

Alameda County  
SEP 7 4 2004  
Environmental Health

**SEMI-ANNUAL GROUNDWATER  
MONITORING REPORT**

**PACIFIC GAS & ELECTRIC  
GENERAL CONSTRUCTION YARD  
4930 COLISEUM WAY  
OAKLAND, CA 94601**

**September 3, 2004**

**CSS Project No. 6118**

*Prepared for*



**Pacific Gas and  
Electric Company\***

**PACIFIC GAS & ELECTRIC COMPANY  
4930 Coliseum Way  
Oakland, California 94601**

*Prepared by*



**CSS ENVIRONMENTAL SERVICES, INC.  
95 Belvedere Street, Suite 2  
San Rafael, California 94901**

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**September 3, 2004**

A handwritten signature in black ink, appearing to read 'A. Stessman', written over a horizontal line.

**Aaron N. Stessman, PE REA  
Principal Engineer**



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## 1.0 BACKGROUND

This report presents the results of semiannual groundwater monitoring and sampling completed in the second quarter of 2004 at the PG&E Distribution and Construction Yard at 4930 Coliseum Way in Oakland, California. A vicinity map is included as Figure 1.1. This report was completed in accordance to 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 June 16, 2004 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 1.2 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 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.

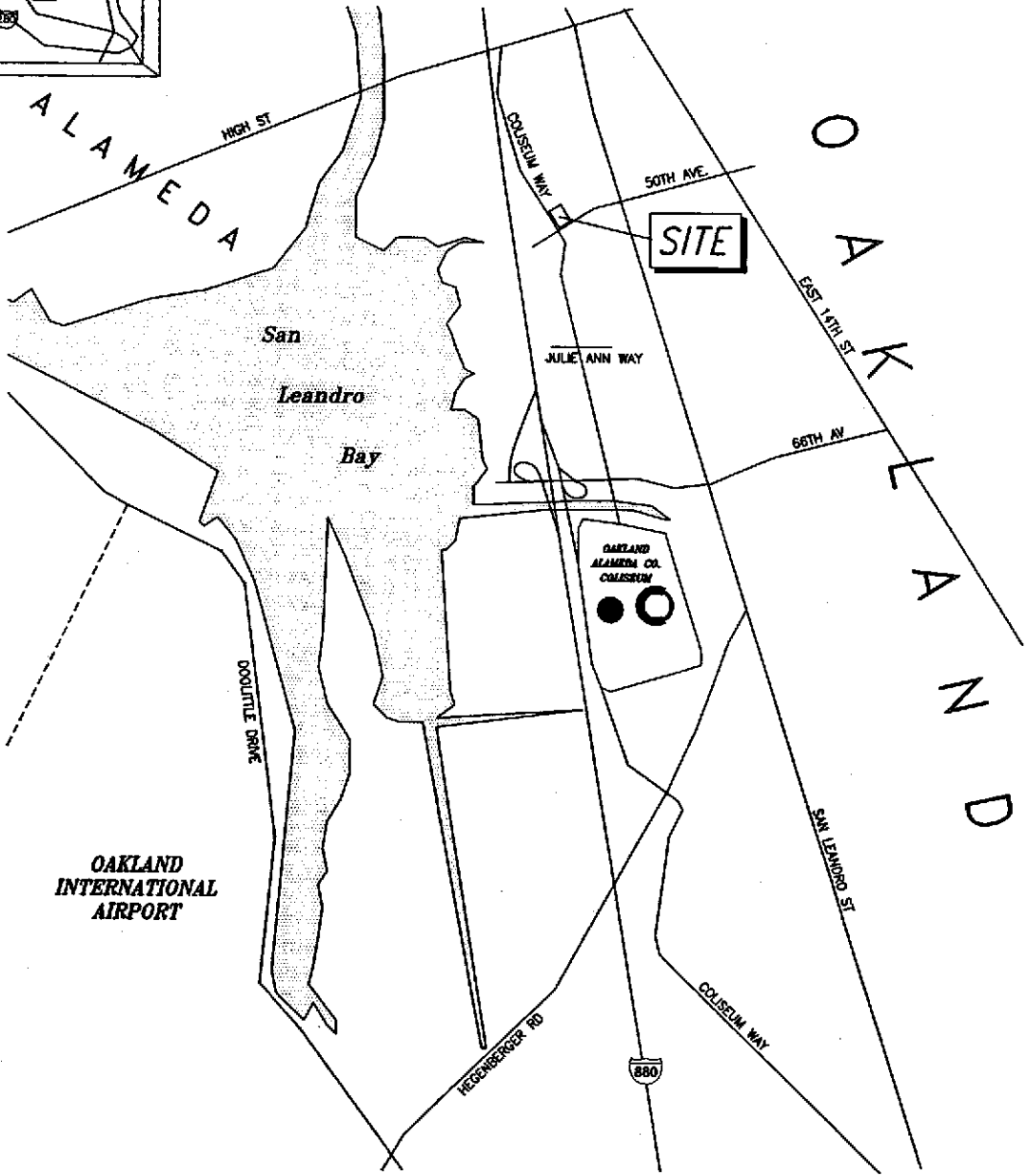
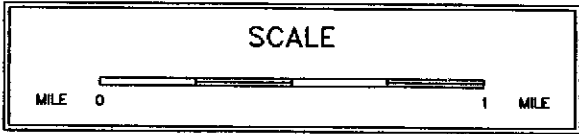
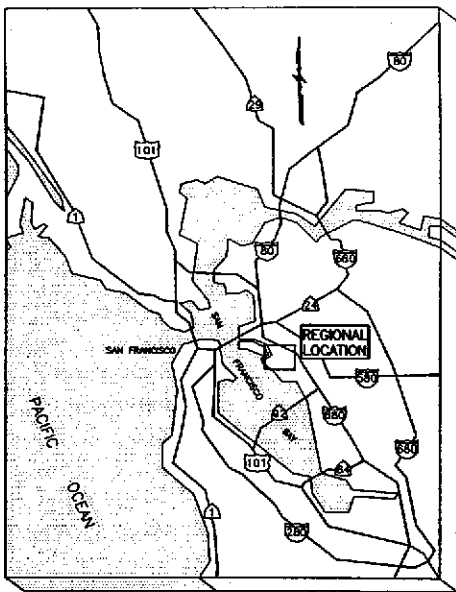
The samples collected along the PG&E property lines were above cleanup target levels, while each of the remaining confirmatory samples was below the cleanup target levels. The samples collected along the northeastern property line were above cleanup targets primarily due to TPH-D and O&G concentrations. 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 (TTL) for lead is 1,000 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 with asphaltic concrete 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 asphalt 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 was below the state Maximum Contaminant Level (MCL) of 50 µg/L for drinking water at the time. 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.



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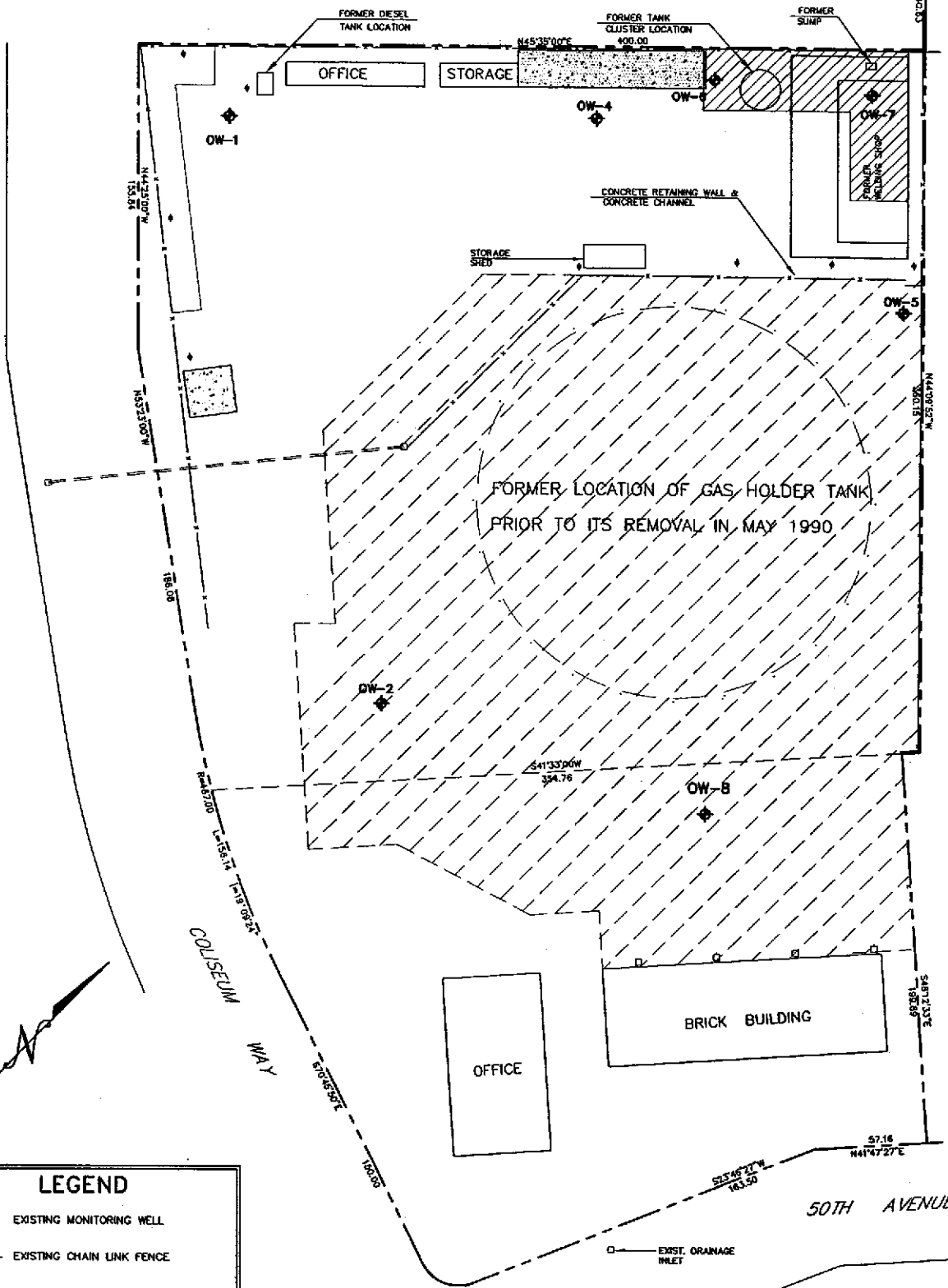
SITE LOCATION MAP

PG & E DISTRIBUTION CONSTRUCTION SITE  
 4930 COLISEUM WAY  
 OAKLAND, CA 94610

JOB NUMBER	DATE	DRAWING	BY	REVISED
6118	01/99	3666LOC	JL/ZS	00/00

FIGURE

1.1



**LEGEND**

- OW-5 EXISTING MONITORING WELL
- EXISTING CHAIN LINK FENCE
- PROPERTY LINE
- EXISTING UTILITY POLE
- EXTENT OF CAPPED SOIL WITH AN ELEVATED LEAD CONCENTRATION
- EXTENT OF 1991 SOIL REMEDIATION (APPROXIMATE)

**SCALE**

FEET 0 80 FEET

**CSS**

CSS ENVIRONMENTAL SERVICES, INC.

**SITE PLAN**  
**PG&E DISTRIBUTION CONSTRUCTION SITE**  
**4930 COLISEUM WAY**  
**OAKLAND, CA 94610**

JOB NUMBER	DATE	DRAWING	BY	REVISED
6118	11/96	6118SITE	ESS	7/00

FIGURE  
1.2



## 2.0 GROUNDWATER MONITORING AND SAMPLING ACTIVITIES

Four of the five originally installed monitoring wells remain in existence at the site. Monitoring well OW-3 was destroyed during the remedial excavations performed in November 1991 in the northern corner of the yard. Two new monitoring wells, OW-6 and OW-7, were installed on December 19, 1991. OW-6 was placed in the vicinity of OW-3 to act as a replacement, and OW-7 was installed at the northeastern end of the remediation area to monitor upgradient contamination of the shallow groundwater underlying the site. Both wells penetrate the clean, compacted backfill placed in the previously excavated remediation area. Monitoring well OW-8 was installed in February 1993 to monitor possible lead concentrations in the groundwater, downgradient of the former AST. The locations of the new wells were approved by the ACHCSA.

On June 16, 2004, groundwater samples were collected by CSS Environmental Services, Inc. (CSS) personnel from monitoring wells OW-1, OW-2, OW-5, OW-6, OW-7, and OW-8. Well OW-4 was inaccessible due to the presence of an overlying storage container. Prior to sampling, three casing volumes of groundwater were purged with a bailer from each well to ensure the collection of formational water. The parameters' temperature, pH and conductivity were measured. Groundwater samples were then collected and properly stored for transportation to a State of California certified laboratory for analysis. This report presents the results of the June 16, 2004 sampling event.

The groundwater samples collected from each well were selectively analyzed by STL San Francisco of Pleasanton, California for TPH-D (EPA method 8015M), TPH-G and BTEX (EPA method 8015M/8021), purgeable halocarbons compounds (EPA method 8021), and lead (EPA method 6010) according to the monitoring schedule.

Table 2.1 presents the current monitoring schedule with appropriate sample analyses. This schedule has been adopted with approval from the ACHCSA as provided in their letter dated July 14, 1994.

**Table 2.1 Well Monitoring Schedule and Analyses**

	TPH-D	TPH-G BTEX	Purgeable Halocarbons	Dissolved Lead	Groundwater Elevation
OW-1	S	S			S
OW-2				S	S
OW-4	S	S			S
OW-5	S	S	S	S	S
OW-6	S	S	S		S
OW-7	S	S	S		S
OW-8				S	S

S = Semiannual monitoring

Certified laboratory results are presented in Appendix A along with chain-of-custody documentation. A table of the historical results of the laboratory analyses is included in Appendix B.

### 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 June 16, 2004. TPH-D was detected in the four monitoring wells sampled for TPH-D and the highest concentration was observed in well OW-7. TPH-G was detected in the four monitoring wells sampled for TPH-G. The highest concentration of TPH-G was observed in monitoring well OW-7.

Table 3.1 Petroleum Hydrocarbons in Groundwater, in mg/L 17PM

Well	TPH-D	TPH-G
OW - 1	0.420	0.290
OW - 5	0.650	0.060
OW - 6	0.440	0.075
OW - 7	1.000	1.100

Notes:

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

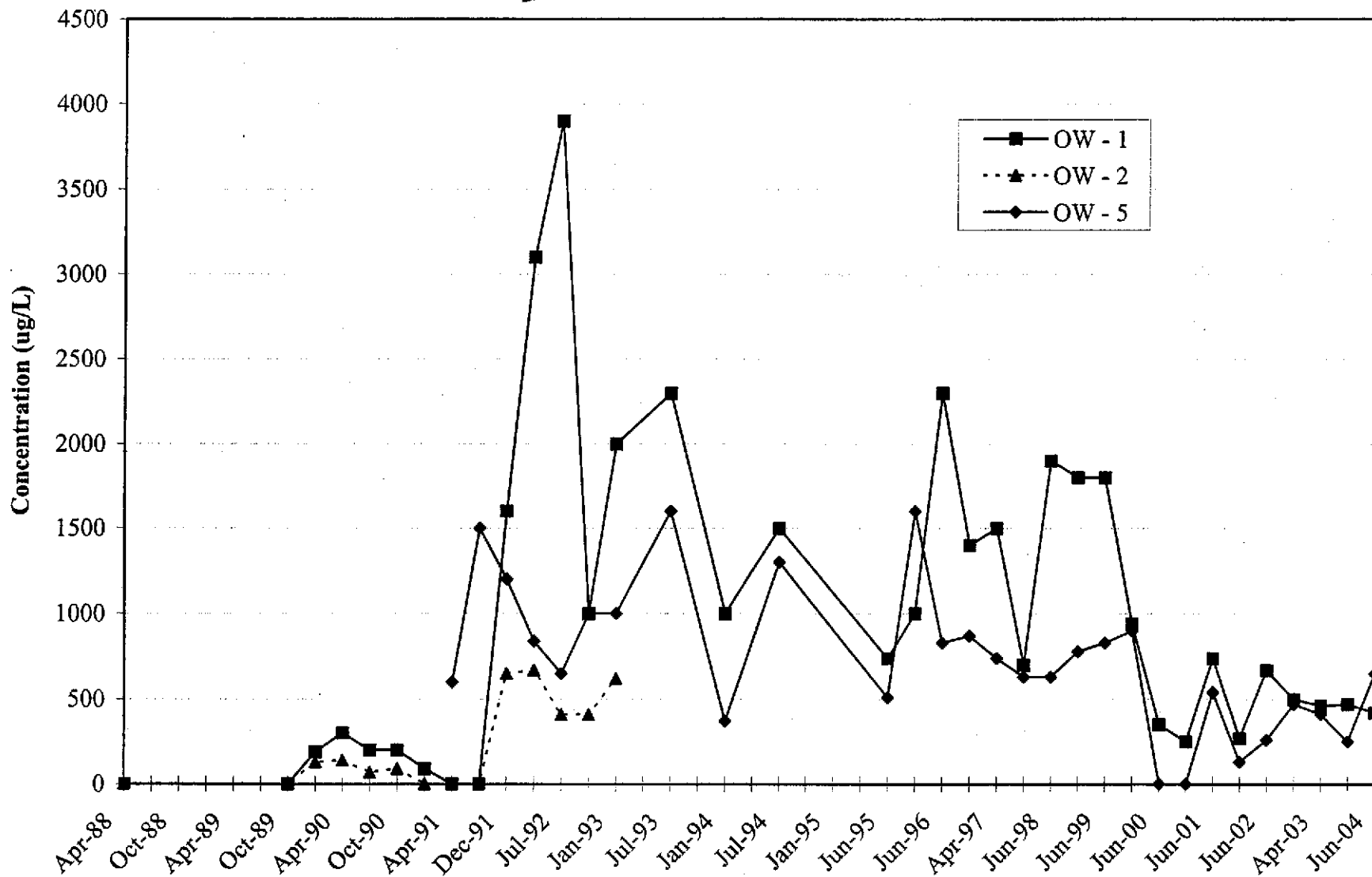
Figures 3.1 and 3.2 illustrate the historical concentrations of TPH-D in the monitored wells. The data from monitoring wells OW-3 and OW-6 are combined since OW-6 was installed to replace OW-3 following its destruction.

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 those wells in the remediation vicinity: OW-4, OW-6, and OW-7. Compared to the previous sampling event (November 2003), this quarter's results show a slight increase in TPH-D concentrations in all wells. Well OW-4 has been inaccessible for sampling over the past twelve sampling events due to the presence of an overlying storage container.

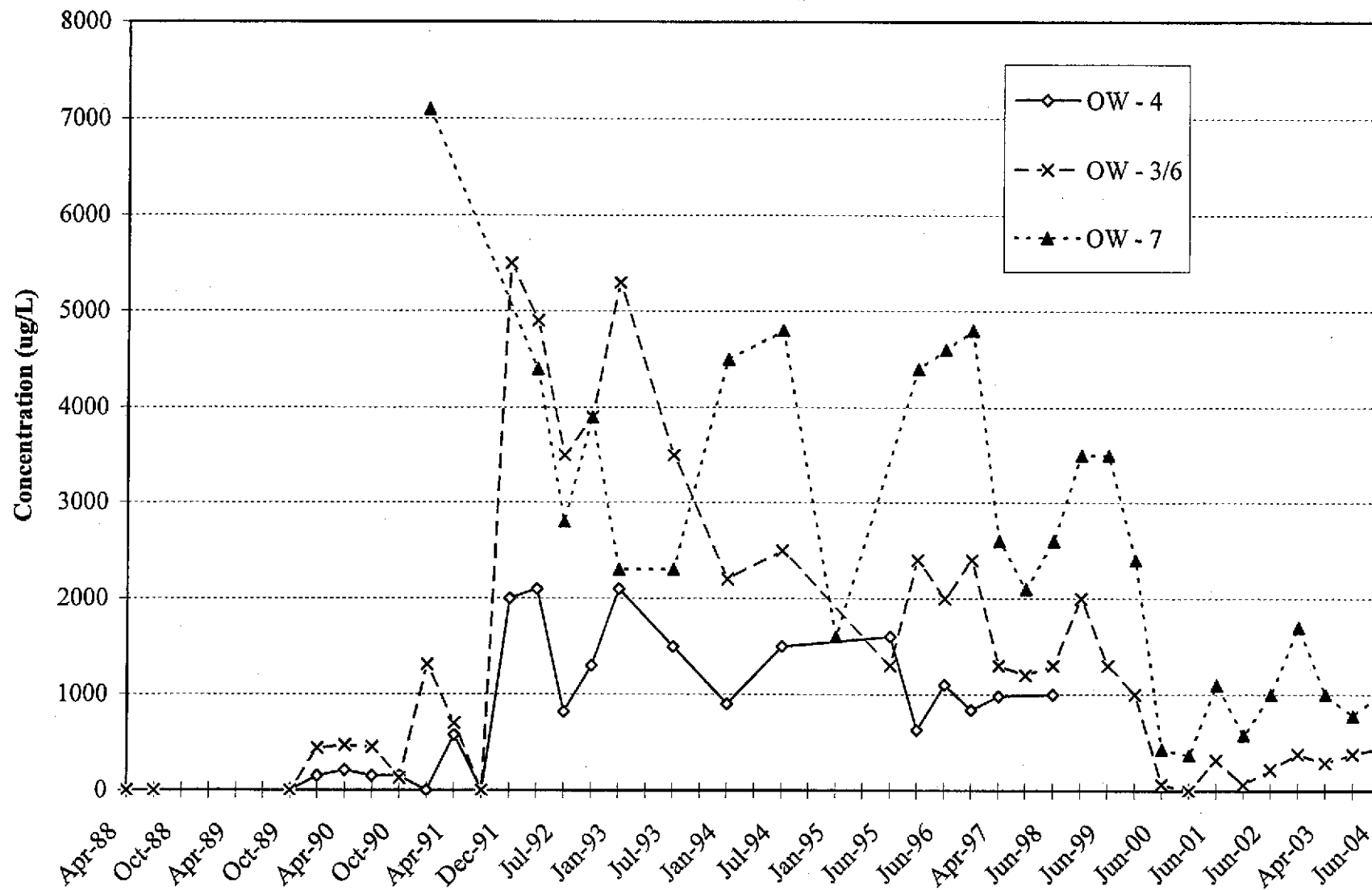
It was noted in the February 1992 tank cluster area remediation report that there is an apparent off-site source of contamination upgradient of the PG&E yard. The persistence of moderate TPH following remediation in this area is believed to be the result of this upgradient contamination.

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. TPH-G has been consistently below 500 µg/L

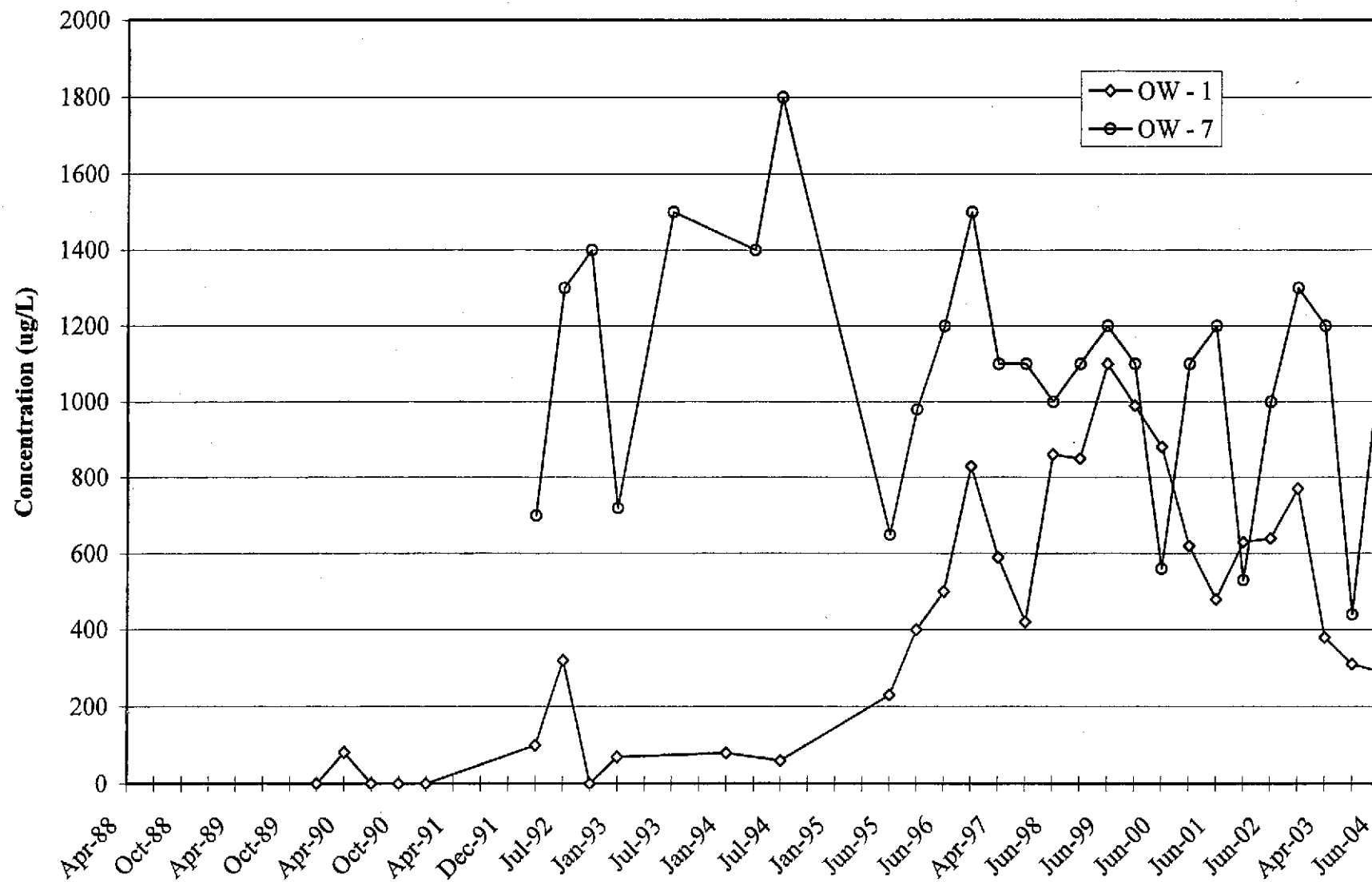
FIGURE 3.1  
TPH-DIESEL in OW - 1, 2, & 5



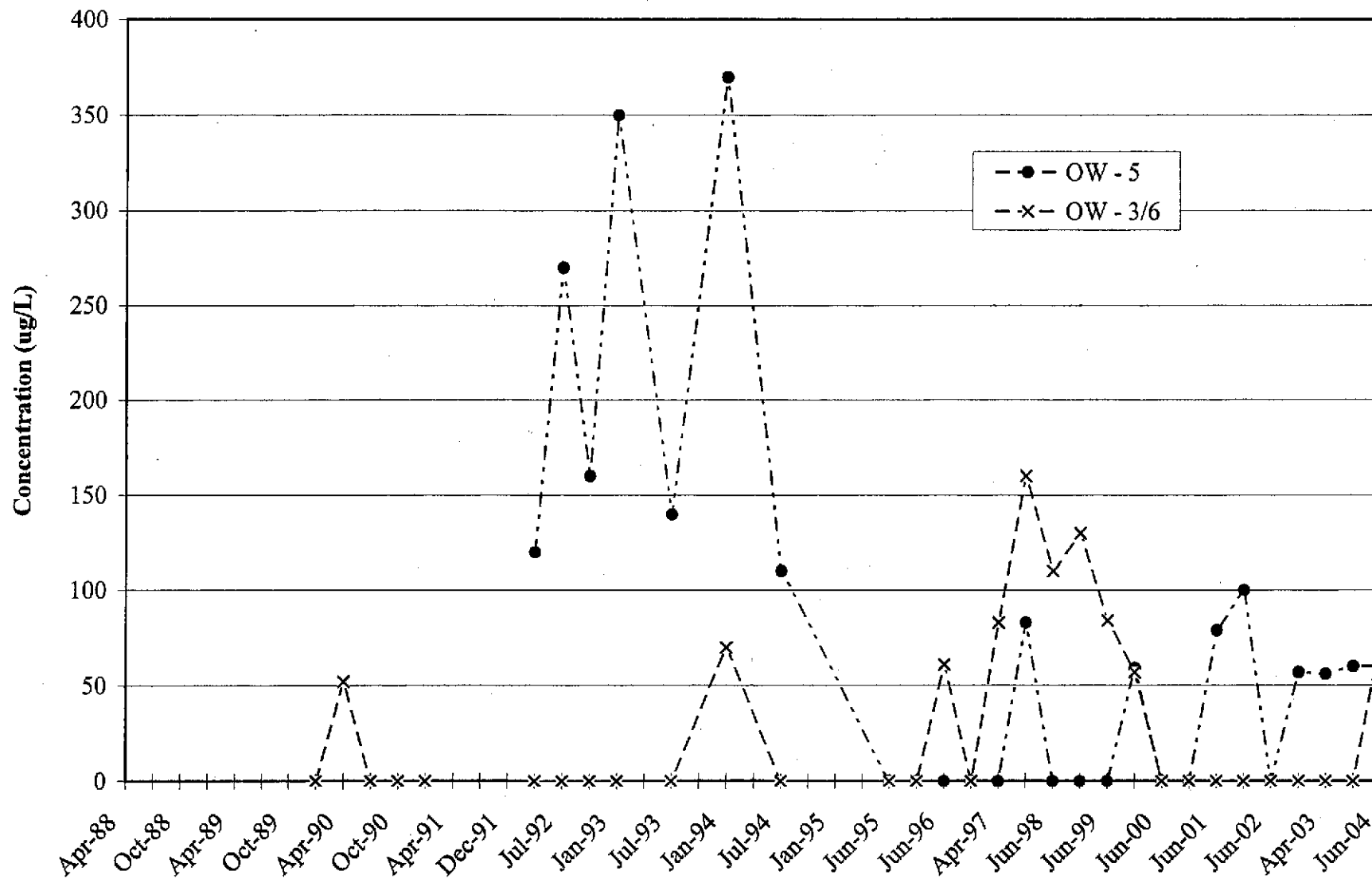
**FIGURE 3.2**  
**TPH-DIESEL in OW - 4, 3/6, & 7**



**FIGURE 3.3**  
**TPH-GASOLINE in OW - 1 & 7**



**FIGURE 3.4**  
**TPH-GASOLINE in OW - 5 & 3/6**



in all wells except upgradient wells OW-1, and OW-7. Historically, OW-7 has had the highest concentrations, ranging from 530 to 1,800 µg/L. The current TPH-G concentration for OW-1 is 290 µg/L, showing a decrease as compared with the November 2003 sampling event. OW-7's current TPH-G concentration of 1,100 µg/L has increased since the last sampling event but remains consistent with historic concentrations. Minor TPH-G detections were observed in OW-5 and OW-6 at 60 µg/L and 75 µg/L, respectively.

### 3.2 LEAD

Table 3.2 presents the results of this quarter's groundwater analyses for soluble lead. The maximum contaminant level (MCL) observed by state water treatment systems is 15 µg/L. During this quarter's event, lead was not detected in the monitoring wells that were sampled for lead. Historically, the majority of samples show concentrations below the 15 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	15	5.0	ND
OW-5	15	5.0	ND
OW-8	15	5.0	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

Table 3.3 presents the recent analytical results for VOCs in groundwater. Historical results of VOC monitoring are presented in Appendix B. The state MCLs for drinking water were exceeded for the following compounds: 1,1-Dichloroethene in monitoring well OW-7 at a concentration of 6.8 µg/L, 1,1-Dichloroethane in well OW-7 at 9.9 µg/L, 1,4-Dichlorobenzene in wells OW-6 and OW-7 at 8.0 µg/L and 740 µg/L, respectively, Chlorobenzene in well OW-7 at 110 µg/L, and Benzene in well OW-5 at a concentration of 5.0 µg/L.

VOCs detected at concentrations below their MCLs include:

- 1,1-Dichloroethene in well OW-6;
- 1,1-Dichloroethane in wells OW-5 and OW-6;
- Chlorobenzene in well OW-6
- 1,3-Dichlorobenzene in wells OW-5, OW-6, and OW-7
- 1,2-Dichlorobenzene in wells OW-6 and OW-7;
- 1,4-Dichlorobenzene in well OW-5;

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. These wells are not presently monitored for VOCs.

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 9.75 µg/L, 23.9 µg/L, and 1,140 µg/L, respectively. 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 from neighboring properties onto the PG&E site. This demonstrates that VOCs may be migrating onto the PG&E site from an upgradient source.

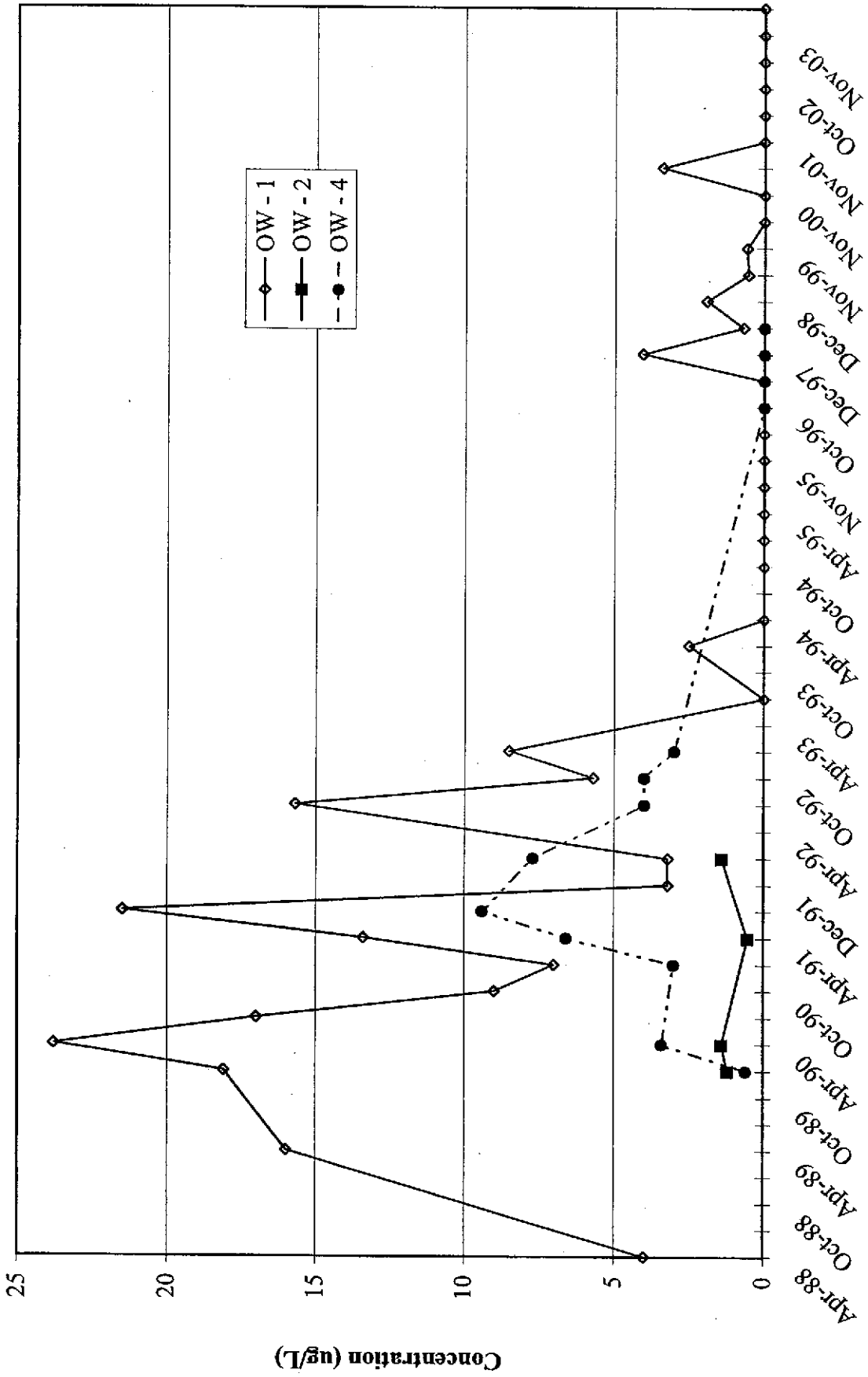
Table 3.3 Volatile Organic Compounds in Groundwater on June 16, 2004 (in ug/L)

PURGEABLE HALOCARBONS	MCL	Well Number							
		OW-1	OW-2	OW-4	OW-5	OW-6	OW-7	OW-8	MB
Chloromethane		NA	NA	NA	ND	ND	ND	NA	ND
Bromomethane		NA	NA	NA	ND	ND	ND	NA	ND
Vinyl chloride	0.5	NA	NA	NA	ND	ND	ND	NA	ND
Chloroethane		NA	NA	NA	ND	ND	ND	NA	ND
Methylene Chloride	5 <sup>7</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Trichlorofluoromethane	150	NA	NA	NA	ND	ND	ND	NA	ND
1,1-Dichloroethene	6	NA	NA	NA	ND	1.5		NA	ND
1,1-Dichloroethane	5	NA	NA	NA	2.8	4.9		NA	ND
cis-1,2-Dichloroethene	6	NA	NA	NA	ND	ND	ND	NA	ND
trans-1,2-Dichloroethene	10	NA	NA	NA	ND	ND	ND	NA	ND
Chloroform	100 <sup>*</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Freon 113	1200	NA	NA	NA	ND	ND	ND	NA	ND
1,2-Dichloroethane	0.5	NA	NA	NA	ND	ND	ND	NA	ND
1,1,1-Trichloroethane	200	NA	NA	NA	ND	ND	ND	NA	ND
Carbon Tetrachloride	0.5	NA	NA	NA	ND	ND	ND	NA	ND
Bromodichloromethane	100 <sup>*</sup>	NA	NA	NA	ND	ND	ND	NA	ND
1,2-Dichloropropane	5	NA	NA	NA	ND	ND	ND	NA	ND
cis-1,3-Dichloropropene	5 <sup>***</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Trichloroethylene	5	NA	NA	NA	ND	ND	ND	NA	ND
1,1,2-Trichloroethane	32	NA	NA	NA	ND	ND	ND	NA	ND
trans-1,3-Dichloropropene	5 <sup>***</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Dibromochloromethane	100 <sup>*</sup>	NA	NA	NA	ND	ND	ND	NA	ND
2-Chloroethylvinyl Ether		NA	NA	NA	ND	ND	ND	NA	ND
Bromoform	100 <sup>*</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Tetrachloroethylene	5	NA	NA	NA	ND	ND	ND	NA	ND
1,1,2,2-Tetrachloroethane	1	NA	NA	NA	ND	ND	ND	NA	ND
Chlorobenzene	30	NA	NA	NA	ND	6.5		NA	ND
1,3-Dichlorobenzene	600 <sup>7</sup>	NA	NA	NA	0.55	2.5	240	NA	ND
1,2-Dichlorobenzene	600 <sup>7</sup>	NA	NA	NA	ND	0.54	33	NA	ND
1,4-Dichlorobenzene	5	NA	NA	NA	1.4			NA	ND
PURGEABLE AROMATICS									
Benzene	1	ND	NA	NA		ND	ND	NA	ND
Toluene	1000 <sup>7</sup>	ND	NA	NA	ND	ND	ND	NA	ND
Ethylbenzene	680	ND	NA	NA	ND	ND	ND	NA	ND
Total Xylenes	1750 <sup>**</sup>	ND	NA	NA	ND	ND	ND	NA	ND
FUEL OXYGENATES									
Methyl tertiary butyl ether	13 <sup>+</sup>	NA	NA	NA	NA	NA	NA	NA	NA

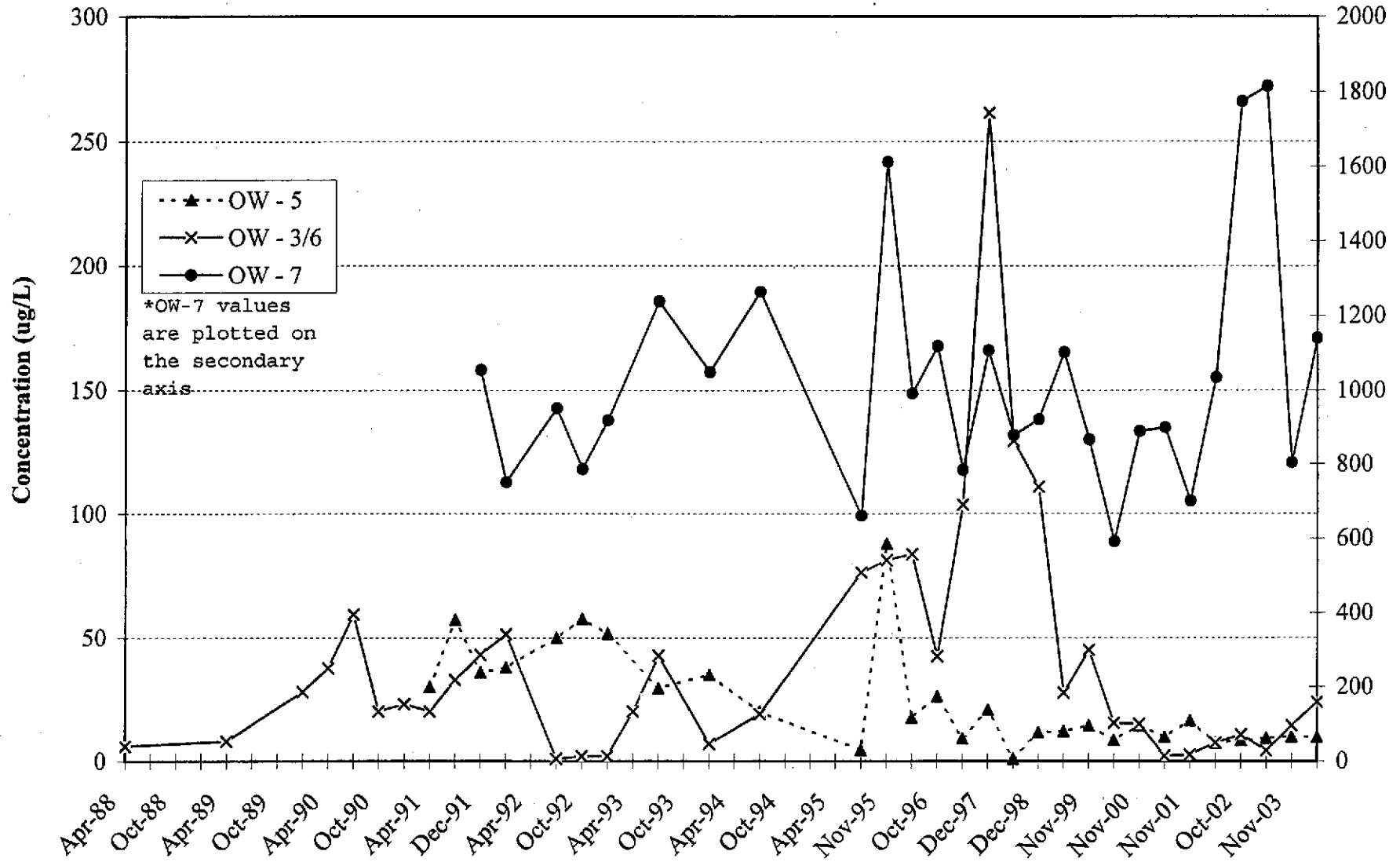
Notes:

- 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)
- 9) Fuel Oxygenates, MTBE only (EPA method 8260A)
- 10) NA = Not Tested
- 11) MB = Method Blank
- 12) + = California Public Health Goal for Chemicals in Drinking Water

**FIGURE 3.5**  
**TOTAL VOCs in OW-1, 2, & 4**



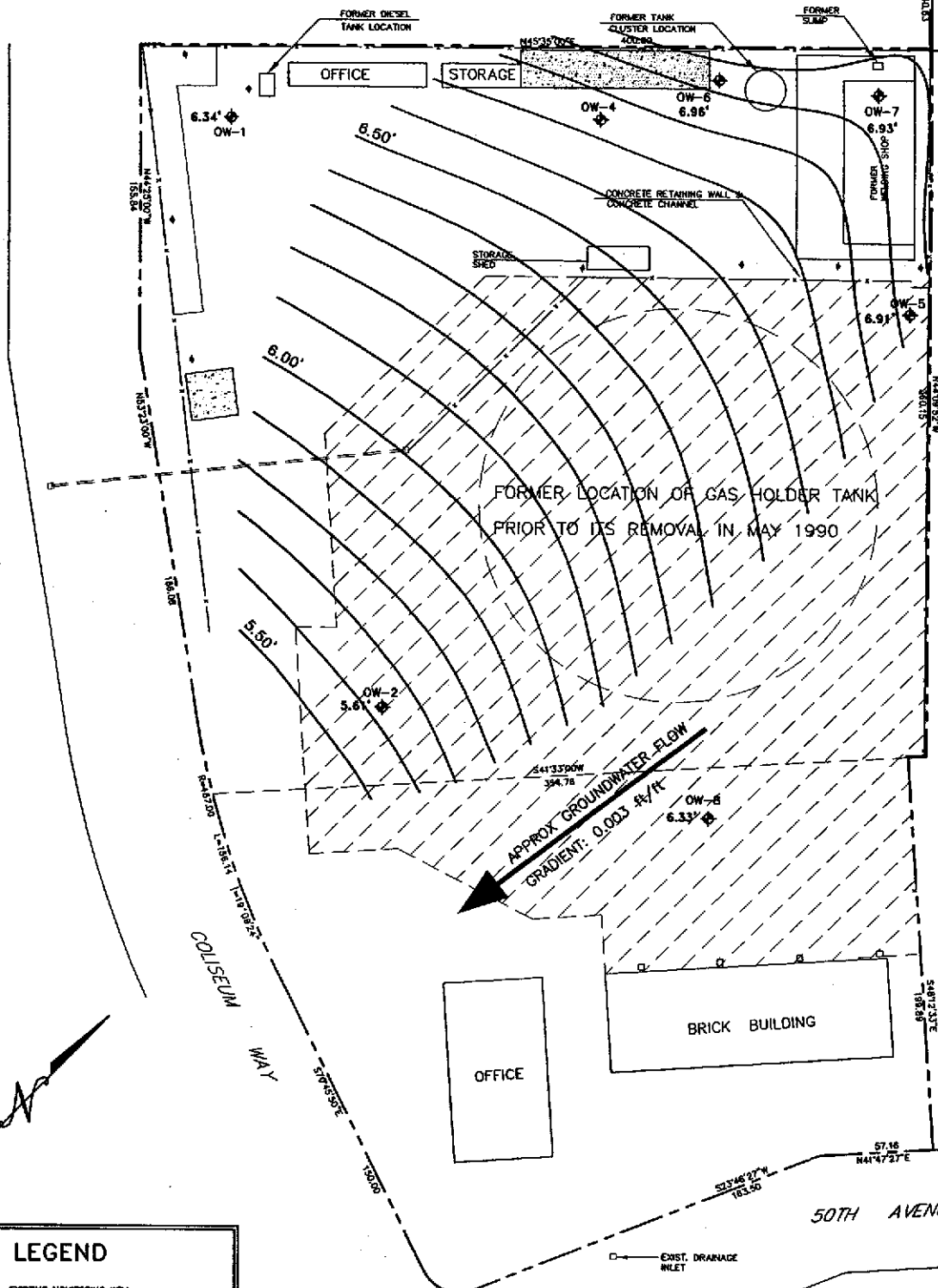
**FIGURE 3.6**  
**TOTAL VOCS in OW-5, 6, & 7\***



#### 4.0 GROUNDWATER FLOW DIRECTION

Water level measurements in the site monitoring wells were collected on June 16, 2004, prior to groundwater sampling. Groundwater elevations are shown in relation to a site specific coordinate system reported in previous reports. The top of casing (TOC) elevations for each of the wells are based upon an assumed TOC elevation of 10 feet at OW-1.

The groundwater elevations measured on June 16, 2004 and the resulting gradient direction are presented in Figure 4.1. Historical groundwater elevations along with TOC elevations for each well are presented as a graph in Figure 4.2. The groundwater flow direction was calculated from groundwater elevations of the site monitoring wells, and indicates the local groundwater gradient on this date was approximately 0.003 ft/ft to the south. The gradient value is slightly lower than that normally observed. The lead mitigation cap now limits direct precipitative recharge in the area between wells OW-2 and OW-5, and OW-8. The majority of the remaining site area has also been paved.



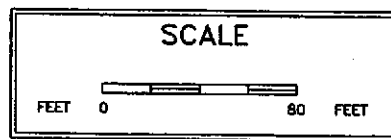
APPROX GROUNDWATER FLOW  
GRADIENT: 0.003 ft/ft

FORMER LOCATION OF GAS HOLDER TANK  
PRIOR TO ITS REMOVAL IN MAY 1990

**LEGEND**

- OW-5 EXISTING MONITORING WELL
- EXISTING CHAIN LINK FENCE
- PROPERTY LINE
- EXISTING UTILITY POLE
- EXTENT OF GAPPED SOIL WITH AN ELEVATED LEAD CONCENTRATION

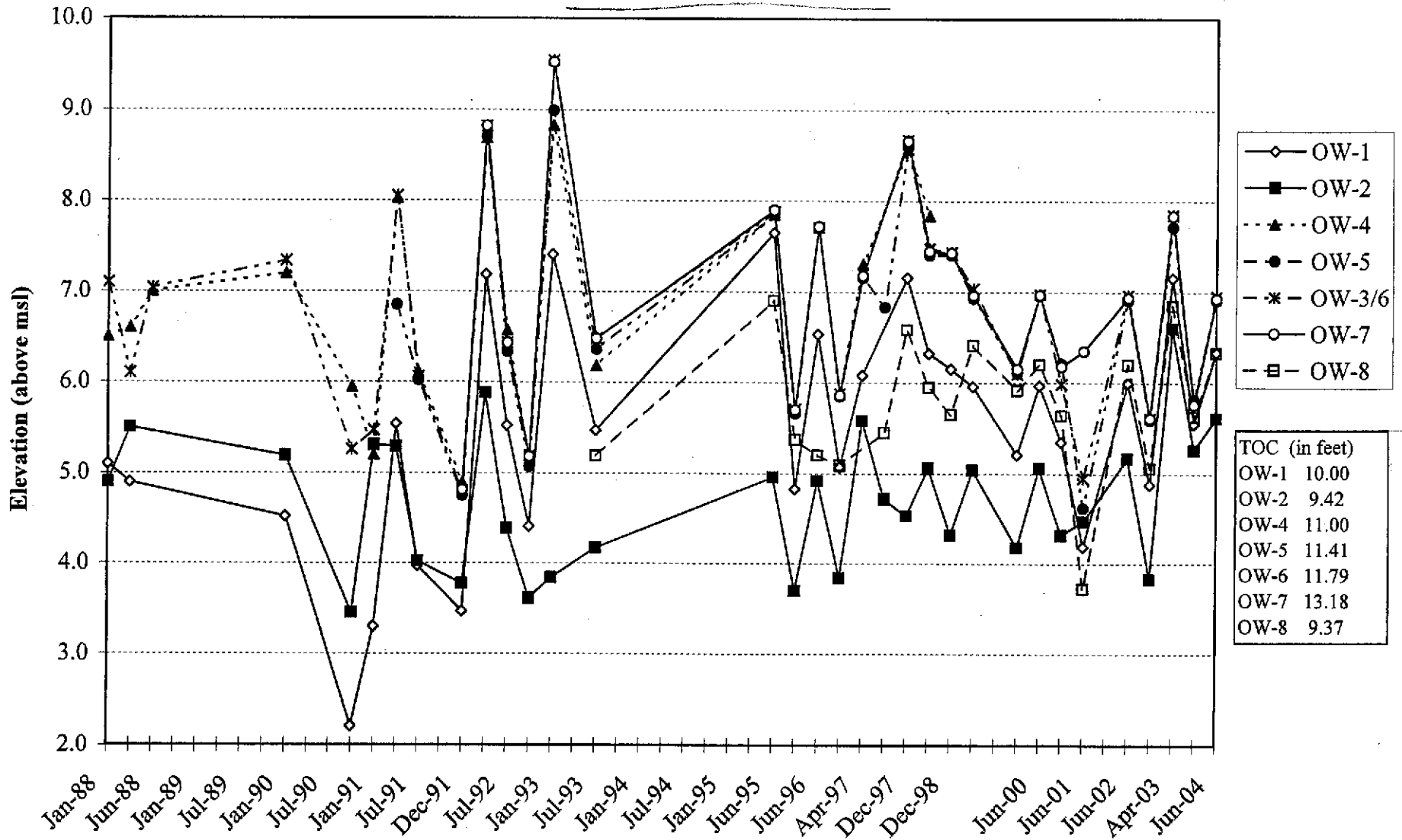
NOTE: GROUNDWATER ELEVATIONS MEASURED JUNE 18, 2004  
ALL ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL.



**CSS**  
CSS ENVIRONMENTAL SERVICES, INC.

SITE PLAN AND SITE RELATIVE GROUNDWATER ELEVATIONS PG&E DISTRIBUTION CONSTRUCTION SITE 4930 COLISEUM WAY OAKLAND, CA 94610					FIGURE  4.1
JOB NUMBER	DATE	DRAWING	BY	REVISED	
6118	1/99	GW06-04	ES/ZS/BD	08/04	

**FIGURE 4.2**  
**HISTORICAL GROUNDWATER ELEVATIONS**

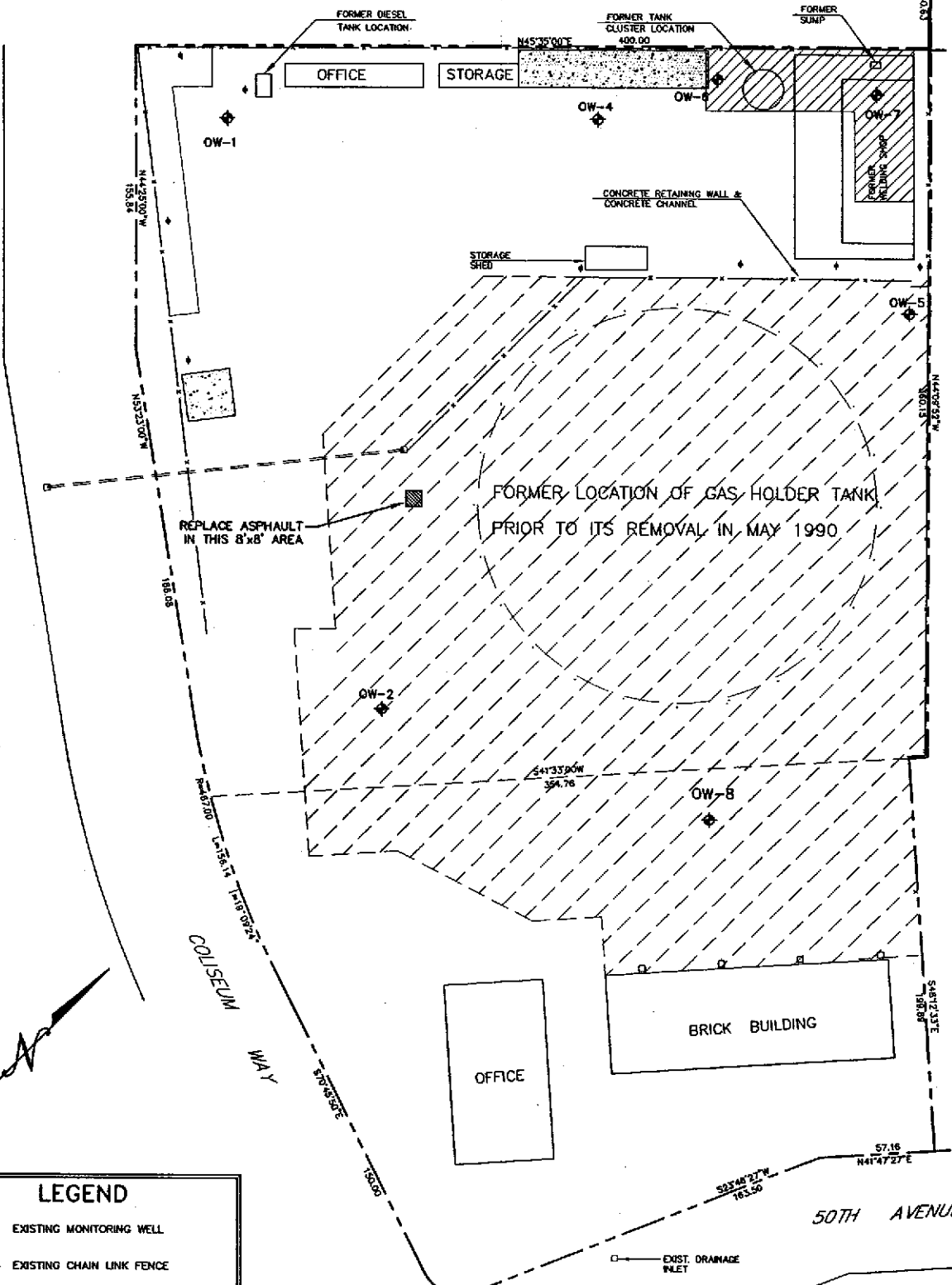




## 5.0 CAP INSPECTION

The next scheduled cap inspection is during the fourth quarter of 2004.





**LEGEND**

- OW-5 EXISTING MONITORING WELL
- EXISTING CHAIN LINK FENCE
- PROPERTY LINE
- EXISTING UTILITY POLE
- EXTENT OF CAPPED SOIL WITH AN ELEVATED LEAD CONCENTRATION
- EXTENT OF 1991 SOIL REMEDIATION (APPROXIMATE)

**SCALE**

FEET 0 80 FEET



CSS ENVIRONMENTAL SERVICES, INC.

<b>RESULTS OF CAP INSPECTION</b> <b>PG&amp;E DISTRIBUTION CONSTRUCTION SITE</b> <b>4930 COLISEUM WAY</b> <b>OAKLAND, CA 94610</b>					FIGURE  <b>5.1</b>
JOB NUMBER	DATE	DRAWING	BY	REVISED	
6118	11/96	CAP-SITE	ESS/BED	11/03	

## 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 June 16, 2004 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 range of south to southwest. The groundwater gradient of 0.003 ft/ft is slightly lower than that previously observed.
- TPH-D was detected in wells OW-1, OW-5, OW-6 and OW-7 above the reporting limit of 50 µg/L, however the concentrations are at lower concentrations than most historical sampling events. The highest concentration was found in well OW-7 at 1,000 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. The current applicable guideline for TPH-D where groundwater is a potential source of drinking water is the California Regional Water Quality Control Board, San Francisco Bay Region's (RWQCB's) Risk-Based Screening Level (RBSL) of 100 µg/L, the EPA Suggested No-Adverse-Response Level (SNARL).
- TPH-G was detected in monitoring wells OW-1, and OW-7 at concentrations of 290 and 1,100 µg/L, respectively. Well OW-5 and OW-6 showed very minor levels of TPH-G just above the reporting limit of 50 µg/L. OW-7 continues to have the highest concentration of TPH-G. The presence of TPH-G is likely from an upgradient, off-site source. The current applicable guideline for TPH-G is the RBSL of 100 µg/L, the EPA SNARL for diesel.
- Soluble lead concentrations were not detected in monitoring wells OW-2, OW-5 and OW-8. The MCL for lead in drinking water is 15 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/or VOCs. The total VOC concentration is particularly elevated in OW-7, averaging near 1,000 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 increased in two out of the three wells sampled relative to the previous sampling event. The adjoining property to the northeast of the site has been cleared of all structures recently. The resulting increased infiltration rate for direct precipitation may be the source of recent increased organic compound concentrations in groundwater observed at the upgradient portion of the site.

- The following VOC's were detected above their MCL:

1,1-Dichloroethene in well OW-7;  
1,1-Dichloroethane in well OW-7;  
Chlorobenzene in well OW-7;  
1,4-Dichlorobenzene in wells OW-6 and OW-7;  
Benzene in well OW-5.

- The following VOCs were detected below their MCL:

1,1-Dichloroethene in well OW-6;  
1,1-Dichloroethane in wells OW-5 and OW-6;  
Chlorobenzene in well OW-6;  
1,3-Dichlorobenzene in wells OW-5, OW-6, and OW-7;  
1,2-Dichlorobenzene in wells OW-6 and OW-7;  
1,4-Dichlorobenzene in well OW-6;

## 6.2 RECOMMENDATIONS

- Continue monitoring in conformance with the revised ACHCSA schedule.
- An unidentified upgradient source of TPH-D, TPH-G and VOCs north of the subject property is clearly indicated by the groundwater monitoring data. Based on this finding it is recommended that PG&E enter into discussions with the involved regulatory agencies to investigate and pursue those responsible for the groundwater contaminants entering the PG&E property.

---

***APPENDIX A***  
**Sample Collection Records**  
**Certified Laboratory Results**

CSS Environmental Services

June 24, 2004

95 Belvedere Street, Suite 2  
San Rafael, CA 94901

Attn.: Aaron Stessman

Project#: 6118

Project: PG&E Coliseum Way

Dear Mr. Stessman,

Attached is our report for your samples received on 06/17/2004 17:00

This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 08/01/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: [dsharma@sti-inc.com](mailto:dsharma@sti-inc.com)

Sincerely,



Dimple Sharma  
Project Manager

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* [www.stl-inc.com](http://www.stl-inc.com) \* CA DHS ELAP# 2496

**Halogenated Volatile Organic Compounds by 8021B/8260B**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&amp;E Coliseum Way

Received: 06/17/2004 17:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
OW-5	06/16/2004 14:25	Water	3
OW-6	06/16/2004 15:40	Water	4
OW-7	06/16/2004 16:15	Water	5

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/24/2004 15:20

Page 1 of 11

**Halogenated Volatile Organic Compounds by 8021B/8260B**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 5030B	Test(s): 8260B
Sample ID: OW-5	Lab ID: 2004-06-0598 - 3
Sampled: 06/16/2004 14:25	Extracted: 6/24/2004 08:50
Matrix: Water	QC Batch#: 2004/06/24-1B.60

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	1.00	06/24/2004 08:50	
Vinyl chloride	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Chloroethane	ND	1.0	ug/L	1.00	06/24/2004 08:50	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	06/24/2004 08:50	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Methylene chloride	ND	5.0	ug/L	1.00	06/24/2004 08:50	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	06/24/2004 08:50	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	06/24/2004 08:50	
1,1-Dichloroethane	2.8	0.50	ug/L	1.00	06/24/2004 08:50	
Chloroform	ND	0.50	ug/L	1.00	06/24/2004 08:50	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Carbon tetrachloride	ND	0.50	ug/L	1.00	06/24/2004 08:50	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Trichloroethene	ND	0.50	ug/L	1.00	06/24/2004 08:50	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Bromodichloromethane	ND	0.50	ug/L	1.00	06/24/2004 08:50	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	06/24/2004 08:50	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	06/24/2004 08:50	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	06/24/2004 08:50	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Tetrachloroethene	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Dibromochloromethane	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Chlorobenzene	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Bromoform	ND	2.0	ug/L	1.00	06/24/2004 08:50	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	06/24/2004 08:50	
1,3-Dichlorobenzene	0.55	0.50	ug/L	1.00	06/24/2004 08:50	
1,4-Dichlorobenzene	1.4	0.50	ug/L	1.00	06/24/2004 08:50	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	06/24/2004 08:50	
Chloromethane	ND	1.0	ug/L	1.00	06/24/2004 08:50	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

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**Halogenated Volatile Organic Compounds by 8021B/8260B**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 5030B	Test(s): 8260B
Sample ID: OW-5	Lab ID: 2004-06-0598 - 3
Sampled: 06/16/2004 14:25	Extracted: 6/24/2004 08:50
Matrix: Water	QC Batch#: 2004/06/24-1B.60

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Bromomethane	ND	1.0	ug/L	1.00	06/24/2004 08:50	
<i>Surrogate(s)</i>						
4-Bromofluorobenzene	84.9	79-118	%	1.00	06/24/2004 08:50	
1,2-Dichloroethane-d4	83.9	78-117	%	1.00	06/24/2004 08:50	
Toluene-d8	87.2	77-121	%	1.00	06/24/2004 08:50	

Severn Trent Laboratories, Inc.

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Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 5030B	Test(s): 8260B
Sample ID: OW-6	Lab ID: 2004-06-0598 - 4
Sampled: 06/16/2004 15:40	Extracted: 6/24/2004 09:57
Matrix: Water	QC Batch#: 2004/06/24-1B.60

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	1.00	06/24/2004 09:57	
Vinyl chloride	ND	0.50	ug/L	1.00	06/24/2004 09:57	
Chloroethane	ND	1.0	ug/L	1.00	06/24/2004 09:57	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	06/24/2004 09:57	
1,1-Dichloroethene	1.5	0.50	ug/L	1.00	06/24/2004 09:57	
Methylene chloride	ND	5.0	ug/L	1.00	06/24/2004 09:57	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	06/24/2004 09:57	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	06/24/2004 09:57	
1,1-Dichloroethane	4.9	0.50	ug/L	1.00	06/24/2004 09:57	
Chloroform	ND	0.50	ug/L	1.00	06/24/2004 09:57	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	06/24/2004 09:57	
Carbon tetrachloride	ND	0.50	ug/L	1.00	06/24/2004 09:57	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	06/24/2004 09:57	
Trichloroethene	ND	0.50	ug/L	1.00	06/24/2004 09:57	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	06/24/2004 09:57	
Bromodichloromethane	ND	0.50	ug/L	1.00	06/24/2004 09:57	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	06/24/2004 09:57	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	06/24/2004 09:57	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	06/24/2004 09:57	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	06/24/2004 09:57	
Tetrachloroethene	ND	0.50	ug/L	1.00	06/24/2004 09:57	
Dibromochloromethane	ND	0.50	ug/L	1.00	06/24/2004 09:57	
Chlorobenzene	6.5	0.50	ug/L	1.00	06/24/2004 09:57	
Bromoform	ND	2.0	ug/L	1.00	06/24/2004 09:57	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	06/24/2004 09:57	
1,3-Dichlorobenzene	2.5	0.50	ug/L	1.00	06/24/2004 09:57	
1,4-Dichlorobenzene	8.0	0.50	ug/L	1.00	06/24/2004 09:57	
1,2-Dichlorobenzene	0.54	0.50	ug/L	1.00	06/24/2004 09:57	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	06/24/2004 09:57	
Chloromethane	ND	1.0	ug/L	1.00	06/24/2004 09:57	

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06/24/2004 15:20

**Halogenated Volatile Organic Compounds by 8021B/8260B**

CSS Environmental Services

Attn.: Aaron Stessman

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Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 5030B	Test(s): 8260B
Sample ID: OW-6	Lab ID: 2004-06-0598 - 4
Sampled: 06/16/2004 15:40	Extracted: 6/24/2004 09:57
Matrix: Water	QC Batch#: 2004/06/24-1B.60

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Bromomethane	ND	1.0	ug/L	1.00	06/24/2004 09:57	
<i>Surrogate(s)</i>						
4-Bromofluorobenzene	85.6	79-118	%	1.00	06/24/2004 09:57	
1,2-Dichloroethane-d4	90.5	78-117	%	1.00	06/24/2004 09:57	
Toluene-d8	89.2	77-121	%	1.00	06/24/2004 09:57	

**Halogenated Volatile Organic Compounds by 8021B/8260B**

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Project: 6118

PG&amp;E Coliseum Way

Received: 06/17/2004 17:00

Prep(s):	5030B	Test(s):	8260B
Sample ID:	OW-7	Lab ID:	2004-06-0598 - 5
Sampled:	06/16/2004 16:15	Extracted:	6/24/2004 10:31
Matrix:	Water	QC Batch#:	2004/06/24-1B.60

Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	10	ug/L	10.00	06/24/2004 10:31	
Vinyl chloride	ND	5.0	ug/L	10.00	06/24/2004 10:31	
Chloroethane	ND	10	ug/L	10.00	06/24/2004 10:31	
Trichlorofluoromethane	ND	10	ug/L	10.00	06/24/2004 10:31	
1,1-Dichloroethene	6.8	5.0	ug/L	10.00	06/24/2004 10:31	
Methylene chloride	ND	50	ug/L	10.00	06/24/2004 10:31	
trans-1,2-Dichloroethene	ND	5.0	ug/L	10.00	06/24/2004 10:31	
cis-1,2-Dichloroethene	ND	5.0	ug/L	10.00	06/24/2004 10:31	
1,1-Dichloroethane	9.9	5.0	ug/L	10.00	06/24/2004 10:31	
Chloroform	ND	5.0	ug/L	10.00	06/24/2004 10:31	
1,1,1-Trichloroethane	ND	5.0	ug/L	10.00	06/24/2004 10:31	
Carbon tetrachloride	ND	5.0	ug/L	10.00	06/24/2004 10:31	
1,2-Dichloroethane	ND	5.0	ug/L	10.00	06/24/2004 10:31	
Trichloroethene	ND	5.0	ug/L	10.00	06/24/2004 10:31	
1,2-Dichloropropane	ND	5.0	ug/L	10.00	06/24/2004 10:31	
Bromodichloromethane	ND	5.0	ug/L	10.00	06/24/2004 10:31	
2-Chloroethylvinyl ether	ND	5.0	ug/L	10.00	06/24/2004 10:31	
trans-1,3-Dichloropropene	ND	5.0	ug/L	10.00	06/24/2004 10:31	
cis-1,3-Dichloropropene	ND	5.0	ug/L	10.00	06/24/2004 10:31	
1,1,2-Trichloroethane	ND	5.0	ug/L	10.00	06/24/2004 10:31	
Tetrachloroethene	ND	5.0	ug/L	10.00	06/24/2004 10:31	
Dibromochloromethane	ND	5.0	ug/L	10.00	06/24/2004 10:31	
Chlorobenzene	110	5.0	ug/L	10.00	06/24/2004 10:31	
Bromoform	ND	20	ug/L	10.00	06/24/2004 10:31	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	10.00	06/24/2004 10:31	
1,3-Dichlorobenzene	240	5.0	ug/L	10.00	06/24/2004 10:31	
1,4-Dichlorobenzene	740	5.0	ug/L	10.00	06/24/2004 10:31	
1,2-Dichlorobenzene	33	5.0	ug/L	10.00	06/24/2004 10:31	
Trichlorotrifluoroethane	ND	5.0	ug/L	10.00	06/24/2004 10:31	

Severn Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/24/2004 15:20

**Halogenated Volatile Organic Compounds by 8021B/8260B**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2  
San Rafael, CA 94901  
Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 5030B	Test(s): 8260B
Sample ID: OW-7	Lab ID: 2004-06-0598 - 5
Sampled: 06/16/2004 16:15	Extracted: 6/24/2004 10:31
Matrix: Water	QC Batch#: 2004/06/24-1B.60
Analysis Flag: o ( See Legend and Note Section )	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Chloromethane	ND	10	ug/L	10.00	06/24/2004 10:31	
Bromomethane	ND	10	ug/L	10.00	06/24/2004 10:31	
<b>Surrogate(s)</b>						
4-Bromofluorobenzene	83.3	79-118	%	10.00	06/24/2004 10:31	
1,2-Dichloroethane-d4	91.7	78-117	%	10.00	06/24/2004 10:31	
Toluene-d8	89.0	77-121	%	10.00	06/24/2004 10:31	

**Halogenated Volatile Organic Compounds by 8021B/8260B**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/06/24-1B.60-016

Water

Test(s): 8260B

QC Batch # 2004/06/24-1B.60

Date Extracted: 06/24/2004 08:16

Compound	Conc.	RL	Unit	Analyzed	Flag
Bromodichloromethane	ND	0.5	ug/L	06/24/2004 08:16	
Bromoform	ND	2.0	ug/L	06/24/2004 08:16	
Bromomethane	ND	1.0	ug/L	06/24/2004 08:16	
Carbon tetrachloride	ND	0.5	ug/L	06/24/2004 08:16	
Chlorobenzene	ND	0.5	ug/L	06/24/2004 08:16	
Chloroethane	ND	1.0	ug/L	06/24/2004 08:16	
2-Chloroethylvinyl ether	ND	0.5	ug/L	06/24/2004 08:16	
Chloroform	ND	0.5	ug/L	06/24/2004 08:16	
Chloromethane	ND	1.0	ug/L	06/24/2004 08:16	
Dibromochloromethane	ND	0.5	ug/L	06/24/2004 08:16	
1,2-Dichlorobenzene	ND	0.5	ug/L	06/24/2004 08:16	
1,3-Dichlorobenzene	ND	0.5	ug/L	06/24/2004 08:16	
1,4-Dichlorobenzene	ND	0.5	ug/L	06/24/2004 08:16	
Dichlorodifluoromethane	ND	1.0	ug/L	06/24/2004 08:16	
1,1-Dichloroethane	ND	0.5	ug/L	06/24/2004 08:16	
1,2-Dichloroethane	ND	0.5	ug/L	06/24/2004 08:16	
1,1-Dichloroethene	ND	0.5	ug/L	06/24/2004 08:16	
cis-1,2-Dichloroethene	ND	0.5	ug/L	06/24/2004 08:16	
trans-1,2-Dichloroethene	ND	0.5	ug/L	06/24/2004 08:16	
1,2-Dichloropropane	ND	0.5	ug/L	06/24/2004 08:16	
cis-1,3-Dichloropropene	ND	0.5	ug/L	06/24/2004 08:16	
trans-1,3-Dichloropropene	ND	0.5	ug/L	06/24/2004 08:16	
Methylene chloride	ND	5.0	ug/L	06/24/2004 08:16	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	06/24/2004 08:16	
Tetrachloroethene	ND	0.5	ug/L	06/24/2004 08:16	
1,1,1-Trichloroethane	ND	0.5	ug/L	06/24/2004 08:16	
1,1,2-Trichloroethane	ND	0.5	ug/L	06/24/2004 08:16	
Trichloroethene	ND	0.5	ug/L	06/24/2004 08:16	
Trichlorofluoromethane	ND	1.0	ug/L	06/24/2004 08:16	
Trichlorotrifluoroethane	ND	0.5	ug/L	06/24/2004 08:16	

Sewern Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/24/2004 15:20

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CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2  
San Rafael, CA 94901  
Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/06/24-1B.60-016

Water

Test(s): 8260B

QC Batch # 2004/06/24-1B.60

Date Extracted: 06/24/2004 08:16

Compound	Conc.	RL	Unit	Analyzed	Flag
Vinyl chloride	ND	0.5	ug/L	06/24/2004 08:16	
4-Bromofluorobenzene	88.0	79-118	%	06/24/2004 08:16	
1,2-Dichloroethane-d4	88.8	78-117	%	06/24/2004 08:16	
Toluene-d8	89.3	77-121	%	06/24/2004 08:16	

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**Halogenated Volatile Organic Compounds by 8021B/8260B**

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95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2004/06/24-1B.60

LCS 2004/06/24-1B.60-034

Extracted: 06/24/2004

Analyzed: 06/24/2004 06:34

LCSD 2004/06/24-1B.60-008

Extracted: 06/24/2004

Analyzed: 06/24/2004 07:08

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Chlorobenzene	17.9	19.6	20	89.5	98.0	9.1	61-121	20		
1,1-Dichloroethene	19.3	19.4	20	96.5	97.0	0.5	65-125	20		
Trichloroethene	20.3	20.5	20	101.5	102.5	1.0	74-134	20		
<b>Surrogates(s)</b>										
4-Bromofluorobenzene	438	438	500	87.6	87.6		79-118			
1,2-Dichloroethane-d4	442	467	500	88.4	93.4		78-117			
Toluene-d8	448	465	500	89.6	93.0		77-121			

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/24/2004 15:20

**Halogenated Volatile Organic Compounds by 8021B/8260B**

CSS Environmental Services

Attn.: Aaron Stessman

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San Rafael, CA 94901

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---

**Legend and Notes**

---

**Analysis Flag**

o

Reporting limits were raised due to high level of analyte present in the sample.

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Page 11 of 11



**Gas/BTEX by 8015M/8021**

CSS Environmental Services

Attn.: Aaron Stessman

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San Rafael, CA 94901

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Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
OW-1	06/16/2004 15:05	Water	1
OW-5	06/16/2004 14:25	Water	3
OW-6	06/16/2004 15:40	Water	4
OW-7	06/16/2004 16:15	Water	5

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**Gas/BTEX by 8015M/8021**

CSS Environmental Services

Attn.: Aaron Stessman

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San Rafael, CA 94901  
Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: OW-1	Lab ID: 2004-06-0598 - 1
Sampled: 06/16/2004 15:05	Extracted: 6/19/2004 10:45
Matrix: Water	QC Batch#: 2004/06/18-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	290	100	ug/L	2.00	06/19/2004 10:45	g
Benzene	ND	1.0	ug/L	2.00	06/19/2004 10:45	
Toluene	ND	1.0	ug/L	2.00	06/19/2004 10:45	
Ethyl benzene	ND	1.0	ug/L	2.00	06/19/2004 10:45	
Xylene(s)	ND	1.0	ug/L	2.00	06/19/2004 10:45	
<b>Surrogate(s)</b>						
Trifluorotoluene	97.2	58-124	%	2.00	06/19/2004 10:45	
4-Bromofluorobenzene-FID	95.1	50-150	%	2.00	06/19/2004 10:45	

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**Gas/BTEX by 8015M/8021**

CSS Environmental Services

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Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s):	5030 5030	Test(s):	8015M 8021B
Sample ID:	OW-5	Lab ID:	2004-06-0598-3
Sampled:	06/16/2004 14:25	Extracted:	6/19/2004 12:30
Matrix:	Water	QC Batch#:	2004/06/18-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	60	50	ug/L	1.00	06/19/2004 12:30	g
Benzene	5.0	0.50	ug/L	1.00	06/19/2004 12:30	
Toluene	ND	0.50	ug/L	1.00	06/19/2004 12:30	
Ethyl benzene	ND	0.50	ug/L	1.00	06/19/2004 12:30	
Xylene(s)	ND	0.50	ug/L	1.00	06/19/2004 12:30	
<b>Surrogate(s)</b>						
Trifluorotoluene	98.3	58-124	%	1.00	06/19/2004 12:30	
4-Bromofluorobenzene-FID	88.4	50-150	%	1.00	06/19/2004 12:30	

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**Gas/BTEX by 8015M/8021**

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Project: 6118  
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Received: 06/17/2004 17:00

Prep(s):	5030 5030	Test(s):	8015M 8021B
Sample ID:	OW-6	Lab ID:	2004-06-0598--4
Sampled:	06/16/2004 15:40	Extracted:	6/19/2004 13:05
Matrix:	Water	QC Batch#:	2004/06/18-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	75	50	ug/L	1.00	06/19/2004 13:05	g
Benzene	ND	0.50	ug/L	1.00	06/19/2004 13:05	
Toluene	ND	0.50	ug/L	1.00	06/19/2004 13:05	
Ethyl benzene	ND	0.50	ug/L	1.00	06/19/2004 13:05	
Xylene(s)	ND	0.50	ug/L	1.00	06/19/2004 13:05	
<b>Surrogate(s)</b>						
Trifluorotoluene	99.7	58-124	%	1.00	06/19/2004 13:05	
4-Bromofluorobenzene-FID	89.8	50-150	%	1.00	06/19/2004 13:05	

**Gas/BTEX by 8015M/8021**

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Project: 6118

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Received: 06/17/2004 17:00

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	OW-7	Lab ID:	2004-06-0598 - 5
Sampled:	06/16/2004 16:15	Extracted:	6/22/2004 11:53
Matrix:	Water	QC Batch#:	2004/06/22-01:05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1100	500	ug/L	10.00	06/22/2004 11:53	g
Benzene	ND	5.0	ug/L	10.00	06/22/2004 11:53	
Toluene	ND	5.0	ug/L	10.00	06/22/2004 11:53	
Ethyl benzene	ND	5.0	ug/L	10.00	06/22/2004 11:53	
Xylene(s)	ND	5.0	ug/L	10.00	06/22/2004 11:53	
<b>Surrogate(s)</b>						
Trifluorotoluene	112.8	58-124	%	10.00	06/22/2004 11:53	
4-Bromofluorobenzene-FID	92.4	50-150	%	10.00	06/22/2004 11:53	

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**Gas/BTEX by 8015M/8021**

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Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 5030  
5030

Test(s): 8015M  
8021B

Method Blank

Water

QC Batch # 2004/06/18-02.05

MB: 2004/06/18-02.05-024

Date Extracted: 06/18/2004 22:22

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/18/2004 22:22	
Benzene	ND	0.5	ug/L	06/18/2004 22:22	
Toluene	ND	0.5	ug/L	06/18/2004 22:22	
Ethyl benzene	ND	0.5	ug/L	06/18/2004 22:22	
Xylene(s)	ND	0.5	ug/L	06/18/2004 22:22	
<b>Surrogates(s)</b>					
Trifluorotoluene	97.6	58-124	%	06/18/2004 22:22	
4-Bromofluorobenzene-FID	82.0	50-150	%	06/18/2004 22:22	

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**Gas/BTEX by 8015M/8021**

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Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 5030

5030

Method Blank

MB: 2004/06/22-01.05-003

Test(s): 8015M

8021B

Water

QC Batch # 2004/06/22-01.05

Date Extracted: 06/22/2004 06:52

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/22/2004 06:52	
Benzene	ND	0.5	ug/L	06/22/2004 06:52	
Toluene	ND	0.5	ug/L	06/22/2004 06:52	
Ethyl benzene	ND	0.5	ug/L	06/22/2004 06:52	
Xylene(s)	ND	0.5	ug/L	06/22/2004 06:52	
<b>Surrogates(s)</b>					
Trifluorotoluene	107.0	58-124	%	06/22/2004 06:52	
4-Bromofluorobenzene-FID	97.2	50-150	%	06/22/2004 06:52	

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**Gas/BTEX by 8015M/8021**

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Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

Laboratory Control Spike

Water

QC Batch # 2004/06/18-02.05

LCS 2004/06/18-02.05-025

Extracted: 06/18/2004

Analyzed: 06/18/2004 22:58

LCSD 2004/06/18-02.05-026

Extracted: 06/18/2004

Analyzed: 06/18/2004 23:33

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	46.8	48.4	50.0	93.6	96.8	3.4	77-123	20		
Toluene	47.4	49.0	50.0	94.8	98.0	3.3	78-122	20		
Ethyl benzene	45.3	46.4	50.0	90.6	92.8	2.4	70-130	20		
Xylene(s)	132	135	150	88.0	90.0	2.2	75-125	20		
<b>Surrogates(s)</b>										
Trifluorotoluene	482	495	500	96.4	99.0		58-124			

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**Gas/BTEX by 8015M/8021**

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Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2004/06/18-02.05

LCS 2004/06/18-02.05-027

Extracted: 06/19/2004

Analyzed: 06/19/2004 00:08

LCSD 2004/06/18-02.05-028

Extracted: 06/19/2004

Analyzed: 06/19/2004 00:44

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	246	230	250	98.4	92.0	6.7	75-125	20		
<i>Surrogates(s)</i>										
4-Bromofluorobenzene-FID	413	402	500	82.6	80.4		50-150			

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**Gas/BTEX by 8015M/8021**

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Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/06/22-01.05**

LCS 2004/06/22-01.05-004

Extracted: 06/22/2004

Analyzed: 06/22/2004 07:27

LCSD 2004/06/22-01.05-005

Extracted: 06/22/2004

Analyzed: 06/22/2004 08:02

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD %	Ctrf. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Benzene	49.1	50.3	50.0	98.2	100.6	2.4	77-123	20		
Toluene	50.1	51.3	50.0	100.2	102.6	2.4	78-122	20		
Ethyl benzene	48.6	49.8	50.0	97.2	99.6	2.4	70-130	20		
Xylene(s)	141	144	150	94.0	96.0	2.1	75-125	20		
<b>Surrogates(s)</b>										
Trifluorotoluene	543	544	500	108.6	108.8		58-124			

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**Gas/BTEX by 8015M/8021**

CSS Environmental Services

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Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2004/06/22-01.05

LCS 2004/06/22-01.05-006

Extracted: 06/22/2004

Analyzed: 06/22/2004 08:37

LCSD 2004/06/22-01.05-007

Extracted: 06/22/2004

Analyzed: 06/22/2004 09:13

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	276	268	250	110.4	107.2	2.9	75-125	20		
<i>Surrogates(s)</i>										
4-Bromofluorobenzene-FID	466	458	500	93.2	91.6		50-150			

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**Gas/BTEX by 8015M/8021**

CSS Environmental Services  
Attn.: Aaron Stessman

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Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

---

**Legend and Notes**

---

**Result Flag**

g  
Hydrocarbon reported in the gasoline range does not match our gasoline standard.

**Diesel**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
OW-1	06/16/2004 15:05	Water	1
OW-5	06/16/2004 14:25	Water	3
OW-6	06/16/2004 15:40	Water	4
OW-7	06/16/2004 16:15	Water	5

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06/24/2004 16:12

**Diesel**

CSS Environmental Services

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San Rafael, CA 94901  
Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 3510/8015M	Test(s): 8015M
Sample ID: OW-1	Lab ID: 2004-06-0598 - 1
Sampled: 06/16/2004 15:05	Extracted: 6/18/2004 05:30
Matrix: Water	QC Batch#: 2004/06/18-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	420	50	ug/L	1.00	06/18/2004 18:43	ndp
<i>Surrogate(s)</i> o-Terphenyl	110.1	60-130	%	1.00	06/18/2004 18:43	

**Diesel**

CSS Environmental Services

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Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 3510/8015M	Test(s): 8015M
Sample ID: OW-5	Lab ID: 2004-06-0598 - 3
Sampled: 06/16/2004 14:25	Extracted: 6/18/2004 05:30
Matrix: Water	QC Batch#: 2004/06/18-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	650	50	ug/L	1.00	06/18/2004 20:05	ndp
<i>Surrogate(s)</i>						
o-Terphenyl	104.5	60-130	%	1.00	06/18/2004 20:05	

**Diesel**

CSS Environmental Services

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Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 3510/8015M	Test(s): 8015M
Sample ID: OW-6	Lab ID: 2004-06-0598 - 4
Sampled: 06/16/2004 15:40	Extracted: 6/18/2004 05:30
Matrix: Water	QC Batch#: 2004/06/18-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	440	50	ug/L	1.00	06/18/2004 19:38	ndp
<i>Surrogate(s)</i>						
o-Terphenyl	104.9	60-130	%	1.00	06/18/2004 19:38	

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06/24/2004 16:12

Page 4 of 8



**Diesel**

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San Rafael, CA 94901

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Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s):	3510/8015M	Test(s):	8015M
Sample ID:	OW-7	Lab ID:	2004-06-0598 - 5
Sampled:	06/16/2004 16:15	Extracted:	6/18/2004 05:30
Matrix:	Water	QC Batch#:	2004/06/18-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	1000	50	ug/L	1.00	06/18/2004 19:11	ndp
<i>Surrogate(s)</i>						
o-Terphenyl	103.2	60-130	%	1.00	06/18/2004 19:11	

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06/24/2004 16:12

**Diesel**

CSS Environmental Services

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Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 3510/8015M

Test(s): 8015M

Method Blank

Water

QC Batch # 2004/06/18-01.10

MB: 2004/06/18-01.10-001

Date-Extracted: 06/18/2004 05:30

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	50	ug/L	06/18/2004 12:44	
<b>Surrogates(s)</b> o-Terphenyl	94.2	60-130	%	06/18/2004 12:44	

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06/24/2004 16:12

**Diesel**

CSS Environmental Services

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Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 3510/8015M

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2004/06/18-01.10

LCS 2004/06/18-01.10-002

Extracted: 06/18/2004

Analyzed: 06/18/2004 13:13

LCSD 2004/06/18-01.10-003

Extracted: 06/18/2004

Analyzed: 06/18/2004 13:41

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Diesel	1100	1040	1000	110.0	104.0	5.6	60-130	25		
<i>Surrogates(s)</i> o-Terphenyl	19.7	19.8	20.0	98.7	99.1		60-130	0		

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/24/2004 16:12

**Diesel**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

---

**Legend and Notes**

---

**Result Flag**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/24/2004 16:12

Page 8 of 8

**Dissolved Metals**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
OW-2	06/16/2004 13:20	Water	2
OW-5	06/16/2004 14:25	Water	3
OW-8	06/16/2004 13:50	Water	6

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/23/2004 14:49

**Dissolved Metals**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 3005A	Test(s): 6010B
Sample ID: OW-2	Lab ID: 2004-06-0598 - 2
Sampled: 06/16/2004 13:20	Extracted: 6/22/2004 14:23
Matrix: Water	QC Batch#: 2004/06/22-04.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	ND	0.0050	mg/L	1.00	06/23/2004 07:50	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/23/2004 14:49

**Dissolved Metals**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s): 3005A	Test(s): 6010B
Sample ID: OW-5	Lab ID: 2004-06-0598 -3
Sampled: 06/16/2004 14:25	Extracted: 6/22/2004 14:23
Matrix: Water	QC Batch#: 2004/06/22-04.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	ND	0.0050	mg/L	1.00	06/23/2004 07:55	

**Dissolved Metals**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2  
San Rafael, CA 94901  
Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

Prep(s):	3005A	Test(s):	6010B
Sample ID:	OW-8	Lab ID:	2004-06-0598 - 6
Sampled:	06/16/2004 13:50	Extracted:	6/22/2004 14:23
Matrix:	Water	QC Batch#:	2004/06/22-04.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	ND	0.0050	mg/L	1.00	06/23/2004 07:59	



**Dissolved Metals**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2

San Rafael, CA 94901

Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118

PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 3005A

Method Blank

MB: 2004/06/22-04.15-012

Water

Test(s): 6010B

QC Batch # 2004/06/22-04.15

Date Extracted: 06/22/2004 14:23

Compound	Conc.	RL	Unit	Analyzed	Flag
Lead	ND	0.0050	mg/L	06/23/2004 10:04	

**Dissolved Metals**

CSS Environmental Services

Attn.: Aaron Stessman

95 Belvedere Street, Suite 2  
San Rafael, CA 94901  
Phone: (415) 457-9551 Fax: (415) 457-9261

Project: 6118  
PG&E Coliseum Way

Received: 06/17/2004 17:00

**Batch QC Report**

Prep(s): 3005A

Test(s): 6010B

Laboratory Control Spike

Water

QC Batch # 2004/06/22-04.15

LCS 2004/06/22-04.15-013

Extracted: 06/22/2004

Analyzed: 06/23/2004 06:57

LCSD 2004/06/22-04.15-014

Extracted: 06/22/2004

Analyzed: 06/23/2004 07:01

Compound	Conc. mg/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Lead	0.479	0.486	0.500	95.8	97.2	1.5	80-120	20		

2004-06-0599

Report To Analysis Request

Attn: Aaron Stessman  
Company: CSS Environmental Services, Inc.  
Address: 95 Belvedere St, #2 San Rafael, CA 94901  
Phone: 415-457-9551 Email: cssenv@prodigy.net  
Bill To: Sampled By: JS  
Attn: Phone:

TPH EPA -  8015/8021  8260B  
 Gas w/  BTEX  MTBE  
Purgeable Aromatics  
BTEX EPA -  8021  8260B  
TFPH EPA 8015M  Silica Gel  
 Diesel  Motor Oil  Other  
Fuel Tests EPA 8260B:  Gas  BTEX  
 Five Oxynates  DCA, ED8  Ethanol  
Purgeable Halocarbons  
(HVOCs) EPA 8021  
Volatile Organics GC/MS (VOCs)  
 EPA 8260B  624  
Semivolatiles GC/MS  
 EPA 8270  625  
Oil and Grease  Petroleum  
(EPA 1664)  Total  
Pesticides  EPA 8081  608  
PCBs  EPA 8082  608  
PNAS by  8270  8310  
CAM17 Metals  
(EPA 60107/4707471)  
Metals:  Lead  LUFT  RCRA  
 Other: D.S.S. & I.C.E.  
W.E.T (STLC)  
TCLP  
Hexavalent Chromium  
pH (24h hold time for H<sub>2</sub>O)  
Spec Cond.  Alkalinity  
TSS  TDS  
Anions:  Cl  SO<sub>4</sub>  NO<sub>3</sub>  F  
 Br  NO<sub>2</sub>  PO<sub>4</sub>

Sample ID	Date	Time	Mat rix	Pres erv.	TPH EPA - <input checked="" type="checkbox"/> Gas w/ <input type="checkbox"/> BTEX <input type="checkbox"/> MTBE	Purgeable Aromatics BTEX EPA - <input type="checkbox"/> 8021 <input type="checkbox"/> 8260B	TFPH EPA 8015M <input checked="" type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other	Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxynates <input type="checkbox"/> DCA, ED8 <input type="checkbox"/> Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021	Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624	Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625	Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664) <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608	PNAS by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	CAM17 Metals (EPA 60107/4707471)	Metals: <input checked="" type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other: <u>D.S.S. &amp; I.C.E.</u>	W.E.T (STLC) TCLP	Hexavalent Chromium pH (24h hold time for H <sub>2</sub> O)	Spec Cond. <input type="checkbox"/> Alkalinity TSS <input type="checkbox"/> TDS	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>	Number of Containers	
OW-1	6.16	1505	H <sub>2</sub> O	Y/N	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>															4
OW-2		1320		Y																		1
OW-5		1425		Y/N	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>													8
OW-6		1540			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>													7
OW-7		1615			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>													7
OW-8		1350		Y																		1

Project Info. Sample Receipt  
Project Name: PO+E Coliseum Wy.  
Project#: 6118  
PO#:   
Credit Card#:   
Temp: 2.0  
Conforms to record:   
Other:   
Report:  Routine  Level 3  Level 4  EDD  
Special Instructions / Comments:

1) Relinquished by:  
Signature: Shannon Justice 13:10  
Printed Name: Shannon Justice Date: 6/17/04  
Company: CSS Env Services, Inc

2) Relinquished by:  
Signature: Rodney Allen 17:00  
Printed Name: Rodney Allen Date: 6/17/04  
Company: STL-SF

3) Relinquished by:  
Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Company: \_\_\_\_\_

T A T Std 5 Day 72h 48h 24h  
Report:  Routine  Level 3  Level 4  EDD  
Special Instructions / Comments:

1) Received by:  
Signature: Rodney Allen 13:10  
Printed Name: Rodney Allen Date: 6/17/04  
Company: STL-SF

2) Received by:  
Signature: [Signature] 17:00  
Printed Name: [Name] Date: 6/17/04  
Company: STL-SF

3) Received by:  
Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Company: \_\_\_\_\_

**STL San Francisco**

**Sample Receipt Checklist**

Submission #: 2004- 06 - 0598

Checklist completed by: (initials) JB Date: 6/17 /04

Courier name:  STL San Francisco  Client \_\_\_\_\_

Custody seals intact on shipping container/samples Yes \_\_\_ No \_\_\_ Not Present

Chain of custody present? Yes  No \_\_\_

Chain of custody signed when relinquished and received? Yes  No \_\_\_

Chain of custody agrees with sample labels? Yes  No \_\_\_

Samples in proper container/bottle? Yes  No \_\_\_

Sample containers intact? Yes  No \_\_\_

Sufficient sample volume for indicated test? Yes  No \_\_\_

All samples received within holding time? Yes  No \_\_\_

Container/Temp Blank temperature in compliance ( $4^{\circ}C \pm 2$ )? Temp: 2 °C Yes  No \_\_\_

Ice Present Yes  No \_\_\_

Water - VOA vials have zero headspace? No VOA vials submitted \_\_\_ Yes  No \_\_\_

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small ~O), M (medium ~ O) or L (large ~ O))

Water - pH acceptable upon receipt?  Yes  No

pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc -Lot #(s) \_\_\_\_\_

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: RECEIVED PLASTIC 250ml w/HNO3 FOR DISSOLVED LEAD -  
Samples appear to have been field-filtered - DSH 6/18/04

**Project Management [Routing for instruction of indicated discrepancy(ies)]**

Project Manager: (initials) \_\_\_\_\_ Date: \_\_\_ / \_\_\_ /04

Client contacted:  Yes  No

Summary of discussion:  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action (per PM/Client):  
\_\_\_\_\_  
\_\_\_\_\_



CSS ENVIRONMENTAL SERVICES, INC.

---

***APPENDIX B***  
**Historical Monitoring Data**



## Historical Groundwater Analytical Data

Well ID	OW-1 Jun-00	OW-1 Nov-00	OW-1 Jun-01	OW-1 Nov-01	OW-1 Jun-02	OW-1 Oct-02	OW-1 Apr-03	OW-1 Nov-03	OW-1 Jun-04
<b>PURGEABLE HALOCARBONS</b>									
Chloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>PURGEABLE AROMATICS</b>									
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	ND	ND	3.4	ND	ND	ND	ND	ND	ND
TOTAL VOCs	NA	NA	3.4	NA	NA	NA	NA	NA	NA
<b>HYDROCARBONS</b>									
TVH-g	880	620	480	630	640	770	380	310	290
TEPH-d	350	250	740	270	670	500	460	470	420
O&G	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>METALS</b>									
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA

**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-Dichloropropane
- 6) ND = Not Detected at or above MDL
- 7) Purgeable Halocarbons (EPA method 8010)
- 8) Purgeable Aromatics (EPA method 8020)
- 9) NA = Not Analyzed or analysis not required
- 10) 6/17/02 Samples analyzed for VOCs out of holding time due to laboratory error





## Historical Groundwater Analytical Data

Well ID	OW-2 Jun-00	OW-2 Nov-00	OW-2 Jun-01	OW-2 Nov-01	OW-2 Jun-02	OW-2 Oct-02	OW-2 Apr-03	OW-2 Nov-03	OW-2 Jun-04
<b>PURGEABLE HALOCARBONS</b>									
Chloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>PURGEABLE AROMATICS</b>									
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL VOCs	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>HYDROCARBONS</b>									
TVH-g	NA	NA	NA	NA	NA	NA	NA	NA	NA
TEPH-d	NA	NA	NA	NA	NA	NA	NA	NA	NA
O&G	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>METALS</b>									
Lead	ND	ND	ND	ND	ND	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-Dichloropropane
- 6) ND = Not Detected at or above MDL
- 7) Purgeable Halocarbons (EPA method 8010)
- 8) Purgeable Aromatics (EPA method 8020)
- 9) NA = Not Analyzed or analysis not required
- 10) 6/17/02 Samples analyzed for VOCs out of holding time due to laboratory error







## Historical Groundwater Analytical Data

Well ID	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6
Date	Jun-00	Nov-00	Jun-01	Nov-01	Jun-02	Oct-02	Apr-03	Nov-03	Jun-04
<b>PURGEABLE HALOCARBONS</b>									
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1.5
1,1-Dichloroethane	1.4	2.3	1.4	1.8	1.3	1.5	1.2	2.8	4.9
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	0.78	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethane	ND	ND	0.7	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	2.5	8.5
1,3-Dichlorobenzene	3	2.7	ND	ND	1.1	2.0	ND	1.9	2.5
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.54
1,4-Dichlorobenzene	11	10	ND	ND	5.0	7.2	3.0	7.2	8.0
<b>PURGEABLE AROMATICS</b>									
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>TOTAL VOCs</b>	<b>15.4</b>	<b>15.0</b>	<b>2.1</b>	<b>2.8</b>	<b>7.4</b>	<b>10.7</b>	<b>4.2</b>	<b>14.4</b>	<b>23.8</b>
<b>HYDROCARBONS</b>									
TVH-g	ND	ND	ND	ND	ND	ND	ND	ND	75
TEPH-d	88	ND	320	85	220	380	290	380	440
O&G	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>METALS</b>									
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA

**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)
- 9) NA = Not Analyzed or analysis not required



## Historical Groundwater Analytical Data

Well ID	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8			
Date	Apr-83	Jul-83	Oct-83	Jan-84	Apr-84	Jul-84	Jun-85	Nov-85	Jun-86	Oct-86	pr-Jun-87	Dec-87	Jun-87	Dec-88	Jun-89	Nov-89	Jun-90	Nov-00	Jun-01	Jun-02	Jun-02	Oct-02	Apr-03	Nov-03	Jun-04		
<b>PURGEABLE HALOCARBONS</b>																											
Chloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Freon 113	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Chloroethoxyvinyl Ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<b>PURGEABLE AROMATICS</b>																											
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>TOTAL VOCs</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>HYDROCARBONS</b>																											
TVH-g	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TEPH-d	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O&G	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>METALS</b>																											
Lead	27	17	ND	25	12	24	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

- Notes:
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  - 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)
  - 9) NA = Not Analyzed or analysis not required
  - 10) 6/17/02 Samples analyzed for VOCs out of holding time due to laboratory error

## Historical Groundwater Analytical Data

Well ID Date	MCL ug/L	OW-85 Jun-88	OW-9 Jun-89	OW-9 Nov-89
<b>PURGEABLE HALOCARBONS</b>				
Chloromethane		ND	ND	ND
Bromomethane		ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND
Chloroethane		ND	ND	ND
Methylene Chloride	5#	ND	ND	ND
Trichlorofluoromethane	150	ND	ND	ND
1,1-Dichloroethane	6	ND	ND	ND
1,1-Dichloroethane	5	ND	2.8	2.8
cis-1,2-Dichloroethane	6	ND	ND	ND
trans-1,2-Dichloroethane	10	ND	ND	ND
Chloroform	100#*	ND	ND	ND
Freon 113	1200	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
Carbon Tetrachloride	0.5	ND	ND	ND
Bromodichloromethane	100#*	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	5***	ND	ND	ND
Trichloroethene	5	ND	ND	ND
1,1,2-Trichloroethane	32	ND	ND	ND
trans-1,3-Dichloropropene	5***	ND	ND	ND
Dibromochloromethane	100#*	ND	ND	ND
2-Chloroethyl Vinyl Ether		NA	ND	ND
Bromoform	100#*	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	ND	ND	ND
Chlorobenzene	30	ND	31	31
1,3-Dichlorobenzene		ND	390	390
1,2-Dichlorobenzene	600#	ND	53	53
1,4-Dichlorobenzene	5	ND	560	560

### PURGEABLE AROMATICS

Benzene	1	ND	NA	NA
Toluene	1000#	0.73	NA	NA
Ethylbenzene	680	ND	NA	NA
Total Xylenes	1750**	ND	NA	NA
<b>TOTAL VOCs</b>		<b>0.73</b>	<b>1038.5</b>	<b>1038.5</b>

### HYDROCARBONS

TVH-g		ND	NA	NA
TEPH-d		NA	NA	NA
O&G		NA	NA	NA
TPH (#18.1)		NA	NA	NA

### METALS

Lead	0	NA	NA	NA
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#### Notes:

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- 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
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- 10) 8/17/02 Samples analyzed for VOCs out of holding time due to laboratory error