2307 Pacific Avenue Alameda, CA 94501 Phone: (510) 865-9503 Fax: (510) 865-1889

E-mail: xtraoil@internetmci.com

# XTRA OIL COMPANY

EMPRIORIESTION 5: 22

November 7, 2000

Mr. Scott Seery Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Room 250 Alameda, CA. 94502-6577

Regarding: 3495 Castsro Valley Blvd., Castro Valley

Dear Mr. Seery:

Please find enclosed the piezometer installation report(s) for the above referenced sites.

If you have any questions, please do not hesitate to call.

Sincerely,

Keith Simas Operations Supervisor

# P & D Environmental

A Division of Paul H. King, Inc. 4020 Panama Court Oakland, CA 94611 (510) 658-6916

July 11, 2003 Report 0014.R48

Mr. Ted Simas Mr. Keith Simas Xtra Oil Company 2307 Pacific Ave. Alameda, CA 94501

SUBJECT:

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

Xtra Oil Company

3495 Castro Valley Blvd.

Castro Valley, CA

### Gentlemen:

P&D Environmental, a division of Paul H. King, Inc. (P&D) is pleased to present this report documenting the results of the most recent quarterly monitoring and sampling of the wells at the subject site. This work was performed in accordance with P&D's proposal 020599.P1 dated February 5, 1999. All three wells (MW1, MW3 and MW4) were monitored on June 19, 2003 and wells MW1 and MW3 were sampled on June 26, 2003. The reporting period for this report is for April through June 2003. A Site Location Map (Figure 1) and Site Plan (Figure 2) are attached with this report.

#### **BACKGROUND**

The site is currently used as a gasoline station. Four 12,000 gallon underground fuel storage tanks are present at the site. Three of the tanks contain gasoline and the fourth tank contains diesel fuel. A 550 gallon waste oil tank was removed from the site in November, 1988. The fuel tanks were replaced during August, 1992.

Three monitoring wells, designated as MW1, MW2 and MW3 were installed at the site on February 14 and 15, 1990 by Western Geo-Engineers. The subsurface materials encountered in the boreholes consisted primarily of silt and clay. The locations of the monitoring wells are shown in Figure 2. Soil samples collected during drilling of the boreholes for the monitoring wells revealed the presence of total petroleum hydrocarbons as gasoline (TPH-G) and total petroleum hydrocarbons as diesel (TPH-D). TPH-G was encountered in borehole MW1 at depths of 5 and 10 feet below grade at concentrations of 40 and 1,400 ppm, respectively; in borehole MW2 at depths of 10 and 15 feet below grade at concentrations of 230 and 95 ppm, respectively; and in borehole MW3 at depths of 5, 10 and 15 feet at concentrations of 140, 250 and 25 ppm, respectively. In addition, 120 ppm TPH-D was detected in borehole MW3 at a depth of 5 feet. Soil samples collected at a depth of 20 feet in borehole MW1 and at a depth of 18 feet in boreholes in MW2 and MW3 did not show any detectable concentrations of TPH-G or TPH-D. Groundwater was encountered in the boreholes at depths of approximately 15 to 16 feet below grade.

On February 15, 1990 Western Geo-Engineers drilled three exploratory boreholes at the site designated as SB1, SB2 and SB3. The subsurface materials encountered in the boreholes consisted primarily of silt and clay. The approximate locations of the boreholes are shown on Figure 2. It is

July 11, 2003 Report 0014.R48

P&D's understanding that soil samples were collected from the exploratory boreholes at depths of 10 and 12 feet and evaluated in the field using a photo ionization detector. In borehole SB1, TPH-G was detected at the depths of 10 and 12 feet at concentrations of 1,700 and 450 ppm, respectively. In boreholes SB2 and SB3, TPH-G was detected at the depths of 10 and 12 feet in both boreholes at concentrations of 800 ppm and greater than 2,000 ppm, respectively. A groundwater monitoring and sampling program was initiated at the site on February 20, 1990.

It is P&D's understanding that during fuel tank replacement activities in August, 1992 soil surrounding the tank pit was removed and disposed of offsite. An extraction well, designated as EW1, was designed and constructed in one corner of the new tank pit by K&B Environmental at the time of installation of the new tanks. The location of EW1 is shown on Figure 2.

On February 7, 1996 well MW2 was destroyed for the purpose of widening Redwood Road. The destruction was overseen by ACC Environmental Consultants of Oakland, California.

On August 15, 1997 P&D personnel oversaw the installation of one groundwater monitoring well, designated as MW4 at the subject site. The location of the monitoring well is shown on the attached Site Plan, Figure 2. This work was performed in accordance with P&D's work plan 0014.W4 dated June 27, 1997. The work plan was approved by the Alameda County Department of Environmental Health (ACDEH) in a telephone conversation with Mr. Scott Seery on August 14, 1997. During the conversation, Mr. Seery indicated that he would record his approval of the work plan in the county file for the site. In accordance with an October 25, 2002 letter from Mr. Seery, groundwater samples are to be analyzed for fuel oxygenates (MtBE, TAME, EtBE, TAME and TBA), and lead scavengers (EDB, 1,2-DCA/EDC) using EPA Method 8260.

#### **FIELD ACTIVITIES**

On June 19, 2003, the three groundwater monitoring wells at the site (MW1, MW3 and MW4) were monitored by P&D personnel. Wells MW1 and MW3 were subsequently sampled by P&D personnel on June 26, 2003. A joint groundwater monitoring with Allisto Engineering, Inc. was not performed this quarter. Extraction well EW1 was not monitored or sampled at the subject site during the quarter.

The wells were monitored for depth to water and the presence of free product or sheen. Depth to water was measured to the nearest 0.01 foot in wells MW1 and MW3 using an electric water level indicator. In MW4 the depth to water was measured to the nearest 0.01 foot using an electric water level indicator and to the nearest 1/32-inch with a steel tape and water-finding paste. The depth to free product in MW4 was measured using a steel tape with product-finding paste. The presence of free product and sheen was evaluated using a transparent bailer in wells MW1 and MW3. No free product was observed in any of the monitoring wells prior to purging with the exception of MW4, where free product measuring 0.31 feet in thickness was encountered. In addition, sheen was observed in both well MW1 and well MW3, prior to purging the wells.

July 11, 2003 Report 0014.R48

A passive hydrocarbon collection device was present in well MW4. The collection device was observed to be full of what appeared to be diesel fuel, based on odor. The water level was not measured in well MW4 prior to removal of the passive hydrocarbon collection device. Depth to water level and free product layer thickness measurements are presented in Table 1.

Prior to sampling, monitoring wells MW1 and MW3 were purged of a minimum of three casing volumes of water, or until the wells had been purged dry. During purging operations, the field parameters of electrical conductivity, temperature, and pH were monitored. Once the field parameters were observed to stabilize, and a minimum of three casing volumes had been purged or the wells had purged dry and partially recovered, water samples were collected using a clean Teflon bailer.

The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles that were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present.

The VOA vials and bottles were then transferred to a cooler with ice, until they were transported to McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a State-certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

#### HYDROGEOLOGY

Water levels were measured in all of the wells once during the monitoring period. The measured depth to water at the site in wells MW1, MW3 and MW4 on June 19, 2003 was 8.13, 7.60, and 8.56 feet, respectively. A separate phase layer measuring 0.31 feet in thickness was measured in well MW4. Using a specific gravity of 0.75, the corrected depth to water in well MW4 is 8.33 feet. Since the previous quarter, groundwater levels have decreased in each of wells MW1, MW3, and MW4 by 0.36, 0.25, and 1.07 feet, respectively. In well MW4, the separate phase layer thickness has increased from 0.06 feet in thickness on March 18, 2003 to 0.31 feet in thickness on June 19, 2003. The corrected groundwater level in well MW4 has decreased by 0.89 feet since the previous quarter.

Based on the measured depth to groundwater in the groundwater monitoring wells, the apparent groundwater flow direction at the site on June 19, 2003 was calculated to be to the east with a gradient of 0.016. The groundwater flow direction has shifted toward the north and the gradient has increased since the previous monitoring. The groundwater flow direction on June 19, 2003 is shown on Figure 2.

### LABORATORY RESULTS

The groundwater samples collected from monitoring wells MW1 and MW3 on June 26, 2003 were analyzed for TPH-D using EPA Method 3510 in conjunction with Modified EPA Method 8015; TPH-G using EPA Method 5030 and Modified EPA Method 8015; as well as benzene, toluene, ethylbenzene, total xylenes (BTEX), fuel oxygenates (MtBE, TAME, EtBE, TAME and TBA), and lead scavengers (EDB, 1,2-DCA/EDC) using EPA Method 8260.

The laboratory analytical results for the groundwater samples from wells MW1 and MW3 show TPH-D concentrations of 67 and 27 ppm, respectively; TPH-G concentrations of 45 and 96 ppm, respectively; and benzene concentrations of 2.1 and 29 ppm, respectively. Review of the laboratory analytical reports indicates that the TPH-D results for both wells consist of both diesel- and gasoline-range compounds.

Analysis using EPA Method 8260 for fuel oxygenates and lead scavengers showed that these compounds were not present in samples collected on June 26, 2003 for wells MW1 or MW3 with the exception of 21 ppm MtBE and 8.9 ppm TBA in well MW3.

Since the previous sampling on March 18, 2003, TPH-D concentrations have increased and TPH-G and benzene concentrations have decreased in both of the wells. MTBE concentrations have increased in well MW3 and remained undetected in well MW1. The laboratory analytical results of the groundwater samples are summarized in Table 2. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report.

### DISCUSSION AND RECOMMENDATIONS

The three wells at the site were monitored and wells MW1 and MW3 were sampled once during the quarter. A layer of separate phase petroleum hydrocarbon measuring 0.31 feet in thickness was detected in well MW4. Based on odor and viscosity, the hydrocarbons were qualitatively identified as diesel fuel. It is P&D's understanding that the collection device in well MW4 is maintained by Xtra Oil Company personnel. P&D recommends that a log be maintained of product removed.

Analysis using EPA Method 8260 for fuel oxygenates and lead scavengers showed that these compounds were not present in samples collected on June 26, 2003 for wells MW1 or MW3 with the exception of 21 ppm MtBE and 8.9 ppm TBA in well MW3.

P&D recommends that use of absorbent socks in well MW1 be continued. The socks should be checked periodically and replaced as needed.

Based on the laboratory analytical results of the water samples collected from the monitoring wells, P&D recommends that groundwater monitoring and sampling be continued. In addition, P&D recommends that future monitoring and sampling efforts be coordinated with other sites in the vicinity of the subject site that are presently being monitored and sampled.

#### DISTRIBUTION

Copies of this report should be sent to Mr. Scott Seery at the Alameda County Department of Environmental Health. Copies of the report should be accompanied by a transmittal letter signed by the principal executive officer of the Xtra Oil Company.

#### LIMITATIONS

This report was prepared solely for the use of Xtra Oil Company. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections, interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents, subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental

Paul H. King

President

California Registered Geologist

Paul H. King

Registration No.: 5901

Expires: 12/31/03

Attachments: Tables 1 & 2

Site Location Map (Figure 1)

Site Plan (Figure 2) Field Parameter Forms

Laboratory Analytical Results Chain of Custody Documentation

PHK/wrw 0014.R48

TABLE I WELL MONITORING DATA

Well	Date	Top of Casing	Depth to	Water Table
No.	Monitored	Elev. (ft.)	Water (ft.)	Elev. (ft.)
MW1	6/19/03 3/18/03	177.37*	8.13 7.77	169.24 169.60

<sup>\* =</sup> Surveyed on August 20, 1997

TABLE 1 WELL MONITORING DATA (Continued)

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	12/21/02	177.37*	5.74	171.63
	9/10/02		8.28	169.09
	3/30/02		7.43	169.94
	12/22/01		6.92	170.45
	9/23/01		8.53	168.84
	6/22/01		8.30	169.07
	4/22/01		7.77	169.60
	12/14/00		8.49	168.88
	9/18/00		8.56	168.81
	6/08/00		7.97	169.40
	3/09/00		6.68	170.69
	12/09/99		8.15	169.22
	8/31/99		8.36	169.01
	4/29/99		7.68	169.69
	1/29/99		6.99	170.38
	4/26/98		7.50	169.87
	1/24/98		6.61	170.76
	11/06/97		8.79	168.58
	8/26/97		8.51	168.86
	7/24/97	177.43**	8.71	168.72
	4/25/97		7.98	169.45
	1/20/97		7.12	170.31
	7/26/96		8.39	169.04
	7/09/96	•	8.16	169.27
	4/23/96		7.47	169.96
	2/07/96		6.09	171.34
	1/29/96		6.17	171.26
	10/26/95		8.45	168.98
	7/28/95		8.27	169.16
	5/02/95		6.96	170.47
	2/23/95		7.72	169.71
	11/18/94		7.14	170.29
	8/22/94		8.67	168.76
NOTEC.				

<sup>\* =</sup> Surveyed on August 20, 1997

<sup>\*\* =</sup> Surveyed on March 24, 1993 \*\*\* = Surveyed on December 5, 1992

TABLE 1 WELL MONITORING DATA (Continued)

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1 (continued)	5/19/94 2/28/94 11/24/93 8/30/93 5/18/93 2/23/93 11/13/92 5/29/92	200.00***	8.05 7.44 8.74 8.78 8.12 7.34 9.13 8.59	169.38 169.99 168.69 168.65 169.31 170.09 190.87 167.14
	1/14/92 12/23/91 11/25/91 10/10/91 9/17/91 8/19/91		8.57 9.65 9.41 9.70 9.50 9.31	167.16 166.08 166.32 166.03 166.23 166.42

<sup>\* =</sup> Surveyed on August 20, 1997

<sup>\*\* =</sup> Surveyed on March 24, 1993 \*\*\* = Surveyed on December 5, 1992

TABLE 1 WELL MONITORING DATA (Continued)

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)						
MW2	NOT MEASURED (DESTROYED ON FEBRUARY 7, 1996)									
	2/07/96	176.04**	5.70	170.34						
	1/29/96		5.16	170.88						
	10/26/95		8.21	167.83						
	7/28/95		7.99	168.05						
	5/02/95		6.79	169.25						
	2/23/95		7.51	168.53						
	11/18/94		6.92	169.12						
	8/22/94		8.59	167.45						
	5/19/94		7.70	168.34						
	2/28/94		6.99	169.05						
	11/24/93		8.47	167.57						
	8/30/93		8,64	167.40						
	5/18/93		7,73	168.31						
	2/23/93		6.39	169.65						
	11/13/92	198.61***	8.70	<b>18</b> 9.91						
	5/29/92	175.45	9.31	166.14						
	1/14/92		8.97	166.48						
	12/23/91		10.39	165.06						
	11/25/91		9.81	165.64						
	10/10/91		10.39	165.06						
	9/17/91		10.23	165.22						
	8/19/91		9.60	165.85						

<sup>\* =</sup> Surveyed on August 20, 1997 \*\* = Surveyed on March 24, 1993 \*\*\* = Surveyed on December 5, 1992

July 10, 2003 Report 0014.R48

# TABLE 1 WELL MONITORING DATA (Continued)

Well	Date	Top of Casing	Depth to	Water Table
No.	Monitored	Elev. (ft.)	Water (fl.)	Elev. (ft.)
MW3	6/19/03 3/18/03	176.40*	7.60 7.35	168.80 169.05

TABLE 1 WELL MONITORING DATA (Continued)

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW3	12/21/02	176,40*	5.43	170.97
	9/10/02		7.97	168.43
	3/30/02		6.97	169.43
	12/22/01		6.44	169.96
	9/23/01		8.17	168.23
	6/22/01		8.06	168.34
	4/22/01		7.50	168.90
	12/14/00		8.13	168.27
	9/18/00		7.83	168.57
	9/26/00		7.77	168.63
	6/08/00		7.50	168,90
	3/09/00		6.08	170.32
	12/09/99		7.90	168,50
	8/31/99		7.95	168.45
	4/29/99		7.09	169.31
	1/29/99		6.42	169.98
	4/26/98		6.85	169.55
	1/24/98		5.90	170.50
	11/06/97		7.80	168.80
	8/26/97		7.67	168.93
	7/24/97	176.41**	7.90	168.51
	4/25/97		7.12	169.29
	1/20/97		6.35	170.06
	7/26/96		7.84	169.57
	7/09/96		7.61	168.80
	4/23/96		6.81	169.60
	2/07/96		5.05	170.36
	1/29/96		5.77	170.64
	10/26/95		7.72	168.69
	7/28/95		7.80	168.61
	5/02/95		6.50	169.91
	2/23/95		7.24	169.17
	11/18/94		6.05	170,36

<sup>\* =</sup> Surveyed on August 20, 1997 \*\* = Surveyed on March 24, 1993

<sup>\*\*\* =</sup> Surveyed on December 5, 1992

TABLE 1 WELL MONITORING DATA (Continued)

MW3 8/22/94 190.97*** 7.65 168.76 (continued) 5/19/94 7.15 169.26 2/24/94 6.68 169.73 11/24/93 7.55 168.86 8/30/93 7.64 168.77 5/18/93 7.12 169.29 2/23/93 8.01 168.40 11/13/92 7.86 191.12 5/29/92 175.00 8.45 166.55 1/14/92 8.24 166.55 12/23/91 9.37 165.63 11/25/91 9.19 165.81 10/10/91 9.43 165.57 9/17/91 9.20 165.80	Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
2/24/94       6.68       169.73         11/24/93       7.55       168.86         8/30/93       7.64       168.77         5/18/93       7.12       169.29         2/23/93       8.01       168.40         11/13/92       7.86       191.12         5/29/92       175.00       8.45       166.55         1/14/92       8.24       166.55         12/23/91       9.37       165.63         11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80			190.97***		
11/24/93       7.55       168.86         8/30/93       7.64       168.77         5/18/93       7.12       169.29         2/23/93       8.01       168.40         11/13/92       7.86       191.12         5/29/92       175.00       8.45       166.55         1/14/92       8.24       166.55         12/23/91       9.37       165.63         11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80	(continued)				
8/30/93       7.64       168.77         5/18/93       7.12       169.29         2/23/93       8.01       168.40         11/13/92       7.86       191.12         5/29/92       175.00       8.45       166.55         1/14/92       8.24       166.55         12/23/91       9.37       165.63         11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80		2/24/94		6.68	
5/18/93       7.12       169.29         2/23/93       8.01       168.40         11/13/92       7.86       191.12         5/29/92       175.00       8.45       166.55         1/14/92       8.24       166.55         12/23/91       9.37       165.63         11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80		11/24/93		7.55	168.86
2/23/93       8.01       168.40         11/13/92       7.86       191.12         5/29/92       175.00       8.45       166.55         1/14/92       8.24       166.55         12/23/91       9.37       165.63         11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80		8/30/93		7.64	168.77
11/13/92       7.86       191.12         5/29/92       175.00       8.45       166.55         1/14/92       8.24       166.55         12/23/91       9.37       165.63         11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80		5/18/93	· ·	7.12	169.29
5/29/92       175.00       8.45       166.55         1/14/92       8.24       166.55         12/23/91       9.37       165.63         11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80		2/23/93		8.01	168.40
1/14/92       8.24       166.55         12/23/91       9.37       165.63         11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80		11/13/92		7.86	191.12
12/23/91       9.37       165.63         11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80		5/29/92	175.00	8.45	166.55
11/25/91       9.19       165.81         10/10/91       9.43       165.57         9/17/91       9.20       165.80		1/14/92		8.24	166.55
10/10/91       9.43       165.57         9/17/91       9.20       165.80		12/23/91		9.37	165.63
9/17/91 9.20 165.80		11/25/91		9.19	165.81
		10/10/91		9.43	165.57
		9/17/91		9.20	165.80
8/19/91 8.95 166.05		8/19/91		8.95	166.05

<sup>\* =</sup> Surveyed on August 20, 1997 \*\* = Surveyed on March 24, 1993 \*\*\* = Surveyed on December 5, 1992

TABLE 1
WELL MONITORING DATA
(Continued)

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW4	6/19/03	176.35	8.56 (0.31)#	168.02
	3/18/03		7.49 (0.06)#	168.91
	12/21/02		8.58 (4.39)#	171.06
	9/10/02		9.09 (1.60)#	168.46
	3/30/02		9.86 (2.49)#	168.36
	12/22/01		7.79 (1.75)#	169.87
	9/23/01		8.97 (1.17)#	168.26
	6/22/01		7.79	168.56
	4/22/01		9.07 (2.20)#	168.93
	12/14/00		8.87 (0.72)#	168.02
	9/18/00		8.50 (0.45)#	168.19
	6/08/00		7.34	169.01
	3/09/00		6.61 (0.46)#	170.08
	12/09/99		8.80	167.55
	8/31/99		8.28	168.07
	4/29/99		7.14	169.21
	1/29/99		6.68	169.6 <b>7</b>
	4/26/98		6.87	169.48
	1/24/98		6.61	169.74
	11/06/97		9.16	167.19
	8/26/97		8.92	167.43
	8/20/97		7.66 (prior to deve	elopment)

<sup>\* =</sup> Surveyed on August 20, 1997

<sup># =</sup> Indicates free product thickness in feet. The water table elevation has been corrected for the presence of free product by assuming a free product specific gravity of 0.75.

TABLE 2 SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes					
Samples Collected on June 26, 2003												
MW1	67,b,a	45,a	ND<0.05	5 2.1	0.72	2.3	5.5					
MW2	Not Sample	ed (Destroy	yed on Febr	ruary 7, 1996)								
MW3	27,b,a	96,a	21	29	5.2	2.0	10					
MW4	Not Sample	ed (Free Pr	oduct Pres	ent in Well)								
EWI	Not Sample	ed										
				nples Collected March 18, 2003								
MW1	7.3,b,a	33,a	ND<0.05	5 2.4	0.9	1.6	1.0					
MW2	Not Sample	ed (Destroy	yed on Feb	ruary 7, 1996)								
MW3	11,b,a	120, <b>a</b>	16	36	12	1.8	2.4					
MW4	Not Sampled (Free Product Present in Well)											
EW1	Not Sample	Not Sampled										

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

NA = Not Analyzed.

Analysis using EPA Method 8260 for fuel oxygenates (MtBE, TAME, EtBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC) showed that these compounds were not present in samples collected on March 18, 2003 for wells MW1 or MW3 with the exception of 16 ppm MtBE and 5.1 ppm TBA in well MW3.

a = Review of the laboratory analytical reports indicates the presence of a lighter than water immiscible sheen on the sample.

b = Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline-range compounds.

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes				
Samples Collected on December 21, 2002											
MW1,a,b	11	32	ND<0.1	2.6	0.98	2.2	5.5				
MW2	Not Sample	ed (Destroy	ed on Febr	ruary 7, 1996)							
MW3,a,b	21	110	33	34	9.3	2.0	13				
MW4	Not Sampled (Free Product Present in Well)										
EW1	Not Sample	ed									

### NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

NA = Not Analyzed.

a = Review of the laboratory analytical reports indicates the presence of a lighter than water immiscible sheen on the sample.

b = Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline-range compounds.

Analysis using EPA Method 8260 for fuel oxygenates (MtBE, TAME, EtBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC) showed that these compounds were not present in samples collected on December 21, 2002 for wells MW1 or MW3 with the exception of 33,000 ppb MtBE and 14,000 ppb TBA in well MW3.

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes				
110.	Samples Collected on September 10, 2002										
MW1 ++	18	31	ND<0.25	5 2.2	0.65	1.7	4.8				
MW2	Not Sample	ed (Destroy	ed on Feb	ruary 7, 1996)							
MW3 +	43	70	19	21	2.2	1.6	7.6				
MW4	Not Sample	ed (Free Pr	oduct Pres	ent in Well)							
EW1	Not Sample	ed									
				nples Collected March 30, 2002							
MW1 +,@	12	99	ND	4.1	1.2	2.5	6.4				
MW2	Not Sample	Not Sampled (Destroyed on February 7, 1996)									
MW3 +,@	8.5	170	26	40	17	2.6	16				
MW4	Not Sampled (Free Product Present in Well)										
EW1	Not Sampled										

### NOTES

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

NA = Not Analyzed.

- @ = Review of the laboratory analytical reports indicates the presence of a lighter than water immiscible sheen on the sample.
- + = Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline-range compounds.
- ++ = Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes					
110.	Samples Collected on December 22, 2001											
MW1 +,@	22	60	ND	3.2	1.9	2	6.2					
MW2	Not Sample	d (Destroy	ed on Febr	ruary 7, 1996)								
MW3 +,@	9.2	140	27	37	20	2.6	15					
MW4	Not Sample	d (Free Pr	oduct Pres	ent in Well)								
EW1	Not Sample	d										
				nples Collected otember 23, 20								
MW1 ++,@	) 16	49	ND	4	1.4	2.2	6.2					
MW2	Not Sample	d (Destroy	ved on Febi	ruary 7, 1996)								
MW3 +,@	47	130	26	32	9.1	2.4	12					
MW4	Not Sample	d (Free Pr	oduct Pres	ent in Well)								
EW1	Not Sample	d										

## NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

- @ = Review of the laboratory analytical reports indicates the presence of a lighter than water immiscible sheen on the sample.
- + = Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline-range compounds.
- ++ = Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes				
110.	Samples Collected on June 22, 2001										
MW1 @,+	85	35	ND	3.1	0.75	1.2	4.0				
MW2	Not Sample	d (Destroy	ed on Febi	ruary 7, 1996)							
MW3 @,+	33	110	25	31	7.2	1.9	11				
MW4 @,+	<b>44</b> 0	140	15	35	19	2.0	10				
EW1	Not Sampled										
				nples Collected April 22, 2001							
MW1 @	16	43	ND	3.6	1.2	1.6	5.8				
MW2	Not Sample	d (Destroy	ved on Febr	ruary 7, 1996)							
MW3+,@	61	140	24	25	5.4	1.7	11				
MW4	Not Sampled (Free Product Present in Well)										
EW1	Not Sample	d									

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

<sup>@ =</sup> Review of the laboratory analytical reports indicates that both the TPH-D and the TPH-G results indicate the presence of a lighter than water immiscible sheen.

<sup>+ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline-range compounds.

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes				
110.				nples Collected ecember 14, 20							
MW1 @,@@	@ 11	49	ND	5.8	1.6	2	6.9				
MW2	MW2 Not Sampled (Destroyed on February 7, 1996)										
MW3+,@	120	140	35	37	16	2.4	15				
MW4	Not Sampled (Free Product Present in Well)										
EW1	Not Sampled										
				nples Collected ptember 18, 20							
MW1@,+	15	86	ND	7.2	2	3.2	13				
MW2	Not Sample	ed (Destroy	yed on Feb	ruary 7, 1996)							
MW3@,+	43	130	33	39	91	2.3	14				
MW4	Not Sample	ed (Free Pr	oduct Pres	ent in Well)							
EWI	Not Sample	ed									

#### NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

- @ = Review of the laboratory analytical reports indicates the presence of a lighter than water immiscible sheen on the sample.
- @@@ = Review of the laboratory analytical reports indicates that the TPH-D results consist of both oil-range and gasoline-range compounds.
- + = Review of the laboratory analytical reports indicates that the TPH-D results consist of both dieselrange and gasoline-range compounds.

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes						
110,		Samples Collected on July 26, 2000											
MW1	Not Sample	Not Sampled											
MW2	Not Sample	ed (Destroy	ed on Feb	ruary 7, 1996)									
MW3@@	NA	NA	21	NA	NA	NA	NA						
MW4	Not Sample	Not Sampled											
EW1	Not Sample	Not Sampled											
				nples Collected June 8, 2000	I								
MW1@,++	6.5	50	ND	5.7	1.5	1.8	7						
MW2	Not Sample	ed (Destroy	ed on Febr	ruary 7, 1996)									
MW3@,+	74	130	23	41	16	1.9	13						
MW4	Not Sample	Not Sampled (Free Product Present in Well)											
EW1	Not Sample	ed											

### NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

- @ = Review of the laboratory analytical reports indicates the presence of a lighter than water immiscible sheen.
- @@ = Review of the laboratory analytical reports indicate that the oxygenated volatile organic compounds (including DIPE, ETBE, TAME, methanol, ethanol, EDB, and 1,2-DCA) were not detected except for MTBE at 21 ppm and tert-butanol at 19 ppm.
- + = Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline-range compounds.
- ++ = Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes				
Samples Collected on March 9, 2000											
MW1+	7.4	48	ND	5.3	3.1	1.6	8.1				
MW2	Not Sample	d (Destroy	ed on Feb	nuary 7, 1996)							
MW3+,@	14	180	24	39	22	2.5	16				
MW4+,@	2,100	130	6.9	35	13	2.1	11				
EW1	Not Sampled										
				nples Collected ecember 9, 199							
MW1+,@	12	65	ND	9.3	2.9	2.2	8.8				
MW2	Not Sample	d (Destroy	ed on Febr	ruary 7, 1996)							
MW3+,@	17	120	16	35	6.7	2.4	12				
MW4+,@	9,000	120	8.1	33	6	2.4	12				
EW1	Not Sampled										

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

<sup>@ =</sup> Review of the laboratory analytical reports indicates that both the TPH-D and the TPH-G results indicate the presence of a lighter than water immiscible sheen.

<sup>+ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline-range compounds.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes				
Samples Collected on August 31, 1999											
MW1+	22	66	0.71	8.7	2.7	2.4	10				
MW2	Not Sample	d (Destroy	yed on Feb	ruary 7, 1996)							
MW3+	22	120	4.7	35	3.7	2.4	14				
MW4+	9.4	190	4.4	46	30	2.8	15				
EW1	Not Sampled										
				nples Collected April 29, 1999							
MW1+	22	48	ND	8.4	2.8	2.0	8.1				
MW2	Not Sample	ed (Destroy	yed on Feb	ruary 7, 1996)							
MW3+	48	100	2.5	33	8.0	2.1	14				
MW4+	9.4	210	3.2	42	35	2.8	15				
EW1	Not Sampled										

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

<sup>+ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline-range compounds.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes				
110.	Samples Collected on January 29, 1999										
MW1+	9.1	47	ND	9.0	2.9	1.9	8.0				
MW2	Not Sample	d (Destroy	ed on Febr	ruary 7, 1996)							
MW3+	240	84	1.3	31	2.8	1.8	12				
MW4+	7.3	190	2.4	44	40	3.1	17				
EW1	Not Sampled										
				ples Collected April 26, 1998							
MW1++	7.8	60	ND	9.3	5.7	2.1	9.1				
MW2	Not Sample	d (Destroy	ed on Febr	ruary 7, 1996)							
MW3+	380	100	9.7	29	7.1	1.8	14				
MW4+	13	190	ND	49	37	3.2	18				
EW1	Not Sampled										

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

<sup>+ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline range compounds.

<sup>++ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes	
110.				nples Collected anuary 24, 199		OGIZENO	.25.4	
MW1+	24	57	ND	6.9	5.5	2.0	8.7	
MW2	Not Sample	ed (Destroy	yed on Feb	ruary 7, 1996)				
MW3+	77	97	ND	28	7.1	1.8	11	
MW4+	20	200	ND	50	40	3.1	17	
EW1	Not Sampled							
				nples Collected ovember 6, 199				
MW1 ++	17	63	ND	7.4	6.7	2.3	9.9	
MW2	Not Sample	ed (Destro	yed on Feb	ruary 7, 1996)				
MW3+	120	140	ND	37	19	2.4	14	
MW4+	110	160	ND	48	30	2.8	16	
EW1	Not Sample	ed						

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

<sup>+ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of both dieselrange and gasoline range compounds.

<sup>++ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes					
110.	Samples Collected on August 26, 1997											
MW1	Not Sample	Not Sampled										
MW2	Not Sample	Not Sampled (Destroyed on February 7, 1996)										
MW3	Not Sample	ed										
MW4+	5.5	210	1.7	48	42	3.4	19					
EW1	Not Sample	ed										
				nples Collected July 24, 1997	I							
MW1++	28	66	1.8	8.6	8.1	2.2	10					
MW2	Not Sample	ed (Destroy	ed on Feb	ruary 7, 1996)								
MW3++	91	120	1.4	33	17	2.2	12					
EW1	Not Sample	ed										

### NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

<sup>+ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline range compounds.

<sup>++ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes					
NO.	Samples Collected on April 25, 1997											
MW1+	170	77	ND	7.4	7.9	2.1	9.8					
MW2	Not Sample	ed (Destro	yed on Feb	ruary 7, 1996)								
MW3+	760	240	1.6	24	18	4.1	24					
EW1	Not Sampled											
				nples Collected anuary 21, 199								
MW1++	57	80	0.25	7.8	8.3	1.9	8.9					
MW2	Not Sample	Not Sampled (Destroyed on February 7, 1996)										
MW3++	34 150	1.30	40	14	2.6	12						
EW1	Not Sample	ed										

#### NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

<sup>+ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline range compounds.

<sup>++ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes				
Samples Collected on July 26, 1996											
MW1++	11	76	ND	11	13	2.4	10				
MW2	Not Sampled (Destroyed on February 7, 1996)										
MW3++	24	130	0.89	40	22	2.4	12				
EW1	Not Sampled										
				aples Collected April 23, 1996							
MW1++	5.7	73	ND	8.6	12	2.2	9.8				
MW2	Not Sample	d (Destroy	yed on Feb	ruary 7, 1996)							
MW3++	280	170	0.72	34	22	2.2	14				
EW1	Not Sample	Not Sampled									

# **NOTES**:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

<sup>++ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes						
Samples Collected on January 29, 1996													
MW1++	6.6	81	0.25	7.6	13	1.9	8.9						
MW2++	4.6	38	0.0071	1.9	5.7	1.1	5.9						
MW3++	45	150	0.54	32	21	1.9	12						
EW1	EW1 Not Sampled												
				nples Collected ectober 26, 199									
MW1++	62	89	ND	7.8	12	2.4	11						
MW2	900	74	ND	2.9	5.9	2.0	10						
MW3	33	130	0.69	37	21	0.21	11						
EW1	Not Sampled.												

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

++ = Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes					
Samples Collected on July 28, 1995												
MW1++	2.0	35	NA	3.8	8.7	1.1	6.5					
MW2++	2.0	15	NA	1.4	2.3	0.62	3.2					
MW3+	1.9	86	NA	28	16	1.3	7.6					
EW1 Not Sampled.												
				nples Collecte n May 2, 1995	đ							
MW1++	6.5	86	NA	8.9	14	2.3	11					
MW2+	6.6	55	NA	3.3	10	1.8	10					
MW3+	9.7	170	NA	43	30	2.5	14					
EW1	Not Sampled.											

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

<sup>+ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline range compounds.

<sup>++ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes			
Samples Collected on February 24, 1995										
MW1	9.1	90	NA	7.5	12	1.5	11			
MW2	22	67	NA	4.9	11	1.8	11			
MW3	9.2	130	NA	31	19	1.8	10			
EW1	Not Sampled.									
Samples Collected on November 18, 1994										
MW1	10	96	NA	9.3	14	2.5	11			
MW2	5.0	86	NA	11	17	1.8	12			
MW3	23	140	NA	38	22	2.0	11			
EW1	Not Sampled.									

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

<sup>+ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of both diesel-range and gasoline range compounds.

<sup>++ =</sup> Review of the laboratory analytical reports indicates that the TPH-D results consist of gasoline range compounds.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes			
Samples Collected on August 22, 1994										
MW1	8.3	100	NA	9.0	11	2.1	9.4			
MW2	4.1	91	NA	10	13	1.5	9.0			
MW3	5.3	170	NA	35	20	1.8	10			
EW1	Not Sampled.									
Samples Collected on May 19, 1994										
MW1	30	100	NA	12	14	3.5	17			
MW2	5.8	62	NA	9.2	13	1.3	8.4			
MW3	30	150	NA	38	25	2.4	14			
EW1	Not Sampled.									
Samples Collected on February 28, 1994										
MW1	110	90	NA	11	9.6	2.1	9.9			
MW2	13	91	NA	13	16	1.5	9.0			
MW3	210	110	NA	36	21	1.9	11			
EWI	Not Sampled.									

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes			
Samples Collected										
			on No	vember 24, 19	93					
MW1	8.2	66	NA	8.3	8.9	2.0	11			
MW2	79	12	NA	13	17	2.5	17			
MW3	24	160	NA	48	26	2.2	12			
EW1	4									
Samples Collected on August 30, 1993										
MW1	9.4	77	NA	6.4	11	2.2	12			
MW2	110	110	NA	11	14	1.8	11			
MW3	32	130	NA	36	21	1.9	8.2			
EW1	Not Sample	Not Sampled.								
Samples Collected on May 18, 1993										
MW1	30	92	NA	4.0	11	2.5	15			
MW2	44	67	NA	9.2	12	1.4	9.3			
MW3	7.2	130	NA	36	21	2.1	12			
EW1	Not Sample	Not Sampled.								

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

ND = Not Detected.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes				
Samples Collected on February 23, 1993											
MW1	14	100	NA	4.5	11	2.1	12				
MW2	7.0	76	NA	12	17	1.6	9.6				
MW3	8.1	110	NA	31	18	1.9	11				
EW1	9.6	66	NA	14	8.5	1.4	9.8				
Samples Collected on November 13, 1992											
MW1	4.4	120	NA	5.8	10	2.1	13				
MW2	8.2	79	NA	10	13	1.4	8.6				
MW3	4.7	140	NA	38	24	2.0	12				
EW1	13	62	NA	11	9.2	1.1	9.6				
Samples Collected On May 27, 1992											
MW1	11	120	NA	8.8	16	2.3	15				
MW2	130	89	NA	18	19	1.7	14				
MW3	27	370	NA	91	57	3.0	21				

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well	TPH-D	TPH-G	МТВЕ	Benzene	Toluene	Ethyl-	Total Yylenes			
No. benzene Xylenes Samples Collected On January 14, 1992										
MW1	19	39	NA	7.3	8.7	1.3	8.9			
MW2	1600	59	NA	17	14	1.8	15			
MW3	270	130	NA	76	30	3.4	21			
Samples Collected On December 23, 1991										
MW1	34	78	NA	9.3	7.3	0.54	13			
MW2	700	2100	NA.	36	130	79	560			
MW3	540	740	NA	30	61	31	180			
Samples Collected On November 25, 1991										
MW1	36	170	NA	5.5	5.6	1.6	8.4			
MW2	130	230	NA	11	9.7	1.4	9.7			
MW3	74	150	NA	65	31	3.4	18			

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

ND = Not Detected.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes	
140.				nples Collected October 10, 19		OCHZONE	Aylones	
MW1	19	28	NA	4.1	4.7	1.0	4.8	
MW2	360	85	NA	21	25	2.1	14	
MW3	39	140	NA	57	31	2.2	14	
Samples Collected On September 17, 1991								
MW1	19	39	NA	4.9	4.1	1.2	5.9	
MW2	56	74	NA	10	11	1.4	8.1	
MW3	140	180	NA	47	25	2.6	15	
				nples Collected August 19, 199				
MW1	47	48	NA	13	8.4	0.99	29	
MW2	19	69	NA	26	22	2.1	18	
MW3	150	170	NA	82	31	4.4	22	

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

ND = Not Detected.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
110.				nples Collected July 20, 1991	i	oenzene	Aylenes
MW1	49	100	NA	11	14	2.3	17
MW2	100	51	NA	9.9	7.7	1.2	7.5
MW3	270	450	NA	46	29	3.5	21
Samples Collected On June 20, 1991							
MW1	42	76	NA	4.7	7.1	1.5	9.8
MW2	69	87	NA	8.1	8.4	1.1	8.9
MW3	210	920	NA	39	49	13	69
				nples Collected May 17, 1991			
MW1	26	72	NA	7.7	9.9	ND	11
MW2	33	62	NA	5.9	6.3	1.2	9.0
MW3	70	170	NA	32	22	2.2	18

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

ND = Not Detected.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
110.				nples Collected April 15, 1991		OCILICIE	21,101103
MW1	NA	56	NA	6.5	8.5	0.41	9.9
MW2	NA	82	NA	5.3	7.4	1.0	9.4
MW3	NA	110	NA	31	15	0.88	7.4
Samples Collected On March 21, 1991							
MW1	NA	36	NA	4.5	5.7	0.087	7.3
MW2	NA	62	NA	9.3	11	0.35	9.7
MW3	NA	87	NA	30	14	0.69	5.4
				aples Collected abruary 15, 19			
MW1	NA	120	NA	7.4	6.6	ND	13
MW2	NA	200	NA	12	12	1.7	14
MW3	NA	230	NA	44	40	ND	31

 $\label{eq:TPH-G} \textbf{TPH-G} = \textbf{Total Petroleum Hydrocarbons as Gasoline}.$ 

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

NA = Not Analyzed.

+++ Indicates Organic Lead was not detected.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
				nples Collected anuary 14, 199		JULIUN	11,14,114
MW1	NA	33	NA	3.9	2.9	0.21	5.3
MW2	NA	78	NA	11	8.7	0.58	8.0
MW3	NA	160	NA	48	25	1.0	16
Samples Collected On September 27, 1990							
MW1	NA	28	NA	3.7	3.5	0.01	6.5
MW2	NA	59	NA	8.4	12	0.88	9.0
MW3	NA	25	NA	7.2	6.4	0.42	3.4
				nples Collected August 23, 199			
MW1	NA	40	NA	5.1	4.9	0.35	6.0
MW2	NA	96	NA	8.1	8.4	1.5	8.6
MW3	NA	220	NA	67	46	27	18

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

NA = Not Analyzed.

TABLE 2 (CONT.)
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
110.				nples Collected July 20, 1990			•
MW1	44	NA	NA	5.1	4.2	ND	9.1
MW2	86	NA	NA	9.1	14	0.94	13
MW3	88	NA	NA	25.1	21.1	0.61	14.1
Samples Collected On March 19, 1990							
MW1	NA	40	NA	3.7	1.1	ND	3.3
MW2	NA	50	NA	7.7	8.7	0.075	5.6
MW3	NA	210	NA	38	28	1.8	12
				ples Collected ebruary 20, 19			
MW1+++	NA	7.6	NA	1.6	ND	ND	1.3
MW2+++	NA	38	NA	7.3	3.1	0.075	6.8
MW3+++	NA	46	NA	20	15	1.8	9.7

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

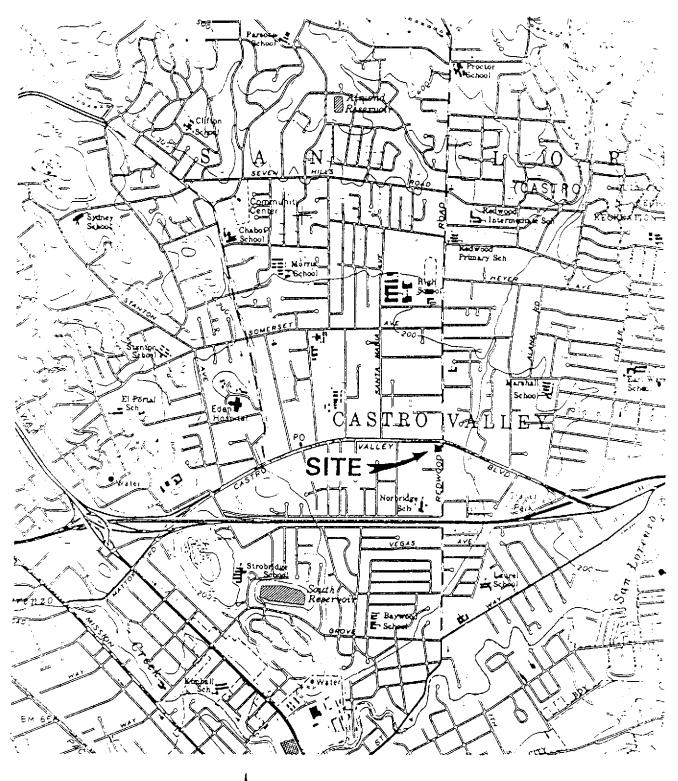
ND = Not Detected.

NA = Not Analyzed.

+++ Indicates Organic Lead was not detected.

### P & D ENVIRONMENTAL

A Division of Paul H. King, Inc. 4020 Panama Court Oakland, CA 94611 (510) 658-6916



Base Map from: U.S. Geological Survey Hayward, Calif. 7.5 Minute Quadrangle Photorevised 1980

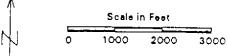


Figure 1 SITE LOCATION MAP XTRA OIL Company 3495 Castro Vailey Blvd. Alameda, California

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
Oakland, CA 94611 CASTRO VALLEY BOULEVARD (510) 658-6916 sidewalk (169.24)0 MM) Planter UST Pit Location 0 0 0 0 WW4 (168.02)♥♥ 0 0 REDWOOD ROAD Canopy KW3  $(168.80) \oplus$ Pump Island Monitoring Well Location Building Groundwater Surface Elevation on June 19, 2003 Groundwater Flow Direction Groundwater Surface Elevation corrected for the presence of Free Product. Morth 20 Figure 2 SITE PLAN YTRA OIL Company Base Kap From 3459 Castro Valley Blvd. RHL Design Group, Inc. Scale in Feet Castro Valley, CA June, 1997

## P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING DATA SHEET

Site Name Atra Oil-Casto laley	well No. Mw
Job No. 0014	Date 6/26/03
TOC to Water (ft.) 8/13	Sheen NE Yes
Well Depth (ft.) 20	Free Product Thickness
Well Diameter Jin.	Sample Collection Method
Gal./Casing Vol. 7.7	Tellon baden
2=23,1	(OF) ELECTRICAL 45th HOCK
	PERATURE CONDUCTIVITY
12:15 5 10:61 9	$\frac{3,9}{5,4}$
12 10 10 10 10 10 10 10 10 10 10 10 10 10	- < Lot
	35.8 7.76
$\frac{12.132}{12.148} = \frac{20}{25} = \frac{10.10}{10.10} = \frac{9}{10.10}$	0.9 2.27
	13.8 2.39
12.4 2.2	39.4 24.7
1:12 fm 36 9.38 8	5(.8
1 19 m 38 9 30	81.4
1625° 50 10 10	01.1
5 Sampling time	
· · · · · · · · · · · · · · · · · · ·	
	<del></del>
NOTES: 51-1 OIL	whw -
NOTES: 5ligh PHC odor that he	Theen on purge water.
	1 0

1 9 7 7

### P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING DATA SHEET

Site Name Xtra Oil- Castr	o Valley	Well No	MW3
JOD NO. 0014	ノ 		7.6/0)
TOC to Water (ft.) 7.60	<u> </u>	Sheen	7 -
Well Depth $(ft.)$ $18.7$		Free Produ	ct Thickness Ø
Well Diameter <u>Yin</u> .		Sample Col	lection Method
Gal./Casing Vol. $\frac{7.2}{}$	<u> </u>	<u>Tefl</u>	on bailer
TIME GAL. PURGED	<b>(</b> На	TEMPERATURE	ELECTRICAL (45/cm) x 1000 CONDUCTIVITY
1:44	9,72	74,0	1.86
1:48 5 10	9,21	77,0	1.66
1.50 15	9119	78.7	1,91
19	0,116	85.4	-
1:59 -19	4.45		2,22
5 1 2 2.65	4.58	88.8	<u> </u>
Sampling time 2:05		<del></del>	<u> </u>
	<del></del>		<del></del>
-			
		-	····
	<del></del>		· · · · · · · · · · · · · · · · · · ·
	<del></del>		
NOTES: Slight PHC	odor & a	hoan a	de inter
	<u> </u>	# phy	y wares

 $t = f \cdot \tau = \psi$ 

# P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING DATA SHEET

Site Name Xtra Oil - 1	astro Valley	Well No.	MWY
Job No. 0014		Date	6/19/03
TOC to Water (ft.)	<u> </u>	Sheen	N/A
Well Depth (ft.)		Free Proc	duct Thickness 3.75
Well Diameter Zin.		* * * * * * * * * * * * * * * * * * * *	ollection Method
Gal./Casing Vol		None (	Collected
TIME GAL. PURGED	<u>Hq</u>	TEMPERATURE	ELECTRICAL CONDUCTIVITY
·	<del></del>		
	To C		
	-		
	-		
	_ \		13.75 inches
8-9=99.00 in.			
	- Produ	ct///>3	
	Gron	nduater 1	08-54=102.75in.
108			
	. i—	<del></del>	<u> </u>
	<del> </del>	<u> </u>	
3,75			
	<del></del>		
	<del></del>		
NOTES:			
Water in Ch	instre box.		
Product recov	ery device	thy. Product	thickness lud finding paste.

McCampbell Analytical Inc.			Tel	110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com					
Client Project ID: #0014; Xtra C Castro Valley			#0014; Xtra Oil -	Date Sampled: 06/26/0	3				
				Date Received: 06/27/0	3				
UZU Panama Coe	M. F.	Client Contact: Pr	aul King	Date Extracted: 07/01/0	3-07/07/0	)3			
akland, CA 946	11-4931	Client P.O.:		Date Analyzed: 07/01/0	3-07/07/0	)3			
		soline Range (C6-C1	2) Volatile Hydrocarbo	ons as Gasoline*					
traction method: SW5			ealytical methods: SW8015Cm		Work Order:				
Lab ID	Client ID	Matrix	TPH	I(g)	DF	% SS			
001A	MW1	w	45,00	0,a,h	100	102			
002A	MW3	w	96,00	0,a,h	200	98.5			
					<u> </u>				
						<u> </u>			
<del></del>					i				
						<del>:</del>			
					1				
						-			
<del></del>	<del>-</del>					<del> </del>			
						-			
	<u> </u>				<del>-  </del>	-			
						-			
						<u> </u>			
	imit for DF =1;	w		50		μg/L			
VIII meant n	ot detected at or reporting limit	S		NA	İ	NA			

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytica	al Inc.		Telephon	ne: 925-798-1620	checo, CA 94553-5560 Fax: 925-798-1622 il: main@mccampbell.com		
P & D Environmental		D: #0014; Xtra Oi	i <b>1</b> -	: 06/26/03			
4020 Panama Court	Castro Valley			1: 06/27/03			
Onkland CA 04611 4021	Client Contact:	Paul King		Date Extracte	d: 07/02/03		
Oakland, CA 94611-4931	Client P.O.:			Date Analyze	d: 07/02/03		
	7.0	ites and BTEX by					
Extraction Method: SW5050B		alytical Method: SW8260B		<del>- ,</del>	Work Orde	r: 0306622	
Lab ID	0306622-001B	0306622-002B					
Client ID	MW!	MW3			Reporting		
Matrix	w	W			DF	DF =1	
DF	100	1000			S	w	
Сотроила		ug/kg	μg/L				
ert-Amyl methyl ether (TAME)	ND<50	ND<500	<del></del>		NA	0.5	
3enzane	2100	29,000	<u> </u>		NA	0.5	
-Butyl alcohol (TBA)	ND<500	8900			NA	5.0	
1,2-Dibromoethane (EDB)	ND<50	ND<500			NA	0.5	
1,2-Dichloroethane (1,2-DCA)	ND<50	ND<500			NA NA	0.5	
Diisopropyl ether (DIPE)	ND<50	ND<500			NA	0.5	
Ethylbenzene	2300	2000			NA NA	0.5	
Ethyl tert-butyl ether (ETBE)	ND<50	ND<500			NA	0.5	
Methyl-t-butyl ether (MTBE)	ND<50	21,000			NA	0.5	
Toluene	720	5200			NA	0.5	
Xylenes	5500	10,000			NA NA	0.5	
	Surr	ogate Recoveries	(%)				
%SS1:	103	101				<del></del>	
%\$\$2:	97.3	98.4					
<b>%</b> \$\$3:	101	102					
	h	h			<del>- +</del>		

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coefutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

Angela Rydelius, Lab Manager

R D ENVIRONME
A Division of Paul II. King, I
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

### McCampbell Analytical Inc.

110 Second Avenue South, #D7 Pachoco, CA 94553-5560 (925) 798-1620

## **CHAIN-OF-CUSTODY RECORD**

WorkOrder: 0306622

PROJECT NUMBER: 0014 SAMPLED BY: (PRINTED AN SAMPLE NUMBER DATE MW MW3

RELINQUISHED BY (SICHATU

RELINGUISHED BAZ (SIGNATU

RELINQUISHED BY: (SIGNATU

Client: P & D Environmental 4020 Panama Court Oakland, CA 94611-4931

TEL: (510) 658-6916 (510) 658-9074 FAX:

PO:

ProjectNo: #0014; Xtra Oil - Castro Valley Date Received: 06/27/2003 06/27/2003 Date Printed:

							···	Requested Tests
Sample ID	ClientSampID	Matrix	Collection Date	· Hold	SW8015C	W8021B/8015C	SW42608	
0306622-001	MW1	Waler	06/26/2003	JÚ	С	A	В	
0306622-002	MW3	Water	06/26/2003		C	A	<u> </u>	

Prepared by: Elisa Venegas

#### Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.