ERAS
Environmental, Inc.

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Castro Valley, CA 94546

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July 27, 2000

Ms. Betty Graham
California Regional Water Quality Control Board
1515 Clay Street
San Francisco, California 94612

Re: **Additional Information Regarding Property at 4800 Coliseum Way, Oakland, California**

Dear Ms. Graham:

Thank you very much for taking the time this morning to discuss the subject site (the "Property") with me. As we discussed, I am including with this letter several documents that might assist you in your evaluation of environmental conditions at the Property. These are as follows.

- Parcel map showing the Property and nearby sites of environmental concern
- Part of the 1951 Sanborn Map showing the Property and adjacent sites
- A part of the latest report regarding the site at 4930 Coliseum Way

ERAS hopes this provides you a greater understanding of the issues in the area near the Property. ERAS conclusions are that chlorobenzene (CB) and the three dichlorobenzenes (DCB) in groundwater are from an off-site up-gradient source. This is based on the following observations.

- There has been no record of the use of these chemicals at the Property since its development. The Property has been used as a sporting goods warehouse, a paper products warehouse and then as a foundry since the middle 1980's. Based on a review of fire department records and interviews, the current operation has never used these solvents.
- Groundwater collected from all of the borings drilled by ATC Associates, analyzed for CB and DCB, contained these solvents even though only two (ATC-2 and ATC- 3), were found to contain these solvents in the overlying soil. The soil in and around ATC-3 was removed by ERAS. In addition, a well on the PG&E site (OMW-7) contained 909 parts per billion of CB and

DCB, this well is located generally cross-gradient of 4800 Coliseum Way. The concentrations of CB and DCB in OMW-7 were similar to those in the groundwater samples collected from the Property, indicating a common source of these solvents.

The goal of the owner of 4800 Coliseum Way is not to place blame but to ask the Regional Water Quality Control Board (RWQCB) to clear his Property as a source of solvent contamination. To this end, he has agreed to submit the data from his Property to the RWQCB as well as a compilation of information regarding the nearby AAA Equipment Site, PG & E site and other nearby sites that were reviewed by ERAS. This information should act to substantially assist the RWQCB in assessing the Property, adjacent sites and nearby area.

Please call if you have any questions or require additional information.

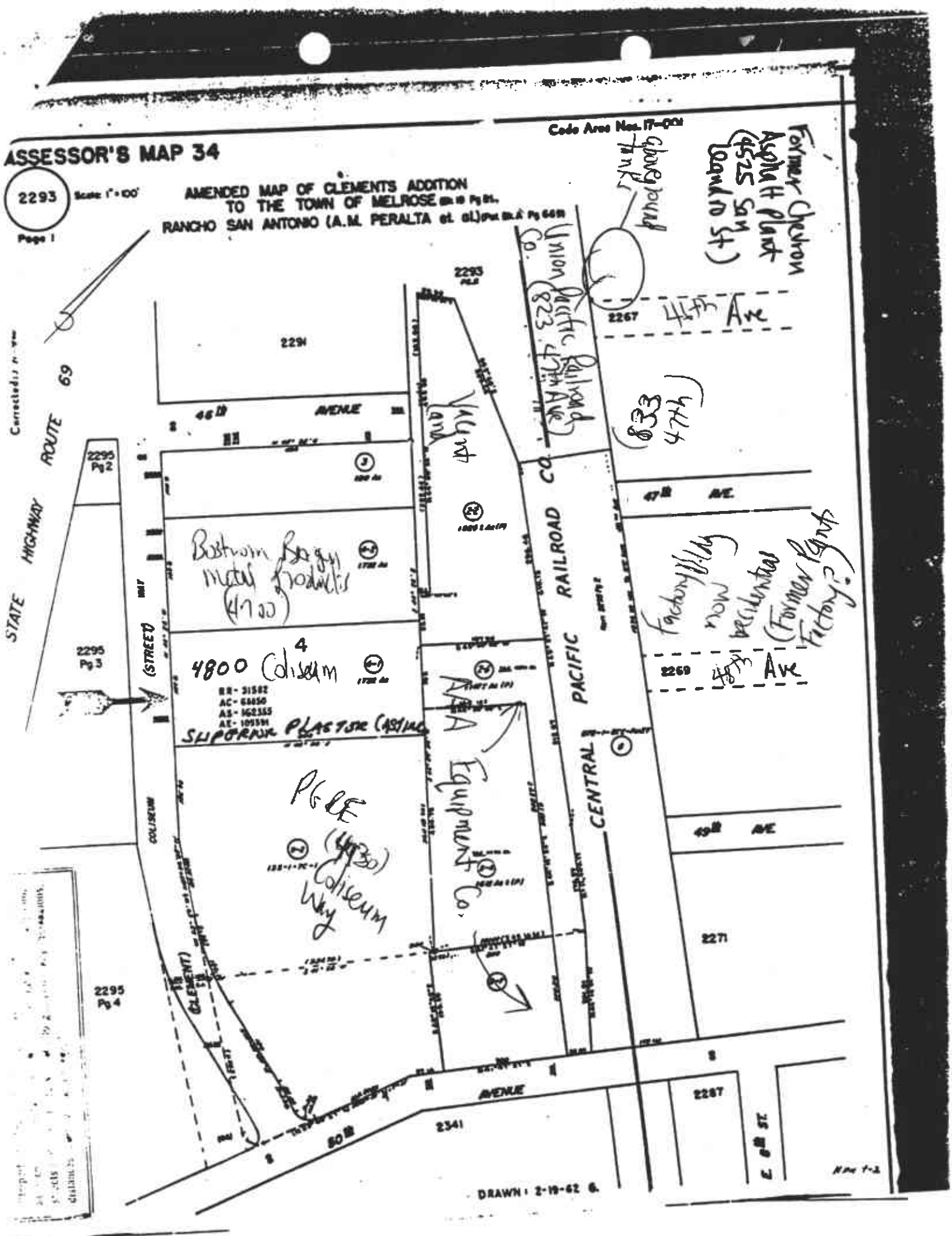
Respectfully,
ERAS Environmental, Inc.

David Siegel

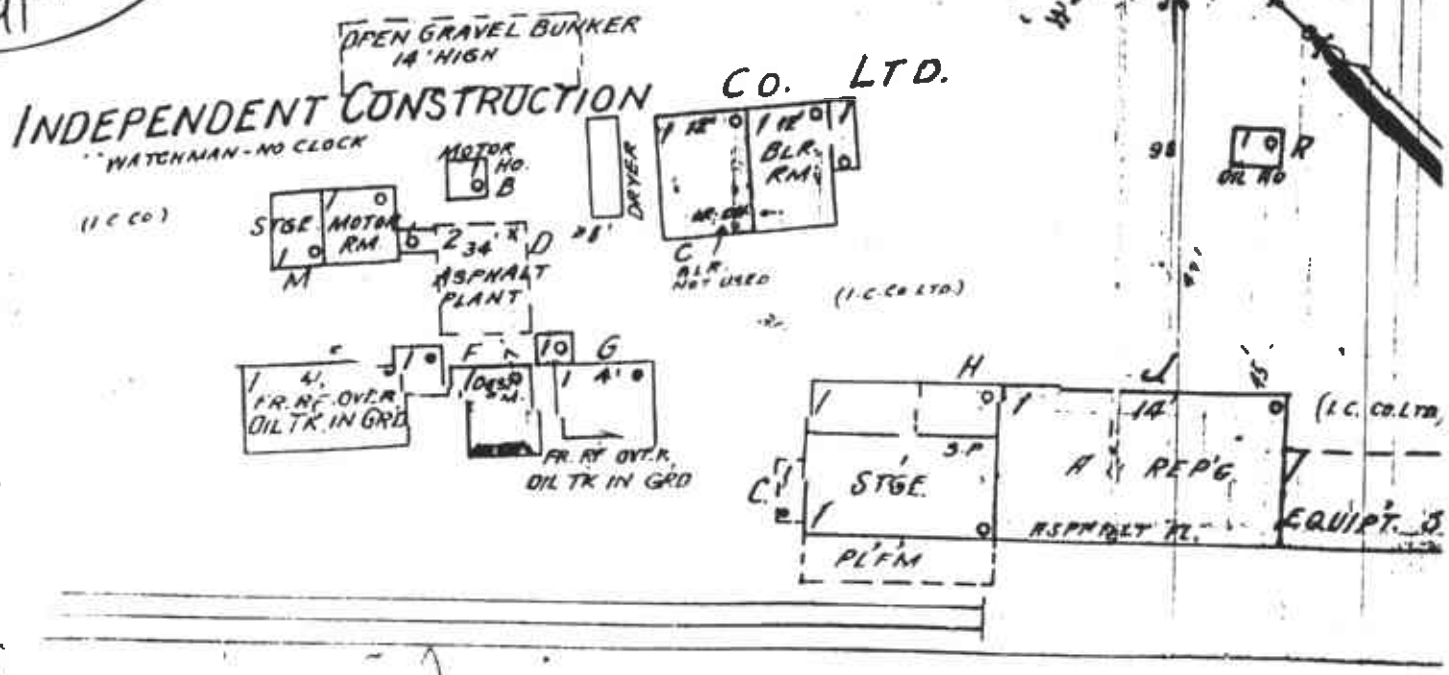
David Siegel, R.E.A.
President

Attachments: Copy of parcel map
Copy of part of the 1951 Sanborn Map
Excerpt of CET Environmental report regarding the site at 4930 Coliseum Way

cc: Mr. John Miller
Mr. Mike Barry
Ms. Jan Zeretske


ASSESSOR'S MAP 34
2293
Page 1
AMENDED MAP OF CLEMENTS ADDITION TO THE TOWN OF MELROSE
RANCHO SAN ANTONIO (A.M. PERALTA et al)
Code Area No. 17-021
Former Chevron Asphalt Plant (4525 Coolidge Ave)
Union Pacific R.R. Co.
Coolidge Ave
2267
47th Ave
(833 47th)
2293
2291
46th AVENUE
STATE HIGHWAY ROUTE 69
2295 Pg 2
2295 Pg 3
2295 Pg 4
(STREET)
COLISEUM
CENTRAL PACIFIC RAILROAD CO.
Valley
Bostrom Bag Co. Metal Products (4700)
4800 Coliseum
BR - 31582
AC - 68850
AS - 1622365
AE - 109594
SUPERIOR PLASTIC CASTING
PG&E (4730 Coliseum Way)
Equipment Co.
Factory Now Residential (Former Kent Factory)
2269
47th Ave
49th AVE
2271
2287
2341
50th
E 8th ST.
(CLEMENT)
DRAWN: 2-19-62 G.

1951
P 591



4700 "is straight lot except for small garage NW S. corner

PG&E
4930 Coliseum Way

← Property

4800 Coliseum Way

P.G.&.

~~2232~~

WATERLEY

1" = ~40'

Across Clement is 4801-4831

CET Environmental Services, Inc., Pacific Gas and Electric Company Construction Yard, 4930 Coliseum Way Oakland, California, 94610, 12/27/99

1.0 BACKGROUND

This report presents the results of semiannual groundwater monitoring and sampling completed in the fourth quarter of 1998 at the PG&E Distribution and Construction Yard at 4930 Coliseum Way in Oakland, California. A vicinity map is included as Figure 1. This report was completed in accordance with the directive issued by the Alameda County Health Care Services Agency (ACHCSA) and a PG&E letter to Alameda County dated April 12, 1993. This report discusses the December 1998 monitoring and sampling event and summarizes the results from groundwater monitoring and sampling performed at the site between January 1990 and the present. The groundwater monitoring program involves the following activities: measuring groundwater elevations; collecting groundwater samples from shallow wells on the site; and performing analyses of the samples to determine the distribution of selected fuel compounds, solvents, and lead in the uppermost water bearing zone, beneath the northern portion of the yard. This area includes the former locations of five underground storage tanks and one above ground storage tank. Figure 2 shows the site plan for the subject property.

In January 1988, all of the site's underground storage tanks and associated piping within the PG&E's property lines were removed. Analysis of their contents revealed that of the four tanks formerly located in a cluster at the north corner of the yard, two contained mineral spirits and two contained heavy oils. A concrete sump was located approximately 50 feet northeast of the tank cluster, near the location of a former welding shop. A fifth tank was formerly located near the west corner of the yard and contained diesel fuel. A soil sample collected below this tank indicated a concentration for diesel below the detection limit of 10 mg/kg. Following the tank removal, a subsurface investigation showed that soils immediately adjacent to the former diesel tank were not adversely impacted.

A number of soil samples collected near the former tank cluster, sump and shop location were found to contain Total Petroleum Hydrocarbons such as Diesel (TPH-D) at concentrations up to 3,900 mg/kg and Oil and Grease (O&G) at concentrations up to 1,000 mg/kg. These results were reported in the July 1988 report "Underground Tanks Investigation" by PG&E's Technical and Ecological Services Division.

In November and December 1991, approximately 2,000 cubic yards of soil was excavated as a remedial action for the petroleum hydrocarbons identified in the soil. Soil was excavated to the depth of groundwater, approximately 8 to 8 ½ feet below ground surface at the time, and replaced with clean, compacted backfill. The backfill below approximately 7 feet consisted of drain rock while backfill above 7 feet consisted of Class II aggregate base. The northwest and northeast excavation boundaries reached the approximate PG&E property lines. During the remedial excavation, confirmatory samples were taken along the sidewalls and bottom of the excavation to confirm that all the contaminated soil with concentrations above the regulatory agency approved cleanup target levels was removed. The cleanup targets for gasoline (TPH-G) and diesel (TPH-D) were 10 mg/kg and 100 mg/kg, respectively. The cleanup target for O&G was 1,000 mg/kg, and for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) compounds was 5 µg/kg (total BTEX). This work was described in an EARTH TECHNOLOGY CORPORATION (formerly Aqua Resources, Inc.) document "Site Remediation and Closure Report ... Former Tank Cluster Area" dated February 1992.

The samples collected along the PG&E property lines were above cleanup target levels, while each of the remaining confirmatory samples was below the cleanup target levels. The samples collected along the northeastern property line were above cleanup targets primarily due to TPH-D and O&G concentrations. The soils in this excavation wall contained visible tar and heavy oil, and also two pipes containing a similar petroleum product. Analytical testing of the product found in the pipes indicated TPH-D at 7,000 mg/kg and did not indicate VOCs above the method detection limit. The samples on the northwestern property line were above cleanup target levels for one or more of TPH-G, TPH-D, O&G, and BTEX.

The conclusions of the February 1992 closure report suggested that offsite sources of petroleum hydrocarbons may exist in both the northeast and northwest directions, and requested regulatory agency input in initiating an investigation of these potential sources. Quarterly groundwater monitoring and sampling for a period of one year was recommended in the 1992 report for wells OW-1, OW-4, OW-6 and OW-7.

In September and October of 1992, a containment mitigation cap was constructed over the surface soils in an area south of the hydrocarbon remediation area. These soils are contaminated with lead, believed to originate from lead-containing paint chips generated from sandblasting of a large above-ground natural gas storage tank. The tank was removed in May 1990, and the soils were found contaminated with total and soluble lead above California Code of Regulations (CCR) levels for hazardous wastes. CCR Total Threshold Limit Concentration (TTLC) for lead is 1000 mg/kg and the Soluble Threshold Limit Concentration (STLC) is 5 mg/L, equivalent to parts per million (ppm). The ACHCSA and the Regional Water Quality Control Board (RWQCB) approved capping as the selected remedial option for this area. As part of the remedial option the County agreed upon continued groundwater monitoring and sampling for lead. Following containment capping, the remaining open ground at the site was covered with asphaltic concrete.

In February 1993, well OW-8 was installed in the southern area of the yard in the vicinity of the former above-ground storage tank (AST). A maximum lead concentration of 27 µg/L (April 1993) was reported in samples collected from OW-8, which is below the state Maximum Contaminant Level (MCL) of 50 µg/L for drinking water. Wells OW-2 and OW-5 are located in the vicinity of the former AST and are also being monitored for lead. Lead has not been detected above the State MCL in any monitoring events for wells OW-2, OW-5 and OW-8.

Based on lead levels consistently falling below the MCL for drinking water, the lead regulatory agency, ACHCSA, issued a letter (Appendix C) on July 14, 1994 reducing the required lead sampling frequency from quarterly to semi-annually. Similarly, petroleum hydrocarbon and VOC monitoring is presently performed semi-annually for specific wells.

3.0 ANALYTICAL RESULTS

3.1 PETROLEUM HYDROCARBONS

Table 3.1 summarizes the analytical results for petroleum hydrocarbons detected in the groundwater samples collected on December 17, 1998. TPH-D was detected in all of the monitoring wells sampled for TPH-D and the highest concentration was observed in well OW-7. TPH-G was detected in three of the five monitoring wells sampled for TPH-G. The highest concentration of TPH-G was also observed in monitoring well OW-7, located in the northern (most upgradient) corner of the site.

Table 3.1 Petroleum Hydrocarbons in Groundwater, in mg/L

Well	TPH-D	TPH-G
OW - 1	1.800	0.850
OW - 4	NA	NA
OW - 5	0.780	ND
OW - 6	2.000	0.130
OW - 7	3.500	1.100

Notes:

1) ND = Not Detected at or above the method Reporting Limits (RL)
2) TPH-D = Extractable Petroleum Hydrocarbons, Diesel Range, LUFT Manual, October 1989; RL = 0.05 mg/L.
3) TPH-G = Total Petroleum Hydrocarbons by California DHS Method LUFT Manual, October 1989; RL = 0.05 mg/L.
4) NA = Not Analyzed.

Figures 3.1 and 3.2 illustrate the historical concentrations of TPH-D in the monitored wells. For samples which reported TPH-D as not detected, one half of the detection limit was used in preparing these figures. The data from monitoring wells OW-3 and OW-6 are combined since OW-6 was installed to replace OW-3 following its destruction.

Figures 3.1 and 3.2 show that TPH-D concentrations were generally higher around the time of, or soon after, the remedial excavation in November 1991 in the wells in the remediation vicinity: OW-4, OW-6, and OW-7. Compared to the previous sampling event (June 1998), this quarter's results show an increase in TPH-D concentrations in wells OW-1, OW-5, OW-6, and OW-7. It was noted in the February 1992 tank cluster area remediation report that there is an apparent off-site source of contamination upgradient of the PG&E yard. The persistence of moderate TPH following remediation in this area is believed to be the result of this upgradient contamination.

Historically, TPH-D concentrations in monitoring well OW-5, located near the northwest property line, have fluctuated around 1,000 µg/L. The most recent sampling event yielded a concentration of 780 µg/L. Monitoring well OW-1 had TPH-D concentrations over 2000 µg/L in 1993, averaging

near 1,250 µg/L in 1994, 1,000 µg/L in 1995, 1,850 µg/L in 1996, and 1,100 µg/L in 1997. Current concentration of TPH-D in the monitoring well OW-1 was 1,800 µg/L. Monitoring well OW-6 had a concentration of 2,000 µg/L in the most recent event, showing an increase from 1,300 µg/L in the June 1998 event.

TPH-G has been consistently below 500 µg/L in all wells except upgradient wells OW-1, and OW-7. Historically, OW-7 has had concentrations ranging from 650 to 1,800 µg/L. The current TPH-G concentrations for OW-1 and OW-7 are 850 µg/L and 1,100 µg/L, respectively. Figures 3.3 and 3.4 illustrate the historical concentrations of TPH-G. Between January 1991 and March 1992 the analyses were not performed. Monitoring of TPH-G concentrations in OW-2 is no longer performed due to non-detections in this well. Relative to the previous sampling results, TPH-G concentrations have increased in OW-6 and OW-7, and decreased in OW-1. Current sampling results were non-detect for well OW-5.

3.2 LEAD

Table 3.2 presents the results of this quarter's groundwater analyses for lead. The state MCL for lead in drinking water is 50 µg/L. Samples were collected and analyzed for dissolved lead (filtered) in December of 1998. During this quarter's event, lead was not detected in the monitoring wells that were sampled for lead. Historically, all samples show concentrations below the 50 µg/L drinking water MCL. The highest historical concentration of lead was 27 µg/L in OW-8, sampled in April 1993.

Table 3.2 Lead in Groundwater, in µg/L

Well Number	State MCL	Reporting Limit	Dissolved Lead
OW-2	50	3.0	ND
OW-5	50	3.0	ND
OW-8	50	3.0	ND

Notes:
MCL = Maximum Contaminate Level for drinking water.
ND = Not Detected at or above the method Reporting Limits (RL)
NA = Not Analyzed
Dissolved Lead analyses performed by EPA Method 6010A

3.3 VOLATILE ORGANIC COMPOUNDS

Historical results of VOC monitoring are presented in Appendix B. Table 3.3 presents the recent analytical results for VOCs in groundwater. The state MCLs for drinking water were exceeded for: Vinyl chloride in monitoring well OW-5 at concentration 1.1 µg/L, 1,1-Dichloroethane and Chlorobenzene in monitoring well OW-7 at concentrations 5.7 µg/L and 31 µg/L respectively, 1,4-Dichlorobenzene (1,4-DCB) in monitoring wells OW-6 and OW-7 at concentrations of 68 µg/L and 470 µg/L, respectively.

VOCs detected at concentrations below their MCLs include:

- 1,1-Dichloroethane in wells OW-5 and OW-6;
- 1,1,1-Trichloroethane (TCA) in well OW-7;
- Trichloroethylene in well OW-5;
- Chlorobenzene in wells OW-6 and OW-7;
- 1,3-Dichlorobenzene (1,3-DCB) in wells OW-6 and OW-7;
- 1,2-Dichlorobenzene (1,2-DCB) in wells OW-6 and OW-7;
- 1,4-Dichlorobenzene in wells OW-6 and OW-7.

Figures 3.5 and 3.6 show the historical concentrations of total VOCs in the on-site monitoring wells. Figure 3.5 shows the concentrations of total VOCs in wells OW-1, OW-2 and OW-4. Of these wells, only OW-1 is presently monitored for VOCs, and these include only the BTEX fraction. From January 1994 to before the December 1997 sampling event, no BTEX was detected in well OW-1. Benzene, Ethyl Benzene and Xylene were detected in the December 1997 sample at concentrations of 0.66, 2.3, and 1.1 µg/L, respectively. In the June 1998 sample, only Toluene was detected in Well OW-1 at a concentration of 0.67. However, the results of the method blank sample, shown on the right-most column in table 3.3, reported concentration of 0.73 µg/L for Toluene. This reading suggests that the results obtained for Toluene for sample OW-1 may be in error.

In the December 1998, the sample contained Benzene at concentration 0.5 µg/L, Ethylbenzene at concentration 0.76 µg/L, and Total Xylenes at concentration 0.67 µg/L.

Figure 3.6 shows the concentrations of total VOCs in wells OW-5, OW-6, and OW-7, located at the upgradient edges of the site. The total VOC concentrations detected this quarter in wells OW-5, OW-6, and OW-7 were 11.6 µg/L, 110.7 µg/L, and 920.95 µg/L, respectively. Total VOC concentrations in each of these wells slightly increased relative to the previous sampling event in the second quarter of 1998. These three wells lie within ten feet of the northeast and/or northwest property lines of the site. Groundwater elevation monitoring consistently indicates that the groundwater flow direction is from the north or northeast from neighboring properties onto the PG&E site. This demonstrates that VOCs are migrating onto the PG&E site from an upgradient source.

Possible offsite source

Table 3.3 Volatile Organic Compounds in Groundwater, in ug/l

PURGEABLE HALOCARBONS	MCL	Well Number OW-1	OW-4	OW-5	OW-6	OW-7	MB
Chloromethane		NA	NA	ND	ND	ND	ND
Bromomethane		NA	NA	ND	ND	ND	ND
Vinyl chloride	0.5	NA	NA	1.1	ND	ND	ND
Chloroethane		NA	NA	ND	ND	ND	ND
Methylene Chloride	5#	NA	NA	ND	ND	ND	ND
Trichlorofluoromethane	150	NA	NA	ND	ND	ND	ND
1,1-Dichloroethene	6	NA	NA	ND	ND	ND	ND
1,1-Dichloroethane	5	NA	NA	2.5	4.6	5.7	ND
cis-1,2-Dichloroethene	6	NA	NA	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	NA	NA	ND	ND	ND	ND
Chloroform	100#*	NA	NA	ND	ND	ND	ND
Freon 113	1200	NA	NA	ND	ND	ND	ND
1,2-Dichloroethane	0.5	NA	NA	ND	ND	ND	ND
1,1,1-Trichloroethane	200	NA	NA	ND	ND	5.6	ND
Carbon Tetrachloride	0.5	NA	NA	ND	ND	ND	ND
Bromodichloromethane	100#*	NA	NA	ND	ND	ND	ND
1,2-Dichloropropane	5	NA	NA	ND	ND	ND	ND
cis-1,3-Dichloropropene	5***	NA	NA	ND	ND	ND	ND
Trichloroethylene	5	NA	NA	0.7	ND	ND	ND
1,1,2-Trichloroethane	32	NA	NA	ND	ND	ND	ND
trans-1,3-Dichloropropene	5***	NA	NA	ND	ND	ND	ND
Dibromochloromethane	100#*	NA	NA	ND	ND	ND	ND
2-Chloroethylvinyl Ether		NA	NA	NA	NA	NA	NA
Bromoform	100#*	NA	NA	ND	ND	ND	ND
Tetrachloroethylene	5	NA	NA	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	NA	NA	ND	ND	ND	ND
Chlorobenzene	30	NA	NA	ND	8.3	31	ND
1,3-Dichlorobenzene	600#	NA	NA	ND	27	360	ND
1,2-Dichlorobenzene	600#	NA	NA	ND	2.8	48	ND
1,4-Dichlorobenzene	5	NA	NA	ND	68	470	ND
PURGEABLE AROMATICS							
Benzene	1	0.5	NA	7.3	ND	0.65	ND
Toluene	1000#	ND	NA	ND	ND	ND	ND
Ethylbenzene	680	0.76	NA	ND	ND	ND	ND
Total Xylenes	1750**	0.67	NA	ND	ND	ND	ND

Notes:

1) MCL = Maximum Contaminant Level in drinking water (State MCL, if not noted otherwise)
2) # = EPA MCL
3) * = MCL for sum of four compounds
4) ** = MCL for sum of all xylene isomers
5) *** = MCL for sum of trans- and cis-1,3-Dichloropropene
6) ND = Not Detected at or above MDL
7) Purgeable Halocarbons (EPA method 8010)
8) Purgeable Aromatics (EPA method 8020)
Exceeded MCL
9) NA = Not Tested
10) MB = Method Blank

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

The following conclusions are made based upon the results of analyses performed on groundwater samples collected on December 17, 1998 from monitoring wells OW-1, OW-2, OW-5, OW-6, OW-7 and OW-8, and from prior semi-annual sampling results.

- The groundwater beneath the site appears to flow to the south, consistent with the historical flow direction. The groundwater gradient of 0.009 ft/ft is also consistent with historical data.

- TPH-D was detected in wells OW-1, OW-5, OW-6 and OW-7 above the reporting limit of 50 µg/L. The highest concentration was found in well OW-7 at 3,500 µg/L. Moderate TPH-D concentrations in groundwater have persisted in wells located in the northeastern portion of the property. Since remedial action had removed known sources of contaminants within the site, the presence of TPH-D is likely to be caused by upgradient, off-site source. TPH-D in groundwater has no regulatory action limits but is being assessed on a case-by-case basis by the regulators.

- TPH-D was detected in well OW-1 at 1,800 µg/L, a gentle drop from the 1,900 µg/L detected in the previous sampling but still below the maximum historical concentration of 3,900 µg/L observed in July of 1992. OW-1 is downgradient of a former diesel tank location.

- Monitoring wells OW-1, OW-6 and OW-7 had TPH-G concentrations of 850, 130, and 1,100 µg/L, respectively. TPH-G was not detected in well OW-5. The upgradient well OW-7 continues to have the highest concentration of TPH-G. The presence of TPH-G is likely to be caused by an upgradient, off-site source.

Soluble lead concentrations were not detected in monitoring wells OW-2, OW-5 and OW-8. The MCL for lead in drinking water is 50 µg/L.

Wells OW-5, OW-6 and OW-7 lie at the upgradient portion of the site and historically have had the highest concentrations of TPH-G and VOCs. The total VOC concentration is particularly elevated in OW-7, averaging near 921 µg/L. This indicates an upgradient, off-site source of fuel and solvent contamination located north of the subject site. The concentration of total VOCs in each of these wells increased this quarter relative to the previous sampling event.