

May 16, 2005
Report 0047.R34

P & D ENVIRONMENTAL

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Alameda County

MAY 16 2005

Environmental Health

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

SUBJECT: SEMI-ANNUAL 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 semi-annual monitoring and sampling of groundwater monitoring wells MW1, MW2, and MW3 at the subject site. This work was performed in accordance with P&D's proposal 033099.P1 dated March 30, 1999 and 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. Based upon subsequent conversations, the sampling and monitoring of well MW3 has also been reduced to semi-annually. In addition, it was agreed that no further analysis for Total Petroleum Hydrocarbons as Diesel (TPH-D) would be performed for well MW3.

The monitoring and sampling was performed on January 31, 2005. The reporting period is for July 2004 through January 2005. 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 by VIP Service as a retail gasoline station from the time of purchase 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 Xylenes (BTEX); and for Total Lead. In addition, the samples from the waste oil tank were analyzed for TPH-D; Total Oil and Grease (TOG); Halogenated Volatile Organic Compounds (HVOCs) using EPA Method 8010; Semi-Volatile Organic Compounds (SVOCs) 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 Tetrachloroethylene in the EPA Method 8010 analysis; 2.7 ppm 2-Methylnaphthalene 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 that 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. 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-Methylnaphthalene.

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 of the 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. Based upon subsequent conversations with Mr. Seery, the monitoring and sampling frequency was reduced to semi-annually.

FIELD ACTIVITIES

On January 31, 2005, all three of the monitoring wells at the site were monitored and 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. However, petroleum hydrocarbon odors were noted in the purge water from well MW3. Depth to water level measurements are presented in Table 1.

Prior to sampling, the monitoring wells were 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 samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles, as appropriate, 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 wells during purging operations was stored in a Department of Transportation (DOT) approved 55-gallon drum at the site pending appropriate disposal.

HYDROGEOLOGY

Water levels were measured in the monitoring wells once during the report period. The measured depth to water at the site on January 31, 2005 ranged from 7.86 to 8.37 feet. The groundwater levels have increased in wells MW1, MW2, and MW3 by 1.10, 1.20, and 1.05 feet, respectively, since the previous monitoring on July 14, 2004. The calculated groundwater flow direction at the site on January 31, 2005 was to the west with a gradient of 0.012. The groundwater flow direction has shifted toward the north, and the gradient has increased slightly since the previous semi-annual monitoring on July 14, 2004.

Groundwater level data collected during the monitoring period are presented in Table 1. The groundwater flow direction at the site on January 31, 2005 is shown on Figure 2.

LABORATORY RESULTS

The groundwater samples from monitoring wells MW1, MW2, and MW3 were analyzed for TPH-G using Modified EPA Method 8015C; and for BTEX and methyl tert-butyl ether (MTBE) using EPA Method 8021B. In addition, the groundwater sample from MW3 (located near the former waste oil tank) was analyzed for HVOCs using EPA Method 8260B and for SVOCs using EPA Method 8270D.

The laboratory analytical results of the groundwater samples collected from wells MW1 and MW2 show that TPH-G, MTBE, and BTEX were not detected. The laboratory analytical results of the groundwater sample collected from monitoring well MW3 show that TPH-G was detected at a concentration of 2.9 mg/L, and that among the several EPA Method 8260B compounds detected MTBE and benzene were detected at concentrations of 0.021 and 1.6 mg/L, respectively. EPA Method 8270D compounds were not detected. The laboratory analytical results are summarized in Table 2. EPA Method 8260B results and not EPA Method 8021B compounds are summarized in Table 2. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report.

DISCUSSION AND RECOMMENDATIONS

The sample results for wells MW1 and MW2 remained unchanged since the last sampling event on July 14, 2004 with no analytes detected. The analytical results for well MW3 show that since the last sampling event on July 14, 2004 TPH-G concentrations have decreased, and MTBE and benzene concentrations have increased. Based on the sample results, P&D recommends that the semi-annual monitoring and sampling be continued. Continuation of the monitoring and sampling program should be re-evaluated upon regulatory agency review of Remedial Investigation/Feasibility Study Work Plan implementation results.

DISTRIBUTION

Copies of this report should be distributed to Don Wang at the ACDEH. 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 judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

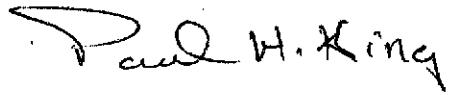
This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the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

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

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

Sincerely,

P&D Environmental

A handwritten signature in black ink that reads "Paul H. King". The signature is written in a cursive style with a large, sweeping initial "P".

Paul H. King
President
Professional Geologist # 5901
Expires: 12/31/05

Attachments: Tables 1 & 2
Site Location Map (Figure 1)
Site Plan (Figure 2)
Field Parameter Forms
Laboratory Analytical Reports
Chain of Custody Documentation

PHK/wrw/efo
0047.R34

TABLE I
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	01/31/05	180.83	8.37	172.46
	07/14/04		9.47	171.36
	12/18/03		9.26	171.57
	06/19/03		9.00	171.83
	12/21/02		9.09	171.74
	04/30/02		9.03	171.80
	10/16/01		9.33	171.50
	11/08/00		9.04	171.79
	05/24/00		7.97	172.86
	09/10/99		8.79	172.04
	02/10/99		7.72	173.11
	02/24/98		6.61	174.22
	11/18/97		9.71	171.12
	08/12/97		9.39	171.44
	04/25/97		8.37	172.46
	01/31/97		7.62	173.21
	07/19/96		8.81	172.02
	04/23/96		8.17	172.66
	01/17/96		9.66	171.17
	10/26/95		10.00	170.83
	08/15/95		9.23	171.60
	05/02/95		8.56	172.27
	01/30/95		9.50	171.33
	10/31/94		11.55	169.28
	07/29/94		10.86	169.97
	04/25/94		10.70	170.13
	11/16/93		11.63	169.20
	11/12/93*		11.53	169.30

NOTES:

Elevations are in feet Mean Sea Level.

ft. = Feet.

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

TABLE 1
WELL MONITORING DATA
(Continued)

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW2	01/31/05	179.70	7.94	171.76
	07/14/04		9.14	170.56
	12/18/03		8.76	170.94
	06/19/03		8.68	171.02
	12/21/02		7.95	171.75
	04/30/02		8.76	170.94
	10/16/01		9.76	169.94
	11/08/00		8.63	171.07
	05/24/00		7.65	172.05
	09/10/99		8.48	171.22
	02/10/99		7.05	172.65
	02/24/98		6.20	173.50
	11/18/97		9.26	170.44
	08/12/97		9.06	170.64
	04/25/97		8.10	171.60
	01/31/97		7.22	172.48
	07/19/96		8.57	171.13
	04/23/96		7.85	171.85
	01/17/96		8.94	170.76
	10/26/95		9.68	170.02
	08/15/95		8.91	170.79
	05/02/95		8.17	171.53
	01/30/95		8.68	171.02
	10/31/94		10.99	168.71
	07/29/94		10.34	169.36
	04/25/94		10.04	169.66
	11/16/93		11.10	168.60
	11/12/93*		10.95	168.75

NOTES:

Elevations are in feet Mean Sea Level.

ft. = Feet.

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

TABLE 1
WELL MONITORING DATA
(Continued)

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW3	01/31/05	178.98	7.86	171.12
	07/14/04		8.91	170.07
	12/18/03		8.55	170.43
	06/19/03		8.48	170.50
	12/21/02		7.88	171.10
	04/30/02		8.56	170.42
	10/16/01		10.14	168.84
	11/08/00		8.45	170.53
	05/24/00		7.62	171.36
	09/10/99		8.34	170.64
	02/10/99		7.12	171.86
	02/24/98		6.55	172.43
	11/18/97		8.97	170.01
	08/12/97		8.85	170.13
	04/25/97		7.99	170.99
	01/31/97		7.30	171.68
	07/19/96		8.42	170.56
	04/23/96		7.76	171.22
	01/17/96		8.61	170.37
	10/26/95		9.39	169.59
	08/15/95		8.62	170.36
	05/02/95		8.04	170.94
	01/30/95		8.46	170.52
	10/31/94		10.58	168.40
	07/29/94		10.03	168.95
	04/25/94		9.64	169.34
	11/16/93		10.63	168.35
	11/12/93*		10.66	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-G	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
	Samples Collected on January 31, 2005					
MW1	ND<0.05	0.021	1.6	0.028	0.19	0.14
MW2	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
MW3 ^{1,2}	2.9	ND<0.050	0.96	0.013	0.037	0.089

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = Methyl tert-Butyl Ether.

ND = Not Detected.

1 = EPA Method 8260B (not EPA Method 8021B) results are reported in the table. Additional EPA Method 8260B compounds detected were 0.018 mg/L isopropylbenzene, 0.043 mg/L 1,2,4-Trimethylbenzene, 0.062 mg/L naphthalene, and 0.046 mg/L n-Propyl benzene.

2 = EPA Method 8270D compounds were not detected.

Results are in milligrams per liter (mg/L), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

Sample Location	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
Samples Collected on July 14, 2004						
MW1	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
MW2	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
MW3 ^a	4.1	ND<0.050	0.98	0.037	0.12	0.15
Samples Collected on December 18, 2003						
MW1	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
MW2	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
MW3 ^b	9.7	ND<0.1	2.3	0.093	0.28	0.35
Samples Collected on June 19, 2003						
MW1	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
MW2	ND<0.05	ND<0.005	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005
MW3 ^c	16,d	ND<0.25	3.5	0.11	0.43	0.64

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = Methyl tert-Butyl Ether.

ND = Not Detected.

NA = Not Analyzed.

a = EPA Method 8010 Basic Target List compounds were not detected (using Method 8260B); and EPA Method 8270D compounds were not detected except for 0.055 mg/L naphthalene, and 0.016 mg/L 2-methyl naphthalene.

b = EPA Method 8021B compounds were not detected; and EPA Method 8270D compounds were not detected except for 0.063 mg/L naphthalene, and 0.021 mg/L 2-methyl naphthalene.

c = EPA Method 8010 compounds were not detected; and EPA Method 8270D compounds were not detected except for 0.024 mg/L phenol, 0.056 mg/L naphthalene, and 0.027 mg/L 2-methyl naphthalene.

d = Laboratory Analytical Report Note: lighter than water immiscible sheen on sample.

Results are in milligrams per liter (mg/L), unless otherwise specified.

TABLE 2 (CONT.)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

Sample Location	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
Samples Collected on December 21, 2002						
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3 ^d	15	ND<0.45	3.3	0.18	0.48	1.0
Samples Collected on April 30, 2002						
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3 ^e	11	ND<200	2.2	0.12	0.37	0.59
Samples Collected on October 16, 2001						
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3 ^f	2.1	ND	0.52	0.030	0.077	0.130

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = Methyl tert-Butyl Ether.

ND = Not Detected.

NA = Not Analyzed.

d = In MW3 EPA Method 8021B compounds were not detected except for 0.011 mg/L 1,2-dichloroethane; and EPA Method 8270D compounds were not detected except for 0.035 mg/L naphthalene and 0.014 mg/L 2-methyl naphthalene.

e = In MW3, EPA Method 8010 compounds were not detected; and EPA Method 8270 compounds were not detected except for 0.053 mg/L naphthalene.

f = In MW3 EPA Method 8010 compounds were not detected except for 0.0013 mg/L 1,2-dichloroethane; and EPA Method 8270 compounds were not detected.

Results are in parts per million (mg/L), unless otherwise specified.

TABLE 2
 GROUNDWATER
 LABORATORY ANALYTICAL RESULTS
 (Continued)

Sample Location	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
Samples Collected on November 8, 2000						
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3**	0.54	ND	0.15	0.0069 0.018	0.029	
Samples Collected on May 24, 2000						
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3***	2.1	0.032	0.47	0.027	0.062	0.13
Samples Collected on September 10, 1999						
MW1	ND	0.049	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3****	0.39	ND	0.098	0.0073	0.012	0.028

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = Methyl tert-Butyl Ether.

ND = Not Detected.

NA = Not Analyzed.

** = In MW3 EPA Method 8010 compounds were not detected except for 0.0013 mg/L 1,2-dichloroethane; and EPA Method 8270 compounds were not detected.

*** = In MW3 EPA Method 8010 compounds were not detected except for 0.0017 mg/L 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected.

**** = In MW3 EPA Method 8010 compounds were not detected except for 0.002 mg/L 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected.

Results are in parts per million (mg/L), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes
Samples Collected on February 10, 1999						
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3*****	NA	4.1	1.7	0.96	0.27	0.42
Samples Collected on February 24, 1998						
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3+	NA	19	4.6	0.33	0.65	1.8
Samples Collected on November 18, 1997						
MW1	NA	NA	NA	NA	NA	NA
MW2	NA	NA	NA	NA	NA	NA
MW3++	NA	2.1	0.48	0.052	0.071	0.19

NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

ND = Not Detected.

NA = Not Analyzed.

***** = In MW3, MTBE was not detected; EPA Method 8010 compounds were not detected except for 0.0028 mg/L 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected except for 0.021 mg/L Naphthalene.

+ = In MW3, MTBE was not detected; EPA Method 8010 compounds were not detected except for 0.011 mg/L 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected except for Naphthalene, 2-Methylnaphthalene and Phenol which were detected at concentrations of 0.083, 0.019, and 0.023 mg/L, respectively.

++ = In MW3, MTBE was not detected; EPA Method 8010 compounds were not detected except for 0.0021 mg/L 1,2 Dichloroethane; and EPA Method 8270 compounds were not detected except for Naphthalene and 2-Methylnaphthalene which were detected at concentrations of 0.058 and 0.026 mg/L, respectively.

Results are in parts per million (mg/L), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes
Samples Collected on August 12, 1997						
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3+++	NA	16	4.2	0.45	0.54	1.9
Samples Collected on April 25, 1997						
MW1	NA	NA	NA	NA	NA	NA
MW2	NA	NA	NA	NA	NA	NA
MW3++++	NA	30	5.3	0.52	0.95	3.0
Samples Collected on January 31, 1997						
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3+++++	NA	5.5	1.6	0.10	0.19	0.41

NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

ND = Not Detected.

NA = Not Analyzed.

+++ = In MW3, MTBE was not detected; EPA Method 8010 compounds were not detected except for 0.0091 mg/L 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected except for Bis(2-ethylhexyl) Phthalate, Naphthalene, and 2-Methylnaphthalene which were detected at concentrations of 0.021, 0.087, and 0.024 mg/L, respectively.

++++ = In MW3, MTBE was not detected; EPA Method 8010 compounds were not detected except for 0.012 mg/L 1,2 Dichloroethane; and EPA Method 8270 compounds were not detected except for Phenol, 4-Methylphenol, 2,4-Dimethylphenol, Naphthalene, and 2-Methylnaphthalene which were detected at concentrations of 0.0028, 0.0024, 0.0028, 0.066 mg/L, and 0.015 mg/L, respectively.

+++++ = In MW3, MTBE was detected at a concentration of 0.063 mg/L; EPA Method 8010 compounds were not detected except for 0.014 mg/L 1,2 Dichloroethane; and EPA Method 8270 compounds were not detected except for Phenol, 2,4-Dimethylphenol, Naphthalene, and 2-Methylnaphthalene which were detected at concentrations of 0.0094, 0.0028, 0.031, and 0.0048 mg/L, respectively.

Results are in parts per million (mg/L), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

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 mg/L 2,4-Dimethylphenol, 0.1 mg/L Naphthalene, and 0.022 mg/L 2-Methylnaphthalene. The EPA Method 8020 showed that MTBE was detected in MW3 at a concentration of 0.21 mg/L.

@@ = In MW3, EPA 8010 compounds were not detected except for 0.0051 mg/L 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 mg/L, 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 mg/L.

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

Results are in parts per million (mg/L), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes
Samples Collected on October 26, 1995						
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3	NA	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	ND	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 mg/L 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.043 mg/L 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 0.24 mg/L.

@@@@@ = EPA 8010 compounds were not detected except for 0.0091 mg/L 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.003 mg/L 4-Methylphenol, 0.005 mg/L 2,4-Dimethyl Phenol, 0.019 mg/L Naphthalene, and 0.003 mg/L 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 mg/L 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.010 mg/L 2-Methyl naphthalene and 0.062 mg/L Naphthalene.

Results are in parts per million (mg/L), unless otherwise specified.

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
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

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 0.018 mg/L 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.014 mg/L 2-Methyl naphthalene and 0.11 mg/L 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 0.019 mg/L 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.008 mg/L 2-Methyl naphthalene, 0.047 mg/L Naphthalene, and 0.002 mg/L Bis(2-Ethylhexyl) Phthalate.

= 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 mg/L 1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.008 mg/L 2-Methylnaphthalene and 0.044 mg/L Naphthalene.

Results are in parts per million (mg/L), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes
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 0.28 mg/L 1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.013 mg/L 2-Methylnaphthalene and 0.084 mg/L Naphthalene.

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

Results are in parts per million (mg/L), unless otherwise specified.

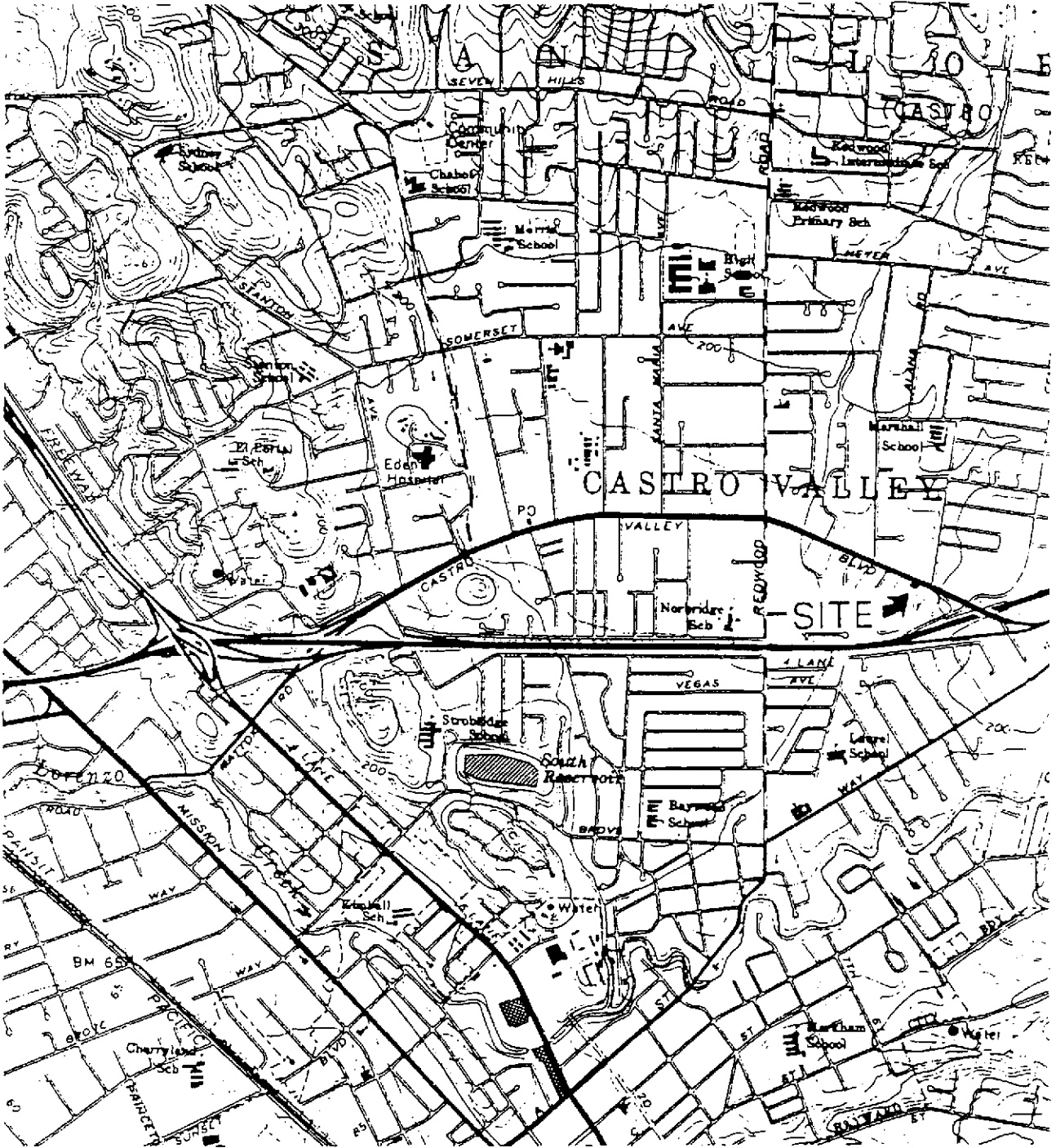
P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.

4020 Panama Court

Oakland, CA 94611

(510) 658-6916



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

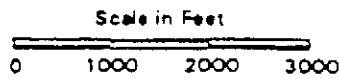
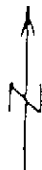


Figure 1
Site Location Map
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.

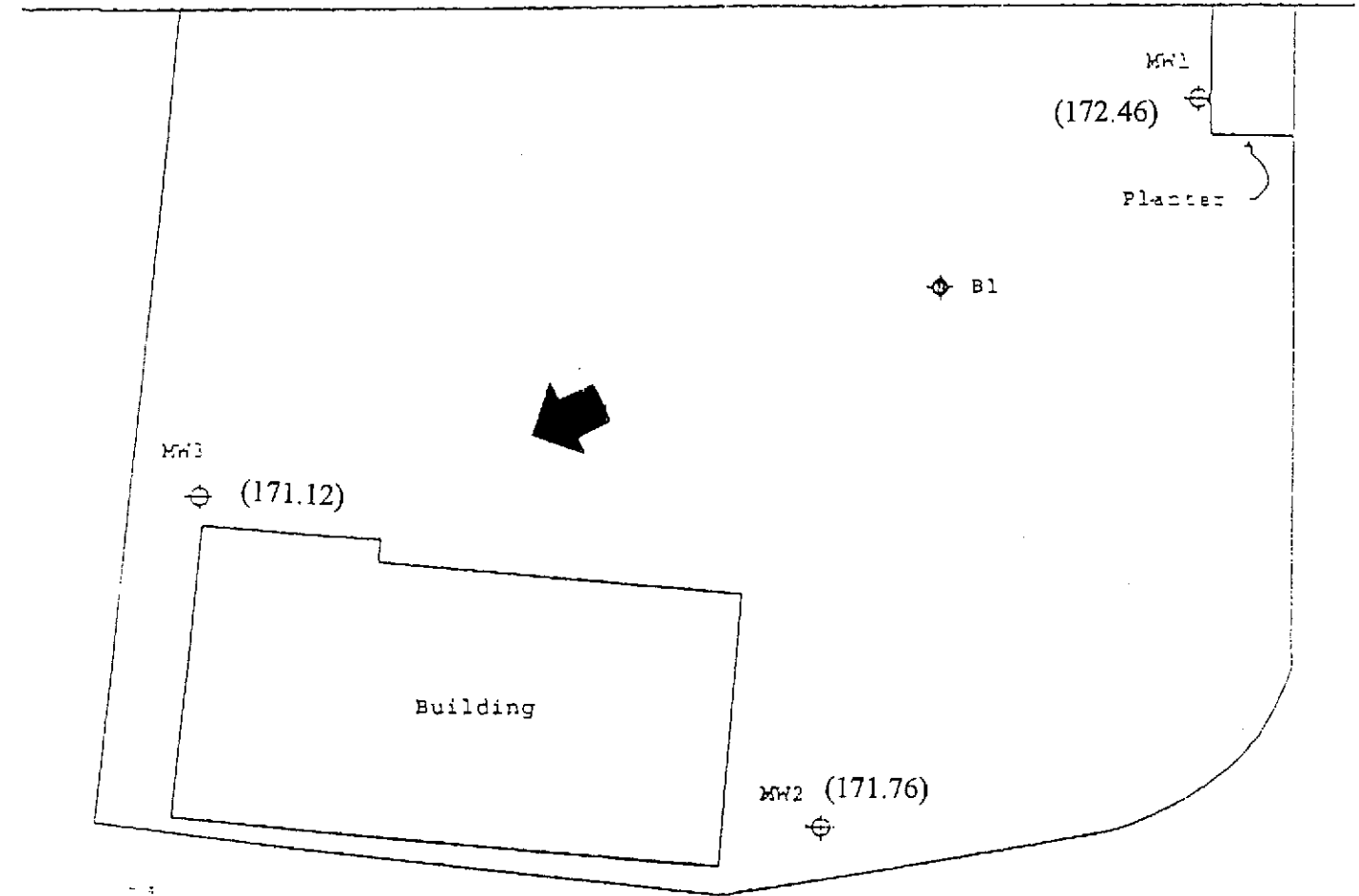
4020 Panama Court

Oakland, CA 94611





(510) 658-6916

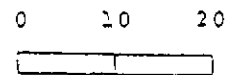
Castro Valley Boulevard

Sidewalk



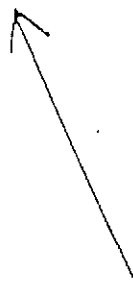
LEGEND

-  Monitoring Well Location
-  Exploratory Boring Location
-  Groundwater Surface Elevation
in Feet on January 31, 2005
-  Groundwater Flow Direction



Scale in Feet

North



Base Map From
P&D Environmental
October, 1993

Figure 2
SITE PLAN
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California



McC Campbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
 Website: www.mcccampbell.com E-mail: main@mcccampbell.com

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0047; VIP, Castro Valley	Date Sampled: 01/31/05
	Client Contact: Paul King	Date Received: 02/01/05
	Client P.O.:	Date Extracted: 02/08/05
		Date Analyzed: 02/08/05

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0502030

Lab ID	0502030-003B						
Client ID	MW3						
Matrix	Water						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<170	33	5.0	Acrolein (Propenal)	ND<170	33	5.0
Acrylonitrile	ND<67	33	2.0	tert-Amyl methyl ether (TAME)	ND<17	33	0.5
Benzene	1600	33	0.5	Bromobenzene	ND<17	33	0.5
Bromochloromethane	ND<17	33	0.5	Bromodichloromethane	ND<17	33	0.5
Bromoform	ND<17	33	0.5	Bromomethane	ND<17	33	0.5
2-Butanone (MEK)	ND<67	33	2.0	t-Butyl alcohol (TBA)	ND<170	33	5.0
n-Butyl benzene	ND<17	33	0.5	sec-Butyl benzene	ND<17	33	0.5
tert-Butyl benzene	ND<17	33	0.5	Carbon Disulfide	ND<17	33	0.5
Carbon Tetrachloride	ND<17	33	0.5	Chlorobenzene	ND<17	33	0.5
Chloroethane	ND<17	33	0.5	2-Chloroethyl Vinyl Ether	ND<33	33	1.0
Chloroform	ND<17	33	0.5	Chloromethane	ND<17	33	0.5
2-Chlorotoluene	ND<17	33	0.5	4-Chlorotoluene	ND<17	33	0.5
Dibromochloromethane	ND<17	33	0.5	1,2-Dibromo-3-chloropropane	ND<17	33	0.5
1,2-Dibromoethane (EDB)	ND<17	33	0.5	Dibromomethane	ND<17	33	0.5
1,2-Dichlorobenzene	ND<17	33	0.5	1,3-Dichlorobenzene	ND<17	33	0.5
1,4-Dichlorobenzene	ND<17	33	0.5	Dichlorodifluoromethane	ND<17	33	0.5
1,1-Dichloroethane	ND<17	33	0.5	1,2-Dichloroethane (1,2-DCA)	ND<17	33	0.5
1,1-Dichloroethene	ND<17	33	0.5	cis-1,2-Dichloroethene	ND<17	33	0.5
trans-1,2-Dichloroethene	ND<17	33	0.5	1,2-Dichloropropane	ND<17	33	0.5
1,3-Dichloropropane	ND<17	33	0.5	2,2-Dichloropropane	ND<17	33	0.5
1,1-Dichloropropene	ND<17	33	0.5	cis-1,3-Dichloropropene	ND<17	33	0.5
trans-1,3-Dichloropropene	ND<17	33	0.5	Diisopropyl ether (DIPE)	ND<17	33	0.5
Ethylbenzene	190	33	0.5	Ethyl tert-butyl ether (ETBE)	ND<17	33	0.5
Freon 113	ND<330	33	10	Hexachlorobutadiene	ND<17	33	0.5
Hexachloroethane	ND<17	33	0.5	2-Hexanone	ND<17	33	0.5
Isopropylbenzene	18	33	0.5	4-Isopropyl toluene	ND<17	33	0.5
Methyl t-butyl ether (MTBE)	21	33	0.5	Methylene chloride	ND<17	33	0.5
4-Methyl-2-pentanone (MIBK)	ND<17	33	0.5	Naphthalene	62	33	0.5
Nitrobenzene	ND<330	33	10	n-Propyl benzene	46	33	0.5
Styrene	ND<17	33	0.5	1,1,1,2-Tetrachloroethane	ND<17	33	0.5
1,1,2,2-Tetrachloroethane	ND<17	33	0.5	Tetrachloroethene	ND<17	33	0.5
Toluene	28	33	0.5	1,2,3-Trichlorobenzene	ND<17	33	0.5
1,2,4-Trichlorobenzene	ND<17	33	0.5	1,1,1-Trichloroethane	ND<17	33	0.5
1,1,2-Trichloroethane	ND<17	33	0.5	Trichloroethene	ND<17	33	0.5
Trichlorofluoromethane	ND<17	33	0.5	1,2,3-Trichloropropane	ND<17	33	0.5
1,2,4-Trimethylbenzene	43	33	0.5	1,3,5-Trimethylbenzene	ND<17	33	0.5
Vinyl Chloride	ND<17	33	0.5	Xylenes	140	33	0.5

Surrogate Recoveries (%)

%SS1:	103	%SS2:	100
%SS3:	88		

Comments:

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

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

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0047; VIP, Castro Valley	Date Sampled: 01/31/05
	Client Contact: Paul King	Date Received: 02/01/05
	Client P.O.:	Date Extracted: 02/01/05
		Date Analyzed: 02/03/05

Semi-Volatile Organics by GC/MS (Basic Target List)*

Extraction Method: SW3510C

Analytical Method: SW8270D

Work Order: 0502030

Lab ID	0502030-003C
Client ID	MW3
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acenaphthene	ND<100	10	10	Acenaphthylene	ND<100	10	10
Acetochlor	ND<100	10	10	Anthracene	ND<100	10	10
Benzidine	ND<500	10	50	Benzoic Acid	ND<500	10	50
Benzo(a)anthracene	ND<100	10	10	Benzo(b)fluoranthene	ND<100	10	10
Benzo(k)fluoranthene	ND<100	10	10	Benzo(g,h,i)perylene	ND<100	10	10
Benzo(a)pyrene	ND<100	10	10	Benzyl Alcohol	ND<200	10	20
Bis (2-chloroethoxy) Methane	ND<100	10	10	Bis (2-chloroethyl) Ether	ND<100	10	10
Bis (2-chloroisopropyl) Ether	ND<100	10	10	Bis (2-ethylhexyl) Adipate	ND<100	10	10
Bis (2-ethylhexyl) Phthalate	ND<100	10	10	4-Bromophenyl Phenyl Ether	ND<100	10	10
Butylbenzyl Phthalate	ND<100	10	10	4-Chloroaniline	ND<200	10	20
4-Chloro-3-methylphenol	ND<100	10	10	2-Chloronaphthalene	ND<100	10	10
2-Chlorophenol	ND<100	10	10	4-Chlorophenyl Phenyl Ether	ND<100	10	10
Chrysene	ND<100	10	10	Dibenzo(a,h)anthracene	ND<100	10	10
Dibenzofuran	ND<100	10	10	Di-n-butyl Phthalate	ND<100	10	10
1,2-Dichlorobenzene	ND<100	10	10	1,3-Dichlorobenzene	ND<100	10	10
1,4-Dichlorobenzene	ND<100	10	10	3,3-Dichlorobenzidine	ND<200	10	20
2,4-Dichlorophenol	ND<100	10	10	Diethyl Phthalate	ND<100	10	10
2,4-Dimethylphenol	ND<100	10	10	Dimethyl Phthalate	ND<100	10	10
4,6-Dinitro-2-methylphenol	ND<500	10	50	2,4-Dinitrophenol	ND<500	10	50
2,4-Dinitrotoluene	ND<100	10	10	2,6-Dinitrotoluene	ND<100	10	10
Di-n-octyl Phthalate	ND<100	10	10	1,2-Diphenylhydrazine	ND<100	10	10
Fluoranthene	ND<100	10	10	Fluorene	ND<100	10	10
Hexachlorobenzene	ND<100	10	10	Hexachlorobutadiene	ND<100	10	10
Hexachlorocyclopentadiene	ND<500	10	50	Hexachloroethane	ND<100	10	10
Indeno (1,2,3-cd) pyrene	ND<100	10	10	Isophorone	ND<100	10	10
2-Methylnaphthalene	ND<100	10	10	2-Methylphenol (o-Cresol)	ND<100	10	10
3 &/or 4-Methylphenol (m,p-Cresol)	ND<100	10	10	Naphthalene	ND<100	10	10
2-Nitroaniline	ND<500	10	50	3-Nitroaniline	ND<500	10	50
4-Nitroaniline	ND<500	10	50	Nitrobenzene	ND<500	10	50
2-Nitrophenol	ND<500	10	50	4-Nitrophenol	ND<500	10	50
N-Nitrosodiphenylamine	ND<100	10	10	N-Nitrosodi-n-propylamine	ND<100	10	10
Pentachlorophenol	ND<500	10	50	Phenanthrene	ND<100	10	10
Phenol	ND<100	10	10	Pyrene	ND<100	10	10
1,2,4-Trichlorobenzene	ND<100	10	10	2,4,5-Trichlorophenol	ND<100	10	10
2,4,6-Trichlorophenol	ND<100	10	10				

Surrogate Recoveries (%)

%SS1:	89	%SS2:	84
%SS3:	107	%SS4:	102
%SS5:	81	%SS6:	99

Comments: j

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

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

#) surrogate diluted out of range; &) low or no surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content; k) reporting limit raised; benzoic acid found in LCS/LCSD samples. Benzoic acid found in the method blank at a detectable concentration but under the RL for this compound.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0502030

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 14887			Spiked Sample ID: 0502030-002A			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) ^E	ND	60	88.4	87.8	0.722	85	84.9	0.0682	70 - 130	70 - 130
MTBE	ND	10	83.8	83	0.939	85.7	85.5	0.245	70 - 130	70 - 130
Benzene	ND	10	103	103	0	89.6	89.9	0.334	70 - 130	70 - 130
Toluene	ND	10	102	101	1.27	88.7	89.6	1.08	70 - 130	70 - 130
Ethylbenzene	ND	10	104	103	1.58	91.8	91.9	0.0148	70 - 130	70 - 130
Xylenes	ND	30	103	103	0	94	94.3	0.354	70 - 130	70 - 130
%SS:	108	10	105	103	2.41	100	101	1.50	70 - 130	70 - 130

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

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

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

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0502030

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 14884		Spiked Sample ID: 0502042-005C			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	81	80.9	0.125	94.1	100	6.51	70 - 130	70 - 130
Benzene	ND	10	116	119	2.26	109	116	6.62	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	92.8	90.9	2.05	99	102	3.10	70 - 130	70 - 130
Chlorobenzene	ND	10	108	112	3.63	103	111	6.63	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	10	106	110	3.28	119	112	5.47	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	102	103	0.782	109	114	4.77	70 - 130	70 - 130
1,1-Dichloroethene	ND	10	117	117	0	114	117	2.93	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	113	112	0.736	112	119	6.31	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	96.5	95.1	1.46	110	117	6.57	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	99.8	99	0.816	105	111	5.77	70 - 130	70 - 130
Toluene	ND	10	112	113	1.66	104	110	5.94	70 - 130	70 - 130
Trichloroethene	ND	10	90	92.1	2.30	97.9	103	5.29	70 - 130	70 - 130
%SS1:	105	10	96	94	1.82	104	103	1.04	70 - 130	70 - 130
%SS2:	100	10	94	93	0.542	98	98	0	70 - 130	70 - 130
%SS3:	101	10	105	100	5.15	100	101	1.21	70 - 130	70 - 130

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

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

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

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

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

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8270D

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0502030

EPA Method: SW8270D		Extraction: SW3510C			BatchID: 14889			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Acenaphthene	N/A	50	N/A	N/A	N/A	74.9	74.6	0.455	N/A	30 - 130
4-Chloro-3-methylphenol	N/A	100	N/A	N/A	N/A	80	80.4	0.561	N/A	30 - 130
2-Chlorophenol	N/A	100	N/A	N/A	N/A	80.9	81.3	0.469	N/A	30 - 130
1,4-Dichlorobenzene	N/A	50	N/A	N/A	N/A	80.6	80.2	0.560	N/A	30 - 130
2,4-Dinitrotoluene	N/A	50	N/A	N/A	N/A	75.4	78.5	4.05	N/A	30 - 130
4-Nitrophenol	N/A	100	N/A	N/A	N/A	79.6	83.4	4.63	N/A	30 - 130
N-Nitrosodi-n-propylamine	N/A	50	N/A	N/A	N/A	88.1	89.4	1.54	N/A	30 - 130
Pentachlorophenol	N/A	100	N/A	N/A	N/A	70.8	72.7	2.52	N/A	30 - 130
Phenol	N/A	100	N/A	N/A	N/A	71.4	71.3	0.119	N/A	30 - 130
Pyrene	N/A	50	N/A	N/A	N/A	72.6	73.6	1.31	N/A	30 - 130
1,2,4-Trichlorobenzene	N/A	50	N/A	N/A	N/A	79.8	79.1	0.969	N/A	30 - 130
%SS1:	N/A	5000	N/A	N/A	N/A	75	75	0	N/A	30 - 130
%SS2:	N/A	5000	N/A	N/A	N/A	81	82	0.633	N/A	30 - 130
%SS3:	N/A	5000	N/A	N/A	N/A	85	85	0	N/A	30 - 130
%SS4:	N/A	5000	N/A	N/A	N/A	84	83	1.10	N/A	30 - 130
%SS5:	N/A	5000	N/A	N/A	N/A	87	90	3.27	N/A	30 - 130
%SS6:	N/A	5000	N/A	N/A	N/A	76	77	1.67	N/A	30 - 130

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

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

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

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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P & D ENVIRONMENTAL

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 55 Santa Clara Ave, Suite 240
 Oakland, CA 94610
 (510) 658-6916

Paleo

0502030

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER: 0047		PROJECT NAME: VIP, Castro Valley			NUMBER OF CONTAINERS	ANALYSIS(ES): <i>TPH, BTEX, MTDEHP, HAPs by 8260, SVOCs by 8270-38021</i>	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) Eric Olson <i>E. Olson</i>								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION				
MW1	4/3/05		Water			FCE	Normal Parameters	
MW2	↓		↓			↓	↓	
MW3	↓		↓					
KEEP <input checked="" type="checkbox"/> GOOD CONDITION HEAD SPACE ABSENT <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS DECHLORINATED IN LAB <input checked="" type="checkbox"/> PRESERVED IN LAB PRESERVATION: <input type="checkbox"/> VOAS <input type="checkbox"/> ORG <input type="checkbox"/> METALS <input type="checkbox"/> OTHER								
RELINQUISHED BY: (SIGNATURE) <i>E. Olson</i>	DATE 4/1/05	TIME 1:00	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	TOTAL NO. OF SAMPLES (THIS SHIPMENT) 3	LABORATORY: McCampbell Analytical			
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 4/1/05	TIME	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 2	LABORATORY CONTACT: <i>Angela Rydles</i> 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: VOAS preserved w HCl								

+
+
+