P & D ENVIRONMENTAL

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

June 28, 2000
Report 0014.R34

Mr. Ted Simas
Mr. Keith Simas
XTRA OIL Company
2307 Pacific Ave.
Alameda, CA 94501

SUBJECT: **OFFSITE GROUNDWATER QUALITY INVESTIGATION REPORT**
XTRA OIL Company
3495 Castro Valley Blvd.
Castro Valley, CA

Gentlemen:

P&D Environmental (P&D), a division of Paul H. King, Inc. is pleased to present this report documenting the drilling of 11 exploratory borings, designated as P20 through P30, for the collection of groundwater grab samples in the vicinity of the subject site. This work was performed in accordance with P&D's Offsite Groundwater Quality Investigation Work Plan (Work Plan 0014.W5, dated December 15, 1997). A Site Location Map (Figure 1) and a Site Vicinity Map (Figure 2) showing the boring locations are attached with this report.

All work was performed under the direct supervision of an appropriately registered professional. This report is prepared in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

BACKGROUND

The subject 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.

In February 1994, P&D collected offsite groundwater grab samples designated P1, P2, P3, P4, P5, P6, P7, P8, and P9. Results from those samples are presented in P&D's Report 0014.R8, entitled "Offsite Groundwater Quality Investigation Report," dated April 28, 1994. Between October 1994 and June 1995, P&D collected offsite groundwater grab samples designated P10, P11, P12, P13, P14, P15, P16, P17, P18, and P19. Results from these samples are presented in P&D's Report 0014.R14, entitled "Offsite Groundwater Quality Investigation Report," dated January 5, 1996. Based on the results from these two sets of borings, the ACDEH requested further offsite investigation. To address this request, P&D prepared an Offsite Groundwater Quality Investigation Work Plan (Work Plan 0014.W5, dated December 15, 1997), which was approved by ACDEH on January 22, 1998. In the course of performing the scope of work in 0014.W5, some adjustments in sample location had to be made to accommodate offsite property access issues. These changes are addressed in P&D's Work Plan 0014.W6, "Updated Subsurface Investigation Work Plan" dated October 8, 1999. This updated work plan was approved by ACDEH on October 18, 1999.

FIELD ACTIVITIES

Between June 1998 and May 2000, P&D personnel hand augered 11 boreholes at offsite locations in the vicinity of the subject site. A total of 11 groundwater grab samples were collected from the boreholes and analyzed. Subsurface conditions observed during boring activities were classified lithologically in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. The subsurface conditions were recorded on boring logs, copies of which are attached with this report. Boring locations are shown on the attached Site Vicinity Map, Figure 2.

Prior to performing field work, a permits were obtained from the Alameda County Public Works Agency, Water Resources Division, respective property owners were contacted to permit P&D's accessing the boring locations, Underground Safety Alert was notified for buried utility location, and a site health and safety plan was prepared.

Soil Boring

A 3.5 inch diameter hand auger was used to drill all of the borings. During hand augering activities, soil from each of the 11 boreholes was evaluated for organic vapors using a Photoionization Detector (PID). The PID consisted of a Model 580B OVM equipped with a 10.0 eV bulb which was calibrated with a 100 ppm isobutylene standard. Additionally, soil from each of the borings was evaluated for petroleum hydrocarbon (PHC) odor and visible signs of contamination.

On June 28, 1998, P&D personnel hand augered borings P25 and P26. The borings were drilled in planter boxes in the sidewalk on the east side of Redwood Road. Boring P25 was advanced to a total depth of 14.0 feet below grade, and boring P26 was advanced to a total depth of 10.0 feet below grade. Groundwater was initially encountered in P25 at 12.0 feet below grade, and in P26 at 8.0 feet below grade. The boring locations are shown on Figure 2.

While drilling boring P25, PID values of between 10 ppm and off-scale were observed between depths of 5.0 and 14.0 feet of depth, accompanied by moderate to strong gasoline odor. While drilling boring P26, no petroleum hydrocarbon odors were noted and no organic vapors were detected with the PID.

On November 24, 1998, P&D personnel hand augered borings P23 and P24 in planter boxes in the sidewalk on the east side of Redwood Road. Boring P23 was advanced to a total depth of 12.5 feet below grade, and boring P24 was advanced to a total depth of 10.0 feet below grade. Groundwater was initially encountered at 10.5 feet below grade in boring P23 and at 9.5 feet in P24. Boring locations are shown on Figure 2.

While drilling boring P23, organic vapors were detected with the PID, displaying a value of 14 ppm at a depth of 8.5 feet. A faint petroleum hydrocarbon odor was noted from the soil at the same time; however, no odor was noted and no organic vapors were detected with the PID in the soil at any other depth in the boring. While drilling boring P24, no odors were noted and no organic vapors detected until 4.5 feet below grade. From 4.5 feet below grade to the total depth explored of 10.0 feet, strong and very strong odors were noted, and organic vapor concentrations between 80 ppm (at 4.5 feet) and 337 ppm (at 5.5 feet) were detected with the PID.

On January 29, 1999, P&D personnel hand augered borings P20 and P21 in the grass-covered backyards for two residential dwellings at Redwood Court. Both borings were advanced to a total depth of 9.0 feet below grade. Groundwater was initially encountered in boring P20 at 7.0 feet below grade, and at 3.0 feet below grade in boring P21. The groundwater initially encountered in borehole P21 was interpreted to be perched water associated with landscape irrigation.

While drilling boring P20, organic vapors were detected with the PID, recording values from 119 ppm at a depth of 5.5 feet to 324 ppm at 7.0 feet. A moderate PHC odor was associated with the organic vapors detected at 5.5 feet below grade; no other organic vapors or odors were detected in the boring. While drilling boring P21, no organic vapors or odors were detected to a depth of 3.0 feet below grade. At approximately 3.2 feet below grade, a very strong PHC odor was encountered (noted on the boring log as smelling like old gasoline), associated with a PID reading of 308 ppm. Below a depth of approximately 4.0 feet below grade, the PID reading was observed to be off scale, with the very strong PHC odor continuing to the total depth explored in the boring of 9.0 feet below grade.

On March 21, 1999, P&D personnel hand augered borings P29 and P30 in the business parking lot located to the east of Redwood Road. Boring P29 was advanced to a total depth of 11.0 feet below grade, and boring P30 was advanced to a total depth of 9.5 feet below grade. Groundwater was initially encountered

at 9.5 feet below grade in boring P29 and at 7.5 feet in boring P30. While drilling borings P29 and P30, no organic vapors were detected with the PID, and no PHC odors were noted.

On May 12, 2000, P&D personnel hand augered borings P22 and P28. Borehole P22 was located in the parking lot to a residential complex to the west of Redwood Court, and borehole P28 was located in the parking lot of a business to the east of Redwood Road. Boring P22 was advanced to a total depth of 6.5 feet below grade, and boring P28 was advanced to a total depth of 13.5 feet below grade. Groundwater was initially encountered in boring P22 at 4.5 feet below grade, and in boring P28 at a depth of 12.0 feet below grade. While drilling borings P22 and P28, no organic vapors were detected with the PID and no PHC odors were noted.

Finally, on May 17 and 18, 2000, P&D personnel hand augered boring P27 to a total depth of 14.0 feet below grade in a planter in a business parking lot located to the east of Redwood Road. Groundwater was initially encountered at a depth of 13.0 feet below grade. While drilling, no organic vapors were detected with the PID, and no PHC odors were noted.

Prior to use in each borehole, the hand auger was washed with an Alconox solution followed by a clean water rinse. Soil cuttings generated during hand augering activities were placed into a DOT-approved 55-gallon drum at the subject site pending appropriate disposal. Water associated with equipment decontamination was placed into a DOT-approved 55-gallon drum and stored at the subject site pending appropriate disposal.

Groundwater Grab Sample Collection

One groundwater grab sample was collected from each borehole. The groundwater grab samples were designated as P20, P21, P22, P23, P24, P25, P26, P27, P28, P29, and P30 Each groundwater sample was designated with the name of the soil boring from which it was collected.

Groundwater grab samples were collected from each borehole using a clean Teflon bailer. Each sample was transferred from the bailer into 40-milliliter glass Volatile Organic Analysis (VOA) vials and one-liter amber glass bottles, which were each sealed with a Teflon-lined screw cap. The VOA vials were overturned and tapped to assure that no air bubbles were present.

The VOA vials and amber glass bottles were labeled and transferred to a cooler with ice, pending transportation to McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a State-certified hazardous waste testing laboratory. Chain of custody procedures were observed for all sample handling.

The Teflon bailer was washed with an Alconox solution followed by a clean water rinse prior to each use.

GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U.S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E.J. Helley and K.R. Lajoie, 1979 the subject site is underlain by Late Pleistocene alluvium (Qpa). The alluvium is described as typically consisting of weakly consolidated, slightly weathered, poorly sorted, irregularly interbedded clay, silt, sand and gravel and is considered to overlie bedrock on the alluvial plain marginal to San Francisco Bay.

Subsurface materials encountered in the borings consisted primarily of silty clay ranging in color from light brown to black, in moistness from dry to wet, and in density from soft to hard. The maximum depth explored was 14.5 feet below the ground surface. Subsurface materials in the vicinity of the water table which did not consist of silty clay were as follows. In borehole P26, silty sand was encountered between the depths of 8.0 feet and the total depth explored of 10.0 feet. In borehole P27, sandy clay was encountered between the depths of 11.5 feet and the total depth explored of 14.0 feet. In borehole P28, silt was encountered between the depths of 6.5 feet and the total depth explored of 13.5 feet. Groundwater was encountered at depths ranging from approximately 3.0 to 7.0 feet in the vicinity of Redwood Court to approximately 13.0 feet in the most upgradient borehole (P27) in the vicinity of Castro Valley Boulevard.

On June 28, 1998, groundwater was first encountered in P25 at 12.0 feet below grade, and in P26 at 8.0 feet below grade. On November 24, 1998, groundwater was encountered at 10.5 feet below grade in boring P23 and at 9.5 feet in P24. On January 29, 1999, groundwater was encountered in boring P20 at 7.0 feet below grade, and at 3.0 feet below grade in boring P21. On March 21, 1999, groundwater was encountered at 9.5 feet below grade in boring P29 and at 7.5 feet in boring P30. On May 12, 2000, groundwater was encountered in boring P22 at 4.5 feet below grade, and at 12.0 feet in boring P28. On May 18, 2000, groundwater was encountered at 13.0 feet below grade in boring P27. The groundwater encountered in borehole P21 is interpreted to be perched groundwater associated with landscape irrigation.

Sample collection locations P16, P17 and P18 from an earlier investigation are located along the northern portion of the BART parking lot. Based on anecdotal recollections provided by construction workers affiliated with construction of the parking lot for the BART station on Redwood Road at the time of parking lot construction, the northernmost portion of the parking lot adjacent to Redwood Road was identified as having a higher clay content, not draining well after rain, and requiring the longest time to dry after rain.

LABORATORY ANALYTICAL RESULTS

All of the groundwater grab samples from borings P20 through P30 were analyzed for the following: Total Petroleum Hydrocarbons as Gasoline (TPH-G), using EPA Method 5030 and modified EPA Method 8015; benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8020; and Total Petroleum Hydrocarbons as Diesel (TPH-D) using EPA Method 3510 in conjunction with modified EPA Method 8015. In addition, all of the samples were analyzed for methyl tert-butyl ether (MTBE) except for samples P23 and P24.

The laboratory analytical results of the groundwater grab samples collected from borings P22, and P27 through P30 show that petroleum hydrocarbons were not detected. Additionally, petroleum hydrocarbons were not detected in samples P23 and P26 with the following exceptions. In P23 TPH-G was detected at 0.088 ppm. Review of the analytical report for this sample shows that the chromatogram had no recognizable pattern. In P26 TPH-D was detected at 0.054 ppm. The analytical report notes that both diesel- and oil-range compounds are significant in the TPH-D result for this sample.

The laboratory analytical results for the remaining groundwater grab samples (P20, P21, P24, and P25) were as follows: TPH-G was detected in P20 at a concentration of 100 ppm, and the remaining sample concentrations ranged from 22 to 71 ppm; TPH-D was detected in P24 at a concentration of 230 ppm, and the remaining sample concentrations ranged from 32 to 68 ppm; benzene was detected in P21 at a concentration of 15 ppm, and the remaining sample concentrations ranged from 0.28 to 3.6 ppm; MTBE was not detected in any of the samples.

Review of the analytical reports show that gasoline-range compounds are significant in the TPH-D result for P25, and that both diesel- and gasoline-range compounds are significant in the TPH-D results for samples P20, P21, and P24. The laboratory analytical results for the groundwater grab samples are summarized in Table 1.

Copies of the laboratory analytical reports and chain of custody documentation for the groundwater grab samples are attached with this report.

DISCUSSION AND RECOMMENDATIONS

A total of 11 groundwater grab samples were collected to further define the extent of petroleum hydrocarbons in groundwater which had been identified during previous investigations. The subsurface materials encountered consisted almost entirely of silty clay. The depth to groundwater ranged from approximately 3.0 to 7.0 feet in the vicinity of Redwood Court to approximately 13.0 feet in the most upgradient borehole (P27) in the vicinity of Castro Valley Boulevard.

Petroleum hydrocarbons were not detected in boreholes P22, and P27 through P30. In addition, only low concentrations of TPH-G were detected in borehole P23, and low concentrations of TPH-D were detected in borehole P26. The samples from these boreholes, in conjunction with the remaining samples where petroleum hydrocarbons were detected, have defined the extent of petroleum hydrocarbons in the area of investigation. An isoconcentration map showing inferred TPH-Gasoline concentration contours is attached with this report as Figure 3, and an isoconcentration map showing inferred TPH-Diesel concentration contours is attached with this report as Figure 4.

Review of the isoconcentration contour maps shows that there appear to be two distinctly different petroleum hydrocarbon plumes. One plume consists predominantly of TPH-G, and extends to the southwest of the site. The second plume consists predominantly of TPH-D, and extends to the southeast of the site. The absence of petroleum hydrocarbons in groundwater grab samples collected during previous investigations and located directly to the south of the subject site (beginning at a distance of approximately 250 feet from the site) is interpreted to be the result of a higher clay content in the subsurface materials directly to the south of the site in this area. Review of the isoconcentration contour maps shows that the petroleum hydrocarbons in groundwater do not extend to the creek located to the east of the area of investigation.

Based on the defined extent of petroleum hydrocarbons in groundwater in the vicinity of the subject site, P&D recommends that subsurface petroleum hydrocarbon concentrations be evaluated for potential human health risk concerns. Based on the shallow depth to groundwater and the presence of residential dwellings in the vicinity of Redwood Court, P&D anticipates that the focus of evaluation will be the Redwood Court area.

DISTRIBUTION

Copies of this report should be distributed to Mr. Scott Seery at the ACDEH, and to Mr. Chuck Headlee at the San Francisco Bay Regional Water Quality Control Board. Copies of the report should be accompanied by a transmittal letter signed by the principal executive officer of 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 site owner, regulatory agencies and other pertinent individuals; review of available public documents;

subsurface exploration and our professional judgement 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 judgement 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

Greg Brown
Project Scientist

Paul H. King
California Registered Geologist
Registration No. : 5901
Expires: 12/31/01

Attachments:
- Table 1
- Site Location Map (Figure 1)
- Site Vicinity Map (Figure 2)
- Site Vicinity Map Showing TPH-Gasoline Isoconcentration Contours (Figure 3)
- Site Vicinity Map Showing TPH-Diesel Isoconcentration Contours (Figure 4)
- Boring Logs (11)
- Laboratory Analytical Reports
- Chain of Custody Documentation

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TABLE 1
SUMMARY OF LABORATORY ANALYTICAL RESULTS
GROUNDWATER GRAB SAMPLES
(Samples Collected between June 1998 and May 2000)

Sample No.	TPH-G	TPH-D	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
P20	100	68*	ND	1.5	1.6	2.3	18
P21	71	36*	ND	15	8.5	3.3	9.5
P22	ND	ND	ND	ND	ND	ND	ND
P23	0.088	ND	NA	ND	ND	ND	ND
P24	36	230*	NA	3.6	0.25	1.9	7
P25	22	32**	ND	0.28	0.09	0.69	2.1
P26	ND	0.054+	ND	ND	ND	ND	ND
P27	ND	ND	ND	ND	ND	ND	ND
P28	ND	ND	ND	ND	ND	ND	ND
P29	ND	ND	ND	ND	ND	ND	ND
P30	ND	ND	ND	ND	ND	ND	ND

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
NA = Not Analyzed.
* = Laboratory Analytical Report note: Both diesel- and gasoline-range compounds are significant in TPH-D result.
** = Laboratory Analytical Report note: Gasoline-range compounds are significant in TPH-D result.
+ = Laboratory Analytical Report note: Both diesel- and oil-range compounds are significant in TPH-D result.
Results are in parts per million (ppm), unless otherwise indicated.

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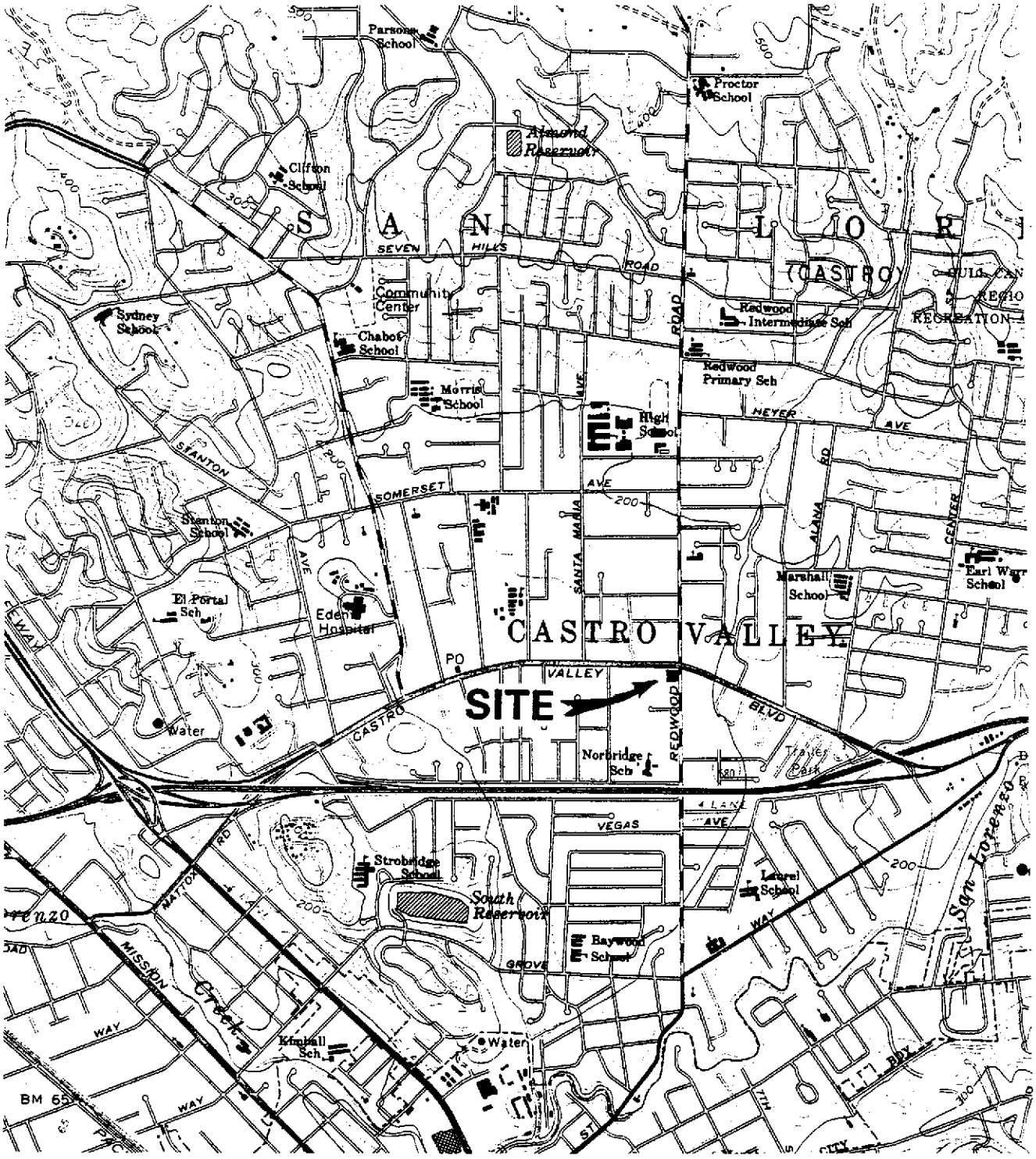
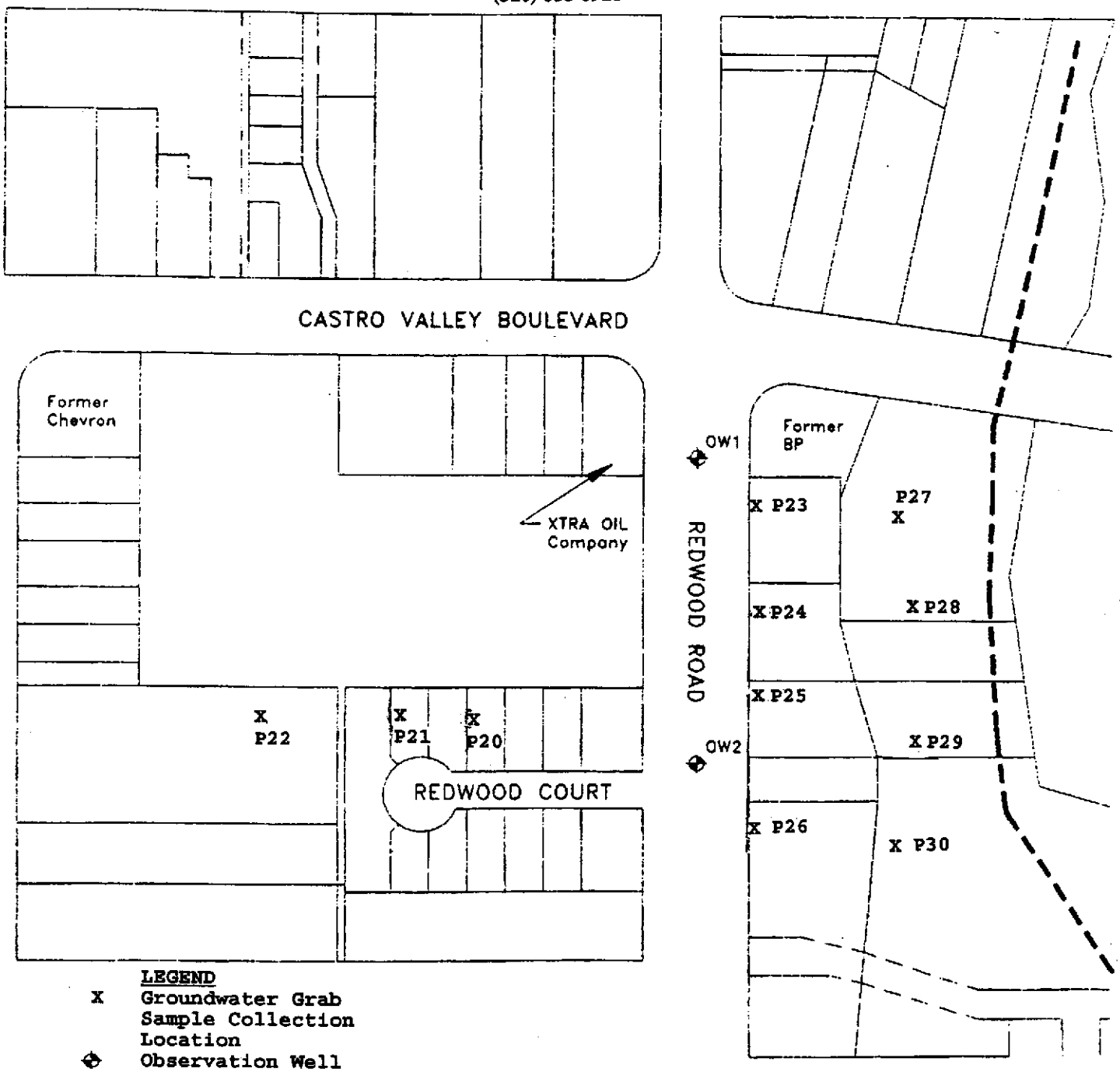


Base Map from:
U.S. Geological Survey
Hayward, Calif.
7.5 Minute Quadrangle
Photorevised 1980

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

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



Base Map From:
Castro Valley Sanitation District
Undated

Figure 2
SITE VICINITY MAP
XTRA OIL Company
3495 Castro Valley Blvd.
Castro Valley, CA

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
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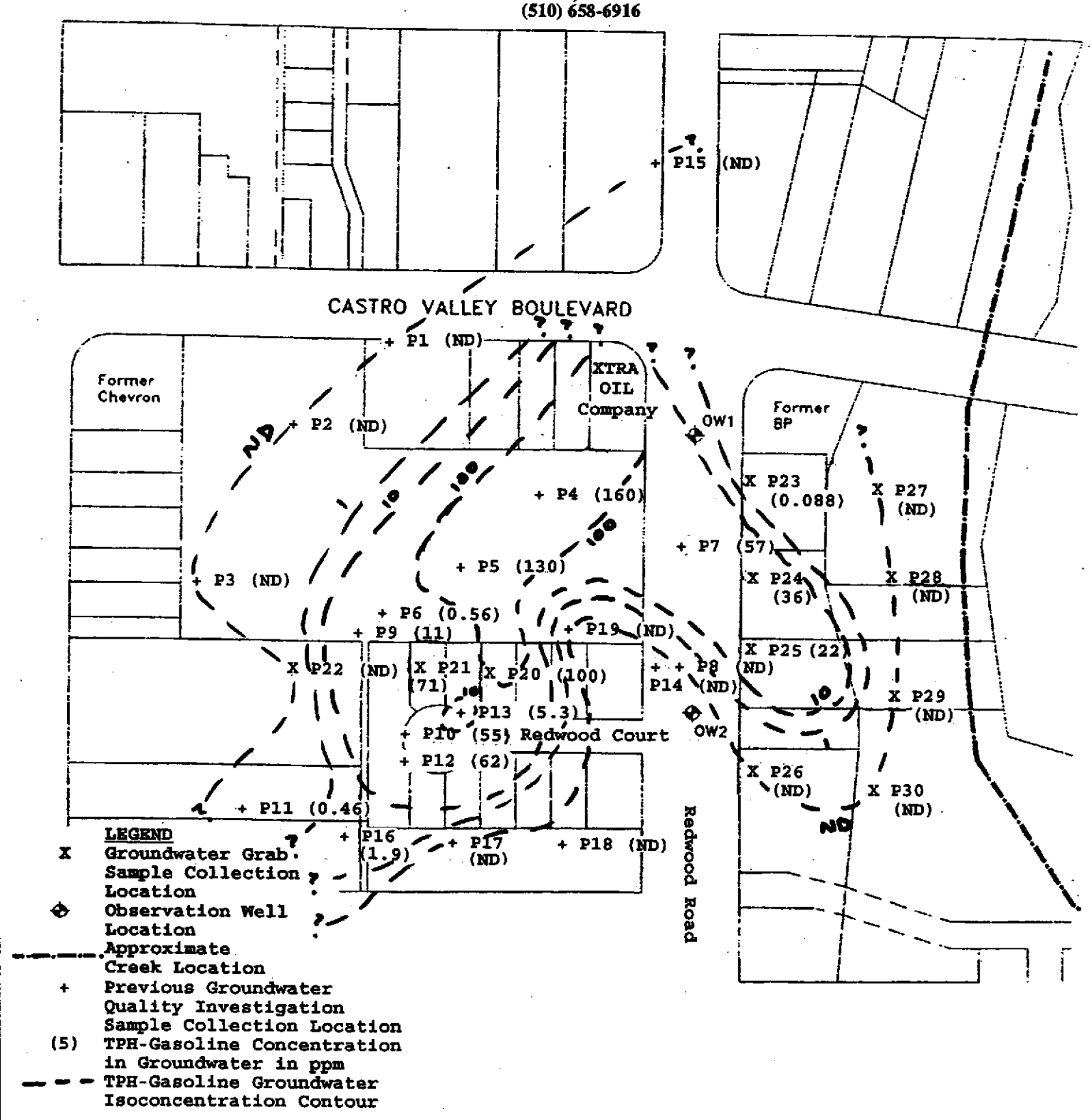

LEGEND

- X — Groundwater Grab Sample Collection Location
- ⊕ — Observation Well Location
- Approximate Creek Location
- \+ — Previous Groundwater Quality Investigation Sample Collection Location
- (5) — TPH-Gasoline Concentration in Groundwater in ppm
- TPH-Gasoline Groundwater Isoconcentration Contour

Base Map From:
Castro Valley Sanitation District
Undated

0 100 200
SCALE IN FEET

North

Figure 3
SITE VICINITY MAP SHOWING TPH-GASOLINE ISO-CONCENTRATION CONTOURS
XTRA OIL Company
3495 Castro Valley Blvd.
Castro Valley, CA

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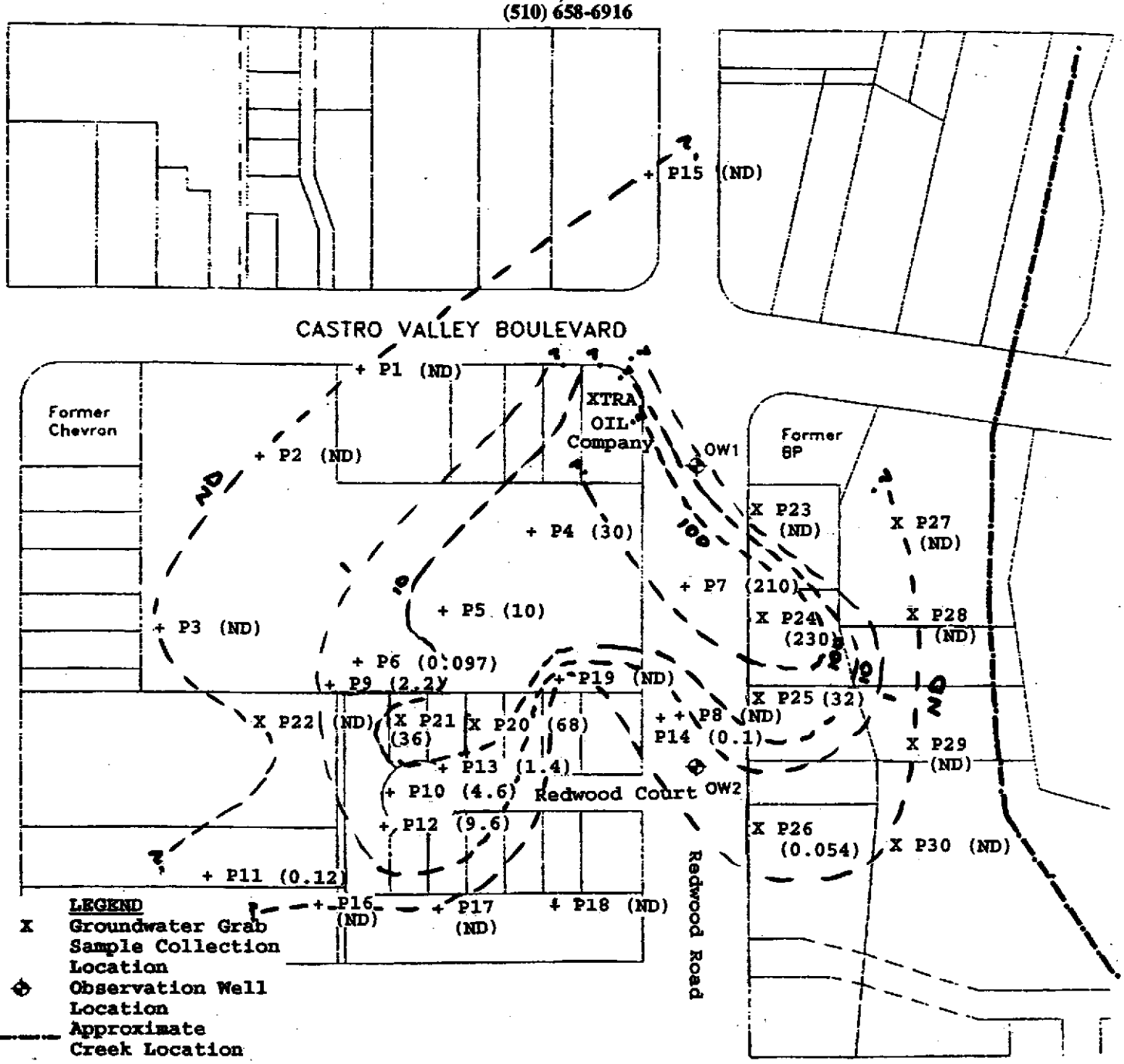

LEGEND

- X — Groundwater Grab Sample Collection Location
- ⊕ — Observation Well Location
- Approximate Creek Location
- \+ — Previous Groundwater Quality Investigation Sample Collection Location
- (5) — TPH-Diesel Concentration in Groundwater in ppm
- TPH-Diesel Groundwater Isoconcentration Contour

Base Map From:
Castro Valley Sanitation District
Undated

0 100 200
SCALE IN FEET

North

Figure 4
SITE VICINITY MAP SHOWING TPH-DIESEL ISO-CONCENTRATION CONTOURS
XTRA OIL Company
3495 Castro Valley Blvd.
Castro Valley, CA

P & D ENVIRONMENTAL

BORING NO.: P20	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: GREG BROWN	DATE & TIME STARTED: 1/29/99	DATE & TIME FINISHED: 1/29/99
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 9.0 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: GMB	CHECKED BY:
FIRST WATER DEPTH: 7 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	Dark brown silty clay (CL), no petroleum hydrocarbon (PHC) odor.	CL	No well constructed.			
5	Light brown silty clay (CL), no PHC odor.	CL			0 119	Some gray mottling at 5.0 feet.
	Gray silty clay (CL), moderate PHC odor.	CL ▽			324	Groundwater first encountered at 7.0 feet; faint sheen observed.
10						Borehole terminated at 9.0 feet; groundwater grab sample collected, designated sample P20.
15						
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P21	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: GREG BROWN	DATE & TIME STARTED: 1/29/99	DATE & TIME FINISHED: 1/29/99
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 9.0 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: GMB	CHECKED BY:
FIRST WATER DEPTH: 3 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
0	Dark brown silty clay (CL), slightly moist, no PHC odor.	CL	No well constructed.		0	Soil becomes wet. PHC odor apparent (old gasoline?)
	At 3.25 feet, strong PHC odor.	▽			308	
5	At 4.0 feet, very strong PHC odor.				o/s	Faint sheen observed.
	Dark brown silty clay (CL) with gray mottling, wet, very strong PHC odor.	CL				Groundwater first encountered at 3.0 feet, interpreted as perched and resulting from irrigation.
	Light gray silty clay (CL), wet, very strong PHC odor.	CL				
10						Borehole terminated at 9.0 feet; groundwater grab sample collected, designated sample P21.
						(o/s = off-scale)
15						
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P22	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: PAUL KING	DATE & TIME STARTED: 5/12/00	DATE & TIME FINISHED: 5/12/00
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 6.5 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: GMB	CHECKED BY:
FIRST WATER DEPTH: 4.5 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	1 inch asphalt, then 3-6 inches of base rock (FILL).		No well constructed.			
	Dark brown silty clay (CL), minor rootlets and organic matter, trace coarse sand and fine gravel (1/4 inches in diameter), no PHC odor.	CL			0	
					0	
	Color changes to dark gray by 4.0 feet.	▽			0	Groundwater first encountered at 4.5 feet, no PHC odor, no sheen.
5					0	
10						Borehole terminated at 6.5 feet; groundwater grab sample collected, designated sample P22.
15						
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P23	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: GREG BROWN	DATE & TIME STARTED: 11/24/98	DATE & TIME FINISHED: 11/24/98
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 12.5 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: GMB	CHECKED BY:
FIRST WATER DEPTH: 10.5 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
5	Dark brown clay (CL), no PHC odor.	CL	No well constructed.			
10	Light brown clay (CL) with minor silt, no PHC odor. Color adds gray mottling; faint PHC odor (8.5 feet). PHC odor disappears at 9.0 feet.	CL ▽			14 0	Groundwater first encountered at 10.5 feet.
15						Borehole terminated at 12.5 feet; groundwater grab sample collected, designated sample P23.
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P24	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: PAUL KING	DATE & TIME STARTED: 11/24/98	DATE & TIME FINISHED: 11/24/98
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 10.0 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: PHK	CHECKED BY:
FIRST WATER DEPTH: 9.5 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	Gray-black silty clay (CL).	CL	No well constructed.		0	
	Light brown silty clay (CL).	CL			80	
5	At 4.5 feet begin gray mottling and strong PHC odor (old gasoline). At 5.5 feet, mottling disappears, very strong PHC odor.				337	
		▽			235	Groundwater first encountered at 9.5 feet (strong PHC odor).
10					311	
						Borehole terminated at 10.0 feet; groundwater grab sample collected, designated sample P24.
15						
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P25	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: PAUL KING	DATE & TIME STARTED: 6/28/98	DATE & TIME FINISHED: 6/28/98
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 14.0 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: PHK	CHECKED BY:
FIRST WATER DEPTH: 12.0 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	Black sandy silt (ML), dry, no PHC odor.	ML	No well constructed.		0	
	Brown silty clay (CL), dry, hard.	CL			0	
5	At 5.0 feet, begin gray discoloration, moderate old PHC odor. Odor becomes stronger with depth, smells more like fresh gasoline.				10 30 310	
10	Strong gasoline odor encountered.	▽			o/s	Groundwater first encountered at 12.0 feet.
15						Borehole terminated at 14.0 feet; groundwater grab sample collected, designated sample P25. (o/s = off-scale)
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P26	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: PAUL KING	DATE & TIME STARTED: 6/28/98	DATE & TIME FINISHED: 6/28/98
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 10.0 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: PHK	CHECKED BY:
FIRST WATER DEPTH: 8.0 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	Dark brown gravelly silt (ML), gravel 1/4 to 1 inch in diameter, dry, no PHC odor.	ML	No well constructed.		0	
	Brown silty clay (CL), fine sand, minor coarse sand, moist, stiff, no PHC odor. Gray mottling to 3.0 feet.	CL			0	
5						
	Increase in fine grained sand, saturated.	▽			0	Groundwater first encountered at 8.0 feet.
	Brown silty sand (SM), fine to medium sand, minor coarse sand, no PHC odor.	SM			0	
10						Borehole terminated at 10.0 feet; groundwater grab sample collected, designated sample P26.
15						
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P27	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY		
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:		
DRILLING AGENCY: P&D ENVIRONMENTAL		DRILLER: GREG BROWN	DATE & TIME STARTED: 5/17/00	DATE & TIME FINISHED: 5/18/00
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER				
COMPLETION DEPTH: 14.0 FEET	BEDROCK DEPTH: NONE ENCOUNTERED		LOGGED BY: GMB	CHECKED BY:
FIRST WATER DEPTH: 13.0 FEET	NO. OF SAMPLES: 1 WATER			

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	1 foot of planter soil (FILL), then approx. 3 inches of concrete.	FILL	No well constructed.			
	Brown clayey silt (ML), dry, soft, no PHC odor.	ML			0	Drilling activities halted overnight at 3 feet depth.
5	Brown silty clay (CL), dry, stiff, no PHC odor.	CL			0	
	Color change to orange and gray mottling.				0	
10	Orange mottling increasing.				0	
	Brown sandy clay (CL), Damp, loose, no PHC odor.	CL ▽			0	Groundwater first encountered at 13.0 feet.
15						Borehole terminated at 14.0 feet; groundwater grab sample collected, designated sample P27.
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P28	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: GREG BROWN	DATE & TIME STARTED: 5/12/00	DATE & TIME FINISHED: 5/12/00
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 13.5 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: GMB	CHECKED BY:
FIRST WATER DEPTH: 12.0 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	Approx. 1 ft. asphalt & base rock (FILL).	FILL	No well constructed.		0	
	Dark brown silty clay (CL), minor gravel (up to 1/4 inch in diameter), dry, somewhat dense, no PHC odor.	CL			0	
5	Color turning darker brown.				0	
					0	
	Brown silt (ML), dry, dense, no PHC odor.	ML				
10					0	
	Soil becomes moist, no PHC odor.	▽			0	Groundwater first encountered at 12.0 feet.
15						Borehole terminated at 13.5 feet; groundwater grab sample collected, designated sample P28.
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P29	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: PAUL KING	DATE & TIME STARTED: 3/21/99	DATE & TIME FINISHED: 3/21/99
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 11.0 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: PHK	CHECKED BY:
FIRST WATER DEPTH: 9.5 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	3 in. asphalt, then 9 in. baserock (FILL).	FILL	No well constructed.		0	
	Black silty clay (CL), moist, no PHC odor.	CL			0 0 0 0	
5	Light brown silty clay (CL), moist, no PHC odor.	CL			0 0 0 0 0	
10		▽			0 0 0	Groundwater first encountered at 9.5 feet.
						Borehole terminated at 11.0 feet; groundwater grab sample collected, designated sample P29.
15						
20						
25						
30						

P & D ENVIRONMENTAL

BORING NO.: P30	PROJECT NO.: 0014	PROJECT NAME: XTRA OIL – CASTRO VALLEY	
BORING LOCATION: SEE MAP		ELEVATION AND DATUM:	
DRILLING AGENCY: P&D ENVIRONMENTAL	DRILLER: PAUL KING	DATE & TIME STARTED: 3/21/99	DATE & TIME FINISHED: 3/21/99
DRILLING EQUIPMENT: 3.5 INCH HAND AUGER			
COMPLETION DEPTH: 9.5 FEET	BEDROCK DEPTH: NONE ENCOUNTERED	LOGGED BY: PHK	CHECKED BY:
FIRST WATER DEPTH: 7.5 FEET	NO. OF SAMPLES: 1 WATER		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	Dark brown silty clay (CL), moist.	CL	No well constructed.		0	
	Light brown (tan) silty clay (CL).	CL			0	
5	At 5.0 feet, higher silt content observed (more crumbly).				0	
					0	
	At 7.5 feet, higher clay content observed. At 8.0 to 9.5 feet, color adds minor gray mottling.	▽			0	Groundwater first encountered at 7.5 feet.
					0	
10					0	Borehole terminated at 9.5 feet; groundwater grab sample collected, designated sample P30.
15						
20						
25						
30						

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P&D Environmental	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled:01/29/99
4020 Panama Court		Date Received: 02/01/99
Oakland, CA 94611	Client Contact: Paul King	Date Extracted: 02/01/99
	Client P.O:	Date Analyzed: 02/01/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
02604	P20	W	100,000,a,h	ND<2300	1500	1600	2300	18,000	109
02605	P21	W	71,000,a,h	ND<1200	15,000	8500	3300	9500	109
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/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 altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled:01/29/99
		Date Received: 02/01/99
	Client Contact: Paul King	Date Extracted: 02/01/99
	Client P.O:	Date Analyzed: 02/01/99

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
02604	P20	W	68,000,d,b,h	116
02605	P21	W	36,000,d,b,h	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

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.

+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) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/01/99-02/02/99 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#02263)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	116.8	112.2	100.0	116.8	112.2	4.0
Benzene	0.0	11.1	11.6	10.0	111.0	116.0	4.4
Toluene	0.0	11.4	11.8	10.0	114.0	118.0	3.4
Ethyl Benzene	0.0	11.3	11.3	10.0	113.0	113.0	0.0
Xylenes	0.0	32.4	32.2	30.0	108.0	107.3	0.6
TPH(diesel)	0.0	154	161	150	103	107	4.5
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

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Oakland, CA 94611
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CHAIN OF CUSTODY RECORD

13844

PAGE 1 OF 1

PROJECT NUMBER: 00114

PROJECT NAME: XTRA OIL - CASTRO VALLEY

SAMPLED BY: (PRINTED AND SIGNATURE) GREG BROWN

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-G/BTEX/MTBE	TPH-D					PRESERVATIVE	REMARKS
+5 P20	1/29/99		WATER	BORING P20	5	X	X					ICE	NORMAL TURN AROUND
+5 P21	"		"	" P21	5	X	X					"	"

0260426
0260526

VOAS | O&G | METALS | OTHER

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATION ✓
APPROPRIATE
CONTAINERS ✓

RELINQUISHED BY: (SIGNATURE)	DATE 1/29/99	TIME	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF SAMPLES (THIS SHIPMENT) 2	LABORATORY: McCAMPBELL ANALYTICAL, INC.
RELINQUISHED BY: (SIGNATURE)	DATE 2/1/99	TIME 1105	RECEIVED BY: (SIGNATURE) 02/1/99 11:05	TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 10	LABORATORY CONTACT: ED HAMILTON / LABORATORY PHONE NUMBER: (925) 798-1620
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO	

REMARKS:

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 05/12/00
		Date Received: 05/15/00
	Client Contact: Paul King	Date Extracted: 05/15/00
	Client P.O:	Date Analyzed: 05/15/00

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)[+]	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
37868	P22	W	ND	ND	ND	ND	ND	ND	96
37869	P28	W	ND	ND	ND	ND	ND	ND	96
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/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 altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

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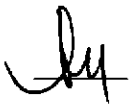

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 05/12/00
		Date Received: 05/15/00
	Client Contact: Paul King	Date Extracted: 05/15/00
	Client P.O:	Date Analyzed: 05/16/00

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
37868	P22	W	ND	103
37869	P28	W	ND	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

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.

+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) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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QC REPORT

Date: 05/14/00-05/15/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 51500				Instrument: GC-12			
Surrogate1	0.000	99.0	99.0	100.00	99	99	0.0
Xylenes	0.000	338.0	329.0	300.00	113	110	2.7
Ethyl Benzene	0.000	113.0	110.0	100.00	113	110	2.7
Toluene	0.000	112.0	110.0	100.00	112	110	1.8
Benzene	0.000	114.0	111.0	100.00	114	111	2.7
MTBE	0.000	104.0	106.0	100.00	104	106	1.9
GAS	0.000	1000.9	992.4	1000.00	100	99	0.9
SampleID: 51200				Instrument: GC-2 A			
Surrogate1	0.000	108.0	106.0	100.00	108	106	1.9
TPH (diesel)	0.000	269.0	278.0	300.00	90	93	3.3
SampleID: 51500				Instrument: IR-1			
Surrogate1	0.000	101.0	96.4	100.00	101	96	4.7
TRPH	0.000	25.2	27.3	23.70	106	115	8.0

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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QC REPORT

Date: 05/16/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 51600				Instrument: GC-7			
Surrogate1	0.000	95.0	95.0	100.00	95	95	0.0
Xylenes	0.000	306.0	290.0	300.00	102	97	5.4
Ethyl Benzene	0.000	95.0	91.0	100.00	95	91	4.3
Toluene	0.000	102.0	92.0	100.00	102	92	10.3
Benzene	0.000	92.0	91.0	100.00	92	91	1.1
MTBE	0.000	96.0	95.0	100.00	96	95	1.0
GAS	0.000	1114.4	1014.6	1000.00	111	101	9.4
SampleID: 51500				Instrument: GC-2 A			
Surrogate1	0.000	110.0	107.0	100.00	110	107	2.8
TPH (diesel)	0.000	286.0	271.0	300.00	95	90	5.4

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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

CHAIN OF CUSTODY RECORD 20211ZPD37.doc

PROJECT NUMBER:	PROJECT NAME:
0014	XTRA OIL - Castro Valley

SAMPLED BY: (PRINTED AND SIGNATURE) Paul H. King Paul H. King

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-D	TPH-G, BTEX, MTBE					PRESERVATIVE	REMARKS
P22	5/12/00		water	Borehole Groundwater Grab Sample	7	X	X					ICE	Normal Turn Around
P28	"		"	" " " "	7	X	X					"	" "

37868
37869

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF SAMPLES (THIS SHIPMENT)	2	LABORATORY:
Paul H. King	5/15/00	12:50	Ann King #2412	TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	14	McCampbell Analytical, Inc
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY CONTACT:		LABORATORY PHONE NUMBER:
Ann King	5/15/00	15:57		Ed Hamilton		(925) 798-1620
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO		

ICE ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION ✓ VOAs O&G METALS OTHER
APPROPRIATE ✓
CONTAINERS ✓

REMARKS:

TB. MCV

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
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http://www.mccampbell.com E-mail: main@mccampbell.com

P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 11/24/98
		Date Received: 11/25/98
	Client Contact: Paul King	Date Extracted: 11/25/98
	Client P.O:	Date Analyzed: 11/27-11/30/98

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
99281	P23	W	88,j	---	ND	ND	ND	ND	90
99282	P24	W	36,000,a,h	---	3600	250	1900	7000	98
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/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 altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 11/24/98
		Date Received: 11/25/98
	Client Contact: Paul King	Date Extracted: 11/25/98
	Client P.O:	Date Analyzed: 11/27-12/01/98

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)[+]	% Recovery Surrogate
99281	P23	W	ND	102
99282	P24	W	230,000,d,a,h	---[#]
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

[#] 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.

[+]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) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

/4/ Edward Hamilton, Lab Director

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 11/26/98-11/27/98 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#98653)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	111.5	124.9	100.0	111.5	124.9	11.3
Benzene	0.0	10.2	10.0	10.0	102.0	100.0	2.0
Toluene	0.0	10.4	10.6	10.0	104.0	106.0	1.9
Ethyl Benzene	0.0	10.1	10.6	10.0	101.0	106.0	4.8
Xylenes	0.0	30.5	30.7	30.0	101.7	102.3	0.7
TPH(diesel)	0.0	165	151	150	110	100	8.9
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

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CHAIN OF CUSTODY RECORD

13134 XPD286 PAGE 1 OF 1

PROJECT NUMBER: Job # 0014

PROJECT NAME: XTRA OIL - Castro Valley

SAMPLED BY: (PRINTED AND SIGNATURE) PAUL H. KING Paul H. King

	SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH(g)/BTEX	TPH(d)					PRESERVATIVE	REMARKS
+2	P23	11/24/98		Water	P23 Borehole	4	X	X					ICE	NORMAL TURN AROUND
+2	P24	11/24/98		Water	P24 Borehole	4	X	X					"	"
														99281
														99282

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE ✓ VOAS | O&G | METALS | OTHER
CONTAINERS ✓

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Paul H. King	11-25-98	10:10	Stan Falk 2839
RELINQUISHED BY: (SIGNATURE) Stan Falk	DATE 11/25	TIME 12:30	RECEIVED BY: (SIGNATURE) Dina A Butler
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT): 2
TOTAL NO. OF CONTAINERS (THIS SHIPMENT): 8

LABORATORY: McCAMPBELL ANALYTICAL

LABORATORY CONTACT: ED HAMILTON

LABORATORY PHONE NUMBER: (925) 798-1620

SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO

REMARKS:

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; XTRA Oil – Castro Valley	Date Sampled: 06/28/98
		Date Received: 06/30/98
	Client Contact: Paul King	Date Extracted: 07/06/98
	Client P.O:	Date Analyzed: 07/06/98

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
91391	P25	W	22,000,a,h,i	ND<200	280	90	690	2100	103
91392	P26	W	ND,i	ND	ND	ND	ND	ND	93
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/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 altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; XTRA Oil – Castro Valley	Date Sampled: 06/28/98
		Date Received: 06/30/98
	Client Contact: Paul King	Date Extracted: 07/01/98
	Client P.O:	Date Analyzed: 07/02-07/04/98

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
91391	P25	W	32,000,d,h,i	107
91392	P26	W	54,b,g,i	106
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

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.

+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) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 07/01/98-07/02/98 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#91177)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	109.0	107.7	100.0	109.0	107.7	1.2
Benzene	0.0	10.0	9.8	10.0	100.0	98.0	2.0
Toluene	0.0	10.4	10.2	10.0	104.0	102.0	1.9
Ethyl Benzene	0.0	10.2	10.1	10.0	102.0	101.0	1.0
Xylenes	0.0	29.9	29.9	30.0	99.7	99.7	0.0
TPH(diesel)	0.0	159	157	150	106	105	0.9
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0014	XTRA OIL - Castro Valley

SAMPLED BY: (PRINTED AND SIGNATURE) Paul H. King Paul H. King

	SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-Gas/BTEX	TPH-Diesel	MTBE				PRESERVATIVE	REMARKS
5+	P25	6/28/98		water	Borehole P25	4	X	X					TCE	Normal Turn Around
5+	P26	6/28/98		water	Borehole P26	4	X	X					"	" " "

[redacted]

ICE ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE ✓
CONTAINERS ✓

	VOAS	O&G	METALS	OTHER
PRESERVATION ✓				

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Paul H. King	6/30	9:45	Thuan # 2573
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Thuan # 2573	6/30	10:35	Heidi Rucca
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT)	2
TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	8
LABORATORY:	McCampbell Analytical
LABORATORY CONTACT:	Ted Hamilton
LABORATORY PHONE NUMBER:	(510) 798-1620
SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO	

REMARKS: VOAs preserved with HCl.

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; XTRA Oil - Castro Valley	Date Sampled: 05/18/2000
		Date Received: 05/19/2000
	Client Contact: Paul King	Date Extracted: 05/20/2000
	Client P.O:	Date Analyzed: 05/20/2000

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
38476	P27	W	ND,i	ND	ND	ND	ND	ND	97
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/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 altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; XTRA Oil - Castro Valley	Date Sampled: 05/18/2000
		Date Received: 05/19/2000
	Client Contact: Paul King	Date Extracted: 05/19/2000
	Client P.O:	Date Analyzed: 05/19/2000

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)[+]	% Recovery Surrogate
38476	P27	W	ND,i	98
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

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.

[+]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) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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QC REPORT

Date: 05/19/00-05/20/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 38090					Instrument: GC-3		
Surrogate1	0.000	96.0	95.0	100.00	96	95	1.0
Xylenes	0.000	269.0	271.0	300.00	90	90	0.7
Ethyl Benzene	0.000	90.0	91.0	100.00	90	91	1.1
Toluene	0.000	92.0	93.0	100.00	92	93	1.1
Benzene	0.000	95.0	95.0	100.00	95	95	0.0
MTBE	0.000	116.0	111.0	100.00	116	111	4.4
GAS	0.000	893.2	897.9	1000.00	89	90	0.5
SampleID: 51900					Instrument: GC-6 A		
Surrogate1	0.000	112.0	107.0	100.00	112	107	4.6
TPH (diesel)	0.000	342.0	321.0	300.00	114	107	6.3

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0014	XTRA OIL - CASTRO VALLEY

SAMPLED BY: (PRINTED AND SIGNATURE) GREG BROWN

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-G/BTEX/MTBE	TPH-D					PRESERVATIVE	REMARKS
P27	5/18/00		W	BORING P27	7	X	X					ICE	NORMAL TURN AROUND TIME 38476

RELINQUISHED BY: (SIGNATURE) — DATE 5/19/00 — TIME 1320 — RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE) — DATE 5/19/00 — TIME 1520 — RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE) — DATE — TIME — RECEIVED FOR LABORATORY BY: (SIGNATURE)

REMARKS: ICE/T° ____ GOOD CONDITION ____ HEAD SPACE ABSENT ____ PRESERVATION APPROPRIATE ____ CONTAINERS ____

TOTAL NO. OF SAMPLES (THIS SHIPMENT): 1
TOTAL NO. OF CONTAINERS (THIS SHIPMENT): 7

LABORATORY: McCAMPBELL ANALYTICAL, INC.

LABORATORY CONTACT: ED HAMILTON

LABORATORY PHONE NUMBER: (925) 798-1620

SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO

NON-CONFORMANCE(S) NOTED

16

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 03/21/99
		Date Received: 03/22/99
	Client Contact: Paul King	Date Extracted: 03/23/99
	Client P.O:	Date Analyzed: 03/23/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
05536	P29	W	ND,i	ND	ND	ND	ND	ND	99
05537	P30	W	ND,i	ND	ND	ND	ND	ND	100
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/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 altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 03/21/99
		Date Received: 03/22/99
	Client Contact: Paul King	Date Extracted: 03/22/99
	Client P.O:	Date Analyzed: 03/23-03/24/99

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
05536	P29	W	ND,i	103
05537	P30	W	ND,i	97
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

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.

+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) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/23/99 Matrix: WATER

Analyte	Concentration (ug/L) Sample (#05050)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	113.9	113.5	100.0	113.9	113.5	0.3
Benzene	0.0	10.6	10.4	10.0	106.0	104.0	1.9
Toluene	0.0	10.8	10.8	10.0	108.0	108.0	0.0
Ethyl Benzene	0.0	10.8	10.9	10.0	108.0	109.0	0.9
Xylenes	0.0	31.8	32.1	30.0	106.0	107.0	0.9
TPH(diesel)	0.0	6508	6923	7500	87	92	6.2
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

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

CHAIN OF CUSTODY RECORD

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PROJECT NUMBER:	PROJECT NAME:
0014	XTR Oil - Castro Valley

SAMPLED BY: (PRINTED AND SIGNATURE) Paul H. King Paul H. King

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-G/BTEX/MTBE	TPH-D				PRESERVATIVE	REMARKS
P29	3/21/99			Borehole P29	5	X	X				ice	Normal turn
P30	"			" P30	5	X	X				-11-	around

5x 5x

05536
05537

ICE ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

VOAS | O&G | METALS | OTHER
PRESERVATION APPROPRIATE ✓
CONTAINERS ✓

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Paul H. King	3/22	4:22	Ed Parker #2923
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Ed Parker #2923	3/22	5:01	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

REMARKS: VOAs preserved with HCl

TOTAL NO. OF SAMPLES (THIS SHIPMENT)	2
TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	10
LABORATORY:	McCampbell Analytical
LABORATORY CONTACT:	Ed Hamilton
LABORATORY PHONE NUMBER:	(925) 798-1620

SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO