### P & D ENVIRONMENTAL

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

> August 2, 1996 Report 0047.R14

Mr. L.B. Patel Mr. P. Gupta VIP Service 385 Century Circle Danville, CA 94526

SUBJECT: Quarterly Groundwater Monitoring and Sampling Report

VIP Service

3889 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 quarterly monitoring of groundwater monitoring wells MW1, MW2, and MW3 and the sampling of groundwater monitoring well MW3 at the subject site. This work was performed in accordance with P&D's proposal 050795.Pl dated May 7, 1996. The work was performed in accordance with requirements set forth in a letter from Mr. Scott Seery of the Alameda County Department of Environmental Health (ACDEH) dated March 18, 1994 for the subject site. Based upon a telephone conversation with Mr. Seery on July 31, 1995, the sampling of monitoring wells MW1 and MW2 was reduced to semi-annually. In addition, no further analysis for TPH-D was performed for well MW3. All three wells were monitored and well MW3 was sampled once during this quarter.

The monitoring and sampling was performed on July 19, 1996. The reporting period is for May through July, 1996. A Site Location Map (Figure 1) and Site Plan (Figure 2) are attached with this report.

#### BACKGROUND

It is P&D's understanding that the site was purchased by VIP Service in December, 1984. Prior to purchase of the property by VIP Service, the site was operated as a retail gasoline station for an undetermined period of time. The site was operated as a retail gasoline station from the time of purchase by VIP Service until the tanks were removed by Accutite on April 26, 1993. The underground tank system consisted of three 10,000 gallon capacity gasoline tanks, two dispenser islands, and one 550 gallon waste oil tank. It is P&D's understanding that the fuel tanks contained leaded and unleaded gasoline while in use by VIP Service. In addition, VIP Service reported that diesel fuel was not stored at the site at any time.

It is P&D's understanding that at the time of tank removal, eight soil samples were collected from the sidewalls of the fuel tank pit, and one soil sample was collected from the waste oil tank pit. Groundwater was reported to have been encountered in the fuel tank pit at a depth of approximately 11 feet. One water sample was collected from the water in the fuel tank pit. On April 28, 1993 Accutite returned to the site and collected seven soil samples from beneath the dispenser islands.

All of the samples were analyzed at Sequoia Analytical in Redwood City, California for Total Petroleum Hydrocarbons as Gasoline (TPH-G); Benzene, Toluene, Ethylbenzene and Kylenes (BTEX); and for Total Lead. In addition, the samples from the waste oil tank were analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D); Total Oil and Grease (TOG); Halogenated Volatile Organic Compounds using EPA Method 8010; Semi-Volatile Organic Compounds using EPA Method 8270; and for the metals Cadmium, Chromium, Lead, Nickel and Zinc.

The results of the soil samples collected from the fuel tank pit showed TPH-G concentrations ranging from 120 to 6,200 parts per million (ppm), and total lead results ranging from not detected to 13 ppm. The results of the water sample from the fuel tank pit showed 140 ppm TPH-G, and 0.095 ppm total lead.

The results of the soil samples collected from beneath the fuel dispensers showed TPH-G values ranging from not detected to 4.7 ppm, and total lead values ranging from not detected to 7.6 ppm.

The results of the sample collected from the waste oil tank pit showed 670 ppm TPH-G; 410 ppm TPH-D; 1,300 ppm TOG; 0.023 ppm 1,2-Dichloroethane and 0.0094 ppm Tetrachloroethene in the EPA Method 8010 analysis; 2.7 ppm 2-Methylnapthalene and 3.8 ppm Naphthalene in the EPA Method 8270 analysis; and various metals concentrations, none of which exceeded ten times their respective STLC values. The laboratory identified the TPH-D results as being a "non-diesel mix," and indicated that the compounds reported as diesel were diesel-range gasoline and diesel-range oil compounds.

Between August 27 and November 1, 1993 P&D personnel collected stockpiled soil samples for stockpiled soil disposal characterization and oversaw the excavation of approximately 680 cubic yards of soil from the vicinity of the fuel tank pit in an effort to remove petroleum hydrocarbon-impacted soil. In addition, during this time the soil which was stockpiled by Accutite during the tank removal activities and during the subsequent soil excavation activities was disposed of at an appropriate disposal facility, and the tank pit backfilled and compacted. A total of eight confirmation soil samples were collected from the sidewalls of the tank pit on November 19, 1993 at a depth of 10 feet after over-excavation and prior to backfilling. The analytical results of the samples ranged from 33 to 3,200 ppm TPH-G. The sample collection locations are shown on the attached Site Plan, Figure 3. Documentation of excavation, stockpiled soil characterization and disposal, and backfilling of the pit are provided in P&D's report 0047.R1 dated January 24, 1994. The samples results associated with the removal of the tanks by Accutite are also summarized in P&D's report 0047.R1.

On November 10, 1993 P&D personnel oversaw the installation of three groundwater monitoring wells, designated as MW1 through MW3, and one exploratory soil boring, designated as B1, at the subject site. The wells were developed on November 12 and sampled on November 16, 1993. The results of the water samples showed that TPH-G was not detected in wells MW1 and MW2, and that BTEX was not detected in MW2. In well MW1, 0.0022 ppm of benzene was detected. In well MW3, TPH-G was detected at 12 ppm; BTEX was detected with benzene detected at 3.3 ppm; TRPH was not detected; EPA Method 8010 compounds were not detected except for 0.027 ppm 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected except for 0.009 ppm Phenol, 0.006 ppm Benzyl Alcohol, 0.006 2-Methylphenol, 0.007 ppm 2,4-Dimethylphenol, 0.088 ppm Benzoic Acid, 0.042 ppm Naphthalene, and 0.015 2-Methylnapthalene.

Documentation of the monitoring well and soil boring installation and associated sample results are presented in P&D's report 0047.R2 dated January 24, 1994. The locations of the monitoring wells are shown in Figure 2.

In response to a letter dated March 18, 1994 from Mr. Scott Seery ACDEH which commented upon the results of the initial groundwater sampling associated with the installation of the monitoring wells at the subject site, a quarterly groundwater monitoring and sampling program was initiated.

#### FIELD ACTIVITIES

On July 19, 1996 all three of the monitoring wells at the site were monitored and well MW3 was sampled by P&D personnel. 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 using an electric water level indicator. The presence of free product or sheen was evaluated using a transparent bailer. No free product or sheen was observed in any of the wells. Depth to water level measurements are presented in Table 1.

Prior to sampling, monitoring well MW3 was purged of a minimum of three casing volumes of water. 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, a water sample was collected using a clean Teflon bailer.

The water sample was transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles which 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 labeled and 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. Water purged from the well during purging operations was stored in a DOT-approved 55-gallon drum pending appropriate disposal.

#### HYDROGEOLOGY

Water levels were measured in the monitoring wells once during the quarter. The measured depth to water at the site on July 19, 1996 ranged from 8.42 to 8.81 feet. Groundwater levels have decreased in wells MW1, MW2, and MW3 by 0.64, 0.72, and 0.66 feet, respectively, since the previous monitoring on April 23, 1996. The calculated groundwater flow direction at the site on July 19, 1996 was to the west-southwest with a gradient of 0.012. The apparent groundwater flow direction has shifted slightly to the southwest and the gradient has remained unchanged since the previous quarterly monitoring on April 23, 1996.

Groundwater level data collected during the quarter are presented in Table 1. The groundwater flow direction at the site on July 19, 1996 is shown on Figure 2.

#### LABORATORY RESULTS

The groundwater sample from monitoring well MW3 (near the former waste oil tank) was analyzed for TPH-G using EPA Method 5030 in conjunction with Modified EPA Method 8015 (GCFID), BTEX and MTBE using EPA Method 8020, Halogenated Volatile Organic Compounds using EPA Method 8010, and for Semi-volatile Organic Compounds using EPA Method 8270.

The laboratory analytical results of the groundwater sample collected from monitoring well MW3 shows that TPH-G was detected at a concentration of 18 ppm; benzene was detected at a concentration of 4.8 ppm; MTBE was detected at a concentration of 0.21 ppm; EPA Method 8010 compounds were not detected; and EPA Method 8270 compounds were not detected except for 0.0022 ppm 2,4-Dimethylphenol, 0.1 ppm Naphthalene, and 0.022 ppm 2-Methylnaphthalene.

#### **DISCUSSION AND RECOMMENDATIONS**

Based on the laboratory analytical results of the water samples collected from monitoring well MW3, P&D recommends that the quarterly groundwater monitoring of wells MW1, MW2, and MW3, the quarterly sampling of well MW3 and the semi-annual sampling of wells MW1 and MW2 be continued. During the next quarter, all of the wells should be monitored and sampled.

#### **DISTRIBUTION**

Copies of this report should be distributed to Mr. Scott Seery at the Alameda County Department of Environmental Health, and to Mr. Kevin Graves 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 VIP Service.

#### LIMITATIONS

This report was prepared solely for the use of VIP Service. 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

Paul H. King Hydrogeologist

Don R. Braun

Certified Engineering Geologist

Registration No.: 1310 Expiration Date: 6/30/98

PHK/aog 0047.R14

Attachments: Tables 1 & 2

Site Location Map (Figure 1)

Site Plan (Figure 2) Field Parameter Form

Laboratory Analytical Results Chain of Custody Documentation

DON R. BRAUN No. 1310 CERTIFIED ENGINEERING GEOLOGIST

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	07/19/96 04/23/96 01/17/96 10/26/95 08/15/95 05/02/95 01/30/95 10/31/94 07/29/94 04/25/94 11/16/93 11/12/93*	180.83	8.81 8.17 9.66 10.00 9.23 8.56 9.50 11.55 10.86 10.70 11.63 11.53	172.02 172.66 171.17 170.83 171.60 172.27 171.33 169.28 169.97 170.13 169.20 169.30
MW2	07/19/96 04/23/96 01/17/96 10/26/95 08/15/95 05/02/95 01/30/95 10/31/94 07/29/94 04/25/94 11/16/93 11/12/93*	179.70	8.57 7.85 8.94 9.68 8.91 8.17 8.68 10.99 10.34 10.04 11.10	171.13 171.85 170.76 170.02 170.79 171.53 171.02 168.71 169.36 169.66 168.60
MW3	07/19/96 04/23/96 01/17/96 10/26/95 08/15/95 05/02/95 01/30/95 10/31/94 07/29/94 04/25/94 11/16/93	178.98	8.42 7.76 8.61 9.39 8.62 8.04 8.46 10.58 10.03 9.64 10.63	170.56 171.22 170.37 169.59 170.36 170.94 170.52 168.40 168.95 169.34 168.35 168.32

#### NOTES:

Elevations are in feet Mean Sea Level.

ft. = Feet.
\* = Depth to water measurements prior to groundwater monitoring well
 development.

## TABLE 2 GROUNDWATER LABORATORY ANALYTICAL RESULTS

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes			
Samples Collected on July 19, 1996									
MW1	NA	NA	NA	NA	NA	NA			
MW2	NA	NA	NA	NA	NA	NA			
MW3+	NA	18	4.8	0.61	0.76	2.8			
	Samples Collected on April 23, 1996								
MW1	NA	ND	ND	ND	ND	ND			
MW2	NA	ND	ND	ND	ND	ND			
MW3++	NA	9.7	2.9	0.17	0.38	0.68			
Samples Collected on January 17, 1996									
MW1.	NA	NA	NA	NA	NA	NA			
MW2	NA	NA	NA	NA	NA	NA			
MW3+++	NA	21	4.1	0.37	0.52	1.5			

#### NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

ND = Not Detected.

NA = Not Analyzed.

= In MW3, EPA Method 8010 compounds were not detected; EPA Method 8270 compounds were not detected except for 0.0022 ppm 2,4-Dimethylphenol, 0.1 ppm Naphthalene, and 0.022 ppm 2-Methylnaphthalene. The EPA Method 8020 showed that MTBE was detected in MW3 at a concentration of 0.21 ppm.

++ = In MW3, EPA 8010 compounds were not detected except for 0.0051 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for Naphthalene and Phenol which were detected at concentrations of 0.056 and 0.025 ppm, respectively. The EPA Method 8020 results showed that MTBE was not detected in MW1 or MW2, and was detected in MW3 at a concentration of 0.15 ppm.

+++= In MW3, EPA 8010 compounds were not detected except for 0.011 ppm 1,2
Dichloroethane; EPA 8270 compounds were not detected except for 0.0022 ppm
Phenol, 0.0051 ppm 4-Methylphenol, 0.0029 ppm 2,4-Dimethylphenol, 0.032 ppm
Naphthalene, and 0.010 2-Methylnaphthalene.

#### TABLE 2 GROUNDWATER LABORATORY ANALYTICAL RESULTS (Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes			
Samples Collected on October 24, 1995									
MW1++++	ИA	ND	ND	ND	ND	ND			
MW2++++	AN	ND	ND	ИD	ND	ND			
MW3++++	AM	19	4.0	0.48	0.64	1.8			
	Samples Collected on August 15, 1995								
MW1	NA	NA	NA	NA	NA	NA			
MW2	NA	NA	NA	NA	NA	NA			
MW3++++	NA .	7.0	2.4	0.23	0.26	0.73			
Samples Collected on May 2, 1995									
MW1	NA	ND	ND	ND	ИD	ND			
MW2	NA	ND	ND	ND	ND	ND			
MW3@	0.84	18	5.4	0.39	0.65	1.7			

#### NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-G = Total Petroleum Hydrocarbons as Gasoline. ND = Not Detected.

NA = Not Analyzed.

++++ = In MW3, EPA 8010 compounds were not detected except for 0.011 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.043 ppm Naphthalene. The EPA Method 8020 results showed that MTBE was not detected in MW1 or MW2, and was detected in MW3 at a concentration of

+++++ = EPA 8010 compounds were not detected except for 0.0091 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.003 ppm 4-Methylphenol, 0.005 ppm 2,4-Dimethyl Phenol, 0.019 ppm Naphthalene, and

0.003 ppm 2-Methylnaphthalene.
@ = Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.014 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.010 ppm 2-Methyl naphthalene and 0.062 ppm Naphthalene.

# TABLE 2 GROUNDWATER LABORATORY ANALYTICAL RESULTS (Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes		
Samples Collected on January 30, 1995								
MW1	NA	ND	ND	ND	ND	ND		
MW2	NA	ND	ND .	ND	ND	ND		
MW3@@	0.70	24	7.6	0.35	0.90	2.2		
Samples Collected on October 31, 1994								
MW1	NA	ND	ND	ND	ND	ND		
MW2	NA	ND	ND	ND	ND	ND		
MW3@@@	0.60	8.7	2.6	0.26	0.32	0.92		

NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel. TPH-G = Total Petroleum Hydrocarbons as Gasoline.

ND = Not Detected.

NA = Not Analyzed.

GG = Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.018 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.014 ppm 2-Methyl naphthalene and 0.11 ppm Naphthalene. indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.019 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.008 ppm 2-Methyl naphthalene, 0.047 ppm Naphthalene, and 0.002 ppm Bis(2-Ethylhexyl) Pthalate.

@@@ Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.019 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.008 ppm 2-Methyl naphthalene, 0.047 ppm Naphthalene, and 0.002 ppm Bis(2-Ethylhexyl) Pthalate.

# TABLE 2 GROUNDWATER LABORATORY ANALYTICAL RESULTS (Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes			
Samples Collected on July 29, 1994									
MW1	NA	ND	0.0012	ND	ND	ND			
MW2	NA	ND	ND	ND	ND	ND			
MW3@@@@	0.67	6.3	2.0	0.13	0.22	0.52			
Samples Collected on April 25, 1994									
MW1	ND	ND	ND	ND	ND	ND			
MW2	ND	ND	ND	ND	ND	ND			
MW3@@@@@	2.1	17	4.8	0.47	0.29	1.6			
Samples Collected on November 16, 1993									
MW1	NA	ND	0.0022	ND	ND	ND			
MW2	NA	ND	ND	ND	ND	ND			
MW3#	NA	12	3.3	0.66	0.24	1.6			

#### NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

ND = Not Detected.

NA = Not Analyzed.

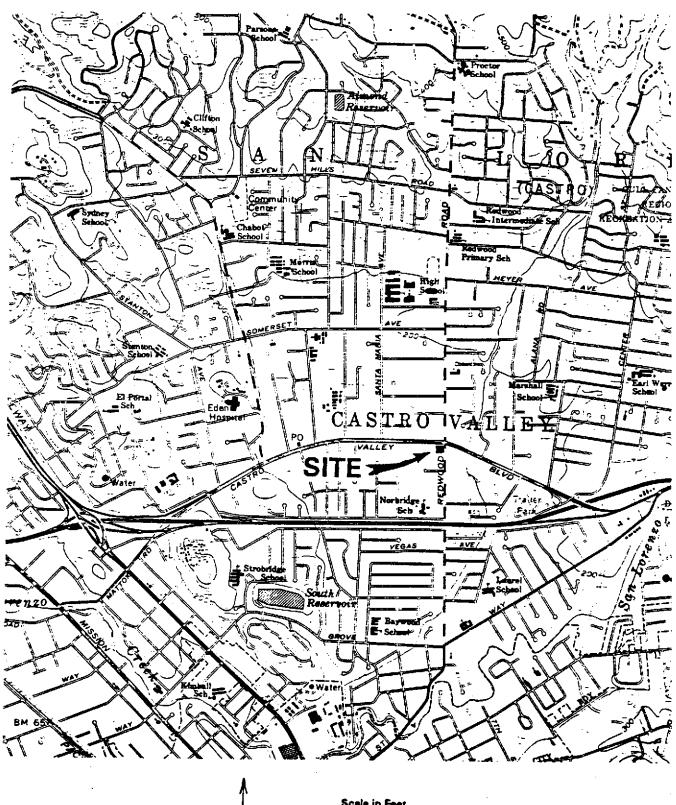
@@@@ = Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.0077 ppm 1.2-Dichloroethane; EPA 8270 compounds not detected except for 0.008 ppm 2-Methylnaphthalene and 0.044 ppm Naphthalene.

@@@@@ = Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.28 ppm 1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.013 ppm 2-Methylnapthalene and 0.084 ppm Naphthalene.

# = TRPH not detected; EPA 8010 compounds not detected except for 0.027 ppm
1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.009 ppm
Phenol, 0.006 ppm Benzyl Alcohol, 0.006 2-Methylphenol, 0.007 ppm 2,4Dimethylphenol, 0.088 ppm Benzoic Acid, 0.042 ppm Naphthalene, and
0.015 ppm 2-Methylnapthalene.

### P & D Environmental

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



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

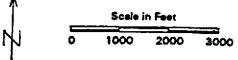
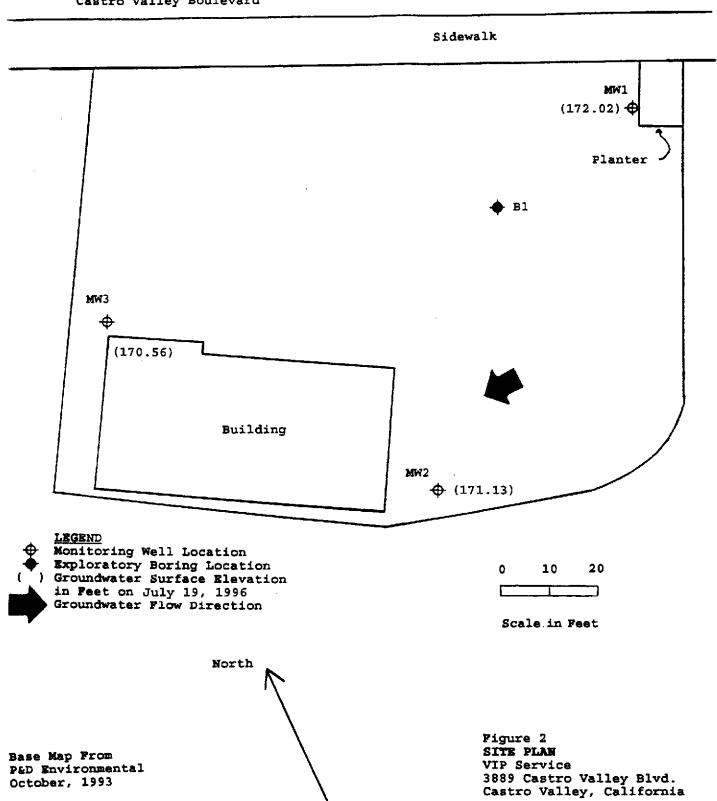


Figure 1 SITE LOCATION MAP XTRA OIL Company 3495 Castro Valley Blvd. Alameda, California

### P & D ENVIRONMENTAL

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

Castro Valley Boulevard



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

	Site Name 🖔	IP Sorvice		Well No	MW3	
	Job No	0047		Date	1/19/96	
		(ft.) <u>8.4<b>3</b></u>	) 	Sheen	Jone	
	Well Depth (	ft.) 18.72	<u></u>	Free Produc	ct Thickness 9	<u> </u>
	Well Diamete		<del></del>	Sample Coli	lection Method	
	Gal./Casing			Teflon +	Bailer	
					ELECTRICAL (	60/00
	TIME	GAL. PURGED	<u>pH</u>	TEMPERATURE ("C)	CONDUCTIVITY (	1000
	10.5	<u> </u>	7.42	594		1000
	1/:03	<u> </u>	7.35 7.35	60.2-	1,64	
	1/107	2.7	7.20	<u>60.24</u>	1.32	
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;	Joe no Sheer	Tree Product				
mwil	8.81 None	- Alla				
mw2			•			
		. —				

110 2nd Avenuc South, #D7, Pacheco, CA 94553 Tele: 510-798-1620 Fax: 510-798-1622

P & D Environmental			Client Projec	ct ID; # 0	047; VIP	Services-	es- Date Sampled: 07/19/96					
4020 Panama Court Oakland, CA 94611			Castro Valley Date Received: 07/19/96						96			
			Client Contac	t: Paul Ki	ng		Date Extracted: 07/19-07/20/96					
			Client P.O:				Date Analyz	æd: 07/19-	 07/20/96			
Gasolin EPA methods	ne Range (C6-C s 5030, modified 80	212) Vol.	atile Hydroca )20 or 602; Califo	rbons as (	Gasoline*, v B (SF Bay Re	vith Meth	vi tert. Butvi	Fthors &				
Lab ID	Client ID	Matrix		МТВЕ	Benzene	Toluene	EAL-JL	Xylenes	% Rec. Surrogat			
67087	MW3	w	18,000,a,g	210	4800	610	760	2800	104			
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Reporting	Limit unless	w	50 ug/L	5.0	0.5	0,5	0.5	0.5	7,			
otherwise stated; ND means not detected above the reporting limit		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005				

<sup>\*</sup> water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L

<sup>#</sup> cluttered chromatogram; sample peak coclutes 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; d) 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 diesetrange 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.

110 2nd Avenue South, #D7, Pacheco, CA 94553 Tele: 510-798-1620 Fax: 510-798-1622

P & D Environmental	Client Project ID	: # 0047; VIP Services	- Date Sampled: 07/19/96	Date Sampled: 07/19/96	
4020 Panama Court	Castro Valley		Date Received: 07/19/96  Date Extracted: 07/20/96		
Oakland, CA 94611	Client Contact: Par	al King			
	Client P.O:		Date Analyzed: 07/20/96		
EPA method 601 or 8010	Volatile	Halocarbons		-	
Lab ID	67087				
Client ID	MW3	VA (		*	
Matrix	W				
Compound	<u></u>	Concentratio		<del>-</del>	
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Bromoform <sup>(b)</sup>	ND		······································	· ·	
Bromomethane	ND	****	***************************************		
Carbon Tetrachloride <sup>(c)</sup>	ND				
Chlorobenzene	ND			<b></b>	
Chloroethane	ND	-		<u>-</u> -	
2-Chloroethyl Viny l Ether (d)	ND				
Chloroform <sup>(e)</sup>	ND	100			
Chloromethane	ND				
Dibromochloromethane	ND				
1.2-Dichlorobenzene	ND		,		
1.3-Dichlorobenzene	ND				
1,4-Dichlorobenzene	ND	7,	· Facel G		
Dichlorodifluoromethane	ND				
l,1-Dichloroethane	ND				
1,2-Dichloroethane	ND	772			
1,1-Dichloroethene	ND				
cis 1,2-Dichloroethene	ND	-			
rans I,2-Dichloroethene	ND	-		<del></del>	
,2-Dichloropropane	ND				
cis 1,3-Dichloropropene	ND			<del></del> +11	
rans 1,3-Dichloropropene	ND	****			
Methylene Chloride <sup>(f)</sup>	ND				
,1,2,2-Tetrachloroethane	ND				
Tetrachioroethene	ND		T	L-1	
,1,1-Trichloroethane	ND	, , , , , , , , , , , , , , , , , , ,			
.1.2-Trichloroethane	ND		***************************************		
richloroethene	ND	700			
richlorofluoromethane	ND	**			
/inyl Chloride <sup>(g)</sup>	ND				
6 Recovery Surrogate	99				
Comments				<del></del> -( "	

iples are reported in ug/L, soil and sludge samples in ug/kg and all TCLP extracts in ug/L.

Reporting limit unless otherwise stated: water/TCLP extracts, ND < 0.5ug/L; soil and sludge, ND < 5ug/kg

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

<sup>(</sup>b) tribromomethanc; (c) tetrachloromethanc; (d) (2-chloroethoxy) ethone; (e) trichloromethanc; (f) dichloromethane; (g) chloroethone; (h) a 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

## CHROMALAB, INC.

Environmental Services (SDB)

July 29, 1996

Submission #: 9607752

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: P-VIP-0047

Project#: 6817

Received: July 22, 1996

re: One sample for Semivolatile Organic Compounds (BNAs) analysis.

Method: EPA 8270

Client Sample ID: NW 3

Spl#: 92738

Matrix: WATER

Extracted: July 24, 1996 Analyzed: July 24, 1996 Sampled: July 19, 1996 Run#: 2340

•	resúlt	reporting Limit	b <b>lan</b> k Ræbult	Blank Spike	DILUTION FACTOR
ANALYTE	(ug/L)	(ug/L)	(ucr/L)	(%)	
PHENOL	N.D.	2.0	N.D.	25.8	1
BIS (2-CHLOROETHYL) ETHER	N.D.	2.0	N.D.		ī
2-CHLOROPHENOL	N.D.	2.0	N.D.	60.7	1
1.3-DICHLOROBENZENE	N.D.	2.0	N,D,		1
1.4-DICHLOROBENZENE	N.D. N.D.	2.0	N.D.	63. <b>7</b>	1
BENZYL ALCOHOL	N.D.	5.0	N.D.		ī
1,2-DICHLOROBENZENE 2-METHYLPHENOL	N.D.	2.0	N.D.		1
ATTENDED OF THE PROPERTY AND THE PROPERT	Ŋ.D.	2.0	N.D.		1
BIS (2-CHLOROISOPROPYL) ETHER 4-METHYLPHENOL	N.D. N.D.	2.0	N.D.	₩ 4-	ı
N-NITROSO-DI-N-PROPYLAMINE	N.D.	2.0	N.D.		1,
HEXACHLOROSTHANE	N.D.	2.0	й.D.	80.3	1
NITROBENZENE	N.D.	2.0	N.D.	We en	11111111111111111
ISOPHORONE	N.D.	2.0	N.D.		1
2-NITROPHENOL	Ŋ.D.	2.0	N.D.		1
2,4-DIMETHYLPHENOL	N.D. 2.2	2.0	N.D.		1
BIS(2-CHLOROETHOXY) METHANE	N.D.	2.0	N.D.	44 au	1.
2,4-DICHLOROPHENOL	N.D.	5.0	Ŋ.D.		j.
1.2,4-TRICHLOROBENZENE	N.D.	2.0	Ŋ.D.		
NAPHTHALENE	100	2.0 2.0	и.D.	73.3	<u>ī</u> .
4-CHLOROANILINE	N.D.	2.0	N.D.		1 1 1 1 1
HEXACHLOROBUTADIENE	N.D.	2.0	N.D.		1
4 - CHLORO- 3 - METHYL PHRNOT.	N.D.	5.0	N.D. N.D.		1
2-METHYLNAPHTHALENE	22	2.0	N.D.	73.2	1
HEXACHLOROCYCLOPENTADIENE	Ñ.D.	2.0	N.D.		1
2,4,6-TRICELOROPHENOL	N.D.	2.0	N.D.		<u>.</u>
2,4,5-TRICHLOROPHENOL	N.D. N.D.	2.0	Ñ.D.		Ţ
2-CHLORONAPHTHALENE	N.D.	2.0	N.D.		<u>.</u>
2-NITROANILINE	N.D.	10	N.D.		<u>1.</u> 1
DIMETHYL PHTHALATE	N.D.	2.0	N.D.		1. 1
ACENAPHTHYLENE	N.D.	2,0	N.D.	,	1
3-NITROANILINE	N.D.	10	N.D.		<b>1</b>
ACENAPHTHENE	N.D. N.D.	2.0	N.D.	86.0	7
2,4-DINITROPHENOL		10	N.D.		Ť
4-nitrophenol Dibenzofuran	N.D.	10	N.D.	14.3	ī
2,4-DINITROTOLUENE	N.D.	2.0	N.D.		111111111111111111111111111111111111111
2,6-DINITROTOLUENE	M.D.	2.0	N.D.	59.0	ī
DIETHYL PHIHALATE	M.D.	5.0	N.D.		ī
4-CHLOROPHENYL PHENYL ETHER	N.D.	2.0	N.D.		1
- THERE	N.D.	2.0	N.D.	~ ~	1

### CHROMALAB, INC.

Environmental Services (SDB)

July 29, 1996

MCCAMPBELL ANALYTICAL, INC.

Submission #: 9607752

page 2

Atten: Ed Hamilton

Project: P-VIP-0047

Received: July 22, 1996

Project#: 6817

re: One sample for Semivolatile Organic Compounds (BNAs) analysis,

continued. Method: BPA 8270

Client Sample ID: WW 3

Sp1#: 92738

Sampled: July 19, 1996

BIS (2-ETHYLHEXYL) PHTHALATE

DI-N-OCTYL PHTHALATE BENZO (B) FLUORANTHENE

Matrix: WATER Run#: 2340

Extracted: July 24, 1996 Analyzed: July 24, 1996

REPORTING BLANK BLANK DILUTION RESULT LIMIT RESULT SPIKE **FACTOR** ANALYTE FLUORENE (<u>ug/L)</u> N.D. (uq/L)(ug/L) ( **%** ) 5.0  $\mathbf{N} \cdot \mathbf{D}$ 4-NITROANILINE 111111111111111111111111 N.D. 10 N.D. 2-METHYL-4, 6-DINITROPHENOL N-NITROSO-DI-N-PHENYLAMINE 10 2.0 N,D. N.D. N.D. 4-BROMOPHENYL PHENYL ETHER 5.0 N.D. N.D. HEXACHLOROBENZENE N.D. 2.0 N.D. PENTACHLOROPHENOL N.D. 10 N.D. 49.8 PHENANTHRENE N.D. 2.0 N.D. ANTHRACENE N.D. 2.0 N.D. DI-N-BUTYL PHTHALATE N.D. 5.0 M.D. FLUORANTHENE N.D. N.D. PYRENE N.D. 2.0 N.D. 95.0 BUTYL BENZYL PHTHALATE 3,3'-DICHLOROBENZIDINE BENZO (A) ANTHRACENE N.D. 2.0 N.D. N.D. Š.ŏ N.D. 2.0 N.D. N.D.

2.0

2.0

5.0

2.0

2.0

2.0

2.0

2.0

BENZO (K) FLUORANTHENE BENZO (A) PYRENE INDENO (1,2,3 C,D) PYRENE DIBENZO (A,H) ANTHRACENE BENZO (G,H,I) PERYLENE BENZOIC ACID N.D. N.D. 10 N.D. Note: Estimated results for all acid compounds due to low acid surrogates

N.D.

N.D.

N.D.

M.D.

N.D.

N.D.

N.D.

N.D.

N.D.

recoveries:

Alex Tam Chemist

CHRYSENE

Chip Poalinelli Operations Manager

N.D.

N.D.

N.D.

N.D.

N.D.

N.D.

N.D.

N.D.

#### L& D ENVIRONMENTAL

4020 Panama Court Oakland, CA 94611

CHAIN OF CUSTODY RECORD Telephone (510) 658-6916 6817APD187 PAGE 1 OF 1 PROJECT NUMBER: PROJECT NAME: VIP Sorvices Custro Valley 0047 SAMPLED BY: (PRINTED AND SIGNATURE) Ahmed Chandour. REMARKS SAMPLE NUMBER TIME TYPE SAMPLE LOCATION DATE inala MW3 7/19/96 Normal Turn Around 6 MARK ON MINISTER ICE/T PROBLEM NE. GEOD CONDITION APPHOPHATE HI AD SPACE ABSENT RELINQUISHED BY: (SIGNATURE) DATE RECEIVED BY: (SIGNATURE) TOTAL HO. OF SAMPLES (THE SHEPHENT) TIME LABORATORY: Mudghander 7/19/9 2:4500 TOTAL NO. OF CONTAINERS (THE DEPMENT) McCampbell Analytical RELINQUISHED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) LABORATORY CONTACT: LABORATORY PHONE NUMBER: 7/19/96 3:40 Ed. Hamilton (50)798-1620 RELINQUISHED BY: (SIGNATURE) RECEIVED FOR LABORATORY BY: BATE TIME SAMPLE ANALYSIS REQUEST SHEET (SIGNATURE) ATTACHED: ( )YES (X)NO 3:40 presence