SEMI-ANNUAL GROUNDWATER MONITORING REPORT

PACIFIC GAS AND ELECTRIC COMPANY
OAKLAND GENERAL CONSTRUCTION YARD
4930 COLISEUM WAY
OAKLAND, CA 94601

September 2, 2005

CSS Project No. 6118

Prepared for

Pacific Gas and Electric Company®

PACIFIC GAS AND ELECTRIC COMPANY
77 Beale Street
San Francisco, California 94105

Prepared by

CSS

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

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San Rafael, California 94901

September 2, 2005

Aaron N. Stessman, PE REA
Principal Engineer

TABLE OF CONTENTS

SECTION PAGE

APPENDICES

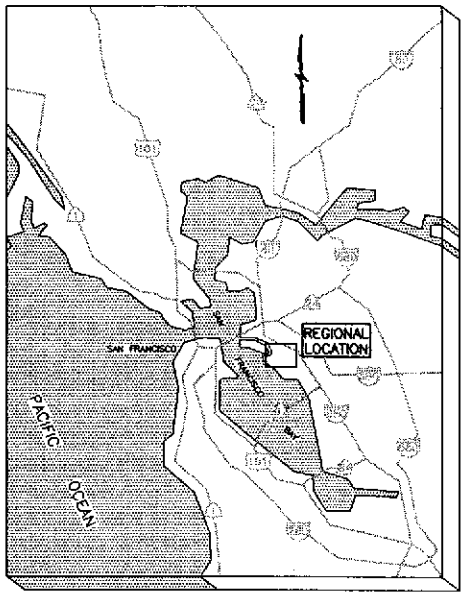
1.0 BACKGROUND

This report presents the results of semiannual groundwater monitoring and sampling completed in the second quarter of 2005 at the Pacific Gas and Electric Company's (PG&E) Oakland General 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 29, 2005 monitoring and sampling event and summarizes the results from groundwater monitoring and sampling 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 analyzing the samples to determine the distribution of selected fuel compounds, halogenated volatile organic compounds, and lead in the uppermost water bearing zone, beneath the northern portion of the yard. This area includes the locations where five underground storage tanks and one above ground storage tank were formerly located. Figure 1.2 shows the site plan for the subject property.

In January 1988, all of the 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. No diesel fuel was found in a soil sample collected beneath this tank at concentrations up to or greater than the detection limit of 10 mg/kg. After the tank was removed, a subsurface investigation showed that soils immediately adjacent to the former diesel tank were not adversely impacted.

Total Petroleum Hydrocarbons quantified as Diesel (TPH-D) at concentrations up to 3, mg/kg and quantified as Oil and Grease (O&G) at concentrations up to 1,000 mg/kg were found in a number of soil samples collected near the former tank cluster, sump and shop. 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 were 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, soil samples were taken along the sidewalls and bottom of the excavation to confirm that all the contaminated soil with Total Petroleum Hydrocarbons quantified as gasoline (TPH-G), TPH-D, and O&G at concentrations greater than 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.



SCALE

MILE 0 1 MILE

ALAMEDA

OAKLAND

HIGH ST

COLISEUM WAY

50TH AVE.

SITE

EAST 14TH ST

JULIE ANN WAY

66TH AV

San Leandro Bay

OAKLAND ALAMEDA CO. COLISEUM

DOOLITTLE DRIVE

OAKLAND INTERNATIONAL AIRPORT

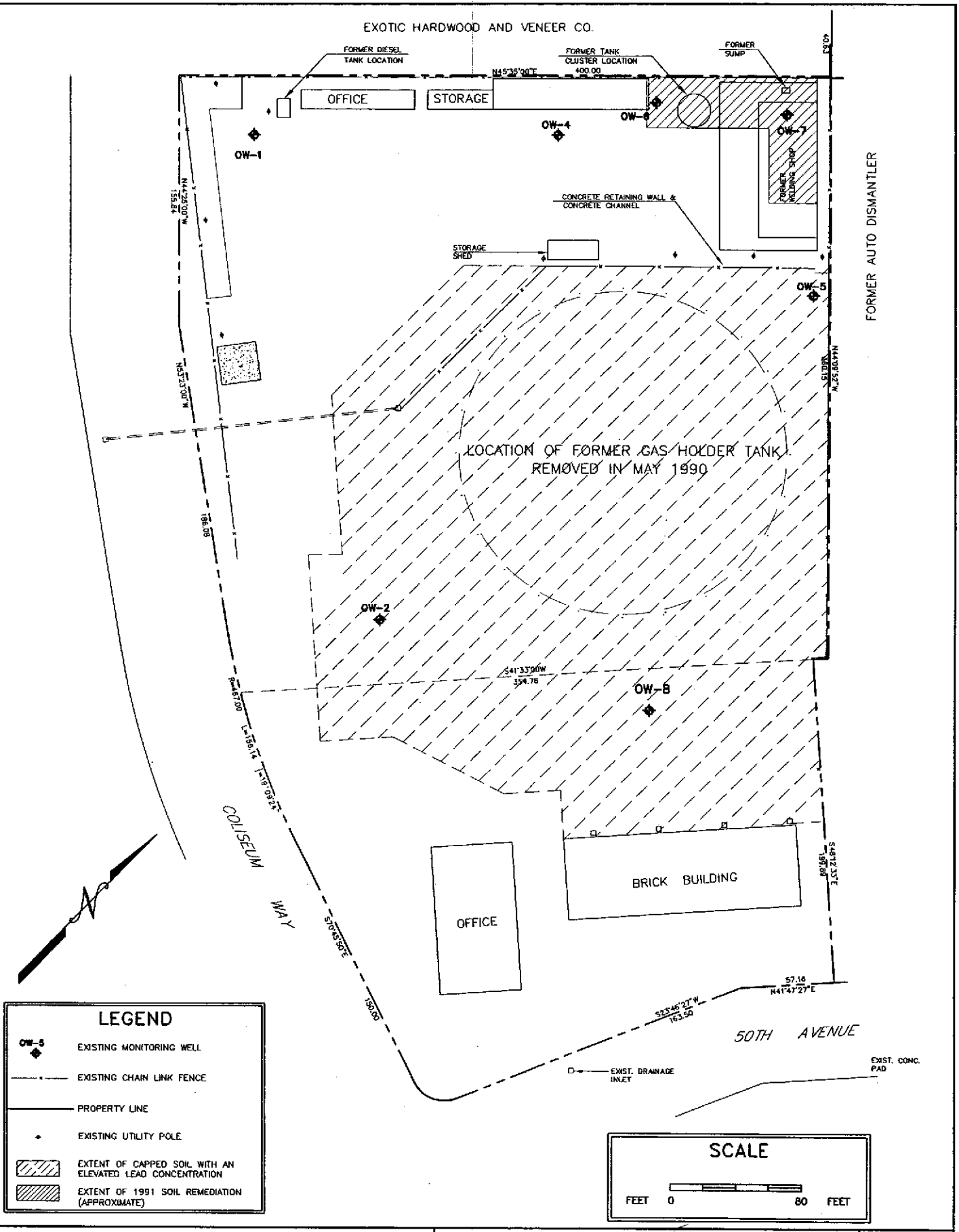
SAN LEANDRO ST

COLISEUM WAY

HEGENBERGER RD

880

CSS ENVIRONMENTAL SERVICES, INC.	SITE LOCATION MAP OAKLAND GENERAL CONSTRUCTION YARD 4930 COLISEUM WAY OAKLAND, CA 94610					FIGURE 1.1
	JOB NUMBER	DATE	DRAWING	BY	REVISED	
	6118	12/04	3666LOC	JL/ZS	12/04	



CSS ENVIRONMENTAL SERVICES, INC.

SITE PLAN
OAKLAND GENERAL CONSTRUCTION YARD
4930 COLISEUM WAY
OAKLAND, CA 94610

FIGURE 1.2

JOB NUMBER	DATE	DRAWING	BY	REVISED
6118	12/04	6118SITE	ESS	12/04

2.0 GROUNDWATER MONITORING AND SAMPLING ACTIVITIES

Four of the five original groundwater monitoring wells remain at the site. Monitoring well OW-3 was destroyed during the remedial excavations 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 near OW-3 to act as a replacement, and OW-7 was installed at the northeastern end of the remediation area to monitor upgradient conditions of the shallow groundwater. 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 lead concentrations in the groundwater, downgradient of the former AST. The locations of the new wells were approved by the ACHCSA.

On June 29, 2005, CSS Environmental Services, Inc. (CSS) collected groundwater samples from monitoring wells OW-1, OW-2, OW-5, OW-6, OW-7, and OW-8. Well OW-4 was inaccessible because a storage container overlay the well. Before samples were collected, depths to water were measured, and three casing volumes of groundwater were purged with a bailer from each well to ensure that samples that represent water from the formation are collected. 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 samples collected on June 29, 2005.

The groundwater samples collected from each well were analyzed by STL San Francisco of Pleasanton, California for TPH-D (USEPA Method 8015M), for TPH-G and BTEX (USEPA Method 8260B), for purgeable halocarbons compounds (USEPA Method 8021B/8260B), and for lead (USEPA Method 6010B) according to the monitoring schedule.

Table 2.1 presents the current monitoring schedule and appropriate sample analyses. Relevant correspondence from the ACHCSA related to the monitoring program is provided in Appendix B.

3.0 ANALYTICAL RESULTS

Analytical results for monitoring well samples collected June 29, 2005 are shown in Table 3.1. Historical groundwater monitoring data from all site wells can be found in Appendix B.

3.1 PETROLEUM HYDROCARBONS

The analytical results for petroleum hydrocarbons detected in the groundwater samples collected on June 29, 2005 are presented at the bottom of Table 3.1.

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 because OW-6 was installed to replace OW-3 after OW-3 was destroyed by a soils removal action. These figures 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 remediated area: OW-4, OW-6, and OW-7. Well OW-4 has been inaccessible for sampling over the past several years because a storage container lies over the well, precluding access.

Figures 3.3 and 3.4 illustrate the historical concentrations of TPH-G. Between January 1991 and March 1992 groundwater monitoring samples were not analyzed for TPH-G. Monitoring of TPH-G concentrations in OW-2 is no longer performed because TPG-G was not detected in samples collected early in the program.

3.2 LEAD

The analytical results for soluble lead measured in samples collected June 29, 2005 are also presented in Table 3-1. The samples for lead were filtered in the field using 0.45 micron disposable filters. During this quarter's event, lead was not detected in samples collected from any well routinely monitored for lead at concentrations equal to or greater than the method detection limit of 5µg/L..

3.3 VOLATILE ORGANIC COMPOUNDS

Table 3.1 presents the recent analytical results for VOCs in groundwater. Figures 3.5 and 3.6 show the historical concentrations of total VOCs in samples from site monitoring wells. Figure 3.5 shows the concentrations of total VOCs in samples collected from wells OW-1, OW-2 and OW-4. These wells are not presently monitored for halogenated VOCs. Figure 3.6 shows the concentrations of total VOCs in samples collected from wells OW-5, OW-6, and OW-7 that are located at the upgradient edges of the site.

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

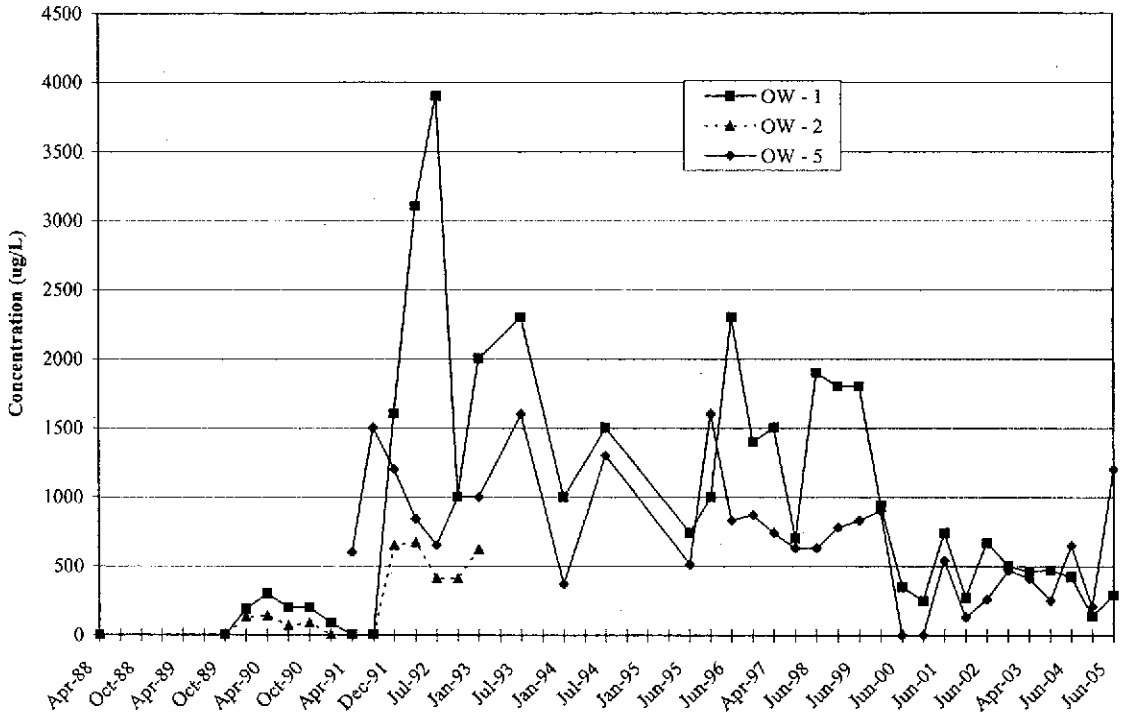


FIGURE 3.2
TPH-DIESEL in OW - 4, 3/6, & 7

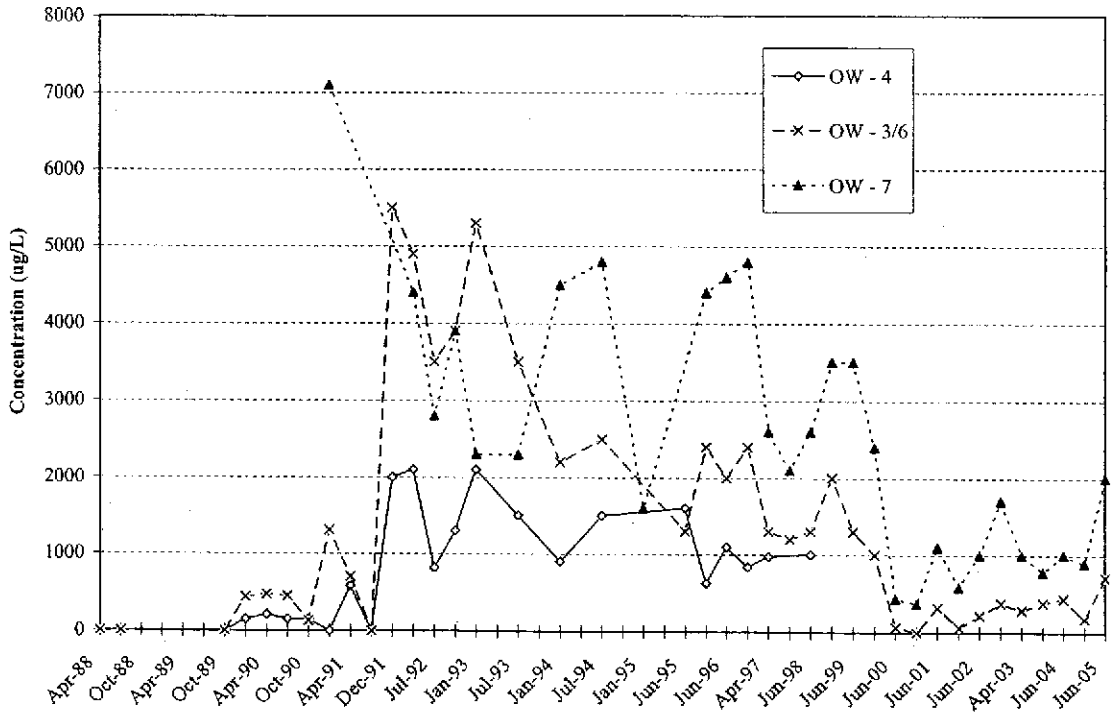


FIGURE 3.5
TOTAL VOCs in OW-1, 2, & 4

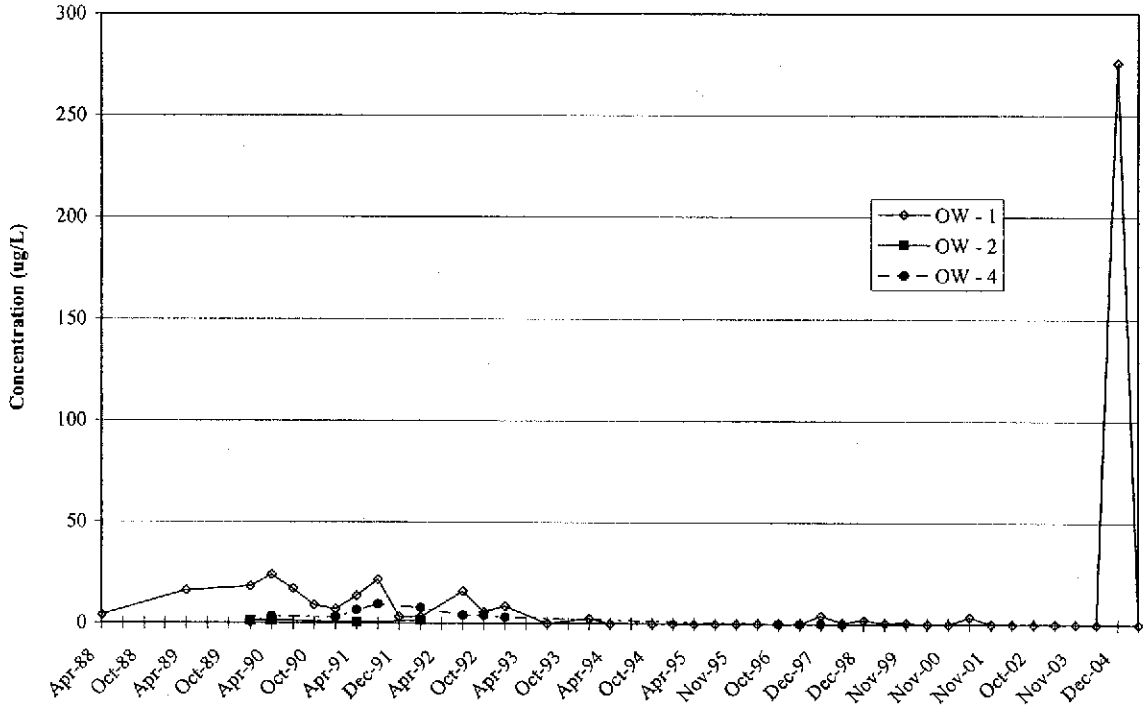
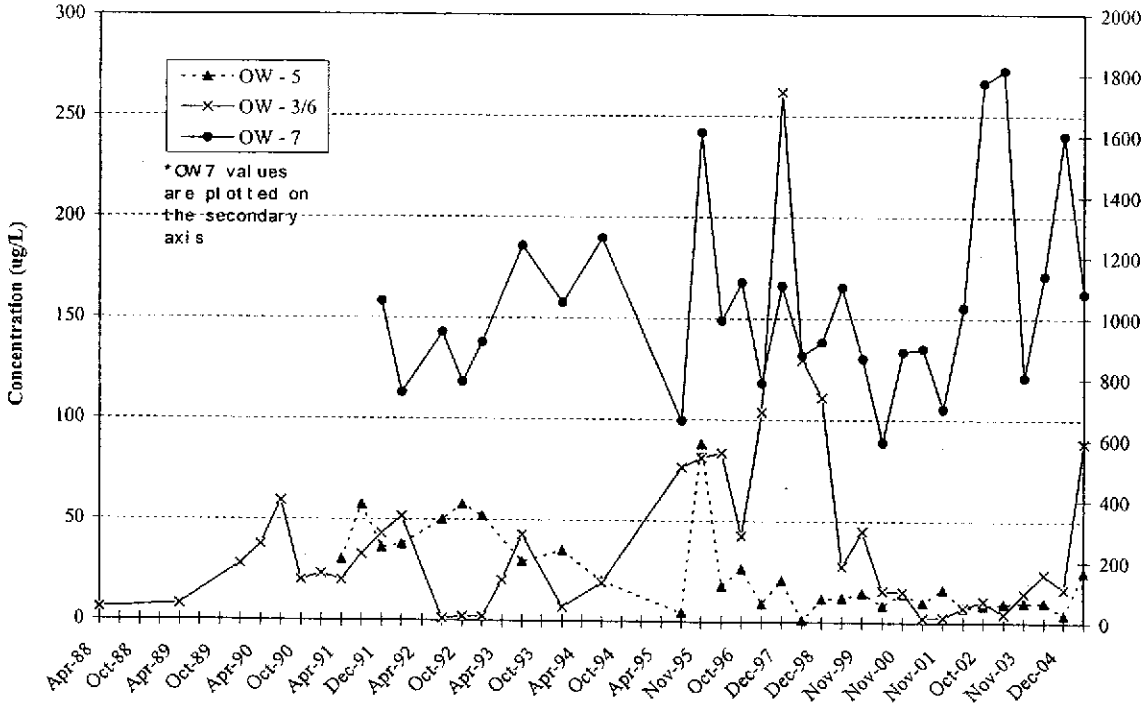
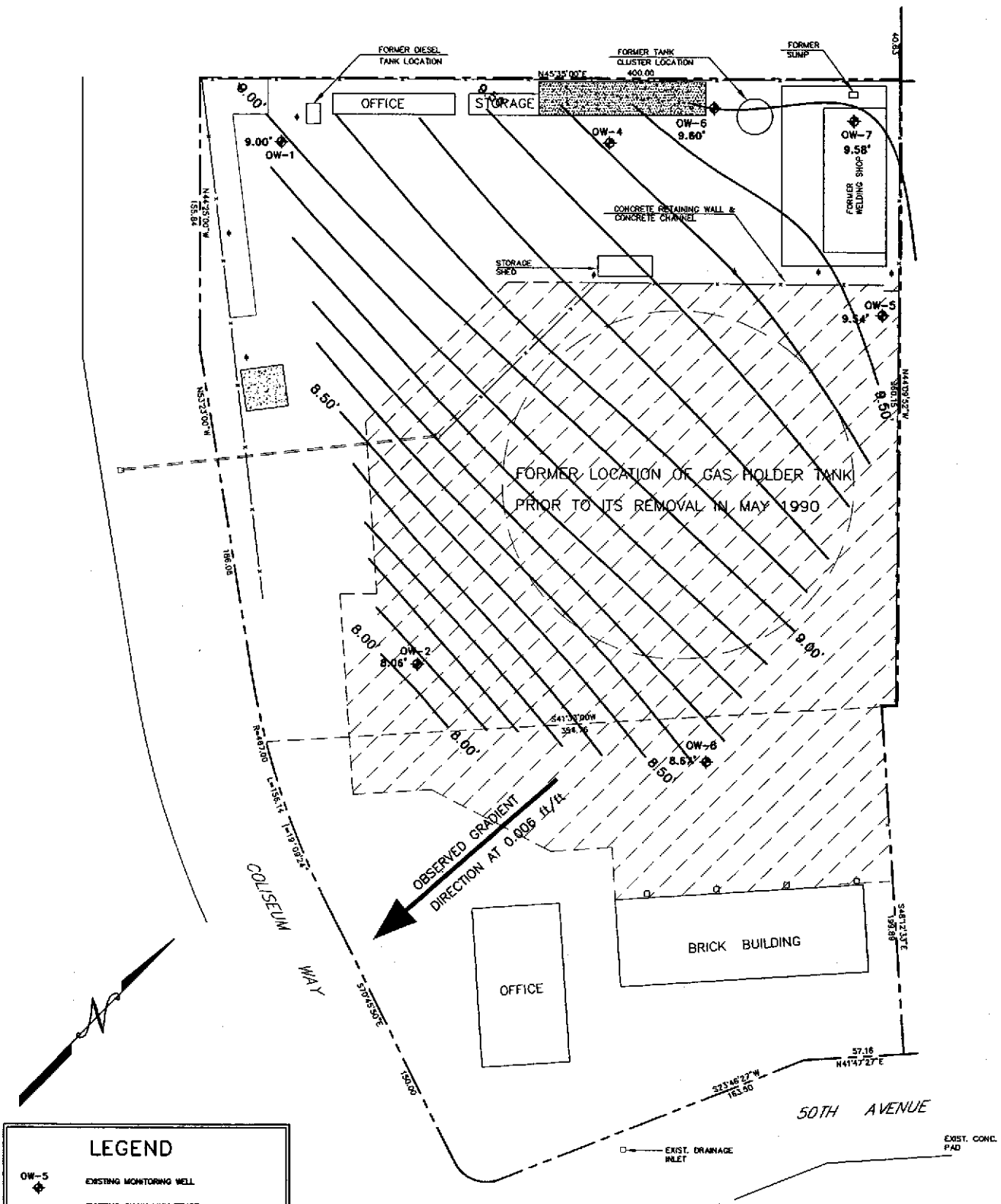


FIGURE 3.6
TOTAL VOCS in OW-5, 6, & 7*





LEGEND

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

NOTE: GROUNDWATER ELEVATIONS MEASURED JUNE 29, 2005
ALL ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL

SCALE

FEET 0 80 FEET

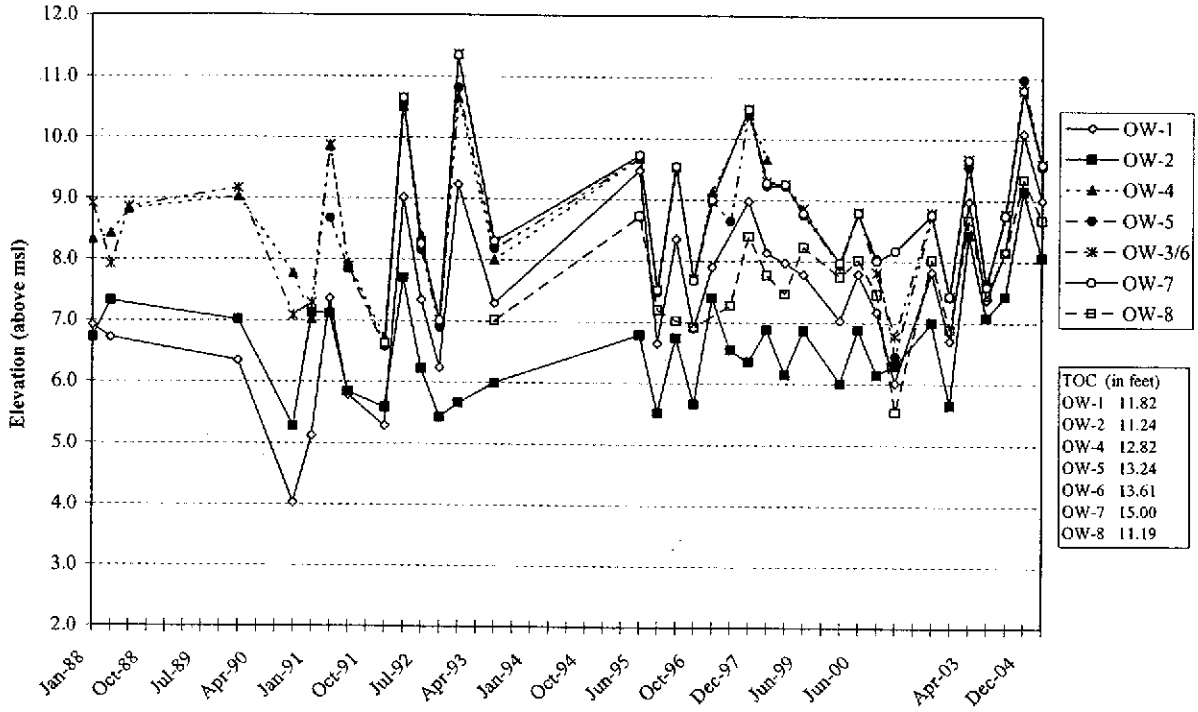
CSS ENVIRONMENTAL SERVICES, INC.

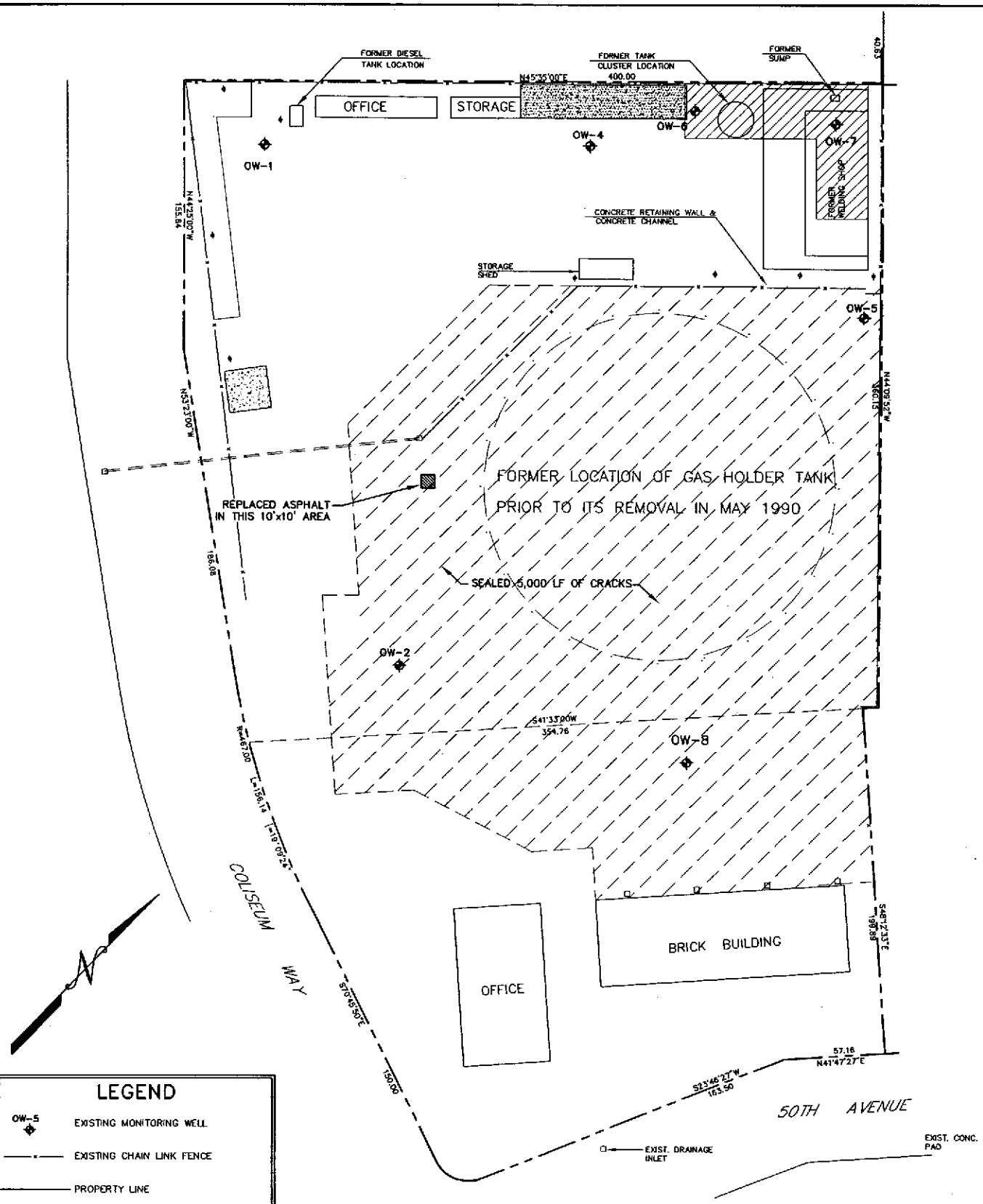
SITE PLAN AND SITE RELATIVE GROUNDWATER ELEVATIONS
OAKLAND GENERAL CONSTRUCTION YARD
4930 COLISEUM WAY
OAKLAND, CA 94610

FIGURE 4.1

JOB NUMBER	DATE	DRAWING	BY	REVISED
6118	1/99	GW06-05	ES/ZS/BD	08/05

FIGURE 4.2
HISTORICAL GROUNDWATER ELEVATIONS





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.

RESULTS OF CAP INSPECTION
OAKLAND GENERAL CONSTRUCTION YARD
4930 COLISEUM WAY
OAKLAND, CA 94610

FIGURE 5.1

JOB NUMBER	DATE	DRAWING	BY	REVISED
6118	11/96	CAP-SITE	ESS/BED	11/03

6.0 CONCLUSIONS

CSS observed the following from the groundwater elevation measurements and the results of analyses on groundwater samples collected on June 29, 2005 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 present groundwater gradient of 0.006 ft/ft is typical, however the groundwater elevations are among the highest observed to date.

- TPH-D was detected in samples collected from wells OW-1, OW-5, OW-6 and OW-7 at concentrations lower than those concentrations reported in most historical sampling events. The highest concentration was found in samples collected from well OW-7 at 2,000 µg/L. TPH-D persists in groundwater in the northeastern [upgradient] portion of the property. Since remedial action had removed known sources of hydrocarbon contaminants within the site, TPH-D is likely to have an upgradient, off-site source.

- TPH-G was detected in samples collected from wells OW-1, OW-5, OW-6 and OW-7. The highest concentration was detected in monitoring well OW-7 at 1,100 µg/L. TPH-G was detected in samples collected from wells OW-1, OW-5, and OW-6 at concentrations slightly greater than the reporting limit of 50 µg/L. Even though gasoline was not stored in the USTs at PG&E's General Construction Yard, the concentrations of TPH-G in samples from OW-7, the most upgradient well, remain higher than those measured in samples collected from other wells at the Site. TPH-G also is likely to have an upgradient, off-site source.

- Lead was not detected in any of the samples collected from OW-2, OW-5, and OW-8 at concentrations equal to or greater than 5 µg/L, the method detection limit. The lead concentrations in samples collected in December 2004 were measured at 9 µg/L, 53 µg/l, and 17 µg/L, respectively, [53 µg/L was a historical high]. Coupled with seasonal low groundwater levels that remove groundwater from direct contact with shallow soils and the lead-based paint in them, repairs to the asphaltic containment cap [sealing cracks] appear to have effectively limited infiltration of rainwater through the soil and successfully diminished observed concentrations of lead in groundwater.

- The containment cap is in good condition. Repairs to the cap were completed earlier in 2005 and appear to have been effective.

APPENDIX A

Certified Laboratory Results

SEVERN TRENT STL

Submission#: 2005-06-0762

CSS Environmental Services

July 26, 2005

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 06/29/2005 17:51
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 08/13/2005 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@stl-inc.com

Sincerely,

Dimple Sharma
Project Manager

Fuel Oxygenates by 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: 06/29/2005 17:51

Prep(s): 5030B
Sample ID: **OW-1**
Sampled: 06/29/2005 15:15
Matrix: Water
pH: <2

Test(s): 8260B
Lab ID: 2005-06-0762 - 1
Extracted: 7/6/2005 01:14
QC Batch#: 2005/07/05-02.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	110	50	ug/L	1.00	07/06/2005 01:14	Q6
Benzene	ND	0.50	ug/L	1.00	07/06/2005 01:14	
Toluene	ND	0.50	ug/L	1.00	07/06/2005 01:14	
Ethylbenzene	ND	0.50	ug/L	1.00	07/06/2005 01:14	
Total xylenes	ND	1.0	ug/L	1.00	07/06/2005 01:14	
Surrogate(s)						
1,2-Dichloroethane-d4	92.3	73-130	%	1.00	07/06/2005 01:14	
Toluene-d8	84.5	81-114	%	1.00	07/06/2005 01:14	

Fuel Oxygenates by 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: 06/29/2005 17:51

Prep(s): 5030B
Sample ID: **OW-6**
Sampled: 06/29/2005 15:50
Matrix: Water
pH: <2

Test(s): 8260B
Lab ID: 2005-06-0762 - 4
Extracted: 7/6/2005 02:02
QC Batch#: 2005/07/05-02.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	65	50	ug/L	1.00	07/06/2005 02:02	Q6
Benzene	ND	0.50	ug/L	1.00	07/06/2005 02:02	
Toluene	ND	0.50	ug/L	1.00	07/06/2005 02:02	
Ethylbenzene	ND	0.50	ug/L	1.00	07/06/2005 02:02	
Total xylenes	ND	1.0	ug/L	1.00	07/06/2005 02:02	
Surrogate(s)						
1,2-Dichloroethane-d4	86.0	73-130	%	1.00	07/06/2005 02:02	
Toluene-d8	90.3	81-114	%	1.00	07/06/2005 02:02	

Fuel Oxygenates by 8260B

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: 06/29/2005 17:51

Batch QC Report

Prep(s): 5030B
Method Blank

Water

Test(s): 8260B
QC Batch # 2005/07/05-02.64

MB: 2005/07/05-02.64-056

Date Extracted: 07/05/2005 19:56

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	07/05/2005 19:56	
Benzene	ND	0.5	ug/L	07/05/2005 19:56	
Toluene	ND	0.5	ug/L	07/05/2005 19:56	
Ethylbenzene	ND	0.5	ug/L	07/05/2005 19:56	
Total xylenes	ND	1.0	ug/L	07/05/2005 19:56	
Surrogates(s)					
1,2-Dichloroethane-d4	90.0	73-130	%	07/05/2005 19:56	
Toluene-d8	85.2	81-114	%	07/05/2005 19:56	

Fuel Oxygenates by 8260B

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: 06/29/2005 17:51

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD) **Water** **QC Batch # 2005/07/05-02.64**

MS/MSD

Lab ID: 2005-07-0021 - 001

MS: 2005/07/05-02.64-015 Extracted: 07/05/2005 Analyzed: 07/05/2005 21:15

Dilution: 1.00

MSD: 2005/07/05-02.64-038 Extracted: 07/05/2005 Analyzed: 07/05/2005 21:38

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	28.0	24.8	ND	25.0	112.0	99.2	12.1	69-129	20		
Toluene	26.8	25.1	ND	25.0	107.2	100.4	6.6	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	436	421		500	87.2	84.2		73-130			
Toluene-d8	417	427		500	83.4	85.4		81-114			

SEVERN TRENT STL

Submission: 2005-06-0762

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: 06/29/2005 17:51

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
OW-1	06/29/2005 15:15	Water	1
OW-5	06/29/2005 14:30	Water	3
OW-6	06/29/2005 15:50	Water	4
OW-7	06/29/2005 16:20	Water	5

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: 06/29/2005 17:51

Prep(s): 3510/8015M
Sample ID: **OW-7**
Sampled: 06/29/2005 16:20
Matrix: Water

Test(s): 8015M
Lab ID: 2005-06-0762 - 5
Extracted: 7/5/2005 12:57
QC Batch#: 2005/07/05-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
DRO (C10-C28)	2000	50	ug/L	1.00	07/07/2005 02:54	
Surrogate(s)						
o-Terphenyl	97.6	60-130	%	1.00	07/07/2005 02:54	

Diesel

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: 06/29/2005 17:51

Batch QC Report

Prep(s): 3510/8015M
Method Blank
MB: 2005/07/05-04.10-001

Water

Test(s): 8015M
QC Batch # 2005/07/05-04.10
Date Extracted: 07/05/2005 12:57

Compound	Conc.	RL	Unit	Analyzed	Flag
DRO (C10-C28)	ND	50	ug/L	07/06/2005 16:51	
Surrogates(s)					
o-Terphenyl	90.9	60-130	%	07/06/2005 16:51	

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: 06/29/2005 17:51

Batch QC Report

Prep(s): 3510/8015M

Test(s): 8015M

Laboratory Control Spike **Water** **QC Batch # 2005/07/05-04.10**

LCS 2005/07/05-04.10-002 Extracted: 07/05/2005 Analyzed: 07/06/2005 16:24
LCSD 2005/07/05-04.10-003 Extracted: 07/05/2005 Analyzed: 07/06/2005 15:56

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
DRO (C10-C28)	893	932	1000	89.3	93.2	4.3	60-130	25		
Surrogates(s)										
o-Terphenyl	18.5	19.3	20.0	92.4	96.5		60-130	0		

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: 06/29/2005 17:51

Prep(s):	3005A	Test(s):	6010B
Sample ID:	**OW-2**	Lab ID:	2005-06-0762 - 2
Sampled:	06/29/2005 13:20	Extracted:	6/30/2005 17:25
Matrix:	Water	QC Batch#:	2005/06/30-04.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	ND	0.0050	mg/L	1.00	06/30/2005 19:41	

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: 06/29/2005 17:51

Prep(s):	3005A	Test(s):	6010B
Sample ID:	**OW-8**	Lab ID:	2005-06-0762 - 6
Sampled:	06/29/2005 13:55	Extracted:	6/30/2005 17:25
Matrix:	Water	QC Batch#:	2005/06/30-04.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	ND	0.0050	mg/L	1.00	06/30/2005 19:48	

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: 06/29/2005 17:51

Batch QC Report

Prep(s): 3005A

Test(s): 6010B

Laboratory Control Spike **Water** **QC Batch # 2005/06/30-04.15**

LCS 2005/06/30-04.15-108 Extracted: 06/30/2005 Analyzed: 06/30/2005 19:17
LCSD 2005/06/30-04.15-109 Extracted: 06/30/2005 Analyzed: 06/30/2005 19:20

Compound	Conc. mg/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Lead	0.535	0.536	0.500	107.0	107.2	0.2	80-120	20		

TABLE OF CONTENTS

STL SACRAMENTO PROJECT NUMBER G5G080299

SEVERN TRENT STL

ACCREDITED IN ACCORDANCE WITH nelac

STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

SEVERN TRENT STL

Chain of Custody

Date Shipped: 7/7/2005

2005-06-0762 - 1

From:

STL San Francisco (CL)
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project Manager: Dimple Sharma
Phone: (925) 484-1919 Ext:
Fax: (925) 484-1096
Email: dsharma@stl-inc.com

To:

STL Sacramento
880 Riverside Parkway
West Sacramento, CA 95605

Phone: (916) 373-5600 Ext:
Fax: (916) 372-1059
Contact: Maria Barajas Albalawi
Phone: (916) 374-4344 Ext:

CL Submission #: 2005-06-0762
CL PO #:

Project #: 6118
Project Name: PG&E Coliseum Way

Client Sample ID / Analysis	CL#	Sampled	Matrix / Method	TAT
OW-5	3	6/29/2005 2:30:00PM	Water	
Halogenated Volatile Organics by 8021B/ 8260B			8021B/8260B	28 Day
OW-6	4	6/29/2005 3:50:00PM	Water	
Halogenated Volatile Organics by 8021B/ 8260B			8021B/8260B	28 Day
OW-7	5	6/29/2005 4:20:00PM	Water	
Halogenated Volatile Organics by 8021B/ 8260B			8021B/8260B	28 Day

PLEASE INCLUDE QC WITH FAXED AND HARD-COPY RESULTS

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature / Time: 1110	Signature / Time	Signature / Time
Printed Name / Date: 7-8-05	Printed Name / Date	Printed Name / Date
Company: STL	Company	Company

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.
Signature / Time: 1110	Signature / Time	Signature / Time
Printed Name / Date: 7/8/05	Printed Name / Date	Printed Name / Date
Company: STL	Company	Company

STL SAN FRANCISCO

Client Sample ID: OW-5

GC/MS Volatiles

Lot-Sample #...: G5G080299-001 Work Order #...: HE4461AA Matrix.....: WATER
Date Sampled...: 06/29/05 Date Received..: 07/08/05
Prep Date.....: 07/13/05 Analysis Date..: 07/13/05
Prep Batch #...: 5199331
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Chloroethyl vinyl ether	ND	0.50	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	ug/L
Dichlorodifluoromethane (Freon 12)	ND	1.0	ug/L
Trichlorofluoromethane (Freon 11)	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Vinyl chloride	ND	0.50	ug/L
Bromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
1,1-Dichloroethene	**0.90**	**0.50**	**ug/L**
Methylene chloride	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethane	**3.0**	**0.50**	**ug/L**
Chloroform	ND	0.50	ug/L
1,1,1-Trichloroethane	ND	0.50	ug/L
Carbon tetrachloride	ND	0.50	ug/L
1,2-Dichloroethane	ND	0.50	ug/L
Trichloroethene	ND	0.50	ug/L
1,2-Dichloropropane	ND	0.50	ug/L
Bromodichloromethane	ND	0.50	ug/L
cis-1,3-Dichloropropene	ND	0.50	ug/L
trans-1,3-Dichloropropene	ND	0.50	ug/L
1,1,2-Trichloroethane	ND	0.50	ug/L
Tetrachloroethene	ND	0.50	ug/L
Dibromochloromethane	ND	0.50	ug/L
Chlorobenzene	**1.3**	**0.50**	**ug/L**
Bromoform	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L
1,3-Dichlorobenzene	**1.1**	**0.50**	**ug/L**
1,4-Dichlorobenzene	**4.6**	**0.50**	**ug/L**
1,2-Dichlorobenzene	ND	0.50	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(71 - 135)
1,2-Dichloroethane-d4	108	(64 - 139)
Toluene-d8	109	(72 - 128)
4-Bromofluorobenzene	108	(66 - 121)

STL SAN FRANCISCO

Client Sample ID: OW-7

GC/MS Volatiles

Lot-Sample #...: G5G080299-003 Work Order #...: HE45F1AC Matrix.....: WATER
Date Sampled...: 06/29/05 Date Received..: 07/08/05
Prep Date.....: 07/13/05 Analysis Date..: 07/13/05
Prep Batch #...: 5199331
Dilution Factor: 20 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Chloroethyl vinyl ether	ND Q	10	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L
Dichlorodifluoromethane (Freon 12)	ND	20	ug/L
Trichlorofluoromethane (Freon 11)	ND	20	ug/L
Chloromethane	ND	20	ug/L
Vinyl chloride	ND	10	ug/L
Bromomethane	ND	20	ug/L
Chloroethane	ND	20	ug/L
1,1-Dichloroethene	ND	10	ug/L
Methylene chloride	ND	100	ug/L
trans-1,2-Dichloroethene	ND	10	ug/L
1,1-Dichloroethane	ND	10	ug/L
Chloroform	ND	10	ug/L
1,1,1-Trichloroethane	ND	10	ug/L
Carbon tetrachloride	ND	10	ug/L
1,2-Dichloroethane	ND	10	ug/L
Trichloroethene	ND	10	ug/L
1,2-Dichloropropane	ND	10	ug/L
Bromodichloromethane	ND	10	ug/L
cis-1,3-Dichloropropene	ND	10	ug/L
trans-1,3-Dichloropropene	ND	10	ug/L
1,1,2-Trichloroethane	ND	10	ug/L
Tetrachloroethene	ND	10	ug/L
Dibromochloromethane	ND	10	ug/L
Chlorobenzene	**92**	**10**	**ug/L**
Bromoform	ND	40	ug/L
1,1,2,2-Tetrachloroethane	ND	10	ug/L
1,3-Dichlorobenzene	**250**	**10**	**ug/L**
1,4-Dichlorobenzene	**710**	**10**	**ug/L**
1,2-Dichlorobenzene	**29**	**10**	**ug/L**
cis-1,2-Dichloroethene	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(71 - 135)
1,2-Dichloroethane-d4	106	(64 - 139)
Toluene-d8	110	(72 - 128)
4-Bromofluorobenzene	107	(66 - 121)

(Continued on next page)

QC DATA ASSOCIATION SUMMARY

G5G080299

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8260B		5199331	
002	WATER	SW846 8260B		5199331	
003	WATER	SW846 8260B		5199331	

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: G5G080299 Work Order #...: HFPPN1AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G5G080299 Work Order #...: HFPPN1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: G5G180000-331 HFPPN1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1,1-Trichloroethane	99	(66 - 130)			SW846 8260B
	89	(66 - 130)	11	(0-30)	SW846 8260B
Carbon tetrachloride	100	(64 - 135)			SW846 8260B
	92	(64 - 135)	9.1	(0-31)	SW846 8260B
t-Butanol	96	(43 - 170)			SW846 8260B
	81	(43 - 170)	18	(0-38)	SW846 8260B
1,2-Dichloroethane	93	(72 - 130)			SW846 8260B
	89	(72 - 130)	4.1	(0-25)	SW846 8260B
Trichloroethene	95	(75 - 116)			SW846 8260B
	88	(75 - 116)	7.4	(0-24)	SW846 8260B
2-Butanone (MEK)	92	(55 - 138)			SW846 8260B
	84	(55 - 138)	9.7	(0-45)	SW846 8260B
1,2-Dichloropropane	94	(74 - 122)			SW846 8260B
	88	(74 - 122)	6.5	(0-24)	SW846 8260B
n-Butylbenzene	90	(67 - 127)			SW846 8260B
	83	(67 - 127)	8.8	(0-26)	SW846 8260B
Bromodichloromethane	93	(72 - 129)			SW846 8260B
	88	(72 - 129)	5.0	(0-26)	SW846 8260B
sec-Butylbenzene	85	(66 - 122)			SW846 8260B
	78	(66 - 122)	8.3	(0-26)	SW846 8260B
cis-1,3-Dichloropropene	97	(76 - 126)			SW846 8260B
	88	(76 - 126)	9.5	(0-24)	SW846 8260B
tert-Butylbenzene	95	(73 - 120)			SW846 8260B
	86	(73 - 120)	9.8	(0-26)	SW846 8260B
trans-1,3-Dichloropropene	92	(71 - 127)			SW846 8260B
	82	(71 - 127)	12	(0-22)	SW846 8260B
Carbon disulfide	120	(27 - 170)			SW846 8260B
	110	(27 - 170)	8.8	(0-36)	SW846 8260B
1,1,2-Trichloroethane	95	(77 - 124)			SW846 8260B
	88	(77 - 124)	7.8	(0-25)	SW846 8260B
Tetrachloroethene	93	(72 - 119)			SW846 8260B
	84	(72 - 119)	11	(0-24)	SW846 8260B
Dibromochloromethane	91	(76 - 132)			SW846 8260B
	83	(76 - 132)	8.3	(0-23)	SW846 8260B
Chlorobenzene	93	(80 - 120)			SW846 8260B
	86	(80 - 120)	7.8	(0-20)	SW846 8260B
1-Chlorohexane	112	(69 - 123)			SW846 8260B
	103	(69 - 123)	8.1	(0-82)	SW846 8260B
Bromoform	91	(61 - 140)			SW846 8260B
	84	(61 - 140)	7.5	(0-22)	SW846 8260B
2-Chlorotoluene	93	(64 - 123)			SW846 8260B
	84	(64 - 123)	10	(0-34)	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G5G080299 Work Order #...: HFPPN1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: G5G180000-331 HFPPN1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Methyl tert-butyl ether (MTBE)	103	(57 - 144)			SW846 8260B
	99	(57 - 144)	4.7	(0-31)	SW846 8260B
Naphthalene	86	(55 - 159)			SW846 8260B
	81	(55 - 159)	6.6	(0-30)	SW846 8260B
n-Propylbenzene	90	(64 - 125)			SW846 8260B
	81	(64 - 125)	9.5	(0-35)	SW846 8260B
Styrene	97	(77 - 120)			SW846 8260B
	91	(77 - 120)	6.5	(0-23)	SW846 8260B
1,1,1,2-Tetrachloroethane	94	(79 - 123)			SW846 8260B
	84	(79 - 123)	11	(0-20)	SW846 8260B
Toluene	95	(78 - 120)			SW846 8260B
	88	(78 - 120)	7.2	(0-25)	SW846 8260B
1,2,3-Trichlorobenzene	87	(70 - 129)			SW846 8260B
	82	(70 - 129)	6.0	(0-27)	SW846 8260B
1,2,4-Trichloro-benzene	90	(71 - 128)			SW846 8260B
	84	(71 - 128)	6.3	(0-26)	SW846 8260B
1,2,3-Trichloropropane	84	(68 - 130)			SW846 8260B
	77	(68 - 130)	7.8	(0-29)	SW846 8260B
1,2,4-Trimethylbenzene	91	(70 - 127)			SW846 8260B
	85	(70 - 127)	7.6	(0-23)	SW846 8260B
1,3,5-Trimethylbenzene	96	(72 - 124)			SW846 8260B
	88	(72 - 124)	8.6	(0-23)	SW846 8260B
Vinyl acetate	118	(45 - 164)			SW846 8260B
	110	(45 - 164)	6.9	(0-74)	SW846 8260B
m-Xylene & p-Xylene	94	(74 - 122)			SW846 8260B
	87	(74 - 122)	7.8	(0-23)	SW846 8260B
o-Xylene	97	(74 - 122)			SW846 8260B
	89	(74 - 122)	8.2	(0-24)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(71 - 135)
	111	(71 - 135)
1,2-Dichloroethane-d4	101	(64 - 139)
	105	(64 - 139)
Toluene-d8	113	(72 - 128)
	113	(72 - 128)
4-Bromofluorobenzene	110	(66 - 121)
	109	(66 - 121)

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G5G080299 Work Order #...: HFPPN1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: G5G180000-331 HFPPN1AD-LCSD
Prep Date.....: 07/13/05 Analysis Date..: 07/13/05
Prep Batch #...: 5199331
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	20.0	24.1	ug/L	120		SW846 8260B
	20.0	22.1	ug/L	111	8.4	SW846 8260B
Dichlorodifluoromethane (Freon 12)	20.0	20.0	ug/L	100		SW846 8260B
	20.0	18.7	ug/L	93	6.6	SW846 8260B
Acetone	20.0	18.0	ug/L	90		SW846 8260B
	20.0	14.8	ug/L	74	19	SW846 8260B
Trichlorofluoromethane (Freon 11)	20.0	24.6	ug/L	123		SW846 8260B
	20.0	22.9	ug/L	114	7.2	SW846 8260B
Chloromethane	20.0	26.4	ug/L	132		SW846 8260B
	20.0	23.9	ug/L	120	9.9	SW846 8260B
Vinyl chloride	20.0	21.3	ug/L	106		SW846 8260B
	20.0	20.2	ug/L	101	5.5	SW846 8260B
Bromomethane	20.0	21.5	ug/L	108		SW846 8260B
	20.0	21.1	ug/L	105	2.0	SW846 8260B
Acrylonitrile	200	196	ug/L	98		SW846 8260B
	200	190	ug/L	95	3.2	SW846 8260B
Chloroethane	20.0	22.2	ug/L	111		SW846 8260B
	20.0	22.2	ug/L	111	0.11	SW846 8260B
1,1-Dichloroethene	20.0	23.3	ug/L	116		SW846 8260B
	20.0	21.4	ug/L	107	8.4	SW846 8260B
Methylene chloride	20.0	21.0	ug/L	105		SW846 8260B
	20.0	20.2	ug/L	101	3.9	SW846 8260B
Benzene	20.0	19.7	ug/L	98		SW846 8260B
	20.0	18.2	ug/L	91	7.8	SW846 8260B
trans-1,2-Dichloroethene	20.0	20.4	ug/L	102		SW846 8260B
	20.0	18.9	ug/L	94	7.6	SW846 8260B
1,1-Dichloroethane	20.0	19.4	ug/L	97		SW846 8260B
	20.0	18.0	ug/L	90	7.1	SW846 8260B
Bromobenzene	20.0	18.9	ug/L	95		SW846 8260B
	20.0	17.4	ug/L	87	8.4	SW846 8260B
Bromochloromethane	20.0	19.9	ug/L	99		SW846 8260B
	20.0	18.9	ug/L	94	5.1	SW846 8260B
Chloroform	20.0	19.5	ug/L	97		SW846 8260B
	20.0	18.3	ug/L	91	6.3	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G5G080299 Work Order #...: HFPPN1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: G5G180000-331 HFPPN1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1,2,2-Tetrachloroethane	20.0	17.6	ug/L	88		SW846 8260B
	20.0	15.9	ug/L	79	9.9	SW846 8260B
4-Chlorotoluene	20.0	18.6	ug/L	93		SW846 8260B
	20.0	16.8	ug/L	84	10	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	20.0	15.2	ug/L	76		SW846 8260B
	20.0	13.8	ug/L	69	9.2	SW846 8260B
Dibromomethane	20.0	18.0	ug/L	90		SW846 8260B
	20.0	16.7	ug/L	83	7.5	SW846 8260B
1,2-Dibromoethane (EDB)	20.0	17.8	ug/L	89		SW846 8260B
	20.0	16.3	ug/L	82	8.7	SW846 8260B
1,3-Dichlorobenzene	20.0	18.5	ug/L	92		SW846 8260B
	20.0	17.1	ug/L	85	8.1	SW846 8260B
1,4-Dichlorobenzene	20.0	18.6	ug/L	93		SW846 8260B
	20.0	17.2	ug/L	86	7.8	SW846 8260B
1,2-Dichlorobenzene	20.0	18.5	ug/L	93		SW846 8260B
	20.0	16.9	ug/L	84	9.2	SW846 8260B
cis-1,2-Dichloroethene	20.0	19.4	ug/L	97		SW846 8260B
	20.0	18.5	ug/L	92	4.8	SW846 8260B
1,3-Dichloropropane	20.0	17.5	ug/L	87		SW846 8260B
	20.0	16.5	ug/L	83	5.6	SW846 8260B
2,2-Dichloropropane	20.0	19.1	ug/L	96		SW846 8260B
	20.0	17.9	ug/L	90	6.4	SW846 8260B
1,1-Dichloropropene	20.0	18.0	ug/L	90		SW846 8260B
	20.0	16.8	ug/L	84	7.4	SW846 8260B
1,4-Dioxane	500	491	ug/L	98		SW846 8260B
	500	459	ug/L	92	6.6	SW846 8260B
Ethylbenzene	20.0	19.4	ug/L	97		SW846 8260B
	20.0	17.7	ug/L	89	9.1	SW846 8260B
Hexachlorobutadiene	20.0	18.3	ug/L	91		SW846 8260B
	20.0	16.1	ug/L	80	13	SW846 8260B
2-Hexanone	20.0	17.4	ug/L	87		SW846 8260B
	20.0	16.3	ug/L	82	6.6	SW846 8260B
Isopropylbenzene	20.0	19.4	ug/L	97		SW846 8260B
	20.0	18.0	ug/L	90	7.6	SW846 8260B
p-Isopropyltoluene	20.0	18.7	ug/L	94		SW846 8260B
	20.0	17.0	ug/L	85	9.5	SW846 8260B
4-Methyl-2-pentanone (MIBK)	20.0	18.0	ug/L	90		SW846 8260B
	20.0	17.0	ug/L	85	6.0	SW846 8260B

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G5G080299 Work Order #...: HFPPN1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: G5G180000-331 HFPPN1AD-LCSD

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

STL San Francisco

Sample Receipt Checklist

Submission #:2005- 06-0762

Checklist completed by:		DATE	6/30/05
Courier: ☐ STL SF	Courier ☐ Fedex UPS Other		Client ☑

	Log-In Details	Yes	No	Comments
1	Custody seals intact on shipping container/samples		✓	
2	Chain of custody present?	✓		
3	Chain of custody signed when relinquished and received?	✓		☐ Picked-Up at Secure Location. ☐ Client signed-off at time prior to pick-up
4	All samples checked when COC relinquished		✓	
5	Chain of custody agrees with sample labels?	✓		
6	Samples in proper container/bottle?	✓		
7	Sample containers intact?	✓		
8	Sufficient sample volume for indicated test?	✓		
9	All samples received within holding time?	✓		

Cooler Temperature Compliance Check

Temperature Blank Reading	If no trip blank is submitted individual temperatures must be taken as per SOP	Cooler Sample Temperature #1	#2	#3	Average
	→	6	6	6	6°C

Reason for Elevated Temperature	Samples with Temp > 6°C - Comments
☐ - Ice Melted ☐ Insufficient Ice ☐	
☐ Samp. in boxes ☐ Sampled < 4hr. ☐ Ice not req.	

VOA Sample Inspection

	Sample #	Small	Med.	Large	Samples with broken, cracked or leaking containers
Are bubbles present in any of the VOA vials ?		0	0	0	
		☐	☐	☐	
		☐	☐	☐	
		☐	☐	☐	

Water - pH acceptable upon receipt?	Yes	No	Samples with Unacceptable pH
	☐	☐	

☐ pH adjusted– Preservative used: ☐ HNO_3 ☐ HCl ☐ H_2SO_4 ☐ NaOH ☐ ZnOAc –Lot #(s) _____

Comments:

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

Project Manager: (initials) _____ Date: _____/_____/05 Client contacted: Ye☐ N☐

Summary of discussion:

Corrective Action (per PM/Client):

2005 Checklist Ver. 2.0

APPENDIX B

ACHCSA Monitoring Correspondence
Historical Monitoring Data

DA COUNTY
TH CARE SERVICES
AGENCY
AVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

JLK 07026 2.07 closed

ily 14, 1994
StID # 67

Mr. Wally Pierce
PG & E
ne California St., Room F235
an Francisco, CA 94111

E: Groundwater Monitoring Schedule for 4930 Coliseum Way, PG&E Construction and Distribution Yard, Oakland CA 94601

ear Mr. Pierce:

As you may be aware, Mr. Britt Johnson has left our offices and as transferred the oversight of this site to me. I am familiar ith this site, as I originally was overseeing the petroleum ydrocarbon release at this site until I relinquished the entire site to Mr. Johnson. Prior to his departure, he discussed your roposed change from quarterly to semi-annual groundwater onitoring for the wells downgradient to the former above ground tank. Given the prior low soluble lead levels, I concurr with his monitoring change. At this time all wells may be monitored n a semi-annual basis.

lease be aware our office has recently moved to:
131 Harbor Bay Parkway, Room 200
Alameda CA 94502.

ntil our phone system is on-line, you may leave a voice message for me at (510) 337-2864.

incerely,

arney M. Chan
Hazardous Materials Specialist

c: Ms. Melissa Cooney, The Earth Technology Corp., 2030 Addison St., Suite 500, Berkeley, CA 94704
K. Graves, RWQCB
E. Howell, files

mon-4930

Historical Groundwater Analytical Data

Well ID	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1
Date	Apr-88	Oct-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Apr-93	Jul-93	Oct-93	Jan-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-98	Dec-98	Jun-99	Nov-99
PURGEABLE HALOCARBONS																													
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND	5	4	4	2	2	1	2.6	4.6	ND	ND	ND	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.63	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	1	4	4	1	3	1.8	2.9	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	ND	ND	ND	ND	ND	0.58	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	4	11	5	13	11	6	3	6.7	14	3.2	ND	4	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PURGEABLE AROMATICS																													
Benzene	ND	ND	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	NA	ND	ND	ND	ND	0.66	ND	0.5	0.55	ND
Toluene	ND	ND	2.3	0.4	ND	ND	ND	ND	ND	ND	ND	0.7	ND	ND	NA	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	0.67	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	0.6	NA	ND	NA	ND	ND	NA	ND	ND	ND	ND	2.3	ND	0.76	ND	ND
Total Xylenes		ND	2.6	2.4	ND	ND	ND	ND	ND	ND	3.2	9	1.7	1.9	NA	ND	NA	2.5	ND	NA	ND	ND	ND	ND	1.1	ND	0.67	ND	0.59
TOTAL VOCs	4	16	18.1	23.8	17	9	7	13.41	21.5	3.2	3.2	15.7	5.7	8.5	NA	NA	NA	2.5	NA	NA	NA	NA	NA	NA	4.06	0.67	1.93	0.55	0.59
HYDROCARBONS																													
TVH-g	NA	NA	< 50	82	< 50	< 50	< 500	NA	NA	NA	100	320	< 50	70	NA	NA	NA	80	60	400	230	500	830	590	420	860	850	1100	990
TEPH-d	< 1000	< 1000	190	300	200	200	90	< 200	< 50	1600	3100	3900	1000	2000	NA	2300	NA	1000	1500	740	1000	2300	1400	1500	700	1900	1800	1800	940
O&G	< 5000	16000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)	NA	NA	< 5000	< 5000	< 5000	< 5000	< 5000	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS																													
Lead	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Purgeable Halocarbons (EPA Method 8021B/8260B)
Purgeable Aromatics (EPA Method 8260B)
TPH-G (Total Petroleum Hydrocarbons as Gasoline by EPA Method 8260B)
TPH-D (Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M)
Metals (EPA Method 6010B). Samples were field filtered.
ND = Not Detected at or above MDL
NA = Not Analyzed or analysis Not Applicable according to current monitoring program.
Samples on 6/17/02 analyzed for VOCs out of holding time due to laboratory error

Historical Groundwater Analytical Data

Well ID	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2	OW-2
Date	Apr-88	Oct-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Apr-93	Jul-93	Oct-93	Jan-94	Apr-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-98	Dec-98	Jun-99	Nov-99
PURGEABLE HALOCARBONS																														
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	0.53	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PURGEABLE AROMATICS																														
Benzene	ND	ND	0.4	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ND	ND	0.4	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes		ND	0.4	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL VOCs	NA	NA	1.2	1.4	NA	NA	NA	0.53	NA	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS																														
TVH-g	NA	NA	< 50	< 50	< 50	< 50	< 50	NA	NA	NA'	< 50	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TEPH-d	< 1000	< 1000	130	140	88	90	< 50	< 200	< 50	650	670	410	410	620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O&G	16000	16000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)	NA	NA	< 5000	< 5000	< 5000	< 5000	< 5000	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS																														
Lead	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	8	ND	4.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
Purgeable Halocarbons (EPA Method 8021B/8260B)
Purgeable Aromatics (EPA Method 8260B)
TPH-G (Total Petroleum Hydrocarbons as Gasoline by EPA Method 8260B)
TPH-D (Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M)
Metals (EPA Method 6010B). Samples were field filtered.
ND = Not Detected at or above MDL
NA = Not Analyzed or analysis Not Applicable according to current monitoring program.
Samples on 6/17/02 analyzed for VOCs out of holding time due to laboratory error

Historical Groundwater Analytical Data

Well ID	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4
Date	Jun-88	Oct-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Apr-93	Jul-93	Oct-93	Jan-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jul-98	Dec-98	Jun-99	Nov-99	Jun-00	Nov-00	Jun-01	Nov-01
PURGEABLE HALOCARBONS																																	
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	3	6.1	9.4	ND	7	4	4	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.49	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PURGEABLE AROMATICS																																	
Benzene	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Toluene	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	ND	ND	0.6	2	ND	ND	ND	ND	ND	ND	0.7	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
TOTAL VOCs	NA	NA	0.6	3.4	NA	NA	3	6.59	9.4	NA	7.7	4	4	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HYDROCARBONS																																	
TVH-g	NA	NA	<50	<50	<50	<50	<50	NA	NA	NA	< 50	< 50	< 50	< 50	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
TEPH-d	< 1000	< 1000	150	210	150	150	<50	580	< 50	2000	2100	820	1300	2100	NA	1500	NA	NA	NA	1600	630	1100	840	980	NA	1000	NA	NA	NA	NA	NA	NA	NA
O&G	< 5000	< 5000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	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	< 5000	< 5000	< 5000	< 5000	< 5000	< 500	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
METALS																																	
Lead	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	5	ND	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Purgeable Halocarbons (EPA Method 8021B/8260B)
Purgeable Aromatics (EPA Method 8260B)
TPH-G (Total Petroleum Hydrocarbons as Gasoline by EPA Method 8260B)
TPH-D (Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M)
Metals (EPA Method 6010B). Samples were field filtered.
ND = Not Detected at or above MDL
NA = Not Analyzed or analysis Not Applicable according to current monitoring program.
Samples on 6/17/02 analyzed for VOCs out of holding time due to laboratory error

Historical Groundwater Analytical Data

Well ID	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6	OW-6
Date	Apr-88	Jun-88	Oct-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Jul-93	Oct-93	Jan-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-98	Dec-98	Jun-99	Nov-99
PURGEABLE HALOCARBONS																													
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	49	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	0.82	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	4	5	28	29	14	17	17	15	16	41	ND	1	2	2	10	23	NA	7	17	31	8.8	10	5.4	7	7.7	3.3	4.6	2.1	3.1
cis-1,2-Dichloroethene	NA	NA	ND	ND	33	ND	1	1	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	0.55	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND	ND	10	18	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	1	ND	ND	ND	ND	ND	1	2.3	2	5.7	ND	ND	ND	ND	ND	NA	ND	ND	2	4.5	ND	5.2	1	4.6	26	9.1	8.3	ND	1.9
1,3-Dichlorobenzene	NA	NA	NA	3	ND	2	2	1	3.3	ND	15	ND	ND	ND	ND	ND	NA	ND	ND	11	7.4	20	10	25	46	30	27	5.4	9.2
1,2-Dichlorobenzene	NA	NA	NA	2	ND	1	1	1	2.3	ND	5.8	ND	ND	ND	ND	ND	NA	ND	ND	23	ND	2.4	ND	2.1	6.3	3	2.8	ND	0.7
1,4-Dichlorobenzene	NA	NA	NA	2	ND	ND	2	1	3.1	ND	23	ND	ND	ND	ND	ND	NA	ND	ND	2.9	16	46	26	65	140	84	68	19	30
PURGEABLE AROMATICS																													
Benzene	ND	ND	ND	0.5	ND	ND	ND	ND	0.54	ND	ND	ND	ND	ND	ND	0.6	NA	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND
Toluene	ND	ND	ND	0.4	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	NA	ND	ND	ND	ND	ND	ND	ND	35	ND	ND	ND	ND
Total Xylenes			ND	0.7	2.1	ND	ND	ND	ND	ND	2	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	6	8	28	37.6	59.4	20	23	20	32.81	43	51.5	1	2	2	20	42.7	NA	7	19	76.3	81.2	83.6	42.4	103.6	261.5	129.4	110.7	27.6	44.9
HYDROCARBONS																													
TVH-g	NA	NA	NA	< 50	52	< 50	< 50	< 50	NA	NA	NA	< 50	< 50	< 50	< 50	< 50	NA	70	<50	ND	ND	61	ND	83	160	110	130	84	57
TEPH-d	< 1000	< 1000	< 1000	440	470	450	130	1310	700	< 50	5500	4900	3500	3900	5300	3500	NA	2200	2500	1300	2400	2000	2400	1300	1200	1300	2000	1300	1000
O&G	< 5000	< 5000	5000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)	NA	NA	NA	< 5000	< 5000	< 5000	< 5000	< 5000	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS																													
Lead	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Purgeable Halocarbons (EPA Method 8021B/8260B)
Purgeable Aromatics (EPA Method 8260B)
TPH-G (Total Petroleum Hydrocarbons as Gasoline by EPA Method 8260B)
TPH-D (Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M)
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ND = Not Detected at or above MDL
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Samples on 6/17/02 analyzed for VOCs out of holding time due to laboratory error

Historical Groundwater Analytical Data

Well ID	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7	OW-7
Date	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Apr-93	Jul-93	Oct-93	Jan-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-98	Dec-98	Jun-99	Nov-99	Jun-00	Nov-00	Jun-01	Nov-01	Jun-02	Oct-02	Apr-03	Nov-03	Jun-04	Dec-04	Jun-05
PURGEABLE HALOCARBONS																															
Chloromethane	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO	ND
Bromomethane	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	14	ND	NO	ND	ND	NA	ND	NA	NO	ND	ND	ND	NO	ND	ND	ND	ND	ND	ND	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	NA	ND	NA	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	NO	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	16	ND	ND	25	NA	14	NA	8	ND	5.5	25	6.5	6.6	4.3	9.8	4.1	5.7	ND	6.3	ND	ND	ND	ND	ND	ND	ND	ND	6.8	10	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.9	12	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	ND	ND	ND	ND	ND	NA	ND	NA	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	NO	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10	460	29	80	530	NA	73	NA	76	28	33	41	18	6.6	7.9	31	5.9	5.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	NO	ND	NA	ND	NA	ND	NO	NO	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	NO	NA	ND	NA	ND	ND	ND	NO	ND	ND	ND	ND	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	8	ND	NA	29	NA	21	24	12	34	25	31	25	46	27	31	34	36	18	39	27	25	46	74	110	68	110	94	92
1,3-Dichlorobenzene	460	130	420	330	170	NA	540	NA	450	570	270	400	380	440	290	360	340	360	420	330	220	330	320	260	420	630	630	210	240	340	250
1,2-Dichlorobenzene	120	22	95	77	33	NA	470	NA	78	100	290	61	62	74	47	57	50	48	67	44	44	49	42	56	69	120	75	26	33	45	29
1,4-Dichlorobenzene	440	120	400	290	160	NA	110	NA	410	540	51	480	500	560	410	530	450	470	580	450	310	470	510	360	500	950	1000	500	740	1100	710
PURGEABLE AROMATICS																															
Benzene	ND	0.8	1	1.4	0.6	NA	1.5	NA	1.6	1.2		1.1	ND	NO	0.56	1.6	0.65	0.65	0.84	0.62	ND	0.83	ND	ND	ND	ND	ND	ND	ND	0.89	NO
Toluene	ND	0.6	0.5	ND	ND	NA	ND	NA	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	0.5	ND	NO	NA	ND	NA	ND	ND		ND	ND	ND	ND	70	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	ND	2.1	5	ND	ND	NA	ND	NA	4.2	ND		ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	1054	751.5	951	786.4	918.6	NA	1237.5	NA	1048.8	1263.2	661.5	1612.1	991.5	1118.2	784.76	1106.5	877.66	920.95	1101.8	868.92	592	888.83	899	701	1035	1774	1815	804	1139.7	1601.9	1081
HYDROCARBONS																															
TVH-g	NA	700	1300	1400	720	NA	1500	NA	1400	1800	650	980	1200	1500	1100	1100	1000	1100	1200	1100	580	1100	1200	530	1000	1300	1200	440	1100	410	1100
TEPH-d	7100	4400	2800	3900	2300	NA	4900	NA	4500	4800	1800	4400	4500	4800	2600	2100	2600	3500	3500	2400	430	370	1100	580	1000	1700	1000	780	1000	890	2000
O&G	< 5000	< 5000	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	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	NA	NA	NA	NA
METALS																															
Lead	NA	ND	ND	ND	ND	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

Notes:
Purgeable Halocarbons (EPA Method 8021B/8260B)
Purgeable Aromatics (EPA Method 8260B)
TPH-G (Total Petroleum Hydrocarbons as Gasoline by EPA Method 8260B)
TPH-D (Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M)
Metals (EPA Method 6010B). Samples were field filtered.
ND = Not Detected at or above MDL
NA = Not Analyzed or analysis Not Applicable according to current monitoring program.
Samples on 6/17/02 analyzed for VOCs out of holding time due to laboratory error

Historical Groundwater Analytical Data

Well ID	MCL	OW-9B	OW-9	OW-9
Date	ug/L	Jun-98	Jun-99	Nov-99
PURGEABLE HALOCARBONS				
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-Dichloroethene	6	ND	ND	ND
1,1-Dichloroethane	5	ND	2.6	2.6
cis-1,2-Dichloroethene	6	ND	ND	ND
trans-1,2-Dichloroethene	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-Chloroethylvinyl 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
TOTAL VOCs		0.73	1036.6	1036.6
HYDROCARBONS				
TVH-g		ND	NA	NA
TEPH-d		NA	NA	NA
O&G		NA	NA	NA
TPH (418.1)		NA	NA	NA
METALS				
Lead	0	NA	NA	NA

Notes:
Purgeable Halocarbons (EPA Method 8021B/8260B)
Purgeable Aromatics (EPA Method 8260B)
TPH-G (Total Petroleum Hydrocarbons as Gasoline by EPA Method 8260B)
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