P & D Environmental

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

January 10, 2003 Report 0014.R46

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 and wells MW1 and MW3 were sampled on December 21, 2002. The reporting period for this report is for October through December, 2002. In accordance with an October 25, 2002 letter from Mr. Scott Seery of the Alameda County Department of Environmental Health, groundwater samples were analyzed for fuel oxygenates (MtBE, TAME, EtBE, TAME and TBA), and lead scavengers (EDB, 1,2-DCA/EDC) using EPA Method 8260. 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 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.

FIELD ACTIVITIES

On December 21, 2002, the three groundwater monitoring wells at the site (MW1, MW3 and MW4) were monitored and wells MW1 and MW3 were sampled by P&D personnel. 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 the depth to free product 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 4.39 feet in thickness was encountered. In addition, sheen was observed in wells MW1 and MW3 prior to purging the wells.

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 collection device was removed and emptied into a steel drum at the site. The height of the device was adjusted after monitoring of the well to match the measured water level, in order to better collect free product. The water level was 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 December 21, 2002 was 5.74, 5.43, and 8.58 feet, respectively. A separate phase layer measuring 4.39 feet in thickness was measured in well MW4. Using a specific gravity of 0.75, the corrected depth to water in well MW4 is 5.29 feet. Since the previous quarter, groundwater levels have increased in each of wells MW1 and MW3 by 2.54 feet, and increased in well MW4 by 0.51 feet. In well MW4, the separate phase layer thickness has increased from 1.60 feet in thickness on September 10, 2002 to 4.39 feet in thickness on December 21, 2002. The corrected groundwater level in well MW4 has increased by 2.60 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 December 21, 2002 was calculated to be to the southeast with a gradient of 0.00.64. The groundwater flow direction has shifted toward the north slightly and the gradient has increased slightly since the previous monitoring. The groundwater flow direction on December 21, 2002 is shown on Figure 2.

LABORATORY RESULTS

The groundwater samples collected from monitoring wells MW1 and MW3 on December 21, 2001 were analyzed for TPH-G using EPA Method 5030 and Modified EPA Method 8015; 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; and for TPH-D using EPA Method 3510 in conjunction with Modified EPA Method 8015.

The laboratory analytical results for the groundwater samples from wells MW1 and MW3 show TPH-G concentrations of 32 and 110 ppm, respectively; benzene concentrations of 2.6 and 34 ppm, respectively; and TPH-D concentrations of 11 and 21 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 December 21, 2002 for wells MW1 or MW3 with the exception of 33,000 ppb MtBE and 14,000 ppb TBA in well MW3.

Since the previous sampling on September 10, 2002, TPH-D concentrations have decreased and TPH-G and BTEX concentrations have increased in wells MW1 and MW3. MTBE concentrations have increased in well MW1 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 4.39 feet in thickness was detected in well MW4. The collection device in well MW4 was emptied and adjusted to facilitate the collection of the separate phase hydrocarbons. Based on odor and viscosity, the hydrocarbons were qualitatively identified as diesel fuel. It is P&D's understanding that the collection device 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 December 21, 2002 for wells MW1 or MW3 with the exception of 33,000 ppb MtBE and 14,000 ppb 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 which are presently being monitored and sampled.

DISTRIBUTION

Copies of this report should be sent to Mr. Chuck Headlee at the Regional Water Quality Control Board, San Francisco Bay Region, and 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

Vaul 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.R46

TABLE 1 WELL MONITORING DATA

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

^{*=} Surveyed on August 20, 1997 ** = Surveyed on March 24, 1993 *** = Surveyed on December 5, 1992

TABLE 1 WELL MONITORING DATA

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 1/14/92 12/23/91 11/25/91 10/10/91	200.00*** 175.73	8.05 7.44 8.74 8.78 8.12 7.34 9.13 8.59 8.57 9.65 9.41 9.70	169.38 169.99 168.69 168.65 169.31 170.09 190.87 167.14 167.16 166.08 166.32 166.03
	9/17/91 8/19/91		9.50 9.31	166.23 166.42

^{* =} 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.)
MW2	NOT MEAS	URED (DESTROY	ED 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
1	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	189.91
	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

^{* =} 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.)
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

^{* =} 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. (fl.)
MW3 (continued)	8/22/94 5/19/94 2/24/94 11/24/93 8/30/93 5/18/93 2/23/93 11/13/92 5/29/92 1/14/92 12/23/91 11/25/91 10/10/91 9/17/91 8/19/91	190.97*** 175.00	7.65 7.15 6.68 7.55 7.64 7.12 8.01 7.86 8.45 8.24 9.37 9.19 9.43 9.20 8.95	168.76 169.26 169.73 168.86 168.77 169.29 168.40 191.12 166.55 165.63 165.63 165.81 165.57 165.80 166.05
			u	100,00

^{* =} 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	12/21/02	176.35	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	169.67
	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 dev	

^{* =} Surveyed on August 20, 1997

^{# =} 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.

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TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS

Well No.	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
				ples Collected cember 21, 20			
MW1 +,@	11	32	ND<0.1	2.6	0.98	2.2	5.5
MW2	Not Sample	d (Destroy	ed on Febi	nary 7, 1996)			
MW3 +,@	21	110	33	34	9.3	2.0	13
MW4	Not Sample	d (Free Pr	oduct Pres	ent in Well)			
EWI	Not Sample	d					

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.

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.

Samples Collected on September 10, 2002

MW1 ++	18	31	ND<0.25	5 2.2	0.65	1.7	4.8
MW2	Not Sample	d (Destroy	ed on Febr	ruary 7, 1996)			
MW3 +	43	70	19	21	2.2	1.6	7.6
MW4	Not Sample	d (Free Pr	oduct Pres	ent in Well)			
EW1	Not Sample	d					
				nples Collected March 30, 2002			
MW1 +,@	12	99	ND	4.1	1.2	2.5	6.4
MW2	Not Sample	d (Destroy	ed on Febr	ruary 7, 1996)			
MW3 +,@	8.5	170	26	40	17	2.6	16
MW4	Not Sample	d (Free Pr	oduct Pres	ent in Well)			

NOTES:

EW1

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

Not Sampled

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.

Samples Collected on December 22, 2001

MW1 + .(a)2 6.2 22 60 ND 3.2 1.9 MW2 Not Sampled (Destroyed on February 7, 1996) MW3 +,@ 9.2 140 27 37 20 2.6 15 MW4 Not Sampled (Free Product Present in Well) EW1 Not Sampled

Samples Collected on September 23, 2001

6.2 MW1 ++ (a) 1649 ND 4 1.4 2.2 MW2 Not Sampled (Destroyed on February 7, 1996) MW3 + 047 130 26 32 9.1 24 12

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.

- @ = 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.

			on.	June 22, 2001			
MW1 @,+	85	35	ND	3.1	0.75	1.2	4.0
MW2	Not Sample	d (Destroy	ed on Febi	uary 7, 1996)			
MW3 @,+	33	110	25	31	7.2	1.9	11
MW4 @,+	440	140	15	35	19	2.0	10
EW1	Not Sample	d					
				ples Collected April 22, 2001			

Samples Collected

MW1 @ 16 43 ND 3.6 1.2 1.6 5.8 MW2 Not Sampled (Destroyed on February 7, 1996)

100 Sampled (Destroyed on February 7, 1990)

MW3+,@ 61 140 24 25 5.4 1.7 11

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.

^{@ =} 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.

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

Samples Collected on December 14, 2000

MW1 @,@@	@ 11	49	ND	5.8	1.6	2	6.9
MW2	Not Sample	d (Destroy	ed on Febr	nuary 7, 1996)			
MW3+,@	120	140	35	37	16	2.4	15
MW4	Not Sample	d (Free Pr	oduct Pres	ent in Well)			
EWI	Not Sample	d					
				nples Collected otember 18, 20			
MW1@,+	15	86	ND	7.2	2	3.2	13
MW2	Not Sample	d (Destroy	ed on Febi	ruary 7, 1996)			
MW3@,+	43	130	33	39	91	2.3	14
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 oil-range and gasoline-range compounds.

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

Samples Collected on July 26, 2000

MW1 Not Sampled MW2 Not Sampled (Destroyed on February 7, 1996) NA NA NA NA MW3@@ NA 21 NA MW4 Not Sampled EW1 Not Sampled Samples Collected on June 8, 2000 1.5 1.8 7 MW1@,++6.550 ND 5.7 MW2 Not Sampled (Destroyed on February 7, 1996) MW3@,+74 130 16 1.9 13 23 41 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.

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.

				amples Colle n March 9, 2			
MW1+	7.4	48	ND	5.3	3.1	1.6	8.1
MW2	Not Samp	oled (Destr	oyed on Fe	ebruary 7, 19	996)		
MW3+,@	14	180	24	39	22	2.5	16
MW4+,@	2,100	130	6.9	35	13	2.1	11
EW1	Not Samp	oled					
				amples Colle December 9			
MW1+,@	12	65	ND	9.3	2.9	2.2	8.8
MW2	Not Samp	oled (Destro	oyed on Fe	ebruary 7, 19	996)		
MW3+,@	17	120	16	35	6.7	2.4	12
MW4+,@	9,000	120	8.1	33	6	2.4	12

NOTES.

EW1

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

Not Sampled

ND = Not Detected.

^{@ =} 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.

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

January 10, 2003
Report 0014.R46

Report 001	4.R46								
				mples Coll August 31,					
MW1+	22	66	0.71	8.7	2.7	2.4	10		
MW2	Not Sampled (Destroyed on February 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 Samp	oled							
				mples Coll n April 29,					
MW1+	22	48	ND	8.4	2.8	2.0	8.1		
MW2	Not Samp	oled (Destr	oyed on Fe	ebruary 7, 1	996)				
MW3+	48	100	2.5	33	8.0	2.1	14		
MW4+	9.4	210	3.2	42	35	2.8	15		
EW1	Not Samp	oled							

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 both diesel-range and gasoline-range compounds.

	Samples Collected on January 29, 1999									
MW1+	9.1	47	ND	9.0	2.9	1.9	8.0			
MW2	Not Sampled (Destroyed on February 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									
				amples Coll n April 26,						
MW1++	7.8	60	ND	9.3	5.7	2.1	9.1			
MW2	Not Sam	pled (Destr	oyed on Fe	ebruary 7, 1	996)					
MW3+	380	100	9.7	29	7.1	1.8	14			
MW4+	13	190	ND	49	37	3.2	18			
EW1	Not Sam	pled								

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 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.

			Sa	mples Coll	ected				
				January 24					
MW1+	24	57	ND	6.9	5.5	2.0	8.7		
MW2	Not Sampled (Destroyed on February 7, 1996)								
MW3+	77	97	ND	28	7.1	1.8	11		
MW4+	20	200	ND	50	40	3.1	17		
EWl	Not Sampled								
				imples Coll November (
					•				
MW1++	17	63	ND	7.4	6.7	2.3	9.9		
MW2	Not Sam	pled (Destr	oyed on Fe	ebruary 7, 1	996)				
MW3+	120	140	ND	37	19	2.4	14		
MW4+	110	160	ND	48	30	2.8	16		
EW1	Not Sam	pled							

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 both diesel-range and gasoline range compounds.

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

Samples Collected on August 26, 1997

MW1	Not Sampl	ed									
MW2	Not Sampl	Not Sampled (Destroyed on February 7, 1996)									
MW3	Not Sampl	Not Sampled									
MW4+	5.5	210	1.7	48	42	3.4	19				
EW1	Not Sampl	ed									
	Samples Collected on July 24, 1997										
MW1++	28	66	1.8	8.6	8.1	2.2	10				
MW2	Not Sampl	ed (Destro	yed on F	ebruary 7, 1	996)						
MW3++	91	120	1.4	33	17	2.2	12				
EW1	Not Sampl	ed									

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

^{+ =} Review of the laboratory analytical reports indicates that the TPH-D results consist of both dieselrange and gasoline range compounds.

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

Samples Collected on April 25, 1997

MW1+	170	77	ND	7.4	7.9	2.1	9.8				
MW2	Not Sampl	Not Sampled (Destroyed on February 7, 1996)									
MW3+	760	240	1.6	24	18	4.1	24				
EW1	Not Sampl	Not Sampled									
				nples Collecte anuary 21, 199							
MW1++	57	80	0.25	7.8	8.3	1.9	8.9				
MW2	Not Sampl	ed (Destro	yed on Feb	ruary 7, 1996)							
MW3++	34 150	1.30	40	14	2.6	12					
EW1	Not Sampled										

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 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.

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				mples Col on July 26,					
M W1++	11	76	ND	11	13	2.4	10		
MW2	Not Sam	Not Sampled (Destroyed on February 7, 1996)							
MW3++	24	130	0.89	40	22	2.4	12		
EW1	Not Sam	pled							
				mples Col n April 23,					
MW1 ++	5.7	73	ND	8.6	12	2.2	9.8		
MW2	Not Sam	pled (Destr	oyed on Fe	ebruary 7, 1	996)				
MW3++	280	170	0.72	34	22	2.2	14		
EW1	Not Sam	pled							

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 that the TPH-D results consist of gasoline range compounds.

				nples Col			
			on J	anuary 29	9, 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	Not Sam	pled					
				nples Col october 20			
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 Sam	pled.					

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.

Kepon oor	4. K 40									
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	1 Not Sampled.									
				amples Colle on May 2, 19						
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

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

Not Sampled.

ND = Not Detected.

^{+ =} 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.

				amples Colle February 24					
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.								
				amples Colle November 18					
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 Sam	pled.							

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

^{+ =} 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.

Report 00	014. R 46						
				amples Colle August 22,			
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 Sam	ıpled.					
				amples Collo n May 19, 1			
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 Sam	pled.					
				amples Colle February 28			
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
EW1	Not Sam	nnled					

EW1 Not Sampled.

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

Report 0	014. R4 6									
				amples Colle November 2						
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	EW1 Not Sampled. 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 San	npled.								
				amples Coll on May 18, 1						
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 San	npled.								

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

NA = Not Analyzed.

ND = Not Detected.

				imples Colle February 23					
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		
				amples Coll In May 27,					
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.

				amples Colle January 14			
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
				amples Colle December 2			
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
				imples Coll November 2			
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.

Samples Collected On October 10, 1991									
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		
Samples Collected On August 19, 1991									
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.

Samples Collected On July 20, 1991									
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		
Samples Collected On 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.

				amples Coll n April 15,			
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
				amples Colle n March 21,			
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
				amples Colle February 15			
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

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.

				imples Colle January 14			
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
				amples Colle September 2			
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
				imples Colle i August 23,			
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.

Report 001	1.IX4U						
				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
				nples Collected 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
				nples Collected ebruary 20, 199			
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

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

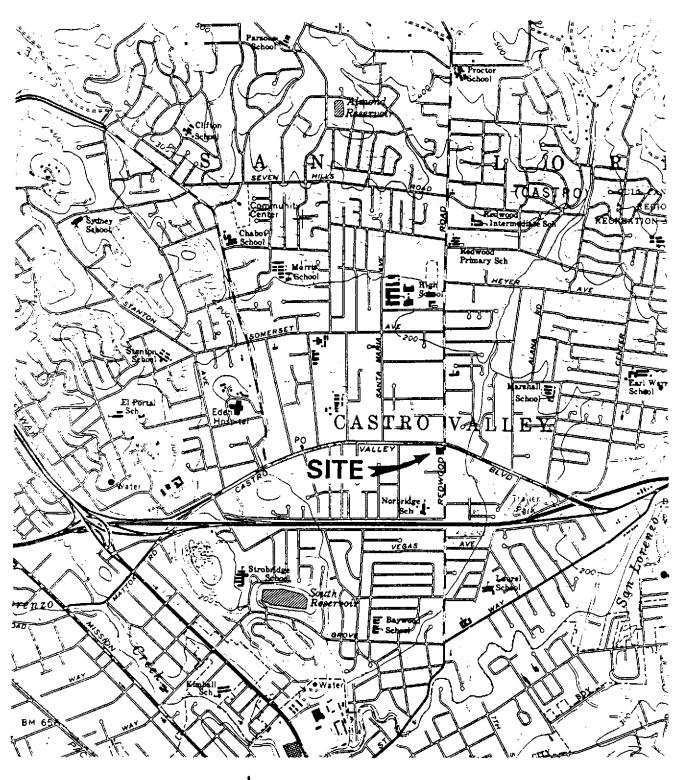
NA = Not Analyzed.

+++ Indicates Organic Lead was not detected.

Results in parts per million (ppm), unless otherwise indicated.

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

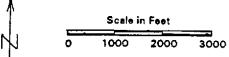
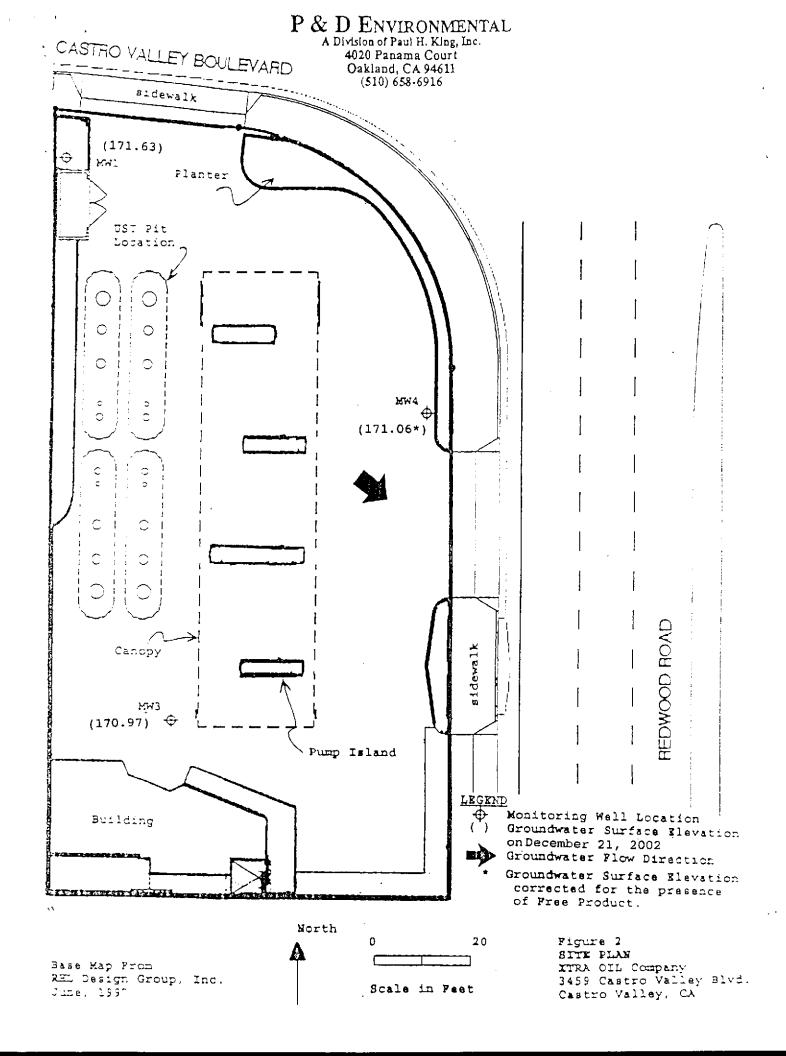


Figure 1 SITE LOCATION MAP XTRA OIL Company 3495 Castro Valley Blvd. Alameda, California



P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING DATA SHEET

Site Name Xtra Oil - Cast	to Vailey	Well No	MWI
Job No. 0014		Date	12/21/02
TOC to Water (ft.) 5.74		Sheen	Yes
Well Depth (ft.) <u> </u>		Free Produ	ct Thickness 9
Well Diameter 4"	-	Sample Col	lection Method
Gal./Casing Vol. 9,2		Test	on Bailer
€= 27.6		TEMPEDATURE OF	ELECTRICAL CONDUCTIVITY
TIME GAL. PURGED	<u>p</u> H	TEMPERATORIE	,
6:27	7,52	64,6	9.46 x 188
6:28 5	7.44	68,0	9,77
6:30 10	7.42	68.7	9,88
632 15	7.42	<u> </u>	10,24
6:37 20	7,40	68.2	10.65
6:48 25	7,48	68.7	10,50
<u>e:26</u>	7,45	70.8	10.76
7:00 Collect Se	imple		
		.	
			· · · · · · · · · · · · · · · · · · ·
NOTES:			

P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING DATA SHEET

Site Name Xtra Oil- C	stro Valle		MWS
Job No. 0014	, _	Date \	كاعداهد
TCC to Water (ft.) 5.43	_	Sheen	Yes
Well Depth (ft.) 18.7	-	Free Product	Thickness d
Well Diameter 4"		=	ection Method
Gal./Casing Vol. 8.6	-	Tefler	Buler
2= 25.8		TEMPERATURE (F)	ELECTRICAL (NS/cm)
3:35	<u>на</u> С ć . Г	STE. O	11.32 x100
8:37 5	7.29	<u>64.1</u>	7.31
स्र:४। 10	7.37	6576	2.5%
9:10 15	7.29	ES S-	9.38
9:13 20	7.25	66.7	12.45
4:14 21	well a	levatered	
9:40 25	7,27	61.4	12,54
9:41 25.5	w e11	dematered	
9:45 Collect	Sample		

MOTES: Preduct on	bacamo	unter.	
	- Pro-		

P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING DATA SHEET

Site Name X+ra Oil - Castro Valley	Well No	
Job No. 6014	Date	
TOC to Water (ft.) 8.5%	Sheen	N/A
Well Depth (ft.)	Free Produc	t Thickness
Well Diameter 2"	Sample Coll	ection Method
Gal./Casing Vol		Jone
	ERATURE	ELECTRICAL CONDUCTIVITY
water water water	58 4139'	
NOTES:		

McC	Campbell Analy	tical Inc.	Tel	ad Avenue South, #D7, Pache lephone: 925-798-1620 Far w.mccampbell.com E-mail: 1	x: 925-798-1622		
P & D Enviro	onmental	Client Projec	et ID: #0014; Xtra Oil-Castro		12/21/02		
4020 Panama	Court	Valley		Date Received:	12/23/02		
Oakland, CA	94611-4931	Client Conta	ct: Paul King	Date Extracted: 12/27/0			
, .		Client P.O.:		Date Analyzed: 12/27/0			
Extraction method:		soline Range (C	6-C12) Volatile Hydrocarbo Analytical methods: SW8015Cm	ns as Gasoline*	W-4.6		2212204
Lab ID	Client ID	Matrix	TPH((g)		Order: DF	0212396 % SS
001A	MWI	w	32,000	,a,h	1	00	118
002A	MW3	w	110,000			200	#
						_	
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					·	- <u>-</u>	
Reporting	Limit for DF =1;	w	50			110/	Л

ND means not detected at or

above the reporting limit

NA

μg/L

NA

^{*}water and vapor samples are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/L.

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation; a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically aftered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than -2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

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

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P & D Environmental	, · · · · · · · · · · · · · · · · · · ·	Date Sampled: 12/21/02
4020 Panama Court	Valley	Date Received: 12/23/02
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 12/23/02
Outlind, Off 9 to 11 19991	Client P.O.:	Date Analyzed: 12/26/02

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil*

xtraction method: SV	W3510C		Analytical methods: SW8015C		Work Or	der: 02123
Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
212396-001A	MWI	w	11,000,d,b,h	900	1	101
212396-002A	MW3	w	21,000,d,a,h	4600	1	101
				ANY CONTRACTOR OF THE PROPERTY		
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	· · · · · · · · · · · · · · · · · · ·					
			:			
Reporting Li	imit for DF =1;	w	50	250	μβ	/L
ND means no above the r	ot detected at or reporting limit	S	NA	NA	mg/	

^{*} water and vapor samples are reported in µg/L, wipe samples in ug/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all TCLP / STLC / SPLP extracts in µg/L

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent / mineral spirit.



[#] cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

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P & D Environmental	Client Project ID: #0014; Xtra Oil-Castro	Date Sampled: 12/21/02
4020 Panama Court	Valley	Date Received: 12/23/02
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 12/26/02-12/27/02
Ontonia, 0.1 > 7011-4551	Client P.O.:	Date Analyzed: 12/26/02-12/27/02

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

L.LID	r: 0212396
Lab ID 0212396-001B	
Client ID MW1	

Matrix Water							
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<1000	200	5.0	tert-Amyl methyl ether (TAME)	ND<100	200	0.5
Benzene	2600	200	0.5	Bromobenzene	ND<100	200	0.5
Bromochloromethane	ND<100	200	0.5	Bromodichloromethane	ND<100	200	0.5
Bromoform	ND<100	200	0.5	Bromomethane	ND<100	200	0.5
2-Butanone (MEK)	ND<100	200	1.0	t-Butyl alcohol (TBA)	ND<1000	200	5.0
n-Butyl benzene	ND<100	200	0.5	sec-Butyl benzene	ND<100	200	0.5
tert-Butyl benzene	ND<100	200	0.5	Carbon Disulfide	ND<100	200	0.5
Carbon Tetrachloride	ND<100	200	0.5	Chlorobenzene	ND<100	200	0.5
Chloroethane	ND<100	200	0.5	2-Chloroethyl Vinyl Ether	ND<100	200	0.5
Chloroform	ND<100	200	0.5	Chloromethane	ND<100	200	0.5
2-Chlorotoluene	ND<100	200	0.5	4-Chlorotoluene	ND<100	200	0.5
Dibromochloromethane	ND<100	200	0.5	1,2-Dibromo-3-chloropropane	ND<100	200	0.5
1,2-Dibromoethane (EDB)	ND<100	200	0.5	Dibromomethane	ND<100	200	0.5
1,2-Dichlorobenzene	ND<100	200	0.5	1,3-Dichlorobenzene	ND<100	200	0.5
1,4-Dichlorobenzene	ND<100	200	0.5	Dichlorodifluoromethane	ND<100	200	0.5
1,1-Dichloroethane	ND<100	200	0.5	1,2-Dichloroethane (1,2-DCA)	ND<100	200	0.5
1,1-Dichloroethene	ND<100	200	0.5	cis-1,2-Dichloroethene	ND<100	200	0.5
trans-1,2-Dichloroethene	ND<100	200	0.5	1,2-Dichloropropane	ND<100	200	0.5
1,3-Dichloropropane	ND<100	200	0.5	2,2-Dichloropropane	ND<100	200	0.5
1,1-Dichloropropene	ND<100	200	0.5	cis-1,3-Dichloropropene	ND<100	200	0.5
trans-1,3-Dichloropropene	ND<100	200	0.5	Diisopropyl ether (DIPE)	ND<100	200	0.5
Ethanol	ND<10,000	200	50	Ethylbenzene	2200	200	0.5
Ethyl tert-butyl ether (ETBE)	ND<100	200	0.5	Hexachlorobutadiene	ND<100	200	0.5
2-Hexanone	ND<100	200	0.5	lodomethane (Methyl iodide)	ND<100	200	0.5
Isopropylbenzene	160	200	0.5	4-Isopropyl toluene	ND<100	200	0.5
Methanol	ND<100,000	200	500	Methyl-t-butyl ether (MTBE)	ND<100	200	0.5
Methylene chloride	ND<100	200	0.5	4-Methyl-2-pentanone (MIBK)	ND<100	200	0.5
Naphthalene	590	200	0.5	n-Propyl benzene	400	200	0.5
Styrene	ND<100	200	0.5	1,1,1,2-Tetrachloroethane	ND<100	200	0.5
1,1,2,2-Tetrachloroethane	ND<100	200	0.5	Tetrachloroethene	ND<100	200	0.5
Toluene	980	200	0.5	1,2,3-Trichlorobenzene	ND<100	200	0.5
1,2,4-Trichlorobenzene	ND<100	200	0.5	1,1,1-Trichloroethane	ND<100	200	0.5
1,1,2-Trichloroethane	ND<100	200	0.5	Trichloroethene	ND<100	200	0.5
Trichlorofluoromethane	ND<100	200	0.5	1,2,3-Trichloropropane	ND<100	200	0.5
1,2,4-Trimethylbenzene	2100	200		1,3,5-Trimethylbenzene	620	200	0.5
Vinyl Acetate	ND<100	200	5.0	Vinyl Chloride	ND<100	200	0.5
Xylenes	5500	200	0.5				

Surrogate Recoveries (%)							
%SS1:		102	%SS2:	99.9			
%SS3:		111					

Comments: h

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.



^{*} water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

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

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P & D Environmental	Client Project ID: #0014; Xtra Oil-Castro	Date Sampled: 12/21/02
4020 Panama Court	Valley	Date Received: 12/23/02
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 12/26/02-12/27/02
	Client P.O.:	Date Analyzed: 12/26/02-12/27/02

,	Client P.O.	.:		Date Analyzed: 12/26/02-12/27/02									
Volatile Extraction Method: SW5030B	es Organics + O		-	P&T and GC/MS (Basi		: Order: 02	212396						
Lab ID				0212396-002B									
Client ID		MW3											
Matrix				Water									
	<u> </u>		Reporting	1			Reporting						
Compound	Concentration *	DF	Limit	Compound	Concentration *	DF	Limit						
Acetone	ND<20000	2000	5.0	tert-Amyl methyl ether (TA)	ME) ND<1000	2000	0.5						
Benzene	34,000	2000	0.5	Bromobenzene	ND<1000	2000	0.5						
Bromochloromethane	ND<1000	2000	0.5	Bromodichloromethane	ND<1000	2000	0.5						
Bromoform	ND<1000	2000	0.5	Bromomethane	ND<1000	2000	0.5						
2-Butanone (MEK)	ND<2000	2000	1.0	t-Butyl alcohol (TBA)	14,000	2000	5.0						
n-Butyl benzene	ND<1000	2000	0.5	sec-Butyl benzene	ND<1000	2000	0.5						
tert-Butyl benzene	ND<1000	2000	0.5	Carbon Disulfide	ND<1000	2000	0.5						
Carbon Tetrachloride	ND<1000	2000	0.5	Chlorobenzene	ND<1000	2000	0.5						
Chloroethane	ND<1000	2000	0.5	2-Chloroethyl Vinyl Ether	ND<1000	2000	0.5						
Chloroform	ND<1000	2000	0.5	Chloromethane	ND<1000	2000	0.5						
2-Chlorotoluene	ND<1000	2000	0.5	4-Chlorotoluene	ND<1000	2000	0.5						
Dibromochloromethane	ND<1000	2000	0.5	1,2-Dibromo-3-chloropropar	ne ND<1000	2000	0.5						
1,2-Dibromoethane (EDB)	ND<1000	2000	0.5	Dibromomethane	ND<1000	2000	0.5						
1,2-Dichlorobenzene	ND<1000	2000	0.5	1,3-Dichlorobenzene	ND<1000	2000	0.5						
1,4-Dichlorobenzene	ND<1000	2000	0.5	Dichlorodifluoromethane	ND<1000	2000	0.5						
1,1-Dichloroethane	ND<1000	2000	0.5	1,2-Dichloroethane (1,2-DC	A) ND<1000	2000	0.5						
1,1-Dichloroethene	ND<1000	2000	0.5	cis-1,2-Dichloroethene	ND<1000	2000	0.5						
trans-1,2-Dichloroethene	ND<1000	2000	0.5	1,2-Dichloropropane	ND<1000	2000	0.5						
1,3-Dichloropropane	ND<1000	2000	0.5	2,2-Dichloropropane	ND<1000	2000	0.5						
1,1-Dichloropropene	ND<1000	2000	0.5	cis-1,3-Dichloropropene	ND<1000	2000	0.5						
trans-1,3-Dichloropropene	ND<1000	2000	0.5	Diisopropyl ether (DIPE)	ND<1000	2000	0.5						
Ethanol	ND<100,000	2000	50	Ethylbenzene	2000	2000	0.5						
Ethyl tert-butyl ether (ETBE)	ND<1000	2000	0.5	Hexachlorobutadiene	ND<1000	2000	0.5						
2-Hexanone	ND<1000	2000	0.5	Iodomethane (Methyl iodide		2000	0.5						
Isopropylbenzene	ND<1000	2000	0.5	4-Isopropyl toluene	ND<1000	2000	0.5						
Methanol	ND<1,000,000	2000	500	Methyl-t-butyl ether (MTBE	even	2000	0.5						
Methylene chloride	ND<1000	2000	0.5	4-Methyl-2-pentanone (MIB		2000	0.5						
Naphthalene	ND<1000	2000	0.5	n-Propyl benzene	ND<1000	2000	0.5						
Styrene	ND<1000	2000	0.5	1,1,1,2-Tetrachloroethane	ND<1000	2000	0.5						
1,1,2,2-Tetrachloroethane	ND<1000	2000	0.5	Tetrachloroethene	ND<1000	2000	0.5						
Toluene	9300	2000	0.5	1,2,3-Trichlorobenzene	ND<1000	2000	0.5						
1,2,4-Trichlorobenzene	ND<1000	2000	0.5	1.1.1-Trichloroethane	ND<1000	2000	0.5						
1,1,2-Trichloroethane	ND<1000	2000		Trichloroethene	ND<1000	2000	0.5						
Trichlorofluoromethane	ND<1000	2000	0.5	1,2,3-Trichloropropane	ND<1000	2000	1						
1,2,4-Trimethylbenzene	1300	2000	0.5	1,3,5-Trimethylbenzene	ND<1000	2000	0.5						
Vinyl Acetate	ND<10,000	2000	5.0	Vinyl Chloride	ND<1000		0.5						
Xylenes	13,000	2000	0.5	v myr Chloride	0001 בעוזו	2000	0.5						
THE COLUMN	13,000			coverles (%)									
%SS1:	101		ogait Mt	%SS2:	99.4	4							
%SS3:				76534:	99.4	+							
/0333.	106)											

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.



^{*} water and vapor samples and all TCLP & SPLP extracts are reported in μg/L, soil/sludge/solid samples in μg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples in mg/L.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W

WorkOrder: 0212396

EPA Method: SW802	1B/8015Cm E	xtraction:	SW5030E	3	BatchID:	5438	Spiked Sample ID: 0212388-004A				
Commond	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)	
Compound	μg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High	
TPH(gas)	ND	60	102	92	10.8	108	99	8.72	80	120	
MTBE	ND	10	93.1	93.4	0.252	107	104	2.86	80	120	
Benzene	0.572	10	87.7	79.5 ,F1	9.20	109	105	3.57	80	120	
Toluene	ND	10	90.8	87.8	3.41	105	101	4.31	80	120	
Ethylbenzene	0.6829	10	82.8	77.3 ,F1	6.22	103	101	2.09	80	120	
Xylenes	ND	30	91.3	86	6.02	96.7	93.3	3.51	80	120	
%SS:	92.8	100	88.7	88.6	0.124	114	106	7.11	80	120	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

F1 = MS / MSD exceed acceptance criteria. LCS - LCSD validate prep batch.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

QC SUMMARY REPORT FOR SW8015C

Matrix: W

WorkOrder: 0212396

EPA Method: SW8015C	E	xtraction:	action: SW3510C BatchID: 5435			5435	Spiked Sample ID: N/A				
0	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)	
Compound	µg/L	µg/L	% Rec. % Rec		% RPD	% Rec. % Rec.		% RPD	Low	High	
TPH(d)	N/A	7500	N/A	N/A	N/A	96	91.5	4.78	70	130	
%SS:	N/A	100	N/A	N/A	N/A	101	97.5	3.96	70	130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

QC SUMMARY REPORT FOR SW8260B

Matrix: W

WorkOrder: 0212396

EPA Method: SW8260B	E	xtraction:	SW5030	3	BatchID:	5449	Spiked Sample ID: 0212409-011B					
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	: Criteria (%)		
Compound	μg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High		
tert-Amyl methyl ether (TAME)	ND	10	102	102	0.576	92.5	93.2	0.731	70	130		
Benzene	ND	10	112	114	1.56	105	105	0.160	70	130		
Chlorobenzene	ND	10	112	111	1.02	114	113	0.581	70	130		
1,1-Dichloroethene	ND	10	118	119	1.36	105	106	1.59	70	130		
Diisopropyl ether (DIPE)	ND	10	115	115	0.409	110	111	0.230	70	130		
Ethyl tert-butyl ether (ETBE)	ND	10	119	120	0.927	113	113	0.490	70	130		
Methyl-t-butyl ether (MTBE)	ND	10	114	115	0.973	104	105	0.307	70	130		
Toluene	ND	10	115	117	1.71	115	116	0.742	70	130		
Trichloroethene	ND	10	81.2	81.8	0.679	79.8	80	0.255	70	130		
%S\$1:	108	100	113	114	1.20	78.5	76.1	3.14	70	130		
%SS2:	99.8	100	101	101	0.477	105	106	0.946	70	130		
%SS3:	98.6	100	97.1	96	1.15	105	108	2.92	70	130		

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

Deviation.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / (MS + MSD) * 2.

^{*} MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

P & D Environmental

4020 Panama Court Oakland, CA 94611 (510) 658-6916

0212396

CHAIN OF CUSTODY RECORD PAGE ___ OF ___ AWAL YSIS(ES); PROJECT NUMBER: PROJECT NAME: 0014 Ktra Oil - Castro Valley NUMBER OF CONTAINERS SAMPLED BY: (PRINTED AND SIGNATURE) REMARKS Yand H. King SAMPLE LOCATION SAMPLE NUMBER DATE TIME TYPE releiler water MWI 7 Х ICE No: mal Turn Around MWS "7 ᄉᆝᄽ CAG [NETWO] CTEER CZS APPROFF ATE eron editation THAD SPACE ARSENT DECISIORINATED IN LAB PRESERVED IN LAB TOTAL NO. OF SAMPLES RELINQUISHED BY: (SIGNATURE) LABORATORY: DATE TIME REGULVED Y: (SIGNATURE) (THIS SHIPMENT) 2300 12/22 TOTAL NO. OF CONTAINERS (THIS SHEPMENT) RELINQUISHED BY: (SIGNATURE) McComphell Analytical LABORATORY CONTACT: LABORATORY PHONE NUMBER: DATE RECEINED BY: (SIGNATURE) Angela Rydelius (925)798-1620 12/23 SOSTHENETS WAS 1145 RECEIVED FOR LABORATORY BY: SAMPLE ANALYSIS REQUEST SHEET RELINQUISHED BY: (SIGNATURE) DATE TIME ATTACHED: ()YES (人)NO (SIGNATURE) Mos V VOAS preserved with HCR REMARKS: LIW

McCampbell Analytical Inc.

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

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

WorkOrder: 0212396

Client:

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

(510) 658-6916

FAX:

(510) 658-9074

ProjectNo:

#0014; Xtra Oil-Castro Valley

Date Received:

12/23/02

PO:

Date Printed:

12/23/02

		•						Requested Tests			
Sample ID	ClientSampID	Matrix	Collection Date	Hold	\$W8015C	8021B/8015	SW8260B	:	i		;
0212396-001	MW1	Water	12/21/02		Α	Α .	В		 į	į	
0212396-002	MW3	Water	12/21/02	j	Α	A	В		:	:	:

Prepared by: Sonia Valles

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.