ND	----	0.00100	"	"	"	"	09/28/05 01:05	
Zinc		"	0.0106	----	0.00500	"	"	"	"	"	
P5I0752-06	**Water**	**U-11**	**Sampled: 09/20/05 14:15**								
Arsenic		EPA 6020	0.0453	----	0.00100	mg/l	1x	5091125	09/27/05	09/28/05 08:08	
Barium		"	0.273	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	"	
Chromium		"	0.0242	----	0.00100	"	"	"	"	"	
Copper		"	0.0309	----	0.00200	"	"	"	"	"	
Lead		"	0.116	----	0.00100	"	"	"	"	"	
Selenium		"	ND	----	0.00200	"	"	"	"	09/29/05 05:59	
Silver		"	ND	----	0.00100	"	"	"	"	09/28/05 08:08	
Zinc		"	0.140	----	0.00500	"	"	"	"	"	
P5I0752-07	**Water**	**U-12**	**Sampled: 09/20/05 14:30**								
Arsenic		EPA 6020	0.00626	----	0.00100	mg/l	1x	5091125	09/27/05	09/28/05 08:24	
Barium		"	0.176	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	"	
Chromium		"	0.00798	----	0.00100	"	"	"	"	"	
Copper		"	0.00998	----	0.00200	"	"	"	"	"	
Lead		"	0.0125	----	0.00100	"	"	"	"	"	
Selenium		"	ND	----	0.00200	"	"	"	"	09/29/05 06:07	
Silver		"	ND	----	0.00100	"	"	"	"	09/28/05 08:24	
Zinc		"	0.0417	----	0.00500	"	"	"	"	"	

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7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-12	Water	B-35	Sampled: 09/20/05 13:40								
Arsenic		EPA 6020	0.0426	—	0.00100	mg/l	1x	5091125	09/27/05	09/28/05 08:47	
Barium		"	0.282	—	0.00100	"	"	"	"	"	
Cadmium		"	ND	—	0.00100	"	"	"	"	"	
Chromium		"	0.0329	—	0.00100	"	"	"	"	"	
Copper		"	0.0408	—	0.00200	"	"	"	"	"	
Lead		"	0.0306	—	0.00100	"	"	"	"	"	
Selenium		"	ND	—	0.00200	"	"	"	"	09/29/05 06:14	
Silver		"	ND	—	0.00100	"	"	"	"	09/28/05 08:47	
Zinc		"	0.107	—	0.00500	"	"	"	"	"	
P5I0752-13	Water	B-36	Sampled: 09/20/05 12:50								
Arsenic		EPA 6020	0.0205	—	0.00100	mg/l	1x	5091125	09/27/05	09/28/05 09:02	
Barium		"	0.103	—	0.00100	"	"	"	"	"	
Cadmium		"	ND	—	0.00100	"	"	"	"	"	
Chromium		"	0.00450	—	0.00100	"	"	"	"	"	
Copper		"	0.00637	—	0.00200	"	"	"	"	"	
Lead		"	0.00145	—	0.00100	"	"	"	"	"	
Selenium		"	ND	—	0.00200	"	"	"	"	09/29/05 06:22	
Silver		"	ND	—	0.00100	"	"	"	"	09/28/05 09:02	
Zinc		"	0.0132	—	0.00500	"	"	"	"	"	
P5I0752-14	Water	B-37	Sampled: 09/20/05 10:00								
Arsenic		EPA 6020	0.0802	—	0.00100	mg/l	1x	5091125	09/27/05	09/28/05 09:10	
Barium		"	0.0827	—	0.00100	"	"	"	"	"	
Cadmium		"	ND	—	0.00100	"	"	"	"	"	
Chromium		"	0.00115	—	0.00100	"	"	"	"	"	
Copper		"	0.00229	—	0.00200	"	"	"	"	"	
Lead		"	ND	—	0.00100	"	"	"	"	"	
Selenium		"	ND	—	0.00200	"	"	"	"	09/29/05 06:29	
Silver		"	ND	—	0.00100	"	"	"	"	09/28/05 09:10	
Zinc		"	0.0133	—	0.00500	"	"	"	"	"	

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Total Mercury per EPA Method 7470A

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-01	**Water**	**P-2**	**Sampled: 09/20/05 14:40**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5090933	09/22/05	09/22/05 16:54	
P5I0752-02	**Water**	**U-2**	**Sampled: 09/20/05 08:55**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5090933	09/22/05	09/22/05 16:56	
P5I0752-04	**Water**	**U-5**	**Sampled: 09/20/05 13:25**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5090933	09/22/05	09/22/05 16:59	
P5I0752-05	**Water**	**U-10**	**Sampled: 09/20/05 14:00**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5090933	09/22/05	09/22/05 17:01	
P5I0752-06	**Water**	**U-11**	**Sampled: 09/20/05 14:15**								
Mercury		EPA 7470A	0.000270	----	0.000200	mg/l	1x	5090933	09/22/05	09/22/05 17:08	
P5I0752-07	**Water**	**U-12**	**Sampled: 09/20/05 14:30**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5090933	09/22/05	09/22/05 17:10	
P5I0752-12	**Water**	**B-35**	**Sampled: 09/20/05 13:40**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5090933	09/22/05	09/22/05 17:13	
P5I0752-13	**Water**	**B-36**	**Sampled: 09/20/05 12:50**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5090933	09/22/05	09/22/05 17:15	
P5I0752-14	**Water**	**B-37**	**Sampled: 09/20/05 10:00**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5090933	09/22/05	09/22/05 17:17	

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Sarah Rockwell

arah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-01 Water	**P-2**	**Sampled: 09/20/05 14:40**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091016	09/24/05	09/24/05 16:46	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	**4.48**	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 104%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*116%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*112%*		*80 - 121 %*		"			"	
Toluene-d8		*107%*		*80 - 120 %*		"			"	
P5I0752-02 Water	**U-2**	**Sampled: 09/20/05 08:55**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091016	09/24/05	09/24/05 17:14	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 99.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*110%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*106%*		*80 - 121 %*		"			"	
Toluene-d8		*101%*		*80 - 120 %*		"			"	
P5I0752-03 Water	**U-3**	**Sampled: 09/20/05 09:15**								
Methyl tert-butyl ether	EPA 8260B	**5.09**	----	2.00	ug/l	1x	5091016	09/24/05	09/24/05 17:42	
Surrogate(s): 4-BFB		*Recovery: 106%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*123%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*118%*		*80 - 121 %*		"			"	
Toluene-d8		*116%*		*80 - 120 %*		"			"	
P5I0752-04 Water	**U-5**	**Sampled: 09/20/05 13:25**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091016	09/24/05	09/24/05 18:10	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 104%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*110%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*105%*		*80 - 121 %*		"			"	
Toluene-d8		*106%*		*80 - 120 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-05 Water	**U-10**	**Sampled: 09/20/05 14:00**								
Benzene	EPA 8260B	ND	—	0.200	ug/l	1x	5091016	09/24/05	09/24/05 18:38	
Toluene	"	ND	—	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	—	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 91.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*100%*		*80 - 121 %*		"			"	
Toluene-d8		*100%*		*80 - 120 %*		"			"	
P5I0752-06 Water	**U-11**	**Sampled: 09/20/05 14:15**								
Benzene	EPA 8260B	**0.480**	—	0.200	ug/l	1x	5091016	09/24/05	09/24/05 19:05	
Toluene	"	**1.10**	—	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.500	"	"	"	"	"	
Xylenes (total)	"	**1.17**	—	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 108%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*115%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*114%*		*80 - 121 %*		"			"	
Toluene-d8		*114%*		*80 - 120 %*		"			"	
P5I0752-07 Water	**U-12**	**Sampled: 09/20/05 14:30**								
Benzene	EPA 8260B	ND	—	0.200	ug/l	1x	5091016	09/24/05	09/24/05 19:33	
Toluene	"	ND	—	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	—	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	**4.54**	—	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 101%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*110%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*106%*		*80 - 121 %*		"			"	
Toluene-d8		*108%*		*80 - 120 %*		"			"	

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Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5
Tigard, OR 97223	Project Manager:	Kelly Kline

Report Created: 10/11/05 16:41

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-08 Water B-2 Sampled: 09/20/05 13:10										
Methyl tert-butyl ether	EPA 8260B	**4.30**	----	2.00	ug/l	1x	5091016	09/24/05	09/24/05 20:01	
Surrogate(s): 4-BFB		*Recovery: 95.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*100%*		*80 - 121 %*		"			"	
Toluene-d8		*97.5%*		*80 - 120 %*		"			"	
P5I0752-09 Water B-3 Sampled: 09/20/05 12:30										
Methyl tert-butyl ether	EPA 8260B	**8.26**	----	2.00	ug/l	1x	5091016	09/24/05	09/24/05 20:29	
Surrogate(s): 4-BFB		*Recovery: 98.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*108%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*106%*		*80 - 121 %*		"			"	
Toluene-d8		*106%*		*80 - 120 %*		"			"	
P5I0752-10 Water B-6 Sampled: 09/20/05 11:50										
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091016	09/24/05	09/24/05 20:57	
Surrogate(s): 4-BFB		*Recovery: 94.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*106%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*101%*		*80 - 121 %*		"			"	
Toluene-d8		*103%*		*80 - 120 %*		"			"	
P5I0752-11 Water B-16 Sampled: 09/20/05 11:20										
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091016	09/24/05	09/24/05 21:24	
Surrogate(s): 4-BFB		*Recovery: 94.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*108%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*102%*		*80 - 121 %*		"			"	
Toluene-d8		*104%*		*80 - 120 %*		"			"	
P5I0752-12 Water B-35 Sampled: 09/20/05 13:40										
Benzene	EPA 8260B	**82.0**	----	0.200	ug/l	1x	5091016	09/24/05	09/24/05 21:52	
Toluene	"	**10.4**	----	0.500	"	"	"	"	"	
Ethylbenzene	"	**1.79**	----	0.500	"	"	"	"	"	
Xylenes (total)	"	**12.2**	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	**6.48**	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 98.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*109%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*103%*		*80 - 121 %*		"			"	
Toluene-d8		*108%*		*80 - 120 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-13 Water	**B-36**	**Sampled: 09/20/05 12:50**								
Benzene	EPA 8260B	**0.390**	----	0.200	ug/l	1x	5091016	09/24/05	09/24/05 22:20	
Toluene	"	**0.930**	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	**2.63**	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 106%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*117%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*112%*		*80 - 121 %*		"			"	
Toluene-d8		*108%*		*80 - 120 %*		"			"	
P5I0752-14 Water	**B-37**	**Sampled: 09/20/05 10:00**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091016	09/24/05	09/24/05 22:48	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	**6.14**	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 100%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*108%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*101%*		*80 - 121 %*		"			"	
Toluene-d8		*100%*		*80 - 120 %*		"			"	
P5I0752-15 Water	**B-37-D**	**Sampled: 09/20/05 10:00**								
Methyl tert-butyl ether	EPA 8260B	**5.82**	----	2.00	ug/l	1x	5091016	09/24/05	09/24/05 23:15	
Surrogate(s): 4-BFB		*Recovery: 112%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*119%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*113%*		*80 - 121 %*		"			"	
Toluene-d8		*110%*		*80 - 120 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 16:41

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-02 Water	**U-2**	**Sampled: 09/20/05 08:55**								
Acenaphthene	EPA 8270m	**0.0232**	—	0.0196	ug/l	1x	5090983	09/23/05	09/29/05 00:22	
Acenaphthylene	"	ND	—	0.0196	"	"	"	"	"	
Anthracene	"	**0.0308**	—	0.0196	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0196	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0196	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0196	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0196	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0196	"	"	"	"	"	
Chrysene	"	ND	—	0.0196	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0196	"	"	"	"	"	
Fluoranthene	"	**0.0197**	—	0.0196	"	"	"	"	"	
Fluorene	"	**0.0283**	—	0.0196	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0196	"	"	"	"	"	
Naphthalene	"	ND	—	0.118	"	"	"	"	"	R-03
Phenanthrene	"	**0.0318**	—	0.0196	"	"	"	"	"	
Pyrene	"	**0.0292**	—	0.0196	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 72.2%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*74.7%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*79.6%*		*10 - 125 %*	"				"	
P5I0752-04 Water	**U-5**	**Sampled: 09/20/05 13:25**								**R-05**
Acenaphthene	EPA 8270m	**3.69**	—	0.192	ug/l	10x	5090983	09/23/05	09/29/05 00:50	
Acenaphthylene	"	ND	—	0.192	"	"	"	"	"	
Anthracene	"	**0.545**	—	0.192	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.192	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.192	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.192	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.192	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.192	"	"	"	"	"	
Chrysene	"	ND	—	0.192	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.192	"	"	"	"	"	
Fluoranthene	"	ND	—	0.192	"	"	"	"	"	
Fluorene	"	**5.80**	—	0.192	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.192	"	"	"	"	"	
Naphthalene	"	ND	—	2.31	"	"	"	"	"	R-03
Phenanthrene	"	**6.37**	—	0.192	"	"	"	"	"	
Pyrene	"	**0.443**	—	0.192	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 115%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*75.4%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*77.9%*		*10 - 125 %*	"				"	

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-05 Water	**U-10**	**Sampled: 09/20/05 14:00**								
Acenaphthene	EPA 8270m	ND	—	0.0198	ug/l	1x	5090983	09/23/05	09/29/05 01:17	
Acenaphthylene	"	ND	—	0.0198	"	"	"	"	"	
Anthracene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0198	"	"	"	"	"	
Chrysene	"	ND	—	0.0198	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0198	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0198	"	"	"	"	"	
Fluorene	"	ND	—	0.0198	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0198	"	"	"	"	"	
Naphthalene	"	ND	—	0.0297	"	"	"	"	"	R-03
Phenanthrene	"	ND	—	0.0198	"	"	"	"	"	
Pyrene	"	ND	—	0.0198	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 59.3%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*74.2%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*70.2%*		*10 - 125 %*		"			"	
P5I0752-06 Water	**U-11**	**Sampled: 09/20/05 14:15**								**R-05**
Acenaphthene	EPA 8270m	**1.39**	—	0.102	ug/l	5x	5090983	09/23/05	09/30/05 15:08	
Acenaphthylene	"	ND	—	0.102	"	"	"	"	"	
Anthracene	"	**0.296**	—	0.102	"	"	"	"	"	
Benzo (a) anthracene	"	**0.200**	—	0.102	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.102	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.102	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.102	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.102	"	"	"	"	"	
Chrysene	"	**0.175**	—	0.102	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.102	"	"	"	"	"	
Fluoranthene	"	**0.608**	—	0.102	"	"	"	"	"	
Fluorene	"	**3.19**	—	0.102	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.102	"	"	"	"	"	
Naphthalene	"	ND	—	1.68	"	"	"	"	"	R-03
Phenanthrene	"	**3.30**	—	0.102	"	"	"	"	"	
Pyrene	"	**0.830**	—	0.102	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 70.6%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*78.0%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*82.0%*		*10 - 125 %*		"			"	

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Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 16:41

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-07 Water	U-12	Sampled: 09/20/05 14:30								
Acenaphthene	EPA 8270m	ND	----	0.0816	ug/l	1x	5090983	09/23/05	09/30/05 10:56	R-03
Acenaphthylene	"	ND	----	0.0408	"	"	"	"	"	R-03
Anthracene	"	ND	----	0.0408	"	"	"	"	"	R-03
Benzo (a) anthracene	"	ND	----	0.0204	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0204	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0204	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0204	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0204	"	"	"	"	"	
Chrysene	"	ND	----	0.0204	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0204	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0204	"	"	"	"	"	
Fluorene	"	**0.313**	----	0.0204	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0204	"	"	"	"	"	
Naphthalene	"	ND	----	0.153	"	"	"	"	"	R-03
Phenanthrene	"	ND	----	0.0714	"	"	"	"	"	R-03
Pyrene	"	**0.0344**	----	0.0204	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 52.5%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*60.4%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*75.7%*		*10 - 125 %*		"			"	
P5I0752-12 Water	B-35	Sampled: 09/20/05 13:40								R-05
Acenaphthene	EPA 8270m	**7.51**	----	0.400	ug/l	20x	5090983	09/23/05	09/30/05 12:20	
Acenaphthylene	"	ND	----	0.400	"	"	"	"	"	
Anthracene	"	**2.37**	----	0.400	"	"	"	"	"	
Benzo (a) anthracene	"	**0.792**	----	0.400	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.400	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.400	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.400	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.400	"	"	"	"	"	
Chrysene	"	**0.797**	----	0.400	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.400	"	"	"	"	"	
Fluoranthene	"	**5.15**	----	0.400	"	"	"	"	"	
Fluorene	"	**16.9**	----	0.400	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.400	"	"	"	"	"	
Naphthalene	"	ND	----	3.60	"	"	"	"	"	R-03
Phenanthrene	"	**24.9**	----	0.400	"	"	"	"	"	
Pyrene	"	**3.23**	----	0.400	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 86.0%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*80.0%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*78.4%*		*10 - 125 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0752-13 Water	**B-36**	**Sampled: 09/20/05 12:50**								**A-02**
Acenaphthene	EPA 8270m	**0.274**	----	0.0200	ug/l	1x	5090983	09/23/05	09/30/05 11:24	
Acenaphthylene	"	ND	----	0.0200	"	"	"	"	"	
Anthracene	"	ND	----	0.0300	"	"	"	"	"	**R-03**
Benzo (a) anthracene	"	ND	----	0.0200	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0200	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0200	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0200	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0200	"	"	"	"	"	
Chrysene	"	ND	----	0.0200	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0200	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0200	"	"	"	"	"	
Fluorene	"	**0.606**	----	0.0200	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0200	"	"	"	"	"	
Naphthalene	"	ND	----	0.610	"	"	"	"	"	**R-03**
Phenanthrene	"	ND	----	0.0200	"	"	"	"	"	
Pyrene	"	**0.0285**	----	0.0200	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 24.8%*		*Limits: 25 - 125 %*		"			"	*S-03*
Pyrene-d10		*48.4%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*69.6%*		*10 - 125 %*		"			"	
P5I0752-14 Water	**B-37**	**Sampled: 09/20/05 10:00**								
Acenaphthene	EPA 8270m	**0.347**	----	0.0202	ug/l	1x	5090983	09/23/05	09/30/05 11:52	
Acenaphthylene	"	ND	----	0.0303	"	"	"	"	"	**R-03**
Anthracene	"	ND	----	0.0303	"	"	"	"	"	**R-03**
Benzo (a) anthracene	"	ND	----	0.0202	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0202	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0202	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0202	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0202	"	"	"	"	"	
Chrysene	"	ND	----	0.0202	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0202	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0202	"	"	"	"	"	
Fluorene	"	ND	----	0.0202	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0202	"	"	"	"	"	
Naphthalene	"	ND	----	0.222	"	"	"	"	"	**R-03**
Phenanthrene	"	ND	----	0.0707	"	"	"	"	"	**R-03**
Pyrene	"	**0.0454**	----	0.0202	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 51.4%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*71.5%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*85.0%*		*10 - 125 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091125 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091125-BLK1)								Extracted: 09/27/05 11:10						
Arsenic	EPA 6020	ND	—	0.00100	mg/l	1x	—	—	—	—	—	—	09/27/05 23:48	
Barium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Cadmium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Chromium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Copper	"	ND	—	0.00200	"	"	—	—	—	—	—	—	"	
Lead	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Selenium	"	ND	—	0.00200	"	"	—	—	—	—	—	—	09/29/05 04:22	
Silver	"	ND	—	0.00100	"	"	—	—	—	—	—	—	09/27/05 23:48	
Zinc	"	ND	—	0.00500	"	"	—	—	—	—	—	—	"	
LCS (5091125-BS1)								Extracted: 09/27/05 11:10						
Arsenic	EPA 6020	0.103	—	0.00100	mg/l	1x	—	0.100	103%	(80-120)	—	—	09/27/05 23:56	
Barium	"	0.103	—	0.00100	"	"	—	"	103%	"	—	—	"	
Cadmium	"	0.100	—	0.00100	"	"	—	"	100%	"	—	—	"	
Chromium	"	0.101	—	0.00100	"	"	—	"	101%	"	—	—	"	
Copper	"	0.0997	—	0.00200	"	"	—	"	99.7%	"	—	—	"	
Lead	"	0.102	—	0.00100	"	"	—	"	102%	"	—	—	"	
Selenium	"	0.0493	—	0.00400	"	2x	—	0.0500	98.6%	"	—	—	09/29/05 04:30	
Silver	"	0.0496	—	0.00100	"	1x	—	"	99.2%	"	—	—	09/27/05 23:56	
Zinc	"	0.0917	—	0.00500	"	"	—	0.100	91.7%	"	—	—	"	
Duplicate (5091125-DUP1)				QC Source: P5I0752-04				Extracted: 09/27/05 11:10						
Arsenic	EPA 6020	0.00675	—	0.00100	mg/l	1x	0.00704	—	—	—	4.21%	(20)	09/28/05 00:27	
Barium	"	0.108	—	0.00100	"	"	0.107	—	—	—	0.930%	"	"	
Cadmium	"	ND	—	0.00100	"	"	ND	—	—	—	27.5%	"	"	Q-06
Chromium	"	0.00587	—	0.00100	"	"	0.00583	—	—	—	0.684%	"	"	
Copper	"	0.0193	—	0.00200	"	"	0.0188	—	—	—	2.62%	"	"	
Lead	"	0.0123	—	0.00100	"	"	0.0124	—	—	—	0.810%	"	"	
Selenium	"	ND	—	0.00200	"	"	ND	—	—	—	NR	"	09/29/05 04:59	
Silver	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	09/28/05 00:27	
Zinc	"	0.728	—	0.00500	"	"	0.720	—	—	—	1.10%	"	"	

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Delta Environmental Consultants - Tigard	Project Name:	Tosco #0608, Portland, OR	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 16:41

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091125 Water Preparation Method: EPA 200/3005

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (5091125-MS1)				QC Source: P5I0752-04				Extracted: 09/27/05 11:10						
Arsenic	EPA 6020	0.0804	—	0.00100	mg/l	1x	0.00704	0.100	73.4%	(75-125)	—	—	09/28/05 00:42	Q-01
Barium	"	0.207	—	0.00100	"	"	0.107	"	100%	"	—	—	"	
Cadmium	"	0.102	—	0.00100	"	"	0.000144	"	102%	"	—	—	"	
Chromium	"	0.0997	—	0.00100	"	"	0.00583	"	93.9%	"	—	—	"	
Copper	"	0.107	—	0.00200	"	"	0.0188	"	88.2%	"	—	—	"	
Lead	"	0.109	—	0.00100	"	"	0.0124	"	96.6%	"	—	—	"	
Selenium	"	0.0271	—	0.00400	"	2x	ND	0.0500	54.2%	"	—	—	09/29/05 05:07	Q-02
Silver	"	0.0498	—	0.00100	"	1x	ND	"	99.6%	"	—	—	09/28/05 00:42	
Zinc	"	0.801	—	0.00500	"	"	0.720	0.100	81.0%	"	—	—	"	
Matrix Spike (5091125-MS2)				QC Source: P5I0752-05				Extracted: 09/27/05 11:10						
Arsenic	EPA 6020	0.106	—	0.00100	mg/l	1x	0.00686	0.100	99.1%	(75-125)	—	—	09/28/05 01:13	
Barium	"	0.226	—	0.00100	"	"	0.123	"	103%	"	—	—	"	
Cadmium	"	0.101	—	0.00100	"	"	ND	"	101%	"	—	—	"	
Chromium	"	0.0994	—	0.00100	"	"	0.00120	"	98.2%	"	—	—	"	
Copper	"	0.0944	—	0.00200	"	"	0.00258	"	91.8%	"	—	—	"	
Lead	"	0.0989	—	0.00100	"	"	0.00205	"	96.8%	"	—	—	"	
Selenium	"	0.0489	—	0.00400	"	2x	ND	0.0500	97.8%	"	—	—	09/29/05 05:29	
Silver	"	0.0499	—	0.00100	"	1x	ND	"	99.8%	"	—	—	09/28/05 01:13	
Zinc	"	0.0984	—	0.00500	"	"	0.0106	0.100	87.8%	"	—	—	"	
Post Spike (5091125-PS1)				QC Source: P5I0752-05				Extracted: 09/27/05 11:10						
Arsenic	EPA 6020	0.107	—		ug/ml	1x	0.00686	0.100	100%	(75-125)	—	—	09/28/05 01:20	
Barium	"	0.223	—		"	"	0.123	"	100%	"	—	—	"	
Cadmium	"	0.101	—		"	"	0.0000470	"	101%	"	—	—	"	
Chromium	"	0.0994	—		"	"	0.00120	"	98.2%	"	—	—	"	
Copper	"	0.0947	—		"	"	0.00258	"	92.1%	"	—	—	"	
Lead	"	0.0982	—		"	"	0.00205	"	96.2%	"	—	—	"	
Selenium	"	0.0499	—		"	2x	0.000110	0.0500	99.6%	"	—	—	09/29/05 05:52	
Silver	"	0.0487	—		"	1x	0.0000190	"	97.4%	"	—	—	09/28/05 01:20	
Zinc	"	0.100	—		"	"	0.0106	0.100	89.4%	"	—	—	"	

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Total Mercury per EPA Method 7470A - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5090933 **Water Preparation Method: EPA 7470A**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5090933-BLK1)								Extracted:	09/22/05 14:18					
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	–	–	–	–	–	–	09/22/05 16:40	
LCS (5090933-BS1)								Extracted:	09/22/05 14:18					
Mercury	EPA 7470A	0.00541	—	0.000200	mg/l	1x	–	0.00500	108%	(85-115)	–	–	09/22/05 16:42	
LCS Dup (5090933-BSD1)								Extracted:	09/22/05 14:18					
Mercury	EPA 7470A	0.00558	—	0.000200	mg/l	1x	–	0.00500	112%	(85-115)	3.09%	(20)	09/22/05 16:45	
Duplicate (5090933-DUP1)				QC Source:	P510752-01			Extracted:	09/22/05 14:18					
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	ND	–	–	–	NR	(20)	09/22/05 16:47	
Matrix Spike (5090933-MS1)				QC Source:	P510752-01			Extracted:	09/22/05 14:18					
Mercury	EPA 7470A	0.00526	—	0.000200	mg/l	1x	ND	0.00500	105%	(75-125)	–	–	09/22/05 16:50	
Matrix Spike Dup (5090933-MSD1)				QC Source:	P510752-01			Extracted:	09/22/05 14:18					
Mercury	EPA 7470A	0.00512	—	0.000200	mg/l	1x	ND	0.00500	102%	(75-125)	2.70%	(20)	09/22/05 16:52	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 16:41

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091016 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091016-BLK1)								Extracted: 09/24/05 12:52						
1,2-Dibromoethane	EPA 8260B	ND	—	0.500	ug/l	1x	—	—	—	—	—	—	09/24/05 15:51	
1,2-Dichloroethane	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Benzene	"	ND	—	0.200	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Xylenes (total)	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3,5-Trimethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Isopropylbenzene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
n-Propylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Surrogate(s): 4-BFB		*Recovery:*	*96.0%*		*Limits:*	*75-120%*	"						*09/24/05 15:51*	
1,2-DCA-d4			*118%*			*77-129%*	"						"	
Dibromofluoromethane			*116%*			*80-121%*	"						"	
Toluene-d8			*111%*			*80-120%*	"						"	
LCS (5091016-BS1)								Extracted: 09/24/05 12:52						
Benzene	EPA 8260B	22.1	—	0.200	ug/l	1x	—	20.0	110%	(80-120)	—	—	09/24/05 14:01	
Toluene	"	23.9	—	0.500	"	"	—	"	120%	(80-124)	—	—	"	
Ethylbenzene	"	23.9	—	0.500	"	"	—	"	120%	(80-120)	—	—	"	
Xylenes (total)	"	73.4	—	1.00	"	"	—	60.0	122%	(73-124)	—	—	"	
Methyl tert-butyl ether	"	23.2	—	2.00	"	"	—	20.0	116%	(80-129)	—	—	"	
Naphthalene	"	24.3	—	2.00	"	"	—	"	122%	(72-149)	—	—	"	
Surrogate(s): 4-BFB		*Recovery:*	*108%*		*Limits:*	*75-120%*	"						*09/24/05 14:01*	
1,2-DCA-d4			*110%*			*77-129%*	"						"	
Dibromofluoromethane			*107%*			*80-121%*	"						"	
Toluene-d8			*111%*			*80-120%*	"						"	
Matrix Spike (5091016-MS1)					QC Source: P510725-01			Extracted: 09/24/05 12:52						
Benzene	EPA 8260B	21.2	—	0.200	ug/l	1x	ND	20.0	106%	(80-124)	—	—	09/24/05 14:29	
Toluene	"	21.3	—	0.500	"	"	ND	"	106%	(79.7-131)	—	—	"	
Ethylbenzene	"	20.7	—	0.500	"	"	ND	"	104%	(80-124)	—	—	"	
Xylenes (total)	"	61.2	—	1.00	"	"	ND	60.0	102%	(44.6-154)	—	—	"	
Methyl tert-butyl ether	"	21.2	—	2.00	"	"	ND	20.0	106%	(80-130)	—	—	"	
Naphthalene	"	17.7	—	2.00	"	"	ND	"	88.5%	(69-163)	—	—	"	
Surrogate(s): 4-BFB		*Recovery:*	*100%*		*Limits:*	*75-120%*	"						*09/24/05 14:29*	
1,2-DCA-d4			*106%*			*77-129%*	"						"	
Dibromofluoromethane			*106%*			*80-121%*	"						"	
Toluene-d8			*106%*			*80-120%*	"						"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	Tosco #0608, Portland, OR	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 16:41

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091016 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (5091016-MSD1)				QC Source: P510725-01					Extracted: 09/24/05 12:52					
Benzene	EPA 8260B	21.4	—	0.200	ug/l	1x	ND	20.0	107%	(80-124)	0.939%	(25)	09/24/05 14:56	
Toluene	"	21.7	—	0.500	"	"	ND	"	108%	(79.7-131)	1.86%	"	"	
Ethylbenzene	"	21.1	—	0.500	"	"	ND	"	106%	(80-124)	1.91%	"	"	
Xylenes (total)	"	62.4	—	1.00	"	"	ND	60.0	104%	(44.6-154)	1.94%	"	"	
Methyl tert-butyl ether	"	21.6	—	2.00	"	"	ND	20.0	108%	(80-130)	1.87%	"	"	
Naphthalene	"	18.5	—	2.00	"	"	ND	"	92.5%	(69-163)	4.42%	"	"	
Surrogate(s): 4-BFB		*Recovery:*	*102%*		*Limits:*	*75-120%*	"						*09/24/05 14:56*	
1,2-DCA-d4			*106%*			*77-129%*	"						"	
Dibromofluoromethane			*108%*			*80-121%*	"						"	
Toluene-d8			*106%*			*80-120%*	"						"	

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 16:41

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5090983 Water Preparation Method: EPA 3520/600 Series

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5090983-BLK1)								Extracted: 09/23/05 12:42						
Acenaphthene	EPA 8270m	ND	—	0.0200	ug/l	1x	—	—	—	—	—	—	09/28/05 23:01	
Acenaphthylene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Anthracene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (a) anthracene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (a) pyrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (b) fluoranthene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (ghi) perylene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (k) fluoranthene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Chrysene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Fluoranthene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Fluorene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Phenanthrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Pyrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*54.4%*		*Limits:*	*25-125%*	"						*09/28/05 23:01*	
Pyrene-d10			*77.2%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*76.8%*			*10-125%*	"						"	
LCS (5090983-BS1)								Extracted: 09/23/05 12:42						
Acenaphthene	EPA 8270m	2.04	—	0.0200	ug/l	1x	—	2.50	81.6%	(35-120)	—	—	09/28/05 23:28	
Acenaphthylene	"	1.98	—	0.0200	"	"	—	"	79.2%	(34-116)	—	—	"	
Anthracene	"	1.77	—	0.0200	"	"	—	"	70.8%	(24-119)	—	—	"	
Benzo (a) anthracene	"	1.84	—	0.0200	"	"	—	"	73.6%	(36-128)	—	—	"	
Benzo (a) pyrene	"	1.87	—	0.0200	"	"	—	"	74.8%	(17-128)	—	—	"	
Benzo (b) fluoranthene	"	2.19	—	0.0200	"	"	—	"	87.6%	(37-131)	—	—	"	
Benzo (ghi) perylene	"	1.94	—	0.0200	"	"	—	"	77.6%	(26-126)	—	—	"	
Benzo (k) fluoranthene	"	1.84	—	0.0200	"	"	—	"	73.6%	(18-145)	—	—	"	
Chrysene	"	1.70	—	0.0200	"	"	—	"	68.0%	(16-137)	—	—	"	
Dibenzo (a,h) anthracene	"	2.05	—	0.0200	"	"	—	"	82.0%	(20-141)	—	—	"	
Fluoranthene	"	1.92	—	0.0200	"	"	—	"	76.8%	(31-125)	—	—	"	
Fluorene	"	1.91	—	0.0200	"	"	—	"	76.4%	(27-124)	—	—	"	
Indeno (1,2,3-cd) pyrene	"	2.01	—	0.0200	"	"	—	"	80.4%	(30-135)	—	—	"	
Naphthalene	"	1.78	—	0.0200	"	"	—	"	71.2%	(30-113)	—	—	"	
Phenanthrene	"	1.83	—	0.0200	"	"	—	"	73.2%	(34-126)	—	—	"	
Pyrene	"	1.78	—	0.0200	"	"	—	"	71.2%	(21-141)	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*67.6%*		*Limits:*	*25-125%*	"						*09/28/05 23:28*	
Pyrene-d10			*73.2%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*79.2%*			*10-125%*	"						"	

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 16:41

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5090983 **Water Preparation Method: EPA 3520/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (5090983-BSD1)								Extracted: 09/23/05 12:42						
Acenaphthene	EPA 8270m	1.98	—	0.0200	ug/l	1x	—	2.50	79.2%	(35-120)	2.99%	(50)	09/28/05 23:55	
Acenaphthylene	"	1.94	—	0.0200	"	"	—	"	77.6%	(34-116)	2.04%	"	"	
Anthracene	"	1.52	—	0.0200	"	"	—	"	60.8%	(24-119)	15.2%	"	"	
Benzo (a) anthracene	"	1.72	—	0.0200	"	"	—	"	68.8%	(36-128)	6.74%	"	"	
Benzo (a) pyrene	"	1.46	—	0.0200	"	"	—	"	58.4%	(17-128)	24.6%	"	"	
Benzo (b) fluoranthene	"	2.10	—	0.0200	"	"	—	"	84.0%	(37-131)	4.20%	"	"	
Benzo (ghi) perylene	"	1.83	—	0.0200	"	"	—	"	73.2%	(26-126)	5.84%	"	"	
Benzo (k) fluoranthene	"	1.90	—	0.0200	"	"	—	"	76.0%	(18-145)	3.21%	"	"	
Chrysene	"	1.68	—	0.0200	"	"	—	"	67.2%	(16-137)	1.18%	"	"	
Dibenzo (a,h) anthracene	"	1.93	—	0.0200	"	"	—	"	77.2%	(20-141)	6.03%	"	"	
Fluoranthene	"	1.84	—	0.0200	"	"	—	"	73.6%	(31-125)	4.26%	"	"	
Fluorene	"	1.86	—	0.0200	"	"	—	"	74.4%	(27-124)	2.65%	"	"	
Indeno (1,2,3-cd) pyrene	"	1.89	—	0.0200	"	"	—	"	75.6%	(30-135)	6.15%	"	"	
Naphthalene	"	1.80	—	0.0200	"	"	—	"	72.0%	(30-113)	1.12%	"	"	
Phenanthrene	"	1.79	—	0.0200	"	"	—	"	71.6%	(34-126)	2.21%	"	"	
Pyrene	"	1.74	—	0.0200	"	"	—	"	69.6%	(21-141)	2.27%	"	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*64.4%*		*Limits:*	*25-125%*	"						*09/28/05 23:55*	
Pyrene-d10			*68.0%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*66.8%*			*10-125%*	"						"	

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 16:41

Notes and Definitions

Report Specific Notes:

A-02 - Surrogate recovery for Fluorene-d10 is just outside of acceptable recovery limits.

Q-01 - The matrix spike recovery, and/or RPD, for this QC sample is outside of established control limits. Failure of a matrix spike QC sample does not represent an out-of-control condition for the batch.

Q-02 - The matrix spike recovery, and/or RPD, for this QC sample is outside of established control limits due to sample matrix interference.

Q-06 - RPD is not applicable for analyte concentrations less than 5 times the MRL.

R-03 - The reporting limit for this analyte was raised due to matrix interference.

R-05 - Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.

S-03 - Surrogate recovery is outside of NCA established control limits.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR / NA - Not Reported / Not Available

dry - Sample results reported on a dry weight basis. Reporting Limits have been corrected for %Solids.

wet - Sample results and reporting limits reported on a wet weight basis (as received).

RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

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PSTC752

TOSCO CHAIN OF CUSTODY REPORT

TOSCO INFORMATION

Facility Number: C6C8
Site Address: 5 508 NE Denver Ave
City, State, ZIP: Portland OR 97240
Project/AWO Code
Tosco Manager: Martin Cameron
FACILITY TYPE: (check one) ☐ BP/Ⓚ ☑ Terminal/Bulk Plant
☐ Brown Bear ☐ Former 76 Site ☐ Other

CONSULTANT INFORMATION

Firm: Pe-Ha
Project# PTH-B-C2A-3
Address: Tigard
Phone: 503 639 8098 Fax:
Project Manager: K Kline E-mail:
Sample Collection by: JAN

Quality Assurance Data Level: ☐ A ☐ B
A: Standard Summary
B: Standard + Chromatograms

Laboratory Turnaround Days: ☐ 10 ☐ 5 ☐ 3 ☐ 2 ☐ 1
10 Day - Standard

○ OR ○ WA ○ AK ○ NW Series ○ ID

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONTAINERS	TPH-HCID	TPH-Gas	BTEX EPA 8021 Mod. TPH-Gas + BTEX	TPH-Diesel	TPH-Diesel Extended	TPH-Diesel-Ext. w/SG Clean.	Halogen. Volatiles EPA 8021	Pesticides/PCBs or PCBs Only	GC/MS Volatiles EPA 8260	GC/MS Semi Vols. EPA 8270	PAHs: 8270 SIM or 8310	Lead: Total or Dissolved	TCLP or (CRA) + Cyanide	metals (8)	MTBE	NCA SAMPLE NUMBER
1. P-2	9/20/05 1400	W	~~8~~ 4			X								X		X	X		
2. U-2	9/20/05 0855	W	5			X								X		X	X		
3. U-3	0915		3																
4. U-5	1325		5			X								X		X	X		
5. U-10	1400		5			X								X		X	X		
6. U-11	1415		5			X								X		X	X		
7. U-12	1430		5			X								X		X	X		
8. B-2	1310		3																
9. B-3	1230		3																
10. B-6	1150		3																

	Relinquished by:	Firm:	Date & Time	Received by:	Firm:	Date & Time
1.	[signature]	Delta	9/21/05 @ 10:45	[signature]	NCA	9/21/05 @ 10:45
2.	[signature]	NCA	9/21/05 @ 11:00	[signature]	NCA	9/21/05 1100
3.						

Comments:

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Rev. Tos3.3.2/99

Comments:

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20332 Empire Avenue, Suite E-1, Bend, OR 97701-5711 (541) 383-9310 FAX 382-7588

TOSCO CHAIN OF CUSTODY REPORT

TOSCO INFORMATION

Facility Number: CCC8
Site Address: 5568 [illegible] Ave
City, State, ZIP: Portland, OR 97210
Project/AWO Code
Tosco Manager: Marty Cramer
FACILITY TYPE: (check one) ☐ BP/Ⓚ ☒ Terminal/Bulk Plant
☐ Brown Bear ☐ Former 76 Site ☐ Other

CONSULTANT INFORMATION

Firm: Delta Project# PTCB-024-S
Address: Tigard
Phone: 503 639 8098 Fax:
Project Manager: K Kline E-mail:
Sample Collection by: JMN

Quality Assurance Data Level: A B
A: Standard Summary
B: Standard + Chromatograms

Laboratory Turnaround Days: 10 5 3 2 1
10 Day - Standard

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONTAINERS	TPH-HCID	TPH-Gas	BTEX	EPA 8021 Mod.	TPH-Gas + BTEX	TPH-Diesel	TPH-Diesel Extended	TPH-Diesel-Ext.	WSG Cleanup	Halogen. Volatiles	EPA 8021	Pesticides/PCBs or PCBs Only	GC/MS Volatiles	EPA 8260	GC/MS Semi Vols.	EPA 8270	PAH's	8270 SIM or 8310	Lead	Total or Dissolved	TCLP or RCRA	Metals (8)	MTBE	NCA SAMPLE NUMBER
1. B-16	9/20/05 1120	W	3																							X	
2. ~~B-27~~ CNC	~~1500~~		~~3~~																								
3. B-35	1340		5			X														X			X				
4. B-36	1250		5			X														X			X				
5. B-37	1000		5			X														X			X				
6. B-37-D	1000		5																								
7.																											
8.																											
9.																											
10.																											

Relinquished by:	Firm:	Date & Time	Received by:	Firm:	Date & Time
1. [signature]	Delta	9/21/05 @ 10:45	[signature]	NCA	9/21/05 @ 10:45
2. [signature]	NCA	9/21/05 @ 1120	[signature]	NCA	9/21/05 1120
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Comments:

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Page 2 of 2
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October 11, 2005

Kelly Kline
Delta Environmental Consultants - Tigard
7150 SW Hampton - Suite 220
Tigard, OR 97223

RE: Tosco #0608, Portland, OR

Enclosed are the results of analyses for samples received by the laboratory on 09/23/05 10:15.
The following list is a summary of the NCA Work Orders contained in this report.
If you have any questions concerning this report, please feel free to contact me.

Work	Project	ProjectNumber
P5I0975	Tosco #0608, Portland, OR	PTWB-02A

Thank You,

Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 17:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P-2	P5I0975-01	Water	09/20/05 14:40	09/23/05 10:15
B-27	P5I0975-02	Water	09/20/05 15:00	09/23/05 10:15

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 17:40

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0975-02	**Water**	**B-27**	**Sampled: 09/20/05 15:00**								
Methyl tert-butyl ether		EPA 8260B	ND	----	2.00	ug/l	1x	5100001	10/01/05	10/01/05 12:41	
Surrogate(s):	*4-BFB*		*Recovery: 100%*		*Limits: 75 - 120 %*		"			"	
	1,2-DCA-d4		*100%*		*77 - 129 %*		"			"	
	Dibromofluoromethane		*97.0%*		*80 - 121 %*		"			"	
	Toluene-d8		*93.0%*		*80 - 120 %*		"			"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 17:40

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0975-01 Water	**P-2**	**Sampled: 09/20/05 14:40**								**R-05**
Acenaphthene	EPA 8270m	**2.27**	—	0.101	ug/l	5x	5091099	09/27/05	10/07/05 17:51	
Acenaphthylene	"	ND	—	0.455	"	"	"	"	"	R-03
Anthracene	"	**0.283**	—	0.101	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.101	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.101	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.101	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.101	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.101	"	"	"	"	"	
Chrysene	"	ND	—	0.101	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.101	"	"	"	"	"	
Fluoranthene	"	ND	—	0.101	"	"	"	"	"	
Fluorene	"	**6.64**	—	0.101	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.101	"	"	"	"	"	
Naphthalene	"	ND	—	1.11	"	"	"	"	"	R-03
Phenanthrene	"	**3.67**	—	0.101	"	"	"	"	"	
Pyrene	"	ND	—	0.101	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 47.4%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*56.1%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*62.5%*		*10 - 125 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name: **Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number: PTWB-02A	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/11/05 17:40

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5100001 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5100001-BLK1)								Extracted: 10/01/05 08:49						
1,2-Dibromoethane	EPA 8260B	ND	—	0.500	ug/l	1x	—	—	—	—	—	—	10/01/05 11:47	
1,2-Dichloroethane	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Benzene	"	ND	—	0.200	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Xylenes (total)	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3,5-Trimethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Isopropylbenzene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
n-Propylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 98.5%*		*Limits: 75-120%*		"							*10/01/05 11:47*	
1,2-DCA-d4		*103%*		*77-129%*		"							"	
Dibromofluoromethane		*99.0%*		*80-121%*		"							"	
Toluene-d8		*97.0%*		*80-120%*		"							"	
LCS (5100001-BS1)								Extracted: 10/01/05 08:49						
Benzene	EPA 8260B	20.3	—	0.200	ug/l	1x	—	20.0	102%	(80-120)	—	—	10/01/05 09:34	
Toluene	"	20.5	—	0.500	"	"	—	"	102%	(80-124)	—	—	"	
Ethylbenzene	"	21.8	—	0.500	"	"	—	"	109%	(80-120)	—	—	"	
Xylenes (total)	"	66.2	—	1.00	"	"	—	60.0	110%	(73-124)	—	—	"	
Methyl tert-butyl ether	"	21.7	—	2.00	"	"	—	20.0	108%	(80-129)	—	—	"	
Naphthalene	"	24.2	—	2.00	"	"	—	"	121%	(72-149)	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 103%*		*Limits: 75-120%*		"							*10/01/05 09:34*	
1,2-DCA-d4		*99.5%*		*77-129%*		"							"	
Dibromofluoromethane		*100%*		*80-121%*		"							"	
Toluene-d8		*100%*		*80-120%*		"							"	
Matrix Spike (5100001-MS1)				QC Source: P5I0975-02				Extracted: 10/01/05 08:49						
Benzene	EPA 8260B	39.8	—	0.200	ug/l	1x	23.4	20.0	82.0%	(80-124)	—	—	10/01/05 10:00	
Toluene	"	17.9	—	0.500	"	"	0.480	"	87.1%	(79.7-131)	—	—	"	
Ethylbenzene	"	18.2	—	0.500	"	"	0.240	"	89.8%	(80-124)	—	—	"	
Xylenes (total)	"	40.9	—	1.00	"	"	ND	60.0	68.2%	(44.6-154)	—	—	"	
Methyl tert-butyl ether	"	22.5	—	2.00	"	"	0.990	20.0	108%	(80-130)	—	—	"	
Naphthalene	"	23.9	—	2.00	"	"	ND	"	120%	(69-163)	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 100%*		*Limits: 75-120%*		"							*10/01/05 10:00*	
1,2-DCA-d4		*95.0%*		*77-129%*		"							"	
Dibromofluoromethane		*97.5%*		*80-121%*		"							"	
Toluene-d8		*92.5%*		*80-120%*		"							"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	Tosco #0608, Portland, OR
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A
Tigard, OR 97223	Project Manager:	Kelly Kline

Report Created: 10/11/05 17:40

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5100001 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (5100001-MSD1)				QC Source: P510975-02				Extracted: 10/01/05 08:49						
Benzene	EPA 8260B	38.2	—	0.200	ug/l	1x	23.4	20.0	74.0%	(80-124)	4.10%	(25)	10/01/05 10:27	Q-02
Toluene	"	18.5	—	0.500	"	"	0.480	"	90.1%	(79.7-131)	3.30%	"	"	
Ethylbenzene	"	18.9	—	0.500	"	"	0.240	"	93.3%	(80-124)	3.77%	"	"	
Xylenes (total)	"	44.8	—	1.00	"	"	ND	60.0	74.7%	(44.6-154)	9.10%	"	"	
Methyl tert-butyl ether	"	22.4	—	2.00	"	"	0.990	20.0	107%	(80-130)	0.445%	"	"	
Naphthalene	"	22.2	—	2.00	"	"	ND	"	111%	(69-163)	7.38%	"	"	

Surrogate(s): 4-BFB	*Recovery: 102%*	*Limits: 75-120%*	"		*10/01/05 10:27*
1,2-DCA-d4	*96.0%*	*77-129%*	"		"
Dibromofluoromethane	*98.0%*	*80-121%*	"		"
Toluene-d8	*95.0%*	*80-120%*	"		"

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 17:40

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091099 **Water Preparation Method: EPA 3520/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091099-BLK1)								Extracted: 09/27/05 15:00						
Acenaphthene	EPA 8270m	ND	—	0.0200	ug/l	1x	—	—	—	—	—	—	10/04/05 16:33	
Acenaphthylene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Anthracene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (a) anthracene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (a) pyrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (b) fluoranthene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (ghi) perylene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (k) fluoranthene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Chrysene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Fluoranthene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Fluorene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Phenanthrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Pyrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*49.2%*		*Limits:*	*25-125%*	"						*10/04/05 16:33*	
Pyrene-d10			*52.4%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*58.8%*			*10-125%*	"						"	
LCS (5091099-BS1)								Extracted: 09/27/05 15:00						
Acenaphthene	EPA 8270m	1.71	—	0.0200	ug/l	1x	—	2.50	68.4%	(35-120)	—	—	10/04/05 17:58	
Acenaphthylene	"	1.56	—	0.0200	"	"	—	"	62.4%	(34-116)	—	—	"	
Anthracene	"	1.43	—	0.0200	"	"	—	"	57.2%	(24-119)	—	—	"	
Benzo (a) anthracene	"	1.55	—	0.0200	"	"	—	"	62.0%	(36-128)	—	—	"	
Benzo (a) pyrene	"	1.59	—	0.0200	"	"	—	"	63.6%	(17-128)	—	—	"	
Benzo (b) fluoranthene	"	1.66	—	0.0200	"	"	—	"	66.4%	(37-131)	—	—	"	
Benzo (ghi) perylene	"	1.37	—	0.0200	"	"	—	"	54.8%	(26-126)	—	—	"	
Benzo (k) fluoranthene	"	1.76	—	0.0200	"	"	—	"	70.4%	(18-145)	—	—	"	
Chrysene	"	1.50	—	0.0200	"	"	—	"	60.0%	(16-137)	—	—	"	
Dibenzo (a,h) anthracene	"	1.12	—	0.0200	"	"	—	"	44.8%	(20-141)	—	—	"	
Fluoranthene	"	1.39	—	0.0200	"	"	—	"	55.6%	(31-125)	—	—	"	
Fluorene	"	1.54	—	0.0200	"	"	—	"	61.6%	(27-124)	—	—	"	
Indeno (1,2,3-cd) pyrene	"	1.64	—	0.0200	"	"	—	"	65.6%	(30-135)	—	—	"	
Naphthalene	"	1.56	—	0.0200	"	"	—	"	62.4%	(30-113)	—	—	"	
Phenanthrene	"	1.45	—	0.0200	"	"	—	"	58.0%	(34-126)	—	—	"	
Pyrene	"	1.44	—	0.0200	"	"	—	"	57.6%	(21-141)	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*63.6%*		*Limits:*	*25-125%*	"						*10/04/05 17:58*	
Pyrene-d10			*60.4%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*70.8%*			*10-125%*	"						"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 17:40

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091099 **Water Preparation Method: EPA 3520/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (5091099-BSD1)								Extracted: 09/27/05 15:00						
Acenaphthene	EPA 8270m	1.57	—	0.0200	ug/l	1x	–	2.50	62.8%	(35-120)	8.54%	(30)	10/04/05 18:25	
Acenaphthylene	"	1.48	—	0.0200	"	"	–	"	59.2%	(34-116)	5.26%	"	"	
Anthracene	"	1.37	—	0.0200	"	"	–	"	54.8%	(24-119)	4.29%	"	"	
Benzo (a) anthracene	"	1.41	—	0.0200	"	"	–	"	56.4%	(36-128)	9.46%	"	"	
Benzo (a) pyrene	"	1.39	—	0.0200	"	"	–	"	55.6%	(17-128)	13.4%	"	"	
Benzo (b) fluoranthene	"	1.62	—	0.0200	"	"	–	"	64.8%	(37-131)	2.44%	"	"	
Benzo (ghi) perylene	"	0.879	—	0.0200	"	"	–	"	35.2%	(26-126)	43.6%	"	"	
Benzo (k) fluoranthene	"	1.31	—	0.0200	"	"	–	"	52.4%	(18-145)	29.3%	"	"	
Chrysene	"	1.34	—	0.0200	"	"	–	"	53.6%	(16-137)	11.3%	"	"	
Dibenzo (a,h) anthracene	"	0.785	—	0.0200	"	"	–	"	31.4%	(20-141)	35.2%	"	"	
Fluoranthene	"	1.33	—	0.0200	"	"	–	"	53.2%	(31-125)	4.41%	"	"	
Fluorene	"	1.41	—	0.0200	"	"	–	"	56.4%	(27-124)	8.81%	"	"	
Indeno (1,2,3-cd) pyrene	"	1.30	—	0.0200	"	"	–	"	52.0%	(30-135)	23.1%	"	"	
Naphthalene	"	1.43	—	0.0200	"	"	–	"	57.2%	(30-113)	8.70%	"	"	
Phenanthrene	"	1.40	—	0.0200	"	"	–	"	56.0%	(34-126)	3.51%	"	"	
Pyrene	"	1.36	—	0.0200	"	"	–	"	54.4%	(21-141)	5.71%	"	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*56.4%*		*Limits:*	*25-125%*	"						*10/04/05 18:25*	
Pyrene-d10			*55.2%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*63.6%*			*10-125%*	"						"	

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Delta Environmental Consultants - Tigard	Project Name:	**Tosco #0608, Portland, OR**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-02A	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/11/05 17:40

Notes and Definitions

Report Specific Notes:

Q-02 - The matrix spike recovery, and/or RPD, for this QC sample is outside of established control limits due to sample matrix interference.

R-03 - The reporting limit for this analyte was raised due to matrix interference.

R-05 - Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR / NA - Not Reported / Not Available

dry - Sample results reported on a dry weight basis. Reporting Limits have been corrected for %Solids.

wet - Sample results and reporting limits reported on a wet weight basis (as received).

RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

nca
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PAGE 1 of 1

TOSCO CHAIN OF CUSTODY REPORT

TOSCO INFORMATION

Facility Number: 0608
Site Address: 5568 [illegible] Ave
City, State, ZIP: Portland, OR 97220
Project/AWO Code
Tosco Manager: Mary Carter
FACILITY TYPE: (check one) ☐ BP/K ☑ Terminal/Bulk Plant
☐ Brown Bear ☐ Former 76 Site ☐ Other

CONSULTANT INFORMATION

Firm: Ecolog Project# PTLB C.I.A.
Address: Issaquah
Phone: 503 639 8098 Fax:
Project Manager: L. Kline E-mail:
Sample Collection by: Jason

Quality Assurance Data Level: A B
A: Standard Summary
B: Standard + Chromatograms

Laboratory Turnaround Days: ☒ 10 5 3 2 1
10 Day - Standard

○ DR ○ WA ○ AK ○ NW Series ○ ID

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONTAINERS	TPH-HCID	TPH-Gas	BTEX EPA 8021 Mod. TPH-Gas + BTEX	TPH-Diesel	TPH-Diesel Extended	TPH-Diesel-Ext. w/SG Cleanup	Halogen. Volatiles EPA 8021	Pesticides/PCBs or PCBs Only	GC/MS Volatiles EPA 8260	GC/MS Semi-Vols. EPA 8270	PAH's 8270 SIM or 8310	Lead: Total or Dissolved TCLP or RCRA Metals (8)	NITBE	NCA SAMPLE NUMBER
1. P-2	9/20/05 1740	W	1											X			
2. B-27	9/20/05 1500	W	3													X	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

	Relinquished by:	Firm:	Date & Time	Received by:	Firm:	Date & Time
1.	[signature]	Ecolog	9/23/05 0900	[signature]		9/23/05 0900
2.				Cindy Ellison, NCA		9/23/05 1010
3.						

Comments:

05, 0.0

Page ____ of ____

Comments:

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October 13, 2005

Kelly Kline
Delta Environmental Consultants - Tigard
7150 SW Hampton - Suite 220
Tigard, OR 97223

RE: Willbridge / KMEP

Enclosed are the results of analyses for samples received by the laboratory on 09/23/05 10:15.
The following list is a summary of the NCA Work Orders contained in this report.
If you have any questions concerning this report, please feel free to contact me.

Work	Project	ProjectNumber
P510928	Willbridge / KMEP	PTWB-03A-5

Thank You,

Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-8	P5I0928-01	Water	09/21/05 10:05	09/23/05 10:15
MW-9	P5I0928-02	Water	09/21/05 10:15	09/23/05 10:15
MW-10	P5I0928-03	Water	09/21/05 10:25	09/23/05 10:15
MW-11	P5I0928-04	Water	09/21/05 10:50	09/23/05 10:15
MW-20	P5I0928-05	Water	09/21/05 12:10	09/23/05 10:15
MW-25	P5I0928-06	Water	09/21/05 11:45	09/23/05 10:15
MW-26	P5I0928-07	Water	09/21/05 11:25	09/23/05 10:15
MW-29	P5I0928-08	Water	09/21/05 11:10	09/23/05 10:15
MW-33	P5I0928-09	Water	09/21/05 08:00	09/23/05 10:15
MW-33-D	P5I0928-10	Water	09/21/05 08:00	09/23/05 10:15
MW-34	P5I0928-11	Water	09/21/05 07:30	09/23/05 10:15
MW-36	P5I0928-12	Water	09/21/05 08:55	09/23/05 10:15
MW-37	P5I0928-13	Water	09/21/05 09:45	09/23/05 10:15
MW-38	P5I0928-14	Water	09/21/05 12:45	09/23/05 10:15
MW-39	P5I0928-15	Water	09/21/05 09:20	09/23/05 10:15
MW-40	P5I0928-16	Water	09/21/05 08:30	09/23/05 10:15

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510928-01	Water				MW-8					Sampled: 09/21/0
Arsenic	EPA 6020	0.00867	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:12	
Barium	"	0.0258	—	0.00100	"	"	"	"	"	
Cadmium	"	0.00128	—	0.00100	"	"	"	"	"	
Chromium	"	ND	—	0.00100	"	"	"	"	10/11/05 07:21	
Copper	"	0.00425	—	0.00200	"	"	"	"	10/07/05 16:12	
Lead	"	0.00181	—	0.00100	"	"	"	"	10/11/05 07:21	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 15:22	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 16:12	
Zinc	"	0.0217	—	0.00500	"	"	"	"	"	
P510928-06	Water				MW-25					Sampled: 09/21
Arsenic	EPA 6020	0.0622	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:20	
Barium	"	0.0647	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	0.00140	—	0.00100	"	"	"	"	10/11/05 07:28	
Copper	"	0.00299	—	0.00200	"	"	"	"	10/07/05 16:20	
Lead	"	0.00189	—	0.00100	"	"	"	"	10/11/05 07:28	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 15:30	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 16:20	
Zinc	"	0.00838	—	0.00500	"	"	"	"	"	
P510928-07	Water				MW-26					Sampled: 09/21
Arsenic	EPA 6020	0.0623	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:27	
Barium	"	0.0462	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	ND	—	0.00100	"	"	"	"	10/11/05 07:36	
Copper	"	ND	—	0.00200	"	"	"	"	10/07/05 16:27	
Lead	"	0.00122	—	0.00100	"	"	"	"	10/11/05 07:36	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 15:37	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 16:27	
Zinc	"	ND	—	0.00500	"	"	"	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-09	Water				MW-33					Sampled: 09/2
Arsenic	EPA 6020	0.0181	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:35	
Barium	"	0.398	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	0.00165	—	0.00100	"	"	"	"	10/11/05 07:43	
Copper	"	0.00290	—	0.00200	"	"	"	"	10/07/05 16:35	
Lead	"	ND	—	0.00100	"	"	"	"	10/11/05 07:43	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 15:58	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 16:35	
Zinc	"	0.00580	—	0.00500	"	"	"	"	"	
P5I0928-10	Water				MW-33-D					Sampled: 09
Arsenic	EPA 6020	0.0163	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:57	
Barium	"	0.366	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	10/11/05 08:06	
Chromium	"	0.00151	—	0.00100	"	"	"	"	"	
Copper	"	0.00292	—	0.00200	"	"	"	"	10/07/05 16:57	
Lead	"	ND	—	0.00100	"	"	"	"	10/11/05 08:06	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 16:05	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 16:57	
Zinc	"	0.00516	—	0.00500	"	"	"	"	"	
P5I0928-11	Water				MW-34					Sampled: 09/2
Arsenic	EPA 6020	0.0537	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:05	
Barium	"	0.133	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	10/11/05 11:25	
Chromium	"	0.00105	—	0.00100	"	"	"	"	"	
Copper	"	0.00354	—	0.00200	"	"	"	"	10/07/05 17:05	
Lead	"	0.00113	—	0.00100	"	"	"	"	10/11/05 11:25	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 16:12	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 17:05	
Zinc	"	0.00754	—	0.00500	"	"	"	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510928-12	Water				MW-36					Sampled: 09/2[illegible]
Arsenic	EPA 6020	0.0336	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:13	
Barium	"	0.0567	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	10/11/05 08:30	
Chromium	"	ND	—	0.00100	"	"	"	"	"	
Copper	"	0.00307	—	0.00200	"	"	"	"	10/07/05 17:13	
Lead	"	ND	—	0.00100	"	"	"	"	10/11/05 08:30	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 16:20	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 17:13	
Zinc	"	ND	—	0.00500	"	"	"	"	"	
P510928-13	Water				MW-37					Sampled: 09/2[illegible]
Arsenic	EPA 6020	0.0194	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:20	
Barium	"	0.0390	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	10/11/05 08:37	
Chromium	"	ND	—	0.00100	"	"	"	"	"	
Copper	"	ND	—	0.00200	"	"	"	"	10/07/05 17:20	
Lead	"	0.00144	—	0.00100	"	"	"	"	10/11/05 08:37	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 16:31	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 17:20	
Zinc	"	ND	—	0.00500	"	"	"	"	"	
P510928-15	Water				MW-39					Sampled: 09/2[illegible]
Arsenic	EPA 6020	0.0199	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:28	
Barium	"	0.0891	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	10/11/05 08:45	
Chromium	"	0.00218	—	0.00100	"	"	"	"	"	
Copper	"	0.0110	—	0.00200	"	"	"	"	10/07/05 17:28	
Lead	"	0.00238	—	0.00100	"	"	"	"	10/11/05 08:45	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 16:39	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 17:28	
Zinc	"	0.0139	—	0.00500	"	"	"	"	"	

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Sarah Rockwell

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number:	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510928-16	**Water**				**MW-40**					**Sampled: 09/2[illegible]**
Arsenic	EPA 6020	0.0295	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:36	
Barium	"	0.0307	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	10/11/05 08:52	
Chromium	"	ND	—	0.00100	"	"	"	"	"	
Copper	"	0.00434	—	0.00200	"	"	"	"	10/07/05 17:36	
Lead	"	0.00126	—	0.00100	"	"	"	"	10/11/05 08:52	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 16:46	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 17:36	
Zinc	"	0.00592	—	0.00500	"	"	"	"	"	

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Delta Environmental Consultants - Tigard	Project Name: Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Total Mercury per EPA Method 7470A

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-01	Water				MW-8					Sampled: 09/21/0
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 09:47	
P5I0928-06	Water				MW-25					Sampled: 09/2
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 09:49	
P5I0928-07	Water				MW-26					Sampled: 09/2
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 09:51	
P5I0928-09	Water				MW-33					Sampled: 09/2
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 09:53	
P5I0928-10	Water				MW-33-D					Sampled: 09
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:01	
P5I0928-11	Water				MW-34					Sampled: 09/2
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:03	
P5I0928-12	Water				MW-36					Sampled: 09/2
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:05	
P5I0928-13	Water				MW-37					Sampled: 09/2
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:07	
P5I0928-15	Water				MW-39					Sampled: 09/2
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:10	
P5I0928-16	Water				MW-40					Sampled: 09/2
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:12	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-01	**Water**				**MW-8**					**Sampled: 09/21/0**
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 14:47	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 93.5%*		*Limits: 75 - 1[illegible]0 %*		"			"	
1,2-DCA-d4		*99.5%*		*77 - 1[illegible]0 %*		"			"	
Dibromofluoromethane		*95.5%*		*80 - 1[illegible]2 %*		"			"	
Toluene-d8		*91.5%*		*80 - 1[illegible]0 %*		"			"	
P5I0928-02	**Water**				**MW-9**					**Sampled: 09/21/0**
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 15:15	
Surrogate(s): 4-BFB		*Recovery: 94.5%*		*Limits: 75 - 1[illegible]0 %*		"			"	
1,2-DCA-d4		*99.5%*		*77 - 1[illegible]0 %*		"			"	
Dibromofluoromethane		*97.5%*		*80 - 1[illegible]2 %*		"			"	
Toluene-d8		*96.0%*		*80 - 1[illegible]0 %*		"			"	
P5I0928-03	**Water**				**MW-10**					**Sampled: 09/2[illegible]**
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 15:43	
Surrogate(s): 4-BFB		*Recovery: 94.5%*		*Limits: 75 - 1[illegible]0 %*		"			"	
1,2-DCA-d4		*102%*		*77 - 1[illegible]0 %*		"			"	
Dibromofluoromethane		*98.5%*		*80 - 1[illegible]2 %*		"			"	
Toluene-d8		*91.0%*		*80 - 1[illegible]0 %*		"			"	
P5I0928-04	**Water**				**MW-11**					**Sampled: 09/2[illegible]**
Methyl tert-butyl ether	EPA 8260B	ND	----	40.0	ug/l	20x	5091167	09/28/05	09/28/05 21:41	
1,2,4-Trimethylbenzene	"	1590	----	20.0	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 98.5%*		*Limits: 75 - 1[illegible]0 %*		1x			"	
1,2-DCA-d4		*101%*		*77 - 1[illegible]0 %*		"			"	
Dibromofluoromethane		*97.5%*		*80 - 1[illegible]2 %*		"			"	
Toluene-d8		*102%*		*80 - 1[illegible]0 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name:	**Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-05	**Water**			**MW-20**						**Sampled: 09/2**
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 16:10	
Surrogate(s): 4-BFB		*Recovery: 97.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*102%*		*77 - 120 %*		"			"	
Dibromofluoromethane		*96.5%*		*80 - 120 %*		"			"	
Toluene-d8		*95.0%*		*80 - 120 %*		"			"	
P5I0928-06	**Water**			**MW-25**						**Sampled: 09/2**
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 16:38	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 98.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 120 %*		"			"	
Dibromofluoromethane		*97.0%*		*80 - 120 %*		"			"	
Toluene-d8		*91.5%*		*80 - 120 %*		"			"	
P5I0928-07	**Water**			**MW-26**						**Sampled: 09/2**
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 20:45	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 94.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*97.0%*		*77 - 120 %*		"			"	
Dibromofluoromethane		*93.0%*		*80 - 120 %*		"			"	
Toluene-d8		*92.5%*		*80 - 120 %*		"			"	
P5I0928-08	**Water**			**MW-29**						**Sampled: 09/2**
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 17:05	
Surrogate(s): 4-BFB		*Recovery: 97.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 120 %*		"			"	
Dibromofluoromethane		*98.0%*		*80 - 120 %*		"			"	
Toluene-d8		*92.5%*		*80 - 120 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSI0928-09	**Water**			**MW-33**						**Sampled: 09/2[illegible]**
Benzene	EPA 8260B	ND	—	0.200	ug/l	1x	5091167	09/28/05	09/28/05 17:33	
Toluene	"	ND	—	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	—	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 99.5%*		*Limits: 75 - 1[illegible]%*		"			"	
1,2-DCA-d4		*104%*		*77 - 1[illegible]%*		"			"	
Dibromofluoromethane		*102%*		*80 - 1[illegible]%*		"			"	
Toluene-d8		*95.0%*		*80 - 1[illegible]%*		"			"	
PSI0928-10	**Water**			**MW-33-D**						**Sampled: 09[illegible]**
Benzene	EPA 8260B	ND	—	0.200	ug/l	1x	5091167	09/28/05	09/28/05 18:00	
Toluene	"	ND	—	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	—	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 90.5%*		*Limits: 75 - 1[illegible]%*		"			"	
1,2-DCA-d4		*100%*		*77 - 1[illegible]%*		"			"	
Dibromofluoromethane		*99.0%*		*80 - 1[illegible]%*		"			"	
Toluene-d8		*91.5%*		*80 - 1[illegible]%*		"			"	
PSI0928-11RE1	**Water**			**MW-34**						**Sampled: 09/21/05 07:30**
Benzene	EPA 8260B	ND	—	0.200	ug/l	1x	5091217	09/29/05	09/29/05 19:28	
Toluene	"	ND	—	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	—	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	—	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 97.5%*		*Limits: 75 - 1[illegible]%*		"			"	
1,2-DCA-d4		*108%*		*77 - 1[illegible]%*		"			"	
Dibromofluoromethane		*105%*		*80 - 1[illegible]%*		"			"	
Toluene-d8		*97.5%*		*80 - 1[illegible]%*		"			"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-12	Water				MW-36					Sampled: 09/2[illegible]
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 18:55	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 97.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 120 %*		"			"	
Dibromofluoromethane		*102%*		*80 - 120 %*		"			"	
Toluene-d8		*96.5%*		*80 - 120 %*		"			"	
P5I0928-13	Water				MW-37					Sampled: 09/2[illegible]
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 19:23	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 101%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*99.5%*		*77 - 120 %*		"			"	
Dibromofluoromethane		*97.5%*		*80 - 120 %*		"			"	
Toluene-d8		*93.5%*		*80 - 120 %*		"			"	
P5I0928-14	Water				MW-38					Sampled: 09/2[illegible]
Methyl tert-butyl ether	EPA 8260B	22.0	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 21:13	
Surrogate(s): 4-BFB		*Recovery: 85.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*92.0%*		*77 - 120 %*		"			"	
Dibromofluoromethane		*89.0%*		*80 - 120 %*		"			"	
Toluene-d8		*88.0%*		*80 - 120 %*		"			"	
P5I0928-15	Water				MW-39					Sampled: 09/2[illegible]
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 19:50	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 98.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*102%*		*77 - 120 %*		"			"	
Dibromofluoromethane		*99.5%*		*80 - 120 %*		"			"	
Toluene-d8		*97.0%*		*80 - 120 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-16	**Water**				**MW-40**					**Sampled: 09/2[illegible]**
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 20:18	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 99.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*106%*		*77 - 120 %*		"			"	
Dibromofluoromethane		*100%*		*80 - 120 %*		"			"	
Toluene-d8		*100%*		*80 - 120 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-01	**Water**				**MW-8**					**Sampled: 09/21/0**
Acenaphthene	EPA 8270m	ND	—	0.0204	ug/l	1x	5091099	09/27/05	10/04/05 23:27	
Acenaphthylene	"	ND	—	0.0204	"	"	"	"	"	
Anthracene	"	ND	—	0.0204	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0204	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0204	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0204	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0204	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0204	"	"	"	"	"	
Chrysene	"	ND	—	0.0204	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0204	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0204	"	"	"	"	"	
Fluorene	"	ND	—	0.0204	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0204	"	"	"	"	"	
Naphthalene	"	ND	—	0.0306	"	"	"	"	"	R-03
Phenanthrene	"	ND	—	0.0204	"	"	"	"	"	
Pyrene	"	ND	—	0.0204	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 33.8%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*41.6%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*53.7%*		*10 - 125 %*		"			"	
P5I0928-06	**Water**				**MW-25**					**Sampled: 09/2**
Acenaphthene	EPA 8270m	0.205	—	0.0202	ug/l	1x	5091099	09/27/05	10/06/05 00:29	
Acenaphthylene	"	ND	—	0.0202	"	"	"	"	"	
Anthracene	"	ND	—	0.0202	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0202	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0202	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0202	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0202	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0202	"	"	"	"	"	
Chrysene	"	ND	—	0.0202	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0202	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0202	"	"	"	"	"	
Fluorene	"	ND	—	0.0202	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0202	"	"	"	"	"	
Naphthalene	"	ND	—	0.212	"	"	"	"	"	R-03
Phenanthrene	"	0.0344	—	0.0202	"	"	"	"	"	
Pyrene	"	0.0401	—	0.0202	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 47.0%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*60.1%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*64.0%*		*10 - 125 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-07	**Water**				**MW-26**					**Sampled: 09/2**
Acenaphthene	EPA 8270m	1.31	----	0.0400	ug/l	2x	5091099	09/27/05	10/06/05 00:57	
Acenaphthylene	"	ND	----	0.200	"	"	"	"	"	R-03
Anthracene	"	0.165	----	0.0400	"	"	"	"	"	
Benzo (a) anthracene	"	0.0459	----	0.0400	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0400	"	"	"	"	"	
Benzo (b) fluoranthene	"	0.0560	----	0.0400	"	"	"	"	"	R-08
Benzo (ghi) perylene	"	ND	----	0.0400	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0400	"	"	"	"	"	R-08
Chrysene	"	0.0875	----	0.0400	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0400	"	"	"	"	"	
Fluoranthene	"	0.521	----	0.0400	"	"	"	"	"	
Fluorene	"	0.967	----	0.0400	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0400	"	"	"	"	"	
Naphthalene	"	ND	----	0.980	"	"	"	"	"	R-03
Phenanthrene	"	1.48	----	0.0400	"	"	"	"	"	
Pyrene	"	0.396	----	0.0400	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 50.4%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*64.8%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*69.2%*		*10 - 125 %*		"			"	
P5I0928-09	**Water**				**MW-33**					**Sampled: 09/2**
Acenaphthene	EPA 8270m	ND	----	0.0198	ug/l	1x	5091099	09/27/05	10/04/05 23:54	
Acenaphthylene	"	ND	----	0.0198	"	"	"	"	"	
Anthracene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0198	"	"	"	"	"	
Chrysene	"	ND	----	0.0198	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0198	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0198	"	"	"	"	"	
Fluorene	"	ND	----	0.0198	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0198	"	"	"	"	"	
Naphthalene	"	ND	----	0.0396	"	"	"	"	"	R-03
Phenanthrene	"	ND	----	0.0198	"	"	"	"	"	
Pyrene	"	0.0321	----	0.0198	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 59.3%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*55.6%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*67.3%*		*10 - 125 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-10	**Water**				**MW-33-D**					**Sampled: 09/**
Acenaphthene	EPA 8270m	ND	—	0.0200	ug/l	1x	5091099	09/27/05	10/05/05 00:21	
Acenaphthylene	"	ND	—	0.0200	"	"	"	"	"	
Anthracene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Chrysene	"	ND	—	0.0200	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Fluorene	"	ND	—	0.0200	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0200	"	"	"	"	"	
Naphthalene	"	ND	—	0.0200	"	"	"	"	"	
Phenanthrene	"	ND	—	0.0200	"	"	"	"	"	
Pyrene	"	0.0384	—	0.0200	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 59.6%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*62.0%*		*23 - 120 %*		"			"	
Benzo (a) pyrene-d12		*66.8%*		*10 - 125 %*		"			"	
P5I0928-11	**Water**				**MW-34**					**Sampled: 09/2**
Acenaphthene	EPA 8270m	0.332	—	0.0198	ug/l	1x	5091099	09/27/05	10/05/05 00:49	
Acenaphthylene	"	ND	—	0.0198	"	"	"	"	"	
Anthracene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0198	"	"	"	"	"	
Chrysene	"	ND	—	0.0198	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0198	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0198	"	"	"	"	"	
Fluorene	"	ND	—	0.0297	"	"	"	"	"	R-03
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0198	"	"	"	"	"	
Naphthalene	"	ND	—	0.218	"	"	"	"	"	R-03
Phenanthrene	"	ND	—	0.0198	"	"	"	"	"	
Pyrene	"	0.0222	—	0.0198	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 46.8%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*58.5%*		*23 - 120 %*		"			"	
Benzo (a) pyrene-d12		*67.7%*		*10 - 125 %*		"			"	

North Creek Analytical - Portland

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSI0928-12	**Water**				**MW-36**					**Sampled: 09/2[illegible]**
Acenaphthene	EPA 8270m	0.382	—	0.0200	ug/l	1x	5091099	09/27/05	10/05/05 01:16	
Acenaphthylene	"	ND	—	0.0200	"	"	"	"	"	
Anthracene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Chrysene	"	ND	—	0.0200	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Fluorene	"	ND	—	0.0300	"	"	"	"	"	R-03
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0200	"	"	"	"	"	
Naphthalene	"	ND	—	0.210	"	"	"	"	"	R-03
Phenanthrene	"	0.0574	—	0.0200	"	"	"	"	"	
Pyrene	"	0.0616	—	0.0200	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 51.2%*		*Limits: 25 - 12[illegible] %*		"			"	
Pyrene-d10		*62.8%*		*23 - 1[illegible] %*		"			"	
Benzo (a) pyrene-d12		*70.8%*		*10 - 12[illegible] %*		"			"	
PSI0928-13	**Water**				**MW-37**					**Sampled: 09/2[illegible]**
Acenaphthene	EPA 8270m	0.770	—	0.100	ug/l	5x	5091099	09/27/05	10/05/05 17:35	
Acenaphthylene	"	ND	—	0.350	"	"	"	"	"	R-03
Anthracene	"	ND	—	0.100	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.100	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.100	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.100	"	"	"	"	"	
Benzo (ghi) perylene	"	0.110	—	0.100	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.100	"	"	"	"	"	
Chrysene	"	ND	—	0.100	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.100	"	"	"	"	"	
Fluoranthene	"	ND	—	0.100	"	"	"	"	"	
Fluorene	"	0.478	—	0.100	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.100	"	"	"	"	"	
Naphthalene	"	ND	—	1.90	"	"	"	"	"	R-03
Phenanthrene	"	ND	—	0.100	"	"	"	"	"	
Pyrene	"	0.131	—	0.100	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 59.2%*		*Limits: 25 - 12[illegible] %*		"			"	
Pyrene-d10		*60.8%*		*23 - 1[illegible] %*		"			"	
Benzo (a) pyrene-d12		*64.8%*		*10 - 12[illegible] %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name: Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-15	Water				MW-39					Sampled: 09/2[illegible]
Acenaphthene	EPA 8270m	2.33	—	0.200	ug/l	10x	5091099	09/27/05	10/05/05 18:03	
Acenaphthylene	"	ND	—	0.200	"	"	"	"	"	R-03
Anthracene	"	0.0920	—	0.0200	"	1x	"	"	10/05/05 02:11	
Benzo (a) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Chrysene	"	ND	—	0.0200	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Fluoranthene	"	0.211	—	0.0200	"	"	"	"	"	
Fluorene	"	0.826	—	0.200	"	10x	"	"	10/05/05 18:03	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0200	"	1x	"	"	10/05/05 02:11	
Naphthalene	"	ND	—	0.900	"	10x	"	"	10/05/05 18:03	R-03
Phenanthrene	"	0.802	—	0.0200	"	1x	"	"	10/05/05 02:11	
Pyrene	"	0.239	—	0.0200	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 67.6%*		*Limits: 25 - 125 %*		*10x*			*10/05/05 1803*	
Pyrene-d10		*57.6%*		*23 - 150 %*		*1x*			*10/05/05 0211*	
Benzo (a) pyrene-d12		*69.2%*		*10 - 125 %*		"			"	
P5I0928-16	Water				MW-40					Sampled: 09/2[illegible]
Acenaphthene	EPA 8270m	0.0732	—	0.0190	ug/l	1x	5091099	09/27/05	10/05/05 01:44	
Acenaphthylene	"	ND	—	0.0190	"	"	"	"	"	
Anthracene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0190	"	"	"	"	"	
Chrysene	"	ND	—	0.0190	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0190	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0190	"	"	"	"	"	
Fluorene	"	ND	—	0.0190	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0190	"	"	"	"	"	
Naphthalene	"	ND	—	0.105	"	"	"	"	"	R-03
Phenanthrene	"	ND	—	0.0381	"	"	"	"	"	R-03
Pyrene	"	ND	—	0.0190	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 57.1%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*65.5%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*73.5%*		*10 - 125 %*		"			"	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sarah Rockwell

Sarah Rockwell, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods Laboratory Quality Control Results
North Creek Analytical - Portland

QC Batch: 5100059 Water Preparation Method: EPA 200/3005

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5100059-BLK1)								Extracted:	10/03/05 12:58					
Arsenic	EPA 6020	ND	—	0.00100	mg/l	1x	—	—	—	—	—	—	10/07/05 15:57	
Barium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Cadmium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Chromium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	10/11/05 07:06	
Copper	"	ND	—	0.00200	"	"	—	—	—	—	—	—	10/07/05 15:57	
Lead	"	ND	—	0.00100	"	"	—	—	—	—	—	—	10/11/05 07:06	
Selenium	"	ND	—	0.00200	"	"	—	—	—	—	—	—	10/12/05 15:08	
Silver	"	ND	—	0.00100	"	"	—	—	—	—	—	—	10/07/05 15:57	
Zinc	"	ND	—	0.00500	"	"	—	—	—	—	—	—	"	
LCS (5100059-BS1)								Extracted:	10/03/05 12:58					
Arsenic	EPA 6020	0.102	—	0.00100	mg/l	1x	—	0.100	102%	(80-120)	—	—	10/07/05 16:04	
Barium	"	0.0989	—	0.00100	"	"	—	"	98.9%	"	—	—	"	
Cadmium	"	0.0955	—	0.00100	"	"	—	"	95.5%	"	—	—	"	
Chromium	"	0.106	—	0.00100	"	"	—	"	106%	"	—	—	10/11/05 07:13	
Copper	"	0.101	—	0.00200	"	"	—	"	101%	"	—	—	10/07/05 16:04	
Lead	"	0.0976	—	0.00100	"	"	—	"	97.6%	"	—	—	10/11/05 07:13	
Selenium	"	0.0517	—	0.0200	"	10x	—	0.0500	103%	"	—	—	10/12/05 15:15	
Silver	"	0.0481	—	0.00100	"	1x	—	"	96.2%	"	—	—	10/07/05 16:04	
Zinc	"	0.101	—	0.00500	"	"	—	0.100	101%	"	—	—	"	
Duplicate (5100059-DUP1)							QC Source:	P511040-03	Extracted:	10/03/05 12:58				
Arsenic	EPA 6020	0.00214	—	0.00100	mg/l	1x	0.00234	—	—	—	8.93%	(20)	10/07/05 18:29	
Barium	"	0.0826	—	0.00100	"	"	0.0822	—	—	—	0.485%	"	"	
Cadmium	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	10/11/05 09:45	
Chromium	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	"	
Copper	"	ND	—	0.00200	"	"	ND	—	—	—	36.4%	"	10/07/05 18:29	Q-06
Lead	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	10/11/05 09:45	
Selenium	"	ND	—	0.00200	"	"	ND	—	—	—	NR	"	10/12/05 17:36	
Silver	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	10/07/05 18:29	
Zinc	"	ND	—	0.00500	"	"	ND	—	—	—	0.908%	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods -- Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5100059 Water Preparation Method: EPA 200/3005

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (5100059-MS1)				QC Source:		P511040-03		Extracted:		10/03/05 12:58				
Arsenic	EPA 6020	0.113	—	0.00100	mg/l	1x	0.00234	0.100	111%	(75-125)	—	—	10/07/05 18:46	
Barium	"	0.179	—	0.00100	"	"	0.0822	"	96.8%	"	—	—	"	
Cadmium	"	0.100	—	0.00100	"	"	ND	"	100%	"	—	—	10/11/05 10:16	
Chromium	"	0.108	—	0.00100	"	"	ND	"	108%	"	—	—	"	
Copper	"	0.102	—	0.00200	"	"	0.00128	"	101%	"	—	—	10/07/05 18:46	
Lead	"	0.0897	—	0.00100	"	"	ND	"	89.7%	"	—	—	10/11/05 10:16	
Selenium	"	0.0503	—	0.0200	"	10x	ND	0.0500	101%	"	—	—	10/12/05 17:43	
Silver	"	0.0476	—	0.00100	"	1x	ND	"	95.2%	"	—	—	10/07/05 18:46	
Zinc	"	0.107	—	0.00500	"	"	0.00329	0.100	104%	"	—	—	"	
Matrix Spike (5100059-MS2)				QC Source:		P511040-02		Extracted:		10/03/05 12:58				
Arsenic	EPA 6020	0.110	—	0.00100	mg/l	1x	0.00368	0.100	106%	(75-125)	—	—	10/07/05 17:51	
Barium	"	0.122	—	0.00100	"	"	0.0227	"	99.3%	"	—	—	"	
Cadmium	"	0.0980	—	0.00100	"	"	ND	"	98.0%	"	—	—	10/11/05 09:08	
Chromium	"	0.102	—	0.00100	"	"	ND	"	102%	"	—	—	"	
Copper	"	0.105	—	0.00200	"	"	0.00224	"	103%	"	—	—	10/07/05 17:51	
Lead	"	0.0922	—	0.00100	"	"	0.000614	"	91.6%	"	—	—	10/11/05 09:08	
Selenium	"	0.0486	—	0.0200	"	10x	ND	0.0500	97.2%	"	—	—	10/12/05 17:00	
Silver	"	0.0483	—	0.00100	"	1x	ND	"	96.6%	"	—	—	10/07/05 17:51	
Zinc	"	0.110	—	0.00500	"	"	0.00515	0.100	105%	"	—	—	"	
Post Spike (5100059-PS1)				QC Source:		P511040-02		Extracted:		10/03/05 12:58				
Arsenic	EPA 6020	0.110	—		ug/ml	1x	0.00368	0.100	106%	(75-125)	—	—	10/07/05 17:59	
Barium	"	0.121	—		"	"	0.0227	"	98.3%	"	—	—	"	
Cadmium	"	0.101	—		"	"	0.0000350	"	101%	"	—	—	10/11/05 09:15	
Chromium	"	0.108	—		"	"	0.000622	"	107%	"	—	—	"	
Copper	"	0.104	—		"	"	0.00224	"	102%	"	—	—	10/07/05 17:59	
Lead	"	0.0946	—		"	"	0.000614	"	94.0%	"	—	—	10/11/05 09:15	
Selenium	"	0.0481	—		"	10x	0.0000400	0.0500	96.1%	"	—	—	10/12/05 17:07	
Silver	"	0.0487	—		"	1x	9.00E-6	"	97.4%	"	—	—	10/07/05 17:59	
Zinc	"	0.109	—		"	"	0.00515	0.100	104%	"	—	—	"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Total Mercury per EPA Method 7470A Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091069 Water Preparation Method: EPA 7470A

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091069-BLK1)								Extracted:		09/26/05 12:29				
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	--	--	--	--	--	--	09/27/05 09:32	
LCS (5091069-BS1)								Extracted:		09/26/05 12:29				
Mercury	EPA 7470A	0.00493	—	0.000200	mg/l	1x	--	0.00500	98.6%	(85-115)	--	--	09/27/05 09:34	
LCS Dup (5091069-BSD1)								Extracted:		09/26/05 12:29				
Mercury	EPA 7470A	0.00488	—	0.000200	mg/l	1x	--	0.00500	97.6%	(85-115)	1.02%	(20)	09/27/05 09:37	
Duplicate (5091069-DUP1)				QC Source:		P510928-06		Extracted:		09/26/05 12:29				
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	ND	--	--	--	NR	(20)	09/27/05 09:39	
Matrix Spike (5091069-MS1)				QC Source:		P510928-06		Extracted:		09/26/05 12:29				
Mercury	EPA 7470A	0.00509	—	0.000200	mg/l	1x	ND	0.00500	102%	(75-125)	--	--	09/27/05 09:42	
Matrix Spike Dup (5091069-MSD1)				QC Source:		P510928-06		Extracted:		09/26/05 12:29				
Mercury	EPA 7470A	0.00512	—	0.000200	mg/l	1x	ND	0.00500	102%	(75-125)	0.588%	(20)	09/27/05 09:44	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control R
North Creek Analytical - Portland

QC Batch: 5091167 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091167-BLK1)								Extracted:		09/28/05 08:43				
1,2-Dibromoethane	EPA 8260B	ND	—	0.500	ug/l	1x	—	—	—	—	—	—	09/28/05 14:20	
1,2-Dichloroethane	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Benzene	"	ND	—	0.200	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Xylenes (total)	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3,5-Trimethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Isopropylbenzene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
n-Propylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 105%*			*Limits: 75-120%*	"							*09/28/05 14:20*	
1,2-DCA-d4		*105%*			*77-129%*	"							"	
Dibromofluoromethane		*104%*			*80-121%*	"							"	
Toluene-d8		*105%*			*80-120%*	"							"	
LCS (5091167-BS1)								Extracted:		09/28/05 08:43				
Benzene	EPA 8260B	20.0	—	0.200	ug/l	1x	—	20.0	100%	(80-120)	—	—	09/28/05 10:38	
Toluene	"	22.0	—	0.500	"	"	—	"	110%	(80-124)	—	—	"	
Ethylbenzene	"	24.0	—	0.500	"	"	—	"	120%	(80-120)	—	—	"	
Xylenes (total)	"	74.3	—	1.00	"	"	—	60.0	124%	(73-124)	—	—	"	
Methyl tert-butyl ether	"	22.0	—	2.00	"	"	—	20.0	110%	(80-129)	—	—	"	
Naphthalene	"	25.0	—	2.00	"	"	—	"	125%	(72-149)	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 104%*			*Limits: 75-120%*	"							*09/28/05 10:38*	
1,2-DCA-d4		*101%*			*77-129%*	"							"	
Dibromofluoromethane		*100%*			*80-121%*	"							"	
Toluene-d8		*101%*			*80-120%*	"							"	
Matrix Spike (5091167-MS1)					QC Source:	PSI0991-01		Extracted:		09/28/05 08:43				
Benzene	EPA 8260B	51.0	—	0.400	ug/l	2x	7.29	40.0	109%	(80-124)	—	—	09/28/05 11:06	
Toluene	"	41.1	—	1.00	"	"	0.300	"	102%	(79.7-131)	—	—	"	
Ethylbenzene	"	94.7	—	1.00	"	"	26.0	"	172%	(80-124)	—	—	"	Q-01
Xylenes (total)	"	128	—	2.00	"	"	0.940	120	106%	(44.6-154)	—	—	"	
Methyl tert-butyl ether	"	732	—	4.00	"	"	355	40.0	>300%	(80-130)	—	—	"	Q-03
Naphthalene	"	54.8	—	4.00	"	"	6.01	"	122%	(69-163)	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 98.5%*			*Limits: 75-120%*	*1x*							*09/28/05 11:06*	
1,2-DCA-d4		*99.5%*			*77-129%*	"							"	
Dibromofluoromethane		*99.0%*			*80-121%*	"							"	
Toluene-d8		*98.5%*			*80-120%*	"							"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control R

North Creek Analytical - Portland

QC Batch: 5091167 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (5091167-MSD1)				QC Source:	P510991-01			Extracted:	09/28/05 08:43					
Benzene	EPA 8260B	52.9	—	0.400	ug/l	2x	7.29	40.0	114%	(80-124)	3.66%	(25)	09/28/05 11:34	
Toluene	"	43.6	—	1.00	"	"	0.300	"	108%	(79.7-131)	5.90%	"	"	
Ethylbenzene	"	98.1	—	1.00	"	"	26.0	"	180%	(80-124)	3.53%	"	"	Q-01
Xylenes (total)	"	140	—	2.00	"	"	0.940	120	116%	(44.6-154)	8.96%	"	"	
Methyl tert-butyl ether	"	724	—	4.00	"	"	355	40.0	>300%	(80-130)	1.10%	"	"	Q-03
Naphthalene	"	56.4	—	4.00	"	"	6.01	"	126%	(69-163)	2.88%	"	"	

Surrogate(s):	Recovery:	Limits:		
4-BFB	*98.0%*	*75-120%*	*1x*	*09/28/05 11:34*
1,2-DCA-d4	*97.0%*	*77-129%*	"	"
Dibromofluoromethane	*98.0%*	*80-121%*	"	"
Toluene-d8	*96.0%*	*80-120%*	"	"

QC Batch: 5091217 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091217-BLK1)								Extracted:	09/29/05 08:42					
1,2-Dibromoethane	EPA 8260B	ND	—	0.500	ug/l	1x	--	--	--	--	--	--	09/29/05 12:05	
1,2-Dichloroethane	"	ND	—	0.500	"	"	--	--	--	--	--	--	"	
Benzene	"	ND	—	0.200	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	—	0.500	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	—	0.500	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	—	2.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	—	0.500	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	—	2.00	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	—	0.500	"	"	--	--	--	--	--	--	"	

Surrogate(s):	Recovery:	Limits:		
4-BFB	*95.0%*	*75-120%*	"	*09/29/05 12:05*
1,2-DCA-d4	*100%*	*77-129%*	"	"
Dibromofluoromethane	*98.5%*	*80-121%*	"	"
Toluene-d8	*98.5%*	*80-120%*	"	"

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control R

North Creek Analytical - Portland

QC Batch: 5091217 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (5091217-BS1)								Extracted:	09/29/05 08:42					
Benzene	EPA 8260B	18.5	---	0.200	ug/l	1x	--	20.0	92.5%	(80-120)	--	--	09/29/05 10:14	
Toluene	"	20.5	—	0.500	"	"	--	"	102%	(80-124)	--	--	"	
Ethylbenzene	"	22.2	—	0.500	"	"	--	"	111%	(80-120)	--	--	"	
Xylenes (total)	"	67.9	—	1.00	"	"	--	60.0	113%	(73-124)	--	--	"	
Methyl tert-butyl ether	"	20.6	—	2.00	"	"	--	20.0	103%	(80-129)	--	--	"	
Naphthalene	"	23.7	---	2.00	"	"	--	"	118%	(72-149)	--	--	"	
Surrogate(s):	*4-BFB*	*Recovery:*	*98.0%*		*Limits:*	*75-120%*	"						*09/29/05 10:14*	
	1,2-DCA-d4		*98.0%*			*77-129%*	"						"	
	Dibromofluoromethane		*96.0%*			*80-121%*	"						"	
	Toluene-d8		*97.5%*			*80-120%*	"						"	
Matrix Spike (5091217-MS1)					QC Source:	P511097-02		Extracted:	09/29/05 08:42					
Benzene	EPA 8260B	19.7	---	0.200	ug/l	1x	ND	20.0	98.5%	(80-124)	--	--	09/29/05 10:42	
Toluene	"	19.7	—	0.500	"	"	ND	"	98.5%	(79.7-131)	--	--	"	
Ethylbenzene	"	19.6	—	0.500	"	"	ND	"	98.0%	(80-124)	--	--	"	
Xylenes (total)	"	56.9	---	1.00	"	"	ND	60.0	94.8%	(44.6-154)	--	--	"	
Methyl tert-butyl ether	"	21.2	—	2.00	"	"	ND	20.0	106%	(80-130)	--	--	"	
Naphthalene	"	17.9	---	2.00	"	"	ND	"	89.5%	(69-163)	--	--	"	
Surrogate(s):	*4-BFB*	*Recovery:*	*91.0%*		*Limits:*	*75-120%*	"						*09/29/05 10:42*	
	1,2-DCA-d4		*94.5%*			*77-129%*	"						"	
	Dibromofluoromethane		*94.0%*			*80-121%*	"						"	
	Toluene-d8		*94.0%*			*80-120%*	"						"	
Matrix Spike Dup (5091217-MSD1)					QC Source:	P511097-02		Extracted:	09/29/05 08:42					
Benzene	EPA 8260B	20.0	---	0.200	ug/l	1x	ND	20.0	100%	(80-124)	1.51%	(25)	09/29/05 11:09	
Toluene	"	20.0	—	0.500	"	"	ND	"	100%	(79.7-131)	1.51%	"	"	
Ethylbenzene	"	20.8	—	0.500	"	"	ND	"	104%	(80-124)	5.94%	"	"	
Xylenes (total)	"	61.0	—	1.00	"	"	ND	60.0	102%	(44.6-154)	6.96%	"	"	
Methyl tert-butyl ether	"	22.1	—	2.00	"	"	ND	20.0	110%	(80-130)	4.16%	"	"	
Naphthalene	"	18.7	---	2.00	"	"	ND	"	93.5%	(69-163)	4.37%	"	"	
Surrogate(s):	*4-BFB*	*Recovery:*	*99.5%*		*Limits:*	*75-120%*	"						*09/29/05 11:09*	
	1,2-DCA-d4		*97.0%*			*77-129%*	"						"	
	Dibromofluoromethane		*97.0%*			*80-121%*	"						"	
	Toluene-d8		*97.0%*			*80-120%*	"						"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results
North Creek Analytical - Portland

QC Batch: 5091099 Water Preparation Method: EPA 3520/600 Series

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091099-BLK1)								Extracted:	09/27/05 15:00					
Acenaphthene	EPA 8270m	ND	---	0.0200	ug/l	1x	--	--	--	--	--	--	10/04/05 16:33	
Acenaphthylene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.0200	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.0200	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	0.0200	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.0200	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.0200	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	—	0.0200	"	"	--	--	--	--	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 49.2%*			*Limits: 25-125%*	"							*10/04/05 16:33*	
Pyrene-d10		*52.4%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*38.8%*			*10-125%*	"							"	
LCS (5091099-BS1)								Extracted:	09/27/05 15:00					
Acenaphthene	EPA 8270m	1.71	---	0.0200	ug/l	1x	--	2.50	68.4%	(35-120)	--	--	10/04/05 17:58	
Acenaphthylene	"	1.56	—	0.0200	"	"	--	"	62.4%	(34-116)	--	--	"	
Anthracene	"	1.43	—	0.0200	"	"	--	"	57.2%	(24-119)	--	--	"	
Benzo (a) anthracene	"	1.55	---	0.0200	"	"	--	"	62.0%	(36-128)	--	--	"	
Benzo (a) pyrene	"	1.59	---	0.0200	"	"	--	"	63.6%	(17-128)	--	--	"	
Benzo (b) fluoranthene	"	1.66	—	0.0200	"	"	--	"	66.4%	(37-131)	--	--	"	
Benzo (ghi) perylene	"	1.37	—	0.0200	"	"	--	"	54.8%	(26-126)	--	--	"	
Benzo (k) fluoranthene	"	1.76	—	0.0200	"	"	--	"	70.4%	(18-145)	--	--	"	
Chrysene	"	1.50	—	0.0200	"	"	--	"	60.0%	(16-137)	--	--	"	
Dibenzo (a,h) anthracene	"	1.12	—	0.0200	"	"	--	"	44.8%	(20-141)	--	--	"	
Fluoranthene	"	1.39	—	0.0200	"	"	--	"	55.6%	(31-125)	--	--	"	
Fluorene	"	1.54	—	0.0200	"	"	--	"	61.6%	(27-124)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	1.64	—	0.0200	"	"	--	"	65.6%	(30-135)	--	--	"	
Naphthalene	"	1.56	—	0.0200	"	"	--	"	62.4%	(30-113)	--	--	"	
Phenanthrene	"	1.45	—	0.0200	"	"	--	"	58.0%	(34-126)	--	--	"	
Pyrene	"	1.44	—	0.0200	"	"	--	"	57.6%	(21-141)	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 63.6%*			*Limits: 25-125%*	"							*10/04/05 17:58*	
Pyrene-d10		*60.4%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*70.8%*			*10-125%*	"							"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091099 Water Preparation Method: EPA 3520/600 Series

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (5091099-BSD1)								Extracted:	09/27/05 15:00					
Acenaphthene	EPA 8270m	1.57	—	0.0200	ug/l	1x	—	2.50	62.8%	(35-120)	8.54%	(50)	10/04/05 18:25	
Acenaphthylene	"	1.48	—	0.0200	"	"	—	"	59.2%	(34-116)	5.26%	"	"	
Anthracene	"	1.37	—	0.0200	"	"	—	"	54.8%	(24-119)	4.29%	"	"	
Benzo (a) anthracene	"	1.41	—	0.0200	"	"	—	"	56.4%	(36-128)	9.46%	"	"	
Benzo (a) pyrene	"	1.39	—	0.0200	"	"	—	"	55.6%	(17-128)	13.4%	"	"	
Benzo (b) fluoranthene	"	1.62	—	0.0200	"	"	—	"	64.8%	(37-131)	2.44%	"	"	
Benzo (ghi) perylene	"	0.879	—	0.0200	"	"	—	"	35.2%	(26-126)	43.6%	"	"	
Benzo (k) fluoranthene	"	1.31	—	0.0200	"	"	—	"	52.4%	(18-145)	29.3%	"	"	
Chrysene	"	1.34	—	0.0200	"	"	—	"	53.6%	(16-137)	11.3%	"	"	
Dibenzo (a,h) anthracene	"	0.785	—	0.0200	"	"	—	"	31.4%	(20-141)	35.2%	"	"	
Fluoranthene	"	1.33	—	0.0200	"	"	—	"	53.2%	(31-125)	4.41%	"	"	
Fluorene	"	1.41	—	0.0200	"	"	—	"	56.4%	(27-124)	8.81%	"	"	
Indeno (1,2,3-cd) pyrene	"	1.30	—	0.0200	"	"	—	"	52.0%	(30-135)	23.1%	"	"	
Naphthalene	"	1.43	—	0.0200	"	"	—	"	57.2%	(30-113)	8.70%	"	"	
Phenanthrene	"	1.40	—	0.0200	"	"	—	"	56.0%	(34-126)	3.51%	"	"	
Pyrene	"	1.36	—	0.0200	"	"	—	"	54.4%	(21-141)	5.71%	"	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*56.4%*		*Limits:*	*25-125%*	"						*10/04/05 18:25*	
Pyrene-d10			*55.2%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*63.6%*			*10-125%*	"						"	

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Delta Environmental Consultants - Tigard	Project Name:	Willbridge / KMEP	
7150 SW Hampton - Suite 220	Project Number	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Notes and Definitions

Report Specific Notes:

Q-01 - The matrix spike recovery, and/or RPD, for this QC sample is outside of established control limits. Failure of a matrix spike QC sample does not represent an out-of-control condition for the batch.

Q-03 - The matrix spike recovery, and/or RPD, for this QC sample cannot be accurately calculated due to the high concentration of analyte already present in the source sample.

Q-06 - RPD is not applicable for analyte concentrations less than 5 times the MRL.

R-03 - The reporting limit for this analyte was raised due to matrix interference.

R-05 - Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.

R-08 - Due to matrix unable to resolve Benzofluoranthene isomers. Value reported only in Benzo(b) category represents Total Benzo(b+k)fluoranthene.

Laboratory Reporting Conventions:

DET Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR NA -Not Reported Not Available

dry Sample results reported on dry weight basis Reporting Limits have been corrected for %Solids.

wet Sample results and reporting limits reported on wet weight basis (as received).

RPD Relative Percent Difference (RPDs calculated using Results, not Percent Recoveries).

MRL METHOD REPORTING LIMIT Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.

Dil Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where aplicable.

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October 13, 2005

Kelly Kline
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Tigard, OR 97223

RE: Willbridge / KMEP

Enclosed are the results of analyses for samples received by the laboratory on 09/23/05 10:15.
The following list is a summary of the NCA Work Orders contained in this report.
If you have any questions concerning this report, please feel free to contact me.

Work	Project	ProjectNumber
P510928	Willbridge / KMEP	PTWB-03A-5

Thank You,

Sarah Rockwell

Sarah Rockwell, Project Manager

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North Creek Analytical, Inc.
Environmental Laboratory Network

www.ncalabs.com

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Delta Environmental Consultants - Tigard	Project Name:	**Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-8	P5I0928-01	Water	09/21/05 10:05	09/23/05 10:15
MW-9	P5I0928-02	Water	09/21/05 10:15	09/23/05 10:15
MW-10	P5I0928-03	Water	09/21/05 10:25	09/23/05 10:15
MW-11	P5I0928-04	Water	09/21/05 10:50	09/23/05 10:15
MW-20	P5I0928-05	Water	09/21/05 12:10	09/23/05 10:15
MW-25	P5I0928-06	Water	09/21/05 11:45	09/23/05 10:15
MW-26	P5I0928-07	Water	09/21/05 11:25	09/23/05 10:15
MW-29	P5I0928-08	Water	09/21/05 11:10	09/23/05 10:15
MW-33	P5I0928-09	Water	09/21/05 08:00	09/23/05 10:15
MW-33-D	P5I0928-10	Water	09/21/05 08:00	09/23/05 10:15
MW-34	P5I0928-11	Water	09/21/05 07:30	09/23/05 10:15
MW-36	P5I0928-12	Water	09/21/05 08:55	09/23/05 10:15
MW-37	P5I0928-13	Water	09/21/05 09:45	09/23/05 10:15
MW-38	P5I0928-14	Water	09/21/05 12:45	09/23/05 10:15
MW-39	P5I0928-15	Water	09/21/05 09:20	09/23/05 10:15
MW-40	P5I0928-16	Water	09/21/05 08:30	09/23/05 10:15

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-01	**Water**	**MW-8**	**Sampled: 09/21/05 10:05**								
Arsenic		EPA 6020	**0.00867**	----	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:12	
Barium		"	**0.0258**	----	0.00100	"	"	"	"	"	
Cadmium		"	**0.00128**	----	0.00100	"	"	"	"	"	
Chromium		"	ND	----	0.00100	"	"	"	"	10/11/05 07:21	
Copper		"	**0.00425**	----	0.00200	"	"	"	"	10/07/05 16:12	
Lead		"	**0.00181**	----	0.00100	"	"	"	"	10/11/05 07:21	
Selenium		"	ND	----	0.00200	"	"	"	"	10/12/05 15:22	
Silver		"	ND	----	0.00100	"	"	"	"	10/07/05 16:12	
Zinc		"	**0.0217**	----	0.00500	"	"	"	"	"	
P5I0928-06	**Water**	**MW-25**	**Sampled: 09/21/05 11:45**								
Arsenic		EPA 6020	**0.0622**	----	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:20	
Barium		"	**0.0647**	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	"	
Chromium		"	**0.00140**	----	0.00100	"	"	"	"	10/11/05 07:28	
Copper		"	**0.00299**	----	0.00200	"	"	"	"	10/07/05 16:20	
Lead		"	**0.00189**	----	0.00100	"	"	"	"	10/11/05 07:28	
Selenium		"	ND	----	0.00200	"	"	"	"	10/12/05 15:30	
Silver		"	ND	----	0.00100	"	"	"	"	10/07/05 16:20	
Zinc		"	**0.00838**	----	0.00500	"	"	"	"	"	
P5I0928-07	**Water**	**MW-26**	**Sampled: 09/21/05 11:25**								
Arsenic		EPA 6020	**0.0623**	----	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:27	
Barium		"	**0.0462**	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	"	
Chromium		"	ND	----	0.00100	"	"	"	"	10/11/05 07:36	
Copper		"	ND	----	0.00200	"	"	"	"	10/07/05 16:27	
Lead		"	**0.00122**	----	0.00100	"	"	"	"	10/11/05 07:36	
Selenium		"	ND	----	0.00200	"	"	"	"	10/12/05 15:37	
Silver		"	ND	----	0.00100	"	"	"	"	10/07/05 16:27	
Zinc		"	ND	----	0.00500	"	"	"	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-09	**Water**	**MW-33**	**Sampled: 09/21/05 08:00**								
Arsenic		EPA 6020	**0.0181**	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:35	
Barium		"	**0.398**	—	0.00100	"	"	"	"	"	
Cadmium		"	ND	—	0.00100	"	"	"	"	"	
Chromium		"	**0.00165**	—	0.00100	"	"	"	"	10/11/05 07:43	
Copper		"	**0.00290**	—	0.00200	"	"	"	"	10/07/05 16:35	
Lead		"	ND	—	0.00100	"	"	"	"	10/11/05 07:43	
Selenium		"	ND	—	0.00200	"	"	"	"	10/12/05 15:58	
Silver		"	ND	—	0.00100	"	"	"	"	10/07/05 16:35	
Zinc		"	**0.00580**	—	0.00500	"	"	"	"	"	
P5I0928-10	**Water**	**MW-33-D**	**Sampled: 09/21/05 08:00**								
Arsenic		EPA 6020	**0.0163**	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 16:57	
Barium		"	**0.366**	—	0.00100	"	"	"	"	"	
Cadmium		"	ND	—	0.00100	"	"	"	"	10/11/05 08:06	
Chromium		"	**0.00151**	—	0.00100	"	"	"	"	"	
Copper		"	**0.00292**	—	0.00200	"	"	"	"	10/07/05 16:57	
Lead		"	ND	—	0.00100	"	"	"	"	10/11/05 08:06	
Selenium		"	ND	—	0.00200	"	"	"	"	10/12/05 16:05	
Silver		"	ND	—	0.00100	"	"	"	"	10/07/05 16:57	
Zinc		"	**0.00516**	—	0.00500	"	"	"	"	"	
P5I0928-11	**Water**	**MW-34**	**Sampled: 09/21/05 07:30**								
Arsenic		EPA 6020	**0.0537**	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:05	
Barium		"	**0.133**	—	0.00100	"	"	"	"	"	
Cadmium		"	ND	—	0.00100	"	"	"	"	10/11/05 11:25	
Chromium		"	**0.00105**	—	0.00100	"	"	"	"	"	
Copper		"	**0.00354**	—	0.00200	"	"	"	"	10/07/05 17:05	
Lead		"	**0.00113**	—	0.00100	"	"	"	"	10/11/05 11:25	
Selenium		"	ND	—	0.00200	"	"	"	"	10/12/05 16:12	
Silver		"	ND	—	0.00100	"	"	"	"	10/07/05 17:05	
Zinc		"	**0.00754**	—	0.00500	"	"	"	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-12	**Water**	**MW-36**	**Sampled: 09/21/05 08:55**								
Arsenic		EPA 6020	**0.0336**	----	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:13	
Barium		"	**0.0567**	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	10/11/05 08:30	
Chromium		"	ND	----	0.00100	"	"	"	"	"	
Copper		"	**0.00307**	----	0.00200	"	"	"	"	10/07/05 17:13	
Lead		"	ND	----	0.00100	"	"	"	"	10/11/05 08:30	
Selenium		"	ND	----	0.00200	"	"	"	"	10/12/05 16:20	
Silver		"	ND	----	0.00100	"	"	"	"	10/07/05 17:13	
Zinc		"	ND	----	0.00500	"	"	"	"	"	
P5I0928-13	**Water**	**MW-37**	**Sampled: 09/21/05 09:45**								
Arsenic		EPA 6020	**0.0194**	----	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:20	
Barium		"	**0.0390**	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	10/11/05 08:37	
Chromium		"	ND	----	0.00100	"	"	"	"	"	
Copper		"	ND	----	0.00200	"	"	"	"	10/07/05 17:20	
Lead		"	**0.00144**	----	0.00100	"	"	"	"	10/11/05 08:37	
Selenium		"	ND	----	0.00200	"	"	"	"	10/12/05 16:31	
Silver		"	ND	----	0.00100	"	"	"	"	10/07/05 17:20	
Zinc		"	ND	----	0.00500	"	"	"	"	"	
P5I0928-15	**Water**	**MW-39**	**Sampled: 09/21/05 09:20**								
Arsenic		EPA 6020	**0.0199**	----	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:28	
Barium		"	**0.0891**	----	0.00100	"	"	"	"	"	
Cadmium		"	ND	----	0.00100	"	"	"	"	10/11/05 08:45	
Chromium		"	**0.00218**	----	0.00100	"	"	"	"	"	
Copper		"	**0.0110**	----	0.00200	"	"	"	"	10/07/05 17:28	
Lead		"	**0.00238**	----	0.00100	"	"	"	"	10/11/05 08:45	
Selenium		"	ND	----	0.00200	"	"	"	"	10/12/05 16:39	
Silver		"	ND	----	0.00100	"	"	"	"	10/07/05 17:28	
Zinc		"	**0.0139**	----	0.00500	"	"	"	"	"	

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-16	**Water**	**MW-40**	**Sampled: 09/21/05 08:30**								
Arsenic		EPA 6020	0.0295	—	0.00100	mg/l	1x	5100059	10/03/05	10/07/05 17:36	
Barium		"	0.0807	—	0.00100	"	"	"	"	"	
Cadmium		"	ND	—	0.00100	"	"	"	"	10/11/05 08:52	
Chromium		"	ND	—	0.00100	"	"	"	"	"	
Copper		"	0.00434	—	0.00200	"	"	"	"	10/07/05 17:36	
Lead		"	0.00126	—	0.00100	"	"	"	"	10/11/05 08:52	
Selenium		"	ND	—	0.00200	"	"	"	"	10/12/05 16:46	
Silver		"	ND	—	0.00100	"	"	"	"	10/07/05 17:36	
Zinc		"	0.00592	—	0.00500	"	"	"	"	"	

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7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Total Mercury per EPA Method 7470A

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-01	**Water**	**MW-8**	**Sampled: 09/21/05 10:05**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 09:47	
P5I0928-06	**Water**	**MW-25**	**Sampled: 09/21/05 11:45**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 09:49	
P5I0928-07	**Water**	**MW-26**	**Sampled: 09/21/05 11:25**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 09:51	
P5I0928-09	**Water**	**MW-33**	**Sampled: 09/21/05 08:00**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 09:53	
P5I0928-10	**Water**	**MW-33-D**	**Sampled: 09/21/05 08:00**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:01	
P5I0928-11	**Water**	**MW-34**	**Sampled: 09/21/05 07:30**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:03	
P5I0928-12	**Water**	**MW-36**	**Sampled: 09/21/05 08:55**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:05	
P5I0928-13	**Water**	**MW-37**	**Sampled: 09/21/05 09:45**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:07	
P5I0928-15	**Water**	**MW-39**	**Sampled: 09/21/05 09:20**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:10	
P5I0928-16	**Water**	**MW-40**	**Sampled: 09/21/05 08:30**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5091069	09/26/05	09/27/05 10:12	

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7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-01 Water	**MW-8**	**Sampled: 09/21/05 10:05**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 14:47	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 93.5%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*99.5%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*95.5%*		*80 - 121 %*	"				"	
Toluene-d8		*91.5%*		*80 - 120 %*	"				"	
P5I0928-02 Water	**MW-9**	**Sampled: 09/21/05 10:15**								
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 15:15	
Surrogate(s): 4-BFB		*Recovery: 94.5%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*99.5%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*97.5%*		*80 - 121 %*	"				"	
Toluene-d8		*96.0%*		*80 - 120 %*	"				"	
P5I0928-03 Water	**MW-10**	**Sampled: 09/21/05 10:25**								
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 15:43	
Surrogate(s): 4-BFB		*Recovery: 94.5%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*102%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*98.5%*		*80 - 121 %*	"				"	
Toluene-d8		*91.0%*		*80 - 120 %*	"				"	
P5I0928-04 Water	**MW-11**	**Sampled: 09/21/05 10:50**								
Methyl tert-butyl ether	EPA 8260B	ND	----	40.0	ug/l	20x	5091167	09/28/05	09/28/05 21:41	
1,2,4-Trimethylbenzene	"	**1590**	----	20.0	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 98.5%*		*Limits: 75 - 120 %*	*1x*				"	
1,2-DCA-d4		*101%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*97.5%*		*80 - 121 %*	"				"	
Toluene-d8		*102%*		*80 - 120 %*	"				"	

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-05 Water	**MW-20**	**Sampled: 09/21/05 12:10**								
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 16:10	
Surrogate(s): 4-BFB		*Recovery: 97.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*102%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*96.5%*		*80 - 121 %*		"			"	
Toluene-d8		*95.0%*		*80 - 120 %*		"			"	
P5I0928-06 Water	**MW-25**	**Sampled: 09/21/05 11:45**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 16:38	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 98.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*97.0%*		*80 - 121 %*		"			"	
Toluene-d8		*91.5%*		*80 - 120 %*		"			"	
P5I0928-07 Water	**MW-26**	**Sampled: 09/21/05 11:25**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 20:45	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 94.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*97.0%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*93.0%*		*80 - 121 %*		"			"	
Toluene-d8		*92.5%*		*80 - 120 %*		"			"	
P5I0928-08 Water	**MW-29**	**Sampled: 09/21/05 11:10**								
Methyl tert-butyl ether	EPA 8260B	ND	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 17:05	
Surrogate(s): 4-BFB		*Recovery: 97.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*98.0%*		*80 - 121 %*		"			"	
Toluene-d8		*92.5%*		*80 - 120 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-09 Water	**MW-33**	**Sampled: 09/21/05 08:00**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 17:33	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 99.5%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*104%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*102%*		*80 - 121 %*	"				"	
Toluene-d8		*95.0%*		*80 - 120 %*	"				"	
P5I0928-10 Water	**MW-33-D**	**Sampled: 09/21/05 08:00**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 18:00	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 90.5%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*100%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*99.0%*		*80 - 121 %*	"				"	
Toluene-d8		*91.5%*		*80 - 120 %*	"				"	
P5I0928-11RE1 Water	**MW-34**	**Sampled: 09/21/05 07:30**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091217	09/29/05	09/29/05 19:28	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 97.5%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*108%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*105%*		*80 - 121 %*	"				"	
Toluene-d8		*97.5%*		*80 - 120 %*	"				"	

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-12 Water	**MW-36**	**Sampled: 09/21/05 08:55**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 18:55	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 97.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*102%*		*80 - 121 %*		"			"	
Toluene-d8		*96.5%*		*80 - 120 %*		"			"	
P5I0928-13 Water	**MW-37**	**Sampled: 09/21/05 09:45**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 19:23	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 101%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*99.5%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*97.5%*		*80 - 121 %*		"			"	
Toluene-d8		*93.5%*		*80 - 120 %*		"			"	
P5I0928-14 Water	**MW-38**	**Sampled: 09/21/05 12:45**								
Methyl tert-butyl ether	EPA 8260B	**22.0**	----	2.00	ug/l	1x	5091167	09/28/05	09/28/05 21:13	
Surrogate(s): 4-BFB		*Recovery: 85.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*92.0%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*89.0%*		*80 - 121 %*		"			"	
Toluene-d8		*88.0%*		*80 - 120 %*		"			"	
P5I0928-15 Water	**MW-39**	**Sampled: 09/21/05 09:20**								
Benzene	EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 19:50	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 98.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*102%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*99.5%*		*80 - 121 %*		"			"	
Toluene-d8		*97.0%*		*80 - 120 %*		"			"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	**Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-16	**Water**	**MW-40**	**Sampled: 09/21/05 08:30**								
Benzene		EPA 8260B	ND	----	0.200	ug/l	1x	5091167	09/28/05	09/28/05 20:18	
Toluene		"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene		"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)		"	ND	----	1.00	"	"	"	"	"	
Methyl tert-butyl ether		"	ND	----	2.00	"	"	"	"	"	
Surrogate(s):	*4-BFB*		*Recovery: 99.5%*		*Limits: 75 - 120 %*		"			"	
	1,2-DCA-d4		*106%*		*77 - 129 %*		"			"	
	Dibromofluoromethane		*100%*		*80 - 121 %*		"			"	
	Toluene-d8		*100%*		*80 - 120 %*		"			"	

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7150 SW Hampton - Suite 220	Project Number:	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-01 Water	**MW-8**	**Sampled: 09/21/05 10:05**								
Acenaphthene	EPA 8270m	ND	----	0.0204	ug/l	1x	5091099	09/27/05	10/04/05 23:27	
Acenaphthylene	"	ND	----	0.0204	"	"	"	"	"	
Anthracene	"	ND	----	0.0204	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0204	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0204	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0204	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0204	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0204	"	"	"	"	"	
Chrysene	"	ND	----	0.0204	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0204	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0204	"	"	"	"	"	
Fluorene	"	ND	----	0.0204	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0204	"	"	"	"	"	
Naphthalene	"	ND	----	0.0306	"	"	"	"	"	R-03
Phenanthrene	"	ND	----	0.0204	"	"	"	"	"	
Pyrene	"	ND	----	0.0204	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 33.8%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*41.6%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*53.7%*		*10 - 125 %*		"			"	
P5I0928-06 Water	**MW-25**	**Sampled: 09/21/05 11:45**								
Acenaphthene	EPA 8270m	**0.205**	----	0.0202	ug/l	1x	5091099	09/27/05	10/06/05 00:29	
Acenaphthylene	"	ND	----	0.0202	"	"	"	"	"	
Anthracene	"	ND	----	0.0202	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0202	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0202	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0202	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0202	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0202	"	"	"	"	"	
Chrysene	"	ND	----	0.0202	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0202	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0202	"	"	"	"	"	
Fluorene	"	ND	----	0.0202	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0202	"	"	"	"	"	
Naphthalene	"	ND	----	0.212	"	"	"	"	"	R-03
Phenanthrene	"	**0.0344**	----	0.0202	"	"	"	"	"	
Pyrene	"	**0.0401**	----	0.0202	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 47.0%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*60.1%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*64.0%*		*10 - 125 %*		"			"	

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Sarah Rockwell, Project Manager

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7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-07 Water	**MW-26**	**Sampled: 09/21/05 11:25**								**R-05**
Acenaphthene	EPA 8270m	**1.32**	----	0.0400	ug/l	2x	5091099	09/27/05	10/06/05 00:57	
Acenaphthylene	"	ND	----	0.200	"	"	"	"	"	**R-03**
Anthracene	"	**0.165**	----	0.0400	"	"	"	"	"	
Benzo (a) anthracene	"	**0.0459**	----	0.0400	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0400	"	"	"	"	"	
Benzo (b) fluoranthene	"	**0.0560**	----	0.0400	"	"	"	"	"	**R-08**
Benzo (ghi) perylene	"	ND	----	0.0400	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0400	"	"	"	"	"	**R-08**
Chrysene	"	**0.0875**	----	0.0400	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0400	"	"	"	"	"	
Fluoranthene	"	**0.521**	----	0.0400	"	"	"	"	"	
Fluorene	"	**0.967**	----	0.0400	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0400	"	"	"	"	"	
Naphthalene	"	ND	----	0.980	"	"	"	"	"	**R-03**
Phenanthrene	"	**1.48**	----	0.0400	"	"	"	"	"	
Pyrene	"	**0.396**	----	0.0400	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 50.4%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*64.8%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*69.2%*		*10 - 125 %*		"			"	
P5I0928-09 Water	**MW-33**	**Sampled: 09/21/05 08:00**								
Acenaphthene	EPA 8270m	ND	----	0.0198	ug/l	1x	5091099	09/27/05	10/04/05 23:54	
Acenaphthylene	"	ND	----	0.0198	"	"	"	"	"	
Anthracene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0198	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0198	"	"	"	"	"	
Chrysene	"	ND	----	0.0198	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0198	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0198	"	"	"	"	"	
Fluorene	"	ND	----	0.0198	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0198	"	"	"	"	"	
Naphthalene	"	ND	----	0.0396	"	"	"	"	"	**R-03**
Phenanthrene	"	ND	----	0.0198	"	"	"	"	"	
Pyrene	"	**0.0321**	----	0.0198	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 59.3%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*55.6%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*67.3%*		*10 - 125 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-10 Water	**MW-33-D**	**Sampled: 09/21/05 08:00**								
Acenaphthene	EPA 8270m	ND	—	0.0200	ug/l	1x	5091099	09/27/05	10/05/05 00:21	
Acenaphthylene	"	ND	—	0.0200	"	"	"	"	"	
Anthracene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Chrysene	"	ND	—	0.0200	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Fluorene	"	ND	—	0.0200	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0200	"	"	"	"	"	
Naphthalene	"	ND	—	0.0200	"	"	"	"	"	
Phenanthrene	"	ND	—	0.0200	"	"	"	"	"	
Pyrene	"	**0.0384**	—	0.0200	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 59.6%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*62.0%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*66.8%*		*10 - 125 %*		"			"	
P5I0928-11 Water	**MW-34**	**Sampled: 09/21/05 07:30**								
Acenaphthene	EPA 8270m	**0.332**	—	0.0198	ug/l	1x	5091099	09/27/05	10/05/05 00:49	
Acenaphthylene	"	ND	—	0.0198	"	"	"	"	"	
Anthracene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0198	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0198	"	"	"	"	"	
Chrysene	"	ND	—	0.0198	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0198	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0198	"	"	"	"	"	
Fluorene	"	ND	—	0.0297	"	"	"	"	"	R-03
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0198	"	"	"	"	"	
Naphthalene	"	ND	—	0.218	"	"	"	"	"	R-03
Phenanthrene	"	ND	—	0.0198	"	"	"	"	"	
Pyrene	"	**0.0222**	—	0.0198	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 46.8%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*58.5%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*67.7%*		*10 - 125 %*		"			"	

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Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-12 Water	**MW-36**	**Sampled: 09/21/05 08:55**								
Acenaphthene	EPA 8270m	**0.382**	----	0.0200	ug/l	1x	5091099	09/27/05	10/05/05 01:16	
Acenaphthylene	"	ND	----	0.0200	"	"	"	"	"	
Anthracene	"	ND	----	0.0200	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0200	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0200	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0200	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0200	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0200	"	"	"	"	"	
Chrysene	"	ND	----	0.0200	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0200	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0200	"	"	"	"	"	
Fluorene	"	ND	----	0.0300	"	"	"	"	"	R-03
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0200	"	"	"	"	"	
Naphthalene	"	ND	----	0.210	"	"	"	"	"	R-03
Phenanthrene	"	**0.0574**	----	0.0200	"	"	"	"	"	
Pyrene	"	**0.0616**	----	0.0200	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 51.2%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*62.8%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*70.8%*		*10 - 125 %*	"				"	
P5I0928-13 Water	**MW-37**	**Sampled: 09/21/05 09:45**								**R-05**
Acenaphthene	EPA 8270m	**0.770**	----	0.100	ug/l	5x	5091099	09/27/05	10/05/05 17:35	
Acenaphthylene	"	ND	----	0.350	"	"	"	"	"	R-03
Anthracene	"	ND	----	0.100	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.100	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.100	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.100	"	"	"	"	"	
Benzo (ghi) perylene	"	**0.110**	----	0.100	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.100	"	"	"	"	"	
Chrysene	"	ND	----	0.100	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.100	"	"	"	"	"	
Fluoranthene	"	ND	----	0.100	"	"	"	"	"	
Fluorene	"	**0.478**	----	0.100	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.100	"	"	"	"	"	
Naphthalene	"	ND	----	1.90	"	"	"	"	"	R-03
Phenanthrene	"	ND	----	0.100	"	"	"	"	"	
Pyrene	"	**0.131**	----	0.100	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 59.2%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*60.8%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*64.8%*		*10 - 125 %*	"				"	

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Delta Environmental Consultants - Tigard	Project Name:	**Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0928-15 Water	**MW-39**	**Sampled: 09/21/05 09:20**								
Acenaphthene	EPA 8270m	**2.33**	—	0.200	ug/l	10x	5091099	09/27/05	10/05/05 18:03	
Acenaphthylene	"	ND	—	0.200	"	"	"	"	"	R-03
Anthracene	"	**0.0920**	—	0.0200	"	1x	"	"	10/05/05 02:11	
Benzo (a) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0200	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0200	"	"	"	"	"	
Chrysene	"	ND	—	0.0200	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0200	"	"	"	"	"	
Fluoranthene	"	**0.211**	—	0.0200	"	"	"	"	"	
Fluorene	"	**0.826**	—	0.200	"	10x	"	"	10/05/05 18:03	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0200	"	1x	"	"	10/05/05 02:11	
Naphthalene	"	ND	—	0.900	"	10x	"	"	10/05/05 18:03	R-03
Phenanthrene	"	**0.802**	—	0.0200	"	1x	"	"	10/05/05 02:11	
Pyrene	"	**0.239**	—	0.0200	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 67.6%*		*Limits: 25 - 125 %*		*10x*			*10/05/05 18:03*	
Pyrene-d10		*57.6%*		*23 - 150 %*		*1x*			*10/05/05 02:11*	
Benzo (a) pyrene-d12		*69.2%*		*10 - 125 %*		"			"	
P5I0928-16 Water	**MW-40**	**Sampled: 09/21/05 08:30**								
Acenaphthene	EPA 8270m	**0.0732**	—	0.0190	ug/l	1x	5091099	09/27/05	10/05/05 01:44	
Acenaphthylene	"	ND	—	0.0190	"	"	"	"	"	
Anthracene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0190	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0190	"	"	"	"	"	
Chrysene	"	ND	—	0.0190	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0190	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0190	"	"	"	"	"	
Fluorene	"	ND	—	0.0190	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0190	"	"	"	"	"	
Naphthalene	"	ND	—	0.105	"	"	"	"	"	R-03
Phenanthrene	"	ND	—	0.0381	"	"	"	"	"	R-03
Pyrene	"	ND	—	0.0190	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 57.1%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*65.5%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*73.5%*		*10 - 125 %*		"			"	

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5100059 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5100059-BLK1)								Extracted: 10/03/05 12:58						
Arsenic	EPA 6020	ND	—	0.00100	mg/l	1x	—	—	—	—	—	—	10/07/05 15:57	
Barium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Cadmium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Chromium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	10/11/05 07:06	
Copper	"	ND	—	0.00200	"	"	—	—	—	—	—	—	10/07/05 15:57	
Lead	"	ND	—	0.00100	"	"	—	—	—	—	—	—	10/11/05 07:06	
Selenium	"	ND	—	0.00200	"	"	—	—	—	—	—	—	10/12/05 15:08	
Silver	"	ND	—	0.00100	"	"	—	—	—	—	—	—	10/07/05 15:57	
Zinc	"	ND	—	0.00500	"	"	—	—	—	—	—	—	"	
LCS (5100059-BS1)								Extracted: 10/03/05 12:58						
Arsenic	EPA 6020	0.102	—	0.00100	mg/l	1x	—	0.100	102%	(80-120)	—	—	10/07/05 16:04	
Barium	"	0.0989	—	0.00100	"	"	—	"	98.9%	"	—	—	"	
Cadmium	"	0.0955	—	0.00100	"	"	—	"	95.5%	"	—	—	"	
Chromium	"	0.106	—	0.00100	"	"	—	"	106%	"	—	—	10/11/05 07:13	
Copper	"	0.101	—	0.00200	"	"	—	"	101%	"	—	—	10/07/05 16:04	
Lead	"	0.0976	—	0.00100	"	"	—	"	97.6%	"	—	—	10/11/05 07:13	
Selenium	"	0.0517	—	0.0200	"	10x	—	0.0500	103%	"	—	—	10/12/05 15:15	
Silver	"	0.0481	—	0.00100	"	1x	—	"	96.2%	"	—	—	10/07/05 16:04	
Zinc	"	0.101	—	0.00500	"	"	—	0.100	101%	"	—	—	"	
Duplicate (5100059-DUP1)				QC Source: P511040-03				Extracted: 10/03/05 12:58						
Arsenic	EPA 6020	0.00214	—	0.00100	mg/l	1x	0.00234	—	—	—	8.93%	(20)	10/07/05 18:29	
Barium	"	0.0826	—	0.00100	"	"	0.0822	—	—	—	0.485%	"	"	
Cadmium	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	10/11/05 09:45	
Chromium	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	"	
Copper	"	ND	—	0.00200	"	"	ND	—	—	—	36.4%	"	10/07/05 18:29	Q-06
Lead	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	10/11/05 09:45	
Selenium	"	ND	—	0.00200	"	"	ND	—	—	—	NR	"	10/12/05 17:36	
Silver	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	10/07/05 18:29	
Zinc	"	ND	—	0.00500	"	"	ND	—	—	—	0.908%	"	"	

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Delta Environmental Consultants - Tigard	Project Name:	**Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5100059 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (5100059-MS1)				QC Source: P5I1040-03				Extracted: 10/03/05 12:58						
Arsenic	EPA 6020	0.113	—	0.00100	mg/l	1x	0.00234	0.100	111%	(75-125)	—	—	10/07/05 18:46	
Barium	"	0.179	—	0.00100	"	"	0.0822	"	96.8%	"	—	—	"	
Cadmium	"	0.100	—	0.00100	"	"	ND	"	100%	"	—	—	10/11/05 10:16	
Chromium	"	0.108	—	0.00100	"	"	ND	"	108%	"	—	—	"	
Copper	"	0.102	—	0.00200	"	"	0.00128	"	101%	"	—	—	10/07/05 18:46	
Lead	"	0.0897	—	0.00100	"	"	ND	"	89.7%	"	—	—	10/11/05 10:16	
Selenium	"	0.0503	—	0.0200	"	10x	ND	0.0500	101%	"	—	—	10/12/05 17:43	
Silver	"	0.0476	—	0.00100	"	1x	ND	"	95.2%	"	—	—	10/07/05 18:46	
Zinc	"	0.107	—	0.00500	"	"	0.00329	0.100	104%	"	—	—	"	
Matrix Spike (5100059-MS2)				QC Source: P5I1040-02				Extracted: 10/03/05 12:58						
Arsenic	EPA 6020	0.110	—	0.00100	mg/l	1x	0.00368	0.100	106%	(75-125)	—	—	10/07/05 17:51	
Barium	"	0.122	—	0.00100	"	"	0.0227	"	99.3%	"	—	—	"	
Cadmium	"	0.0980	—	0.00100	"	"	ND	"	98.0%	"	—	—	10/11/05 09:08	
Chromium	"	0.102	—	0.00100	"	"	ND	"	102%	"	—	—	"	
Copper	"	0.105	—	0.00200	"	"	0.00224	"	103%	"	—	—	10/07/05 17:51	
Lead	"	0.0922	—	0.00100	"	"	0.000614	"	91.6%	"	—	—	10/11/05 09:08	
Selenium	"	0.0486	—	0.0200	"	10x	ND	0.0500	97.2%	"	—	—	10/12/05 17:00	
Silver	"	0.0483	—	0.00100	"	1x	ND	"	96.6%	"	—	—	10/07/05 17:51	
Zinc	"	0.110	—	0.00500	"	"	0.00515	0.100	105%	"	—	—	"	
Post Spike (5100059-PS1)				QC Source: P5I1040-02				Extracted: 10/03/05 12:58						
Arsenic	EPA 6020	0.110	—		ug/ml	1x	0.00368	0.100	106%	(75-125)	—	—	10/07/05 17:59	
Barium	"	0.121	—		"	"	0.0227	"	98.3%	"	—	—	"	
Cadmium	"	0.101	—		"	"	0.0000350	"	101%	"	—	—	10/11/05 09:15	
Chromium	"	0.108	—		"	"	0.000622	"	107%	"	—	—	"	
Copper	"	0.104	—		"	"	0.00224	"	102%	"	—	—	10/07/05 17:59	
Lead	"	0.0946	—		"	"	0.000614	"	94.0%	"	—	—	10/11/05 09:15	
Selenium	"	0.0481	—		"	10x	0.0000400	0.0500	96.1%	"	—	—	10/12/05 17:07	
Silver	"	0.0487	—		"	1x	9.00E-6	"	97.4%	"	—	—	10/07/05 17:59	
Zinc	"	0.109	—		"	"	0.00515	0.100	104%	"	—	—	"	

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Total Mercury per EPA Method 7470A - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091069 **Water Preparation Method: EPA 7470A**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091069-BLK1)								Extracted: 09/26/05 12:29						
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	–	–	–	–	–	–	09/27/05 09:32	
LCS (5091069-BS1)								Extracted: 09/26/05 12:29						
Mercury	EPA 7470A	0.00493	—	0.000200	mg/l	1x	–	0.00500	98.6%	(85-115)	–	–	09/27/05 09:34	
LCS Dup (5091069-BSD1)								Extracted: 09/26/05 12:29						
Mercury	EPA 7470A	0.00488	—	0.000200	mg/l	1x	–	0.00500	97.6%	(85-115)	1.02%	(20)	09/27/05 09:37	
Duplicate (5091069-DUP1)				QC Source: P5I0928-06				Extracted: 09/26/05 12:29						
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	ND	–	–	–	NR	(20)	09/27/05 09:39	
Matrix Spike (5091069-MS1)				QC Source: P5I0928-06				Extracted: 09/26/05 12:29						
Mercury	EPA 7470A	0.00509	—	0.000200	mg/l	1x	ND	0.00500	102%	(75-125)	–	–	09/27/05 09:42	
Matrix Spike Dup (5091069-MSD1)				QC Source: P5I0928-06				Extracted: 09/26/05 12:29						
Mercury	EPA 7470A	0.00512	—	0.000200	mg/l	1x	ND	0.00500	102%	(75-125)	0.588%	(20)	09/27/05 09:44	

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Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091167 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091167-BLK1)								Extracted: 09/28/05 08:43						
1,2-Dibromoethane	EPA 8260B	ND	—	0.500	ug/l	1x	—	—	—	—	—	—	09/28/05 14:20	
1,2-Dichloroethane	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Benzene	"	ND	—	0.200	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Xylenes (total)	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3,5-Trimethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Isopropylbenzene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
n-Propylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Surrogate(s): 4-BFB		*Recovery:*	*105%*		*Limits:*	*75-120%*	"						*09/28/05 14:20*	
1,2-DCA-d4			*108%*			*77-129%*	"						"	
Dibromofluoromethane			*104%*			*80-121%*	"						"	
Toluene-d8			*108%*			*80-120%*	"						"	
LCS (5091167-BS1)								Extracted: 09/28/05 08:43						
Benzene	EPA 8260B	20.0	—	0.200	ug/l	1x	—	20.0	100%	(80-120)	—	—	09/28/05 10:38	
Toluene	"	22.0	—	0.500	"	"	—	"	110%	(80-124)	—	—	"	
Ethylbenzene	"	24.0	—	0.500	"	"	—	"	120%	(80-120)	—	—	"	
Xylenes (total)	"	74.3	—	1.00	"	"	—	60.0	124%	(73-124)	—	—	"	
Methyl tert-butyl ether	"	22.0	—	2.00	"	"	—	20.0	110%	(80-129)	—	—	"	
Naphthalene	"	25.0	—	2.00	"	"	—	"	125%	(72-149)	—	—	"	
Surrogate(s): 4-BFB		*Recovery:*	*104%*		*Limits:*	*75-120%*	"						*09/28/05 10:38*	
1,2-DCA-d4			*101%*			*77-129%*	"						"	
Dibromofluoromethane			*100%*			*80-121%*	"						"	
Toluene-d8			*101%*			*80-120%*	"						"	
Matrix Spike (5091167-MS1)					QC Source: P5I0991-01			Extracted: 09/28/05 08:43						
Benzene	EPA 8260B	51.0	—	0.400	ug/l	2x	7.29	40.0	109%	(80-124)	—	—	09/28/05 11:06	
Toluene	"	41.1	—	1.00	"	"	0.300	"	102%	(79.7-131)	—	—	"	
Ethylbenzene	"	94.7	—	1.00	"	"	26.0	"	172%	(80-124)	—	—	"	Q-01
Xylenes (total)	"	128	—	2.00	"	"	0.940	120	106%	(44.6-154)	—	—	"	
Methyl tert-butyl ether	"	732	—	4.00	"	"	355	40.0	>300%	(80-130)	—	—	"	Q-03
Naphthalene	"	54.8	—	4.00	"	"	6.01	"	122%	(69-163)	—	—	"	
Surrogate(s): 4-BFB		*Recovery:*	*98.5%*		*Limits:*	*75-120%*	*1x*						*09/28/05 11:06*	
1,2-DCA-d4			*99.5%*			*77-129%*	"						"	
Dibromofluoromethane			*99.0%*			*80-121%*	"						"	
Toluene-d8			*98.5%*			*80-120%*	"						"	

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091167 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (5091167-MSD1)				QC Source: P510991-01				Extracted: 09/28/05 08:43						
Benzene	EPA 8260B	52.9	—	0.400	ug/l	2x	7.29	40.0	114%	(80-124)	3.66%	(25)	09/28/05 11:34	
Toluene	"	43.6	—	1.00	"	"	0.300	"	108%	(79.7-131)	5.90%	"	"	
Ethylbenzene	"	98.1	—	1.00	"	"	26.0	"	180%	(80-124)	3.53%	"	"	Q-01
Xylenes (total)	"	140	—	2.00	"	"	0.940	120	116%	(44.6-154)	8.96%	"	"	
Methyl tert-butyl ether	"	724	—	4.00	"	"	355	40.0	>300%	(80-130)	1.10%	"	"	Q-03
Naphthalene	"	56.4	—	4.00	"	"	6.01	"	126%	(69-163)	2.88%	"	"	

Surrogate(s):	*Recovery:*	*Limits:*		
4-BFB	*98.0%*	*75-120%*	*1x*	*09/28/05 11:34*
1,2-DCA-d4	*97.0%*	*77-129%*	"	"
Dibromofluoromethane	*98.0%*	*80-121%*	"	"
Toluene-d8	*96.0%*	*80-120%*	"	"

QC Batch: 5091217 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091217-BLK1)								Extracted: 09/29/05 08:42						
1,2-Dibromoethane	EPA 8260B	ND	—	0.500	ug/l	1x	—	—	—	—	—	—	09/29/05 12:05	
1,2-Dichloroethane	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Benzene	"	ND	—	0.200	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Xylenes (total)	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Methyl tert-butyl ether	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3,5-Trimethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Isopropylbenzene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
n-Propylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	

Surrogate(s):	*Recovery:*	*Limits:*		
4-BFB	*95.0%*	*75-120%*	"	*09/29/05 12:05*
1,2-DCA-d4	*100%*	*77-129%*	"	"
Dibromofluoromethane	*98.5%*	*80-121%*	"	"
Toluene-d8	*98.5%*	*80-120%*	"	"

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Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Selected Volatile Organic Compounds (Including BTEX) per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091217 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (5091217-BS1)								Extracted: 09/29/05 08:42						
Benzene	EPA 8260B	18.5	—	0.200	ug/l	1x	–	20.0	92.5%	(80-120)	–	–	09/29/05 10:14	
Toluene	"	20.5	—	0.500	"	"	–	"	102%	(80-124)	–	–	"	
Ethylbenzene	"	22.2	—	0.500	"	"	–	"	111%	(80-120)	–	–	"	
Xylenes (total)	"	67.9	—	1.00	"	"	–	60.0	113%	(73-124)	–	–	"	
Methyl tert-butyl ether	"	20.6	—	2.00	"	"	–	20.0	103%	(80-129)	–	–	"	
Naphthalene	"	23.7	—	2.00	"	"	–	"	118%	(72-149)	–	–	"	
Surrogate(s): 4-BFB		*Recovery:*	*98.0%*		*Limits:*	*75-120%*	"						*09/29/05 10:14*	
1,2-DCA-d4			*98.0%*			*77-129%*	"						"	
Dibromofluoromethane			*96.0%*			*80-121%*	"						"	
Toluene-d8			*97.5%*			*80-120%*	"						"	
Matrix Spike (5091217-MS1)				QC Source: P511097-02				Extracted: 09/29/05 08:42						
Benzene	EPA 8260B	19.7	—	0.200	ug/l	1x	ND	20.0	98.5%	(80-124)	–	–	09/29/05 10:42	
Toluene	"	19.7	—	0.500	"	"	ND	"	98.5%	(79.7-131)	–	–	"	
Ethylbenzene	"	19.6	—	0.500	"	"	ND	"	98.0%	(80-124)	–	–	"	
Xylenes (total)	"	56.9	—	1.00	"	"	ND	60.0	94.8%	(44.6-154)	–	–	"	
Methyl tert-butyl ether	"	21.2	—	2.00	"	"	ND	20.0	106%	(80-130)	–	–	"	
Naphthalene	"	17.9	—	2.00	"	"	ND	"	89.5%	(69-163)	–	–	"	
Surrogate(s): 4-BFB		*Recovery:*	*91.0%*		*Limits:*	*75-120%*	"						*09/29/05 10:42*	
1,2-DCA-d4			*94.5%*			*77-129%*	"						"	
Dibromofluoromethane			*94.0%*			*80-121%*	"						"	
Toluene-d8			*94.0%*			*80-120%*	"						"	
Matrix Spike Dup (5091217-MSD1)				QC Source: P511097-02				Extracted: 09/29/05 08:42						
Benzene	EPA 8260B	20.0	—	0.200	ug/l	1x	ND	20.0	100%	(80-124)	1.51%	(25)	09/29/05 11:09	
Toluene	"	20.0	—	0.500	"	"	ND	"	100%	(79.7-131)	1.51%	"	"	
Ethylbenzene	"	20.8	—	0.500	"	"	ND	"	104%	(80-124)	5.94%	"	"	
Xylenes (total)	"	61.0	—	1.00	"	"	ND	60.0	102%	(44.6-154)	6.96%	"	"	
Methyl tert-butyl ether	"	22.1	—	2.00	"	"	ND	20.0	110%	(80-130)	4.16%	"	"	
Naphthalene	"	18.7	—	2.00	"	"	ND	"	93.5%	(69-163)	4.37%	"	"	
Surrogate(s): 4-BFB		*Recovery:*	*99.5%*		*Limits:*	*75-120%*	"						*09/29/05 11:09*	
1,2-DCA-d4			*97.0%*			*77-129%*	"						"	
Dibromofluoromethane			*97.0%*			*80-121%*	"						"	
Toluene-d8			*97.0%*			*80-120%*	"						"	

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Delta Environmental Consultants - Tigard	Project Name:	**Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091099 **Water Preparation Method: EPA 3520/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091099-BLK1)								Extracted: 09/27/05 15:00						
Acenaphthene	EPA 8270m	ND	—	0.0200	ug/l	1x	—	—	—	—	—	—	10/04/05 16:33	
Acenaphthylene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Anthracene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (a) anthracene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (a) pyrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (b) fluoranthene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (ghi) perylene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Benzo (k) fluoranthene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Chrysene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Dibenzo (a,h) anthracene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Fluoranthene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Fluorene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Phenanthrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Pyrene	"	ND	—	0.0200	"	"	—	—	—	—	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*49.2%*		*Limits:*	*25-125%*	"						*10/04/05 16:33*	
Pyrene-d10			*52.4%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*58.8%*			*10-125%*	"						"	
LCS (5091099-BS1)								Extracted: 09/27/05 15:00						
Acenaphthene	EPA 8270m	1.71	—	0.0200	ug/l	1x	—	2.50	68.4%	(35-120)	—	—	10/04/05 17:58	
Acenaphthylene	"	1.56	—	0.0200	"	"	—	"	62.4%	(34-116)	—	—	"	
Anthracene	"	1.43	—	0.0200	"	"	—	"	57.2%	(24-119)	—	—	"	
Benzo (a) anthracene	"	1.55	—	0.0200	"	"	—	"	62.0%	(36-128)	—	—	"	
Benzo (a) pyrene	"	1.59	—	0.0200	"	"	—	"	63.6%	(17-128)	—	—	"	
Benzo (b) fluoranthene	"	1.66	—	0.0200	"	"	—	"	66.4%	(37-131)	—	—	"	
Benzo (ghi) perylene	"	1.37	—	0.0200	"	"	—	"	54.8%	(26-126)	—	—	"	
Benzo (k) fluoranthene	"	1.76	—	0.0200	"	"	—	"	70.4%	(18-145)	—	—	"	
Chrysene	"	1.50	—	0.0200	"	"	—	"	60.0%	(16-137)	—	—	"	
Dibenzo (a,h) anthracene	"	1.12	—	0.0200	"	"	—	"	44.8%	(20-141)	—	—	"	
Fluoranthene	"	1.39	—	0.0200	"	"	—	"	55.6%	(31-125)	—	—	"	
Fluorene	"	1.54	—	0.0200	"	"	—	"	61.6%	(27-124)	—	—	"	
Indeno (1,2,3-cd) pyrene	"	1.64	—	0.0200	"	"	—	"	65.6%	(30-135)	—	—	"	
Naphthalene	"	1.56	—	0.0200	"	"	—	"	62.4%	(30-113)	—	—	"	
Phenanthrene	"	1.45	—	0.0200	"	"	—	"	58.0%	(34-126)	—	—	"	
Pyrene	"	1.44	—	0.0200	"	"	—	"	57.6%	(21-141)	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*63.6%*		*Limits:*	*25-125%*	"						*10/04/05 17:58*	
Pyrene-d10			*60.4%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*70.8%*			*10-125%*	"						"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name: **Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number: PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager: Kelly Kline	10/13/05 18:03

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091099 **Water Preparation Method: EPA 3520/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (5091099-BSD1)								Extracted: 09/27/05 15:00						
Acenaphthene	EPA 8270m	1.57	—	0.0200	ug/l	1x	—	2.50	62.8%	(35-120)	8.54%	(50)	10/04/05 18:25	
Acenaphthylene	"	1.48	—	0.0200	"	"	—	"	59.2%	(34-116)	5.26%	"	"	
Anthracene	"	1.37	—	0.0200	"	"	—	"	54.8%	(24-119)	4.29%	"	"	
Benzo (a) anthracene	"	1.41	—	0.0200	"	"	—	"	56.4%	(36-128)	9.46%	"	"	
Benzo (a) pyrene	"	1.39	—	0.0200	"	"	—	"	55.6%	(17-128)	13.4%	"	"	
Benzo (b) fluoranthene	"	1.62	—	0.0200	"	"	—	"	64.8%	(37-131)	2.44%	"	"	
Benzo (ghi) perylene	"	0.879	—	0.0200	"	"	—	"	35.2%	(26-126)	43.6%	"	"	
Benzo (k) fluoranthene	"	1.31	—	0.0200	"	"	—	"	52.4%	(18-145)	29.3%	"	"	
Chrysene	"	1.34	—	0.0200	"	"	—	"	53.6%	(16-137)	11.3%	"	"	
Dibenzo (a,h) anthracene	"	0.785	—	0.0200	"	"	—	"	31.4%	(20-141)	35.2%	"	"	
Fluoranthene	"	1.33	—	0.0200	"	"	—	"	53.2%	(31-125)	4.41%	"	"	
Fluorene	"	1.41	—	0.0200	"	"	—	"	56.4%	(27-124)	8.81%	"	"	
Indeno (1,2,3-cd) pyrene	"	1.30	—	0.0200	"	"	—	"	52.0%	(30-135)	23.1%	"	"	
Naphthalene	"	1.43	—	0.0200	"	"	—	"	57.2%	(30-113)	8.70%	"	"	
Phenanthrene	"	1.40	—	0.0200	"	"	—	"	56.0%	(34-126)	3.51%	"	"	
Pyrene	"	1.36	—	0.0200	"	"	—	"	54.4%	(21-141)	5.71%	"	"	
Surrogate(s): Fluorene-d10		*Recovery:*	*56.4%*		*Limits:*	*25-125%*	"						*10/04/05 18:25*	
Pyrene-d10			*55.2%*			*23-150%*	"						"	
Benzo (a) pyrene-d12			*63.6%*			*10-125%*	"						"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Delta Environmental Consultants - Tigard	Project Name:	**Willbridge / KMEP**	
7150 SW Hampton - Suite 220	Project Number:	PTWB-03A-5	Report Created:
Tigard, OR 97223	Project Manager:	Kelly Kline	10/13/05 18:03

Notes and Definitions

Report Specific Notes:

Q-01 - The matrix spike recovery, and/or RPD, for this QC sample is outside of established control limits. Failure of a matrix spike QC sample does not represent an out-of-control condition for the batch.

Q-03 - The matrix spike recovery, and/or RPD, for this QC sample cannot be accurately calculated due to the high concentration of analyte already present in the source sample.

Q-06 - RPD is not applicable for analyte concentrations less than 5 times the MRL.

R-03 - The reporting limit for this analyte was raised due to matrix interference.

R-05 - Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.

R-08 - Due to matrix unable to resolve Benzofluoranthene isomers. Value reported only in Benzo(b) category represents Total Benzo(b+k)fluoranthene.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR / NA - Not Reported / Not Available

dry - Sample results reported on a dry weight basis. Reporting Limits have been corrected for %Solids.

wet - Sample results and reporting limits reported on a wet weight basis (as received).

RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

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2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: PSI0928

NCA CLIENT: [illegible]
REPORT TO: [illegible]
ADDRESS:
PHONE: [illegible] FAX:
PROJECT NAME: [illegible]
PROJECT NUMBER: [illegible]
SAMPLED BY: [illegible]

INVOICE TO: [illegible]
P.O. NUMBER:

TURNAROUND REQUEST
In Business Days *
Organic & Inorganic Analyses: [X] 3 5 4 3 2 1 <1
Petroleum Hydrocarbon Analyses: 5 4 3 2 1 <1
OTHER Specify:
* Pathogen Requests for non-standard may cover Rush Charges.

PRESERVATIVE / REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	BTEX	MTBE	PAH, SIZE Low Level	RCRA 8 + Copper + Zinc	1,2,4 Trimethylbenzene	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1	MW-8	9/24/05 1005	X	X	X	X		W	5		
2	MW-9	1015		X					3		
3	MW-10	1025							3		
4	MW-11	1050					X		3		
5	MW-20	1210							3		
6	MW-25	1145	X		X	X			5		
7	MW-26	1125	X		X	X			5		
8	MW-29	1110							3		
9	MW-33	0800	X		X	X			5		
10	MW-33-D	0800	X		X	X			5		

RELEASED BY: [signature] DATE: 9/24/05
PRINT NAME: Jacob Neal FIRM: Delta TIME: 0900
RECEIVED BY: [signature] DATE: 92305
PRINT NAME: FIRM: TIME: 900

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:
RECEIVED BY: [signature] DATE: 9/23/05
PRINT NAME: Laurie Fahsholz FIRM: NCA TIME: 1015

ADDITIONAL REMARKS:
TEMP: 0.5 0.0
PAGE OF

COC REV 09/04

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CHAIN OF CUSTODY REPORT

Work Order #: P510928

NCA CLIENT: [illegible]

REPORT TO: [illegible]
ADDRESS:

PHONE: [illegible] FAX:

INVOICE TO: [illegible]

P.O. NUMBER:

PROJECT NAME: [illegible]

PROJECT NUMBER: PTW-B-C29-5

SAMPLED BY: [illegible]

TURNAROUND REQUEST
in Business Days *
Organic & Inorganic Analyses: ☒ 10 (std) | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: 5 (std) | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Premium/Rush Fees Apply and may incur Surcharges

PRESERVATIVE: Cool/Ice

REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	BTEX	MTBE	PAH 8270	4-MTBE	RCRA 8270	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1	MW-34	9/21/05 0730	X	X	X		X	W	5		
2	MW-36	0855	X		X		X		5		
3	MW-37	0945	X		X		X		5		
4	MW-38	1245							3		
5	MW-39	0920	X		X		X		5		
6	MW-40	0830	X		X		X		5		
7											
8											
9											
10											

RELEASED BY: [signature] DATE: 9/21/05
PRINT NAME: Jack Neal FIRM: PTW TIME: 0700

RECEIVED BY: [signature] DATE: 9/23/05
PRINT NAME: FIRM: TIME: 0900

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: [signature] DATE: 9/23/05
PRINT NAME: Carrie Fabis FIRM: NCA TIME: 1015

ADDITIONAL REMARKS:

TEMP: 0.5 0.0

COC REV 09/04 PAGE OF

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October 21, 2005

Kevin Schleh
SAIC
1220 SW Morrison Suite 500
Portland, OR 97205

RE: CVX Willbridge / Chevron #100-1868

Enclosed are the results of analyses for samples received by the laboratory on 09/23/05 12:30.
The following list is a summary of the NCA Work Orders contained in this report.
If you have any questions concerning this report, please feel free to contact me.

Work	Project	ProjectNumber
P5I0960	CVX Willbridge / Chevron #100-1868	06-6012-00-7163-020/100-1868-OML

Thank You,

Sarah Rockwell

Sarah Rockwell, Project Manager

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Environmental Laboratory Network

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-9	P5I0960-01	Water	09/21/05 18:30	09/23/05 12:30
B-10	P5I0960-02	Water	09/21/05 16:55	09/23/05 12:30
B-21	P5I0960-03	Water	09/22/05 12:55	09/23/05 12:30
B-28	P5I0960-04	Water	09/21/05 16:05	09/23/05 12:30
B-29	P5I0960-05	Water	09/21/05 15:23	09/23/05 12:30
B-30	P5I0960-06	Water	09/21/05 14:30	09/23/05 12:30
CR-1	P5I0960-07	Water	09/21/05 17:25	09/23/05 12:30
B-300	P5I0960-08	Water	09/21/05 14:15	09/23/05 12:30

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-01 Water B-9 Sampled: 09/21/05 18:30										
Arsenic	EPA 6020	0.0338	----	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 14:26	
Barium	"	0.0579	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	ND	----	0.00100	"	"	"	"	10/11/05 05:50	
Copper	"	ND	----	0.00200	"	"	"	"	10/07/05 14:26	
Lead	"	ND	----	0.00100	"	"	"	"	10/11/05 05:50	
Selenium	"	ND	----	0.00200	"	"	"	"	10/12/05 21:53	
Silver	"	ND	----	0.00100	"	"	"	"	10/11/05 19:25	
Zinc	"	0.00648	----	0.00500	"	"	"	"	10/07/05 14:26	
P5I0960-02 Water B-10 Sampled: 09/21/05 16:55										
Arsenic	EPA 6020	0.0369	----	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 14:33	
Barium	"	0.0641	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	ND	----	0.00100	"	"	"	"	10/11/05 05:57	
Copper	"	ND	----	0.00200	"	"	"	"	10/07/05 14:33	
Lead	"	ND	----	0.00100	"	"	"	"	10/11/05 05:57	
Selenium	"	ND	----	0.00200	"	"	"	"	10/12/05 22:01	
Silver	"	ND	----	0.00100	"	"	"	"	10/11/05 19:33	
Zinc	"	ND	----	0.00500	"	"	"	"	10/07/05 14:33	
P5I0960-03 Water B-21 Sampled: 09/22/05 12:55										
Arsenic	EPA 6020	0.0554	----	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 14:41	
Barium	"	0.0884	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	ND	----	0.00100	"	"	"	"	10/11/05 06:05	
Copper	"	ND	----	0.00200	"	"	"	"	10/07/05 14:41	
Lead	"	ND	----	0.00100	"	"	"	"	10/11/05 06:05	
Selenium	"	ND	----	0.00200	"	"	"	"	10/12/05 22:08	
Silver	"	ND	----	0.00100	"	"	"	"	10/11/05 19:40	
Zinc	"	ND	----	0.00500	"	"	"	"	10/07/05 14:41	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510960-04 Water B-28 Sampled: 09/21/05 16:05										
Arsenic	EPA 6020	0.00508	—	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 14:48	
Barium	"	0.0838	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	0.00364	—	0.00100	"	"	"	"	10/11/05 06:12	
Copper	"	0.00980	—	0.00200	"	"	"	"	10/07/05 14:48	
Lead	"	0.00268	—	0.00100	"	"	"	"	10/11/05 06:12	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 22:15	
Silver	"	ND	—	0.00100	"	"	"	"	10/11/05 19:48	
Zinc	"	0.0179	—	0.00500	"	"	"	"	10/07/05 14:48	
P510960-05 Water B-29 Sampled: 09/21/05 15:23										
Arsenic	EPA 6020	0.00308	—	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 15:11	
Barium	"	0.193	—	0.00100	"	"	"	"	"	
Cadmium	"	0.00290	—	0.00100	"	"	"	"	"	
Chromium	"	0.0159	—	0.00100	"	"	"	"	10/11/05 06:35	
Copper	"	0.0587	—	0.00200	"	"	"	"	10/07/05 15:11	
Lead	"	0.0127	—	0.00100	"	"	"	"	10/11/05 06:35	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 22:22	
Silver	"	ND	—	0.00100	"	"	"	"	10/11/05 19:55	
Zinc	"	0.0720	—	0.00500	"	"	"	"	10/07/05 15:11	
P510960-06 Water B-30 Sampled: 09/21/05 14:30										
Arsenic	EPA 6020	0.0179	—	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 15:34	
Barium	"	0.0567	—	0.00100	"	"	"	"	"	
Cadmium	"	0.00180	—	0.00100	"	"	"	"	"	
Chromium	"	ND	—	0.00100	"	"	"	"	10/11/05 06:43	
Copper	"	0.00501	—	0.00200	"	"	"	"	10/07/05 15:34	
Lead	"	0.00332	—	0.00100	"	"	"	"	10/11/05 06:43	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 22:29	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 15:34	
Zinc	"	0.0113	—	0.00500	"	"	"	"	"	

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SAJC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-07 Water CR-1 Sampled: 09/21/05 17:25										
Arsenic	EPA 6020	0.00325	----	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 15:41	
Barium	"	0.0215	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	ND	----	0.00100	"	"	"	"	10/11/05 06:50	
Copper	"	0.00231	----	0.00200	"	"	"	"	10/07/05 15:41	
Lead	"	ND	----	0.00100	"	"	"	"	10/11/05 06:50	
Selenium	"	ND	----	0.00200	"	"	"	"	10/12/05 22:37	
Silver	"	ND	----	0.00100	"	"	"	"	10/07/05 15:41	
Zinc	"	ND	----	0.00500	"	"	"	"	"	
P5I0960-08 Water B-300 Sampled: 09/21/05 14:15										
Arsenic	EPA 6020	0.0177	----	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 15:49	
Barium	"	0.0544	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	0.00117	----	0.00100	"	"	"	"	10/11/05 06:58	
Copper	"	0.00384	----	0.00200	"	"	"	"	10/07/05 15:49	
Lead	"	0.00294	----	0.00100	"	"	"	"	10/11/05 06:58	
Selenium	"	ND	----	0.00200	"	"	"	"	10/12/05 22:44	
Silver	"	ND	----	0.00100	"	"	"	"	10/07/05 15:49	
Zinc	"	0.0106	----	0.00500	"	"	"	"	"	

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schlch	10/21/05 14:29

Total Mercury per EPA Method 7470A

North Creek Analytical - Portland

Analyte			Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-01	**Water**	**B-9**	**Sampled: 09/21/05 18:30**									
Mercury			EPA 7470A	ND	----	0.000200	mg/l	1x	5091231	09/29/05	09/29/05 13:23	
P5I0960-02	**Water**	**B-10**	**Sampled: 09/21/05 16:55**									
Mercury			EPA 7470A	ND	----	0.000200	mg/l	1x	5091231	09/29/05	09/29/05 13:26	
P5I0960-03	**Water**	**B-21**	**Sampled: 09/22/05 12:55**									
Mercury			EPA 7470A	ND	----	0.000200	mg/l	1x	5091231	09/29/05	09/29/05 13:28	
P5I0960-04	**Water**	**B-28**	**Sampled: 09/21/05 16:05**									
Mercury			EPA 7470A	ND	----	0.000200	mg/l	1x	5091231	09/29/05	09/29/05 13:30	
P5I0960-05	**Water**	**B-29**	**Sampled: 09/21/05 15:23**									
Mercury			EPA 7470A	ND	----	0.000200	mg/l	1x	5091231	09/29/05	09/29/05 13:38	
P5I0960-06	**Water**	**B-30**	**Sampled: 09/21/05 14:30**									
Mercury			EPA 7470A	ND	----	0.000200	mg/l	1x	5091231	09/29/05	09/29/05 13:40	
P5I0960-07	**Water**	**CR-1**	**Sampled: 09/21/05 17:25**									
Mercury			EPA 7470A	ND	----	0.000200	mg/l	1x	5091231	09/29/05	09/29/05 13:42	
P5I0960-08	**Water**	**B-300**	**Sampled: 09/21/05 14:15**									
Mercury			EPA 7470A	ND	----	0.000200	mg/l	1x	5091231	09/29/05	09/29/05 13:44	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510960-01 Water B-9 Sampled: 09/21/05 18:30										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091301	09/30/05	09/30/05 20:13	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	3.19	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSI0960-01 Water B-9 Sampled: 09/21/05 18:30										
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	5091301	09/30/05	09/30/05 20:13	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	2.30	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 104%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*106%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*104%*		*80 - 121 %*		"			"	
Toluene-d8		*100%*		*80 - 120 %*		"			"	
PSI0960-02 Water B-10 Sampled: 09/21/05 16:55										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091301	09/30/05	09/30/05 21:36	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	1.99	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	1.39	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Environmental Laboratory Network

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSI0960-02 Water B-10 Sampled: 09/21/05 16:55										
Chlorobenzene	EPA 8260B	ND	----	1.00	ug/l	1x	5091301	09/30/05	09/30/05 21:36	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	**7.01**	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**14.3**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-02 Water B-10 Sampled: 09/21/05 16:55										
1,1,1-Trichloroethane	EPA 8260B	ND	----	1.00	ug/l	1x	5091301	09/30/05	09/30/05 21:36	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 97.5%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*104%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*99.0%*		*80 - 121 %*	"				"	
Toluene-d8		*96.5%*		*80 - 120 %*	"				"	
P5I0960-03 Water B-21 Sampled: 09/22/05 12:55										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091301	09/30/05	09/30/05 22:04	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	*2.98*	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schlch	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510960-03 Water B-21 Sampled: 09/22/05 12:55										
Dichlorodifluoromethane	EPA 8260B	ND	—	5.00	ug/l	1x	5091301	09/30/05	09/30/05 22:04	
1,1-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	—	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	"	"	"	
2-Hexanone	"	ND	—	10.0	"	"	"	"	"	
Isopropylbenzene	"	**8.75**	—	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	—	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	**11.2**	—	1.00	"	"	"	"	"	
Methylene chloride	"	ND	—	5.00	"	"	"	"	"	
Naphthalene	"	ND	—	2.00	"	"	"	"	"	
n-Propylbenzene	"	**10.7**	—	1.00	"	"	"	"	"	
Styrene	"	ND	—	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	—	1.00	"	"	"	"	"	
Toluene	"	**1.15**	—	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
Trichloroethene	"	ND	—	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	—	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	—	1.00	"	"	"	"	"	
o-Xylene	"	ND	—	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	—	2.00	"	"	"	"	"	

Surrogate(s):	*4-BFB*	*Recovery: 104%*	*Limits: 75 - 120 %*	"
	1,2-DCA-d4	*108%*	*77 - 129 %*	"
	Dibromofluoromethane	*106%*	*80 - 121 %*	"

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSI0960-03 Water B-21 Sampled: 09/22/05 12:55										
Toluene-d8		*104%*			*80 - 120 %*	*1x*			*09/30/05 22:04*	
PSI0960-04 Water B-28 Sampled: 09/21/05 16:05										
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	5091301	09/30/05	09/30/05 22:32	
Benzene	"	ND	—	1.00	"	"	"	"	"	
Bromobenzene	"	ND	—	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromoform	"	ND	—	1.00	"	"	"	"	"	
Bromomethane	"	ND	—	5.00	"	"	"	"	"	
2-Butanone	"	ND	—	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	—	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	—	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	—	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	—	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Chloroethane	"	ND	—	1.00	"	"	"	"	"	
Chloroform	"	ND	—	1.00	"	"	"	"	"	
Chloromethane	"	ND	—	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	"	"	"	
Dibromomethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	—	1.00	"	"	"	"	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-04 Water B-28 Sampled: 09/21/05 16:05										
Hexachlorobutadiene	EPA 8260B	ND	----	4.00	ug/l	1x	5091301	09/30/05	09/30/05 22:32	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	1.00	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 90.0%*		*Limits: 73 - 120 %*		"			"	
1,2-DCA-d4		*92.5%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*88.5%*		*80 - 121 %*		"			"	
Toluene-d8		*90.5%*		*80 - 120 %*		"			"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-05 Water B-29 Sampled: 09/21/05 15:23										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091301	09/30/05	09/30/05 23:00	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-05 Water B-29 Sampled: 09/21/05 15:23										
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	5091301	09/30/05	09/30/05 23:00	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 100%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*101%*		*80 - 121 %*		"			"	
Toluene-d8		*100%*		*80 - 120 %*		"			"	
P5I0960-06 Water B-30 Sampled: 09/21/05 14:30										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091301	09/30/05	09/30/05 23:55	
Benzene	"	**15.1**	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

North Creek Analytical, Inc.
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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-06 Water B-30 Sampled: 09/21/05 14:30										
Chlorobenzene	EPA 8260B	ND	----	1.00	ug/l	1x	5091301	09/30/05	09/30/05 23:55	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	**4.56**	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**5.69**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	**2.75**	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-06 Water B-30 Sampled: 09/21/05 14:30										
1,1,1-Trichloroethane	EPA 8260B	ND	-----	1.00	ug/l	1x	5091301	09/30/05	09/30/05 23:55	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	-----	1.00	"	"	"	"	"	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	
m,p-Xylene	"	3.72	-----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 92.5%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*99.0%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*94.0%*		*80 - 121 %*		"			"	
Toluene-d8		*91.5%*		*80 - 120 %*		"			"	
P5I0960-07 Water CR-1 Sampled: 09/21/05 17:25										
Acetone	EPA 8260B	ND	-----	25.0	ug/l	1x	5091301	09/30/05	09/30/05 23:27	
Benzene	"	ND	-----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	-----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	2.08	-----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	-----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	-----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510960-07 Water CR-1 Sampled: 09/21/05 17:25										
Dichlorodifluoromethane	EPA 8260B	ND	-----	5.00	ug/l	1x	5091301	09/30/05	09/30/05 23:27	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	-----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	-----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	-----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	-----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	-----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	-----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	-----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	-----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	-----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**2.63**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	-----	1.00	"	"	"	"	"	
Toluene	"	ND	-----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	-----	1.00	"	"	"	"	"	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s):	*4-BFB*	*Recovery: 102%*	*Limits: 75 - 120 %*	"
	1,2-DCA-d4	*107%*	*77 - 129 %*	"
	Dibromofluoromethane	*103%*	*80 - 121 %*	"

North Creek Analytical - Portland

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSI0960-07 Water CR-1 Sampled: 09/21/05 17:25										
Toluene-d8		*96.0%*			*80 - 120 %*	*1x*			*09/30/05 23:27*	
PSI0960-08 Water B-300 Sampled: 09/21/05 14:15										
Acetone	EPA 8260B	ND	-----	25.0	ug/l	1x	5091301	09/30/05	10/01/05 00:23	
Benzene	"	**18.9**	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510960-08 Water B-300 Sampled: 09/21/05 14:15										
Hexachlorobutadiene	EPA 8260B	ND	----	4.00	ug/l	1x	5091301	09/30/05	10/01/05 00:23	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	**4.86**	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**6.27**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	**3.17**	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	**4.40**	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 96.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*102%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*96.5%*		*80 - 121 %*		"			"	
Toluene-d8		*92.5%*		*80 - 120 %*		"			"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510960-01 Water B-9 Sampled: 09/21/05 18:30										
Acenaphthene	EPA 8270m	0.832	—	0.0990	ug/l	1x	5091099	09/27/05	09/30/05 04:20	
Acenaphthylene	"	ND	—	0.198	"	"	"	"	"	R-03
Anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Chrysene	"	ND	—	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.198	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Fluorene	"	2.93	—	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Naphthalene	"	ND	—	0.891	"	"	"	"	"	R-03
Phenanthrene	"	0.702	—	0.0990	"	"	"	"	"	
Pyrene	"	ND	—	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 61.7%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*87.1%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*87.9%*		*10 - 125 %*	"				"	
P510960-02 Water B-10 Sampled: 09/21/05 16:55										R-05
Acenaphthene	EPA 8270m	1.27	—	0.990	ug/l	10x	5091099	09/27/05	09/30/05 04:52	
Acenaphthylene	"	ND	—	0.990	"	"	"	"	"	
Anthracene	"	ND	—	0.990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.990	"	"	"	"	"	
Chrysene	"	ND	—	0.990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	1.98	"	"	"	"	"	
Fluoranthene	"	ND	—	0.990	"	"	"	"	"	
Fluorene	"	2.22	—	0.990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.990	"	"	"	"	"	
Naphthalene	"	ND	—	1.98	"	"	"	"	"	R-03
Phenanthrene	"	1.89	—	0.990	"	"	"	"	"	
Pyrene	"	ND	—	0.990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 75.0%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*86.3%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*83.5%*		*10 - 125 %*	"				"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0960-03 Water B-21 Sampled: 09/22/05 12:55										R-05
Acenaphthene	EPA 8270m	2.26	----	0.990	ug/l	10x	5091099	09/27/05	09/30/05 05:23	
Acenaphthylene	"	ND	----	0.990	"	"	"	"	"	
Anthracene	"	ND	----	0.990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.990	"	"	"	"	"	
Chrysene	"	ND	----	0.990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	1.98	"	"	"	"	"	
Fluoranthene	"	ND	----	0.990	"	"	"	"	"	
Fluorene	"	8.41	----	0.990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.990	"	"	"	"	"	
Naphthalene	"	ND	----	1.98	"	"	"	"	"	R-03
Phenanthrene	"	5.22	----	0.990	"	"	"	"	"	
Pyrene	"	ND	----	0.990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 80.6%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*89.5%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*77.0%*		*10 - 125 %*		"			"	
P5I0960-04 Water B-28 Sampled: 09/21/05 16:05										
Acenaphthene	EPA 8270m	ND	----	0.0990	ug/l	1x	5091099	09/27/05	09/30/05 20:03	
Acenaphthylene	"	ND	----	0.0990	"	"	"	"	"	
Anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Chrysene	"	ND	----	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.198	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Fluorene	"	ND	----	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Naphthalene	"	0.395	----	0.0990	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0990	"	"	"	"	"	
Pyrene	"	ND	----	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 85.9%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*93.1%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*87.5%*		*10 - 125 %*		"			"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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Environmental Laboratory Network

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1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleb	10/21/05 14:29

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510960-05 Water B-29 Sampled: 09/21/05 15:23										
Acenaphthene	EPA 8270m	ND	----	0.0990	ug/l	1x	5091159	09/28/05	10/03/05 14:19	
Acenaphthylene	"	ND	----	0.0990	"	"	"	"	"	
Anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Chrysene	"	ND	----	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.198	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Fluorene	"	ND	----	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Naphthalene	"	ND	----	0.0990	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0990	"	"	"	"	"	
Pyrene	"	ND	----	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 89.1%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*89.1%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*87.9%*		*10 - 125 %*	"				"	
P510960-06 Water B-30 Sampled: 09/21/05 14:30										
Acenaphthene	EPA 8270m	**0.103**	----	0.0990	ug/l	1x	5091159	09/28/05	10/03/05 14:50	
Acenaphthylene	"	ND	----	0.0990	"	"	"	"	"	
Anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Chrysene	"	ND	----	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.198	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Fluorene	"	ND	----	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Naphthalene	"	ND	----	0.297	"	"	"	"	"	R-03
Phenanthrene	"	ND	----	0.0990	"	"	"	"	"	
Pyrene	"	ND	----	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 85.1%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*79.0%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*75.0%*		*10 - 125 %*	"				"	

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1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleb	10/21/05 14:29

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510960-07 Water CR-1 Sampled: 09/21/05 17:25										
Acenaphthene	EPA 8270m	**1.22**	—	0.0990	ug/l	1x	5091159	09/28/05	10/03/05 15:20	
Acenaphthylene	"	ND	—	0.297	"	"	"	"	"	R-03
Anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Chrysene	"	ND	—	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.198	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Fluorene	"	**4.63**	—	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Naphthalene	"	ND	—	1.63	"	"	"	"	"	R-03
Phenanthrene	"	**1.52**	—	0.0990	"	"	"	"	"	
Pyrene	"	ND	—	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 66.1%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*81.9%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*81.5%*		*10 - 125 %*	"				"	
P510960-08 Water B-300 Sampled: 09/21/05 14:15										
Acenaphthene	EPA 8270m	ND	—	0.0990	ug/l	1x	5091159	09/28/05	10/03/05 15:51	
Acenaphthylene	"	ND	—	0.0990	"	"	"	"	"	
Anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Chrysene	"	ND	—	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.198	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Fluorene	"	ND	—	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Naphthalene	"	ND	—	0.248	"	"	"	"	"	R-03
Phenanthrene	"	ND	—	0.0990	"	"	"	"	"	
Pyrene	"	ND	—	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 70.6%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*81.5%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*81.9%*		*10 - 125 %*	"				"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5100104 Water Preparation Method: EPA 200/3005

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5100104-BLK1)								Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	ND	—	0.00100	mg/l	1x	—	—	—	—	—	—	10/07/05 06:13	
Barium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Cadmium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Chromium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Copper	"	ND	—	0.00200	"	"	—	—	—	—	—	—	"	
Lead	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Selenium	"	ND	—	0.00200	"	"	—	—	—	—	—	—	10/12/05 19:30	
Silver	"	ND	—	0.00100	"	"	—	—	—	—	—	—	10/07/05 06:13	
Zinc	"	ND	—	0.00500	"	"	—	—	—	—	—	—	"	
LCS (5100104-BS1)								Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	0.0974	—	0.00100	mg/l	1x	—	0.100	97.4%	(80-120)	—	—	10/07/05 06:20	
Barium	"	0.101	—	0.00100	"	"	—	"	101%	"	—	—	"	
Cadmium	"	0.0981	—	0.00100	"	"	—	"	98.1%	"	—	—	"	
Chromium	"	0.0999	—	0.00100	"	"	—	"	99.9%	"	—	—	"	
Copper	"	0.0964	—	0.00200	"	"	—	"	96.4%	"	—	—	"	
Lead	"	0.0959	—	0.00100	"	"	—	"	95.9%	"	—	—	"	
Selenium	"	0.0507	—	0.0200	"	10x	—	0.0500	101%	"	—	—	10/13/05 11:43	
Silver	"	0.0494	—	0.00100	"	1x	—	"	98.8%	"	—	—	10/07/05 06:20	
Zinc	"	0.0973	—	0.00500	"	"	—	0.100	97.3%	"	—	—	"	
Duplicate (5100104-DUP1)							QC Source: P510959-01		Extracted: 10/04/05 10:48					
Arsenic	EPA 6020	0.0356	—	0.00100	mg/l	1x	0.0363	—	—	—	1.95%	(20)	10/07/05 06:36	
Barium	"	0.0847	—	0.00100	"	"	0.0857	—	—	—	1.17%	"	"	
Cadmium	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	"	
Chromium	"	0.00228	—	0.00100	"	"	0.00241	—	—	—	5.54%	"	"	
Copper	"	0.00464	—	0.00200	"	"	0.00483	—	—	—	4.01%	"	"	
Lead	"	ND	—	0.00100	"	"	ND	—	—	—	4.54%	"	"	
Selenium	"	ND	—	0.00200	"	"	ND	—	—	—	NR	"	10/12/05 19:52	
Silver	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	10/07/05 06:36	
Zinc	"	0.00767	—	0.00500	"	"	0.00787	—	—	—	2.57%	"	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5100104 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (5100104-MS1)				QC Source: P510959-01				Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	0.142	—	0.00100	mg/l	1x	0.0363	0.100	106%	(75-125)	—	—	10/07/05 06:51	
Barium	"	0.185	—	0.00100	"	"	0.0857	"	99.3%	"	—	—	"	
Cadmium	"	0.100	—	0.00100	"	"	ND	"	100%	"	—	—	"	
Chromium	"	0.103	—	0.00100	"	"	0.00241	"	101%	"	—	—	"	
Copper	"	0.102	—	0.00200	"	"	0.00483	"	97.2%	"	—	—	"	
Lead	"	0.0929	—	0.00100	"	"	0.000991	"	91.9%	"	—	—	"	
Selenium	"	0.0492	—	0.0200	"	10x	ND	0.0500	98.4%	"	—	—	10/13/05 11:56	
Silver	"	0.0498	—	0.00100	"	1x	ND	"	99.6%	"	—	—	10/07/05 06:51	
Zinc	"	0.104	—	0.00500	"	"	0.00787	0.100	96.1%	"	—	—	"	
Matrix Spike (5100104-MS2)				QC Source: P510959-02				Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	0.135	—	0.00100	mg/l	1x	0.0308	0.100	104%	(75-125)	—	—	10/07/05 07:06	
Barium	"	0.161	—	0.00100	"	"	0.0603	"	101%	"	—	—	"	
Cadmium	"	0.0986	—	0.00100	"	"	0.000181	"	98.4%	"	—	—	"	
Chromium	"	0.0992	—	0.00100	"	"	0.00182	"	97.4%	"	—	—	"	
Copper	"	0.101	—	0.00200	"	"	0.00313	"	97.9%	"	—	—	"	
Lead	"	0.0934	—	0.00100	"	"	0.00166	"	91.7%	"	—	—	"	
Selenium	"	0.0527	—	0.0200	"	10x	ND	0.0500	105%	"	—	—	10/13/05 12:10	
Silver	"	0.0489	—	0.00100	"	1x	ND	"	97.8%	"	—	—	10/07/05 07:06	
Zinc	"	0.103	—	0.00500	"	"	0.00732	0.100	95.7%	"	—	—	"	
Post Spike (5100104-PS1)				QC Source: P510959-02				Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	0.133	—		ug/ml	1x	0.0308	0.100	102%	(75-125)	—	—	10/07/05 07:14	
Barium	"	0.160	—		"	"	0.0603	"	99.7%	"	—	—	"	
Cadmium	"	0.0970	—		"	"	0.000181	"	96.8%	"	—	—	"	
Chromium	"	0.0960	—		"	"	0.00182	"	94.2%	"	—	—	"	
Copper	"	0.0990	—		"	"	0.00313	"	95.9%	"	—	—	"	
Lead	"	0.0924	—		"	"	0.00166	"	90.7%	"	—	—	"	
Selenium	"	0.0542	—		"	10x	0.0000700	0.0500	108%	"	—	—	10/13/05 12:23	
Silver	"	0.0497	—		"	1x	-1.00E-6	"	99.4%	"	—	—	10/07/05 07:14	
Zinc	"	0.103	—		"	"	0.00732	0.100	95.7%	"	—	—	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Total Mercury per EPA Method 7470A - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091231 Water Preparation Method: EPA 7470A

Analyte	Method	Result	MDL[4]	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091231-BLK1)								Extracted: 09/29/05 09:50						
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	–	–	–	–	–	–	09/29/05 13:08	
LCS (5091231-BS1)								Extracted: 09/29/05 09:50						
Mercury	EPA 7470A	0.00495	—	0.000200	mg/l	1x	–	0.00500	99.0%	(85-115)	–	–	09/29/05 13:10	
LCS Dup (5091231-BSD1)								Extracted: 09/29/05 09:50						
Mercury	EPA 7470A	0.00507	—	0.000200	mg/l	1x	–	0.00500	101%	(85-115)	2.40%	(20)	09/29/05 13:13	
Duplicate (5091231-DUP1)				QC Source: P510960-01				Extracted: 09/29/05 09:50						
Mercury	EPA 7470A	0.000242	—	0.000200	mg/l	1x	ND	–	–	–	NR	(20)	09/29/05 13:16	
Matrix Spike (5091231-MS1)				QC Source: P510960-01				Extracted: 09/29/05 09:50						
Mercury	EPA 7470A	0.00506	—	0.000200	mg/l	1x	ND	0.00500	101%	(75-125)	–	–	09/29/05 13:18	
Matrix Spike Dup (5091231-MSD1)				QC Source: P510960-01				Extracted: 09/29/05 09:50						
Mercury	EPA 7470A	0.00503	—	0.000200	mg/l	1x	ND	0.00500	101%	(75-125)	0.595%	(20)	09/29/05 13:21	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schlch	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091301 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091301-BLK1)								Extracted: 09/30/05 08:42						
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	—	—	—	—	—	—	09/30/05 20:41	
Benzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromochloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromodichloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromoform	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromomethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
2-Butanone	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	
n-Butylbenzene	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
sec-Butylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
tert-Butylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Carbon disulfide	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloroform	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloromethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Dibromochloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Dibromomethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	—	—	—	—	—	—	"	
2-Hexanone	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schieh	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091301 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091301-BLK1)								Extracted: 09/30/05 08:42						
Isopropylbenzene	EPA 8260B	ND	—	2.00	ug/l	1x	--	--	--	--	--	--	09/30/05 20:41	
p-Isopropyltoluene	"	ND	—	2.00	"	"	--	--	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	—	5.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	—	2.00	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	—	1.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	—	2.00	"	"	--	--	--	--	--	--	"	
Surrogate(s):	*4-BFB*	*Recovery:*	*101%*		*Limits:*	*75-120%*	"						*09/30/05 20:41*	
	1,2-DCA-d4		*104%*			*77-129%*	"						"	
	Dibromofluoromethane		*101%*			*80-121%*	"						"	
	Toluene-d8		*104%*			*80-120%*	"						"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schlich	10/21/05 14:29

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091301 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (5091301-BS1)								Extracted: 09/30/05 08:42						
Benzene	EPA 8260B	18.7	—	1.00	ug/l	1x	--	20.0	93.5%	(80-120)	--	--	09/30/05 18:22	
Chlorobenzene	"	22.2	—	1.00	"	"	--	"	111%	(80-124)	--	--	"	
1,1-Dichloroethene	"	16.2	—	1.00	"	"	--	"	81.0%	(78-120)	--	--	"	
Toluene	"	20.7	—	1.00	"	"	--	"	104%	(80-124)	--	--	"	
Trichloroethene	"	20.1	—	1.00	"	"	--	"	100%	(80-132)	--	--	"	
Surrogate(s): *4-BFB*		*Recovery:* *97.5%*			*Limits:* *75-120%*	"							*09/30/05 18:22*	
1,2-DCA-d4		*98.0%*			*77-129%*	"							"	
Dibromofluoromethane		*96.5%*			*80-121%*	"							"	
Toluene-d8		*97.5%*			*80-120%*	"							"	
Matrix Spike (5091301-MS1)				QC Source: P510960-01				Extracted: 09/30/05 08:42						
Benzene	EPA 8260B	18.9	—	1.00	ug/l	1x	0.190	20.0	93.6%	(80-124)	--	--	09/30/05 18:50	
Chlorobenzene	"	22.6	—	1.00	"	"	ND	"	113%	(72.9-134)	--	--	"	
1,1-Dichloroethene	"	14.8	—	1.00	"	"	ND	"	74.0%	(79.3-127)	--	--	"	Q-01
Toluene	"	19.1	—	1.00	"	"	0.470	"	93.2%	(79.7-131)	--	--	"	
Trichloroethene	"	18.9	—	1.00	"	"	ND	"	94.5%	(68.4-130)	--	--	"	
Surrogate(s): *4-BFB*		*Recovery:* *97.5%*			*Limits:* *75-120%*	"							*09/30/05 18:50*	
1,2-DCA-d4		*98.5%*			*77-129%*	"							"	
Dibromofluoromethane		*101%*			*80-121%*	"							"	
Toluene-d8		*94.0%*			*80-120%*	"							"	
Matrix Spike Dup (5091301-MSD1)				QC Source: P510960-01				Extracted: 09/30/05 08:42						
Benzene	EPA 8260B	19.7	—	1.00	ug/l	1x	0.190	20.0	97.6%	(80-124)	4.15%	(25)	09/30/05 19:18	
Chlorobenzene	"	23.4	—	1.00	"	"	ND	"	117%	(72.9-134)	3.48%	"	"	
1,1-Dichloroethene	"	15.1	—	1.00	"	"	ND	"	75.5%	(79.3-127)	2.01%	"	"	Q-01
Toluene	"	19.2	—	1.00	"	"	0.470	"	93.6%	(79.7-131)	0.522%	"	"	
Trichloroethene	"	19.6	—	1.00	"	"	ND	"	98.0%	(68.4-130)	3.64%	"	"	
Surrogate(s): *4-BFB*		*Recovery:* *104%*			*Limits:* *75-120%*	"							*09/30/05 19:18*	
1,2-DCA-d4		*106%*			*77-129%*	"							"	
Dibromofluoromethane		*108%*			*80-121%*	"							"	
Toluene-d8		*100%*			*80-120%*	"							"	

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Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091099 Water Preparation Method: EPA 3520/600 Series

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091099-BLK1)								Extracted: 09/27/05 15:00						
Acenaphthene	EPA 8270m	ND	—	0.100	ug/l	1x	—	—	—	—	—	—	10/04/05 16:33	
Acenaphthylene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Anthracene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (a) anthracene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (a) pyrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (b) fluoranthene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (ghi) perylene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (k) fluoranthene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Chrysene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Dibenzo (a,h) anthracene	"	ND	—	0.200	"	"	—	—	—	—	—	—	"	
Fluoranthene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Fluorene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Phenanthrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Pyrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery: 49.2%*			*Limits: 25-125%*	"							*10/04/05 16:33*	
Pyrene-d10		*52.4%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*58.8%*			*10-125%*	"							"	
LCS (5091099-BS1)								Extracted: 09/27/05 15:00						
Acenaphthene	EPA 8270m	1.71	—	0.100	ug/l	1x	—	2.50	68.4%	(26-135)	—	—	10/04/05 17:58	
Benzo (a) pyrene	"	1.59	—	0.100	"	"	—	"	63.6%	(38-137)	—	—	"	
Pyrene	"	1.44	—	0.100	"	"	—	"	57.6%	(33-133)	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery: 63.6%*			*Limits: 25-125%*	"							*10/04/05 17:58*	
Pyrene-d10		*60.4%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*70.8%*			*10-125%*	"							"	
LCS Dup (5091099-BSD1)								Extracted: 09/27/05 15:00						
Acenaphthene	EPA 8270m	1.57	—	0.100	ug/l	1x	—	2.50	62.8%	(26-135)	8.54%	(60)	10/04/05 18:25	
Benzo (a) pyrene	"	1.39	—	0.100	"	"	—	"	55.6%	(38-137)	13.4%	"	"	
Pyrene	"	1.36	—	0.100	"	"	—	"	54.4%	(33-133)	5.71%	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 56.4%*			*Limits: 25-125%*	"							*10/04/05 18:25*	
Pyrene-d10		*55.2%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*63.6%*			*10-125%*	"							"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091159 **Water Preparation Method: EPA 3520/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091159-BLK1)								Extracted: 09/28/05 16:50						
Acenaphthene	EPA 8270m	ND	---	0.100	ug/l	1x	--	--	--	--	--	--	09/30/05 12:57	
Acenaphthylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 78.0%*			*Limits: 25-125%*	"							*09/30/05 12:57*	
Pyrene-d10		*79.2%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*82.0%*			*10-125%*	"							"	
LCS (5091159-BS1)								Extracted: 09/28/05 16:50						
Acenaphthene	EPA 8270m	1.91	---	0.100	ug/l	1x	--	2.50	76.4%	(26-135)	--	--	09/30/05 13:28	
Benzo (a) pyrene	"	1.80	---	0.100	"	"	--	"	72.0%	(38-137)	--	--	"	
Pyrene	"	1.99	---	0.100	"	"	--	"	79.6%	(33-133)	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 81.6%*			*Limits: 25-125%*	"							*09/30/05 13:28*	
Pyrene-d10		*81.2%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*82.4%*			*10-125%*	"							"	
LCS Dup (5091159-BSD1)								Extracted: 09/28/05 16:50						
Acenaphthene	EPA 8270m	1.84	---	0.100	ug/l	1x	--	2.50	73.6%	(26-135)	3.73%	(60)	09/30/05 14:00	
Benzo (a) pyrene	"	2.01	---	0.100	"	"	--	"	80.4%	(38-137)	11.0%	"	"	
Pyrene	"	1.93	---	0.100	"	"	--	"	77.2%	(33-133)	3.06%	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 80.8%*			*Limits: 25-125%*	"							*09/30/05 14:00*	
Pyrene-d10		*78.4%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*84.4%*			*10-125%*	"							"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6012-00-7163-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/21/05 14:29

Notes and Definitions

Report Specific Notes:

Q-01 - The matrix spike recovery, and/or RPD, for this QC sample is outside of established control limits. Failure of a matrix spike QC sample does not represent an out-of-control condition for the batch.

R-03 - The reporting limit for this analyte was raised due to matrix interference.

R-05 - Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR / NA - Not Reported / Not Available

dry - Sample results reported on a dry weight basis. Reporting Limits have been corrected for %Solids.

wet - Sample results and reporting limits reported on a wet weight basis (as received).

RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

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October 13, 2005

Kevin Schleh
SAIC
1220 SW Morrison Suite 500
Portland, OR 97205

RE: CVX Willbridge / Chevron #100-1868

Enclosed are the results of analyses for samples received by the laboratory on 09/23/05 12:30.
The following list is a summary of the NCA Work Orders contained in this report.
If you have any questions concerning this report, please feel free to contact me.

Work	Project	ProjectNumber
P510959	CVX Willbridge / Chevron #100-1868	06-6102-00-7165-020/100-1868-OML

Thank You,

Sarah Rockwell

Sarah Rockwell, Project Manager

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Environmental Laboratory Network

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-7	P5I0959-01	Water	09/22/05 14:35	09/23/05 12:30
B-11	P5I0959-02	Water	09/21/05 17:40	09/23/05 12:30
B-19	P5I0959-03	Water	09/22/05 11:20	09/23/05 12:30
B-20	P5I0959-04	Water	09/22/05 12:45	09/23/05 12:30
B-26	P5I0959-05	Water	09/22/05 11:45	09/23/05 12:30
B-32	P5I0959-06	Water	09/22/05 16:40	09/23/05 12:30
B-33	P5I0959-07	Water	09/22/05 11:55	09/23/05 12:30
CR-3	P5I0959-08	Water	09/22/05 11:00	09/23/05 12:30
CR-26	P5I0959-09	Water	09/22/05 18:15	09/23/05 12:30
QA	P5I0959-10	Water	09/22/05 00:00	09/23/05 12:30

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Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

BTEX per EPA Method 8021B

North Creek Analytical - Portland

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510959-10 Water QA Sampled: 09/22/05 00:00										
Benzene	EPA 8021B	ND	----	0.500	ug/l	1x	5091112	09/27/05	09/28/05 01:08	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 90.0%*		*Limits: 70 - 130 %*		"			"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-01 Water B-7 Sampled: 09/22/05 14:35										
Arsenic	EPA 6020	0.0363	—	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 06:28	
Barium	"	0.0857	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	0.00241	—	0.00100	"	"	"	"	"	
Copper	"	0.00483	—	0.00200	"	"	"	"	"	
Lead	"	ND	—	0.00100	"	"	"	"	"	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 19:44	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 06:28	
Zinc	"	0.00787	—	0.00500	"	"	"	"	"	
P5I0959-02 Water B-11 Sampled: 09/21/05 17:40										
Arsenic	EPA 6020	0.0308	—	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 06:58	
Barium	"	0.0603	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	0.00182	—	0.00100	"	"	"	"	"	
Copper	"	0.00313	—	0.00200	"	"	"	"	"	
Lead	"	0.00166	—	0.00100	"	"	"	"	"	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 20:27	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 06:58	
Zinc	"	0.00732	—	0.00500	"	"	"	"	"	
P5I0959-03 Water B-19 Sampled: 09/22/05 11:20										
Arsenic	EPA 6020	0.0481	—	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 07:21	
Barium	"	0.101	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	0.00347	—	0.00100	"	"	"	"	"	
Copper	"	0.00598	—	0.00200	"	"	"	"	"	
Lead	"	0.00159	—	0.00100	"	"	"	"	"	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 20:49	
Silver	"	ND	—	0.00100	"	"	"	"	10/07/05 07:21	
Zinc	"	0.0105	—	0.00500	"	"	"	"	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schieh	10/13/05 18:20

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-04 Water B-20 Sampled: 09/22/05 12:45										
Arsenic	EPA 6020	0.0374	----	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 07:44	
Barium	"	0.0691	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	ND	----	0.00100	"	"	"	"	"	
Copper	"	ND	----	0.00200	"	"	"	"	"	
Lead	"	ND	----	0.00100	"	"	"	"	"	
Selenium	"	ND	----	0.00200	"	"	"	"	10/12/05 20:56	
Silver	"	ND	----	0.00100	"	"	"	"	10/07/05 07:44	
Zinc	"	ND	----	0.00500	"	"	"	"	"	
P5I0959-05 Water B-26 Sampled: 09/22/05 11:45										
Arsenic	EPA 6020	0.0351	----	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 13:48	
Barium	"	0.0812	----	0.00100	"	"	"	"	"	
Cadmium	"	0.00601	----	0.00100	"	"	"	"	"	
Chromium	"	0.00320	----	0.00100	"	"	"	"	10/11/05 05:12	
Copper	"	0.0103	----	0.00200	"	"	"	"	10/07/05 13:48	
Lead	"	0.00754	----	0.00100	"	"	"	"	10/11/05 05:12	
Selenium	"	ND	----	0.00200	"	"	"	"	10/12/05 21:03	
Silver	"	ND	----	0.00100	"	"	"	"	10/11/05 18:32	
Zinc	"	0.0261	----	0.00500	"	"	"	"	10/07/05 13:48	
P5I0959-06 Water B-32 Sampled: 09/22/05 16:40										
Arsenic	EPA 6020	0.0100	----	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 13:55	
Barium	"	0.227	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	0.0230	----	0.00100	"	"	"	"	10/11/05 05:19	
Copper	"	0.0336	----	0.00200	"	"	"	"	10/07/05 13:55	
Lead	"	0.0118	----	0.00100	"	"	"	"	10/11/05 05:19	
Selenium	"	ND	----	0.00200	"	"	"	"	10/12/05 21:11	
Silver	"	ND	----	0.00100	"	"	"	"	10/11/05 18:40	
Zinc	"	0.0737	----	0.00500	"	"	"	"	10/07/05 13:55	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510959-07 Water B-33 Sampled: 09/22/05 11:55										
Arsenic	EPA 6020	0.0237	—	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 14:03	
Barium	"	0.111	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	0.00916	—	0.00100	"	"	"	"	10/11/05 05:27	
Copper	"	0.0250	—	0.00200	"	"	"	"	10/07/05 14:03	
Lead	"	0.0109	—	0.00100	"	"	"	"	10/11/05 05:27	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 21:18	
Silver	"	ND	—	0.00100	"	"	"	"	10/11/05 18:47	
Zinc	"	0.0484	—	0.00500	"	"	"	"	10/07/05 14:03	
P510959-08 Water CR-3 Sampled: 09/22/05 11:00										
Arsenic	EPA 6020	0.00191	—	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 14:10	
Barium	"	0.0280	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	ND	—	0.00100	"	"	"	"	10/11/05 05:34	
Copper	"	0.00346	—	0.00200	"	"	"	"	10/07/05 14:10	
Lead	"	0.00123	—	0.00100	"	"	"	"	10/11/05 05:34	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 21:25	
Silver	"	ND	—	0.00100	"	"	"	"	10/11/05 19:10	
Zinc	"	0.00706	—	0.00500	"	"	"	"	10/07/05 14:10	
P510959-09 Water CR-26 Sampled: 09/22/05 18:15										
Arsenic	EPA 6020	0.210	—	0.00100	mg/l	1x	5100104	10/04/05	10/07/05 14:18	
Barium	"	0.164	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	ND	—	0.00100	"	"	"	"	10/11/05 05:42	
Copper	"	ND	—	0.00200	"	"	"	"	10/07/05 14:18	
Lead	"	ND	—	0.00100	"	"	"	"	10/11/05 05:42	
Selenium	"	ND	—	0.00200	"	"	"	"	10/12/05 21:46	
Silver	"	ND	—	0.00100	"	"	"	"	10/11/05 19:17	
Zinc	"	ND	—	0.00500	"	"	"	"	10/07/05 14:18	

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1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Total Mercury per EPA Method 7470A

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-01	**Water**	**B-7**	**Sampled: 09/22/05 14:35**								
Mercury		EPA 7470A	ND	—	0.000200	mg/l	1x	5091183	09/28/05	09/28/05 13:15	
P5I0959-02	**Water**	**B-11**	**Sampled: 09/21/05 17:40**								
Mercury		EPA 7470A	ND	—	0.000200	mg/l	1x	5091183	09/28/05	09/28/05 13:17	
P5I0959-03	**Water**	**B-19**	**Sampled: 09/22/05 11:20**								
Mercury		EPA 7470A	ND	—	0.000200	mg/l	1x	5091183	09/28/05	09/28/05 13:19	
P5I0959-04	**Water**	**B-20**	**Sampled: 09/22/05 12:45**								
Mercury		EPA 7470A	ND	—	0.000200	mg/l	1x	5091183	09/28/05	09/28/05 13:21	
P5I0959-05	**Water**	**B-26**	**Sampled: 09/22/05 11:45**								
Mercury		EPA 7470A	ND	—	0.000200	mg/l	1x	5091183	09/28/05	09/28/05 13:23	
P5I0959-06	**Water**	**B-32**	**Sampled: 09/22/05 16:40**								
Mercury		EPA 7470A	ND	—	0.000200	mg/l	1x	5091183	09/28/05	09/28/05 13:31	
P5I0959-07	**Water**	**B-33**	**Sampled: 09/22/05 11:55**								
Mercury		EPA 7470A	ND	—	0.000200	mg/l	1x	5091183	09/28/05	09/28/05 13:33	
P5I0959-08	**Water**	**CR-3**	**Sampled: 09/22/05 11:00**								
Mercury		EPA 7470A	ND	—	0.000200	mg/l	1x	5091183	09/28/05	09/28/05 13:35	
P5I0959-09	**Water**	**CR-26**	**Sampled: 09/22/05 18:15**								
Mercury		EPA 7470A	ND	—	0.000200	mg/l	1x	5091183	09/28/05	09/28/05 13:37	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510959-01 Water B-7 Sampled: 09/22/05 14:35										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091299	09/30/05	09/30/05 14:13	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	**3.17**	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	09/30/05 12:49	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	09/30/05 14:13	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	09/30/05 12:49	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	09/30/05 14:13	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	5.89	----	2.00	"	"	"	"	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schieh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-01 Water B-7 Sampled: 09/22/05 14:35										
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	5091299	09/30/05	09/30/05 14:13	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	**1.08**	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	09/30/05 12:49	
n-Propylbenzene	"	**5.53**	----	1.00	"	"	"	"	09/30/05 14:13	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	09/30/05 12:49	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	09/30/05 14:13	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 101%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*102%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*102%*		*80 - 121 %*	"				"	
Toluene-d8		*99.5%*		*80 - 120 %*	"				"	
P5I0959-02 Water B-11 Sampled: 09/21/05 17:40										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091299	09/30/05	09/30/05 15:36	
Benzene	"	**1.80**	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	**3.40**	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-02 Water B-11 Sampled: 09/21/05 17:40										
Chlorobenzene	EPA 8260B	ND	----	1.00	ug/l	1x	5091299	09/30/05	09/30/05 15:36	
Chloroethane	"	1.21	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	23.1	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	28.7	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	4.57	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-02 Water B-11 Sampled: 09/21/05 17:40										
1,1,1-Trichloroethane	EPA 8260B	ND	----	1.00	ug/l	1x	5091299	09/30/05	09/30/05 15:36	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	5.63	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 98.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*102%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*100%*		*80 - 121 %*		"			"	
Toluene-d8		*97.5%*		*80 - 120 %*		"			"	
P5I0959-03 Water B-19 Sampled: 09/22/05 11:20										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091299	09/30/05	09/30/05 16:04	
Benzene	"	**1.54**	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	**4.15**	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	**3.10**	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	

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Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-03 Water B-19 Sampled: 09/22/05 11:20										
Dichlorodifluoromethane	EPA 8260B	ND	----	5.00	ug/l	1x	5091299	09/30/05	09/30/05 16:04	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	33.7	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	50.3	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	1.99	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	3.60	----	2.00	"	"	"	"	"	

Surrogate(s):	*4-BFB*	*Recovery: 91.0%*	*Limits: 75 - 120 %*	"
	1,2-DCA-d4	*95.0%*	*77 - 129 %*	"
	Dibromofluoromethane	*92.0%*	*80 - 121 %*	"

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

North Creek Analytical, Inc.
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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-03	**Water**	**B-19**	**Sampled: 09/22/05 11:20**								
Toluene-d8			*91.0%*			*80 - 120 %*	*1x*			*09/30/05 16:04*	
P5I0959-04	**Water**	**B-20**	**Sampled: 09/22/05 12:45**								
Acetone		*EPA 8260B*	ND	—	25.0	*ug/l*	1x	5091299	09/30/05	09/30/05 13:17	
Benzene		"	ND	—	1.00	"	"	"	"	"	
Bromobenzene		"	ND	—	1.00	"	"	"	"	"	
Bromochloromethane		"	ND	—	1.00	"	"	"	"	"	
Bromodichloromethane		"	ND	—	1.00	"	"	"	"	"	
Bromoform		"	ND	—	1.00	"	"	"	"	"	
Bromomethane		"	ND	—	5.00	"	"	"	"	"	
2-Butanone		"	ND	—	10.0	"	"	"	"	"	
n-Butylbenzene		"	ND	—	5.00	"	"	"	"	"	
sec-Butylbenzene		"	ND	—	1.00	"	"	"	"	"	
tert-Butylbenzene		"	ND	—	1.00	"	"	"	"	"	
Carbon disulfide		"	ND	—	10.0	"	"	"	"	"	
Carbon tetrachloride		"	ND	—	1.00	"	"	"	"	"	
Chlorobenzene		"	ND	—	1.00	"	"	"	"	"	
Chloroethane		"	ND	—	1.00	"	"	"	"	"	
Chloroform		"	ND	—	1.00	"	"	"	"	"	
Chloromethane		"	ND	—	5.00	"	"	"	"	"	
2-Chlorotoluene		"	ND	—	1.00	"	"	"	"	"	
4-Chlorotoluene		"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane		"	ND	—	5.00	"	"	"	"	"	
Dibromochloromethane		"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromoethane		"	ND	—	1.00	"	"	"	"	"	
Dibromomethane		"	ND	—	1.00	"	"	"	"	"	
1,2-Dichlorobenzene		"	ND	—	1.00	"	"	"	"	"	
1,3-Dichlorobenzene		"	ND	—	1.00	"	"	"	"	"	
1,4-Dichlorobenzene		"	ND	—	1.00	"	"	"	"	"	
Dichlorodifluoromethane		"	ND	—	5.00	"	"	"	"	"	
1,1-Dichloroethane		"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane		"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene		"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene		"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene		"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane		"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane		"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane		"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene		"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene		"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene		"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene		"	ND	—	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

North Creek Analytical, Inc.
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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-04 Water B-20 Sampled: 09/22/05 12:45										
Hexachlorobutadiene	EPA 8260B	ND	—	4.00	ug/l	1x	5091299	09/30/05	09/30/05 13:17	
2-Hexanone	"	ND	—	10.0	"	"	"	"	"	
Isopropylbenzene	"	**2.26**	—	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	—	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	"	"	"	
Methylene chloride	"	ND	—	5.00	"	"	"	"	"	
Naphthalene	"	ND	—	2.00	"	"	"	"	"	
n-Propylbenzene	"	**1.93**	—	1.00	"	"	"	"	"	
Styrene	"	ND	—	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	—	1.00	"	"	"	"	"	
Toluene	"	ND	—	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
Trichloroethene	"	ND	—	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	—	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	—	1.00	"	"	"	"	"	
o-Xylene	"	ND	—	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	—	2.00	"	"	"	"	"	

Surrogate(s):	*4-BFB*	*Recovery: 99.0%*	*Limits: 75 - 120 %*	"
	1,2-DCA-d4	*102%*	*77 - 129 %*	"
	Dibromofluoromethane	*102%*	*80 - 121 %*	"
	Toluene-d8	*95.0%*	*80 - 120 %*	"

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-05 Water B-26 Sampled: 09/22/05 11:45										
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	5091299	09/30/05	09/30/05 16:31	
Benzene	"	**12.4**	—	1.00	"	"	"	"	"	
Bromobenzene	"	ND	—	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromoform	"	ND	—	1.00	"	"	"	"	"	
Bromomethane	"	ND	—	5.00	"	"	"	"	"	
2-Butanone	"	ND	—	10.0	"	"	"	"	"	
n-Butylbenzene	"	**5.12**	—	5.00	"	"	"	"	"	
sec-Butylbenzene	"	**2.60**	—	1.00	"	"	"	"	"	
tert-Butylbenzene	"	**1.88**	—	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	—	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Chloroethane	"	**1.04**	—	1.00	"	"	"	"	"	
Chloroform	"	ND	—	1.00	"	"	"	"	"	
Chloromethane	"	ND	—	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	"	"	"	
Dibromomethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene	"	**56.8**	—	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	"	"	"	
2-Hexanone	"	ND	—	10.0	"	"	"	"	"	
Isopropylbenzene	"	**20.4**	—	2.00	"	"	"	"	"	

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Sarah Rockwell

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-05 Water B-26 Sampled: 09/22/05 11:45										
p-Isopropyltoluene	EPA 8260B	ND	—	2.00	ug/l	1x	5091299	09/30/05	09/30/05 16:31	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	"	"	"	
Methylene chloride	"	ND	—	5.00	"	"	"	"	"	
Naphthalene	"	**18.6**	—	2.00	"	"	"	"	"	
n-Propylbenzene	"	**43.6**	—	1.00	"	"	"	"	"	
Styrene	"	ND	—	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	—	1.00	"	"	"	"	"	
Toluene	"	**1.19**	—	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
Trichloroethene	"	ND	—	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	**6.90**	—	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	—	1.00	"	"	"	"	"	
o-Xylene	"	ND	—	1.00	"	"	"	"	"	
m,p-Xylene	"	**6.21**	—	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 96.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*102%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*98.5%*		*80 - 121 %*		"			"	
Toluene-d8		*98.0%*		*80 - 120 %*		"			"	
P5I0959-06 Water B-32 Sampled: 09/22/05 16:40										
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	5091299	09/30/05	09/30/05 13:45	
Benzene	"	ND	—	1.00	"	"	"	"	"	
Bromobenzene	"	ND	—	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromoform	"	ND	—	1.00	"	"	"	"	"	
Bromomethane	"	ND	—	5.00	"	"	"	"	"	
2-Butanone	"	ND	—	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	—	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	—	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	—	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	—	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-06 Water B-32 Sampled: 09/22/05 16:40										
Chlorobenzene	EPA 8260B	ND	----	1.00	ug/l	1x	5091299	09/30/05	09/30/05 13:45	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	1.66	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	

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Sarah Rockwell, Project Manager

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-06 Water B-32 Sampled: 09/22/05 16:40										
1,1,1-Trichloroethane	EPA 8260B	ND	----	1.00	ug/l	1x	5091299	09/30/05	09/30/05 13:45	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): *4-BFB*		*Recovery: 99.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*102%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*101%*		*80 - 121 %*		"			"	
Toluene-d8		*102%*		*80 - 120 %*		"			"	
P5I0959-07 Water B-33 Sampled: 09/22/05 11:55										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091299	09/30/05	09/30/05 14:40	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	**3.37**	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510959-07 Water B-33 Sampled: 09/22/05 11:55										
Dichlorodifluoromethane	EPA 8260B	ND	—	5.00	ug/l	1x	5091299	09/30/05	09/30/05 14:40	
1,1-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	—	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	"	"	"	
2-Hexanone	"	ND	—	10.0	"	"	"	"	"	
Isopropylbenzene	"	8.90	—	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	—	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	"	"	"	
Methylene chloride	"	ND	—	5.00	"	"	"	"	"	
Naphthalene	"	ND	—	2.00	"	"	"	"	"	
n-Propylbenzene	"	12.0	—	1.00	"	"	"	"	"	
Styrene	"	ND	—	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	—	1.00	"	"	"	"	"	
Toluene	"	ND	—	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
Trichloroethene	"	ND	—	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	—	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	—	1.00	"	"	"	"	"	
o-Xylene	"	ND	—	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	—	2.00	"	"	"	"	"	

Surrogate(s):	*4-BFB*	*Recovery: 97.5%*	*Limits: 75 - 120 %*	"
	1,2-DCA-d4	*98.0%*	*77 - 129 %*	"
	Dibromofluoromethane	*94.0%*	*80 - 121 %*	"

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-07	**Water**	**B-33**	**Sampled: 09/22/05 11:55**								
Toluene-d8			*95.5%*		*80 - 120 %*		*1x*			*09/30/05 14:40*	
P5I0959-08	**Water**	**CR-3**	**Sampled: 09/22/05 11:00**								
Acetone		EPA 8260B	ND	----	25.0	ug/l	1x	5091299	09/30/05	09/30/05 15:08	
Benzene		"	ND	----	1.00	"	"	"	"	"	
Bromobenzene		"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane		"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane		"	ND	----	1.00	"	"	"	"	"	
Bromoform		"	ND	----	1.00	"	"	"	"	"	
Bromomethane		"	ND	----	5.00	"	"	"	"	"	
2-Butanone		"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene		"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene		"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene		"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide		"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride		"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene		"	ND	----	1.00	"	"	"	"	"	
Chloroethane		"	ND	----	1.00	"	"	"	"	"	
Chloroform		"	ND	----	1.00	"	"	"	"	"	
Chloromethane		"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene		"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene		"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane		"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane		"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane		"	ND	----	1.00	"	"	"	"	"	
Dibromomethane		"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene		"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene		"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene		"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane		"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane		"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane		"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene		"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene		"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene		"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane		"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane		"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane		"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene		"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene		"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene		"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene		"	ND	----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-08 Water CR-3 Sampled: 09/22/05 11:00										
Hexachlorobutadiene	EPA 8260B	ND	----	4.00	ug/l	1x	5091299	09/30/05	09/30/05 15:08	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s):	*4-BFB*	*Recovery: 99.0%*	*Limits: 75 - 120 %*	"
	1,2-DCA-d4	*102%*	*77 - 129 %*	"
	Dibromofluoromethane	*103%*	*80 - 121 %*	"
	Toluene-d8	*98.5%*	*80 - 120 %*	"

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Sarah Rockwell

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510959-09 Water CR-26 Sampled: 09/22/05 18:15										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5091299	09/30/05	09/30/05 11:54	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510959-09 Water CR-26 Sampled: 09/22/05 18:15										
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	5091299	09/30/05	09/30/05 11:54	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 89.0%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*100%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*98.0%*		*80 - 121 %*	"				"	
Toluene-d8		*89.5%*		*80 - 120 %*	"				"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P510959-01 Water B-7 Sampled: 09/22/05 14:35										
Acenaphthene	EPA 8270m	2.65	----	0.990	ug/l	10x	5091159	09/28/05	09/30/05 16:20	
Acenaphthylene	"	ND	----	0.990	"	"	"	"	"	R-03
Anthracene	"	ND	----	0.990	"	"	"	"	"	R-03
Benzo (a) anthracene	"	ND	----	0.0990	"	1x	"	"	09/30/05 15:16	
Benzo (a) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Chrysene	"	ND	----	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.198	"	"	"	"	"	
Fluoranthene	"	ND	----	0.990	"	10x	"	"	09/30/05 16:20	R-03
Fluorene	"	10.4	----	0.990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0990	"	1x	"	"	09/30/05 15:16	
Naphthalene	"	ND	----	1.98	"	10x	"	"	09/30/05 16:20	R-03
Phenanthrene	"	8.16	----	0.990	"	"	"	"	"	
Pyrene	"	0.177	----	0.0990	"	1x	"	"	09/30/05 15:16	
Surrogate(s): Fluorene-d10		*Recovery: 64.1%*		*Limits: 25 - 125 %*		*10x*			*09/30/05 16:20*	
Pyrene-d10		*83.1%*		*23 - 150 %*		*1x*			*09/30/05 15:16*	
Benzo (a) pyrene-d12		*76.6%*		*10 - 125 %*		"			"	
P510959-02 Water B-11 Sampled: 09/21/05 17:40										
Acenaphthene	EPA 8270m	0.854	----	0.0990	ug/l	1x	5091159	09/28/05	09/30/05 15:48	
Acenaphthylene	"	ND	----	0.149	"	"	"	"	"	R-03
Anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Chrysene	"	ND	----	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.198	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Fluorene	"	1.36	----	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Naphthalene	"	ND	----	1.58	"	"	"	"	"	R-03
Phenanthrene	"	0.743	----	0.0990	"	"	"	"	"	
Pyrene	"	0.124	----	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 28.7%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*33.1%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*32.9%*		*10 - 125 %*		"			"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-03 Water B-19 Sampled: 09/22/05 11:20										
Acenaphthene	EPA 8270m	ND	----	1.34	ug/l	1x	5091159	09/28/05	09/30/05 16:52	R-03
Acenaphthylene	"	ND	----	0.396	"	"	"	"	"	R-03
Anthracene	"	ND	----	0.297	"	"	"	"	"	R-03
Benzo (a) anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Chrysene	"	ND	----	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.198	"	"	"	"	"	
Fluoranthene	"	ND	----	0.149	"	"	"	"	"	R-03
Fluorene	"	**4.14**	----	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Naphthalene	"	ND	----	1.98	"	"	"	"	"	R-03
Phenanthrene	"	**6.40**	----	0.0990	"	"	"	"	"	
Pyrene	"	**0.209**	----	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 45.6%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*64.1%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*66.1%*		*10 - 125 %*		"			"	
P5I0959-04 Water B-20 Sampled: 09/22/05 12:45										
Acenaphthene	EPA 8270m	ND	----	0.891	ug/l	1x	5091159	09/28/05	09/30/05 14:32	R-03
Acenaphthylene	"	ND	----	0.248	"	"	"	"	"	R-03
Anthracene	"	ND	----	0.347	"	"	"	"	"	R-03
Benzo (a) anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Chrysene	"	ND	----	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.198	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Fluorene	"	**3.13**	----	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Naphthalene	"	ND	----	0.693	"	"	"	"	"	R-03
Phenanthrene	"	**0.812**	----	0.0990	"	"	"	"	"	
Pyrene	"	ND	----	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 61.3%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*77.4%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*75.0%*		*10 - 125 %*		"			"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schlch	10/13/05 18:20

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSI0959-05 Water B-26 Sampled: 09/22/05 11:45										
Acenaphthene	EPA 8270m	0.841	----	0.0990	ug/l	1x	5091159	09/28/05	09/30/05 19:00	
Acenaphthylene	"	ND	----	0.149	"	"	"	"	"	R-03
Anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0990	"	"	"	"	"	
Chrysene	"	ND	----	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.198	"	"	"	"	"	
Fluoranthene	"	0.161	----	0.0990	"	"	"	"	"	
Fluorene	"	0.440	----	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0990	"	"	"	"	"	
Naphthalene	"	7.80	----	0.0990	"	"	"	"	"	
Phenanthrene	"	0.701	----	0.0990	"	"	"	"	"	
Pyrene	"	0.224	----	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 75.4%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*83.5%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*81.9%*		*10 - 125 %*	"				"	
PSI0959-06 Water B-32 Sampled: 09/22/05 16:40										
Acenaphthene	EPA 8270m	ND	----	1.00	ug/l	10x	5091159	09/28/05	10/03/05 13:50	R-03
Acenaphthylene	"	ND	----	1.00	"	"	"	"	"	R-03
Anthracene	"	ND	----	0.150	"	1x	"	"	09/30/05 19:32	R-03
Benzo (a) anthracene	"	ND	----	0.100	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.100	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.100	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.100	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.100	"	"	"	"	"	
Chrysene	"	ND	----	0.100	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.200	"	"	"	"	"	
Fluoranthene	"	0.171	----	0.100	"	"	"	"	"	
Fluorene	"	ND	----	1.00	"	10x	"	"	10/03/05 13:50	R-03
Indeno (1,2,3-cd) pyrene	"	ND	----	0.100	"	1x	"	"	09/30/05 19:32	
Naphthalene	"	ND	----	0.300	"	"	"	"	"	R-03
Phenanthrene	"	ND	----	0.150	"	"	"	"	"	R-03
Pyrene	"	0.256	----	0.100	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 82.4%*		*Limits: 25 - 125 %*	*10x*				*10/03/05 13:50*	
Pyrene-d10		*90.0%*		*23 - 150 %*	*1x*				*09/30/05 19:32*	
Benzo (a) pyrene-d12		*86.8%*		*10 - 125 %*	"				"	

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SAIC	Project Name:	CVX Willbridge / Cheyron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schieh	10/13/05 18:20

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSI0959-07 Water B-33 Sampled: 09/22/05 11:55										R-05
Acenaphthene	EPA 8270m	2.56	—	0.990	ug/l	10x	5091252	09/29/05	10/04/05 18:25	
Acenaphthylene	"	ND	—	0.990	"	"	"	"	"	
Anthracene	"	ND	—	1.49	"	"	"	"	"	R-03
Benzo (a) anthracene	"	ND	—	0.990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.990	"	"	"	"	"	
Chrysene	"	ND	—	0.990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	1.98	"	"	"	"	"	
Fluoranthene	"	ND	—	0.990	"	"	"	"	"	
Fluorene	"	8.31	—	0.990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.990	"	"	"	"	"	
Naphthalene	"	ND	—	1.98	"	"	"	"	"	R-03
Phenanthrene	"	6.82	—	0.990	"	"	"	"	"	
Pyrene	"	ND	—	0.990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: NR*		*Limits: 25 - 125 %*		"			"	S-02
Pyrene-d10		*34.1%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*22.0%*		*10 - 125 %*		"			"	
PSI0959-08 Water CR-3 Sampled: 09/22/05 11:00										
Acenaphthene	EPA 8270m	ND	—	0.0990	ug/l	1x	5091252	09/29/05	10/04/05 18:56	
Acenaphthylene	"	ND	—	0.0990	"	"	"	"	"	
Anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Chrysene	"	ND	—	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.198	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Fluorene	"	ND	—	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Naphthalene	"	ND	—	0.0990	"	"	"	"	"	
Phenanthrene	"	ND	—	0.0990	"	"	"	"	"	
Pyrene	"	ND	—	0.0990	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 48.8%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*58.1%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*50.0%*		*10 - 125 %*		"			"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5I0959-09 Water CR-26 Sampled: 09/22/05 18:15										
Acenaphthene	EPA 8270m	ND	—	0.0990	ug/l	1x	5091252	09/29/05	10/04/05 19:26	
Acenaphthylene	"	ND	—	0.0990	"	"	"	"	"	
Anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.0990	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Chrysene	"	ND	—	0.0990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.198	"	"	"	"	"	
Fluoranthene	"	ND	—	0.0990	"	"	"	"	"	
Fluorene	"	0.172	—	0.0990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.0990	"	"	"	"	"	
Naphthalene	"	ND	—	0.0990	"	"	"	"	"	
Phenanthrene	"	ND	—	0.0990	"	"	"	"	"	
Pyrene	"	ND	—	0.0990	"	"	"	"	"	

Surrogate(s):	*Fluorene-d10*	*Recovery: 39.0%*	*Limits: 25 - 125 %*	"
	Pyrene-d10	*51.6%*	*23 - 150 %*	"
	Benzo (a) pyrene-d12	*46.0%*	*10 - 125 %*	"

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

BTEX per EPA Method 8021B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091112 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091112-BLK1)								Extracted: 09/27/05 09:14						
Benzene	EPA 8021B	ND	—	0.500	ug/l	1x	–	–	–	–	–	–	09/27/05 17:21	
Toluene	"	ND	—	0.500	"	"	–	–	–	–	–	–	"	
Ethylbenzene	"	ND	—	0.500	"	"	–	–	–	–	–	–	"	
Xylenes (total)	"	ND	—	1.00	"	"	–	–	–	–	–	–	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 84.6%*		*Limits: 70-130%*		"							*09/27/05 17:21*	
LCS (5091112-BS1)								Extracted: 09/27/05 09:14						
Benzene	EPA 8021B	21.0	—	0.500	ug/l	1x	–	20.0	105%	(70-130)	–	–	09/27/05 16:26	
Toluene	"	20.6	—	0.500	"	"	–	"	103%	(76-129)	–	–	"	
Ethylbenzene	"	20.4	—	0.500	"	"	–	"	102%	(82-130)	–	–	"	
Xylenes (total)	"	61.7	—	1.00	"	"	–	60.0	103%	(76-130)	–	–	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 86.4%*		*Limits: 70-130%*		"							*09/27/05 16:26*	
LCS Dup (5091112-BSD1)								Extracted: 09/27/05 09:14						
Benzene	EPA 8021B	21.1	—	0.500	ug/l	1x	–	20.0	106%	(70-130)	0.475%	(20)	09/27/05 16:54	
Toluene	"	20.7	—	0.500	"	"	–	"	104%	(76-129)	0.484%	"	"	
Ethylbenzene	"	20.6	—	0.500	"	"	–	"	103%	(82-130)	0.976%	"	"	
Xylenes (total)	"	61.8	—	1.00	"	"	–	60.0	103%	(76-130)	0.162%	"	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 90.4%*		*Limits: 70-130%*		"							*09/27/05 16:54*	
Matrix Spike (5091112-MS1)				QC Source: P510753-01				Extracted: 09/27/05 09:14						
Benzene	EPA 8021B	21.2	—	0.500	ug/l	1x	ND	20.0	106%	(65-144)	–	–	09/27/05 15:31	
Toluene	"	20.9	—	0.500	"	"	ND	"	104%	(68-139)	–	–	"	
Ethylbenzene	"	20.5	—	0.500	"	"	ND	"	102%	(69-144)	–	–	"	
Xylenes (total)	"	62.0	—	1.00	"	"	ND	60.0	103%	(60-144)	–	–	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 88.8%*		*Limits: 70-130%*		"							*09/27/05 15:31*	
Matrix Spike Dup (5091112-MSD1)				QC Source: P510753-01				Extracted: 09/27/05 09:14						
Benzene	EPA 8021B	20.4	—	0.500	ug/l	1x	ND	20.0	102%	(65-144)	3.85%	(20)	09/27/05 15:59	
Toluene	"	19.9	—	0.500	"	"	ND	"	99.5%	(68-139)	4.90%	"	"	
Ethylbenzene	"	19.5	—	0.500	"	"	ND	"	97.5%	(69-144)	5.00%	"	"	
Xylenes (total)	"	59.3	—	1.00	"	"	ND	60.0	98.8%	(60-144)	4.45%	"	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 89.2%*		*Limits: 70-130%*		"							*09/27/05 15:59*	

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5100104 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5100104-BLK1)								Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	ND	—	0.00100	mg/l	1x	--	--	--	--	--	--	10/07/05 06:13	
Barium	"	ND	—	0.00100	"	"	--	--	--	--	--	--	"	
Cadmium	"	ND	—	0.00100	"	"	--	--	--	--	--	--	"	
Chromium	"	ND	—	0.00100	"	"	--	--	--	--	--	--	"	
Copper	"	ND	—	0.00200	"	"	--	--	--	--	--	--	"	
Lead	"	ND	—	0.00100	"	"	--	--	--	--	--	--	"	
Selenium	"	ND	—	0.00200	"	"	--	--	--	--	--	--	10/12/05 19:30	
Silver	"	ND	—	0.00100	"	"	--	--	--	--	--	--	10/07/05 06:13	
Zinc	"	ND	—	0.00500	"	"	--	--	--	--	--	--	"	
LCS (5100104-BS1)								Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	0.0974	—	0.00100	mg/l	1x	--	0.100	97.4%	(80-120)	--	--	10/07/05 06:20	
Barium	"	0.101	—	0.00100	"	"	--	"	101%	"	--	--	"	
Cadmium	"	0.0981	—	0.00100	"	"	--	"	98.1%	"	--	--	"	
Chromium	"	0.0999	—	0.00100	"	"	--	"	99.9%	"	--	--	"	
Copper	"	0.0964	—	0.00200	"	"	--	"	96.4%	"	--	--	"	
Lead	"	0.0959	—	0.00100	"	"	--	"	95.9%	"	--	--	"	
Selenium	"	0.0507	—	0.0200	"	10x	--	0.0500	101%	"	--	--	10/13/05 11:43	
Silver	"	0.0494	—	0.00100	"	1x	--	"	98.8%	"	--	--	10/07/05 06:20	
Zinc	"	0.0973	—	0.00500	"	"	--	0.100	97.3%	"	--	--	"	
Duplicate (5100104-DUP1)							QC Source: PS10959-01	Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	0.0356	—	0.00100	mg/l	1x	0.0363	--	--	--	1.95%	(20)	10/07/05 06:36	
Barium	"	0.0847	—	0.00100	"	"	0.0857	--	--	--	1.17%	"	"	
Cadmium	"	ND	—	0.00100	"	"	ND	--	--	--	NR	"	"	
Chromium	"	0.00228	—	0.00100	"	"	0.00241	--	--	--	5.54%	"	"	
Copper	"	0.00464	—	0.00200	"	"	0.00483	--	--	--	4.01%	"	"	
Lead	"	ND	—	0.00100	"	"	ND	--	--	--	4.54%	"	"	
Selenium	"	ND	—	0.00200	"	"	ND	--	--	--	NR	"	10/12/05 19:52	
Silver	"	ND	—	0.00100	"	"	ND	--	--	--	NR	"	10/07/05 06:36	
Zinc	"	0.00767	—	0.00500	"	"	0.00787	--	--	--	2.57%	"	"	

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5100104 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (5100104-MS1)				QC Source: P510959-01				Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	0.142	---	0.00100	mg/l	1x	0.0363	0.100	106%	(75-125)	--	--	10/07/05 06:51	
Barium	"	0.185	---	0.00100	"	"	0.0857	"	99.3%	"	--	--	"	
Cadmium	"	0.100	---	0.00100	"	"	ND	"	100%	"	--	--	"	
Chromium	"	0.103	---	0.00100	"	"	0.00241	"	101%	"	--	--	"	
Copper	"	0.102	---	0.00200	"	"	0.00483	"	97.2%	"	--	--	"	
Lead	"	0.0929	---	0.00100	"	"	0.000991	"	91.9%	"	--	--	"	
Selenium	"	0.0492	---	0.0200	"	10x	ND	0.0500	98.4%	"	--	--	10/13/05 11:56	
Silver	"	0.0498	---	0.00100	"	1x	ND	"	99.6%	"	--	--	10/07/05 06:51	
Zinc	"	0.104	---	0.00500	"	"	0.00787	0.100	96.1%	"	--	--	"	
Matrix Spike (5100104-MS2)				QC Source: P510959-02				Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	0.135	---	0.00100	mg/l	1x	0.0308	0.100	104%	(75-125)	--	--	10/07/05 07:06	
Barium	"	0.161	---	0.00100	"	"	0.0603	"	101%	"	--	--	"	
Cadmium	"	0.0986	---	0.00100	"	"	0.000181	"	98.4%	"	--	--	"	
Chromium	"	0.0992	---	0.00100	"	"	0.00182	"	97.4%	"	--	--	"	
Copper	"	0.101	---	0.00200	"	"	0.00313	"	97.9%	"	--	--	"	
Lead	"	0.0934	---	0.00100	"	"	0.00166	"	91.7%	"	--	--	"	
Selenium	"	0.0527	---	0.0200	"	10x	ND	0.0500	105%	"	--	--	10/13/05 12:10	
Silver	"	0.0489	---	0.00100	"	1x	ND	"	97.8%	"	--	--	10/07/05 07:06	
Zinc	"	0.103	---	0.00500	"	"	0.00732	0.100	95.7%	"	--	--	"	
Post Spike (5100104-PS1)				QC Source: P510959-02				Extracted: 10/04/05 10:48						
Arsenic	EPA 6020	0.133	---		ug/ml	1x	0.0308	0.100	102%	(75-125)	--	--	10/07/05 07:14	
Barium	"	0.160	---		"	"	0.0603	"	99.7%	"	--	--	"	
Cadmium	"	0.0970	---		"	"	0.000181	"	96.8%	"	--	--	"	
Chromium	"	0.0960	---		"	"	0.00182	"	94.2%	"	--	--	"	
Copper	"	0.0990	---		"	"	0.00313	"	95.9%	"	--	--	"	
Lead	"	0.0924	---		"	"	0.00166	"	90.7%	"	--	--	"	
Selenium	"	0.0542	---		"	10x	0.0000700	0.0500	108%	"	--	--	10/13/05 12:23	
Silver	"	0.0497	---		"	1x	-1.00E-6	"	99.4%	"	--	--	10/07/05 07:14	
Zinc	"	0.103	---		"	"	0.00732	0.100	95.7%	"	--	--	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Total Mercury per EPA Method 7470A - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091183 Water Preparation Method: EPA 7470A

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091183-BLK1)								Extracted: 09/28/05 10:18						
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	—	—	—	—	—	—	09/28/05 12:34	
LCS (5091183-BS1)								Extracted: 09/28/05 10:18						
Mercury	EPA 7470A	0.00507	—	0.000200	mg/l	1x	—	0.00500	101%	(85-115)	—	—	09/28/05 12:36	
LCS Dup (5091183-BSD1)								Extracted: 09/28/05 10:18						
Mercury	EPA 7470A	0.00515	—	0.000200	mg/l	1x	—	0.00500	103%	(85-115)	1.57%	(20)	09/28/05 12:39	
Duplicate (5091183-DUP1)				QC Source: P510937-03				Extracted: 09/28/05 10:18						
Mercury	EPA 7470A	ND	—	0.000200	mg/l	1x	ND	—	—	—	NR	(20)	09/28/05 12:41	
Matrix Spike (5091183-MS1)				QC Source: P510937-03				Extracted: 09/28/05 10:18						
Mercury	EPA 7470A	0.00512	—	0.000200	mg/l	1x	ND	0.00500	102%	(75-125)	—	—	09/28/05 12:44	
Matrix Spike Dup (5091183-MSD1)				QC Source: P510937-03				Extracted: 09/28/05 10:18						
Mercury	EPA 7470A	0.00512	—	0.000200	mg/l	1x	ND	0.00500	102%	(75-125)	0.00%	(20)	09/28/05 12:46	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091299 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091299-BLK1)								Extracted: 09/30/05 08:36						
Acetone	EPA 8260B	ND	---	25.0	ug/l	1x	--	--	--	--	--	--	09/30/05 12:22	
Benzene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Butanone	"	ND	--	10.0	"	"	--	--	--	--	--	--	"	
n-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
sec-Butylbenzene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
tert-Butylbenzene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Chloromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	--	5.00	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	--	5.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	--	1.00	"	"	--	--	--	--	--	--	"	
Hexachlorobutadiene	"	ND	--	4.00	"	"	--	--	--	--	--	--	"	
2-Hexanone	"	ND	--	10.0	"	"	--	--	--	--	--	--	"	

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Sarah Rockwell

Sarah Rockwell, Project Manager

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091299 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091299-BLK1)									Extracted: 09/30/05 08:36					
Isopropylbenzene	EPA 8260B	ND	—	2.00	ug/l	1x	—	—	—	—	—	—	09/30/05 12:22	
p-Isopropyltoluene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Methylene chloride	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
n-Propylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Styrene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Tetrachloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Trichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3,5-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Vinyl chloride	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
o-Xylene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
m,p-Xylene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 99.5%*			*Limits: 75-120%*	"							*09/30/05 12:22*	
1,2-DCA-d4		*105%*			*77-129%*	"							"	
Dibromofluoromethane		*102%*			*80-121%*	"							"	
Toluene-d8		*102%*			*80-120%*	"							"	

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	06-6102-09-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091299 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (5091299-BS1)								Extracted: 09/30/05 08:36						
Benzene	EPA 8260B	19.8	—	1.00	ug/l	1x	—	20.0	99.0%	(80-120)	—	—	09/30/05 10:03	
Chlorobenzene	"	23.4	—	1.00	"	"	—	"	117%	(80-124)	—	—	"	
1,1-Dichloroethene	"	17.5	—	1.00	"	"	—	"	87.5%	(78-120)	—	—	"	
Toluene	"	22.1	—	1.00	"	"	—	"	110%	(80-124)	—	—	"	
Trichloroethene	"	21.0	—	1.00	"	"	—	"	105%	(80-132)	—	—	"	
Surrogate(s): *4-BFB*		*Recovery:* *106%*		*Limits:* *75-120%*	"								*09/30/05 10:03*	
1,2-DCA-d4		*106%*		*77-129%*	"								"	
Dibromofluoromethane		*104%*		*80-121%*	"								"	
Toluene-d8		*106%*		*80-120%*	"								"	
Matrix Spike (5091299-MS1)				QC Source: P510959-09				Extracted: 09/30/05 08:36						
Benzene	EPA 8260B	18.7	—	1.00	ug/l	1x	ND	20.0	93.5%	(80-124)	—	—	09/30/05 10:30	
Chlorobenzene	"	22.5	—	1.00	"	"	ND	"	112%	(72.9-134)	—	—	"	
1,1-Dichloroethene	"	15.3	—	1.00	"	"	ND	"	76.5%	(79.3-127)	—	—	"	Q-01
Toluene	"	19.2	—	1.00	"	"	ND	"	96.0%	(79.7-131)	—	—	"	
Trichloroethene	"	19.2	—	1.00	"	"	ND	"	96.0%	(68.4-130)	—	—	"	
Surrogate(s): *4-BFB*		*Recovery:* *102%*		*Limits:* *75-120%*	"								*09/30/05 10:30*	
1,2-DCA-d4		*105%*		*77-129%*	"								"	
Dibromofluoromethane		*104%*		*80-121%*	"								"	
Toluene-d8		*100%*		*80-120%*	"								"	
Matrix Spike Dup (5091299-MSD1)				QC Source: P510959-09				Extracted: 09/30/05 08:36						
Benzene	EPA 8260B	18.8	—	1.00	ug/l	1x	ND	20.0	94.0%	(80-124)	0.533%	(25)	09/30/05 10:58	
Chlorobenzene	"	22.5	—	1.00	"	"	ND	"	112%	(72.9-134)	0.00%	"	"	
1,1-Dichloroethene	"	15.9	—	1.00	"	"	ND	"	79.5%	(79.3-127)	3.85%	"	"	
Toluene	"	19.7	—	1.00	"	"	ND	"	98.5%	(79.7-131)	2.57%	"	"	
Trichloroethene	"	19.1	—	1.00	"	"	ND	"	95.5%	(68.4-130)	0.522%	"	"	
Surrogate(s): *4-BFB*		*Recovery:* *88.5%*		*Limits:* *75-120%*	"								*09/30/05 10:58*	
1,2-DCA-d4		*90.5%*		*77-129%*	"								"	
Dibromofluoromethane		*91.5%*		*80-121%*	"								"	
Toluene-d8		*88.0%*		*80-120%*	"								"	

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1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091159 **Water Preparation Method: EPA 3520/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091159-BLK1)								Extracted: 09/28/05 16:50						
Acenaphthene	EPA 8270m	ND	—	0.100	ug/l	1x	—	—	—	—	—	—	09/30/05 12:57	
Acenaphthylene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Anthracene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (a) anthracene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (a) pyrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (b) fluoranthene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (ghi) perylene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (k) fluoranthene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Chrysene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Dibenzo (a,h) anthracene	"	ND	—	0.200	"	"	—	—	—	—	—	—	"	
Fluoranthene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Fluorene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Phenanthrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Pyrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery: 78.0%*			*Limits: 25-125%*	"							*09/30/05 12:57*	
Pyrene-d10		*79.2%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*82.0%*			*10-125%*	"							"	
LCS (5091159-BS1)								Extracted: 09/28/05 16:50						
Acenaphthene	EPA 8270m	1.91	—	0.100	ug/l	1x	—	2.50	76.4%	(26-135)	—	—	09/30/05 13:28	
Benzo (a) pyrene	"	1.80	—	0.100	"	"	—	"	72.0%	(38-137)	—	—	"	
Pyrene	"	1.99	—	0.100	"	"	—	"	79.6%	(33-133)	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery: 81.6%*			*Limits: 25-125%*	"							*09/30/05 13:28*	
Pyrene-d10		*81.2%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*82.4%*			*10-125%*	"							"	
LCS Dup (5091159-BSD1)								Extracted: 09/28/05 16:50						
Acenaphthene	EPA 8270m	1.84	—	0.100	ug/l	1x	—	2.50	73.6%	(26-135)	3.73%	(60)	09/30/05 14:00	
Benzo (a) pyrene	"	2.01	—	0.100	"	"	—	"	80.4%	(38-137)	11.0%	"	"	
Pyrene	"	1.93	—	0.100	"	"	—	"	77.2%	(33-133)	3.06%	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 80.8%*			*Limits: 25-125%*	"							*09/30/05 14:00*	
Pyrene-d10		*78.4%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*84.4%*			*10-125%*	"							"	

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1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	10/13/05 18:20

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5091252 **Water Preparation Method: EPA 3520/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5091252-BLK1)								Extracted: 09/29/05 15:15						
Acenaphthene	EPA 8270m	ND	---	0.100	ug/l	1x	--	--	--	--	--	--	10/04/05 17:30	
Acenaphthylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Surrogate(s):	*Fluorene-d10*	*Recovery:*	*53.2%*		*Limits:*	*25-125%*	"						*10/04/05 17:30*	
	Pyrene-d10		*51.2%*			*23-150%*	"						"	
	Benzo (a) pyrene-d12		*53.2%*			*10-125%*	"						"	
LCS (5091252-BS1)								Extracted: 09/29/05 15:15						
Acenaphthene	EPA 8270m	1.77	---	0.100	ug/l	1x	--	2.50	70.8%	(26-135)	--	--	10/04/05 18:53	
Benzo (a) pyrene	"	1.63	---	0.100	"	"	--	"	66.0%	(38-137)	--	--	"	
Pyrene	"	1.54	---	0.100	"	"	--	"	61.6%	(33-133)	--	--	"	
Surrogate(s):	*Fluorene-d10*	*Recovery:*	*54.4%*		*Limits:*	*25-125%*	"						*10/04/05 18:53*	
	Pyrene-d10		*63.2%*			*23-150%*	"						"	
	Benzo (a) pyrene-d12		*72.4%*			*10-125%*	"						"	
LCS Dup (5091252-BSD1)								Extracted: 09/29/05 15:15						
Acenaphthene	EPA 8270m	1.65	---	0.100	ug/l	1x	--	2.50	66.0%	(26-135)	7.02%	(60)	10/04/05 19:20	
Benzo (a) pyrene	"	1.63	---	0.100	"	"	--	"	65.2%	(38-137)	1.22%	"	"	
Pyrene	"	1.51	---	0.100	"	"	--	"	60.4%	(33-133)	1.97%	"	"	
Surrogate(s):	*Fluorene-d10*	*Recovery:*	*66.0%*		*Limits:*	*25-125%*	"						*10/04/05 19:20*	
	Pyrene-d10		*63.6%*			*23-150%*	"						"	
	Benzo (a) pyrene-d12		*72.8%*			*10-125%*	"						"	

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1220 SW Morrison Suite 500	Project Number:	06-6102-00-7165-020/100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schlch	10/13/05 18:20

Notes and Definitions

Report Specific Notes:

Q-01 - The matrix spike recovery, and/or RPD, for this QC sample is outside of established control limits. Failure of a matrix spike QC sample does not represent an out-of-control condition for the batch.

R-03 - The reporting limit for this analyte was raised due to matrix interference.

R-05 - Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.

S-02 - The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR / NA - Not Reported / Not Available

dry - Sample results reported on a dry weight basis. Reporting Limits have been corrected for %Solids.

wet - Sample results and reporting limits reported on a wet weight basis (as received).

RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

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July 14, 2005

Kevin Schleh
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Portland, OR 97205

RE: CVX Willbridge / Chevron #100-1868

Enclosed are the results of analyses for samples received by the laboratory on 06/23/05 14:40.
The following list is a summary of the NCA Work Orders contained in this report.
If you have any questions concerning this report, please feel free to contact me.

Work	Project	ProjectNumber
P5F0997	CVX Willbridge / Chevron #100-1868	100-1868-OML

Thank You,

Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-9	P5F0997-01	Water	06/22/05 16:23	06/23/05 14:40
B-11	P5F0997-02	Water	06/22/05 17:20	06/23/05 14:40
B-19	P5F0997-03	Water	06/22/05 16:00	06/23/05 14:40
B-26	P5F0997-04	Water	06/22/05 17:40	06/23/05 14:40
B-33	P5F0997-05	Water	06/22/05 16:15	06/23/05 14:40
CR-3	P5F0997-06	Water	06/22/05 17:20	06/23/05 14:40
CR-26	P5F0997-07	Water	06/22/05 16:53	06/23/05 14:40
QA	P5F0997-08	Water	06/22/05 12:00	06/23/05 14:40

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-01 Water B-9 Sampled: 06/22/05 16:23										
Arsenic	EPA 6020	0.0268	—	0.00100	mg/l	1x	5070371	07/11/05	07/13/05 00:19	
Barium	"	0.0481	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	ND	—	0.00100	"	"	"	"	"	
Copper	"	0.00225	—	0.00200	"	"	"	"	"	
Lead	"	ND	—	0.00100	"	"	"	"	"	
Selenium	"	ND	—	0.00200	"	"	"	"	"	
Silver	"	ND	—	0.00100	"	"	"	"	"	
Zinc	"	0.0187	—	0.00500	"	"	"	"	"	
P5F0997-02 Water B-11 Sampled: 06/22/05 17:20										
Arsenic	EPA 6020	0.0269	—	0.00100	mg/l	1x	5070371	07/11/05	07/13/05 01:12	
Barium	"	0.106	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	0.00978	—	0.00100	"	"	"	"	"	
Copper	"	0.0123	—	0.00200	"	"	"	"	"	
Lead	"	0.00543	—	0.00100	"	"	"	"	"	
Selenium	"	ND	—	0.00200	"	"	"	"	"	
Silver	"	ND	—	0.00100	"	"	"	"	"	
Zinc	"	0.0258	—	0.00500	"	"	"	"	"	
P5F0997-03 Water B-19 Sampled: 06/22/05 16:00										
Arsenic	EPA 6020	0.0478	—	0.00100	mg/l	1x	5070371	07/11/05	07/13/05 01:52	
Barium	"	0.223	—	0.00100	"	"	"	"	"	
Cadmium	"	ND	—	0.00100	"	"	"	"	"	
Chromium	"	0.0265	—	0.00100	"	"	"	"	"	
Copper	"	0.0370	—	0.00200	"	"	"	"	"	
Lead	"	0.00922	—	0.00100	"	"	"	"	"	
Selenium	"	ND	—	0.00200	"	"	"	"	"	
Silver	"	ND	—	0.00100	"	"	"	"	"	
Zinc	"	0.0633	—	0.00500	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-04 Water B-26 Sampled: 06/22/05 17:40										
Arsenic	EPA 6020	0.0397	----	0.00100	mg/l	1x	5070371	07/11/05	07/13/05 02:33	
Barium	"	0.146	----	0.00100	"	"	"	"	"	
Cadmium	"	0.0130	----	0.00100	"	"	"	"	"	
Chromium	"	0.0152	----	0.00100	"	"	"	"	"	
Copper	"	0.0319	----	0.00200	"	"	"	"	"	
Lead	"	0.0208	----	0.00100	"	"	"	"	"	
Selenium	"	ND	----	0.00200	"	"	"	"	"	
Silver	"	ND	----	0.00100	"	"	"	"	"	
Zinc	"	0.0689	----	0.00500	"	"	"	"	"	
P5F0997-05 Water B-33 Sampled: 06/22/05 16:15										
Arsenic	EPA 6020	0.0156	----	0.00100	mg/l	1x	5070371	07/11/05	07/13/05 02:46	
Barium	"	0.140	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	0.0221	----	0.00100	"	"	"	"	"	
Copper	"	0.0560	----	0.00200	"	"	"	"	"	
Lead	"	0.0264	----	0.00100	"	"	"	"	"	
Selenium	"	ND	----	0.00200	"	"	"	"	"	
Silver	"	ND	----	0.00100	"	"	"	"	"	
Zinc	"	0.0998	----	0.00500	"	"	"	"	"	
P5F0997-06 Water CR-3 Sampled: 06/22/05 17:20										
Arsenic	EPA 6020	0.0259	----	0.00100	mg/l	1x	5070371	07/11/05	07/13/05 02:59	
Barium	"	0.431	----	0.00100	"	"	"	"	"	
Cadmium	"	0.00206	----	0.00100	"	"	"	"	"	
Chromium	"	0.0414	----	0.00100	"	"	"	"	"	
Copper	"	0.0708	----	0.00200	"	"	"	"	"	
Lead	"	0.0504	----	0.00100	"	"	"	"	"	
Selenium	"	ND	----	0.00200	"	"	"	"	"	
Silver	"	ND	----	0.00100	"	"	"	"	"	
Zinc	"	0.218	----	0.00500	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-07 Water CR-26 Sampled: 06/22/05 16:53										
Arsenic	EPA 6020	0.157	----	0.00100	mg/l	1x	5070371	07/11/05	07/13/05 03:13	
Barium	"	0.212	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	0.00599	----	0.00100	"	"	"	"	"	
Copper	"	0.00661	----	0.00200	"	"	"	"	"	
Lead	"	0.00268	----	0.00100	"	"	"	"	"	
Selenium	"	ND	----	0.00200	"	"	"	"	"	
Silver	"	ND	----	0.00100	"	"	"	"	"	
Zinc	"	0.0175	----	0.00500	"	"	"	"	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Total Mercury per EPA Method 7470A

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-01	**Water**	**B-9**	**Sampled: 06/22/05 16:23**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5061144	06/27/05	06/27/05 13:46	
P5F0997-02	**Water**	**B-11**	**Sampled: 06/22/05 17:20**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5061144	06/27/05	06/27/05 14:54	
P5F0997-03	**Water**	**B-19**	**Sampled: 06/22/05 16:00**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5061144	06/27/05	06/27/05 14:56	
P5F0997-04	**Water**	**B-26**	**Sampled: 06/22/05 17:40**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5061144	06/27/05	06/27/05 14:58	
P5F0997-05	**Water**	**B-33**	**Sampled: 06/22/05 16:15**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5061144	06/27/05	06/27/05 15:01	
P5F0997-06	**Water**	**CR-3**	**Sampled: 06/22/05 17:20**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5061144	06/27/05	06/27/05 15:03	
P5F0997-07	**Water**	**CR-26**	**Sampled: 06/22/05 16:53**								
Mercury		EPA 7470A	ND	----	0.000200	mg/l	1x	5061144	06/27/05	06/27/05 15:05	

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSF0997-01 Water B-9 Sampled: 06/22/05 16:23										
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	5061126	06/25/05	06/25/05 13:38	
Benzene	"	ND	—	1.00	"	"	"	"	"	
Bromobenzene	"	ND	—	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromoform	"	ND	—	1.00	"	"	"	"	"	
Bromomethane	"	ND	—	5.00	"	"	"	"	"	
2-Butanone	"	ND	—	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	—	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	—	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	—	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	—	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Chloroethane	"	ND	—	1.00	"	"	"	"	"	
Chloroform	"	ND	—	1.00	"	"	"	"	"	
Chloromethane	"	ND	—	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	"	"	"	
Dibromomethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	—	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	"	"	"	
2-Hexanone	"	ND	—	10.0	"	"	"	"	"	
Isopropylbenzene	"	2.28	—	2.00	"	"	"	"	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL[a]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-01 Water B-9 Sampled: 06/22/05 16:23										
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	5061126	06/25/05	06/25/05 13:38	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**1.45**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 90.5%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*106%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*102%*		*80 - 121 %*	"				"	
Toluene-d8		*89.0%*		*80 - 120 %*	"				"	
P5F0997-02 Water B-11 Sampled: 06/22/05 17:20										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5061126	06/25/05	06/25/05 14:05	
Benzene	"	**3.03**	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	**2.32**	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Passange, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schlch	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-02 Water B-11 Sampled: 06/22/05 17:20										
Chlorobenzene	EPA 8260B	ND	----	1.00	ug/l	1x	5061126	06/25/05	06/25/05 14:05	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	**19.2**	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**22.1**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	**3.77**	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-02 Water B-11 Sampled: 06/22/05 17:20										
1,1,1-Trichloroethane	EPA 8260B	ND	-----	1.00	ug/l	1x	5061126	06/25/05	06/25/05 14:05	
1,1,2-Trichloroethane	"	ND	-----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	-----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	-----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	-----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	-----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	-----	1.00	"	"	"	"	"	
o-Xylene	"	ND	-----	1.00	"	"	"	"	"	
m,p-Xylene	"	**4.66**	-----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 93.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*100%*		*80 - 121 %*		"			"	
Toluene-d8		*94.0%*		*80 - 120 %*		"			"	
P5F0997-03 Water B-19 Sampled: 06/22/05 16:00										
Acetone	EPA 8260B	ND	-----	25.0	ug/l	1x	5061126	06/25/05	06/25/05 14:32	
Benzene	"	ND	-----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	-----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	-----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	-----	1.00	"	"	"	"	"	
Bromoform	"	ND	-----	1.00	"	"	"	"	"	
Bromomethane	"	ND	-----	5.00	"	"	"	"	"	
2-Butanone	"	ND	-----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	-----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	**3.15**	-----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	**1.82**	-----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	-----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	-----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	-----	1.00	"	"	"	"	"	
Chloroethane	"	ND	-----	1.00	"	"	"	"	"	
Chloroform	"	ND	-----	1.00	"	"	"	"	"	
Chloromethane	"	ND	-----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	-----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	-----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	-----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	-----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	-----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	-----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-03 Water B-19 Sampled: 06/22/05 16:00										
Dichlorodifluoromethane	EPA 8260B	ND	----	5.00	ug/l	1x	5061126	06/25/05	06/25/05 14:32	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	**22.5**	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**32.3**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	**2.02**	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	**2.61**	----	2.00	"	"	"	"	"	

Surrogate(s):	*4-BFB*	*Recovery: 92.0%*	*Limits: 75 - 120 %*	"
	1,2-DCA-d4	*101%*	*77 - 129 %*	"
	Dibromofluoromethane	*96.0%*	*80 - 121 %*	"

North Creek Analytical - Portland

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-03 Water	**B-19**	**Sampled: 06/22/05 16:00**								
Toluene-d8		*94.0%*		*80 - 120 %*		*1x*			*06/25/05 14:32*	
P5F0997-04RE1 Water	**B-26**	**Sampled: 06/22/05 17:40**								
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	5061191	06/28/05	06/28/05 20:38	
Benzene	"	**11.9**	—	1.00	"	"	"	"	"	
Bromobenzene	"	ND	—	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromoform	"	ND	—	1.00	"	"	"	"	"	
Bromomethane	"	ND	—	5.00	"	"	"	"	"	
2-Butanone	"	ND	—	10.0	"	"	"	"	"	
n-Butylbenzene	"	**5.46**	—	5.00	"	"	"	"	"	
sec-Butylbenzene	"	**2.46**	—	1.00	"	"	"	"	"	
tert-Butylbenzene	"	**2.04**	—	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	—	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Chloroethane	"	ND	—	1.00	"	"	"	"	"	
Chloroform	"	ND	—	1.00	"	"	"	"	"	
Chloromethane	"	ND	—	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	"	"	"	
Dibromomethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene	"	**46.1**	—	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-04RE1 Water B-26 Sampled: 06/22/05 17:40										
Hexachlorobutadiene	EPA 8260B	ND	----	4.00	ug/l	1x	5061191	06/28/05	06/28/05 20:38	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	**15.8**	----	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	**21.2**	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**35.8**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	**6.14**	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	**4.26**	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 102%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*118%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*110%*		*80 - 121 %*		"			"	
Toluene-d8		*110%*		*80 - 120 %*		"			"	

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Sarah Passarge, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-05 Water B-33 Sampled: 06/22/05 16:15										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5061126	06/25/05	06/25/05 15:25	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	2.23	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	7.16	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Passarge, Project Manager

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-05 Water B-33 Sampled: 06/22/05 16:15										
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	5061126	06/25/05	06/25/05 15:25	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**9.42**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 93.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*105%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*98.0%*		*80 - 121 %*		"			"	
Toluene-d8		*92.0%*		*80 - 120 %*		"			"	
P5F0997-06 Water CR-3 Sampled: 06/22/05 17:20										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5061126	06/25/05	06/25/05 15:51	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-06 Water CR-3 Sampled: 06/22/05 17:20										
Chlorobenzene	EPA 8260B	ND	—	1.00	ug/l	1x	5061126	06/25/05	06/25/05 15:51	
Chloroethane	"	ND	—	1.00	"	"	"	"	"	
Chloroform	"	ND	—	1.00	"	"	"	"	"	
Chloromethane	"	ND	—	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	"	"	"	
Dibromomethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	—	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	"	"	"	
2-Hexanone	"	ND	—	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	—	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	—	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	"	"	"	
Methylene chloride	"	ND	—	5.00	"	"	"	"	"	
Naphthalene	"	ND	—	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	—	1.00	"	"	"	"	"	
Styrene	"	ND	—	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	—	1.00	"	"	"	"	"	
Toluene	"	ND	—	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	

North Creek Analytical - Portland

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-06 Water CR-3 Sampled: 06/22/05 17:20										
1,1,1-Trichloroethane	EPA 8260B	ND	----	1.00	ug/l	1x	5061126	06/25/05	06/25/05 15:51	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 91.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*104%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*96.5%*		*80 - 121 %*		"			"	
Toluene-d8		*85.5%*		*80 - 120 %*		"			"	
P5F0997-07 Water CR-26 Sampled: 06/22/05 16:53										
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	5061126	06/25/05	06/25/05 16:18	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-07 Water CR-26 Sampled: 06/22/05 16:53										
Dichlorodifluoromethane	EPA 8260B	ND	—	5.00	ug/l	1x	5061126	06/25/05	06/25/05 16:18	
1,1-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	—	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	"	"	"	
2-Hexanone	"	ND	—	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	—	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	—	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	"	"	"	
Methylene chloride	"	ND	—	5.00	"	"	"	"	"	
Naphthalene	"	ND	—	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	—	1.00	"	"	"	"	"	
Styrene	"	ND	—	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	—	1.00	"	"	"	"	"	
Toluene	"	ND	—	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	"	"	"	
Trichloroethene	"	ND	—	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	—	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	—	1.00	"	"	"	"	"	
o-Xylene	"	ND	—	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	—	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 91.0%*		*Limits: 75 - 120 %*	"				"	
1,2-DCA-d4		*104%*		*77 - 129 %*	"				"	
Dibromofluoromethane		*97.0%*		*80 - 121 %*	"				"	

North Creek Analytical - Portland

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-07	**Water**	**CR-26**	**Sampled: 06/22/05 16:53**								
Toluene-d8			*90.0%*			*80 - 120 %*	*1x*			*06/25/05 16:18*	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

BTEX Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-08 Water QA Sampled: 06/22/05 12:00										
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	5061126	06/25/05	06/25/05 16:45	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Surrogate(s): *4-BFB*		*Recovery: 89.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*106%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*99.0%*		*80 - 121 %*		"			"	
Toluene-d8		*91.0%*		*80 - 120 %*		"			"	

North Creek Analytical - Portland

Sam Passarge

Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-01 Water B-9 Sampled: 06/22/05 16:23										
Acenaphthene	EPA 8270m	**0.887**	-----	0.100	ug/l	1x	5061186	06/28/05	07/07/05 22:03	
Acenaphthylene	"	ND	-----	0.200	"	"	"	"	"	R-03
Anthracene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (a) anthracene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (a) pyrene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	-----	0.100	"	"	"	"	"	
Chrysene	"	ND	-----	0.100	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	-----	0.200	"	"	"	"	"	
Fluoranthene	"	ND	-----	0.100	"	"	"	"	"	
Fluorene	"	**3.05**	-----	0.100	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	-----	0.100	"	"	"	"	"	
Naphthalene	"	ND	-----	0.500	"	"	"	"	"	R-03
Phenanthrene	"	**0.873**	-----	0.100	"	"	"	"	"	
Pyrene	"	ND	-----	0.100	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 69.5%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*72.0%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*83.5%*		*10 - 125 %*		"			"	
P5F0997-02 Water B-11 Sampled: 06/22/05 17:20										
Acenaphthene	EPA 8270m	**0.685**	-----	0.100	ug/l	1x	5061186	06/28/05	07/07/05 22:35	
Acenaphthylene	"	ND	-----	0.150	"	"	"	"	"	R-03
Anthracene	"	**0.117**	-----	0.100	"	"	"	"	"	
Benzo (a) anthracene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (a) pyrene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	-----	0.100	"	"	"	"	"	
Chrysene	"	ND	-----	0.100	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	-----	0.200	"	"	"	"	"	
Fluoranthene	"	**0.111**	-----	0.100	"	"	"	"	"	
Fluorene	"	**1.04**	-----	0.100	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	-----	0.100	"	"	"	"	"	
Naphthalene	"	ND	-----	1.00	"	"	"	"	"	R-03
Phenanthrene	"	**0.471**	-----	0.100	"	"	"	"	"	
Pyrene	"	**0.181**	-----	0.100	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 68.5%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*62.9%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*73.8%*		*10 - 125 %*		"			"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schlch	07/14/05 16:10

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-03 Water B-19 Sampled: 06/22/05 16:00										
Acenaphthene	EPA 8270m	2.96	-----	1.00	ug/l	10x	5061186	06/28/05	07/08/05 02:33	
Acenaphthylene	"	ND	-----	2.00	"	"	"	"	"	R-03
Anthracene	"	0.849	----	0.100	"	1x	"	"	07/07/05 23:07	
Benzo (a) anthracene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (a) pyrene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	-----	0.100	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	-----	0.100	"	"	"	"	"	
Chrysene	"	0.141	----	0.100	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.200	"	"	"	"	"	
Fluoranthene	"	ND	----	0.300	"	"	"	"	"	R-03
Fluorene	"	9.59	-----	1.00	"	10x	"	"	07/08/05 02:33	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.100	"	1x	"	"	07/07/05 23:07	
Naphthalene	"	ND	----	2.50	"	10x	"	"	07/08/05 02:33	R-03
Phenanthrene	"	15.8	----	1.00	"	"	"	"	"	
Pyrene	"	0.277	----	0.100	"	1x	"	"	07/07/05 23:07	
Surrogate(s): Fluorene-d10		*Recovery: 106%*		*Limits: 25 - 125 %*		*10x*			*07/08/05 02:33*	
Pyrene-d10		*64.4%*		*23 - 150 %*		*1x*			*07/07/05 23:07*	
Benzo (a) pyrene-d12		*86.0%*		*10 - 125 %*		"			"	
P5F0997-04 Water B-26 Sampled: 06/22/05 17:40										R-05
Acenaphthene	EPA 8270m	0.651	----	0.200	ug/l	2x	5061186	06/28/05	07/08/05 02:01	
Acenaphthylene	"	ND	----	0.200	"	"	"	"	"	
Anthracene	"	ND	----	0.200	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.200	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.200	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.200	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.200	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.200	"	"	"	"	"	
Chrysene	"	ND	----	0.200	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.400	"	"	"	"	"	
Fluoranthene	"	0.264	----	0.200	"	"	"	"	"	
Fluorene	"	0.588	----	0.200	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.200	"	"	"	"	"	
Naphthalene	"	10.9	----	0.200	"	"	"	"	"	
Phenanthrene	"	0.639	----	0.200	"	"	"	"	"	
Pyrene	"	0.293	----	0.200	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 67.7%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*64.9%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*82.7%*		*10 - 125 %*		"			"	

North Creek Analytical - Portland

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-05 Water B-33 Sampled: 06/22/05 16:15										R-05
Acenaphthene	EPA 8270m	3.00	----	1.00	ug/l	10x	5061186	06/28/05	07/07/05 21:31	
Acenaphthylene	"	ND	----	1.50	"	"	"	"	"	R-03
Anthracene	"	ND	----	1.00	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	1.00	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	1.00	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	1.00	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	1.00	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	1.00	"	"	"	"	"	
Chrysene	"	ND	----	1.00	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	2.00	"	"	"	"	"	
Fluoranthene	"	ND	----	1.00	"	"	"	"	"	
Fluorene	"	10.0	----	1.00	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	R-03
Phenanthrene	"	10.2	----	1.00	"	"	"	"	"	
Pyrene	"	ND	----	1.00	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: NR*		*Limits: 25 - 125 %*	"				"	S-02
Pyrene-d10		*79.6%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*92.8%*		*10 - 125 %*	"				"	
P5F0997-06 Water CR-3 Sampled: 06/22/05 17:20										
Acenaphthene	EPA 8270m	ND	----	0.100	ug/l	1x	5061186	06/28/05	07/07/05 23:38	
Acenaphthylene	"	ND	----	0.100	"	"	"	"	"	
Anthracene	"	ND	----	0.100	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.100	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.100	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.100	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.100	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.100	"	"	"	"	"	
Chrysene	"	ND	----	0.100	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.200	"	"	"	"	"	
Fluoranthene	"	ND	----	0.100	"	"	"	"	"	
Fluorene	"	ND	----	0.100	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.100	"	"	"	"	"	
Naphthalene	"	ND	----	0.100	"	"	"	"	"	
Phenanthrene	"	ND	----	0.100	"	"	"	"	"	
Pyrene	"	ND	----	0.100	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 56.3%*		*Limits: 25 - 125 %*	"				"	
Pyrene-d10		*63.4%*		*23 - 150 %*	"				"	
Benzo (a) pyrene-d12		*72.7%*		*10 - 125 %*	"				"	

North Creek Analytical - Portland

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0997-07 Water CR-26 Sampled: 06/22/05 16:53										
Acenaphthene	EPA 8270m	ND	—	0.100	ug/l	1x	5061186	06/28/05	07/08/05 00:25	
Acenaphthylene	"	ND	—	0.100	"	"	"	"	"	
Anthracene	"	ND	—	0.100	"	"	"	"	"	
Benzo (a) anthracene	"	ND	—	0.100	"	"	"	"	"	
Benzo (a) pyrene	"	ND	—	0.100	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	—	0.100	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	—	0.100	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	—	0.100	"	"	"	"	"	
Chrysene	"	ND	—	0.100	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	—	0.200	"	"	"	"	"	
Fluoranthene	"	ND	—	0.100	"	"	"	"	"	
Fluorene	"	0.264	—	0.100	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.100	"	"	"	"	"	
Naphthalene	"	ND	—	0.100	"	"	"	"	"	
Phenanthrene	"	ND	—	0.100	"	"	"	"	"	
Pyrene	"	ND	—	0.100	"	"	"	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 76.1%*		*Limits: 25 - 125 %*		"			"	
Pyrene-d10		*74.8%*		*23 - 150 %*		"			"	
Benzo (a) pyrene-d12		*81.1%*		*10 - 125 %*		"			"	

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5070371 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5070371-BLK1)								Extracted: 07/11/05 14:15						
Arsenic	EPA 6020	ND	—	0.00100	mg/l	1x	—	—	—	—	—	—	07/12/05 23:58	
Barium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Cadmium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Chromium	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Copper	"	ND	—	0.00200	"	"	—	—	—	—	—	—	"	
Lead	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Selenium	"	ND	—	0.00200	"	"	—	—	—	—	—	—	"	
Silver	"	ND	—	0.00100	"	"	—	—	—	—	—	—	"	
Zinc	"	ND	—	0.00500	"	"	—	—	—	—	—	—	"	
LCS (5070371-BS1)								Extracted: 07/11/05 14:15						
Arsenic	EPA 6020	0.0995	—	0.00100	mg/l	1x	—	0.100	99.5%	(80-120)	—	—	07/13/05 00:05	
Barium	"	0.101	—	0.00100	"	"	—	"	101%	"	—	—	"	
Cadmium	"	0.0969	—	0.00100	"	"	—	"	96.9%	"	—	—	"	
Chromium	"	0.106	—	0.00100	"	"	—	"	106%	"	—	—	"	
Copper	"	0.101	—	0.00200	"	"	—	"	101%	"	—	—	"	
Lead	"	0.0999	—	0.00100	"	"	—	"	99.9%	"	—	—	"	
Selenium	"	0.0460	—	0.00200	"	"	—	0.0500	96.0%	"	—	—	"	
Silver	"	0.0501	—	0.00100	"	"	—	"	100%	"	—	—	"	
Zinc	"	0.0935	—	0.00500	"	"	—	0.100	93.5%	"	—	—	"	
LCS Dup (5070371-BSD1)								Extracted: 07/11/05 14:15						
Arsenic	EPA 6020	0.0998	—	0.00100	mg/l	1x	—	0.100	99.8%	(80-120)	0.301%	(20)	07/13/05 00:12	
Barium	"	0.101	—	0.00100	"	"	—	"	101%	"	0.00%	"	"	
Cadmium	"	0.0975	—	0.00100	"	"	—	"	97.5%	"	0.617%	"	"	
Chromium	"	0.106	—	0.00100	"	"	—	"	106%	"	0.00%	"	"	
Copper	"	0.100	—	0.00200	"	"	—	"	100%	"	0.995%	"	"	
Lead	"	0.100	—	0.00100	"	"	—	"	100%	"	0.100%	"	"	
Selenium	"	0.0476	—	0.00200	"	"	—	0.0500	95.2%	"	0.837%	"	"	
Silver	"	0.0489	—	0.00100	"	"	—	"	97.8%	"	2.42%	"	"	
Zinc	"	0.0946	—	0.00500	"	"	—	0.100	94.6%	"	1.17%	"	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5070371 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (5070371-DUP1)				QC Source: P5F0997-01				Extracted: 07/11/05 14:15						
Arsenic	EPA 6020	0.0248	—	0.00100	mg/l	1x	0.0268	—	—	—	7.75%	(20)	07/13/05 00:32	
Barium	"	0.0479	—	0.00100	"	"	0.0481	—	—	—	0.417%	"	"	
Cadmium	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	"	
Chromium	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	"	
Copper	"	0.00221	—	0.00200	"	"	0.00225	—	—	—	1.79%	"	"	
Lead	"	ND	—	0.00100	"	"	ND	—	—	—	24.5%	"	"	Q-06
Selenium	"	ND	—	0.00200	"	"	ND	—	—	—	NR	"	"	
Silver	"	ND	—	0.00100	"	"	ND	—	—	—	NR	"	"	
Zinc	"	0.0178	—	0.00500	"	"	0.0187	—	—	—	4.93%	"	"	
Matrix Spike (5070371-MS1)				QC Source: P5F0997-02				Extracted: 07/11/05 14:15						
Arsenic	EPA 6020	0.128	—	0.00100	mg/l	1x	0.0269	0.100	101%	(75-125)	—	—	07/13/05 01:39	
Barium	"	0.206	—	0.00100	"	"	0.106	"	100%	"	—	—	"	
Cadmium	"	0.0946	—	0.00100	"	"	ND	"	94.6%	"	—	—	"	
Chromium	"	0.116	—	0.00100	"	"	0.00978	"	106%	"	—	—	"	
Copper	"	0.109	—	0.00200	"	"	0.0123	"	96.7%	"	—	—	"	
Lead	"	0.0968	—	0.00100	"	"	0.00543	"	91.4%	"	—	—	"	
Selenium	"	0.0474	—	0.00200	"	"	ND	0.0500	94.8%	"	—	—	"	
Silver	"	0.0475	—	0.00100	"	"	0.0000930	"	94.8%	"	—	—	"	
Zinc	"	0.120	—	0.00500	"	"	0.0258	0.100	94.2%	"	—	—	"	
Matrix Spike (5070371-MS2)				QC Source: P5F0997-03				Extracted: 07/11/05 14:15						
Arsenic	EPA 6020	0.148	—	0.00100	mg/l	1x	0.0478	0.100	100%	(75-125)	—	—	07/13/05 02:06	
Barium	"	0.325	—	0.00100	"	"	0.223	"	102%	"	—	—	"	
Cadmium	"	0.0968	—	0.00100	"	"	ND	"	96.8%	"	—	—	"	
Chromium	"	0.137	—	0.00100	"	"	0.0265	"	110%	"	—	—	"	
Copper	"	0.136	—	0.00200	"	"	0.0370	"	99.0%	"	—	—	"	
Lead	"	0.102	—	0.00100	"	"	0.00922	"	92.8%	"	—	—	"	
Selenium	"	0.0495	—	0.00200	"	"	ND	0.0500	99.0%	"	—	—	"	
Silver	"	0.0476	—	0.00100	"	"	0.000120	"	95.0%	"	—	—	"	
Zinc	"	0.160	—	0.00500	"	"	0.0633	0.100	96.7%	"	—	—	"	

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Sarah Passerge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5070371 Water Preparation Method: EPA 200/3005

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Post Spike (5070371-PS1)				QC Source: P5F0997-01				Extracted: 07/11/05 14:15						
Arsenic	EPA 6020	0.130	—		ug/ml	1x	0.0268	0.100	103%	(75-125)	—	—	07/13/05 00:45	
Barium	"	0.144	—		"	"	0.0481	"	95.9%	"	—	—	"	
Cadmium	"	0.0948	—		"	"	ND	"	94.8%	"	—	—	"	
Chromium	"	0.106	—		"	"	ND	"	106%	"	—	—	"	
Copper	"	0.0998	—		"	"	0.00225	"	97.6%	"	—	—	"	
Lead	"	0.0937	—		"	"	0.000412	"	93.3%	"	—	—	"	
Selenium	"	0.0497	—		"	"	ND	0.0500	99.4%	"	—	—	"	
Silver	"	0.0464	—		"	"	ND	"	92.8%	"	—	—	"	
Zinc	"	0.111	—		"	"	0.0187	0.100	92.3%	"	—	—	"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Total Mercury per EPA Method 7470A - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061144 Water Preparation Method: EPA 7470

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5061144-BLK1)								Extracted: 06/27/05 09:14						
Mercury	EPA 7470A	ND	--	0.000200	mg/l	1x	--	--	--	--	--	--	06/27/05 13:26	
LCS (5061144-BS1)								Extracted: 06/27/05 09:14						
Mercury	EPA 7470A	0.00497	--	0.000200	mg/l	1x	--	0.00500	99.4%	(85-115)	--	--	06/27/05 13:28	
LCS Dup (5061144-BSD1)								Extracted: 06/27/05 09:14						
Mercury	EPA 7470A	0.00482	--	0.000200	mg/l	1x	--	0.00500	96.4%	(85-115)	3.06%	(20)	06/27/05 13:30	
Duplicate (5061144-DUP1)				QC Source: P5F0995-01				Extracted: 06/27/05 09:14						
Mercury	EPA 7470A	ND	--	0.000200	mg/l	1x	ND	--	--	--	NR	(20)	06/27/05 13:33	
Matrix Spike (5061144-MS1)				QC Source: P5F0995-01				Extracted: 06/27/05 09:14						
Mercury	EPA 7470A	0.00482	--	0.000200	mg/l	1x	ND	0.00500	96.4%	(75-125)	--	--	06/27/05 13:35	
Matrix Spike Dup (5061144-MSD1)				QC Source: P5F0995-01				Extracted: 06/27/05 09:14						
Mercury	EPA 7470A	0.00453	--	0.000200	mg/l	1x	ND	0.00500	90.6%	(75-125)	6.20%	(20)	06/27/05 13:37	

North Creek Analytical - Portland

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-GML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061126 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5061126-BLK1)								Extracted: 06/25/05 08:26						
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	—	—	—	—	—	—	06/25/05 13:11	
Benzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromochloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromodichloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromoform	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromomethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
2-Butanone	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	
n-Butylbenzene	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
sec-Butylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
tert-Butylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Carbon disulfide	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloroform	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloromethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Dibromochloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Dibromomethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	—	—	—	—	—	—	"	
2-Hexanone	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061126 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5061126-BLK1)									Extracted: 06/25/05 08:26					
Isopropylbenzene	EPA 8260B	ND	—	2.00	ug/l	1x	—	—	—	—	—	—	06/25/05 13:11	
p-Isopropyltoluene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Methylene chloride	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
n-Propylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Styrene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Tetrachloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Trichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3,5-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Vinyl chloride	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
o-Xylene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
m,p-Xylene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 87.0%*			*Limits: 75-120%*	"							*06/25/05 13:11*	
1,2-DCA-d4		*106%*			*77-139%*	"							"	
Dibromofluoromethane		*100%*			*80-121%*	"							"	
Toluene-d8		*92.0%*			*80-120%*	"							"	

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061126 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (5061126-BS1)								Extracted: 06/25/05 08:26						
Benzene	EPA 8260B	20.0	—	1.00	ug/l	1x	—	20.0	100%	(80-120)	—	—	06/25/05 10:32	
Chlorobenzene	"	18.2	—	1.00	"	"	—	"	91.0%	(80-124)	—	—	"	
1,1-Dichloroethene	"	17.1	—	1.00	"	"	—	"	85.5%	(78-120)	—	—	"	
Toluene	"	18.0	—	1.00	"	"	—	"	90.0%	(80-124)	—	—	"	
Trichloroethene	"	19.3	—	1.00	"	"	—	"	96.5%	(80-132)	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 94.5%*			*Limits: 75-120%*	"							*06/25/05 10:32*	
1,2-DCA-d4		*108%*			*77-129%*	"							"	
Dibromofluoromethane		*104%*			*80-121%*	"							"	
Toluene-d8		*93.0%*			*80-120%*	"							"	
Matrix Spike (5061126-MS1)				QC Source: P5F0997-01				Extracted: 06/25/05 08:26						
Benzene	EPA 8260B	19.8	---	1.00	ug/l	1x	0.160	20.0	98.2%	(80-124)	—	—	06/25/05 10:58	
Chlorobenzene	"	19.3	---	1.00	"	"	ND	"	96.5%	(72.9-134)	—	—	"	
1,1-Dichloroethene	"	17.8	—	1.00	"	"	ND	"	89.0%	(79.3-127)	—	—	"	
Toluene	"	17.9	---	1.00	"	"	0.660	"	86.2%	(79.7-131)	--	—	"	
Trichloroethene	"	19.0	—	1.00	"	"	ND	"	95.0%	(68.4-130)	—	--	"	
Surrogate(s): 4-BFB		*Recovery: 94.0%*			*Limits: 75-120%*	"							*06/25/05 10:58*	
1,2-DCA-d4		*107%*			*77-129%*	"							"	
Dibromofluoromethane		*102%*			*80-121%*	"							"	
Toluene-d8		*89.5%*			*80-120%*	"							"	
Matrix Spike Dup (5061126-MSD1)				QC Source: P5F0997-01				Extracted: 06/25/05 08:26						
Benzene	EPA 8260B	20.0	—	1.00	ug/l	1x	0.160	20.0	99.2%	(80-124)	1.01%	(25)	06/25/05 11:25	
Chlorobenzene	"	19.5	---	1.00	"	"	ND	"	97.5%	(72.9-134)	1.03%	"	"	
1,1-Dichloroethene	"	17.9	—	1.00	"	"	ND	"	89.5%	(79.3-127)	0.560%	"	"	
Toluene	"	18.1	---	1.00	"	"	0.660	"	87.2%	(79.7-131)	1.11%	"	"	
Trichloroethene	"	19.2	---	1.00	"	"	ND	"	96.0%	(68.4-130)	1.05%	"	"	
Surrogate(s): 4-BFB		*Recovery: 93.5%*			*Limits: 75-120%*	"							*06/25/05 11:25*	
1,2-DCA-d4		*108%*			*77-129%*	"							"	
Dibromofluoromethane		*102%*			*80-121%*	"							"	
Toluene-d8		*91.0%*			*80-120%*	"							"	

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SAIC	Project Name:	CYX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061191 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5061191-BLK1)								Extracted: 06/28/05 08:39						
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	—	—	—	—	—	—	06/28/05 12:57	
Benzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromochloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromodichloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromoform	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromomethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
2-Butanone	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	
n-Butylbenzene	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
sec-Butylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
tert-Butylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Carbon disulfide	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloroform	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloromethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Dibromochloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Dibromomethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	—	—	—	—	—	—	"	
2-Hexanone	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061191 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5061191-BLK1)								Extracted: 06/28/05 08:39						
Isopropylbenzene	EPA 8260B	ND	—	2.00	ug/l	1x	—	—	—	—	—	—	06/28/05 12:57	
p-Isopropyltoluene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Methylene chloride	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
n-Propylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Styrene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Tetrachloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Trichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3,5-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Vinyl chloride	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
o-Xylene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
m,p-Xylene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 93.5%*			*Limits: 75-120%*	"							*06/28/05 12:57*	
1,2-DCA-d4		*104%*			*77-129%*	"							"	
Dibromofluoromethane		*93.0%*			*80-121%*	"							"	
Toluene-d8		*101%*			*80-120%*	"							"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061191 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (5061191-BS1)								Extracted: 06/28/05 08:39						
Benzene	EPA 8260B	20.5	—	1.00	ug/l	1x	–	20.0	102%	(80-120)	–	–	06/28/05 09:37	
Chlorobenzene	"	19.8	—	1.00	"	"	–	"	99.0%	(80-124)	–	–	"	
1,1-Dichloroethene	"	18.9	—	1.00	"	"	–	"	94.5%	(78-120)	–	–	"	
Toluene	"	19.8	—	1.00	"	"	–	"	99.0%	(80-124)	–	–	"	
Trichloroethene	"	20.8	—	1.00	"	"	–	"	104%	(80-132)	–	–	"	
Surrogate(s): 4-BFB		*Recovery: 96.5%*			*Limits: 75-120%*	"							*06/28/05 09:37*	
1,2-DCA-d4		*104%*			*77-129%*	"							"	
Dibromofluoromethane		*106%*			*80-121%*	"							"	
Toluene-d8		*102%*			*80-120%*	"							"	
Matrix Spike (5061191-MS1)					QC Source: P5F0938-01			Extracted: 06/28/05 08:39						
Benzene	EPA 8260B	20.8	—	1.00	ug/l	1x	ND	20.0	104%	(80-124)	–	–	06/28/05 10:04	
Chlorobenzene	"	20.3	—	1.00	"	"	ND	"	102%	(72.9-134)	–	–	"	
1,1-Dichloroethene	"	18.6	—	1.00	"	"	ND	"	93.0%	(79.3-127)	–	–	"	
Toluene	"	20.2	—	1.00	"	"	ND	"	101%	(79.7-131)	–	–	"	
Trichloroethene	"	21.1	—	1.00	"	"	ND	"	106%	(68.4-130)	–	–	"	
Surrogate(s): 4-BFB		*Recovery: 97.0%*			*Limits: 75-120%*	"							*06/28/05 10:04*	
1,2-DCA-d4		*106%*			*77-129%*	"							"	
Dibromofluoromethane		*106%*			*80-121%*	"							"	
Toluene-d8		*100%*			*80-120%*	"							"	
Matrix Spike Dup (5061191-MSD1)					QC Source: P5F0938-01			Extracted: 06/28/05 08:39						
Benzene	EPA 8260B	21.2	—	1.00	ug/l	1x	ND	20.0	106%	(80-124)	1.90%	(25)	06/28/05 10:31	
Chlorobenzene	"	20.2	—	1.00	"	"	ND	"	101%	(72.9-134)	0.494%	"	"	
1,1-Dichloroethene	"	16.9	—	1.00	"	"	ND	"	84.5%	(79.3-127)	9.58%	"	"	
Toluene	"	17.4	—	1.00	"	"	ND	"	87.0%	(79.7-131)	14.9%	"	"	
Trichloroethene	"	20.9	—	1.00	"	"	ND	"	104%	(68.4-130)	0.952%	"	"	
Surrogate(s): 4-BFB		*Recovery: 98.0%*			*Limits: 75-120%*	"							*06/28/05 10:31*	
1,2-DCA-d4		*108%*			*77-129%*	"							"	
Dibromofluoromethane		*108%*			*80-121%*	"							"	
Toluene-d8		*98.5%*			*80-120%*	"							"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

BTEX Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061126 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5061126-BLK1)								Extracted: 06/25/05 08:26						
Benzene	EPA 8260B	ND	—	0.500	ug/l	1x	—	—	—	—	—	—	06/25/05 13:11	
Toluene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	0.500	"	"	—	—	—	—	—	—	"	
Xylenes (total)	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 87.0%*		*Limits: 75-120%*		"							*06/25/05 13:11*	
1,2-DCA-d4		*100%*		*77-129%*		"							"	
Dibromofluoromethane		*100%*		*80-121%*		"							"	
Toluene-d8		*92.0%*		*80-120%*		"							"	
LCS (5061126-BS1)								Extracted: 06/25/05 08:26						
Benzene	EPA 8260B	20.0	—	0.500	ug/l	1x	—	20.0	100%	(80-120)	—	—	06/25/05 10:32	
Toluene	"	18.0	—	0.500	"	"	—	"	90.0%	(80-124)	—	—	"	
Ethylbenzene	"	19.8	—	0.500	"	"	—	"	99.0%	(80-120)	—	—	"	
Xylenes (total)	"	59.4	—	1.00	"	"	—	60.0	99.0%	(73-124)	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 94.5%*		*Limits: 75-120%*		"							*06/25/05 10:32*	
1,2-DCA-d4		*108%*		*77-129%*		"							"	
Dibromofluoromethane		*104%*		*80-121%*		"							"	
Toluene-d8		*93.0%*		*80-120%*		"							"	
Matrix Spike (5061126-MS1)				QC Source: P5F0997-01				Extracted: 06/25/05 08:26						
Benzene	EPA 8260B	19.8	—	0.500	ug/l	1x	0.160	20.0	98.2%	(80-124)	—	—	06/25/05 10:58	
Toluene	"	17.9	—	0.500	"	"	0.660	"	86.2%	(79.7-131)	—	—	"	
Ethylbenzene	"	19.2	—	0.500	"	"	ND	"	96.0%	(80-124)	—	—	"	
Xylenes (total)	"	52.3	—	1.00	"	"	0.520	60.0	86.3%	(44.6-154)	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 94.0%*		*Limits: 75-120%*		"							*06/25/05 10:58*	
1,2-DCA-d4		*107%*		*77-129%*		"							"	
Dibromofluoromethane		*102%*		*80-121%*		"							"	
Toluene-d8		*89.5%*		*80-120%*		"							"	
Matrix Spike Dup (5061126-MSD1)				QC Source: P5F0997-01				Extracted: 06/25/05 08:26						
Benzene	EPA 8260B	20.0	—	0.500	ug/l	1x	0.160	20.0	99.2%	(80-124)	1.01%	(25)	06/25/05 11:25	
Toluene	"	18.1	—	0.500	"	"	0.660	"	87.2%	(79.7-131)	1.11%	"	"	
Ethylbenzene	"	19.2	—	0.500	"	"	ND	"	96.0%	(80-124)	0.00%	"	"	
Xylenes (total)	"	51.3	—	1.00	"	"	0.520	60.0	84.6%	(44.6-154)	1.93%	"	"	
Surrogate(s): 4-BFB		*Recovery: 93.5%*		*Limits: 75-120%*		"							*06/25/05 11:25*	
1,2-DCA-d4		*108%*		*77-129%*		"							"	
Dibromofluoromethane		*102%*		*80-121%*		"							"	
Toluene-d8		*91.0%*		*80-120%*		"							"	

North Creek Analytical - Portland

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Sarah Passange, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061186 Water Preparation Method: EPA 3520/600 Series

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5061186-BLK1)									Extracted: 06/28/05 13:40					
Acenaphthene	EPA 8270m	ND	—	0.100	ug/l	1x	—	—	—	—	—	—	07/06/05 23:15	
Acenaphthylene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Anthracene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (a) anthracene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (a) pyrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (b) fluoranthene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (ghi) perylene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Benzo (k) fluoranthene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Chrysene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Dibenzo (a,h) anthracene	"	ND	—	0.200	"	"	—	—	—	—	—	—	"	
Fluoranthene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Fluorene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Indeno (1,2,3-cd) pyrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Phenanthrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Pyrene	"	ND	—	0.100	"	"	—	—	—	—	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery: 55.2%*			*Limits: 25-125%*	"							*07/06/05 23:15*	
Pyrene-d10		*85.6%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*84.0%*			*10-125%*	"							"	
LCS (5061186-BS1)									Extracted: 06/28/05 13:40					
Acenaphthene	EPA 8270m	1.54	—	0.100	ug/l	1x	—	2.50	61.6%	(26-135)	—	—	07/06/05 22:14	
Benzo (a) pyrene	"	2.09	—	0.100	"	"	—	"	83.6%	(38-137)	—	—	"	
Pyrene	"	2.24	—	0.100	"	"	—	"	89.6%	(33-133)	—	—	"	
Surrogate(s): Fluorene-d10		*Recovery: 60.4%*			*Limits: 25-125%*	"							*07/06/05 22:14*	
Pyrene-d10		*94.0%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*86.8%*			*10-125%*	"							"	
LCS Dup (5061186-BSD1)									Extracted: 06/28/05 13:40					
Acenaphthene	EPA 8270m	1.58	—	0.100	ug/l	1x	—	2.50	63.2%	(26-135)	2.56%	(60)	07/06/05 22:45	
Benzo (a) pyrene	"	2.12	—	0.100	"	"	—	"	84.8%	(38-137)	1.43%	"	"	
Pyrene	"	2.24	—	0.100	"	"	—	"	89.6%	(33-133)	0.00%	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 63.6%*			*Limits: 25-125%*	"							*07/06/05 22:45*	
Pyrene-d10		*94.0%*			*23-150%*	"							"	
Benzo (a) pyrene-d12		*88.8%*			*10-125%*	"							"	

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/14/05 16:10

Notes and Definitions

Report Specific Notes:

Q-06 - RPD is not applicable for analyte concentrations less than 5 times the MRL.

R-03 - The reporting limit for this analyte was raised due to matrix interference.

R-05 - Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.

S-02 - The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR / NA - Not Reported / Not Available

dry - Sample results reported on a dry weight basis. Reporting Limits are corrected for %Solids when %Solids are <50%.

wet - Sample results and reporting limits reported on a wet weight basis (as received).

RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

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July 05, 2005

Kevin Schleh
SAIC
1220 SW Morrison Suite 500
Portland, OR 97205

RE: CVX Willbridge / Chevron #100-1868

Enclosed are the results of analyses for samples received by the laboratory on 06/23/05 14:40.
The following list is a summary of the NCA Work Orders contained in this report.
If you have any questions concerning this report, please feel free to contact me.

Work	Project	ProjectNumber
P5F0999	CVX Willbridge / Chevron #100-1868	100-1868-OML

Thank You,

Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/05/05 17:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-30	P5F0999-01	Water	06/22/05 14:43	06/23/05 14:40

North Creek Analytical - Portland

Sarah Passarge, Project Manager

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SAIC	Project Name:	**CVX Willbridge / Chevron #100-1868**	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/05/05 17:57

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0999-01 Water B-30 Sampled: 06/22/05 14:43										
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	5061082	06/24/05	06/24/05 19:53	
Benzene	"	**19.6**	—	1.00	"	"	"	"	"	
Bromobenzene	"	ND	—	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	—	1.00	"	"	"	"	"	
Bromoform	"	ND	—	1.00	"	"	"	"	"	
Bromomethane	"	ND	—	5.00	"	"	"	"	"	
2-Butanone	"	ND	—	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	—	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	—	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	—	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	—	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Chloroethane	"	ND	—	1.00	"	"	"	"	"	
Chloroform	"	ND	—	1.00	"	"	"	"	"	
Chloromethane	"	ND	—	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	"	"	"	
Dibromomethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	"	"	"	
Ethylbenzene	"	**1.06**	—	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	"	"	"	
2-Hexanone	"	ND	—	10.0	"	"	"	"	"	
Isopropylbenzene	"	**6.06**	—	2.00	"	"	"	"	"	

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Sarah Passarge, Project Manager

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/05/05 17:57

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
P5F0999-01 Water B-30 Sampled: 06/22/05 14:43										
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	5061082	06/24/05	06/24/05 19:53	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	**6.88**	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	**4.53**	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	**7.80**	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		*Recovery: 91.0%*		*Limits: 75 - 120 %*		"			"	
1,2-DCA-d4		*99.0%*		*77 - 129 %*		"			"	
Dibromofluoromethane		*95.5%*		*80 - 121 %*		"			"	
Toluene-d8		*93.0%*		*80 - 120 %*		"			"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/05/05 17:57

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061082 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5061082-BLK1)								Extracted: 06/24/05 09:18						
Acetone	EPA 8260B	ND	—	25.0	ug/l	1x	—	—	—	—	—	—	06/24/05 14:07	
Benzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromochloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromodichloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromoform	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Bromomethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
2-Butanone	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	
n-Butylbenzene	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
sec-Butylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
tert-Butylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Carbon disulfide	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	
Carbon tetrachloride	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloroform	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Chloromethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
2-Chlorotoluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
4-Chlorotoluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dibromo-3-chloropropane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Dibromochloromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dibromoethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Dibromomethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,4-Dichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Dichlorodifluoromethane	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
cis-1,2-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
trans-1,2-Dichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
2,2-Dichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
cis-1,3-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
trans-1,3-Dichloropropene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Ethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Hexachlorobutadiene	"	ND	—	4.00	"	"	—	—	—	—	—	—	"	
2-Hexanone	"	ND	—	10.0	"	"	—	—	—	—	—	—	"	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sarah Passange, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/05/05 17:57

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061082 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (5061082-BLK1)									Extracted: 06/24/05 09:18					
Isopropylbenzene	EPA 8260B	ND	—	2.00	ug/l	1x	—	—	—	—	—	—	06/24/05 14:07	
p-Isopropyltoluene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
4-Methyl-2-pentanone	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Methyl tert-butyl ether	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Methylene chloride	"	ND	—	5.00	"	"	—	—	—	—	—	—	"	
Naphthalene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
n-Propylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Styrene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,1,2-Tetrachloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,2,2-Tetrachloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Tetrachloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Toluene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,3-Trichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trichlorobenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,1-Trichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,1,2-Trichloroethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Trichloroethene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Trichlorofluoromethane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,3-Trichloropropane	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,2,4-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
1,3,5-Trimethylbenzene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
Vinyl chloride	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
o-Xylene	"	ND	—	1.00	"	"	—	—	—	—	—	—	"	
m,p-Xylene	"	ND	—	2.00	"	"	—	—	—	—	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 88.0%*			*Limits: 75-120%*	"							*06/24/05 14:07*	
1,2-DCA-d4		*108%*			*77-129%*	"							"	
Dibromofluoromethane		*102%*			*80-121%*	"							"	
Toluene-d8		*91.5%*			*80-120%*	"							"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/05/05 17:57

Volatile Organic Compounds per EPA Method 8260B – Laboratory Quality Control Results

North Creek Analytical - Portland

QC Batch: 5061082 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (5061082-BS1)								Extracted: 06/24/05 09:18						
Benzene	EPA 8260B	19.3	—	1.00	ug/l	1x	—	20.0	96.5%	(80-120)	—	—	06/24/05 11:54	
Chlorobenzene	"	18.1	—	1.00	"	"	—	"	90.5%	(80-124)	—	—	"	
1,1-Dichloroethene	"	16.6	—	1.00	"	"	—	"	83.0%	(78-120)	—	—	"	
Toluene	"	18.0	—	1.00	"	"	—	"	90.0%	(80-124)	—	—	"	
Trichloroethene	"	18.7	—	1.00	"	"	—	"	93.5%	(80-132)	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 94.5%*			*Limits: 75-120%*	"							*06/24/05 11:54*	
1,2-DCA-d4		*104%*			*77-129%*	"							"	
Dibromofluoromethane		*99.0%*			*80-121%*	"							"	
Toluene-d8		*93.5%*			*80-120%*	"							"	
Matrix Spike (5061082-MS1)				QC Source: P5F0920-01				Extracted: 06/24/05 09:18						
Benzene	EPA 8260B	19.5	—	1.00	ug/l	1x	0.270	20.0	96.2%	(80-124)	—	—	06/24/05 12:21	
Chlorobenzene	"	18.8	—	1.00	"	"	ND	"	94.0%	(72.9-134)	—	—	"	
1,1-Dichloroethene	"	18.2	—	1.00	"	"	ND	"	91.0%	(79.3-127)	—	—	"	
Toluene	"	18.2	—	1.00	"	"	ND	"	91.0%	(79.7-131)	—	—	"	
Trichloroethene	"	18.6	—	1.00	"	"	ND	"	93.0%	(68.4-130)	—	—	"	
Surrogate(s): 4-BFB		*Recovery: 92.5%*			*Limits: 75-120%*	"							*06/24/05 12:21*	
1,2-DCA-d4		*103%*			*77-129%*	"							"	
Dibromofluoromethane		*98.0%*			*80-121%*	"							"	
Toluene-d8		*91.5%*			*80-120%*	"							"	
Matrix Spike Dup (5061082-MSD1)				QC Source: P5F0920-01				Extracted: 06/24/05 09:18						
Benzene	EPA 8260B	19.4	—	1.00	ug/l	1x	0.270	20.0	95.6%	(80-124)	0.514%	(25)	06/24/05 12:48	
Chlorobenzene	"	19.0	—	1.00	"	"	ND	"	95.0%	(72.9-134)	1.06%	"	"	
1,1-Dichloroethene	"	18.3	—	1.00	"	"	ND	"	91.5%	(79.3-127)	0.548%	"	"	
Toluene	"	18.4	—	1.00	"	"	ND	"	92.0%	(79.7-131)	1.09%	"	"	
Trichloroethene	"	18.3	—	1.00	"	"	ND	"	91.5%	(68.4-130)	1.63%	"	"	
Surrogate(s): 4-BFB		*Recovery: 92.0%*			*Limits: 75-120%*	"							*06/24/05 12:48*	
1,2-DCA-d4		*101%*			*77-129%*	"							"	
Dibromofluoromethane		*98.5%*			*80-121%*	"							"	
Toluene-d8		*93.5%*			*80-120%*	"							"	

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SAIC	Project Name:	CVX Willbridge / Chevron #100-1868	
1220 SW Morrison Suite 500	Project Number:	100-1868-OML	Report Created:
Portland, OR 97205	Project Manager:	Kevin Schleh	07/05/05 17:57

Notes and Definitions

Report Specific Notes:

None

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR / NA - Not Reported / Not Available

dry - Sample results reported on a dry weight basis. Reporting Limits are corrected for %Solids when %Solids are <50%.

wet - Sample results and reporting limits reported on a wet weight basis (as received).

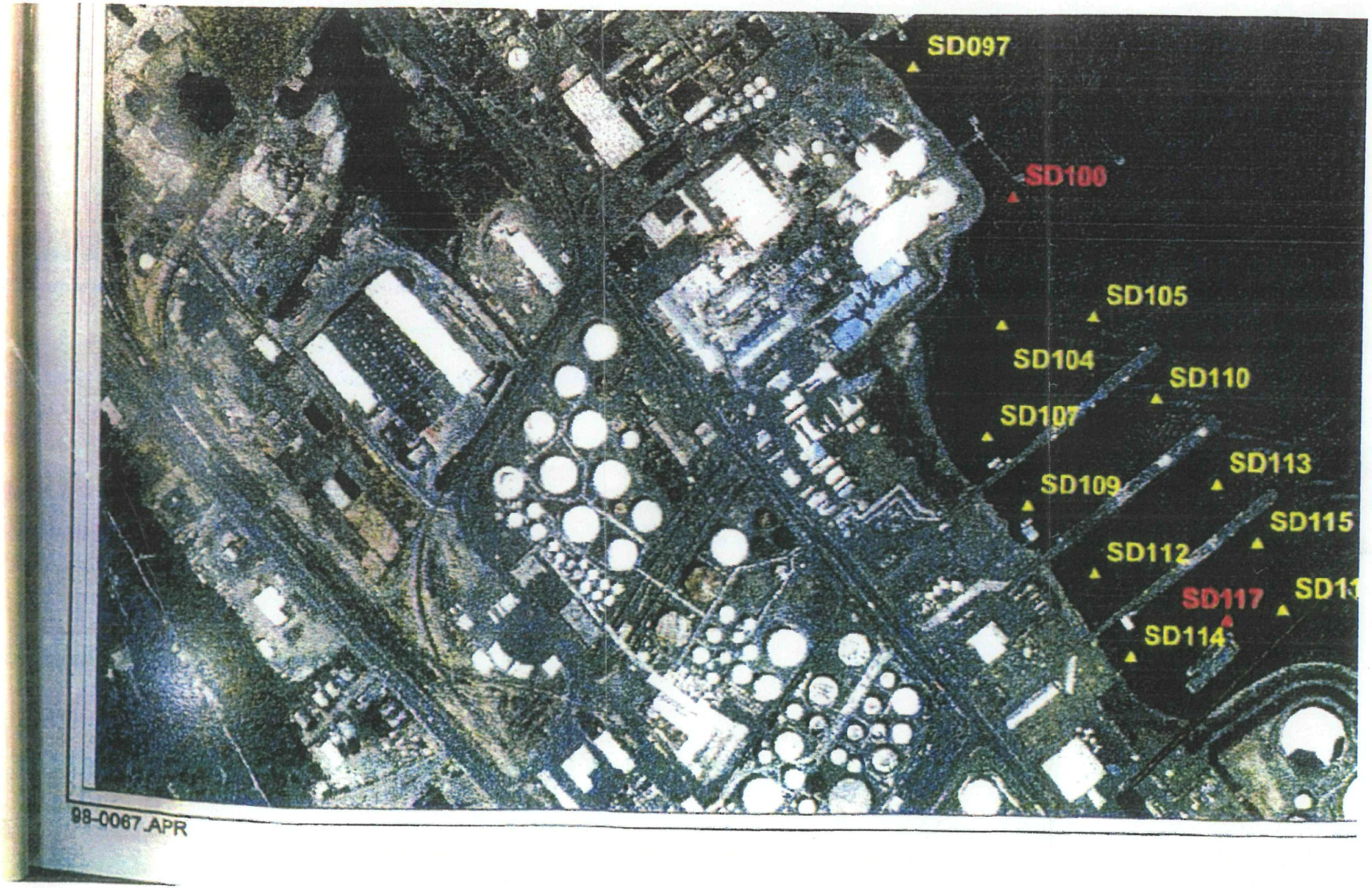
RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.


SD097
SD100
SD105
SD104
SD110
SD107
SD113
SD109
SD115
SD112
SD117
SD114
98-0067 APR

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Total Inorganics

Constituent	Station ID:	SD098	SD099	SD100	SD101	SD102	SD103
	Sample ID:	WR-SD-SD098-0000	WR-SD-SD099-0000	WR-SD-SD100-0000	WR-SD-SD101-0000	WR-SD-SD102-0000	WR-SD-SD103-0000
	Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Inorganics (Total) (MG/KG)							
Aluminum		38900.0000	45000.0000	27000.0000	41400.0000	45500.0000	38500.0000
Antimony		8.0000 J	8.0000 J	4.0000 UJ	5.0000 UJ	5.0000 UJ	5.0000 UJ
Arsenic		5.0000 U	5.0000 U	4.0000 U	5.0000 U	5.0000 U	5.0000 U
Barium		190.0000	190.0000	126.0000	178.0000	180.0000	178.0000
Beryllium		0.6000	0.6000	0.4700	0.6700	0.7000	0.7000
Cadmium		0.3000	0.3000	0.2000	0.3000	0.4000	0.5000
Calcium		8340.0000	9190.0000	5940.0000	8930.0000	8530.0000	8520.0000
Chromium		37.1000	40.7000	27.6000	36.8000	37.9000	38.0000
Cobalt		19.1000 J	19.4000 J	12.2000	18.0000	19.1000	18.8000 J
Copper		44.9000	49.6000	23.2000	44.3000	45.8000	54.5000
Iron		43200.0000	45200.0000	29200.0000	42100.0000	44200.0000	43700.0000
Lead		15.0000	19.0000	11.0000	9.0000	9.0000	18.0000
Magnesium		6980.0000	7300.0000	4390.0000	7260.0000	7860.0000	7170.0000
Manganese		725.0000	658.0000	377.0000	664.0000	719.0000	638.0000
Mercury		0.0500	0.0700	0.0400	0.0500	0.0600	0.0800
Nickel		29.0000	30.0000	18.9000	29.5000	31.0000	30.0000
Potassium		1270.0000	1570.0000	1160.0000	1380.0000	1400.0000	1210.0000
Selenium		15.0000	11.0000	9.0000	12.0000	14.0000	13.0000
Silver		0.8000	0.8000	0.8000	1.1000	1.1000	1.1000
Sodium		1140.0000	1460.0000	979.0000	1280.0000	1110.0000	1030.0000
Thallium		17.0000	14.0000	8.0000	8.0000	10.0000	5.0000 U
Titanium		2010.0000	2190.0000		2040.0000	2140.0000	1910.0000
Vanadium		106.0000	112.0000	73.7000	104.0000	108.0000	106.0000
Zinc		91.2000 J	104.0000 J	64.6000	98.1000	90.5000	113.0000 J

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009972

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Total Inorganics

Station ID:	SD104	SD105	SD106	SD107	SD108	SD109
Sample ID:	WR-SD-SD104-0000	WR-SD-SD105-0000	WR-SD-SD106-0000	WR-SD-SD107-0000	WR-SD-SD108-0000	WR-SD-SD109-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Inorganics (Total) (MG/KG)						
Aluminum	29200.0000	40700.0000	43000.0000	42300.0000	44900.0000	41700.0000
Antimony	5.0000 UJ	6.0000 UJ	5.0000 UJ	6.0000 UJ	5.0000 UJ	6.0000 UJ
Arsenic	5.0000 U	6.0000 U	5.0000 U	6.0000 U	5.0000 U	6.0000 U
Barium	134.0000	176.0000	180.0000	179.0000	183.0000	180.0000
Beryllium	0.4900	0.7000	0.6800	0.7000	0.7000	0.6000
Cadmium	0.3000	0.3000	0.3000	0.5000	0.4000	0.5000
Calcium	4430.0000 J	8230.0000 J	9030.0000	8380.0000 J	8900.0000	8370.0000 J
Chromium	28.0000	37.5000	37.6000	38.3000	38.2000	37.7000
Cobalt	12.7000	18.5000	18.2000	18.2000	18.2000	18.7000
Copper	30.8000	43.3000	47.8000	44.8000	50.6000	47.6000
Iron	32800.0000	42900.0000	42800.0000	43600.0000	43500.0000	43700.0000
Lead	10.0000	11.0000	10.0000	16.0000	9.0000	16.0000
Magnesium	4960.0000	6930.0000	7290.0000	7150.0000	7360.0000	7360.0000
Manganese	277.0000	688.0000	686.0000	676.0000	710.0000	721.0000
Mercury	0.0700	0.0600	0.0500	0.0700	0.0500	0.0600
Nickel	20.7000	29.0000	29.8000	29.0000	30.0000	30.0000
Potassium	1060.0000	1260.0000	1470.0000	1360.0000	1560.0000	1300.0000
Selenium	10.0000	13.0000	13.0000	11.0000	18.0000	15.0000
Silver	0.9000	1.2000	1.1000	0.9000	1.1000	0.9000
Sodium	21500.0000	1410.0000	1310.0000	1120.0000	1310.0000	1010.0000
Thallium	5.0000	10.0000	10.0000	6.0000	11.0000	10.0000
Titanium			2060.0000		2120.0000	
Vanadium	79.0000	107.0000	106.0000	109.0000	108.0000	108.0000
Zinc	69.5000	97.1000	94.0000	108.0000	92.8000	112.0000

A blank cell indicates analysis was not performed or a sample was not collected

COPPOR00009973

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Total Inorganics

Station ID:	SD110	SD111	SD112	SD113	SD114	SD115
Sample ID:	WR-SD-SD110-0000	WR-SD-SD111-0000	WR-SD-SD112-0000	WR-SD-SD113-0000	WR-SD-SD114-0000	WR-SD-SD115-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Inorganics (Total) (MG/KG)						
Aluminum	42500.0000	43400.0000	42800.0000	43700.0000	15800.0000	43800.0000
Antimony	6.0000 UJ	5.0000 UJ	5.0000 UJ	6.0000 UJ	3.0000 UJ	5.0000 UJ
Arsenic	6.0000 U	5.0000 U	5.0000 U	6.0000 U	3.0000 U	5.0000 U
Barium	188.0000	180.0000	183.0000	190.0000	113.0000	187.0000
Beryllium	0.7000	0.7000	0.7000	0.7000	0.3300	0.7000
Cadmium	0.5000	0.4000	0.5000	0.4000	0.7000	0.4000
Calcium	8630.0000 J	8700.0000	8270.0000	8690.0000	5370.0000	8810.0000
Chromium	37.7000	37.3000	37.5000	38.9000	24.3000	38.5000
Cobalt	19.8000	18.5000	18.8000	19.5000	13.3000	19.9000
Copper	48.2000	49.5000	46.9000	45.9000	28.7000	45.1000
Iron	43800.0000	43200.0000	43400.0000	44100.0000	31700.0000	43600.0000
Lead	14.0000	12.0000	14.0000	13.0000	47.0000	14.0000
Magnesium	7520.0000	7350.0000	7360.0000	7520.0000	3720.0000	7520.0000
Manganese	836.0000	727.0000	715.0000	801.0000	393.0000	770.0000
Mercury	0.0700	0.0600	0.0600	0.0700	0.0200	0.0600
Nickel	31.0000	30.0000	29.0000	31.0000	26.5000	31.0000
Potassium	1300.0000	1460.0000	1350.0000	1350.0000	690.0000	1400.0000
Selenium	14.0000	14.0000	13.0000	15.0000	9.0000	11.0000
Silver	0.8000	1.2000	0.7000	0.8000	0.4000	0.8000
Sodium	1010.0000	1200.0000	1060.0000 J	1120.0000 J	778.0000 J	1170.0000 J
Thallium	11.0000	10.0000	8.0000	11.0000	7.0000	10.0000
Titanium		2030.0000				
Vanadium	109.0000	105.0000	109.0000	110.0000	73.7000	110.0000
Zinc	108.0000	98.1000	108.0000	105.0000	212.0000	101.0000

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009974

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Total Inorganics

Constituent	Station ID:	SD116	SD117	SD118	SD119	SD120	SD121
	Sample ID:	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD118-0000	WR-SD-SD119-0000	WR-SD-SD120-0000	WR-SD-SD121-0000
	Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Inorganics (Total) (MG/KG)							
Aluminum		42000.0000	28600.0000	28400.0000	44000.0000	42200.0000	35500.0000
Antimony		5.0000 UJ	4.0000 UJ	4.0000 J	5.0000 UJ	6.0000 UJ	5.0000 UJ
Arsenic		5.0000 U	4.0000 U	4.0000 U	5.0000 U	6.0000 U	5.0000 U
Barium		176.0000	153.0000	144.0000	183.0000	177.0000	171.0000
Beryllium		0.7000	0.5200	0.4300	0.7000	0.7000	0.6000
Cadmium		0.3000	0.4000	0.3000	0.4000	0.5000	0.3000
Calcium		8390.0000	7790.0000	7460.0000	8840.0000	8430.0000	7900.0000 J
Chromium		36.6000	28.0000	27.6000	38.1000	38.0000	33.6000
Cobalt		17.6000	16.0000	17.1000	18.3000	17.8000	17.7000
Copper		51.3000	29.7000	27.8000	52.4000	42.2000	56.6000
Iron		42200.0000	35200.0000	35400.0000	44000.0000	42300.0000	39100.0000
Lead		13.0000	20.0000	12.0000	11.0000	17.0000	9.0000
Magnesium		7170.0000	6380.0000	5810.0000	7420.0000	7000.0000	6780.0000
Manganese		674.0000	467.0000	482.0000	718.0000	677.0000	690.0000
Mercury		0.0500	0.1100	0.0600	0.0600	0.0600	0.0600
Nickel		30.0000	24.4000	26.5000	30.0000	28.0000	28.0000
Potassium		1400.0000	1190.0000	970.0000	1520.0000	1390.0000	1100.0000
Selenium		16.0000	11.0000	8.0000	12.0000	10.0000	11.0000
Silver		1.0000	0.9000	0.6000	1.1000	0.8000	0.9000
Sodium		1170.0000	1050.0000 J	1040.0000 J	1280.0000	1140.0000 J	937.0000
Thallium		10.0000	9.0000	8.0000	9.0000	6.0000	6.0000
Titanium		2020.0000	1900.0000		2170.0000		1790.0000
Vanadium		103.0000	91.8000	91.2000	109.0000	105.0000	97.8000
Zinc		94.3000	101.0000	89.2000	98.8000	104.0000	92.3000

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009975

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD098	SD099	SD100	SD101	SD102	SD103
Sample ID:	WR-SD-SD098-0000	WR-SD-SD099-0000	WR-SD-SD100-0000	WR-SD-SD101-0000	WR-SD-SD102-0000	WR-SD-SD103-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Semi-Volatile Organic Compounds (UG/KG)						
1,2,4-Trichlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
1,2-Dichlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
1,3-Dichlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
1,4-Dichlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)	19.0000 UJ	19.0000 UJ	19.0000 UJ	19.0000 UJ	19.0000 UJ	20.0000 UJ
2,4,5-Trichlorophenol	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
2,4,6-Trichlorophenol	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
2,4-Dichlorophenol	58.0000 U	58.0000 U	58.0000 U	57.0000 U	58.0000 U	59.0000 U
2,4-Dimethylphenol	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2,4-Dinitrophenol	190.0000 UJ	190.0000 UJ	190.0000 UJ	190.0000 UJ	190.0000 UJ	200.0000 UJ
2,4-Dinitrotoluene	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
2,6-Dinitrotoluene	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
2-Chloronaphthalene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2-Chlorophenol	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2-Methylnaphthalene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2-Methylphenol	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2-Nitroaniline	97.0000 U	97.0000 U	97.0000 UJ	94.0000 UJ	96.0000 UJ	99.0000 U
2-Nitrophenol	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
3,3'-Dichlorobenzidine	97.0000 UJ	97.0000 UJ	97.0000 U	94.0000 U	96.0000 U	99.0000 UJ
3-Nitroaniline	120.0000 UJ	120.0000 UJ	120.0000 U	110.0000 U	120.0000 U	120.0000 UJ
4,6-Dinitro-2-methylphenol	190.0000 U	190.0000 U	190.0000 U	190.0000 U	190.0000 U	200.0000 U
4-Bromophenyl-phenylether	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
4-Chloro-3-methylphenol	39.0000 U	39.0000 U	39.0000 U	38.0000 U	39.0000 U	40.0000 U
4-Chloroaniline	58.0000 UJ	58.0000 UJ	58.0000 U	57.0000 U	58.0000 U	59.0000 UJ
4-Chlorophenyl-phenylether	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009976

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD098	SD099	SD100	SD101	SD102	SD103
Sample ID:	WR-SD-SD098-0000	WR-SD-SD099-0000	WR-SD-SD100-0000	WR-SD-SD101-0000	WR-SD-SD102-0000	WR-SD-SD103-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
4-Methylphenol	380.0000	420.0000	250.0000	360.0000	210.0000	680.0000
4-Nitroaniline	97.0000 UJ	97.0000 UJ	97.0000 U	94.0000 U	96.0000 U	99.0000 UJ
4-Nitrophenol	97.0000 U	97.0000 U	97.0000 UJ	94.0000 U	96.0000 U	99.0000 U
Benzoic acid	190.0000 U	190.0000 U	190.0000 UJ	190.0000 UJ	190.0000 U	200.0000 U
Benzyl alcohol	19.0000 UJ	19.0000 UJ	19.0000 U	19.0000 U	19.0000 U	20.0000 UJ
bis(2-Chloroethoxy)methane	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
bis(2-Chloroethyl)ether	39.0000 UJ	39.0000 UJ	39.0000 U	38.0000 U	39.0000 U	40.0000 UJ
bis(2-Ethylhexyl)phthalate	130.0000 U	110.0000 U	68.0000	140.0000	130.0000	180.0000 U
Butylbenzylphthalate	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Carbazole	19.0000 UJ	19.0000 UJ	19.0000 U	19.0000 U	19.0000 U	54.0000 J
Di-n-butylphthalate	19.0000 U	19.0000 U	19.0000 U	21.0000 N	19.0000 U	20.0000 U
Di-n-octylphthalate	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Dibenzofuran	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	24.0000
Diethylphthalate	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Dimethylphthalate	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Hexachlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Hexachlorobutadiene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Hexachlorocyclopentadiene	97.0000 UJ	97.0000 UJ	97.0000 U	94.0000 U	96.0000 U	99.0000 UJ
Hexachloroethane	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Isophorone	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	39.0000 U	39.0000 U	39.0000 UJ	38.0000 U	39.0000 UJ	40.0000 U
N-Nitrosodiphenylamine	19.0000 UJ	19.0000 UJ	19.0000 U	19.0000 U	19.0000 U	20.0000 UJ
Nitrobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Pentachlorophenol	97.0000 UJ	97.0000 UJ	97.0000 U	94.0000 UJ	96.0000 U	99.0000 UJ
Phenol	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Naphthalene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009977

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD098	SD099	SD100	SD101	SD102	SD103
Sample ID:	WR-SD-SD098-0000	WR-SD-SD099-0000	WR-SD-SD100-0000	WR-SD-SD101-0000	WR-SD-SD102-0000	WR-SD-SD103-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Acenaphthylene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Acenaphthene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	23.0000
Fluorene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	35.0000
Phenanthrene	21.0000	73.0000	39.0000	19.0000 U	19.0000 U	310.0000
Anthracene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	45.0000
Total LPAH	21.0000 T	73.0000 T	39.0000 T	19.0000 UT	19.0000 UT	413.0000 T
Fluoranthene	35.0000	160.0000	59.0000	27.0000	26.0000	590.0000
Pyrene	30.0000	130.0000	72.0000	28.0000	34.0000	440.0000
Benzo(a)anthracene	19.0000 U	42.0000	28.0000	19.0000 U	19.0000 U	120.0000
Chrysene	23.0000	78.0000	40.0000	19.0000	19.0000 U	210.0000
Benzo(b)fluoranthene	20.0000	46.0000	30.0000	19.0000 U	19.0000 U	100.0000
Benzo(k)fluoranthene	19.0000 U	42.0000	27.0000	19.0000 U	19.0000 U	100.0000
Total Benzofluoranthene	20.0000 T	88.0000 T	57.0000 T	19.0000 UT	19.0000 UT	200.0000 T
Benzo(a)pyrene	19.0000 U	32.0000	36.0000	19.0000 U	19.0000 U	82.0000
Indeno(1,2,3-cd)pyrene	19.0000 U	19.0000 U	31.0000	19.0000 U	19.0000 U	42.0000
Dibenz(a,h)anthracene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	21.0000
Benzo(g,h,i)perylene	19.0000 U	19.0000 U	33.0000	19.0000 U	19.0000 U	43.0000
Total HPAH	108.0000 T	530.0000 T	358.0000 T	74.0000 T	60.0000 T	1748.0000 T

A blank cell indicates analysis was not performed or a sample was not collected

COPPOR00009978

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD104	SD105	SD106	SD107	SD108	SD109
Sample ID:	WR-SD-SD104-0000	WR-SD-SD105-0000	WR-SD-SD106-0000	WR-SD-SD107-0000	WR-SD-SD108-0000	WR-SD-SD109-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Semi-Volatile Organic Compounds (UG/KG)						
1,2,4-Trichlorobenzene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,2-Dichlorobenzene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,3-Dichlorobenzene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,4-Dichlorobenzene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)	19.0000 U	19.0000 U	20.0000 UJ	19.0000 U	20.0000 UJ	20.0000 U
2,4,5-Trichlorophenol	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
2,4,6-Trichlorophenol	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
2,4-Dichlorophenol	58.0000 U	57.0000 U	59.0000 U	58.0000 U	59.0000 U	59.0000 U
2,4-Dimethylphenol	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2,4-Dinitrophenol	190.0000 U	190.0000 U	200.0000 UJ	190.0000 U	200.0000 UJ	200.0000 U
2,4-Dinitrotoluene	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
2,6-Dinitrotoluene	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
2-Chloronaphthalene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Chlorophenol	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Methylnaphthalene	19.0000 U	19.0000 U	20.0000 U	22.0000	20.0000 U	20.0000 U
2-Methylphenol	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Nitroaniline	97.0000 U	95.0000 U	98.0000 UJ	96.0000 U	98.0000 UJ	99.0000 U
2-Nitrophenol	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
3,3'-Dichlorobenzidine	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
3-Nitroaniline	120.0000 U	110.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U
4,6-Dinitro-2-methylphenol	190.0000 U	190.0000 U	200.0000 U	190.0000 U	200.0000 U	200.0000 U
4-Bromophenyl-phenylether	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
4-Chloro-3-methylphenol	39.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
4-Chloroaniline	58.0000 U	57.0000 U	59.0000 U	58.0000 U	59.0000 U	59.0000 U
4-Chlorophenyl-phenylether	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U

A blank cell indicates analysis was not performed or a sample was not collected

COPPOR00009979

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD104	SD105	SD106	SD107	SD108	SD109
Sample ID:	WR-SD-SD104-0000	WR-SD-SD105-0000	WR-SD-SD106-0000	WR-SD-SD107-0000	WR-SD-SD108-0000	WR-SD-SD109-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
4-Methylphenol	1300.0000	590.0000	260.0000	770.0000	460.0000	580.0000
4-Nitroaniline	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
4-Nitrophenol	97.0000 U	95.0000 U	98.0000 UJ	96.0000 U	98.0000 UJ	99.0000 U
Benzoic acid	190.0000 U	190.0000 U	200.0000 UJ	190.0000 U	200.0000 UJ	200.0000 U
Benzyl alcohol	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethoxy)methane	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethyl)ether	39.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
bis(2-Ethylhexyl)phthalate	320.0000	270.0000	100.0000	430.0000	190.0000	240.0000
Butylbenzylphthalate	19.0000 J	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Carbazole	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Di-n-butylphthalate	19.0000 U	19.0000 U	20.0000 U	23.0000	20.0000 U	20.0000 U
Di-n-octylphthalate	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Dibenzofuran	19.0000 U	19.0000 U	20.0000 U	44.0000	20.0000 U	35.0000
Diethylphthalate	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Dimethylphthalate	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorobenzene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorobutadiene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorocyclopentadiene	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
Hexachloroethane	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Isophorone	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	39.0000 U	38.0000 U	39.0000 UJ	39.0000 U	39.0000 UJ	39.0000 U
N-Nitrosodiphenylamine	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Nitrobenzene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Pentachlorophenol	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
Phenol	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Naphthalene	19.0000 U	19.0000 U	20.0000 U	21.0000	20.0000 U	----

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009980

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD104	SD105	SD106	SD107	SD108	SD109
Sample ID:	WR-SD-SD104-0000	WR-SD-SD105-0000	WR-SD-SD106-0000	WR-SD-SD107-0000	WR-SD-SD108-0000	WR-SD-SD109-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Acenaphthylene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Acenaphthene	19.0000 U	19.0000 U	20.0000 U	54.0000	20.0000 U	49.0000
Fluorene	19.0000 U	19.0000 U	20.0000 U	66.0000	20.0000 U	58.0000
Phenanthrene	40.0000	71.0000	23.0000	350.0000	22.0000	300.0000
Anthracene	19.0000 U	19.0000 U	20.0000 U	38.0000	20.0000 U	34.0000
Total LPAH	40.0000 T	71.0000 T	23.0000 T	529.0000 T	22.0000 T	487.0000 T
Fluoranthene	86.0000	120.0000	28.0000	430.0000	28.0000	360.0000
Pyrene	78.0000	120.0000	34.0000	390.0000	34.0000	300.0000
Benzo(a)anthracene	34.0000	38.0000	20.0000 U	100.0000	20.0000 U	100.0000
Chrysene	58.0000	58.0000	24.0000	170.0000	21.0000	150.0000
Benzo(b)fluoranthene	54.0000	36.0000	20.0000	84.0000	20.0000 U	100.0000
Benzo(k)fluoranthene	42.0000	46.0000	20.0000 U	93.0000	20.0000 U	94.0000
Total Benzofluoranthene	96.0000 T	82.0000 T	20.0000 T	177.0000 T	20.0000 UT	194.0000 T
Benzo(a)pyrene	49.0000	36.0000	19.0000 J	79.0000	20.0000 U	91.0000
Indeno(1,2,3-cd)pyrene	48.0000	29.0000	20.0000 U	52.0000	20.0000 U	57.0000
Dibenz(a,h)anthracene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Benzo(g,h,i)perylene	47.0000	22.0000	20.0000 U	37.0000	20.0000 U	46.0000
Total HPAH	496.0000 T	505.0000 T	125.0000 T	1435.0000 T	83.0000 T	1298.0000 T

A blank cell indicates analysis was not performed or a sample was not collected

COPPOR00009981

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Constituent	Station ID:	SD110	SD111	SD112	SD113	SD114	SD115
	Sample ID:	WR-SD-SD110-0000	WR-SD-SD111-0000	WR-SD-SD112-0000	WR-SD-SD113-0000	WR-SD-SD114-0000	WR-SD-SD115-0000
	Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Semi-Volatile Organic Compounds (UG/KG)							
1,2,4-Trichlorobenzene		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
1,2-Dichlorobenzene		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
1,3-Dichlorobenzene		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
1,4-Dichlorobenzene		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)		19.0000 U	20.0000 UJ	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2,4,5-Trichlorophenol		97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2,4,6-Trichlorophenol		97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2,4-Dichlorophenol		58.0000 U	60.0000 U	58.0000 U	59.0000 U	59.0000 U	59.0000 U
2,4-Dimethylphenol		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2,4-Dinitrophenol		190.0000 U	200.0000 UJ	190.0000 U	200.0000 U	200.0000 UJ	200.0000 U
2,4-Dinitrotoluene		97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2,6-Dinitrotoluene		97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2-Chloronaphthalene		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2-Chlorophenol		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2-Methylnaphthalene		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2-Methylphenol		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2-Nitroaniline		97.0000 U	99.0000 UJ	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2-Nitrophenol		97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
3,3'-Dichlorobenzidine		97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
3-Nitroaniline		120.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U
4,6-Dinitro-2-methylphenol		190.0000 U	200.0000 U	190.0000 U	200.0000 U	200.0000 U	200.0000 U
4-Bromophenyl-phenylether		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
4-Chloro-3-methylphenol		39.0000 U	40.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
4-Chloroaniline		58.0000 U	60.0000 U	58.0000 U	59.0000 U	59.0000 U	59.0000 U
4-Chlorophenyl-phenylether		19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U

A blank cell indicates analysis was not performed or a sample was not collected.

SSSVOCSD.DBF - GenCm02.frx 04/06/98

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD110	SD111	SD112	SD113	SD114	SD115
Sample ID:	WR-SD-SD110-0000	WR-SD-SD111-0000	WR-SD-SD112-0000	WR-SD-SD113-0000	WR-SD-SD114-0000	WR-SD-SD115-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
4-Methylphenol	700.0000	480.0000	640.0000	1100.0000	20.0000 U	630.0000
4-Nitroaniline	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
4-Nitrophenol	97.0000 U	99.0000 UJ	97.0000 U	98.0000 U	98.0000 UJ	98.0000 U
Benzoic acid	190.0000 U	200.0000 UJ	190.0000 U	200.0000 U	200.0000 U	200.0000 U
Benzyl alcohol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethoxy)methane	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethyl)ether	39.0000 U	40.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
bis(2-Ethylhexyl)phthalate	130.0000	140.0000	130.0000	210.0000	250.0000	120.0000
Butylbenzylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	120.0000	20.0000 U
Carbazole	22.0000 N	20.0000 U	19.0000 U	20.0000 U	21.0000 N	20.0000 U
Di-n-butylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Di-n-octylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	110.0000	20.0000 U
Dibenzofuran	24.0000	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Diethylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Dimethylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Hexachlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Hexachlorobutadiene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Hexachlorocyclopentadiene	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
Hexachloroethane	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Isophorone	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	39.0000 U	40.0000 UJ	39.0000 U	39.0000 U	39.0000 U	39.0000 U
N-Nitrosodiphenylamine	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Nitrobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Pentachlorophenol	97.0000 U	99.0000 U	97.0000 U	98.0000 U		98.0000 U
Phenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Naphthalene	34.0000	20.0000 U	19.0000 U	21.0000	20.0000 U	20.0000 U

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009983

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD110	SD111	SD112	SD113	SD114	SD115
Sample ID:	WR-SD-SD110-0000	WR-SD-SD111-0000	WR-SD-SD112-0000	WR-SD-SD113-0000	WR-SD-SD114-0000	WR-SD-SD115-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Acenaphthylene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Acenaphthene	39.0000	20.0000 U	25.0000	26.0000	23.0000	20.0000 U
Fluorene	48.0000	20.0000 U	28.0000	29.0000	37.0000	20.0000 U
Phenanthrene	210.0000	29.0000	150.0000	150.0000	180.0000	37.0000
Anthracene	22.0000	20.0000 U	21.0000	31.0000	27.0000 N	20.0000 U
Total LPAH	351.0000 T	29.0000 T	222.0000 T	257.0000 T	267.0000 T	37.0000 T
Fluoranthene	180.0000	44.0000	370.0000	180.0000	250.0000	74.0000
Pyrene	160.0000	48.0000	270.0000	150.0000	260.0000	69.0000
Benzo(a)anthracene	45.0000	21.0000	81.0000	49.0000	140.0000	24.0000
Chrysene	84.0000	31.0000	110.0000	72.0000	240.0000	40.0000
Benzo(b)fluoranthene	32.0000	19.0000 J	65.0000	45.0000	200.0000	26.0000
Benzo(k)fluoranthene	45.0000	20.0000	76.0000	51.0000	180.0000	25.0000
Total Benzofluoranthene	77.0000 T	39.0000 T	141.0000 T	96.0000 T	380.0000 T	51.0000 T
Benzo(a)pyrene	44.0000	26.0000	71.0000	48.0000	180.0000	32.0000
Indeno(1,2,3-cd)pyrene	31.0000	20.0000 U	49.0000	30.0000	160.0000	22.0000
Dibenz(a,h)anthracene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Benzo(g,h,i)perylene	20.0000	19.0000 J	37.0000	25.0000	130.0000	20.0000 U
Total HPAH	621.0000 T	228.0000 T	1129.0000 T	650.0000 T	1740.0000 T	312.0000 T

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009984

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD116	SD117	SD118	SD119	SD120	SD121
Sample ID:	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD118-0000	WR-SD-SD119-0000	WR-SD-SD120-0000	WR-SD-SD121-0000
Constituent Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Semi-Volatile Organic Compounds (UG/KG)						
1,2,4-Trichlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,2-Dichlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,3-Dichlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,4-Dichlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)	20.0000 UJ	20.0000 U	20.0000 U	19.0000 UJ	20.0000 U	20.0000 UJ
2,4,5-Trichlorophenol	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
2,4,6-Trichlorophenol	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
2,4-Dichlorophenol	59.0000 U	60.0000 U	59.0000 U	58.0000 U	59.0000 U	59.0000 U
2,4-Dimethylphenol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2,4-Dinitrophenol	200.0000 UJ	200.0000 UJ	200.0000 UJ	190.0000 UJ	200.0000 U	200.0000 UJ
2,4-Dinitrotoluene	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
2,6-Dinitrotoluene	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
2-Chloronaphthalene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Chlorophenol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Methylnaphthalene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Methylphenol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Nitroaniline	99.0000 UJ	99.0000 U	99.0000 U	97.0000 UJ	99.0000 U	99.0000 UJ
2-Nitrophenol	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
3,3'-Dichlorobenzidine	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
3-Nitroaniline	120.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U
4,6-Dinitro-2-methylphenol	200.0000 U	200.0000 U	200.0000 U	190.0000 U	200.0000 U	200.0000 U
4-Bromophenyl-phenylether	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
4-Chloro-3-methylphenol	39.0000 U	40.0000 U	40.0000 U	39.0000 U	39.0000 U	39.0000 U
4-Chloroaniline	59.0000 U	60.0000 U	59.0000 U	58.0000 U	59.0000 U	59.0000 U
4-Chlorophenyl-phenylether	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009985

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD116	SD117	SD118	SD119	SD120	SD121
Sample ID:	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD118-0000	WR-SD-SD119-0000	WR-SD-SD120-0000	WR-SD-SD121-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
4-Methylphenol	490.0000	360.0000	88.0000	500.0000	880.0000	460.0000
4-Nitroaniline	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
4-Nitrophenol	99.0000 UJ	99.0000 UJ	99.0000 UJ	97.0000 UJ	99.0000 U	99.0000 UJ
Benzoic acid	200.0000 UJ	200.0000 U	200.0000 U	190.0000 UJ	200.0000 U	200.0000 UJ
Benzyl alcohol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethoxy)methane	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethyl)ether	39.0000 U	40.0000 U	40.0000 U	39.0000 U	39.0000 U	39.0000 U
bis(2-Ethylhexyl)phthalate	130.0000	180.0000	59.0000	130.0000	150.0000	110.0000
Butylbenzylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Carbazole	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Di-n-butylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Di-n-octylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Dibenzofuran	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Diethylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Dimethylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorobutadiene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorocyclopentadiene	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
Hexachloroethane	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Isophorone	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	39.0000 UJ	40.0000 U	40.0000 U	39.0000 UJ	39.0000 U	39.0000 UJ
N-Nitrosodiphenylamine	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Nitrobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Pentachlorophenol	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
Phenol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Naphthalene	20.0000 U	35.0000	20.0000 U	19.0000 U	20.0000 U	[illegible]

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00009986

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Semi-Volatile Organic Compounds

Constituent	Station ID:	SD116	SD117	SD118	SD119	SD120	SD121
	Sample ID:	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD118-0000	WR-SD-SD119-0000	WR-SD-SD120-0000	WR-SD-SD121-0000
	Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Acenaphthylene		20.0000 U	20.0000 U	25.0000	19.0000 U	20.0000 U	20.0000 U
Acenaphthene		20.0000 U	25.0000	20.0000 J	19.0000 U	20.0000 U	20.0000 U
Fluorene		20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Phenanthrene		27.0000	110.0000	290.0000	28.0000	25.0000	22.0000
Anthracene		20.0000 U	24.0000	110.0000	19.0000 U	20.0000 U	20.0000 U
Total LPAH		27.0000 T	194.0000 T	445.0000 T	28.0000 T	25.0000 T	22.0000 T
Fluoranthene		30.0000	120.0000	260.0000	39.0000	56.0000	30.0000
Pyrene		35.0000	180.0000	460.0000	54.0000	50.0000	36.0000
Benzo(a)anthracene		20.0000 U	66.0000	200.0000	19.0000 J	23.0000	20.0000 U
Chrysene		20.0000	86.0000	260.0000	28.0000	38.0000	22.0000
Benzo(b)fluoranthene		20.0000 U	83.0000	100.0000	22.0000	24.0000	20.0000 U
Benzo(k)fluoranthene		20.0000 U	64.0000	170.0000	18.0000 J	20.0000	20.0000 U
Total Benzofluoranthene		20.0000 UT	127.0000 T	270.0000 T	40.0000 T	44.0000 T	20.0000 UT
Benzo(a)pyrene		20.0000 J	77.0000	220.0000	23.0000	24.0000	22.0000
Indeno(1,2,3-cd)pyrene		20.0000 U	58.0000	97.0000	19.0000 U	20.0000 U	20.0000 U
Dibenz(a,h)anthracene		20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Benzo(g,h,i)perylene		20.0000 U	62.0000	98.0000	22.0000	20.0000 U	20.0000 U
Total HPAH		105.0000 T	776.0000 T	1865.0000 T	225.0000 T	235.0000 T	110.0000 T

A blank cell indicates analysis was not performed or a sample was not collected

COPPOR00009987

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD098	SD099	SD100	SD101	SD102	SD103
Sample ID:	WR-SD-SD098-0000	WR-SD-SD099-0000	WR-SD-SD100-0000	WR-SD-SD101-0000	WR-SD-SD102-0000	WR-SD-SD103-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Semi-Volatile Organic Compounds - TOCN (UG/KG)						
1,2,4-Trichlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
1,2-Dichlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
1,3-Dichlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
1,4-Dichlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)	19.0000 UJ	19.0000 UJ	19.0000 UJ	19.0000 UJ	19.0000 UJ	20.0000 UJ
2,4,5-Trichlorophenol	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
2,4,6-Trichlorophenol	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
2,4-Dichlorophenol	58.0000 U	58.0000 U	58.0000 U	57.0000 U	58.0000 U	59.0000 U
2,4-Dimethylphenol	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2,4-Dinitrophenol	190.0000 UJ	190.0000 UJ	190.0000 UJ	190.0000 UJ	190.0000 UJ	200.0000 UJ
2,4-Dinitrotoluene	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
2,6-Dinitrotoluene	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
2-Chloronaphthalene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2-Chlorophenol	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2-Methylnaphthalene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2-Methylphenol	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
2-Nitroaniline	97.0000 U	97.0000 U	97.0000 UJ	94.0000 UJ	96.0000 UJ	99.0000 U
2-Nitrophenol	97.0000 U	97.0000 U	97.0000 U	94.0000 U	96.0000 U	99.0000 U
3,3'-Dichlorobenzidine	97.0000 UJ	97.0000 UJ	97.0000 U	94.0000 U	96.0000 U	99.0000 UJ
3-Nitroaniline	120.0000 UJ	120.0000 UJ	120.0000 U	110.0000 U	120.0000 U	120.0000 UJ
4,6-Dinitro-2-methylphenol	190.0000 U	190.0000 U	190.0000 U	190.0000 U	190.0000 U	200.0000 U
4-Bromophenyl-phenylether	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
4-Chloro-3-methylphenol	39.0000 U	39.0000 U	39.0000 U	38.0000 U	39.0000 U	40.0000 U
4-Chloroaniline	58.0000 UJ	58.0000 UJ	58.0000 U	57.0000 U	58.0000 U	59.0000 UJ
4-Chlorophenyl-phenylether	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

SSSVTSD.DBF - GenCm02.frx 04/06/98

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD098	SD099	SD100	SD101	SD102	SD103
Sample ID:	WR-SD-SD098-0000	WR-SD-SD099-0000	WR-SD-SD100-0000	WR-SD-SD101-0000	WR-SD-SD102-0000	WR-SD-SD103-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
4-Methylphenol	29230.7692	26250.0000	33333.3333	27692.3076	12352.9411	42500.0000
4-Nitroaniline	97.0000 UJ	97.0000 UJ	97.0000 U	94.0000 U	96.0000 U	99.0000 UJ
4-Nitrophenol	97.0000 U	97.0000 U	97.0000 UJ	94.0000 U	96.0000 U	99.0000 U
Benzoic acid	190.0000 U	190.0000 U	190.0000 UJ	190.0000 UJ	190.0000 U	200.0000 U
Benzyl alcohol	19.0000 UJ	19.0000 UJ	19.0000 U	19.0000 U	19.0000 U	20.0000 UJ
bis(2-Chloroethoxy)methane	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
bis(2-Chloroethyl)ether	39.0000 UJ	39.0000 UJ	39.0000 U	38.0000 U	39.0000 U	40.0000 UJ
bis(2-Ethylhexyl)phthalate	130.0000 U	110.0000 U	9066.6666	10769.2307	7647.0588	180.0000 U
Butylbenzylphthalate	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Carbazole	19.0000 UJ	19.0000 UJ	19.0000 U	19.0000 U	19.0000 U	3375.0000 J
Di-n-butylphthalate	19.0000 U	19.0000 U	19.0000 U	1615.3846 N	19.0000 U	20.0000 U
Di-n-octylphthalate	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Dibenzofuran	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	1500.0000
Diethylphthalate	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Dimethylphthalate	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Hexachlorobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Hexachlorobutadiene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Hexachlorocyclopentadiene	97.0000 UJ	97.0000 UJ	97.0000 U	94.0000 U	96.0000 U	99.0000 UJ
Hexachloroethane	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Isophorone	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	39.0000 U	39.0000 U	39.0000 UJ	38.0000 U	39.0000 UJ	40.0000 U
N-Nitrosodiphenylamine	19.0000 UJ	19.0000 UJ	19.0000 U	19.0000 U	19.0000 U	20.0000 UJ
Nitrobenzene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Pentachlorophenol	97.0000 UJ	97.0000 UJ	97.0000 U	94.0000 UJ	96.0000 U	99.0000 UJ
Phenol	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Naphthalene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD098	SD099	SD100	SD101	SD102	SD103
Sample ID:	WR-SD-SD098-0000	WR-SD-SD099-0000	WR-SD-SD100-0000	WR-SD-SD101-0000	WR-SD-SD102-0000	WR-SD-SD103-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Acenaphthylene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	20.0000 U
Acenaphthene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	1437.5000
Fluorene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	2187.5000
Phenanthrene	1615.3846	4562.5000	5200.0000	19.0000 U	19.0000 U	19375.0000
Anthracene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	2812.5000
Total LPAH	1615.3846 T	4562.5000 T	5200.0000 T	19.0000 UT	19.0000 UT	25812.5000 T
Fluoranthene	2692.3076	10000.0000	7866.6666	2076.9230	1529.4117	36875.0000
Pyrene	2307.6923	8125.0000	9600.0000	2153.8461	2000.0000	27500.0000
Benzo(a)anthracene	19.0000 U	2625.0000	3733.3333	19.0000 U	19.0000 U	7500.0000
Chrysene	1769.2307	4875.0000	5333.3333	1461.5384	19.0000 U	13125.0000
Benzo(b)fluoranthene	1538.4615	2875.0000	4000.0000	19.0000 U	19.0000 U	6250.0000
Benzo(k)fluoranthene	19.0000 U	2625.0000	3600.0000	19.0000 U	19.0000 U	6250.0000
Total Benzofluoranthene	1538.4615 T	5500.0000 T	7600.0000 T	19.0000 UT	19.0000 UT	12500.0000 T
Benzo(a)pyrene	19.0000 U	2000.0000	4800.0000	19.0000 U	19.0000 U	5125.0000
Indeno(1,2,3-cd)pyrene	19.0000 U	19.0000 U	4133.3333	19.0000 U	19.0000 U	2625.0000
Dibenz(a,h)anthracene	19.0000 U	19.0000 U	19.0000 U	19.0000 U	19.0000 U	1312.5000
Benzo(g,h,i)perylene	19.0000 U	19.0000 U	4400.0000	19.0000 U	19.0000 U	2687.5000
Total HPAH	8307.6923 T	33125.0000 T	47466.6666 T	5692.3076 T	3529.4117 T	109250.0000 T
Conventional Parameters						
Total Organic Carbon (%)	1.3000 J	1.6000 J	0.7500	1.3000	1.7000	1.6000 J

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

COPPOR00009990

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Constituent	Station ID:	SD104	SD105	SD106	SD107	SD108	SD109
	Sample ID:	WR-SD-SD104-0000	WR-SD-SD105-0000	WR-SD-SD106-0000	WR-SD-SD107-0000	WR-SD-SD108-0000	WR-SD-SD109-0000
	Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Semi-Volatile Organic Compounds - TOCN (UG/KG)							
1,2,4-Trichlorobenzene		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,2-Dichlorobenzene		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,3-Dichlorobenzene		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,4-Dichlorobenzene		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)		19.0000 U	19.0000 U	20.0000 UJ	19.0000 U	20.0000 UJ	20.0000 U
2,4,5-Trichlorophenol		97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
2,4,6-Trichlorophenol		97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
2,4-Dichlorophenol		58.0000 U	57.0000 U	59.0000 U	58.0000 U	59.0000 U	59.0000 U
2,4-Dimethylphenol		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2,4-Dinitrophenol		190.0000 U	190.0000 U	200.0000 UJ	190.0000 U	200.0000 UJ	200.0000 U
2,4-Dinitrotoluene		97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
2,6-Dinitrotoluene		97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
2-Chloronaphthalene		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Chlorophenol		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Methylnaphthalene		19.0000 U	19.0000 U	20.0000 U	1375.0000	20.0000 U	20.0000 U
2-Methylphenol		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Nitroaniline		97.0000 U	95.0000 U	98.0000 UJ	96.0000 U	98.0000 UJ	99.0000 U
2-Nitrophenol		97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
3,3'-Dichlorobenzidine		97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
3-Nitroaniline		120.0000 U	110.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U
4,6-Dinitro-2-methylphenol		190.0000 U	190.0000 U	200.0000 U	190.0000 U	200.0000 U	200.0000 U
4-Bromophenyl-phenylether		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
4-Chloro-3-methylphenol		39.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
4-Chloroaniline		58.0000 U	57.0000 U	59.0000 U	58.0000 U	59.0000 U	59.0000 U
4-Chlorophenyl-phenylether		19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

COPPOR00009991

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD104	SD105	SD106	SD107	SD108	SD109
Sample ID:	WR-SD-SD104-0000	WR-SD-SD105-0000	WR-SD-SD106-0000	WR-SD-SD107-0000	WR-SD-SD108-0000	WR-SD-SD109-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
4-Methylphenol	100000.0000	39333.3333	20000.0000	48125.0000	34285.7142	32222.2222
4-Nitroaniline	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
4-Nitrophenol	97.0000 U	95.0000 U	98.0000 UJ	96.0000 U	98.0000 UJ	99.0000 U
Benzoic acid	190.0000 U	190.0000 U	200.0000 UJ	190.0000 U	200.0000 UJ	200.0000 U
Benzyl alcohol	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethoxy)methane	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethyl)ether	39.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
bis(2-Ethylhexyl)phthalate	24615.3846	18000.0000	7692.3076	26875.0000	13571.4285	13333.3333
Butylbenzylphthalate	1461.5384 J	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Carbazole	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Di-n-butylphthalate	19.0000 U	19.0000 U	20.0000 U	1437.5000	20.0000 U	20.0000 U
Di-n-octylphthalate	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Dibenzofuran	19.0000 U	19.0000 U	20.0000 U	2750.0000	20.0000 U	1944.4444
Diethylphthalate	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Dimethylphthalate	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorobenzene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorobutadiene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorocyclopentadiene	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
Hexachloroethane	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Isophorone	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	39.0000 U	38.0000 U	39.0000 UJ	39.0000 U	39.0000 UJ	39.0000 U
N-Nitrosodiphenylamine	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Nitrobenzene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Pentachlorophenol	97.0000 U	95.0000 U	98.0000 U	96.0000 U	98.0000 U	99.0000 U
Phenol	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Naphthalene	19.0000 U	19.0000 U	20.0000 U	1312.5000	20.0000 U	1444.4444

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate

COPPOR00009992

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD104	SD105	SD106	SD107	SD108	SD109
Sample ID:	WR-SD-SD104-0000	WR-SD-SD105-0000	WR-SD-SD106-0000	WR-SD-SD107-0000	WR-SD-SD108-0000	WR-SD-SD109-0000
Constituent Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Acenaphthylene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Acenaphthene	19.0000 U	19.0000 U	20.0000 U	3375.0000	20.0000 U	2722.2222
Fluorene	19.0000 U	19.0000 U	20.0000 U	4125.0000	20.0000 U	3222.2222
Phenanthrene	3076.9230	4733.3333	1769.2307	21875.0000	1571.4285	16666.6666
Anthracene	19.0000 U	19.0000 U	20.0000 U	2375.0000	20.0000 U	1888.8888
Total LPAH	3076.9230 T	4733.3333 T	1769.2307 T	33062.5000 T	1571.4285 T	25944.4444 T
Fluoranthene	6615.3846	8000.0000	2153.8461	26875.0000	2000.0000	20000.0000
Pyrene	6000.0000	8000.0000	2615.3846	24375.0000	2428.5714	16666.6666
Benzo(a)anthracene	2615.3846	2533.3333	20.0000 U	6250.0000	20.0000 U	5555.5555
Chrysene	4461.5384	3866.6666	1846.1538	10625.0000	1500.0000	8333.3333
Benzo(b)fluoranthene	4153.8461	2400.0000	1538.4615	5250.0000	20.0000 U	5555.5555
Benzo(k)fluoranthene	3230.7692	3066.6666	20.0000 U	5812.5000	20.0000 U	5222.2222
Total Benzofluoranthene	7384.6153 T	5466.6666 T	1538.4615 T	11062.5000 T	20.0000 UT	10777.7777 T
Benzo(a)pyrene	3769.2307	2400.0000	1461.5384 J	4937.5000	20.0000 U	5055.5555
Indeno(1,2,3-cd)pyrene	3692.3076	1933.3333	20.0000 U	3250.0000	20.0000 U	3166.6666
Dibenz(a,h)anthracene	19.0000 U	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Benzo(g,h,i)perylene	3615.3846	1466.6666	20.0000 U	2312.5000	20.0000 U	2555.5555
Total HPAH	38153.8461 T	33666.6666 T	9615.3846 T	89687.5000 T	5928.5714 T	72111.1111 T
Conventional Parameters						
Total Organic Carbon (%)	1.3000	1.5000	1.3000	1.6000	1.4000	1.8000

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not [illegible]

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD110	SD111	SD112	SD113	SD114	SD115
Sample ID:	WR-SD-SD110-0000	WR-SD-SD111-0000	WR-SD-SD112-0000	WR-SD-SD113-0000	WR-SD-SD114-0000	WR-SD-SD115-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Semi-Volatile Organic Compounds - TOCN (UG/KG)						
1,2,4-Trichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
1,2-Dichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
1,3-Dichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
1,4-Dichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)	19.0000 U	20.0000 UJ	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2,4,5-Trichlorophenol	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2,4,6-Trichlorophenol	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2,4-Dichlorophenol	58.0000 U	60.0000 U	58.0000 U	59.0000 U	59.0000 U	59.0000 U
2,4-Dimethylphenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2,4-Dinitrophenol	190.0000 U	200.0000 UJ	190.0000 U	200.0000 U	200.0000 UJ	200.0000 U
2,4-Dinitrotoluene	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2,6-Dinitrotoluene	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2-Chloronaphthalene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2-Chlorophenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2-Methylnaphthalene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2-Methylphenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
2-Nitroaniline	97.0000 U	99.0000 UJ	97.0000 U	98.0000 U	98.0000 U	98.0000 U
2-Nitrophenol	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
3,3'-Dichlorobenzidine	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
3-Nitroaniline	120.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U
4,6-Dinitro-2-methylphenol	190.0000 U	200.0000 U	190.0000 U	200.0000 U	200.0000 U	200.0000 U
4-Bromophenyl-phenylether	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
4-Chloro-3-methylphenol	39.0000 U	40.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
4-Chloroaniline	58.0000 U	60.0000 U	58.0000 U	59.0000 U	59.0000 U	59.0000 U
4-Chlorophenyl-phenylether	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

COPPOR00009994

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD110	SD111	SD112	SD113	SD114	SD115
Sample ID:	WR-SD-SD110-0000	WR-SD-SD111-0000	WR-SD-SD112-0000	WR-SD-SD113-0000	WR-SD-SD114-0000	WR-SD-SD115-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
4-Methylphenol	41176.4705	32000.0000	42666.6666	64705.8823	20.0000 U	42000.0000
4-Nitroaniline	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
4-Nitrophenol	97.0000 U	99.0000 UJ	97.0000 U	98.0000 U	98.0000 UJ	98.0000 U
Benzoic acid	190.0000 U	200.0000 UJ	190.0000 U	200.0000 U	200.0000 U	200.0000 U
Benzyl alcohol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethoxy)methane	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethyl)ether	39.0000 U	40.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
bis(2-Ethylhexyl)phthalate	7647.0588	9333.3333	8666.6666	12352.9411	34722.2222	8000.0000
Butylbenzylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	16666.6666	20.0000 U
Carbazole	1294.1176 N	20.0000 U	19.0000 U	20.0000 U	2916.6666 N	20.0000 U
Di-n-butylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Di-n-octylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	15277.7777	20.0000 U
Dibenzofuran	1411.7647	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Diethylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Dimethylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Hexachlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Hexachlorobutadiene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Hexachlorocyclopentadiene	97.0000 U	99.0000 U	97.0000 U	98.0000 U	98.0000 U	98.0000 U
Hexachloroethane	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Isophorone	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	39.0000 U	40.0000 UJ	39.0000 U	39.0000 U	39.0000 U	39.0000 U
N-Nitrosodiphenylamine	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Nitrobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Pentachlorophenol	97.0000 U	99.0000 U	97.0000 U	98.0000 U		98.0000 U
Phenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Naphthalene	2000.0000	20.0000 U	19.0000 U	1235.2941	20.0000 U	20.0000 U

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD110	SD111	SD112	SD113	SD114	SD115
Sample ID:	WR-SD-SD110-0000	WR-SD-SD111-0000	WR-SD-SD112-0000	WR-SD-SD113-0000	WR-SD-SD114-0000	WR-SD-SD115-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Acenaphthylene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Acenaphthene	2294.1176	20.0000 U	1666.6666	1929.4117	3194.4444	20.0000 U
Fluorene	2705.8823	20.0000 U	1733.3333	1705.8823	5138.8888	20.0000 U
Phenanthrene	12352.9411	1933.3333	10000.0000	8823.5294	25000.0000	2466.6666
Anthracene	1294.1176	20.0000 U	1400.0000	1823.5294	3750.0000 N	20.0000 U
Total LPAH	20647.0588 T	1933.3333 T	14800.0000 T	15117.6470 T	37083.3333 T	2466.6666 T
Fluoranthene	10588.2352	2933.3333	24666.6666	10588.2352	34722.2222	4933.3333
Pyrene	9411.7647	3200.0000	18000.0000	8823.5294	36111.1111	4600.0000
Benzo(a)anthracene	2647.0588	1400.0000	5400.0000	2882.3529	19444.4444	1600.0000
Chrysene	3764.7058	2066.6666	7333.3333	4235.2941	33333.3333	2666.6666
Benzo(b)fluoranthene	1882.3529	1266.6666 J	4333.3333	2647.0588	27777.7777	1733.3333
Benzo(k)fluoranthene	2647.0588	1333.3333	5066.6666	3000.0000	25000.0000	1666.6666
Total Benzofluoranthene	4529.4117 T	2600.0000 T	9400.0000 T	5647.0588 T	52777.7777 T	3400.0000 T
Benzo(a)pyrene	2588.2352	1733.3333	4733.3333	2823.5294	25000.0000	2133.3333
Indeno(1,2,3-cd)pyrene	1823.5294	20.0000 U	3266.6666	1764.7058	22222.2222	1466.6666
Dibenz(a,h)anthracene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U	20.0000 U
Benzo(g,h,i)perylene	1176.4705	1266.6666 J	2466.6666	1470.5882	18055.5555	20.0000 U
Total HPAH	36529.4117 T	15200.0000 T	75266.6666 T	38235.2941 T	241666.6666 T	20800.0000 T
Conventional Parameters						
Total Organic Carbon (%)	1.7000	1.5000	1.5000	1.7000	0.7200	1.5000

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

COPPOR00009996

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD116	SD117	SD118	SD119	SD120	SD121
Sample ID:	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD118-0000	WR-SD-SD119-0000	WR-SD-SD120-0000	WR-SD-SD121-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Semi-Volatile Organic Compounds - TOCN (UG/KG)						
1,2,4-Trichlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,2-Dichlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,3-Dichlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
1,4-Dichlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)	20.0000 UJ	20.0000 U	20.0000 U	19.0000 UJ	20.0000 U	20.0000 UJ
2,4,5-Trichlorophenol	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
2,4,6-Trichlorophenol	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
2,4-Dichlorophenol	59.0000 U	60.0000 U	59.0000 U	58.0000 U	59.0000 U	59.0000 U
2,4-Dimethylphenol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2,4-Dinitrophenol	200.0000 UJ	200.0000 UJ	200.0000 UJ	190.0000 UJ	200.0000 U	200.0000 UJ
2,4-Dinitrotoluene	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
2,6-Dinitrotoluene	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
2-Chloronaphthalene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Chlorophenol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Methylnaphthalene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Methylphenol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
2-Nitroaniline	99.0000 UJ	99.0000 U	99.0000 U	97.0000 UJ	99.0000 U	99.0000 UJ
2-Nitrophenol	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
3,3'-Dichlorobenzidine	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
3-Nitroaniline	120.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U
4,6-Dinitro-2-methylphenol	200.0000 U	200.0000 U	200.0000 U	190.0000 U	200.0000 U	200.0000 U
4-Bromophenyl-phenylether	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
4-Chloro-3-methylphenol	39.0000 U	40.0000 U	40.0000 U	39.0000 U	39.0000 U	39.0000 U
4-Chloroaniline	59.0000 U	60.0000 U	59.0000 U	58.0000 U	59.0000 U	59.0000 U
4-Chlorophenyl-phenylether	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

COPPOR00009997

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD116	SD117	SD118	SD119	SD120	SD121
Sample ID:	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD118-0000	WR-SD-SD119-0000	WR-SD-SD120-0000	WR-SD-SD121-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
4-Methylphenol	35000.0000	46153.8461	5866.6666	35714.2857	55000.0000	30666.6666
4-Nitroaniline	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
4-Nitrophenol	99.0000 UJ	99.0000 UJ	99.0000 UJ	97.0000 UJ	99.0000 U	99.0000 UJ
Benzoic acid	200.0000 UJ	200.0000 U	200.0000 U	190.0000 UJ	200.0000 U	200.0000 UJ
Benzyl alcohol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethoxy)methane	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
bis(2-Chloroethyl)ether	39.0000 U	40.0000 U	40.0000 U	39.0000 U	39.0000 U	39.0000 U
bis(2-Ethylhexyl)phthalate	9285.7142	23076.9230	3933.3333	9285.7142	9375.0000	7333.3333
Butylbenzylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Carbazole	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Di-n-butylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Di-n-octylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Dibenzofuran	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Diethylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Dimethylphthalate	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorobutadiene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Hexachlorocyclopentadiene	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
Hexachloroethane	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Isophorone	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	39.0000 UJ	40.0000 U	40.0000 U	39.0000 UJ	39.0000 U	39.0000 UJ
N-Nitrosodiphenylamine	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Nitrobenzene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Pentachlorophenol	99.0000 U	99.0000 U	99.0000 U	97.0000 U	99.0000 U	99.0000 U
Phenol	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Naphthalene	20.0000 U	4487.1794	20.0000 U	19.0000 U	20.0000 U	20.0000 U

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

SSSVTSD.DBF - GenCm02.frx 04/06/98

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD116	SD117	SD118	SD119	SD120	SD121
Sample ID:	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD118-0000	WR-SD-SD119-0000	WR-SD-SD120-0000	WR-SD-SD121-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Acenaphthylene	20.0000 U	20.0000 U	1666.6666	19.0000 U	20.0000 U	20.0000 U
Acenaphthene	20.0000 U	3205.1282	1333.3333 J	19.0000 U	20.0000 U	20.0000 U
Fluorene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Phenanthrene	1928.5714	14102.5641	19333.3333	2000.0000	1562.5000	1466.6666
Anthracene	20.0000 U	3076.9230	7333.3333	19.0000 U	20.0000 U	20.0000 U
Total LPAH	1928.5714 T	24871.7948 T	29666.6666 T	2000.0000 T	1562.5000 T	1466.6666 T
Fluoranthene	2142.8571	15384.6153	17333.3333	2785.7142	3500.0000	2000.0000
Pyrene	2500.0000	23076.9230	30666.6666	3857.1428	3125.0000	2400.0000
Benzo(a)anthracene	20.0000 U	8461.5384	13333.3333	1357.1428 J	1437.5000	20.0000 U
Chrysene	1428.5714	11025.6410	17333.3333	2000.0000	2375.0000	1466.6666
Benzo(b)fluoranthene	20.0000 U	8076.9230	6666.6666	1571.4285	1500.0000	20.0000 U
Benzo(k)fluoranthene	20.0000 U	8205.1282	11333.3333	1285.7142 J	1250.0000	20.0000 U
Total Benzofluoranthene	20.0000 UT	16282.0512 T	18000.0000 T	2857.1428 T	2750.0000 T	20.0000 UT
Benzo(a)pyrene	1428.5714 J	9871.7948	14666.6666	1642.8571	1500.0000	1466.6666
Indeno(1,2,3-cd)pyrene	20.0000 U	7435.8974	6466.6666	19.0000 U	20.0000 U	20.0000 U
Dibenz(a,h)anthracene	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	20.0000 U
Benzo(g,h,i)perylene	20.0000 U	7948.7179	6533.3333	1571.4285	20.0000 U	20.0000 U
Total HPAH	7500.0000 T	99487.1794 T	124333.3333 T	16071.4285 T	14687.5000 T	7333.3333 T
Conventional Parameters						
Total Organic Carbon (%)	1.4000	0.7800	1.5000	1.4000	1.6000	1.5000

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Pesticides/PCBs

Station ID:	SD111	SD116	SD117	SD119	SD121	SD122
Sample ID:	WR-SD-SD111-0000	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD119-0000	WR-SD-SD121-0000	WR-SD-SD122-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Pesticides/PCBs (UG/KG)						
4,4'-DDD		1.6000 J	4.7000			
4,4'-DDE		2.3000	2.6000			
4,4'-DDT		1.6000 J	4.7000			
Aldrin		0.9800 U	0.9800 U			
Alpha-BHC		0.9800 U	0.9800 U			
Alpha-Chlordane		0.9800 U	0.9800 U			
Beta-BHC		0.9800 U	0.9800 U			
Delta-BHC		0.9800 U	0.9800 U			
Dieldrin		2.0000 U	2.0000 U			
Endosulfan I		0.9800 U	0.9800 U			
Endosulfan II		2.0000 U	2.0000 U			
Endosulfan Sulfate		2.0000 U	2.0000 U			
Endrin		2.0000 U	2.0000 U			
Endrin aldehyde		2.0000 U	2.1000 UI			
Endrin Ketone		2.0000 U	2.0000 U			
Gamma-BHC (Lindane)		0.9800 U	0.9800 U			
Gamma-Chlordane		0.9800 U	0.9800 U			
Heptachlor		0.9800 U	0.9800 U			
Heptachlor Epoxide		0.9800 U	0.9800 U			
Methoxychlor		9.8000 U	9.8000 U			
Toxaphene		98.0000 U	98.0000 U			
Aroclor 1016	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U
Aroclor 1221	40.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U	38.0000 U
Aroclor 1232	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U
Aroclor 1242	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00010000

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Pesticides/PCBs

Station ID:	SD111	SD116	SD117	SD119	SD121	SD122
Sample ID:	WR-SD-SD111-0000	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD119-0000	WR-SD-SD121-0000	WR-SD-SD122-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Aroclor 1248	20.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U
Aroclor 1254	20.0000 U	20.0000 U	26.0000	19.0000 U	20.0000 U	19.0000 U
Aroclor 1260	20.0000 U	20.0000 U	39.0000 UI	19.0000 U	20.0000 U	19.0000 U
Total PCB	40.0000 UT	39.0000 UT	26.0000 T	39.0000 UT	39.0000 UT	38.0000 UT

COPPOR00010001

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for Organotins

Constituent	Station ID:	SD103	SD106	SD108	SD111	SD116	SD117
	Sample ID:	WR-SD-SD103-0000	WR-SD-SD106-0000	WR-SD-SD108-0000	WR-SD-SD111-0000	WR-SD-SD116-0000	WR-SD-SD117-0000-CC
	Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Organotins (UG/KG)							
Tetra-n-butyltin		5.9000 U	5.9000 U	5.9000 U	6.0000 U	5.9000 U	6.0000 U
Tributyl Tin		180.0000	230.0000 J	310.0000 J	300.0000 J	360.0000 J	6.0000 U
Tributyl Tin (as TBT cation)		160.2000	204.7000 J	275.9000 J	267.0000 J	320.4000 J	5.3400 U
Dibutyl Tin		5.9000 U	5.9000 U	5.9000 U	6.0000 U	5.9000 U	6.0000 U
Butyl Tin		5.9000 U	5.9000 U	5.9000 U	6.0000 U	5.9000 U	6.0000 U

A blank cell indicates analysis was not performed or a sample was not collected. Organotins reported as organotin cation.

COPPOR00010002

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC and Grain Size

Station ID:	SD098	SD099	SD100	SD101	SD102	SD103
Sample ID:	WR-SD-SD098-0000	WR-SD-SD099-0000	WR-SD-SD100-0000	WR-SD-SD101-0000	WR-SD-SD102-0000	WR-SD-SD103-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Conventional Parameters						
Total Organic Carbon (%)	1.3000 J	1.6000 J	0.7500	1.3000	1.7000	1.6000 J
Grain Size (%)						
>4750 microns-Fractional % retained	0.0000	0.0000	0.0000	0.0000	0.0400	0.0000
4750-2000 microns-Fractional % retained	0.0200	0.1500	0.0100	0.0600	0.1100	0.0000
2000-1000 microns-Fractional % retained	0.0500	0.0700	0.0800	0.0200	0.4000	0.1200
1000-500 microns-Fractional % retained	0.5000	0.7900	0.2900	0.2700	0.7700	0.1300
500-250 microns-Fractional % retained	0.6600	1.6100	1.0300	0.9800	4.3300	0.8300
250-125 microns-Fractional % retained	6.4300	3.9900	3.8800	11.0300	14.4800	3.0800
125-62.4 microns-Fractional % retained	15.6500	12.4500	20.6700	20.3700	30.9400	9.5500
62.4-31.2 microns-Fractional % retained	25.7300	22.9200	41.2600	25.3200	19.6000	27.9800
31.2-15.6 microns-Fractional % retained	22.3500	26.3200	18.0900	19.7000	14.2000	25.5100
15.6-7.8 microns-Fractional % retained	12.2200	12.8900	5.5900	7.6400	4.9400	15.9000
7.8-3.9 microns-Fractional % retained	6.7300	7.1300	2.7700	5.4500	3.2000	6.9300
3.9-1.9 microns-Fractional % retained	3.4300	3.6800	1.5000	2.5700	2.8700	3.3400
1.9-0.9 microns-Fractional % retained	2.0300	3.0700	1.9000	2.7700	4.1200	2.2200
<0.9 microns-Fractional % retained	4.2000	4.9300	2.9300	3.8200	0.0000	4.4100

A blank cell indicates analysis was not performed or a sample was not collected

COPPOR00010003

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC and Grain Size

Station ID:	SD104	SD105	SD106	SD107	SD108	SD109
Sample ID:	WR-SD-SD104-0000	WR-SD-SD105-0000	WR-SD-SD106-0000	WR-SD-SD107-0000	WR-SD-SD108-0000	WR-SD-SD109-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Conventional Parameters						
Total Organic Carbon (%)	1.3000	1.5000	1.3000	1.6000	1.4000	1.8000
Grain Size (%)						
>4750 microns-Fractional % retained	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4750-2000 microns-Fractional % retained	0.1800	0.1500	0.1300	0.0800	0.0500	0.0000
2000-1000 microns-Fractional % retained	0.1200	0.2000	0.0500	0.0500	0.0400	0.0900
1000-500 microns-Fractional % retained	1.0000	0.4200	0.4200	0.6600	0.6000	0.7300
500-250 microns-Fractional % retained	0.8400	0.5700	1.3000	0.6200	1.0500	1.6800
250-125 microns-Fractional % retained	1.6900	2.0800	10.7100	1.1900	5.5900	2.4100
125-62.4 microns-Fractional % retained	6.6000	7.4600	15.6500	5.8400	12.7300	8.4800
62.4-31.2 microns-Fractional % retained	21.7400	42.6400	30.2400	31.0500	22.4900	37.3600
31.2-15.6 microns-Fractional % retained	23.8700	18.5600	17.1400	26.3000	26.1700	21.9900
15.6-7.8 microns-Fractional % retained	14.8600	11.1900	11.3500	13.9800	14.2000	12.6200
7.8-3.9 microns-Fractional % retained	9.7700	5.8500	5.1400	7.8600	7.6000	5.9900
3.9-1.9 microns-Fractional % retained	3.3400	2.5700	2.3800	2.7900	2.8300	1.7800
1.9-0.9 microns-Fractional % retained	4.7300	3.4900	2.1700	4.4100	3.8400	2.5900
<0.9 microns-Fractional % retained	11.2600	4.8200	3.3100	5.1700	2.8100	4.1800

COPPOR00010004

[illegible] - Full Data Listing of Surface Sediment Results for TOC and Grain Size

Station ID:	SD110	SD111	SD112	SD113	SD114	SD115
Sample ID:	WR-SD-SD110-0000	WR-SD-SD111-0000	WR-SD-SD112-0000	WR-SD-SD113-0000	WR-SD-SD114-0000	WR-SD-SD115-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Conventional Parameters						
Total Organic Carbon (%)	1.7000	1.5000	1.5000	1.7000	0.7200	1.5000
Grain Size (%)						
>4750 microns-Fractional % retained	0.0000	0.0000	0.0000	0.0000	1.7500	0.0000
4750-2000 microns-Fractional % retained	0.1500	0.1200	0.0000	0.2100	3.3900	0.0400
2000-1000 microns-Fractional % retained	0.1700	0.1700	0.2200	0.0600	4.3700	0.0900
1000-500 microns-Fractional % retained	0.7500	0.3900	0.5700	0.5500	13.4900	0.5200
500-250 microns-Fractional % retained	1.4900	0.7500	0.9600	0.7600	51.4900	0.9800
250-125 microns-Fractional % retained	5.7400	4.7500	2.9700	2.3600	15.1400	3.0400
125-62.4 microns-Fractional % retained	16.0100	14.5800	9.5400	9.7700	4.1800	10.5300
62.4-31.2 microns-Fractional % retained	27.7600	28.3600	27.5500	39.8600	3.0600	42.3600
31.2-15.6 microns-Fractional % retained	15.1100	21.3200	20.1800	14.8400	1.0600	15.4500
15.6-7.8 microns-Fractional % retained	12.7800	12.1100	16.9200	14.2300	0.7100	10.6500
7.8-3.9 microns-Fractional % retained	7.9000	7.0800	7.2700	5.9500	0.4300	6.2500
3.9-1.9 microns-Fractional % retained	3.7600	3.2500	3.5600	2.4800	0.0000	1.8500
1.9-0.9 microns-Fractional % retained	2.7100	3.0400	4.1600	4.0200	0.6400	3.9100
<0.9 microns-Fractional % retained	5.6700	4.0900	6.1000	4.9100	0.2900	4.3300

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00010005

The Portland Harbor Sediment Investigation - Full Data Listing of Surface Sediment Results for TOC and Grain Size

Station ID:	SD116	SD117	SD118	SD119	SD120	SD121
Sample ID:	WR-SD-SD116-0000	WR-SD-SD117-0000-CC	WR-SD-SD118-0000	WR-SD-SD119-0000	WR-SD-SD120-0000	WR-SD-SD121-0000
Constituent / Depth (cm bgs):	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm	0.0 to 10 cm
Conventional Parameters						
Total Organic Carbon (%)	1.4000	0.7800	1.5000	1.4000	1.6000	1.5000
Grain Size (%)						
>4750 microns-Fractional % retained	0.0000	0.5000	0.0600	0.0000	0.0000	0.0000
4750-2000 microns-Fractional % retained	0.0400	0.2100	0.2200	0.0400	0.0900	0.0300
2000-1000 microns-Fractional % retained	0.0800	0.6600	0.2400	0.0800	0.1800	0.0400
1000-500 microns-Fractional % retained	0.2900	2.2700	0.6400	0.3800	0.5400	0.2900
500-250 microns-Fractional % retained	0.5900	8.4400	36.3900	0.5300	0.7300	0.5900
250-125 microns-Fractional % retained	6.2300	11.6500	27.1200	2.8500	2.9000	11.2700
125-62.4 microns-Fractional % retained	13.7900	35.8000	6.9300	10.3300	9.1000	17.3100
62.4-31.2 microns-Fractional % retained	22.9900	21.1600	11.4100	32.0500	19.3300	22.5600
31.2-15.6 microns-Fractional % retained	23.8600	15.7600	6.5500	22.4200	32.8000	20.3500
15.6-7.8 microns-Fractional % retained	14.7400	4.3200	4.5700	14.0800	14.8300	12.5500
7.8-3.9 microns-Fractional % retained	8.3800	2.4700	2.7700	7.6800	8.7100	6.0500
3.9-1.9 microns-Fractional % retained	2.9700	1.3900	0.9400	2.9500	3.8400	3.2600
1.9-0.9 microns-Fractional % retained	2.9200	1.8200	1.2400	2.9200	2.5900	2.6000
<0.9 microns-Fractional % retained	3.1200	1.4500	0.9200	3.6900	4.3600	3.1000

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Total Inorganics

Station ID:	SD092	SD096	SD100	SD102	SD106	SD116
Sample ID:	WR-SD-SD092-0000A	WR-SD-SD096-0000A	WR-SD-SD100-0000A	WR-SD-SD102-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Inorganics (Total) (MG/KG)						
Aluminum	39100.0000	34500.0000	34400.0000	36700.0000	40600.0000	44100.0000
Antimony	5.0000 UJ		5.0000 UJ			
Arsenic	5.0000 U	4.0000 U	5.0000 U	4.0000 U	5.0000 U	5.0000 U
Barium	281.0000	151.0000	125.0000	168.0000	184.0000	184.0000
Beryllium	0.5500	0.5600	0.4200	0.5900	0.6600	0.7000
Cadmium	0.8000	0.5000	0.6000	0.5000	0.3000	0.3000
Calcium	7440.0000	8670.0000	4310.0000	8920.0000	8450.0000	8920.0000
Chromium	43.3000	33.9000	35.9000	33.9000	36.9000	38.0000
Cobalt	16.2000	16.7000	16.6000	16.9000	18.7000	19.4000
Copper	53.6000	45.1000	41.7000	46.3000	79.9000	47.8000
Iron	39200.0000	39500.0000	36100.0000	39200.0000	42700.0000	43700.0000
Lead	44.0000	25.0000	20.0000	28.0000	20.0000	13.0000
Magnesium	6740.0000	6370.0000	5670.0000	6980.0000	7300.0000	7670.0000
Manganese	435.0000	551.0000	344.0000	509.0000	767.0000	846.0000
Mercury	0.2800	0.1100	0.0600	0.3200	0.0700	0.0900
Nickel	31.4000	29.0000 J	27.0000	29.2000 J	30.3000 J	31.0000 J
Potassium	1200.0000	1180.0000	1420.0000	1130.0000	1280.0000	1410.0000
Selenium	9.0000	9.0000	10.0000	11.0000	12.0000	9.0000
Silver	1.5000	1.1000	1.1000	1.3000	1.2000	1.1000
Sodium	2180.0000 J	1100.0000	57800.0000 J	1070.0000	948.0000	1060.0000
Thallium	5.0000 U	5.0000	6.0000	6.0000	9.0000	7.0000
[illegible]	1950.0000	1800.0000		1920.0000	1840.0000	1940.0000
[illegible]	107.0000	93.9000	93.5000	102.0000	100.0000	105.0000
[illegible]	162.0000	122.0000	110.0000	131.0000	131.0000	97.8000

COPPOR00010007

[illegible] Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Total Inorganics

Station ID:	SD117	SD120	SD122	SD125	SD127	SD133
Sample ID:	WR-SD-SD117-0000A	WR-SD-SD120-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A	WR-SD-SD127-0000A	WR-SD-SD133-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Inorganics (Total) (MG/KG)						
Aluminum	37900.0000	43700.0000	43000.0000	43900.0000	44200.0000	40600.0000
Antimony	4.0000 UJ	5.0000 UJ				
Arsenic	4.0000 U	5.0000 U	6.0000	5.0000 U	5.0000 U	14.0000
Barium	185.0000	203.0000	191.0000	200.0000	203.0000	281.0000
Beryllium	0.5400	0.6300	0.7000	0.7000	0.7000	0.6000
Cadmium	0.5000	0.6000	0.5000	0.5000	0.5000	0.7000
Calcium	8750.0000	8500.0000	8530.0000	8440.0000	8850.0000	16000.0000
Chromium	35.1000	40.8000	40.0000	43.6000	40.4000	75.1000
Cobalt	17.5000	19.8000	19.4000	19.6000	19.7000	20.8000
Copper	42.7000	54.3000	[illegible]	141.0000	162.0000	729.0000
Iron	39900.0000	44700.0000	44100.0000	45700.0000	45000.0000	53300.0000
Lead	22.0000	23.0000	28.0000	38.0000	24.0000	178.0000
Magnesium	7310.0000	7100.0000	7580.0000	7400.0000	7460.0000	8510.0000
Manganese	558.0000	788.0000	816.0000	836.0000	872.0000	817.0000
Mercury	0.1700	0.0800	0.0800	0.0900	0.0700	0.8000
Nickel	28.4000	31.5000	31.5000 J	33.0000 J	32.0000 J	43.0000 J
Potassium	1400.0000	1390.0000	1330.0000	1410.0000	1430.0000	1510.0000
Selenium	7.0000	13.0000	12.0000	13.0000	9.0000	14.0000
Silver	1.0000	1.1000	1.4000	1.5000	1.3000	1.6000
Sodium	1180.0000 J	1080.0000 J	1010.0000	976.0000	1050.0000	1100.0000
Thallium	4.0000 U	6.0000	7.0000	9.0000	5.0000 U	10.0000 U
Titanium	2020.0000		1950.0000	1960.0000	1950.0000	1950.0000
Vanadium	105.0000	107.0000	105.0000	107.0000	108.0000	109.0000
Zinc	157.0000	142.0000	160.0000	196.0000	195.0000	598.0000

Blank cell indicates analysis was not performed or a sample was not collected

COPPOR00010008

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD092	SD096	SD100	SD102	SD106	SD116
Sample ID:	WR-SD-SD092-0000A	WR-SD-SD096-0000A	WR-SD-SD100-0000A	WR-SD-SD102-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Semi-Volatile Organic Compounds (UG/KG)						
1,2,4-Trichlorobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
1,2-Dichlorobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
1,3-Dichlorobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
1,4-Dichlorobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2,4,5-Trichlorophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2,4,6-Trichlorophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2,4-Dichlorophenol	140.0000 U	56.0000 U	59.0000 U	59.0000 U	58.0000 U	59.0000 U
2,4-Dimethylphenol	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2,4-Dinitrophenol	470.0000 UJ	190.0000 UJ	200.0000 UJ	200.0000 UJ	190.0000 UJ	200.0000 UJ
2,4-Dinitrotoluene	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2,6-Dinitrotoluene	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2-Chloronaphthalene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2-Chlorophenol	93.0000	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2-Methylnaphthalene	610.0000	41.0000	20.0000 U	180.0000	19.0000 U	20.0000 U
2-Methylphenol	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2-Nitroaniline	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2-Nitrophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
3,3'-Dichlorobenzidine	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
3-Nitroaniline	280.0000 U	110.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U
4,6-Dinitro-2-methylphenol	470.0000 U	190.0000 UJ	200.0000 U	200.0000 UJ	190.0000 UJ	200.0000 UJ
4-Bromophenyl-phenylether	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
[illegible]	93.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
[illegible]	140.0000 U	56.0000 U	59.0000 U	59.0000 U	58.0000 U	59.0000 U
[illegible]	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U

COPPOR00010009

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD092	SD096	SD100	SD102	SD106	SD116
Sample ID:	WR-SD-SD092-0000A	WR-SD-SD096-0000A	WR-SD-SD100-0000A	WR-SD-SD102-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
4-Methylphenol	250.0000	150.0000	410.0000	210.0000	52.0000	69.0000
4-Nitroaniline	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
4-Nitrophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
Benzoic acid	2600.0000	190.0000 U	720.0000	200.0000 U	190.0000 U	200.0000 U
Benzyl alcohol	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
bis(2-Chloroethoxy)methane	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
bis(2-Chloroethyl)ether	93.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
bis(2-Ethylhexyl)phthalate	350.0000	73.0000 U	250.0000	31.0000 U	260.0000	82.0000 U
Butylbenzylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Carbazole	390.0000	19.0000 U	20.0000 U	28.0000 N	19.0000 U	20.0000 U
Di-n-butylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Di-n-octylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Dibenzofuran	630.0000	24.0000	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Diethylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Dimethylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Hexachlorobenzene	1500.0000	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Hexachlorobutadiene	34000.0000 D	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Hexachlorocyclopentadiene	230.0000 UJ	94.0000 U	98.0000 UJ	98.0000 U	97.0000 U	98.0000 U
Hexachloroethane	20000.0000 D	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Isophorone	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	93.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
N-Nitrosodiphenylamine	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Nitrobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Pentachlorophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
Phenol	300.0000	19.0000 U	52.0000	20.0000 U	19.0000 U	20.0000 U
Naphthalene	1100.0000	130.0000	20.0000 U	140.0000	21.0000	

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00010010

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD092	SD096	SD100	SD102	SD106	SD116
Sample ID:	WR-SD-SD092-0000A	WR-SD-SD096-0000A	WR-SD-SD100-0000A	WR-SD-SD102-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Acenaphthylene	48.0000	40.0000	20.0000 U	31.0000 N	19.0000 U	20.0000 U
Acenaphthene	290.0000	79.0000	20.0000 U	120.0000	19.0000 U	20.0000 U
Fluorene	600.0000	61.0000	20.0000 U	190.0000	20.0000	20.0000 U
Phenanthrene	13000.0000 D	360.0000	41.0000	820.0000	120.0000	34.0000
Anthracene	250.0000	56.0000	20.0000 U	150.0000	22.0000	20.0000 U
Total LPAH	15288.0000 T	726.0000 T	41.0000 T	1451.0000 T	183.0000 T	34.0000 T
Fluoranthene	10000.0000 D	490.0000	52.0000	440.0000	180.0000	44.0000
Pyrene	6000.0000 D	560.0000	56.0000	790.0000	170.0000	48.0000
Benzo(a)anthracene	1800.0000	180.0000	20.0000	230.0000	60.0000	20.0000 U
Chrysene	7100.0000 D	230.0000	35.0000	340.0000	93.0000	23.0000
Benzo(b)fluoranthene	5600.0000 D	160.0000	27.0000	160.0000	66.0000	20.0000
Benzo(k)fluoranthene	3000.0000	170.0000	20.0000	110.0000	74.0000	20.0000 U
Total Benzofluoranthene	8600.0000 T	330.0000 T	47.0000 T	270.0000 T	142.0000 T	20.0000 T
Benzo(a)pyrene	510.0000	180.0000	29.0000	190.0000	67.0000	20.0000 U
Indeno(1,2,3-cd)pyrene	1400.0000	95.0000	20.0000	100.0000	39.0000	20.0000 U
Dibenz(a,h)anthracene	990.0000	40.0000	20.0000 U	31.0000	19.0000 U	20.0000 U
Benzo(g,h,i)perylene	1800.0000	130.0000	24.0000	140.0000	45.0000	20.0000 U
Total HPAH	38200.0000 T	2235.0000 T	283.0000 T	2531.0000 T	796.0000 T	135.0000 T

COPPOR00010011

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD117	SD120	SD122	SD125	SD127	SD133
Sample ID:	WR-SD-SD117-0000A	WR-SD-SD120-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A	WR-SD-SD127-0000A	WR-SD-SD133-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Semi-Volatile Organic Compounds (UG/KG)						
1,2,4-Trichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
1,2-Dichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
1,3-Dichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
1,4-Dichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2,2'-Oxybis(1-Chloropropane)	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2,4,5-Trichlorophenol	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2,4,6-Trichlorophenol	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2,4-Dichlorophenol	57.0000 U	59.0000 U	58.0000 U	60.0000 U	58.0000 U	57.0000 U
2,4-Dimethylphenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2,4-Dinitrophenol	190.0000 UJ	200.0000 UJ	190.0000 UJ	200.0000 UJ	190.0000 UJ	190.0000 UJ
2,4-Dinitrotoluene	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2,6-Dinitrotoluene	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2-Chloronaphthalene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2-Chlorophenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2-Methylnaphthalene	56.0000	110.0000	19.0000 U	20.0000	24.0000	86.0000
2-Methylphenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2-Nitroaniline	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2-Nitrophenol	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
3,3'-Dichlorobenzidine	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
3-Nitroaniline	110.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U	110.0000 U
4,6-Dinitro-2-methylphenol	190.0000 U	200.0000 U	190.0000 U	200.0000 U	190.0000 U	190.0000 U
4-Bromophenyl-phenylether	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
4-Chloro-3-methylphenol	38.0000 U	39.0000 U	38.0000 U	40.0000 U	39.0000 U	38.0000 U
4-Chloroaniline	57.0000 U	59.0000 U	58.0000 U	60.0000 U	58.0000 U	57.0000 U
4-Chlorophenyl-phenylether	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00010012

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Semi-Volatile Organic Compounds

Constituent	Station ID:	SD117	SD120	SD122	SD125	SD127	SD133
	Sample ID:	WR-SD-SD117-0000A	WR-SD-SD120-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A	WR-SD-SD127-0000A	WR-SD-SD133-0000A
	Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
4-Methylphenol		370.0000	45.0000	120.0000 J	97.0000 J	80.0000	90.0000
4-Nitroaniline		95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
4-Nitrophenol		95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
Benzoic acid		190.0000 U	200.0000 U	230.0000	200.0000 U	190.0000 U	190.0000 U
Benzyl alcohol		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
bis(2-Chloroethoxy)methane		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
bis(2-Chloroethyl)ether		38.0000 U	39.0000 U	38.0000 U	40.0000 U	39.0000 U	38.0000 U
bis(2-Ethylhexyl)phthalate		90.0000 UJ	300.0000	390.0000	680.0000	770.0000	1200.0000
Butylbenzylphthalate		19.0000 U	20.0000 U	19.0000 U	24.0000	33.0000	55.0000
Carbazole		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 J	110.0000
Di-n-butylphthalate		19.0000 U	20.0000 U	19.0000 U	22.0000	19.0000 U	88.0000
Di-n-octylphthalate		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Dibenzofuran		19.0000 U	200.0000	20.0000	29.0000	27.0000	170.0000
Diethylphthalate		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Dimethylphthalate		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	59.0000 N
Hexachlorobenzene		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Hexachlorobutadiene		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Hexachlorocyclopentadiene		95.0000 UJ	98.0000 UJ	96.0000 U	99.0000 U	97.0000 U	96.0000 U
Hexachloroethane		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Isophorone		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
N-Nitroso-di-n-propylamine		38.0000 U	39.0000 U	38.0000 U	40.0000 U	39.0000 U	38.0000 U
N-Nitrosodiphenylamine		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
[illegible]		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
[illegible]		95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
[illegible]		19.0000	20.0000 U	19.0000 U	27.0000	22.0000	19.0000 U
[illegible]		[illegible]	97.0000	51.0000	51.0000	58.0000	110.0000

COPPOR00010013

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Semi-Volatile Organic Compounds

Station ID:	SD117	SD120	SD122	SD125	SD127	SD133
Sample ID:	WR-SD-SD117-0000A	WR-SD-SD120-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A	WR-SD-SD127-0000A	WR-SD-SD133-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Acenaphthylene	34.0000	20.0000 U	19.0000 U	20.0000 U	19.0000 U	32.0000
Acenaphthene	35.0000	380.0000	22.0000	38.0000	40.0000	320.0000
Fluorene	34.0000	300.0000	31.0000	51.0000	48.0000	340.0000
Phenanthrene	260.0000	1300.0000 D	150.0000	310.0000	260.0000	2200.0000 D
Anthracene	48.0000	160.0000	43.0000	74.0000	67.0000	320.0000
Total LPAH	521.0000 T	2237.0000 T	297.0000 T	524.0000 T	473.0000 T	3322.0000 T
Fluoranthene	240.0000	1100.0000	180.0000	320.0000	280.0000	2900.0000 D
Pyrene	300.0000	1000.0000	200.0000	360.0000	320.0000	2400.0000 D
Benzo(a)anthracene	63.0000	190.0000	60.0000	150.0000	140.0000	1300.0000
Chrysene	98.0000	310.0000	98.0000	200.0000	170.0000	1300.0000
Benzo(b)fluoranthene	52.0000	120.0000	77.0000	210.0000	130.0000	1400.0000
Benzo(k)fluoranthene	66.0000	130.0000	64.0000	110.0000	90.0000	780.0000
Total Benzofluoranthene	118.0000 T	250.0000 T	141.0000 T	320.0000 T	220.0000 T	2180.0000 T
Benzo(a)pyrene	73.0000	100.0000	56.0000	150.0000	120.0000	1100.0000
Indeno(1,2,3-cd)pyrene	43.0000	42.0000	49.0000	120.0000	88.0000	970.0000
Dibenz(a,h)anthracene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	290.0000
Benzo(g,h,i)perylene	63.0000	46.0000	43.0000	87.0000	79.0000	740.0000
Total HPAH	998.0000 T	3038.0000 T	827.0000 T	1707.0000 T	1415.0000 T	13180.0000 T

A blank cell indicates analysis was not performed or a sample was not collected.

COPPOR00010014

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD092	SD096	SD100	SD102	SD106	SD116
Sample ID:	WR-SD-SD092-0000A	WR-SD-SD096-0000A	WR-SD-SD100-0000A	WR-SD-SD102-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Semi-Volatile Organic Compounds - TOCN (UG/KG)						
1,2,4-Trichlorobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
1,2-Dichlorobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
1,3-Dichlorobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
1,4-Dichlorobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2,2'-Oxybis(1-Chloropropane)	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2,4,5-Trichlorophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2,4,6-Trichlorophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2,4-Dichlorophenol	140.0000 U	56.0000 U	59.0000 U	59.0000 U	58.0000 U	59.0000 U
2,4-Dimethylphenol	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2,4-Dinitrophenol	470.0000 UJ	190.0000 UJ	200.0000 UJ	200.0000 UJ	190.0000 UJ	200.0000 UJ
2,4-Dinitrotoluene	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2,6-Dinitrotoluene	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2-Chloronaphthalene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2-Chlorophenol	3875.0000	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2-Methylnaphthalene	25416.6666	2562.5000	20.0000 U	12857.1428	19.0000 U	20.0000 U
2-Methylphenol	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
2-Nitroaniline	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
2-Nitrophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
3,3'-Dichlorobenzidine	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
3-Nitroaniline	280.0000 U	110.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U
4,6-Dinitro-2-methylphenol	470.0000 U	190.0000 UJ	200.0000 U	200.0000 UJ	190.0000 UJ	200.0000 UJ
4-Bromophenyl-phenylether	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
4-Chloro-3-methylphenol	93.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
4-Chloroaniline	140.0000 U	56.0000 U	59.0000 U	59.0000 U	58.0000 U	59.0000 U
[illegible]-chlorophenyl-phenylether	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD092	SD096	SD100	SD102	SD106	SD116
Sample ID:	WR-SD-SD092-0000A	WR-SD-SD096-0000A	WR-SD-SD100-0000A	WR-SD-SD102-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
4-Methylphenol	10416.6666	9375.0000	24117.6470	15000.0000	2600.0000	3833.3333
4-Nitroaniline	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
4-Nitrophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
Benzoic acid	108333.3333	190.0000 U	42352.9411	200.0000 U	190.0000 U	200.0000 U
Benzyl alcohol	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
bis(2-Chloroethoxy)methane	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
bis(2-Chloroethyl)ether	93.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
bis(2-Ethylhexyl)phthalate	14583.3333	73.0000 U	14705.8823	31.0000 U	13000.0000	82.0000 U
Butylbenzylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Carbazole	16250.0000	19.0000 U	20.0000 U	2000.0000 N	19.0000 U	20.0000 U
Di-n-butylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Di-n-octylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Dibenzofuran	26250.0000	1500.0000	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Diethylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Dimethylphthalate	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Hexachlorobenzene	62500.0000	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Hexachlorobutadiene	1416666.6666 D	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Hexachlorocyclopentadiene	230.0000 UJ	94.0000 U	98.0000 UJ	98.0000 U	97.0000 U	98.0000 U
Hexachloroethane	833333.3333 D	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Isophorone	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
N-Nitroso-di-n-propylamine	93.0000 U	38.0000 U	39.0000 U	39.0000 U	39.0000 U	39.0000 U
N-Nitrosodiphenylamine	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Nitrobenzene	47.0000 U	19.0000 U	20.0000 U	20.0000 U	19.0000 U	20.0000 U
Pentachlorophenol	230.0000 U	94.0000 U	98.0000 U	98.0000 U	97.0000 U	98.0000 U
Phenol	12500.0000	19.0000 U	3058.8235	20.0000 U	19.0000 U	20.0000 U
Naphthalene	45833.3333	8125.0000	20.0000 U	10000.0000	1050.0000	20.0000 U

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD092	SD096	SD100	SD102	SD106	SD116
Sample ID:	WR-SD-SD092-0000A	WR-SD-SD096-0000A	WR-SD-SD100-0000A	WR-SD-SD102-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Acenaphthylene	2000.0000	2500.0000	20.0000 U	2214.2857 N	19.0000 U	20.0000 U
Acenaphthene	12083.3333	4937.5000	20.0000 U	8571.4285	19.0000 U	20.0000 U
Fluorene	25000.0000	3812.5000	20.0000 U	13571.4285	1000.0000	20.0000 U
Phenanthrene	541666.6666 D	22500.0000	2411.7647	58571.4285	6000.0000	1888.8888
Anthracene	10416.6666	3500.0000	20.0000 U	10714.2857	1100.0000	20.0000 U
Total LPAH	637000.0000 T	45375.0000 T	2411.7647 T	103642.8571 T	9150.0000 T	1888.8888 T
Fluoranthene	416666.6666 D	30625.0000	3058.8235	31428.5714	9000.0000	2444.4444
Pyrene	250000.0000 D	35000.0000	3294.1176	56428.5714	8500.0000	2666.6666
Benzo(a)anthracene	75000.0000	11250.0000	1176.4705	16428.5714	3000.0000	20.0000 U
Chrysene	295833.3333 D	14375.0000	2058.8235	24285.7142	4650.0000	1277.7777
Benzo(b)fluoranthene	233333.3333 D	10000.0000	1588.2352	11428.5714	3400.0000	1111.1111
Benzo(k)fluoranthene	125000.0000	10625.0000	1176.4705	7857.1428	3700.0000	20.0000 U
Total Benzofluoranthene	358333.3333 T	20625.0000 T	2764.7058 T	19285.7142 T	7100.0000 T	1111.1111 T
Benzo(a)pyrene	21250.0000	11250.0000	1705.8823	13571.4285	3350.0000	20.0000 U
Indeno(1,2,3-cd)pyrene	58333.3333	5937.5000	1176.4705	7142.6571	1950.0000	20.0000 U
Dibenz(a,h)anthracene	41250.0000	2500.0000	20.0000 U	2214.2857	19.0000 U	20.0000 U
Benzo(g,h,i)perylene	75000.0000	8125.0000	1411.7647	10000.0000	2250.0000	20.0000 U
Total HPAH	1591666.6666 T	139687.5000 T	16647.0588 T	180785.7142 T	39800.0000 T	7500.0000 T
Conventional Parameters						
Total Organic Carbon (%)	2.4000	1.6000	1.7000	1.4000	2.0000	1.8000

COPPOR00010017

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD117	SD120	SD122	SD125	SD127	SD133
Sample ID:	WR-SD-SD117-0000A	WR-SD-SD120-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A	WR-SD-SD127-0000A	WR-SD-SD133-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Semi-Volatile Organic Compounds - TOCN (UG/KG)						
1,2,4-Trichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
1,2-Dichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
1,3-Dichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
1,4-Dichlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2,2'-Oxybis(1-Chloropropane)	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2,4,5-Trichlorophenol	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2,4,6-Trichlorophenol	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2,4-Dichlorophenol	57.0000 U	59.0000 U	58.0000 U	60.0000 U	58.0000 U	57.0000 U
2,4-Dimethylphenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2,4-Dinitrophenol	190.0000 UJ	200.0000 UJ	190.0000 UJ	200.0000 UJ	190.0000 UJ	190.0000 UJ
2,4-Dinitrotoluene	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2,6-Dinitrotoluene	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2-Chloronaphthalene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2-Chlorophenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2-Methylnaphthalene	4307.6923	6111.1111	19.0000 U	1000.0000	1263.1578	4777.7777
2-Methylphenol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
2-Nitroaniline	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
2-Nitrophenol	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
3,3'-Dichlorobenzidine	95.0000 U	98.0000 U	95.0000 U	99.0000 U	97.0000 U	96.0000 U
3-Nitroaniline	110.0000 U	120.0000 U	120.0000 U	120.0000 U	120.0000 U	110.0000 U
4,6-Dinitro-2-methylphenol	190.0000 U	200.0000 U	190.0000 U	200.0000 U	190.0000 U	190.0000 U
4-Bromophenyl-phenylether	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
4-Chloro-3-methylphenol	38.0000 U	39.0000 U	38.0000 U	40.0000 U	39.0000 U	38.0000 U
4-Chloroaniline	57.0000 U	59.0000 U	58.0000 U	60.0000 U	58.0000 U	57.0000 U
4-Chlorophenyl-phenylether	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

COPPOR00010018

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for TOC-Normalized Semi-Volatile Organic Compounds

Station ID:	SD117	SD120	SD122	SD125	SD127	SD133
Sample ID:	WR-SD-SD117-0000A	WR-SD-SD120-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A	WR-SD-SD127-0000A	WR-SD-SD133-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
4-Methylphenol	28461.5384	2500.0000	7058.8235 J	4850.0000 J	4210.5263	5000.0000
4-Nitroaniline	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
4-Nitrophenol	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
Benzoic acid	190.0000 U	200.0000 U	13529.4117	200.0000 U	190.0000 U	190.0000 U
Benzyl alcohol	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
bis(2-Chloroethoxy)methane	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
bis(2-Chloroethyl)ether	38.0000 U	39.0000 U	38.0000 U	40.0000 U	39.0000 U	38.0000 U
bis(2-Ethylhexyl)phthalate	90.0000 UJ	16666.6666	22941.1764	34000.0000	40526.3157	66666.6666
Butylbenzylphthalate	19.0000 U	20.0000 U	19.0000 U	1200.0000	1736.8421	3055.5555
Carbazole	19.0000 U	20.0000 U	19.0000 U	20.0000 U	1000.0000 J	6111.1111
Di-n-butylphthalate	19.0000 U	20.0000 U	19.0000 U	1100.0000	19.0000 U	4888.8888
Di-n-octylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Dibenzofuran	19.0000 U	11111.1111	1176.4705	1450.0000	1421.0526	9444.4444
Diethylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Dimethylphthalate	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	3277.7777 N
Hexachlorobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Hexachlorobutadiene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Hexachlorocyclopentadiene	95.0000 UJ	98.0000 UJ	96.0000 U	99.0000 U	97.0000 U	96.0000 U
Hexachloroethane	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Isophorone	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
N-Nitroso-di-n-propylamine	38.0000 U	39.0000 U	38.0000 U	40.0000 U	39.0000 U	38.0000 U
N-Nitrosodiphenylamine	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Nitrobenzene	19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	19.0000 U
Pentachlorophenol	95.0000 U	98.0000 U	96.0000 U	99.0000 U	97.0000 U	96.0000 U
[illegible]	1461.5384	20.0000 U	19.0000 U	1350.0000	1157.8947	19.0000 U
[illegible]	8461.5384	5388.8888	3000.0000	2550.0000	3052.6315	6111.1111

COPPOR00010019

Constituent	Station ID:	SD117	SD120	SD122	SD125	SD127	SD133
	Sample ID:	WR-SD-SD117-0000A	WR-SD-SD120-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A	WR-SD-SD127-0000A	WR-SD-SD133-0000A
	Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Acenaphthylene		2615.3846	20.0000 U	19.0000 U	20.0000 U	19.0000 U	1777.7777
Acenaphthene		2692.3076	21111.1111	1294.1176	1900.0000	2105.2631	17777.7777
Fluorene		2615.3846	16666.6666	1823.5294	2550.0000	2526.3157	18888.8888
Phenanthrene		20000.0000	72222.2222 D	8823.5294	15500.0000	13684.2105	122222.2222 D
Anthracene		3692.3076	8888.8888	2529.4117	3700.0000	3526.3157	17777.7777
Total LPAH		40076.9230 T	124277.7777 T	17470.5882 T	26200.0000 T	24894.7368 T	184555.5555 T
Fluoranthene		18461.5384	61111.1111	10588.2352	16000.0000	14736.8421	161111.1111 D
Pyrene		23076.9230	55555.5555	11764.7058	18000.0000	16842.1052	133333.3333 D
Benzo(a)anthracene		4846.1538	10555.5555	3529.4117	7500.0000	7368.4210	72222.2222
Chrysene		7538.4615	17222.2222	5764.7058	10000.0000	8947.3684	72222.2222
Benzo(b)fluoranthene		4000.0000	6666.6666	4529.4117	10500.0000	6842.1052	77777.7777
Benzo(k)fluoranthene		5076.9230	7222.2222	3764.7058	5500.0000	4736.8421	43333.3333
Total Benzofluoranthene		9076.9230 T	13888.8888 T	8294.1176 T	16000.0000 T	11578.9473 T	121111.1111 T
Benzo(a)pyrene		5615.3846	5555.5555	3294.1176	7500.0000	6315.7894	61111.1111
Indeno(1,2,3-cd)pyrene		3307.6923	2333.3333	2882.3529	6000.0000	4526.3157	53888.8888
Dibenz(a,h)anthracene		19.0000 U	20.0000 U	19.0000 U	20.0000 U	19.0000 U	16111.1111
Benzo(g,h,i)perylene		4846.1538	2555.5555	2529.4117	4350.0000	4157.8947	41111.1111
Total HPAH		76769.2307 T	168777.7777 T	48647.0588 T	85350.0000 T	74473.6842 T	732222.2222 T
Conventional Parameters							
Total Organic Carbon (%)		1.3000	1.8000	1.7000	2.0000	1.9000	1.8000

A blank cell indicates analysis was not performed, a sample was not collected, or TOC normalization was not appropriate.

COPPOR00010020

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Pesticides/PCBs

Constituent	Station ID:	SD096	SD106	SD116	SD117	SD122	SD125
	Sample ID:	WR-SD-SD096-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A	WR-SD-SD117-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A
	Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Pesticides/PCBs (UG/KG)							
4,4'-DDD		7.6000	2.2000 J	2.2000 J	20.0000		
4,4'-DDE		3.1000 UI	2.0000 J	2.3000 J	5.2000		
4,4'-DDT		5.6000 UIJ	2.9000 UIJ	2.0000 UJ	22.0000		
Aldrin		0.9400 U	0.9700 UJ	0.9900 UJ	0.9500 U		
Alpha-BHC		0.9400 U	0.9700 UJ	0.9900 UJ	0.9500 U		
Alpha-Chlordane		0.9400 U	0.9700 UJ	0.9900 UJ	0.9500 UJ		
Beta-BHC		0.9400 U	0.9700 UJ	0.9900 UJ	0.9500 U		
Delta-BHC		0.9400 UJ	0.9700 UJ	0.9900 UJ	0.9500 UJ		
Dieldrin		1.9000 U	1.9000 UJ	2.0000 UJ	1.9000 U		
Endosulfan I		0.9400 U	0.9700 UJ	0.9900 UJ	0.9500 U		
Endosulfan II		1.9000 U	1.9000 UJ	2.0000 UJ	1.9000 U		
Endosulfan Sulfate		3.0000 UI	2.4000 UIJ	2.0000 UJ	1.9000 UJ		
Endrin		5.2000 UI	1.9000 UJ	2.0000 UJ	1.9000 U		
Endrin aldehyde		4.8000 UI	1.9000 UJ	2.0000 UJ	1.9000 U		
Endrin Ketone		8.9000 UI	1.9000 UJ	2.0000 UJ	1.9000 UJ		
Gamma-BHC (Lindane)		0.9400 U	0.9700 UJ	0.9900 UJ	0.9500 U		
Gamma-Chlordane		1.6000 UI	0.9700 UJ	0.9900 UJ	0.9500 U		
Heptachlor		0.9400 U	0.9700 UJ	0.9900 UJ	0.9500 U		
Heptachlor Epoxide		0.9400 U	0.9700 UJ	0.9900 UJ	0.9500 U		
Methoxychlor		9.4000 U	9.7000 UJ	9.9000 UJ	9.5000 U		
Toxaphene		94.0000 U	97.0000 UJ	99.0000 UJ	95.0000 U		
Aroclor 1016		19.0000 U	19.0000 UJ	20.0000 UJ	19.0000 U	19.0000 U	20.0000 U
Aroclor 1221		38.0000 U	39.0000 UJ	39.0000 UJ	38.0000 U	38.0000 U	40.0000 U
Aroclor 1232		19.0000 U	19.0000 UJ	20.0000 UJ	19.0000 U	19.0000 U	20.0000 U
Aroclor 1242		19.0000 U	19.0000 UJ	20.0000 UJ	19.0000 U	19.0000 U	20.0000 U

A blank cell indicates analysis was not performed or a sample was not collected

COPPOR00010021

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Pesticides/PCBs

Station ID:	SD096	SD106	SD116	SD117	SD122	SD125
Sample ID:	WR-SD-SD096-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A	WR-SD-SD117-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A
Constituent Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Aroclor 1248	19.0000 U	19.0000 UJ	20.0000 UJ	19.0000 U	19.0000 U	20.0000 U
Aroclor 1254	70.0000	15.0000 J	20.0000 UJ	72.0000	40.0000	33.0000
Aroclor 1260	160.0000	19.0000 UJ	20.0000 UJ	70.0000 UI	33.0000	24.0000
Total PCB	230.0000 T	15.0000 T	39.0000 UT	72.0000 T	73.0000 T	57.0000 T

COPPOR00010022

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for Organotins

Constituent	Station ID:	SD102	SD106	SD116	SD117	SD122	SD125
	Sample ID:	WR-SD-SD102-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A	WR-SD-SD117-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A
	Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Organotins (UG/KG)							
Tetra-n-butyltin		5.9000 U	8.6000	28.0000	5.7000 U	12.0000	16.0000
Tributyl Tin		5.9000 U	1300.0000 D	3500.0000 D	5.7000 U	2700.0000 D	4100.0000 D
Tributyl Tin (as T8T cation)		5.2510 U	1157.0000 D	3115.0000 D	5.0730 U	2403.0000 D	3649.0000 D
Dibutyl Tin		5.9000 UJ	52.0000 J	230.0000 J	5.7000 U	57.0000 J	130.0000 J
Butyl Tin		5.9000 U	49.0000	240.0000	5.7000 U	63.0000	60.0000

A blank cell indicates analysis was not performed or a sample was not collected. Organotins reported as organotin chloride

COPPOR00010023

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for TOC and Grain Size

Station ID:	SD092	SD096	SD100	SD102	SD106	SD116
Sample ID:	WR-SD-SD092-0000A	WR-SD-SD096-0000A	WR-SD-SD100-0000A	WR-SD-SD102-0000A	WR-SD-SD106-0000A	WR-SD-SD116-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Conventional Parameters						
Total Organic Carbon (%)	2.4000	1.6000	1.7000	1.4000	2.0000	1.8000
Grain Size (%)						
>4750 microns-Fractional % retained	0.2300	0.0000	0.0200	0.0000	0.0000	0.0000
4750-2000 microns-Fractional % retained	0.9100	1.4000	0.4900	0.6400	0.2400	0.1700
2000-1000 microns-Fractional % retained	0.7700	1.9800	0.4900	0.1800	0.4000	0.2800
1000-500 microns-Fractional % retained	1.2900	4.5800	0.9100	0.7100	1.0000	0.8400
500-250 microns-Fractional % retained	4.7100	8.0700	7.6300	1.9700	2.5400	1.3500
250-125 microns-Fractional % retained	8.3300	10.1700	5.4300	9.3000	5.0000	5.6400
125-62.4 microns-Fractional % retained	12.6900	18.0400	7.0400	18.2100	13.4300	14.6800
62.4-31.2 microns-Fractional % retained	12.3700	16.6100	20.2700	16.9200	22.7000	18.9900
31.2-15.6 microns-Fractional % retained	19.1100	14.5100	12.8200	18.8400	22.3900	23.9100
15.6-7.8 microns-Fractional % retained	13.6100	9.5000	13.1000	12.1600	13.6100	15.5700
7.8-3.9 microns-Fractional % retained	8.6400	5.0800	7.0000	7.2000	7.3400	7.5400
3.9-1.9 microns-Fractional % retained	5.3300	2.9200	4.6100	4.2200	3.3000	3.2200
1.9-0.9 microns-Fractional % retained	3.8300	2.3700	2.7600	2.6700	2.8300	2.6300
<0.9 microns-Fractional % retained	8.1800	4.7700	17.4300	6.9800	5.2200	5.1800

[illegible] was not performed or a [illegible] collected.

COPPOR00010024

The Portland Harbor Sediment Investigation - Full Data Listing of Subsurface Sediment Results for TOC and Grain Size

Station ID:	SD117	SD120	SD122	SD125	SD127	SD133
Sample ID:	WR-SD-SD117-0000A	WR-SD-SD120-0000A	WR-SD-SD122-0000A	WR-SD-SD125-0000A	WR-SD-SD127-0000A	WR-SD-SD133-0000A
Constituent / Depth (cm bgs):	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm	0.0 to 90 cm
Conventional Parameters						
Total Organic Carbon (%)	1.3000	1.8000	1.7000	2.0000	1.9000	1.8000
Grain Size (%)						
>4750 microns-Fractional % retained	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4750-2000 microns-Fractional % retained	0.1200	1.2400	0.1400	0.0000	0.0200	0.1000
2000-1000 microns-Fractional % retained	0.2200	0.8900	0.1900	0.0600	0.1600	0.7400
1000-500 microns-Fractional % retained	0.5200	4.8200	0.4400	0.4300	0.8900	2.8100
500-250 microns-Fractional % retained	0.9900	16.3400	0.6100	0.8100	0.7500	7.6800
250-125 microns-Fractional % retained	6.3800	6.6100	2.3900	1.2700	1.9300	12.2900
125-62.4 microns-Fractional % retained	24.1800	10.5900	9.7300	6.8200	9.8200	7.9400
62.4-31.2 microns-Fractional % retained	24.6500	14.0600	16.1400	16.7800	13.8100	6.7400
31.2-15.6 microns-Fractional % retained	18.2900	16.1700	27.1900	22.7200	24.8400	17.3300
15.6-7.8 microns-Fractional % retained	10.8200	9.9400	17.9500	19.1900	18.9000	24.1100
7.8-3.9 microns-Fractional % retained	5.3900	5.8100	9.4700	11.6100	11.5100	9.2500
3.9-1.9 microns-Fractional % retained	3.0400	4.2800	4.4800	5.8200	5.9000	3.7100
1.9-0.9 microns-Fractional % retained	2.1800	2.6800	3.1100	5.0200	3.7800	1.8600
<0.9 microns-Fractional % retained	3.2200	6.5700	8.1600	9.4700	7.8900	5.6400

A blank cell indicates analysis was not performed or a sample was not collected

COPPOR00010025

March 16, 1998
Project 1115-007.4A

Ms. Jill Kiernan, P.E.
Waste Management and Cleanup Division
Oregon Department of Environmental Quality
2020 Southwest Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

Re: Barrier Wall Construction Report
Doane Avenue 60-Inch Storm Sewer Line
Willbridge Facility
Portland, Oregon

Dear Ms. Kiernan:

Pacific Environmental Group, Inc. (PEG), on behalf of the Willbridge responsible parties (RPs) copied below, is pleased to submit this Interim Action Completion Report describing the final design and installation of the HDPE barrier wall at the Doane Avenue storm sewer. This letter describes the field installation and modifications to the original barrier design described in the "*Barrier Wall Installation Design Report*" dated October 14, 1997.

PRE-FIELD SITE CONDITIONS

Subsurface Investigation at the 60-inch Storm Drain

As discussed in previous reports, a native silt/clay barrier was unearthed approximately 50 feet from the shoreline during construction of the 60-inch storm drain. PACIFIC performed a subsurface investigation around the 60-inch storm drain in August 1997, using a track-mounted backhoe to investigate the soils in the area of the 60-inch storm drain. The purpose of the subsurface investigation was to locate the native silt/clay barrier and determine if installation of the HDPE barrier was feasible in this area. Several test pits were excavated along the alignment of the 60-inch sewer line. The native silt/clay barrier was located at approximately 7 to 8 feet below ground surface, approximately 75 feet from the 60-inch outfall. Hydrocarbon impacted soil was not encountered during the test pit excavation.

Results of the investigation determined that excavation and installation of the HDPE liner would not be feasible in the area of the native silt/clay barrier due to the proximity of the Willamette River. This area can be submerged during high-river stage several months during the year, which would jepordize the systems effectiveness. For these reasons, the area around the existing clay barrier, installed in 1988, was determined to be more feasible for construction of the HDPE liner.

Tracer Test Results

On September 1, 1997, PACIFIC placed a Rhodimine WT dye in monitoring Wells B-17, B-18, B-33 and U-4 to examine transport through the "new" 60-inch and "old" 27-inch bedding material. Wells B-17, B-18, and U-4 are completed in the bedding material beneath the 60-inch and 27-inch storm drain lines, while Well B-33 is believed to be installed in the historic Holbrook Slough channel. Monitoring wells located downgradient from these wells have been monitored at weekly intervals to track the tracer dye migration.

Estimated groundwater flow velocity calculations through the 60-inch bedding material is approximately 11 feet/day. Well B-18 was injected with a red dye during September 1997. The tracer was observed at the 60-inch outfall 162 days following injection at Well B-18, which indicates the groundwater flow velocity through the 60-inch bedding material is approximately 3 feet per day. This also suggests that the 60-inch storm sewer from N.W. Front Avenue to the outfall is a preferential pathway for contaminants migrating to the Willamette River. The tracer dye placed in Well U-4, upgradient from B-18 has not been observed at Well B-18.

The tracer dye placed in Well B-33 at the historic Holbrook Slough has an estimated groundwater flow velocity of approximately 1 foot/day. The tracer dye is calculated to be visible at the slough outfall approximately 200 days after injection. It was calculated that the tracer dye would be visible at the Holbrook Slough outfall in March of 1998. However, during the winter months, the groundwater flow velocity will probably increase allowing the tracer dye to migrate to the outfall at a faster rate. The dye has been observed in downgradient monitoring Well B-20, which is 181 days following injection. The tracer study in this area as well as in the area of the 27-inch storm drain line is ongoing.

Groundwater Sampling Prior to Excavation

As requested by the Oregon Department of Environmental Quality (ODEQ), groundwater samples were collected from monitoring Well RES-N prior to installation of the barrier. Monitoring Well RES-N is located upgradient of the clay barrier on the north side of the 60-inch sewer line (Figure 1). Water level and separate-phase hydrocarbon (SPH) thickness were recorded in RES-N prior to purging. Static water

level was recorded at 23.93 feet below top of casing (TOC) and SPH thickness was measured at 0.12 foot. Approximately 188 gallons of water was extracted prior to sampling.

Groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs) by EPA Methods 8020 and 8270-SIM, respectively. These compounds represent the constituents of potential concern (COPCs) likely to be encountered at the installation location.

Analytical results for BTEX indicate that benzene (29.1 (parts per billion (ppb)), toluene (2.18 ppb), ethylbenzene (2.06 ppb) and total xylenes (2.59 ppb) were detected in groundwater collected from RES-N.

Analytical results for PAH compounds were generally below 1 ppb with the exception of acenaphthene (2.55ppb), fluorene (6.21ppb), phenanthrene (5.47ppb), and pyrene (0.446ppb). The certified analytical reports are presented as Attachment A.

Video Logging of the 60-inch Storm Sewer

Prior to excavation of the 60-inch storm sewer, an Encroachment Permit was issued to Tosco from the City of Portland Bureau of Environmental Sciences (BES). As part of the Permit, the City requested video logging of the 60-inch sewer line prior to excavation and following completion of the construction project. Gelco Services of Salem, Oregon was contracted to perform the video logging. Video logs recorded prior to construction and post-construction were submitted to BES as specified in the Permit.

DESCRIPTION OF THE INTERIM ACTION PERFORMED

The barrier wall at the 60-inch storm drain was installed in the same area as the clay barrier installed in 1988 by Riedel Environmental Services (Riedel). The new barrier required the installation of an engineered shoring system with approximate dimensions of 10 foot by 20 foot by 21 feet deep in soils best described as river sediments. Soils were excavated using a large hydraulic excavator by segregating the upper "clean" soils from the lower "impacted" soils after the shoring system was installed. The placement of the shoring system allowed excavation to occur in a manner that exposed the top of the 60-inch pipe and the clay barrier installed beneath and to the sides of the pipe in 1988 by Riedel.

Once the top of the clay barrier was exposed, a hand auger was used to verify the competency of the clay barrier. This involved the installation of eight hand auger borings to verify the thickness of the clay barrier and that the permeable bedding material was removed from beneath the pipe when the clay barrier was installed. Results of the hand augers indicate the clay barrier is approximately 4 to 5 feet thick. Native silty/clay was encountered beneath the Riedel barrier. Soil samples collected

from the hand augers indicated the barrier was composed of damp silt and clay topsoil. Field photo-ionized detector (PID) readings and headspace analysis on the soil samples did not indicated the presence of petroleum hydrocarbons. Once the competency of the Riedel clay barrier was determined, the 4-inch flow-through piping was installed on each side of the 60-inch pipe, parallel to the storm drain alignment.

Following installation of the flow-through piping, a 45-mil high-density polyethylene (HDPE) liner was installed in the excavation in accordance with the original design drawings. This HDPE liner spanned the full width of the excavation (20') and "keyed" 18-inches into the existing clay barrier. The toe of the HDPE liner was grouted in placed, tying the Riedel clay barrier with the newly installed liner. The grout extends one foot above the top of the 60-inch pipe, and consisted of 4-sack concrete mix with sand. Pea gravel was added to help the mix flow more easily through the pump truck. Approximately 600 pounds of bentonite powder and 100 gallons of water were added to the concrete mix while still in the ready mix truck prior to pumping. Five cubic yards of the mix was used in constructing the new HDPE liner barrier.

Two 6-inch diameter, PVC wells with 0.050-slot well screens were installed on the upgradient side of the liner prior to backfill for collection of SPH product that will accumulate behind the liner. The wells were also used for dewatering of the excavation during construction activities. The excavation was then backfilled with pea gravel on the upgradient and downgradient side of the liner. The rest of the excavation was then backfilled with the excavated soils that were determined to be satisfactory as backfill material by DEQ. The shoring system was removed and the ground surface restored to original condition after the excavation was backfilled.

FIELD MODIFICATIONS DURING CONSTRUCTION

Modification of the flow-through piping was made during field activities due to the uncertainty of the elevation of the top of the existing clay barrier installed by Riedel in 1988. Once the excavation was completed and the top of the clay barrier was exposed, an approximate elevation was determined for the top of the clay barrier. This elevation in conjunction with historic water level trends in the area determined that the flow through piping be installed at a lower elevation than originally designed. This design change will not affect the overall performance of the system. "As-built" details of the 4-inch flow through piping and the rest of the new barrier are presented in Figures 1 and 2.

CONTAMINATED SOILS AND GROUNDWATER REMOVED DURING CONSTRUCTION

Soil Management

All excavated soils were stored on visqueen and covered during the field activities. The excavated soils were field screened using an OVM 530B photo-ionization device (PID). One discrete composite soil sample for every 20 cubic yards was analyzed for benzene, ethylbenzene, toluene, and xylenes (BTEX) DEQ Method 8020, and Polynuclear Aromatic Compounds (PAHs) DEQ Method 8270-Sim. Approximately 120 cubic yards of soil was removed from the excavation. Analytical results were presented to DEQ and the excavated soils were within acceptable limits to be returned to the excavation as backfill.

Groundwater Management

Construction of the barrier was originally intended to occur during periods of historically lowest static water levels in November and December. Due to construction not starting until January, groundwater seepage was encountered during excavation. To continue hand excavation of the flow-through piping trenches, dewatering of the excavation was necessary.

Diaphragm pumps, capable of handling solids, were used to extract groundwater from the new 6-inch wells and discharge to an existing underground pipeline that crosses Front Avenue and terminates at the existing Tosco process wastewater treatment system. This treatment system consists of an oil water separator and dissolved air floatation (DAF) processes for treatment prior to discharging into the sanitary sewer system under permit from the City of Portland, Bureau of Environmental Services. The volume of water extracted during installation, development, and dewatering was monitored daily, and total volumes extracted recorded and reported to DEQ. Approximately 6,000 gallons of water was extracted during the excavation dewatering, well development and purging.

Groundwater Sampling

Following installation of the barrier, groundwater samples were collected from the 4-inch flow-through piping as requested by DEQ. Groundwater samples were collected from the upgradient and downgradient flow-through pipes. The samples were analyzed for BTEX and PAHs per EPA Methods 8020 and 8270 respectively.

Analytical results for BTEX indicate that benzene, toluene, ethylbenzene, and total xylenes were non-detect in samples collected from upgradient (IF-1) and downgradient (OF-1) flow-through piping.

Analytical results for PAH compounds collected from the upgradient 4-inch piping (IF-1) were generally below 2 ppb with the exception of acenaphthene (7.31ppb), fluorene (18.1ppb), phenanthrene (30.7ppb), and pyrene (1.39ppb). PAH compounds analyzed from the downgradient 4-inch piping (OF-1) were generally below 2 ppb, with the exception of acenaphthene (17.1ppb), fluorene (44.6ppb), phenanthrene (89.6ppb), and pyrene (10.5ppb). Although identical PAH compounds were detected in the upgradient and downgradient groundwater samples, analysis from the downgradient 4-inch piping indicated higher levels of the compounds detected than those collected from the upgradient side of the barrier. The certified analytical reports are attached.

Initial Operation and Maintenance (O&M) of the Barrier System

Groundwater and SPH levels are currently being monitored at weekly intervals in the two new 6-inch monitoring wells and the 4-inch flow-through piping. SPH has not been recorded in the upgradient or downgradient side of the liner, including RES-N, since installation. The liner system will continue to be monitored at weekly intervals.

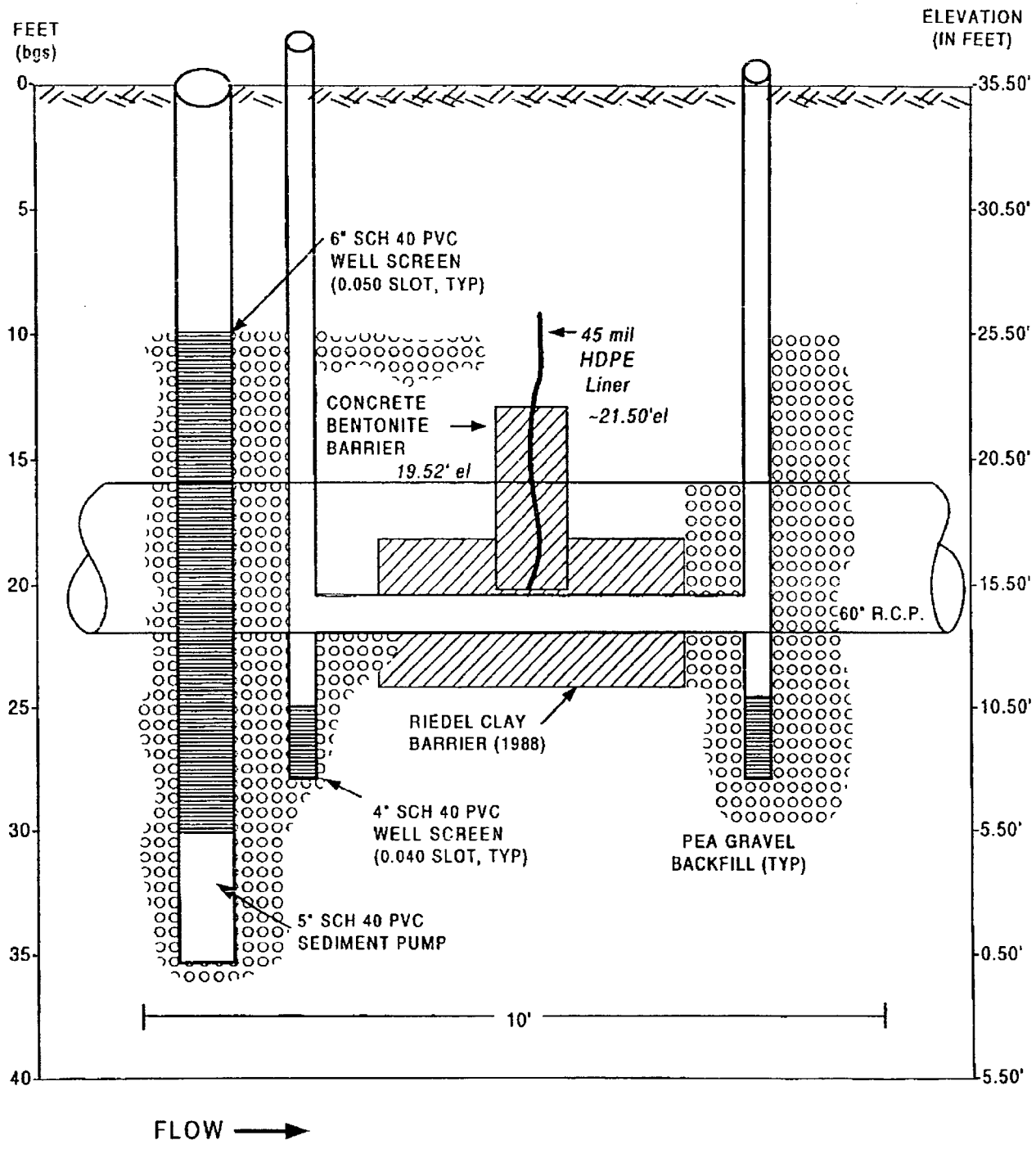
If you have any questions regarding the contents of this letter, please call.

Sincerely,
Pacific Environmental Group, Inc.

Lance D. Geselbracht, P.E.
Senior Engineer

Attachments: Figure 1 - 60-Inch Barrier Installation Profile View
Figure 2 - 60-Inch Barrier Installation Top View
Attachment A - Certified Analytical Report and Chain-of-Custody Documentation

cc: Mr. Gerald O'Regan, Chevron Products Company
Mr. Eric Conard, GATX Terminals Corporation
Mr. Martin Cramer, Tosco Distribution Company
Mr. Irv Jenkins, Shell Oil Products Company
Ms. Nanci Snyder, City of Portland - Bureau of Environmental Services



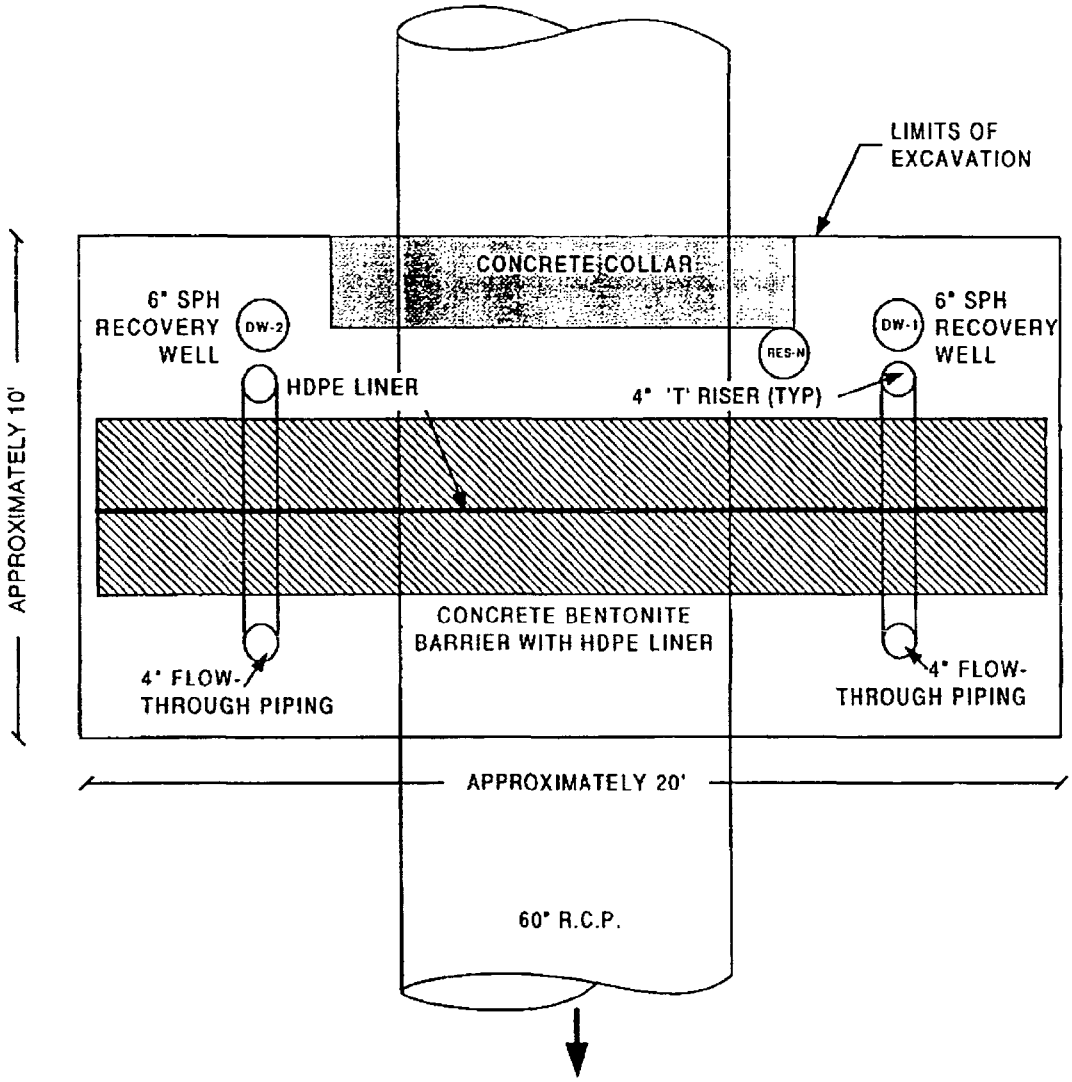
PACIFIC
ENVIRONMENTAL
GROUP, INC.

WILLBRIDGE TERMINAL
Portland, Oregon

60" BARRIER INSTALLATION PROFILE VIEW

FIGURE:
1
PROJECT:
B15-007.4A

COPPOR00010032



NOTE: AREAL EXTENT OF PEA GRAVEL BACKFILL IS WITHIN THE APPROXIMATE 10' x 20' RECTANGLE ("EXCAVATION FOOTPRINT")

PACIFIC ENVIRONMENTAL GROUP, INC.	**WILLBRIDGE TERMINAL** Portland, Oregon	FIGURE: **2**
	60" BARRIER INSTALLATION TOP VIEW	PROJECT: B15-007.4A

ATTACHMENT A

CERTIFIED ANALYTICAL REPORT AND

CHAIN-OF-CUSTODY DOCUMENTATION

RECEIVED MAR 1 9 1998

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL • (425) 481-9200 • FAX 485-2992
SPOKANE • (509) 924-9200 • FAX 924-9290
PORTLAND • (503) 906-9200 • FAX 906-9210

Pacific Environmental Group - OR	Project:	TOSCO #0608, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007-4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:07

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
IF-1	P803223-01	Water	3/11/98

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ▪ (425) 481-9200 ▪ FAX 485-2992
SPOKANE ▪ (509) 924-9200 ▪ FAX 924-9290
PORTLAND ▪ (503) 906-9200 ▪ FAX 906-9210

Pacific Environmental Group - OR	Project:	TOSCO #0608, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007-4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:07

BTEX per EPA Method 8020A
North Creek Analytical - Portland

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
IF-1			P803223-01				Water	
Benzene	0380241	3/11/98	3/11/98		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB	"	"	"	*75.0-120*		*94.4*	%	

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

MES
Mary A. Fritzmann Smith, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ▪ (425) 481-9200 ▪ FAX 485-2992
SPOKANE ▪ (509) 924-9200 ▪ FAX 924-9290
PORTLAND ▪ (503) 906-9200 ▪ FAX 906-9210

Pacific Environmental Group - OR	Project:	TOSCO #0608, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007-4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:07

Polynuclear Aromatic Compounds per EPA 8270M-SIM
North Creek Analytical - Portland

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
IF-1			**P803223-01**				**Water**	**1**
Acenaphthene	0380287	3/12/98	3/12/98		2.50	**8.40**	ug/l	
Acenaphthylene	"	"	"		2.50	ND	"	
Anthracene	"	"	"		5.00	ND	"	
Benzo (a) anthracene	"	"	"		1.00	ND	"	
Benzo (a) pyrene	"	"	"		1.00	ND	"	
Benzo (b) fluoranthene	"	"	"		1.00	ND	"	
Benzo (ghi) perylene	"	"	"		1.00	ND	"	
Benzo (k) fluoranthene	"	"	"		1.00	ND	"	
Chrysene	"	"	"		1.00	ND	"	
Dibenzo (a,h) anthracene	"	"	"		2.00	ND	"	
Fluoranthene	"	"	"		2.50	ND	"	
Fluorene	"	"	"		2.50	**18.9**	"	
Indeno (1,2,3-cd) pyrene	"	"	"		1.00	ND	"	
Naphthalene	"	"	"		5.00	ND	"	
Phenanthrene	"	"	"		2.50	**30.7**	"	
Pyrene	"	"	"		1.00	**3.97**	"	
Surrogate: 2-Fluorobiphenyl	"	"	"	*43.0-116*		*120*	*%*	*2*
Surrogate: Nitrobenzene-d5	"	"	"	*35.0-114*		*NR*	"	*3*
Surrogate: p-Terphenyl-d14	"	"	"	*33.0-141*		*116*	"	

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Pacific Environmental Group - OR	Project:	TOSCO #0608, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007-4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:07

BTEX per EPA Method 8020A/Quality Control
North Creek Analytical - Portland

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0380241	**Date Prepared: 3/11/98**				**Extraction Method: EPA 5030**					
Blank	**0380241-BLK1**									
Benzene	3/11/98			ND	ug/l	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	1.00				
Surrogate: 4-BFB	"	*50.0*		*47.9*	"	*75.0-120*	*95.8*			
LCS	**0380241-BS2**									
Benzene	3/11/98	20.0		20.4	ug/l	67.0-130	102			
Toluene	"	20.0		20.3	"	75.0-126	101			
Ethylbenzene	"	20.0		20.4	"	76.0-124	102			
Xylenes (total)	"	60.0		61.9	"	75.0-126	103			
Surrogate: 4-BFB	"	*50.0*		*50.9*	"	*75.0-120*	*102*			
Batch: 0380245	**Date Prepared: 3/11/98**				**Extraction Method: EPA 5030**					
Blank	**0380245-BLK1**									
Benzene	3/11/98			ND	ug/l	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	1.00				
Surrogate: 4-BFB	"	*50.0*		*44.3*	"	*75.0-120*	*88.6*			
LCS	**0380245-BS2**									
Benzene	3/11/98	20.0		18.6	ug/l	67.0-130	93.0			
Toluene	"	20.0		18.5	"	75.0-126	92.5			
Ethylbenzene	"	20.0		18.7	"	76.0-124	93.5			
Xylenes (total)	"	60.0		56.4	"	75.0-126	94.0			
Surrogate: 4-BFB	"	*50.0*		*44.4*	"	*75.0-120*	*88.8*			
Matrix Spike	**0380245-MS1**		**P803211-01**							
Benzene	3/11/98	20.0	ND	15.7	ug/l	67.0-130	78.5			
Toluene	"	20.0	ND	15.7	"	75.0-126	78.5			
Ethylbenzene	"	20.0	ND	16.4	"	76.0-124	82.0			
Xylenes (total)	"	60.0	ND	48.9	"	75.0-126	81.5			
Surrogate: 4-BFB	"	*50.0*		*40.2*	"	*75.0-120*	*80.4*			
Matrix Spike Dup	**0380245-MSD1**		**P803211-01**							
Benzene	3/11/98	20.0	ND	15.6	ug/l	67.0-130	78.0	13.0	0.639	

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**Refer to end of report for text of notes and definitions.*

Mary A. Fritzmann Smith, Project Manager

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Pacific Environmental Group - OR	Project:	TOSCO #0608, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007-4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:07

BTEX per EPA Method 8020A/Quality Control
North Creek Analytical - Portland

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup (continued)	0380245-MSD1		P803211-01							
Toluene	3/11/98	20.0	ND	15.7	ug/l	75.0-126	**78.5**	13.0	**0**	
Ethylbenzene	"	20.0	ND	16.2	"	76.0-124	**81.0**	15.0	**1.23**	
Xylenes (total)	"	60.0	ND	48.6	"	75.0-126	**81.0**	13.0	**0.615**	
Surrogate: 4-BFB	"	*50.0*		*39.6*	"	*75.0-120*	*79.2*			

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Pacific Environmental Group - OR	Project:	TOSCO #0608, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007-4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:07

Polynuclear Aromatic Compounds per EPA 8270M-SIM/Quality Control
North Creek Analytical - Portland

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0380287	**Date Prepared: 3/12/98**					**Extraction Method: EPA 3510/600 Series**				
Blank	**0380287-BLK1**									
Acenaphthene	3/13/98			ND	ug/l	0.100				
Acenaphthylene	"			ND	"	0.100				
Anthracene	"			ND	"	0.100				
Benzo (a) anthracene	"			ND	"	0.100				
Benzo (a) pyrene	"			ND	"	0.100				
Benzo (b) fluoranthene	"			ND	"	0.100				
Benzo (ghi) perylene	"			ND	"	0.100				
Benzo (k) fluoranthene	"			ND	"	0.100				
Chrysene	"			ND	"	0.100				
Dibenzo (a,h) anthracene	"			ND	"	0.200				
Fluoranthene	"			ND	"	0.100				
Fluorene	"			ND	"	0.100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.100				
Naphthalene	"			ND	"	0.100				
Phenanthrene	"			ND	"	0.100				
Pyrene	"			ND	"	0.100				
Surrogate: 2-Fluorobiphenyl	"	*2.50*		*2.48*	"	*43.0-116*	*99.2*			
Surrogate: Nitrobenzene-d5	"	*2.50*		*2.66*	"	*35.0-114*	*106*			
Surrogate: p-Terphenyl-d14	"	*2.50*		*2.68*	"	*33.0-141*	*107*			
LCS	**0380287-BS1**									
Acenaphthylene	3/12/98	5.00		5.50	ug/l	50.0-150	110			
Benzo (k) fluoranthene	"	5.00		5.61	"	50.0-150	112			
Pyrene	"	5.00		6.02	"	50.0-150	120			
Surrogate: 2-Fluorobiphenyl	"	*2.50*		*2.51*	"	*43.0-116*	*100*			
Surrogate: Nitrobenzene-d5	"	*2.50*		*2.75*	"	*35.0-114*	*110*			
Surrogate: p-Terphenyl-d14	"	*2.50*		*2.61*	"	*33.0-141*	*104*			
LCS Dup	**0380287-BSD1**									
Acenaphthylene	3/12/98	5.00		5.68	ug/l	50.0-150	114	60.0	3.57	
Benzo (k) fluoranthene	"	5.00		5.69	"	50.0-150	114	60.0	1.77	
Pyrene	"	5.00		6.16	"	50.0-150	123	60.0	2.47	
Surrogate: 2-Fluorobiphenyl	"	*2.50*		*2.61*	"	*43.0-116*	*104*			
Surrogate: Nitrobenzene-d5	"	*2.50*		*2.75*	"	*35.0-114*	*110*			
Surrogate: p-Terphenyl-d14	"	*2.50*		*2.70*	"	*33.0-141*	*108*			

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Pacific Environmental Group - OR	Project:	TOSCO #0608, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007-4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:07

Notes and Definitions

#	Note
1	Reporting limits raised due to dilution necessary for analysis.
2	Surrogate recovery is outside control limits due to matrix interference.
3	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

NORTH CREEK ANALYTICAL
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East 11115 Montgomery, Suite B, Spokane, WA 98206-4779 (509) 924-9200 FAX 924-9290
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 906-9200 FAX 906-2202

COPY

UNOCAL CHAIN OF CUSTODY REPORT

UNOCAL INFORMATION

Facility Number: 0608
Site Address: 5528 NW Doane Ave.
City, State, ZIP: Portland OR 97210
Site Release Number:
Unocal Manager: Marty Cramer
CERT INFO: (check one) ☐ Evaluation ☐ Remediation ☐ Detection ☐ Demolition ☐ Closure ☐ Miscellaneous

CONSULTANT INFORMATION

Firm: PEG Project# 1115-007.4A
Address: Portland
Phone: 639-6305 Fax:
Project Manager: M. Oehsner
Sample Collection by: J. Callison

Chain of Custody Record #: P803223

Quality Assurance Data Level: A B
A: Standard Summary
B: Standard + Chromatograms

Laboratory Turnaround Days: 10 5 3 2

○ OR ○ WA ○ AK ○ NW Series

SAMPLE INDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CON-TAINERS	TPH-HCID	TPH-Gas	BTEX EPA 8021 Mod. TPH-Gas + BTEX	TPH-Diesel	TPH-Diesel Extended	TPH-Diesel-Ext. w/SG Cleanup	Halogen. Volatiles EPA 8021	Pesticides/PCBs or PCBs Only	GC/MS Volatiles EPA 8260	GC/MS Semi Vols. EPA 8270	PAH's: 8270 SIM or 8310	Lead: Total or Dissolved	TCLP or RCRA Metals (8)					NCA SAMPLE NUMBER
1. IF-1	3/11/98	W	3			X								X							
2.																					
3.																					
4.																					
5.																					
6.																					
7.																					
8.																					
9.																					
10.																					

Relinquished by:	Firm:	Date & Time	Received by:	Firm:	Date & Time
1. [signature]	PEG	3/11/98 1445	[signature]	NCA	3-11-98 1445
2. [signature]	NCA	3-11-98 1620	Sara McCarty	NCA	3-11-98 1620
3.					

Final Report Approval
Were all requested results provided? yes no Define
Were results within requested turnaround? yes no "No" on back
Final Approval Signature:
Firm: Date:

Page ____ of ____
Rev. UNO3.3, 10/97

Comments:

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Pacific Environmental Group - OR	Project:	CHEVRON #61001868, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007.4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:15

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
OF-1	P803224-01	Water	3/11/98

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Pacific Environmental Group - OR	Project:	CHEVRON #61001868, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007.4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:15

BTEX per EPA Method 8020A
North Creek Analytical - Portland

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
OF-1			P803224-01				Water	
Benzene	0380241	3/11/98	3/11/98		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB	"	"	"	*75.0-120*		*93.8*	*%*	

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Pacific Environmental Group - OR	Project:	CHEVRON #61001868, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007.4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:15

Polynuclear Aromatic Compounds per EPA 8270M-SIM
North Creek Analytical - Portland

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
OF-1			**P803224-01**				**Water**	**1**
Acenaphthene	0380287	3/12/98	3/12/98		5.00	**19.2**	ug/l	
Acenaphthylene	"	"	"		5.00	ND	"	
Anthracene	"	"	"		10.0	ND	"	
Benzo (a) anthracene	"	"	"		2.00	ND	"	
Benzo (a) pyrene	"	"	"		2.00	ND	"	
Benzo (b) fluoranthene	"	"	"		2.00	ND	"	
Benzo (ghi) perylene	"	"	"		2.00	ND	"	
Benzo (k) fluoranthene	"	"	"		2.00	ND	"	
Chrysene	"	"	"		2.00	ND	"	
Dibenzo (a,h) anthracene	"	"	"		4.00	ND	"	
Fluoranthene	"	"	"		10.0	ND	"	
Fluorene	"	"	"		5.00	**44.7**	"	
Indeno (1,2,3-cd) pyrene	"	"	"		2.00	ND	"	
Naphthalene	"	"	"		10.0	ND	"	
Phenanthrene	"	"	"		5.00	**89.6**	"	
Pyrene	"	"	"		2.00	**10.5**	"	
Surrogate: 2-Fluorobiphenyl	"	"	"	*43.0-116*		*NR*	*%*	*2*
Surrogate: Nitrobenzene-d5	"	"	"	*35.0-114*		*NR*	"	*2*
Surrogate: p-Terphenyl-d14	"	"	"	*33.0-141*		*90.7*	"	

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Pacific Environmental Group - OR	Project:	CHEVRON #61001868, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007.4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:15

BTEX per EPA Method 8020A/Quality Control
North Creek Analytical - Portland

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0380241	**Date Prepared: 3/11/98**				**Extraction Method: EPA 5030**					
Blank	**0380241-BLK1**									
Benzene	3/11/98			ND	ug/l	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	1.00				
Surrogate: 4-BFB	"	*50.0*		*47.9*	"	*75.0-120*	*95.8*			
LCS	**0380241-BS2**									
Benzene	3/11/98	20.0		20.4	ug/l	67.0-130	102			
Toluene	"	20.0		20.3	"	75.0-126	101			
Ethylbenzene	"	20.0		20.4	"	76.0-124	102			
Xylenes (total)	"	60.0		61.9	"	75.0-126	103			
Surrogate: 4-BFB	"	*50.0*		*50.9*	"	*75.0-120*	*102*			
Batch: 0380245	**Date Prepared: 3/11/98**				**Extraction Method: EPA 5030**					
Blank	**0380245-BLK1**									
Benzene	3/11/98			ND	ug/l	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	1.00				
Surrogate: 4-BFB	"	*50.0*		*44.3*	"	*75.0-120*	*88.6*			
LCS	**0380245-BS2**									
Benzene	3/11/98	20.0		18.6	ug/l	67.0-130	93.0			
Toluene	"	20.0		18.5	"	75.0-126	92.5			
Ethylbenzene	"	20.0		18.7	"	76.0-124	93.5			
Xylenes (total)	"	60.0		56.4	"	75.0-126	94.0			
Surrogate: 4-BFB	"	*50.0*		*44.4*	"	*75.0-120*	*88.8*			
Matrix Spike	**0380245-MS1**		**P803211-01**							
Benzene	3/11/98	20.0	ND	15.7	ug/l	67.0-130	78.5			
Toluene	"	20.0	ND	15.7	"	75.0-126	78.5			
Ethylbenzene	"	20.0	ND	16.4	"	76.0-124	82.0			
Xylenes (total)	"	60.0	ND	48.9	"	75.0-126	81.5			
Surrogate: 4-BFB	"	*50.0*		*40.2*	"	*75.0-120*	*80.4*			
Matrix Spike Dup	**0380245-MSD1**		**P803211-01**							
Benzene	3/11/98	20.0	ND	15.6	ug/l	67.0-130	78.0	13.0	0.639	

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

Mary A. Fritzmann Smith, Project Manager

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Pacific Environmental Group - OR	Project:	CHEVRON #61001868, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007.4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:15

BTEX per EPA Method 8020A/Quality Control
North Creek Analytical - Portland

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup (continued)	0380245-MSD1		P803211-01							
Toluene	3/11/98	20.0	ND	15.7	ug/l	75.0-126	78.5	13.0	0	
Ethylbenzene	"	20.0	ND	16.2	"	76.0-124	81.0	15.0	1.23	
Xylenes (total)	"	60.0	ND	48.6	"	75.0-126	81.0	13.0	0.615	
Surrogate: 4-BFB	"	*50.0*		*39.6*	"	*75.0-120*	*79.2*			

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Pacific Environmental Group - OR	Project:	CHEVRON #61001868, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007.4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:15

Polynuclear Aromatic Compounds per EPA 8270M-SIM/Quality Control
North Creek Analytical - Portland

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0380287	**Date Prepared: 3/12/98**					**Extraction Method: EPA 3510/600 Series**				
Blank	**0380287-BLK1**									
Acenaphthene	3/13/98			ND	ug/l	0.100				
Acenaphthylene	"			ND	"	0.100				
Anthracene	"			ND	"	0.100				
Benzo (a) anthracene	"			ND	"	0.100				
Benzo (a) pyrene	"			ND	"	0.100				
Benzo (b) fluoranthene	"			ND	"	0.100				
Benzo (ghi) perylene	"			ND	"	0.100				
Benzo (k) fluoranthene	"			ND	"	0.100				
Chrysene	"			ND	"	0.100				
Dibenzo (a,h) anthracene	"			ND	"	0.200				
Fluoranthene	"			ND	"	0.100				
Fluorene	"			ND	"	0.100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.100				
Naphthalene	"			ND	"	0.100				
Phenanthrene	"			ND	"	0.100				
Pyrene	"			ND	"	0.100				
Surrogate: 2-Fluorobiphenyl	"	*2.50*		*2.48*	"	*43.0-116*	*99.2*			
Surrogate: Nitrobenzene-d5	"	*2.50*		*2.66*	"	*35.0-114*	*106*			
Surrogate: p-Terphenyl-d14	"	*2.50*		*2.68*	"	*33.0-141*	*107*			
LCS	**0380287-BS1**									
Acenaphthylene	3/12/98	5.00		5.50	ug/l	50.0-150	110			
Benzo (k) fluoranthene	"	5.00		5.61	"	50.0-150	112			
Pyrene	"	5.00		6.02	"	50.0-150	120			
Surrogate: 2-Fluorobiphenyl	"	*2.50*		*2.51*	"	*43.0-116*	*100*			
Surrogate: Nitrobenzene-d5	"	*2.50*		*2.75*	"	*35.0-114*	*110*			
Surrogate: p-Terphenyl-d14	"	*2.50*		*2.61*	"	*33.0-141*	*104*			
LCS Dup	**0380287-BSD1**									
Acenaphthylene	3/12/98	5.00		5.68	ug/l	50.0-150	114	60.0	3.57	
Benzo (k) fluoranthene	"	5.00		5.69	"	50.0-150	114	60.0	1.77	
Pyrene	"	5.00		6.16	"	50.0-150	123	60.0	2.47	
Surrogate: 2-Fluorobiphenyl	"	*2.50*		*2.61*	"	*43.0-116*	*104*			
Surrogate: Nitrobenzene-d5	"	*2.50*		*2.75*	"	*35.0-114*	*110*			
Surrogate: p-Terphenyl-d14	"	*2.50*		*2.70*	"	*33.0-141*	*108*			

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL • (425) 481-9200 • FAX 485-2992
SPOKANE • (509) 924-9200 • FAX 924-9290
PORTLAND • (503) 906-9200 • FAX 906-9210

Pacific Environmental Group - OR	Project:	CHEVRON #61001868, Portland, OR	Sampled:	3/11/98
7233 SW Kable Lane, Suite 900	Project Number:	1115-007.4A	Received:	3/11/98
Portland, OR 97224	Project Manager:	Mark Ochsner	Reported:	3/17/98 17:15

Notes and Definitions

#	Note
1	Reporting limits raised due to dilution necessary for analysis.
2	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (425) 481-9200 FAX 485-2992
Suite 11115 Montgomery, Suite B, Spokane, WA 98206-4779 (509) 924-9200 FAX 924-9290
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 906-9200 FAX 906-2202

COPY

CHEVRON U.S.A., Inc. CHAIN OF CUSTODY REPORT

CHEVRON INFORMATION

Facility Number: 6100 1868
Site Address: 5531 NW Doane Ave.
City, State, ZIP: Portland OR 97210
Service Code:
Service Order:
Cost Element: 75100100
Chevron Project Manager: G. O'Regan (510) 842-3334

- ☐ Site Assesment
- ☐ Remediation
- ☐ O & M
- ☐ GWM

CONSULTANT INFORMATION

Name: PEG Project# 1115-007.4A
Address: Portland
Phone: 639-6305 Fax:
Project Manager: M. Olsner Airbill#:
Sample Collection by: J. Callison

Laboratory Turnaround Time

- ☒ 1 Business Day
- ☐ 3 Business Days
- ☐ 5 Business Days
- ☐ 10 Business Days
- ☐ 3 Day Air Samples (Please Select One)

☐ AK ☐ OR ☐ WA ☐ NW Series

SAMPLE INDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CON-TAINERS	TPH-HCID	TPH-Gas	BTEX Only EPA 8021 Mod.	TPH-Gas + BTEX	TPH-Diesel	TPH-Diesel Extended	TPH-Diesel-Ext. w/SG Cleanup	Halogen. Volatiles EPA 8021	Pesticides/PCBs or PCBs Only	GC/MS Volatiles EPA 8260	GC/MS Semi Vols. EPA 8270	PAH's 8270 SIM or 8310	Lead: Total or Dissolved	TCLP or RCRA Metals (8)					NCA SAMPLE NUMBER
1. OF-1	3/11/98	W	3			X									X							P803224-1
2.																						
3.																						
4.																						
5.																						
6.																						
7.																						
8.																						
9.																						
10.																						

	Relinquished by:	Firm:	Date & Time	Received by:	Firm:	Date & Time
1.	[signature]	PEG	3/11/98 1445	[signature]	NCA	3-11-98 1445
2.	[signature]	NCA 3-11-98 1620		Sara McClung	NCA	3-11-98 1620
3.						

Additional Comments:

Page____of____ Chev CoC, Rev. 3.3, 10/97

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Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

April 6, 1994

RECEIVED
APR 11 1994
L.T.M.

Lawrence Burke
Lane Powell Spears Lubersky
520 SW Yamhill, Suite 800
Portland, Oregon 97204

Lynn Manolopoulos
Davis Wright Tremaine
10500 NE 8th Street
1800 Bellevue Place
Bellevue, Washington 98004-4300

Michael Williams
Williams Frederickson Stark & Weisensee, P.C.
1600 SW Fourth Avenue, Suite 900
Portland, Oregon 97201

Tim Johnson, Project Manager
Chevron USA Products Company
20500 Richmond Beach Drive NW
Seattle, Washington 98177

Joe Comstock, Senior Engineer
Unocal Oil Company
P.O. Box 76
Seattle, Washington 98111

Todd Suhre, Project Manager
Shell Oil Company
511 N. Brookhurst St.
Anaheim, California 92803

Re: Willbridge Bulk Fuels Area Project
Consent Order

I have enclosed copies of the signed Consent Order between the Department of Environmental Quality (DEQ) and Chevron, Shell, and Unocal. The official date of record for the Consent Order is March 30, 1994. However, *the effective date for submittals and implementation of the Scope of Work (SOW, see Section 1) will be today's date, April 6, 1994.* Accordingly, DEQ will expect to receive notification of one project manager to represent all parties for the project implementation by June 6, 1994.

DEQ would also like to thank all of you for your cooperation and responsiveness in working through the Consent Order negotiations. Please feel free to call me at (503) 229-5413 if you have any questions or if I may be of assistance during your consultant interview/selection process.

Sincerely,

Sheree L. Stewart
Project Manager/Hydrogeologist
Waste Management & Cleanup Division

cc: Kurt Burkholder, Dept. of Justice
Thomas Miller, WMCD/SRS Manager

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

In the Matter of:	)	
	)	DEQ No. WMCSR-NWR-94-06
CHEVRON U.S.A. PRODUCTS COMPANY,	)	
SHELL OIL COMPANY, and UNION OIL	)	ORDER ON CONSENT
COMPANY OF CALIFORNIA,	)	
	)	
Respondents.	)	

Pursuant to ORS 465.260(4), the Director, Oregon Department of Environmental Quality ("DEQ"), issues this Order on Consent ("Consent Order") to Chevron U.S.A. Products Company, Shell Oil Company, and Union Oil Company of California, collectively referred to as "Respondents" unless otherwise noted. This Consent Order contains the following provisions:

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1. Purpose

The mutual objective of DEQ and Respondents is to determine the nature and extent of releases of hazardous substances at or from Respondents' facilities and to develop, evaluate, and select remedial measures, if necessary, in accordance with ORS 465.200 through 465.420 and regulations promulgated thereto.

2. Stipulations

Respondents consent and agree:

A. To issuance of this Consent Order;

B. To perform and comply with all provisions of this Consent Order;

C. In any proceeding brought by DEQ to enforce this Consent Order, not to challenge DEQ's jurisdiction to issue and enforce this Consent Order;

D. In any proceeding brought by DEQ to enforce this Consent Order, not to litigate any issue other than Respondents' compliance with this Consent Order;

E. To waive any right Respondents might have under ORS 465.260(7) to seek reimbursement from the Hazardous Substance Remedial Action Fund of costs incurred under this Consent Order, except as provided under Paragraph 7.K.(3) of this Consent Order; and

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F. To waive any right Respondents might have to seek judicial or administrative review of this Consent Order, except in connection with any action by DEQ to enforce this Consent Order.

3. Findings of Fact

DEQ makes the following findings without admission of any such facts by Respondents:

A. Chevron U.S.A. Products Company ("Chevron") owns and operates a petroleum storage and distribution plant located at 5531 NW Doane Avenue, Portland, Oregon. Shell Oil Company ("Shell") owns and operates a petroleum storage and distribution plant located at 5880 NW St. Helens Road, Portland, Oregon. Union Oil Company of California, dba Unocal ("Unocal") owns and operates a petroleum storage and distribution plant located at 5528 NW Doane Avenue, Portland, Oregon.

B. The location of Respondents' plants is generally described on Attachment A to this Consent Order. For purposes of this Consent Order, Respondents' respective plants are collectively referred to as the "Willbridge facilities" unless otherwise noted. The boundaries of the investigation under this Consent Order include the plants themselves (including areas on the north side of Front Avenue), the streets between the plants, and the sediment along the shoreline of the plants and extending into the river up to fifty (50) feet from the ordinary high water mark or one hundred (100) feet from the stormwater outfalls as shown on Attachment A. This boundary may be modified based upon

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results from further investigations. If investigations indicate that a plume of contamination above background levels extends onto neighboring properties, the area of the investigation may be expanded to include the area affected by the plume. DEQ will determine whether to add as a party to this Consent Order the owner of any neighboring property brought into the investigation, if there is data indicating that a release from that property has contributed to the contaminant plume.

C. The Chevron plant is an active bulk distribution terminal that has been in operation since 1911. The plant occupies an area of approximately 31 acres. Plant operations include receiving bulk products by barge, truck, ship, or rail, storage on the site in aboveground tanks, and blending and/or distribution of these products after packaging.

The Unocal plant is an active bulk distribution terminal, occupies approximately 26 acres, and has been in operation since 1908. The plant receives, stores, blends, packages, and distributes petroleum products, fuel oils, and lubricants. Historically, asphalt production occurred at the plant.

The Shell plant is an active bulk distribution terminal that has been in operation since 1914. It occupies approximately 44 acres. Shell operations at this plant include receiving, storing, blending, packaging, and distribution of petroleum products, fuel oils, and lubricants. Asphalt production activities also occurred at the site until 1985.

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D. A fairly extensive network of wells provide groundwater contamination data for the facilities. The preliminary indication is that there is free product and dissolved phase contamination from petroleum products beneath the Unocal plant and the Chevron plant, the exact nature and extent of which must await further characterization. There might be heavy metals in groundwater beneath the three plants, the exact constituents, nature, and extent of which must await further characterization. Volatile emissions from the free product in groundwater might present current and future threats to the health and safety of underground utility line workers downgradient of the Unocal and Chevron facilities. Past data also indicate that there might be DDT contamination in soil and groundwater beneath the Shell plant, the exact nature and extent of which must await further characterization. Groundwater discharges and other releases from the plants might have contaminated near-shore sediments in the Willamette River.

E. Contaminant concentrations in the groundwater might pose current and future threats to the environment and human health due to the discharge of groundwater in this area to the Willamette River. Volatile emissions from the free product in groundwater might pose current and future threats to the health and safety of sewer/service line workers downgradient of the plants.

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4. Conclusions of Law and Determinations

Based on the administrative record, and the above findings of fact, DEQ determines, without admission of any such determinations by Respondents, that:

A. The Chevron, Shell, and Unocal terminals described above are "facilities" under ORS 465.200(6).

B. Each Respondent is a "person" under ORS 465.200(13).

C. Each Respondent may be liable under ORS 465.255.

D. The substances described in Subsection 3.D. are "hazardous substances" under ORS 465.200(9).

E. The presence of hazardous substances in soils and groundwater at the facilities constitutes a "release" into the environment under ORS 465.200(14).

F. The activities required by this Consent Order or developed under this Consent Order are necessary to protect public health, safety, and welfare and the environment.

Based upon the above stipulations, findings of fact, conclusions of law and determinations, DEQ ORDERS:

5. Work to be Performed

A. Remedial Investigation and Feasibility Study

Respondents shall perform a remedial investigation and feasibility study ("RI/FS") satisfying OAR 340-122-080, the terms and schedules set forth in the Scope of Work ("SOW") contained in Attachment B to this Consent Order, and the terms and schedules set forth in an approved workplan. The SOW and approved workplan shall be deemed consistent with OAR 340-122-080.

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B. Geographic Scope of RI/FS

(1) The RI/FS shall address contamination of soils, surface water, groundwater, and sediments within the boundaries shown on Attachment A. These boundaries may be modified based upon investigation results.

(2) Regarding waters and sediments located below the ordinary high water mark of the Willamette River, the purpose of the RI/FS is to:

(a) Identify, and develop measures to prevent, present and future releases of hazardous substances from upland portions of the Willbridge facilities; and

(b) Identify, and develop measures to remediate, existing sediments contamination resulting from releases of hazardous substances from upland portions of the Willbridge facilities, where such contaminated sediments act as a potential source of continuing releases to the Willamette River or otherwise pose a threat to human health or the environment (for example, through ingestion by fish or aquatic species).

C. Other Facilities

DEQ has initiated or will initiate environmental investigations at other facilities in the vicinity of the Willbridge facilities. DEQ will attempt to coordinate the schedule for those investigations with investigative activities at the Willbridge facilities. To the extent that results of those investigations are relevant to contamination at the Willbridge facilities, such information may be incorporated into

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the RI/FS for the Willbridge facilities. DEQ also will consider the results of investigations at other facilities in determining the proper scope of any future remedial action and appropriate parties thereto.

D. Additional Measures

Respondents may elect at any time during the term of this Consent Order to undertake measures, beyond those required under this Consent Order and the SOW, necessary to address the release or threatened release of hazardous substances at the Willbridge facilities. Such additional measures shall be subject to prior approval by DEQ, which approval shall be granted if DEQ determines that the additional measures will not compromise the validity of the RI/FS or threaten human health or the environment.

6. Public Participation

A. Upon issuance of this Consent Order, DEQ will provide public notice of this Consent Order through issuance of a press release, at a minimum to a local newspaper of general circulation. Copies of the Consent Order will be made available to the public.

B. DEQ shall provide Respondents a draft of such press release and consider any comments by Respondents on the draft press release, before issuance.

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7. General Provisions

A. Access

(1) To the extent feasible and consistent with DEQ's enforcement objectives, DEQ shall give Respondents notice before entry and inspection. Respondents shall allow DEQ to enter and move freely about their respective facilities at all reasonable times for the purposes, among others, of inspecting records relating to work under this Consent Order; observing Respondents' progress in implementing this Consent Order; conducting such tests and taking such samples as DEQ deems necessary; verifying data submitted to DEQ by Respondents; and, using camera, sound recording, or other recording equipment.

(2) While on a facility, DEQ representatives shall comply with safety rules and practices identified in a health and safety plan approved by DEQ in accordance with the SOW. These requirements may include accompaniment by a facility representative to the extent necessary to health and safety and not inconsistent with DEQ's enforcement objectives.

(3) DEQ shall use its statutory authority to obtain access on behalf of Respondents to property not owned or controlled by Respondents, if DEQ determines that access is necessary and that Respondents have exhausted all good faith efforts to obtain access.

B. Project Managers

(1) For working purposes with DEQ, Respondents shall assign responsibility for project management to one person,

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enabling more efficient communication and decisionmaking.

(2) To the extent possible, all reports, notices, and other communications required under or relating to this Consent Order shall be directed to:

DEQ
Project Manager:

Sheree Stewart
Waste Management and Cleanup
Department of Environmental
Quality
811 S.W. 6th Avenue
Portland, OR 97204
(503) 229-5413

(3) Within sixty (60) days of signing of this Consent Order, Respondents shall designate a project manager for purposes of this Consent Order.

(4) The Project Managers shall be available and have the authority to make day-to-day decisions necessary to implement the workplan.

C. Notice and Samples

(1) Respondents shall make every reasonable attempt to notify DEQ of any excavation, drilling, or sampling to be conducted under this Consent Order at least five (5) working days before such activity but in no event less than twenty-four (24) hours before such activity. This requirement of notice does not apply to normal operations or maintenance at a facility. Upon DEQ's verbal request, Respondents shall allow DEQ to take a split and/or duplicate of any sample taken by Respondents while performing work under this Consent Order. DEQ shall provide

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Respondents with copies of all analytical data from such samples as soon as practicable.

(2) In the event DEQ conducts any sampling or analysis in connection with this Consent Order, DEQ shall make every reasonable attempt to notify Respondents of any excavation, drilling, or sampling at least five (5) working days before such activity but in no event less than twenty-four (24) hours before such activity. Upon Respondents' verbal request, DEQ shall allow Respondents to take a split and/or duplicate of any sample taken by DEQ. DEQ and Respondents shall provide each other with copies of all analytical data from such samples as soon as practicable.

(3) Any notice required or permitted to be given under this Consent Order in writing shall be given by personal delivery, telephone facsimile, or certified mail. All notices shall be deemed received on the actual date of receipt as evidenced by a return receipt, or on the date of delivery, whichever is earlier. In the event notice is sent by telephone facsimile, the sender shall also mail a copy of the notice by first class mail, postage prepaid.

D. Quality Assurance

(1) Respondents shall conduct all sampling, sample transport, and sample analysis in accordance with the Quality Assurance/Quality Control ("QA/QC") provisions approved by DEQ as part of the workplan. All plans prepared and work conducted as part of this Consent Order shall be consistent with DEQ's "Environmental Cleanup Division Quality Assurance Policy No.

760.00." Respondents shall ensure that each laboratory used by Respondents for analysis performs such analyses in accordance with such provisions. Respondents shall also ensure that such laboratories analyze all samples submitted by DEQ to Respondents for QA/QC monitoring in accordance with such provisions.

(2) In the event that DEQ conducts sampling or analysis in connection with this Consent Order, DEQ shall conduct sampling, sample transport, and sample analysis in accordance with the QA/QC provisions of the approved workplan. DEQ shall provide Respondents with DEQ records regarding such sampling, transport, and analysis as soon as practicable.

E. Records

(1) In addition to those reports and documents specifically required under this Consent Order, Respondents shall provide to DEQ within ten (10) days of DEQ's written request copies of QA/QC memoranda and audits, raw data, draft and final plans, final reports, field notes, and laboratory analytical reports.

(2) Respondents and DEQ shall preserve their respective documents and information relating to work performed under this Consent Order, or relating to hazardous substances at the Willbridge facilities, for at least five (5) years after termination under Section 8 of this Consent Order. After such five-year period, Respondents and DEQ shall provide each other sixty (60) days notice before destruction or other disposal of such documents or information, and, upon one party's request, the

other party shall provide, subject to privilege or confidentiality under Paragraphs 7.E.(3) through (5), copies of such records. In complying with this provision, Respondents and DEQ need not preserve original materials but may use microfilm, electronic, or other methods of readily-retrievable information storage.

(3) Respondents shall permit DEQ to inspect and copy all records, files, photographs, documents, and data relating to work under this Consent Order, except that Respondents shall not be required to permit DEQ inspection or copying of items subject to attorney-client or attorney work product privilege.

(4) Respondents shall identify to DEQ (by addressor-addressee, date, general subject matter, and distribution) any document, record, or item withheld from DEQ on the basis of attorney-client or attorney work product privilege. DEQ reserves its rights under law to obtain documents DEQ asserts are improperly withheld by Respondents. Attorney-client and work product privileges may not be asserted with respect to any records required under Paragraph 7.E.(1) of this Consent Order, except for field notes, audit comments, or report comments made by Respondents' legal counsel or records made at the direction of Respondents' legal counsel for purposes other than implementation of this Consent Order.

(5) Respondents may further assert a claim of confidentiality under the Oregon Public Records Law regarding any documents or records submitted to or copied by DEQ pursuant to

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this Consent Order. DEQ shall treat documents and records for which a claim of confidentiality has been made in accordance with ORS 192.410 through 192.505. If Respondents do not make a claim of confidentiality at the time the documents or records are submitted to or copied by DEQ, the documents or records may be made available to the public without notice to Respondents.

F. Progress Reports

During the term of this Consent Order, Respondents shall deliver quarterly progress reports to DEQ. The first progress report shall be due on the 15th day of the third month following issuance of this Consent Order, subsequent reports to be submitted every three (3) months thereafter. Each progress report shall contain:

(1) actions taken under this Consent Order during the previous quarter;

(2) actions scheduled to be taken in the next quarter;

(3) sampling, test results, and any other data generated by Respondents during the previous quarter, to the extent available by the reporting date; and

(4) a description of any problems experienced during the previous quarter and actions planned or taken to correct those problems.

G. Other Applicable Laws

All activities under this Consent Order shall be performed in accordance with all applicable federal, state, and local laws and regulations.

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H. Reimbursement of DEQ Oversight Costs

(1) DEQ shall submit to Respondents' Project Manager a monthly invoice of costs incurred by DEQ after September 2, 1993 in connection with the facilities and oversight of Respondents' implementation of this Consent Order. Each invoice shall include a summary of costs billed to date. Each invoice shall have attached to it a list of all DEQ employees or consultants whose time is being charged, and a specific description of their work on the project. DEQ shall maintain work logs, payroll records, receipts, and other records to document work performed and expenses incurred under this Consent Order and, upon request, shall make such records available to Respondents for their inspection during the term of this Consent Order and for at least one (1) year thereafter.

(2) DEQ oversight costs shall include both direct costs and indirect costs. Direct costs include site-specific expenses, DEQ contractor costs, and DEQ legal costs. Indirect costs include general management and support costs of DEQ allocable to DEQ's oversight of this Consent Order and not charged as direct costs. Indirect costs are based on actual costs and calculated as a percentage of direct personal services costs. DEQ shall not charge unreasonable costs. Further, DEQ shall not charge as direct costs: (a) costs associated with training of personnel or contractors, except to the extent that such training is required by unique circumstances encountered at

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the Willbridge facilities; or (b) costs for work or travel unrelated to the Willbridge facilities.

(3) Subject to dispute resolution under Subsection 7.K., within thirty (30) days after issuance of the monthly statement, Respondents shall pay the amount of costs billed by check made payable to the "State of Oregon, Hazardous Substance Remedial Action Fund."

I. Force Majeure

(1) If any event occurs that is beyond Respondents' reasonable control and that causes or might cause a delay or deviation in performance of the requirements of this Consent Order, Respondents shall promptly notify DEQ's Project Manager verbally of the cause of the delay or deviation, its anticipated duration, the measures that have been or will be taken to prevent or minimize the delay or deviation, and the timetable by which Respondents propose to carry out such measures. Respondents shall confirm in writing this information, within five (5) working days of the verbal notification.

(2) If Respondents demonstrate to DEQ's satisfaction that the delay or deviation has been or will be caused by circumstances beyond the control and despite the due diligence of Respondents, DEQ shall extend times for performance of related activities under this Consent Order as appropriate. Circumstances or events beyond Respondents' control might include but are not limited to acts of God, unforeseen strikes or work stoppages, unanticipated site conditions, earthquake, flood,

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fire, explosion, riot, sabotage, public enemy, delay in receiving a governmental approval or permit, delay in obtaining property access, or acts of war. Increased cost of performance or changed business or economic circumstances shall be presumed not to be circumstances beyond Respondents' control.

J. DEQ Approvals

(1) Where DEQ review and approval is required for any plan or activity under this Consent Order, Respondents shall not proceed to implement the plan or activity until DEQ approval is received. Any DEQ delay in granting or denying approval shall correspondingly extend the time for completion by Respondents. DEQ shall provide Respondents with fifteen (15) days notice before issuing comments on review or approval.

(2) After review of any plan, report, or other item required to be submitted for DEQ approval under this Consent Order, DEQ shall:

(a) approve the submission in whole or in part; or

(b) disapprove the submission in whole or in part and notify Respondents of deficiencies and/or request modifications to cure the deficiencies. DEQ approvals, rejections, modifications, or identification of deficiencies shall be given as soon as practicable in writing and state DEQ's reasons with reasonable specificity.

(3) In the event of disapproval or a request for modification of a submission by DEQ, Respondents shall correct the deficiencies and resubmit the revised report or other item

for approval within thirty (30) days of receipt of the DEQ notice or such other reasonable time as may be specified in the notice.

(4) In the event a deficiency identified by DEQ is not addressed by Respondents in good faith in the revised submittal, DEQ may modify the submission to cure the deficiency.

(5) In the event of approval or modification of the submission by DEQ, Respondents shall (subject to dispute resolution under Subsection 7.K. as to any DEQ modifications) implement the action(s) required by the plan, report, or other item, as so approved or modified.

K. Dispute Resolution

(1) In the event of disagreement between Respondents and DEQ regarding review and approval of a plan or activity, interpretation of data, or oversight costs, Respondents and DEQ shall provide each other their respective positions in writing regarding the disputed matter and shall make a good faith effort to resolve any disagreement, including, if necessary, face-to-face discussions at the senior supervisory level between Respondents and DEQ. Any final decision by DEQ regarding a disputed matter after such dialogue shall be provided Respondents in writing and shall be an enforceable part of this Consent Order.

(2) Within five (5) working days of the initial disagreement, as an alternative to procedures under Paragraph (1) of this subsection, Respondents and DEQ upon mutual agreement may request an independent review of any dispute by a qualified,

mutually-acceptable, and neutral third party ("Third Party"). Within ten (10) working days after selection of the Third Party, Respondents and DEQ shall provide the Third Party with an agreed-upon statement of the nature of the dispute and a copy of the dispute resolution procedures to be followed by the Third Party. Within the same ten-day period, Respondents and DEQ shall provide the Third Party (with copies to each other) their respective positions regarding the dispute and the rationale, information, and documents supporting such position. Within thirty (30) days of the parties' submissions to the Third Party, or within such other time period as agreed to by the parties and the Third Party, the Third Party shall provide Respondents and DEQ a written advisory report setting forth the Third Party's determination regarding the dispute. DEQ shall consider the advisory report in making a final decision regarding the disputed matter. The advisory report shall not be binding on DEQ; provided, the advisory report shall be admissible in any action commenced by DEQ to enforce this Consent Order or to assess penalties regarding the disputed matter. DEQ's final decision shall be enforceable under the terms of this Consent Order. The fees and expenses of the Third Party shall be borne one half by Respondents and one half by DEQ.

(3) If Respondents perform a plan or activity or pay oversight costs in accordance with DEQ's final decision after the plan, activity, or oversight costs were disputed by Respondents in good faith under this subsection, Respondents may seek

reimbursement under ORS 465.260(7) for their costs of performing the increment of the plan or activity or payment of the oversight costs that Respondents would not otherwise have performed or paid but for DEQ's decision.

L. Stipulated Penalties

(1) Subject to Subsections 7.I., 7.J., and 7.K., upon any violation by Respondents of any provision of this Consent Order, and upon Respondents' receipt from DEQ of written notice of violation, Respondents shall pay the stipulated penalties set forth in the following schedule:

(a) Up to $5,000 for the first week of violation or delay and up to $5,000 per day of violation or delay thereafter, for failure to allow DEQ access as required under Subsection 7.A. or to provide records as required under Subsection 7.E.

(b) Up to $5,000 for the first week of violation or delay (but not exceeding $2,000 for any one day during the first week) and up to $2,000 per day of violation or delay thereafter, for:

(i) Failure to submit a final workplan, addressing in good faith DEQ's comments on the draft workplan, in accordance with the Scope of Work's schedule and terms;

(ii) Failure to complete work in accordance with an approved workplan's schedule and terms; or

(iii) Failure to submit a final report, addressing in good faith DEQ's comments on the draft report, in accordance with the approved workplan's schedule and terms.

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(c) Up to $500 for the first week of violation or delay and up to $500 per day of violation or delay thereafter, for:

(i) Failure to submit a good faith draft workplan in accordance with the Scope of Work's schedule and terms;

(ii) Failure to submit good faith progress reports in accordance with the Consent Order's schedule and terms; or

(iii) Any other material violation of the Consent Order or approved workplan.

(2) Within thirty (30) days of receipt of DEQ's written notice of violation, Respondents shall pay the amount of such stipulated penalty by check made payable to the "State of Oregon, Hazardous Substance Remedial Action Fund," or request a contested case in accordance with Paragraph (3) of this subsection. Respondents shall pay interest of 9 percent (9%) per annum on the unpaid balance of any stipulated penalties, which interest shall begin to accrue at the end of the thirty (30) day period unless a contested case has been requested.

(3) In assessing a penalty under this subsection, the Director may consider the factors set forth in OAR 340-12-045, provided that such factors may not be used to increase a penalty beyond the amounts stipulated in this subsection. Respondents may request a contested case hearing regarding the penalty assessment in accordance with OAR chapter 340 division 11. The scope of any such hearing shall be subject to the stipulations set forth in Section 2 of this Consent Order and shall not review

the amount of penalty assessed per violation per day. Further penalties regarding the alleged violation subject to the penalty assessment shall not accrue from the date DEQ receives a request for a contested case, through disposition of that case.

M. Enforcement of Consent Order and Reservation of Rights

(1) In lieu of stipulated penalties under Subsection 7.L. of this Consent Order, DEQ may assess civil penalties under ORS 465.900 for Respondents' failure to comply with this Consent Order. In addition to penalties, DEQ may seek any other available remedy for failure by Respondents to comply with any requirement of this Consent Order.

(2) Assessment of a stipulated penalty or civil penalty for failure to allow DEQ access as required under Subsection 7.A. or for failure to provide records as required under Subsection 7.E. may be assessed only against the individual Respondent(s) responsible for the violation.

(3) Subject to Section 2 of this Consent Order, Respondents do not admit any liability, violation of law, or factual or legal findings, conclusions, or determinations made by DEQ under this Consent Order.

(4) Nothing in this Consent Order is intended to create any cause of action in favor of any person who is not a signatory to this Consent Order.

(5) Subject to Section 2 of this Consent Order, nothing in this Consent Order shall prevent Respondents from bringing any cause of action, asserting any defenses, or

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exercising any rights of contribution or indemnification Respondents might have against any person, including each other, regarding activities under this Consent Order.

(6) Neither this Consent Order nor any judgment enforcing this Consent Order shall be admissible in any judicial or administrative proceeding, except in proceedings by DEQ to enforce this Consent Order, in resolution of disputes under this Consent Order, in response to a citizen suit, or when offered by any Respondent for admission in any proceeding.

N. Indemnification

(1) Respondents shall indemnify and hold harmless the State of Oregon and its commissions, agencies, officers, employees, contractors, and agents from and against any and all claims arising from acts or omissions related to this Consent Order of Respondents and their respective officers, employees, contractors, agents, receivers, trustees, or assigns. DEQ shall not be considered a party to any contract made by Respondents or their respective agents in carrying out activities under this Consent Order.

(2) To the extent permitted by Article XI, Section 7, of the Oregon Constitution and by the Oregon Tort Claims Act, the State of Oregon shall save and hold harmless Respondents and their respective officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Consent Order of the State of Oregon or its commissions, agencies, officers,

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employees, contractors, agents, receivers, trustees, or assigns (excepting acts or omissions constituting DEQ approval of Respondents' activities under this Consent Order). Respondents shall not be considered a party to any contract made by DEQ or its agents in carrying out activities under this Consent Order.

O. Parties Bound

(1) This Consent Order shall be binding on the parties and their respective successors, agents, and assigns. The undersigned representative of each party certifies that he or she is fully authorized to execute and bind such party to this Consent Order. No change in ownership or corporate or partnership status shall in any way alter Respondents' obligations under this Consent Order, unless otherwise approved in writing by DEQ.

(2) Respondents are jointly and severally responsible for carrying out all activities required by this Consent Order other than those where the State has agreed to seek penalties from only the individual Respondent(s) responsible for the violation. Compliance or noncompliance by one or more Respondent(s) with any provision of this Consent Order shall not excuse or justify noncompliance by any other Respondent(s).

P. Modification

DEQ and Respondents may modify this Consent Order by mutual written agreement signed by all parties.

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8. Termination

This Consent Order shall be terminated upon satisfactory completion of work required under this Consent Order and payment by Respondents of any and all outstanding oversight costs and penalties incurred through such completion. DEQ shall determine whether work under this Consent Order is satisfactorily completed by letter issued within sixty (60) days of receipt of the last deliverable required from Respondents under this Consent Order, or as soon thereafter as reasonably practicable.

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9. Signatures

STIPULATED, AGREED, AND APPROVED FOR ISSUANCE:

Respondent

Chevron U.S.A. Products Company

Jeffrey W Hartwig
(Signature)

JEFFREY W. HARTWIG
(Name)

MGR. Site Assessment & Remediation
(Title)

March 8, 1994
Date

KBB:dld KBB0214.plc

RECEIVED
MAR 10 1994
Waste Management & Cleanup Division
Department of Environmental Quality

STIPULATED, AGREED, AND APPROVED FOR ISSUANCE:

Respondent

Shell Oil Company

(Signature)

J. H. Thatcher
(Name)

Manager, Western Distribution Region
(Title)

March 10, 1994
Date

RECEIVED
MAR 21 1994
Waste Management & Cleanup Division
Department of Environmental Quality

STIPULATED, AGREED, AND APPROVED FOR ISSUANCE:

Respondent

Union Oil Company of California
dba Unocal

(Signature)

J. M. PECK
(Name)

OK as to form
WTS 3-16-94

(Title)

March 16, 1994
Date

RECEIVED
MAR 25 1994
Waste Management & Cleanup Division
Department of Environmental Quality

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STIPULATED, AGREED, AND SO ORDERED:

State of Oregon,
Department of Environmental Quality

Fred Hansen, Director

MAR 30 1994

Date

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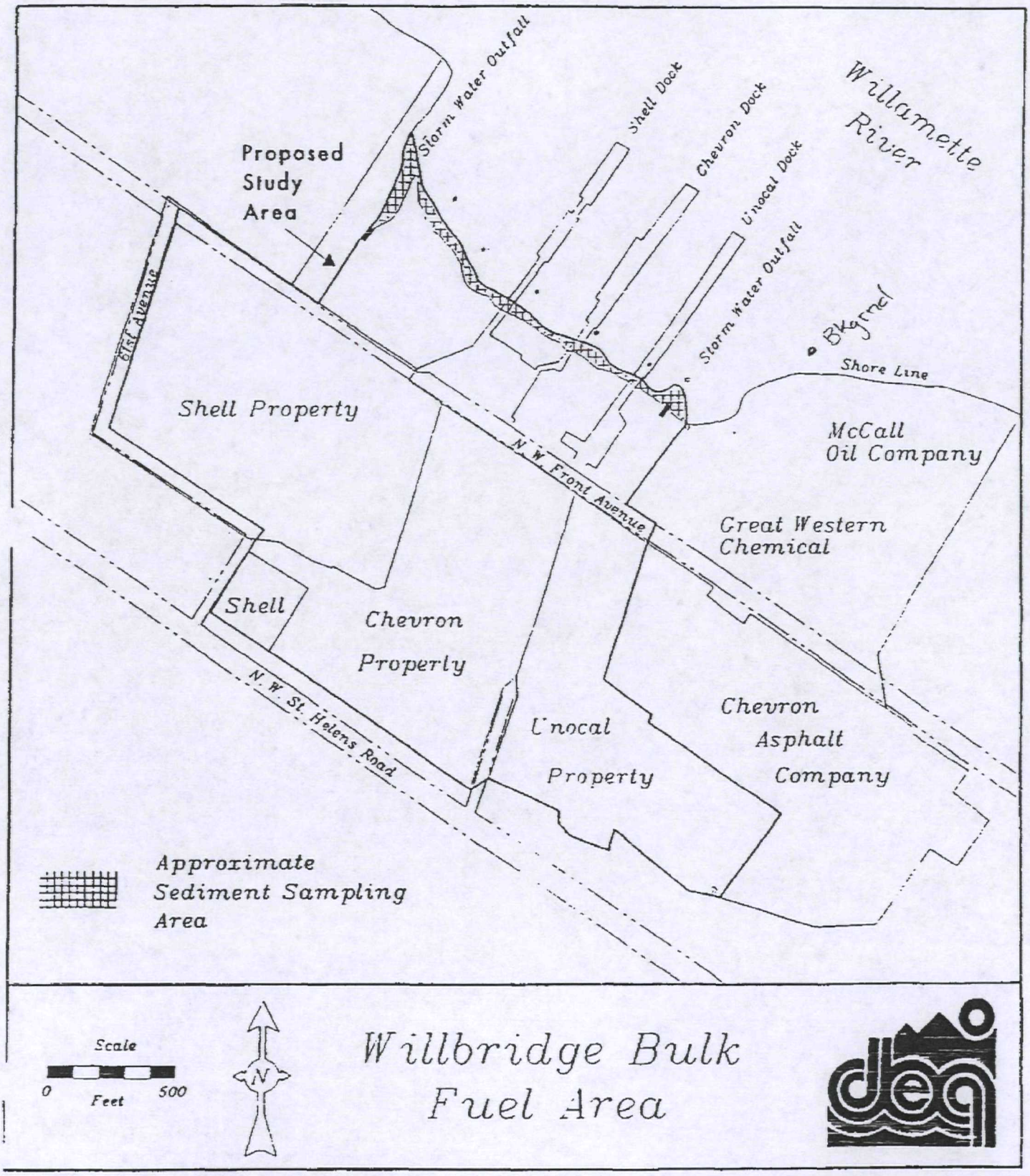
Attachment A



Willbridge Bulk Fuel Area

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ATTACHMENT B

REMEDIAL INVESTIGATION/FEASIBILITY STUDY SCOPE OF WORK

I. SCHEDULE

Within sixty (60) days of signing the Consent Order Respondents shall designate one Project Manager/Consultant to perform the tasks described in the Scope of Work. Within forty-five (45) days of the selection of the Consultant, Respondents shall submit for Oregon Department of Environmental Quality (DEQ) review and approval, an Interim Action Plan which includes an evaluation of the existing remedial efforts and a proposal for supplementing or enhancing the existing remedial efforts at each facility.

Respondents shall commence implementation of the Interim Actions within fifteen (15) days of receipt of DEQ's approval.

Within ninety (90) days of commencing implementation of the Interim Actions, Respondents shall submit a work plan for a Remedial Investigation and Feasibility Study (RI/FS) which addresses soil, groundwater, surface water, and air.

Within thirty (30) days of receipt of DEQ's written comments, Respondents shall submit a revised work plan or amendments to the work plan addressing DEQ's comments.

Respondents shall commence implementation of the work plan within thirty (30) days of receipt of DEQ's approval.

Respondents shall complete work according to the schedule specified in the approved Interim Action Plan and RI/EA/FS work plans.

It is DEQ's intention to meet the schedule milestones and deadlines in this Consent Order and the approved Work Plan. Any DEQ delay in meeting the deadlines shall correspondingly extend the time for completion by the Respondents. DEQ shall provide fifteen (15) days notice prior to submitting comments and/or approval to the Respondents during all phases of work to enable coordination between the multiple parties.

II. OBJECTIVES

The objectives of the Interim Action, Remedial Investigation, Endangerment Assessment and Feasibility Study are to:

A. Identify the hazardous substances which have been released to the environment,

B. Evaluate the need to install or enhance the existing free product/groundwater contaminant recovery system,

C. Determine the full nature and extent of hazardous substances in affected media on and off-site,

D. Determine the distribution of hazardous substance concentrations,

E. Determine the direction and rate of migration of hazardous substances,

F. Identify migration pathways,

G. Identify the environmental impact and risk to human health and/or the environment, and

H. Develop the information necessary to select a remedial action.

III. INTERIM ACTION PLAN

An Interim Action Plan shall be developed to address, at a minimum, the following:

1. A summation of data, with applicable QA/QC details, derived from previous site assessments and investigations at each facility,

2. An evaluation of the existing remedial efforts at each facility, if any,

3. A proposal for supplementing or enhancing the existing free product recovery efforts and/or controlling contaminant migration, if applicable,

4. Rationale for the proposed interim action,

5. A brief description of management precautions (spill prevention/contingency programs) to prevent future releases, and

6. A schedule for implementation of the Interim Action.

DEQ encourages the use of interim actions or removals to reduce risks, prevent further contaminant migration, and expedite cleanup at the site. The current status and effectiveness of the existing and proposed interim actions at the site relevant to determining future investigation and cleanup activities.

IV. REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN

EPA/540/1-89/004

The work plan shall be developed in accordance with OAR 340-122-080 and follow the "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA", OSWER Directive 9355.3-01, 1988, as appropriate. The submitted work plan shall include, but not be limited to, the following items:

A. PROJECT MANAGEMENT PLAN

The work plan shall indicate the following:

1. A proposed schedule for submittals and implementation of all proposed activities.

2. A description of the personnel (including subcontractors) involved in the project, including their qualifications to do the proposed work.

3. Discussion of how variations from the approved work plan will be managed.

B. SITE DESCRIPTION

A description of facility operations shall include, but not be limited to, the following:

1. A list of chemical products used on-site currently and historically.

2. The estimated volume of waste disposed of on-site and/or discharged off-site.

3. Time and volume of known spills.

4. A description of past and present waste treatment/disposal practices and areas.

5. The location of past and present raw material and finished product storage areas.

6. The approximate time periods for past operational, treatment, storage, disposal, and/or discharge practices.

7. Any available aerial photos that may provide information regarding disposal practices at the site.

C. SITE CHARACTERIZATION PLAN

1. SOILS

Objective: To identify releases of hazardous substances to soils and to assess the nature and extent of soil contamination.

Scope: The plan shall address all areas which could potentially have received spills, been used for waste treatment or disposal, or have been affected by contaminated surface water or storm water runoff, and all other areas where soil contamination is known or suspected. Data from previous soil investigations can be used to formulate the approach, provided the data can be shown to have been obtained under appropriate QA/QC protocols or be reliable for the purpose used.

Procedures: The program shall be designed and conducted to determine the full vertical and lateral extent of soil contamination. At a minimum, the plan shall include, but not be limited to, the following:

a. The proposed location of soil borings including;

   i. depth of borings
   ii. sampling parameters
   iii. sampling interval
   iv. sampling methods

All of the above parameters must include justification for their selection.

b. Provisions for describing soil boring samples, to include:

   i. The soil type according to the current version of ASTM D 2487, Classification of Soils for Engineering Purposes, and the current version of ASTM D 2488, Description and Identification of Soils (Visual-Manual Procedures), including; soil color, structure, texture, mineral composition, moisture, and percent recovery.
   ii. Other relevant characteristics such as visual identification of contamination, odor, and sniffing

using HNU, OVA or other equivalent type equipment as described by a qualified geologist or geotechnical engineer shall be noted.

2. GROUNDWATER

Objective: To assess the nature and extent of groundwater contamination.

Scope: The plan shall supplement previous investigations at the facility and shall identify releases of hazardous substances to groundwater, and shall also characterize the full vertical and lateral extent of groundwater contamination, both on and off-site. Data from previous groundwater investigations can be used to formulate the approach, provided the data can be shown to have been obtained under appropriate QA/QC protocols or be reliable for the purpose used.

Procedures: Monitoring wells must be installed in accordance with OAR Chapter 690, Division 240 and DEQ "Groundwater Monitoring Well, Drilling, Construction, and Decommissioning" guidelines (DEQ, 1992). The plan shall include, but not be limited to the following:

a. Well installation plan, to include:

   i. Proposed well locations.
   ii. Proposed well depths.
   iii. Length of proposed screened intervals.
   iv. Proposed drilling methods.
   v. Proposed construction materials and installation methods.
   vi. Proposed well development and completion methods.
   vii. The plan should address the possibility that dense nonaqueous phase liquids (DNAPLs) may be present at the facility, describe what precautions will be taken to prevent mobilizing DNAPLs if present, and what methods will be used to determine if they are present.

b. Groundwater quality monitoring plan to include:

   i. Proposed well location.
   ii. Sampling methods.
   iii. A schedule and proposal for periodic sampling of monitoring wells.
   iv. Sampling parameters.

c. Hydrologic characterization proposal to include:

i. Provisions to collect and describe formation materials during drilling. Respondent may consider obtaining continuous cores and using borehole geophysics to supplement coring.

ii. A plan to characterize the hydrogeology including a description of:
   a. stratigraphy
   b. structural geology
   c. depositional history
   d. regional groundwater flow patterns

iii. A description of the hydrogeologic properties of all hydrogeologic units found at the site, including:
   a. hydraulic conductivity
   b. porosity
   c. lithology
   d. hydraulic interconnections between saturated zones

iv. Plans to identify for each aquifer, the following:
   a. A description of ground-water flow direction.
   b. Identification of vertical and horizontal gradient(s).
   c. Interpretation of the flow system including the rate (horizontal and vertical) of ground-water flow, and including seasonal variations.

v. A description of hydraulic influences, including:
   a. Identification of pumping groundwater wells, past and present.
   b. Influences of rivers, streams, and ditches.
   c. Influences of ponds and lakes.
   d. Identification of areas of recharge/discharge.

d. Well inventory to identify all active and inactive water wells within a one-half mile radius of the facility, to include:

i. Identification of all wells listed with the Oregon Water Resources Department and field confirmation of their location,

ii. A field survey to identify wells for which no logs are on file, one-half mile downgradient if off-site contamination is present.

iii. For all located wells, to the extent practicable, identify:
   a. Owner
   b. Address

c. Map location
d. Driller
e. Date drilled
f. Depth
g. Casing and screen material, depths and intervals
h. Seal types, depths and intervals
i. Static pumping levels
j. Approximate land surface elevation
k. Reported water quality and use of well

iv. A plan to sample those private wells identified above which, based on the available information, may be at greatest risk of contamination.

v. A schedule and proposal for periodic sampling of off-site wells.

3. SURFACE WATER

Objective: The work plan shall include a plan to identify and evaluate releases of hazardous substances to surface water, including their sediments, originating from the seeps and outfalls located near the Doane Avenue/Front Avenue intersection, and Saltzman Creek (shown on Attachment A).

Scope: The plan shall identify all past, existing, or potential impacts to surface waters from the identified release. Data from previous surface water investigations can be used to formulate the approach, provided the data can be shown to have been obtained under appropriate QA/QC protocols or be reliable for the purpose used.

Procedures: At a minimum, the plan shall:

a. Delineate past and present surface drainage patterns at the site.

b. Delineate past and present discharge of groundwater to surface water, including the sediments potentially impacted by discharges into the Willamette River.

c. Propose sampling points in past and current surface drainages.

d. Propose sampling parameters and methodology.

e. Propose a method for determining background values for all parameters.

f. Provide a rationale for the proposals.

4. AIR

Objective: To identify and characterize the release of hazardous substances, if any, to the air which may contribute to the contamination of other media and are currently unregulated.

Scope: The air assessment plan shall be designed to determine if unregulated air emissions from the site threaten human health or the environment. If there are no unregulated air emissions from the site, identify all permits for regulated sources, and briefly describe the regulated sources.

Procedures: The plan will include the proposed methodology for evaluating air emissions. Appropriate emission calculations or field sampling program will be presented.

D. SAMPLING AND ANALYSIS PLAN (SAP)

Objective: To adequately document all sampling and analysis procedures.

Scope: In preparation of the SAP, the following guidance documents shall be utilized: The Environmental Cleanup Division Policy #760.000, Quality Assurance Policy; Data Quality Objectives for Remedial Response Activities, EPA/540/G-87/004 (OSWER Directive 9355.0-7B), March, 1987; Test Methods for Evaluating Solid Waste, SW-846; and A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001 (OSWER Directive 9355.0-14), December, 1987.

Procedures: The work plan shall include a sampling and analysis plan (SAP) for all sampling activities. The SAP shall be sufficiently detailed to function as a manual for field staff. The SAP shall include, at a minimum:

1. Proposed sampling parameters and rationale.

2. Sampling location and frequency.

3. Description of sample collection techniques, sampling equipment, decontamination procedures, sample handling procedures, and management of investigation derived waste.

4. Quality assurance and quality control procedures for both field and lab procedures, including a data quality objectives plan (as outlined in Table 2-4 (page 2-17) in the CERCLA RI/FS guidance).

following:

1. A Conceptual Site Model for the site. This model should be an iterative flow chart based on available site information showing contaminant sources, release mechanisms, transport routes and media, receptors, and other important information as appropriate. Iterations of this model shall be carried through the work plan and the human health evaluation report as additional information is generated. Exhibit 4-1 of the RAGS-HHEM gives an example of a conceptual site model.

2. Exposure parameters for the reasonable maximum exposure based on both current and future land use scenarios.

3. How detection limits will be established.

G. ENVIRONMENTAL EVALUATION PLAN

Objective: The environmental evaluation provides an assessment of the potential threat to ecological populations, communities or ecosystems, in the absence of any remedial action. It provides a basis for determining whether or not remedial action is necessary and the justification for that remedial action.

Scope: The environmental evaluation and the human health evaluation are parallel activities in the evaluation of hazardous substance sites. Much of the data and analyses relating to the nature, fate, and transport of a site's contaminants as well as the site itself will be used for both evaluations. It is important to recognize that each of the two evaluations can at times make use of the other's information. Already available data (from the human health evaluation or previous investigations) should be utilized whenever appropriate and additional data should be generated whenever necessary in order to conduct the ecological assessment. Generally, the work plan should use the outline given below for the Environmental Evaluation Report as a framework for discussing the methodologies and assumptions to be used in assessing the environmental risks at a site.

Procedure: The Risk Assessment Guidance for Superfund - Environmental Evaluation Manual (United States Environmental Protection Agency, Interim Final, March 1989) provides detailed guidance on conducting environmental evaluations. The work plan for the Environmental Evaluation should discuss the different tasks involved in assessing whether or not the potential ecological effects of the contaminants at a site warrant remedial action.

H. FEASIBILITY STUDY PLAN

Objective: To develop and evaluate remedial alternatives for each contaminated medium, and recommend remedial actions to be taken at the facility.

Scope: The Feasibility Study shall be developed in accordance with OAR 340-122-080 and "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA", OSWER Directive 9355.3-01, 1988. The Feasibility Study shall develop an appropriate range of alternatives which meet the standards listed in OAR 340-122-040, and 340-122-090. The Feasibility Study shall be developed in parallel with Remedial Investigation activities.

Procedures: A work plan shall be submitted which will include, but not be limited to the following:

1. DEFINITION

   a. Define preliminary remedial action objectives (RAOs). Present a discussion of how final RAOs will be developed and refined; how contaminants and media of concern will be identified; and how preliminary remedial action goals will be set.

   b. Describe the interim remediation activities which have been implemented to date, and the relationship of the interim measures to the preliminary RAOs.

   c. Identify how areas or volumes of media which require response actions will be determined. Describe selection criteria for response areas.

2. DEVELOPMENT OF PRELIMINARY ALTERNATIVES

   a. Describe how general response actions, technology types, and technology process options will be evaluated for each media.

   b. Preliminary alternatives should be assembled to address areas and media which require response action using the technologies identified above.

   c. Describe how preliminary alternatives will be screened.

   d. Identify how the preliminary alternatives that will be carried through the detailed analyses will be selected.

3. DETAILED DEVELOPMENT AND SCREENING OF ALTERNATIVES

a. Describe how alternatives will be developed.

b. Describe screening criteria that will be applied.

c. Review and describe compliance with other applicable laws.

I. MAPS

The work plan shall include a map or maps of the facility which clearly shows:

1. Site topography and surface drainage.

2. On-site structures, including tanks, sumps, catch basins, and pipelines.

3. The location of past spills, disposal areas, and all other waste and product management areas.

4. All pertinent structures adjacent to or nearby the site such as drainage ditches, pipelines, roadways, wells and utility corridors.

5. The location of all existing and proposed soil borings and monitoring wells, surface drainage sampling points, and background sampling points.

6. The drawing date, orientation, and scale.

V. REPORTS

A. QUARTERLY REPORTS

Quarterly reports shall be submitted to DEQ by the 15th day of the month following the reporting period. The first report shall be due on the 15th day of the third month following issuance of this Consent Order, subsequent reports to be submitted every three (3) months thereafter. These reports shall include, but not limited to, the following:

1. Activities that occurred during the past quarter.

2. Data results collected or received during the past quarter.

3. Description of any problems or difficulties experienced during the past quarter.

4. Description of activities planned for the upcoming quarter.

B. REMEDIAL INVESTIGATION REPORT

The Remedial Investigation report shall follow the outline in Table 3-13 (page 3-30 - 3-31) in the CERCLA RI/FS guidance, as applicable, and address the items listed below:

1. EXECUTIVE SUMMARY

2. INTRODUCTION

   a. Purpose
   b. Report Organization

3. SITE BACKGROUND A description and supporting maps of facility operations including, but not be limited, to the following:

   a. Site Description
      i. Location
      ii. Physical features such as buildings, roads, etc.
      iii. Site history

   b. Facility Operations
      i. Location, time, and volume of known hazardous substance spills including a map.
      ii. Past and present waste treatment/disposal practices and areas.
      iii. The approximate time periods for past operational, treatment, storage, disposal, and/or discharge practices.
      iv. A map of all pertinent structures adjacent to or nearby the site such as drainage ditches, pipelines, roadways, wells and utility corridors.

   c. Site Setting
      i. Regional land use and history
      ii. Geology
      iii. Hydrogeology
      iv. Surface water
      v. Climatology

d. Previous Investigations
   i. Summary of previous investigations
   ii. List of reports referenced.

4. STUDY AREA INVESTIGATION

a. SOILS. The report shall include, but not be limited to, the following:

   i. A map and description of the location of soil borings or surface samples including depth of borings, sampling parameters, sampling interval, sampling methods, and analytical methods.
   ii. Description of soil samples.
   iii. Hydrogeologic cross-sections.
   iv. A map showing the locations of hydrogeologic cross-sections.
   v. Presentation of results and data analysis including data limitations.

b. GROUNDWATER. The report shall include, but not be limited to, the following:

   i. Describe the well installation plan including well locations, well depths, length of screened intervals, drilling methods, construction materials and installation methods, well development and completion methods.
   ii. Characterize the hydrogeology including a description of formation materials, the hydrogeology, and hydrogeologic properties of each pertinent aquifer.
   iii. Present water table/potentiometric maps.
   iv. Describe hydraulic influences from groundwater wells, and surface water bodies.
   v. Identify areas of recharge/discharge.
   vi. Present results of the well inventory to identify all active and inactive water wells within a one-half mile radius of the facility.
   vii. Present results and data analysis including data limitations.

c. SURFACE WATER. The report shall include, as applicable:

   i. Identify, and show on a map, all relevant surface water bodies.
   ii. Delineate past and present surface drainage patterns

at the site and include a map showing the stormwater collection system.

iii. Present results and data analysis including data limitations.

d. AIR. The report shall include as applicable:

i. Provide a map and description of air sampling locations.

ii. Describe parameters for analysis, and analysis method.

iii. Present results and data analysis including data limitations.

5. SUMMARY AND CONCLUSIONS

a. Nature and extent of contamination. Include a discussion of data limitations.

b. Fate and transport of contaminants.

6. APPENDICES

Supporting information of the Remedial Investigation shall be submitted in the Appendices of the report. The report shall include, at a minimum:

a. All boring and lithologic logs for soil borings and monitoring wells.

b. Well construction details, including:

i. surveyed location (latitude or longitude)
ii. elevation of top of casing
iii. size and depth of well
iv. screened interval
v. well construction diagrams

c. A description of all sampling and investigation procedures.

d. Results of all chemical and physical analyses.

e. Quality assurance and quality control data and a data validation report.

As part of the Remedial Investigation and report to DEQ, Respondent may incorporate existing data, reports or information, including data from any investigation activity conducted prior to the effective date of this Order, to the extent that such data is consistent with the procedures and quality assurance/quality control criteria approved by DEQ.

C. HUMAN HEALTH EVALUATION REPORT

The results of the human health evaluation should follow the outline suggested by the RAGS-HHEM (see Exhibit 9-1 of the RAGS-HHEM). Justification for not following the outline should be explained.

1. Introduction

Provide a detailed description of the site, its problems, its geographic location, and its history. It should also provide the specific objectives, scope, and organization of the risk assessment report.

2. Chemicals of Concern

Provide a detailed description of how data was gathered or generated in order to identify a set of chemicals that are likely to be site-related. The concentrations of these chemicals that are of acceptable quality for use in the quantitative analysis of the risk should be reported.

3. Exposure Assessment

Provide a detailed description of the exposure pathways (source, release mechanisms, transfer or transport mechanisms, potentially exposed population, exposure routes). The quantitative estimate of exposure based on both current and future land use scenarios should be included.

4. Toxicity Assessment

Provide a summary of current toxicity information on the carcinogenic and non-carcinogenic effects of different chemicals of concern, and provide up-to-date reference levels (reference doses and slope factors) for chemicals of concern.

5. Risk Characterization

Present the quantitative risks potentially associated with the site as well as an assessment of uncertainty and consideration of any site-specific human health studies, if available and appropriate. If portions of these sections have been prepared for other sections of a Remedial

Investigation (RI) report, these may be referenced.

NOTE: Actions at hazardous substance sites that the Waste Management and Cleanup Division is involved with should be based on an estimate of the reasonable maximum exposure (RME) expected to occur under both current and future land use conditions. Guidance on quantifying the RME is given in Chapter 6 of the RAGS-HHEM. Quantifying the risks from the RME should be the overall goal of the baseline risk assessment.

It is strongly suggested and encouraged that the following items be discussed with, and agreed upon by, DEQ staff prior to the completion of the human health evaluation, after the sampling and chemical analysis are completed:

a. List of all site contaminants identified.

b. Detection limits used for the contaminants and explanation of how non-detect values will be used.

c. Rationale for selecting chemicals of concern for the human health evaluation.

d. Summary table of contaminants, reference values (reference doses, slope factors, and other relevant toxicity endpoints) and citations; data on absorption values should be included.

e. Exposure points and exposure point concentrations to be used in the human health evaluation.

f. Explanation of how uncertainty analysis will be done.

D. ENVIRONMENTAL EVALUATION REPORT

The main sections of the environmental evaluation report should include the following:

1. Summary of Data

Describe all the available data which are important in determining the environmental risk. Reference other sections of the RI or the human health evaluation report where detailed data are provided.

2. Contaminant Identification and Screening

Describe the process of generating contaminants of ecological concern in the environmental evaluation process.

3. Exposure Assessment

Quantify the release, migration, and fate of contaminants of concern. Characterize potentially exposed ecological populations, communities, or ecosystems and measure or estimate exposure point concentrations.

4. Toxicity Assessment

Provide a summary of current information on the potential ecological effects of contaminants of concern, include analyses of available toxicological studies, toxicological assessments, and available toxicological reference values or the generation of such values.

5. Risk Characterization - Ecological Endpoints

Provide a description of ecological endpoints as measurements of impact or probability of impact. Characterize these impacts in terms of their potential ecological significance.

Also, include an assessment and presentation of uncertainties in the process of ecological assessment.

E. FEASIBILITY STUDY REPORT

The results of the Feasibility Study shall be submitted to DEQ in a report which, at a minimum, includes a full evaluation of remedial action alternatives, giving a workable number of options which each appear to adequately address site problems and remedial action objectives. These alternatives shall include a no action option, at least one option which will achieve background, and at least one option which will achieve protection of public health, safety, and welfare, and the environment.

The FS shall follow the outline in Table 6-5 (Pages 6-15) of the CERCLA guidance, as applicable. The report shall present the following for each alternative:

1. Description and comparison of the remedial action alternatives, estimated cost, and rationale for selection.

2. Performance expectation (i.e., reductions in contaminant concentration levels), reliability, and ability to implement.

3. Identify any permits, rules, or other requirements necessary for implementation of remedial activities and applicable to the site.

4. Design criteria and rationale.

5. General operation and maintenance requirements; necessary engineering or institutional controls.

6. Monitoring program to assure both short-term and long-term performance of the alternative.

7. Financial assurance mechanism to assure performance.

8. Estimated time for implementation.

9. Evaluation of the short-term and long-term effectiveness and risks of the alternative.

10. Recommendation and justification of the remedial action selected from the developed alternatives.

11. A schedule for implementation of the proposed remedial action.

12. Evaluation of necessity or appropriateness of exemptions under ORS 465.315(2).

13. A schedule for implementation of the proposed remedial action.

F. REPORT DISTRIBUTION

1. Three bound and 1 unbound copy of all reports should be submitted to DEQ.

2 DEQ requests that all copies be duplex printed on recycled paper.

PACIFIC
ENVIRONMENTAL
GROUP, INC.

June 25, 1997
Project 1115-099.9A

Mr. Martin Cramer
Tosco Northwest Company
5528 NW Doane Avenue
Portland, Oregon 97210

Mr. Irv Jenkins
Shell Oil Products Company
777 Walker Street
Houston, Texas 77252-2099

Mr. Rene White
Chevron Products Company
6001 Bollinger Canyon Road
San Ramon, California 94583-0804

Re: Potential Responsible Parties (PRP) Background Search

Dear: Messrs. Cramer, White, and Jenkins:

Pacific Environmental Group, Inc. (PACIFIC), is pleased to present the following evaluation of Potential Responsible Parties (PRPs) in the immediate area of the Willbridge Terminal. This letter report is intended for use by the Responsible Parties (RPs) and will not be submitted to Oregon Department of Environmental Quality (DEQ).

INTRODUCTION

The main focus of the evaluation involved those sites primarily upgradient and/or adjacent to the Willbridge Terminal that may have contributed to the existing soil and/or groundwater contamination at the Willbridge facility. Information collected during the search was obtained through the Public Environmental Systems (PENS) from DEQ. Additional information and site background was also collected from current public files at DEQ Northwest Region. Additional information that was not in the public files was obtained through interviews with DEQ site managers. In addition, City of Portland as-built drawings were reviewed to determine if preferential pathways exist for contaminant migration near the Willbridge Terminal through existing underground pipelines and/or utility trenches.

7320 SW Hunziker Street, Suite 320, Portland, Oregon 97223 (503) 639-6305 FAX (503) 639-7482

The following sections describe the site history, operations, and current regulatory status of the sites that are located upgradient and/or adjacent to the Willbridge Terminal. Figure 1 presents the property boundaries of those sites adjacent to the Willbridge Terminal and Table 1 presents a list of PRPs.

N.L. Industries/Gould, Incorporated

A secondary lead smelting facility was constructed on the current Gould property and commenced operations in 1949 under the ownership of Morris P. Kirk and Sons (Kirk). Facility operations consisted of lead-acid battery recycling, lead smelting and refining, zinc alloying and casting, cable sweating (removal of lead sheathing from copper cable), and lead oxide production. Wastes (slag, matte, spent battery acid, and battery casings) were disposed of on and near the Kirk property and adjacent properties including those now owned by Rhone-Poulenc and ESCO. N.L. Industries purchased the property from Kirk in 1971. The property was sold to Gould Inc. in January 1979. In October 1979, Gould stopped receiving lead-acid batteries but continued to process an existing stockpile of batteries at the site. Beginning in January 1980, operations at the facility were phased out. The facility closed in August 1981. By the summer of 1982, most of the structures, facilities, and equipment had been removed.

Investigations conducted at the Gould, Inc. site continued after the site closure in 1981, and was directed by EPA Region 10, and DEQ. Site investigations revealed widespread dissolved lead and polynuclear aromatic hydrocarbon (PAH) contamination in soils and groundwater. Due to the threat posed to human health and the environment by the "off-site" migration of lead, the Gould site was nominated for inclusion to the National Priorities List (NPL) in 1983. The final Remedial Investigation (RI) was submitted in 1987 and the final Feasibility Study report was submitted in 1988.

The direct discharge of sulfuric acid from the Gould site into the east Doane Lake remnant has increased the mobility of heavy metals by lowering the pH of the groundwater in the area. Water quality measurements collected at the GATX facility do not indicate that groundwater pH in the area of the GATX facility lower than normal. Based on the current soil and groundwater data available for the Air Liquide and Metro Transfer station sites (Figure 1), it does not appear the heavy metals (dissolved lead) and PAH contamination present at the Gould facility have migrated cross gradient to the GATX facility. Furthermore, elevated levels of dissolved lead have not been detected in the GATX soil or groundwater samples.

Rhone-Poulenc Facility

Rhone-Poulenc AG Company (RPAC) is located southeast of the Wacker Siltronics property at the junction of NW St. Helens Road and the Burlington Northern Railroad line (Figure 1). The plant was known as Chipman Chemical/Rhodia Agricultural Division until 1978 when it was named after its parent company, Rhone-Poulenc.

The Chipman Chemical plant began operation in 1948 as a liquid formulation plant and insecticide distribution warehouse. In 1956, a 2,4-D herbicide production plant began operation at Chipman and operated until 1982. During operation, the plant manufactured and packaged a variety of herbicides and insecticides, most recently producing only bromoxynil octanoate. The Rhone-Poulenc facility ceased operations in the fall of 1990.

Past product and waste spills and disposal of wastes have resulted in contamination of surface water, groundwater, and soil. Releases at the site have been primarily through leaks and spills of liquid waste and product into storm drains discharging into West and East Doane Lake, and historic releases of treated wastewater into West Doane Lake and the Willamette River.

The EPA investigated the site in 1982 and identified 37 priority pollutants and over 100 non-priority pollutants. The main contaminants are 2,4-D and other pesticides, dichlorobenzene and isomers, chlorinated phenols, chlorinated cresols, other phenolic compounds, benzene, toluene, ethylbenzene, and xylene (BTEX), TCE, methylene chloride, dioxin/furans and metals. RPAC began investigation of the site in 1980, and installed a shallow groundwater recovery and treatment system in 1984. The site is currently under a Consent Order to conduct an RI/FS under state superfund.

In 1992, most of the plant structures and storage facilities were demolished. What remains are the administrative building, two small storage buildings, one which houses the drummed soil cuttings waste, and tanks, piping and machinery related to their stormwater and groundwater treatment facility. Waste water treatment and discharge is regulated under an existing NPDES Permit.

The site is adjacent to the NL/Gould Superfund property (Figure 1). Battery casings related to the Gould site are buried in portions of the northern third of the RPACs property. A NL/Gould ROD amendment, currently being negotiated, would require no further excavation of the battery casings at the RPAC site.

Site contaminants have been detected in surface water and in groundwater seepage to the Willamette River approximately 2,000 feet to the east of the site. Site contaminants have also been detected in groundwater beneath the site and on downgradient properties NL/Gould and the Metro Central Transfer Station (Figure 1). Historic groundwater samples collected at the GATX facility do not indicate that soil and/or groundwater contamination emanating from the Rhone-Poulenc facility have migrated to the Willbridge Terminal. However, historic groundwater samples collected from the GATX facility have exhibited elevated levels of g-BHC (lindane) at 0.7 µg/L in monitoring well MW-13. Chlorinated solvents such as carbon tetrachloride, DCE, TCE and DCA were detected in monitoring Well MW-11 at the GATX facility, located along the northwestern boundary of the north tank farm. It is unclear if these chlorinated solvents migrated from off-site or where used at the GATX facility. Although portions of the Rhone-Poulenc facility is located ungradient from the GATX facility, it is not known if lindane and/or chlorinated solvents have migrated off-site to the GATX facility. It is also not known if

lindane was manufactured or used at the Rhone-Poulenc facility.

ESCO Site

The ESCO site contains a capped landfill, which was used for the disposal of clay-bonded sands, demolition debris, and sand bonded with foundry resins containing phenolformaldehyde. Arc furnace dust containing chromium was disposed of on-site between 1971 and 1975. Zircon sands with naturally occurring radioactivity were also placed in the on-site landfill until 1976. In 1957, ESCO began disposing of foundry sand and slag into the east Doane lake remnant. Landfill operations at the ESCO site continued to fill in the west Doane Lake Remnant until 1979. Currently, there are no on-going investigations at the site.

Elf Atochem Corporation

The first record of the company a this location is in 1949 when it was known as the Pennsylvania Salt Manufacturing Company. The Pennwalt plant produced chlorine, caustic soda, sodium and potassium chlorate, hydrochloric acid, and ammonia. The basic raw material used by the plant was salt, which was obtained from Baja, California.

In 1989 the plant was listed as a hazardous waster generator. Oregon DEQ indicates that the only hazardous waste generated at the plant was two drums of methylene chloride.

Five surface impoundment's existed on the site during operation of the Pennwalt plant. These surface impoundments contain asbestos form old electrolytic cell casings, choler-alkali production and waste from the sodium orthosilicate process. All surface impoundment's on the Pennwalt site are unlined and have no surface outlets. Groundwater monitoring was not performed at the site prior to 1994.

Elf Atochem purchased the site from the Pennwalt Company in 1990. The facility currently manufactures agrochemicals, such as DDT. Site investigations in the early 1990s indicated that soil impacted with insecticides was detected in the vicinity of the site residue pond. The insecticides consisted of DDD, DDT, and DDE. The site investigation also revealed that shallow groundwater had been impacted at the site with herbicides and insecticides. The investigation also concluded that impacted groundwater has not migrated off-site.

Trans Industries Metro Central Transfer Station

The site currently is owned and operated by Trans Industries/Metro and was formerly owned by American Steel. The facility collects refuse and garbage from the greater Portland area where the refuse is separated and transferred to appropriate landfills throughout Oregon. During 1990, a soil and groundwater investigation was performed at the Trans Industries Metro Central Transfer Station site. Several monitoring wells, soil borings and test pits were excavated during the site investigation.

Soil and groundwater results indicated that none of the samples exceeded the MCL limits for heavy metals. There were elevated levels of the herbicide silvex, dicamba, and MCPP in monitoring wells along the southwest side of the property and in the intermediate and deep wells on the northeast property boundary.

The investigation concluded that pesticides and herbicides in groundwater have migrated onto the site from the south (i.e., Rhone-Poulenc site). However, the investigation concluded that groundwater and soil contamination poses no risk as long as the groundwater is not used for human consumption.

Air Liquide Corporation

In 1986, a surface water and groundwater monitoring program was initiated on the property then owned by Schnitzer Investment Corporation as part of the N.L. Gould Remedial Investigation. Groundwater samples were collected from the perched fill aquifer and the deeper alluvial aquifer at the site. Groundwater analytical results indicate lead concentrations below detection limits. No other contaminants of concern were detected on the site.

McCall Oil/Great Western Chemical

In the mid-1920s the Port purchased the property now occupied by McCall and Great Western Chemical, a subsidiary of McCall Oil. In 1946, Pioneer Flintkote Company (Flintkote) purchased two parcels from the Port, corresponding generally to present site tax lots 17 and 96. Great Western Chemical and the McCall Asphalt plant currently occupy these tax lots, respectively.

Flintkote manufactured asphalt roofing shingles and tiles on the property from 1947 to 1982. A factory, warehouse for roofing material, silos, boilers, above ground and underground storage tanks (ASTs and USTs) and retorts were present on tax lot 17. Historical occupation records indicate that Standard Oil Company operated a distribution center at the address corresponding to adjacent tax lot 96 during the 1950s. By 1960, Douglas Oil Company (Douglas) occupied this address, and operated an asphalt facility. In 1962, Douglas purchased tax lot 96 from Flintkote. Douglas and Flintkote continued to operate their respective facilities until 1982, when both parcels and the improvements were sold to McCall. Erro Enterprises (Erro) purchased the asphalt facility from McCall in 1982 and operated the facility until 1992, when it was sold back to McCall Oil. Great Western Chemical Inc. currently owns tax lot 17.

During the early 1960s, the Port used dredge spoils from the Willamette River channel to create new land along the Willamette River next to the Flintkote and Douglas Oil facilities. In the mid-1970s, McCall constructed the marine terminal on the filled land.

In 1985, McCall operated a lube oil distribution facility on part of its asphalt plant site. The lube oil operations were discontinued in 1991.

Operations on the McCall site include a marine terminal and an asphalt plant. The facility stores, blends, and distributes petroleum products including asphalt, bunker fuel, and diesel fuel. Bulk petroleum products are stored in ASTs at the marine terminal tank farm and at the asphalt plant.

The marine terminal has operated since 1975 and includes the marine dock, ASTs, the truck loading rack, equipment maintenance storage shed, and offices. McCall has operated the asphalt plant since 1982. The asphalt plant includes ASTs, railcar and truck loading racks, boilers, and product testing laboratory.

Several reported releases have been documented at the McCall and Great Western Chemical facilities from 1955 to 1991. The spills consisted of small surface spills to several thousand gallons. The majority of the spills were bunker fuels, asphalt and kerosene distillates. These constituents are not found in analytical data collected at the Willbridge Terminal. The asphalt plant, ASTs, and the lube oil plant are the main areas were spills have occurred, and are downgradient from the Willbridge Terminal. Based on these observations, it is unlikely that soil and/or groundwater contamination reported at the McCall facility has migrated onto Willbridge Terminal property.

In 1994, a Preliminary Assessment (PA) was performed at the McCall Oil and Great Western Chemical facilities. The investigation mentioned several surface and underground releases at the facility, mainly at the Terminal. In addition to historic site spill releases at the McCall facility, City of Portland as-built drawings were reviewed to determine if preferential pathways exist for contaminant migration to the Willbridge facility. McCall Oil currently has two 14-inch underground pipelines that run along NW Front Avenue beyond the GATX facility. No investigations have been performed along the McCall pipelines to determine if spills or leaks have occurred. There are no records that indicate that tightness testing has been performed on the McCall pipelines to date. Oregon DEQ files indicate that the pipelines have not been investigated to determine if soil and/or groundwater contamination is present along this preferential pathway.

Chevron Asphalt

The Chevron Asphalt facility consists of asphalt refining emulsions manufacturing, and asphalt blending. The facility occupies 38 acres and has access to major highways, rail lines, and waterways. The facility layout includes 91 product storage tanks with a containment capacity of 1,642,600 barrels, eight-tank truck loading racks, and one tank car loading rack. The facility has a 15,000-bbl-per-day crude oil vacuum distillation unit, a continuous and batch air still refining process, an emulsions manufacturing process, an asphalt blending process, a boiler plant and hot oil heating system, bulk storage and tank car, tank truck, and pipeline shipping and receiving operations. Crude oil and charge stocks for the refining process are received by tanker shipments over the Chevron Willbridge Distribution Center dock. Bulk compounding stocks and additives are received by tank car or transport trucks. Asphalt vacuum gas oils, fuel oil, and naphtha

are shipped by barge and tanker over the Willbridge Distribution Center dock, in addition to tank car, pipeline, and tank truck deliveries. The facility typically handles an average of approximately 200,000 barrels pr month. The facility has been in continuous operation since 1947.

In June of 1985, several groundwater-monitoring wells were installed at the site for quarterly monitoring of static water levels and separate-phase hydrocarbon (SPH) measurements. Separate-phase hydrocarbons were measured in three on-site monitoring wells. Analytical results indicated elevated levels of gasoline and diesel range hydrocarbons, BTEX constituents, and PAHs. In addition, elevated levels of arsenic, barium, lead, cobalt, and vanadium were detected in groundwater samples at the site.

In March of 1994, the DEQ issued a letter to Chevron Asphalt indicating that the limited contamination at the facility does not appear to be intermingled with contamination from the Willbridge Terminals.

PACIFIC collected groundwater samples from site monitoring wells during May 1997. Water level results indicated that SPH was present in three on-site wells (A-3, A-6, and W-14). Monitoring Well A-3 had the greatest SPH thickness of 4.82 feet. Monitoring wells located downgradient (i.e., W-4, A-2, W-3) of A-3 did not exhibit SPH during the sampling event. Analytical results indicated that elevated levels of BTEX and PAHs were detected in groundwater samples collected at the site. Based on the data collected from the groundwater sampling event, SPH is localized in three distinct areas of the site, and that SPH is not migrating off-site to the McCall Oil facility. Monitoring wells located adjacent to the Tosco facility were non-detect for BTEX and PAH constituents.

Olympic Pipeline

Several pipelines exist in the area of the Willbridge Terminals that belong to Olympic Pipeline. Two Olympic Pipeline manifolds are present along NW Front Avenue near the Tosco facility (Figure 1). Olympic Pipeline has an additional connection at the Chevron facility northeast of the manifolds.

There does not appear to be documentation or an existing DEQ file for Olympic Pipeline, and limited information exists regarding tightness testing on the pipelines and manifolds in the area of the Willbridge facility. Discussions with Olympic Pipeline's environmental manager indicate that no periodic tightness testing is performed on the lines or manifolds in this area.

Due to lack of soil and groundwater data in the area of the Olympic Pipeline and manifolds, additional investigation is warranted to determine if Olympic Pipeline's underground lines and manifolds are contributing to the soil and/or groundwater contamination at the Willbridge Terminal.

Sante Fe Pipeline

Similar to Olympic Pipeline, Sante Fe Pipeline has several underground pipelines in the vicinity of the Willbridge facility. Figure 1 illustrates a pump station located at the Tosco facility and a pipeline connection on Chevron property, south of NW Front Avenue. A Sante Fe Pipeline transfer station is located approximately 0.7 miles north of the GATX facility, but is geographically to far north of the Willbridge facility to have contributed to soil and groundwater environmental impacts. In addition, soil and groundwater data downgradient of the Sante Fe transfer station do not indicate gross amounts of petroleum-impacted soil and/or groundwater. Currently, there is no DEQ file for the pipeline or available tightness testing information. Efforts are continuing by the RPs to open dialogue with Sante Fe Pipeline representatives to discuss past investigations along the pipelines near the Willbridge Terminal.

Burlington Northern/Sante Fe Railroad

Burlington Northern/Sante Fe Railroad owns the property along NW St. Helens Road from the Rhone-Poulenc site to the Chevron Property (Figure 1). The Burlington Northern/Sante Fe Railroad property is located upgradient of the Willbridge Terminal. Currently, no soil or groundwater data is available from the Burlington Northern/Sante Fe Railroad property.

Two monitoring wells at the Chevron Willbridge facility (CR-9) and at the Chevron Asphalt facility (W-17) have exhibited SPH and elevated levels of PAHs, respectively, during previous sampling events. There are no known upgradient sources at the Willbridge facility that may have contributed the SPH in Well CR-9 and elevated levels of PAH in monitoring Well W-17. The Burlington Northern/Sante Fe Railroad property is directly upgradient from both of these wells.

To fully characterize if upgradient sources are contributing to the groundwater contamination at the Willbridge facility additional investigation is warranted upgradient of the Willbridge facility on the Burlington Northern/Sante Fe Railroad property.

City of Portland

The "New" Doane Avenue storm drain was installed during 1982. The new line consists of a 48-inch storm drain line that runs from manhole 9 to manhole 8A. This 48-inch pipeline originates along Doane Avenue and passes under Northwest Front Avenue to manhole 8A. A 60-inch pipeline runs from manhole 8A to the outfall at the Willamette River. During installation of the 60-inch drain line, the natural silt/clay barrier was unearthed approximately 50 feet from the river shoreline.

The silt/clay barrier most likely acted as a dam to Kittridge Lake and a barrier to the migration of hydrocarbons in the direction of the Willamette River. Once this native silt/clay barrier was breached during new sewer line construction, groundwater and SPH in the area would migrate at a faster rate to the river.

Shortly after completion of the new storm drain line, seepage of petroleum product was observed at the new storm drain outfall. This was the first occurrence of seepage at this location.

Oregon statutes recognize the City of Portland as a PRP for installation and operation of the 60-inch Doane Avenue sewer drain. According to interviews with Willbridge personnel, the City of Portland was aware and had knowledge of contamination in the area of the excavation. Oregon cleanup law imposes liability on an "owner" or "operator" of a facility at or during the time of the acts or omissions that resulted in a release of hazardous substances. The statute also imposes liability on "any person" who by any acts or omissions caused, or contributed to or "exacerbated" a release, unless the acts or omissions were in material compliance with applicable laws, standards, regulations, licenses or permits." According to the Oregon statute "facility" is defined as any structure, installation, equipment, pipe, or pipeline, including any pipe into a sewer or publicly owned treatment works, or any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located and where a release has occurred or where there is a threat of a release." By this definition, the City of Portland can be listed as a Potential Responsible Party for the Willbridge Terminals.

Berry Transportation

Berry Transportation leased property from McCall Oil and was located downgradient of the Willbridge Terminal along NW Front Avenue. Five diesel USTs were decommissioned in 1989. Approximately 55 tons of soil was excavated from the site and groundwater was not encountered during the excavation. Oregon DEQ issued a "No Further Action" (NFA) letter to Berry Transportation in 1989.

Sites Located West of ST. Helens Road

Several upgradient sites were identified during our PRP search located west of NW St. Helens Road (Figure 1). These sites included gasoline service stations operated by Union 76 (formerly BP) and an abandoned ARCO service station (Figure 1). Oregon DEQ files indicate that these sites have been fully characterized for soil and groundwater contamination and the contamination migration resulting from USTs have been limited to on-site groundwater only. Downgradient wells located at these sites have been sampled and were non-detect for petroleum hydrocarbons.

The site previously owned by Don Thomas Petroleum is now a vacant lot (Figure 1). In 1990 several USTs were decommissioned that contained gasoline, diesel, and heating oil. Approximately 500 cubic yards of soil was excavated and removed off-site. Groundwater was not encountered during the excavation. A NFA letter was granted to the Don Thomas Petroleum site from DEQ in 1990.

Lee & Eastes Tank Lines owned a parcel along St. Helens road adjacent to the former ARCO service station (Figure 1). Two 5,000 gallon USTs were decommissioned at the

site in 1989. Groundwater was not encountered during the excavation and DEQ issued a NFA letter to the property owner in 1989. The site is now an abandoned lot.

Berry Transportation leased property from McCall Oil and was located downgradient of the Willbridge Terminal along NW Front Avenue. Five diesel USTs were decommissioned in 1989. Approximately 55 tons of soil was excavated from the site and groundwater was not encountered during the excavation. Oregon DEQ issued a NFA letter to Berry Transportation in 1989.

No other sites west of St. Helens Road have reported spills or releases. Based on the available information, gross groundwater contamination is not migrating from upgradient sources west of St. Helens Road onto the Willbridge Terminal.

SUMMARY

The main focus of the evaluation involved those sites primarily upgradient and/or adjacent to the Willbridge Terminal that may have contributed to the soil and/or groundwater contamination at the Willbridge facility.

Several small sites west of St. Helens Road have impacted soil and groundwater from past operations. There is no evidence that soil and groundwater contamination is migrating onto the Willbridge Terminal from these upgradient sites. Site soil and groundwater data have indicated that contamination at these sites have not migrated beyond the property boundary limits.

Several sites located northwest of the Willbridge Terminal have reported environmental impacts on soil and groundwater (i.e. NL Gould and Rhone-Poulenc). Previous and on-going investigations have determined that these sites are primarily contaminated with heavy metals, insecticides and herbicides. Gross amounts of petroleum hydrocarbon contamination have not been reported at these sites, therefore, it is unlikely these sites have contributed to the petroleum hydrocarbon contamination at the Willbridge Terminal.

McCall Oil currently has two 14-inch underground pipelines that run along NW Front Avenue beyond the GATX facility. Although a PA was performed at the facility in 1994, no investigations have been performed along the McCall pipelines to determine if spills or leaks have occurred. There are no records that indicate that tightness testing has been performed on the McCall pipelines to date. Oregon DEQ files indicate that the pipelines have not been investigated to determine if soil and/or groundwater contamination is present along this preferential pathway. Further investigation along the pipelines is warranted to determine the extent of petroleum contamination (if any) is present in this area.

Groundwater samples collected at the Chevron Asphalt site during May 1997 indicated that SPH was present in three on-site wells (A-3, A-6, and W-14). Monitoring Well A-3 had the greatest SPH thickness of 4.82 feet. Monitoring wells located downgradient (i.e., W-4, A-2, W-3) of A-3 did not exhibit SPH during the sampling event. Analytical results indicated that elevated levels of BTEX and PAHs were detected in groundwater samples collected at the site. Based on the data collected from the groundwater sampling event, SPH is localized in three distinct areas of the site, and that SPH is not migrating off-site to the McCall Oil facility.

Olympic and Sante Fe Pipelines have several underground pipelines, manifolds and pump stations in the area of the Willbridge Terminal. Tightness testing results are not available for the pipelines, and soil and groundwater data are unavailable in the area of the pipeline, manifolds, and pump stations. Additional investigation is warranted to determine if Olympic and or Sante Fe Pipeline underground lines and manifolds are an area of concern with regard to soil and groundwater contamination at the Willbridge Terminal.

The Burlington Northern/Sante Fe Railroad property is located upgradient of the Willbridge Terminal. Currently, no soil or groundwater data is available from the Burlington Northern/Sante Fe Railroad property. Two monitoring wells at the Chevron Willbridge facility (CR-9) and at the Chevron Asphalt facility (W-17) have exhibited SPH and elevated levels of PAHs, respectively, during previous sampling events. There are no known upgradient sources at the Willbridge facility that may have contributed the SPH in Well CR-9 and elevated levels of PAH in monitoring Well W-17. To fully characterize if upgradient sources are contributing to the groundwater contamination at the Willbridge facility additional investigation is warranted upgradient of the Willbridge facility on the Burlington Northern/Sante Fe Railroad property.

The City of Portland installed the "new" 60-inch storm drain in 1982. During the installation the native silt/clay layer was breached during the excavation. Following installation of the sewer drain, SPH was observed at the drain outfall in the Willamette River for the first time. Based on the Oregon Cleanup Laws, the City of Portland can be listed as a Potential Responsible Party. However, any contact with the City of Portland should be made after completing the Interim Action work and retaining legal counsel.

Pacific Environmental Group appreciates the opportunity to be of service to you. If you should have any questions regarding this document or any other issues, please do not hesitate to contact our office.

Sincerely,

Pacific Environmental Group, Inc.

Mark A. Ochsner
Project Hydrogeologist

Lance Geselbracht, P.E.
Vice President

Attachments: Table 1 - Potential Responsible Parties (PRP) List
Figure 1 - Property Boundaries

cc: Mr. Eric Conard, GATX Tank Storage Terminals Corp.
Mr. Erik Hansen, Shell Development Company

Table 1
Potential Responsible Parties (PRP) List
Willbridge Terminal

Name/Owner	Address	DEQ File Numbers	Background	Status
N.L. Industries (Gould)	NA	49	RI/FS completed in 1988 for PAH and lead contamination.	In Public comment
Rhone Poulenc	6200 NW St. Helens Rd.	155	RI/FS currently being conducted at the facility.	In Remedial Investigation
Elf Atochem Corp.	6400 NW Front Avenue	398	Prior to 1995 Investigated soil in vicinity of residue pond. DDD, DDE, DDT detected. Groundwater impacted on-site.	Further Action Required
Metro Central Transfer (Formerly American Steel)	6161 NW 61st Avenue	1398	1989 gasoline release from unknown source. 1990 one 12,000 gal. diesel UST and one 5,000 gal. gasoline UST decommissioned	On-Site NFA
Air Liquide	6529 NW Front Avenue	66 & 395	1993 acetone 1,500 gal. UST decommissioned 1995 approx. 200 gal. oil leak from a compressor	Groundwater Monitoring
Great Western Chemical &	5480 NW Front Avenue	134	Preliminary Assessment performed in 1994	Groundwater Monitoring
McCall Oil & Chemical	5540 NW Front Avenue	134	Preliminary Assessment performed in 1994	Groundwater Monitoring
Chevron Asphalt	5501 NW Front Avenue	No File	Site Assessment performed in 1992	None
Olympic Pipeline	NA	No File	No known tightness testing reports near facility. May be upgradient source.	Information Required
Santa Fe Pacific Pipeline	NA	No File	No known tightness testing reports near facility. May be upgradient source.	Information Required
City of Portland	NA	No file	Installed 60-inch Doane Ave. Sewer Drain in 1982. May be cause of SPH to Willamette River	None
Burlington Northern/Santa Fe Railroad		No file	No site investigation to date.	Information Required
GS Roofing	6350 NW Front Avenue	26-90-119	1991 - one 1,000-gal. gasoline UST decommissioned 1992 - one 2,000-gal. diesel UST decommissioned	Groundwater Monitoring
Berry Transportation (Now McCall Oil)	5315 NW Front Avenue	26-88-0115	1988 five diesel (?) UST's decommissioned. 1989 55 gal. of paint released. Approximately 59 tons of soil excavated.	No Further Action Required
Don Thomas Petroleum (Abondoned site)	5909 NW St. Helens Rd.	26-89-0213	1990 decommissioned, gasoline, diesel, and used oil. Soil impacts. Approx. 500 cubic yards removed and treated.	NFA granted in 1991
J&H Mobile (BP) (Now Union 76 Station)	6215 NW St. Helens Rd.	26-89-0213	1989 Line leak; gasoline and diesel detected. Limited to on-site groundwater.	Groundwater Monitoring
Lee & Eastes Tank Lines	Empty lot	26-89-0199	1989 two 5,000 gal. USTs decommissioned	NFA

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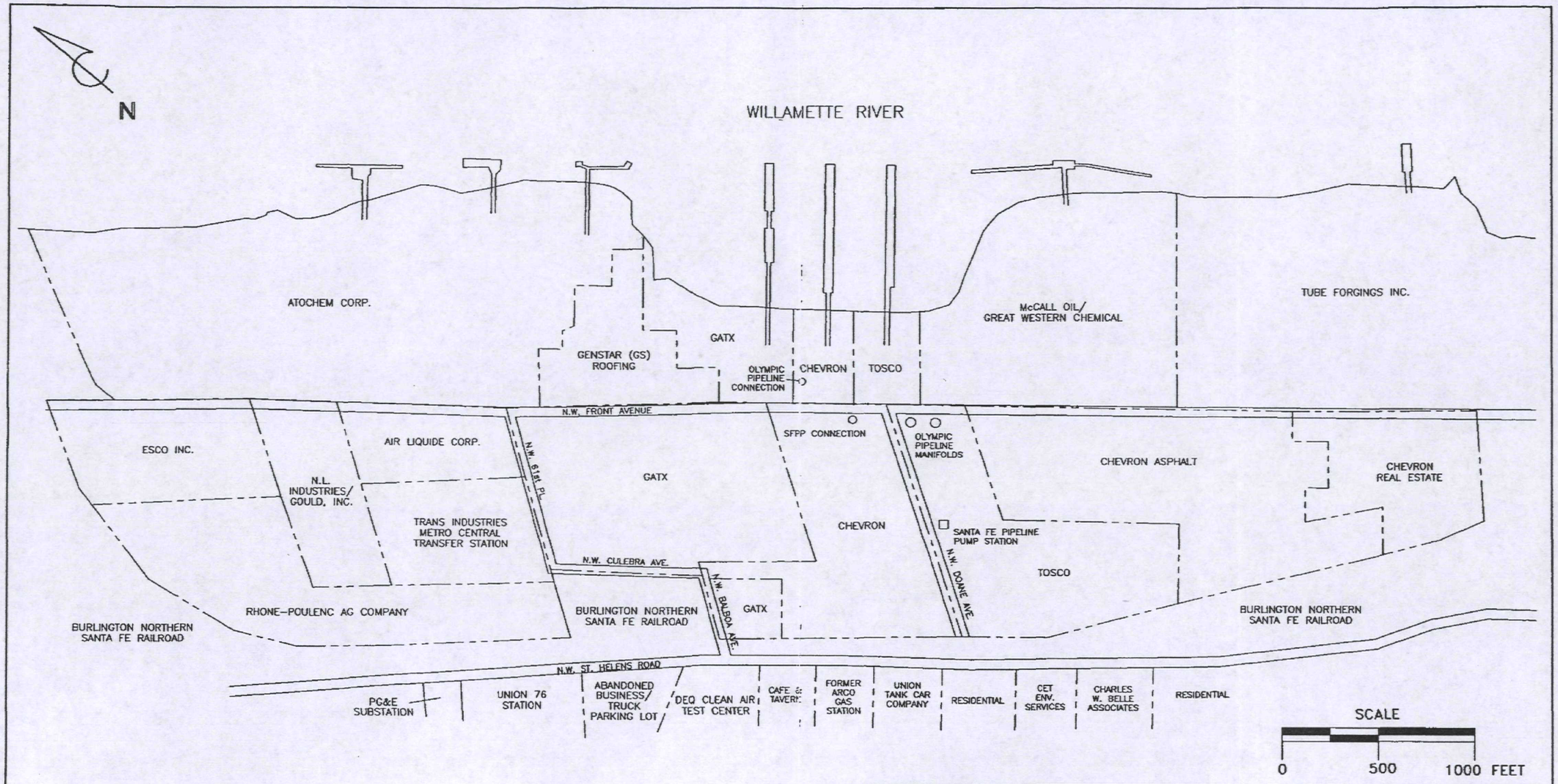

PACIFIC ENVIRONMENTAL GROUP, INC.

TITLE:

PROPERTY BOUNDARIES

PREPARED FOR:

WILLBRIDGE FACILITY
Portland, Oregon

DATE: 6-12-97	PROJECT: 1115-099.9A	FIGURE: 1

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