

Pacific Gas and Electric Company

Environmental Services  
P.O. Box 7640  
San Francisco, CA 94120  
415/973-7000  
Direct Dial 415/973-  
Telecopy 415/973-9201

November 21, 2000

ENVIRONMENTAL  
PROTECTION  
00 NOV 27 PM 2:31



Ms. Susan Hugo  
Senior Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Dear Ms. Hugo:

Enclosed is a copy of the report "Groundwater Monitoring and Sampling Report, Pacific Gas and Electric's Emeryville Materials Facility, 4525 Hollis Street, Emeryville, California, Third Quarter 2000." This report summarizes the groundwater flow direction, hydraulic gradient, and the results of laboratory chemical analyses of groundwater samples collected in August 2000.

Findings of the groundwater monitoring performed this quarter include:

- The depth to groundwater ranged from 10.98 to 14.2 feet below the surface. Groundwater flow was to the north between monitoring wells MW-4 and ESE-2 with a gradient of 0.01 ft/ft, and to the north-northwest between wells ESE-2 and ESE-1 with a gradient of 0.07 ft/ft.
- All compounds were below the method-reporting limit.

Should you have any questions or comments, please call me at 415-972-5719.

Sincerely,

A handwritten signature in cursive script that reads "Susan Fandel".

Susan Fandel  
Environmental Specialist

SF:cc

Enclosure

cc: Jesus Luna

# TES

## **Groundwater Monitoring And Sampling Report**

**Former Aboveground  
Storage Tank  
4525 Hollis Street  
Emeryville, California**

**Third Quarter 2000**

Prepared by  
**Technical and Ecological Services**

October 2000

Report No.: 402.331-00.221

**Pacific Gas and Electric Company  
Technical and Ecological Services  
3400 Crow Canyon Road, San Ramon, California 94583**

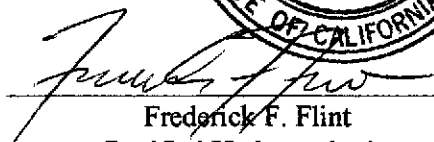
**TES 24-Hr. Service Line: 8-251-3197 or (925) 866-3197**

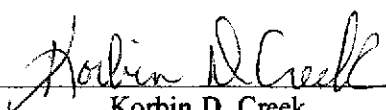
Prepared by:

  
Karen S. Piini  
Engineer

Approved by:



  
Frederick F. Flint  
Certified Hydrogeologist

  
Korbin D. Creek  
Supervisor, Land and Water Quality Unit

# CONTENTS

	<b>Page</b>
1 INTRODUCTION .....	1
2 GROUNDWATER GRADIENT AND DIRECTION.....	1
3 SAMPLING, ANALYSIS, AND MONITORING PROGRAM RESULTS .....	1
4 FIELD AND LABORATORY QUALITY CONTROL RESULTS .....	2

Appendix A:  
MONITORING WELL WATER LEVEL / FLOATING PRODUCT SURVEY FORM AND  
PURGING AND SAMPLING LOG SHEETS

Appendix B:  
CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

## FIGURES

Figure	Page
1 Site Location .....	3
2 Groundwater Elevation Contour Map, August 16, 2000 .....	4
3 Monitoring Well Purging Protocol .....	5

## TABLES

Table	Page
1 Third Quarter 2000 and Historical Field Measurement Data .....	6
2 Third Quarter 2000 and Historical Analytical Data .....	10

## 1 INTRODUCTION

This report presents the results of groundwater monitoring performed during the third quarter 2000 in conjunction with the former aboveground storage tank at the Pacific Gas and Electric Company (PG&E) Emeryville Maintenance Facility at 4525 Hollis Street in Emeryville, California (see Figure 1).

## 2 GROUNDWATER GRADIENT AND DIRECTION

Third quarter groundwater levels were measured at the PG&E Maintenance Facility in Emeryville, California, on August 16, 2000, in wells ESE-1, ESE-2, ESE-3, and MW-4 using an electronic sounding device and recorded on the water level / floating product survey form included in Appendix A. The groundwater elevations are summarized in Table 1. Well ESE-4 has been abandoned and is no longer part of the monitoring well network.

The August data were used to construct a groundwater contour map (see Figure 2). August water levels ranged from 10.44 feet above mean sea level (MSL) in well ESE-1 to 17.16 feet above MSL in well MW-4. The groundwater gradient is 0.01 foot per foot (ft/ft) to the north between monitoring wells MW-4 and ESE-2, and 0.07 ft/ft to the north-northwest between monitoring wells ESE-2 and ESE-1.

## 3 SAMPLING, ANALYSIS, AND MONITORING PROGRAM RESULTS

Groundwater samples were collected from wells ESE-1, ESE-2, and ESE-3 on August 16, 2000, consistent with the protocol presented in Figure 3. The samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by U.S. Environmental Protection Agency (USEPA) Method 8020; polychlorinated biphenyls (PCBs) by USEPA Method 8080; and total extractable petroleum hydrocarbons (TEPH) as mineral oil by USEPA Method 3510/8015M. Sample preparation for TEPH analysis also included glass filtration and silica gel clean-up to remove non-petroleum hydrocarbons. Temperature, pH, and electrical conductivity were measured in the field and recorded on the purging and sampling log sheets (see Appendix A). Field readings from the third quarter 2000 monitoring event are summarized in Table 1.

Third quarter 2000 and historical analytical data are summarized in Table 2. Certified analytical reports and chain-of-custody records are included in Appendix B. The analytical results are discussed below.

- BTEX compounds were not detected at or above the method reporting limit (MRL) in the samples collected from wells ESE-1, ESE-2, and ESE-3.

- MTBE was not detected at or above the MRL in the samples collected from wells ESE-1, ESE-2, and ESE-3.
- PCBs were not detected at or above the MRL in the samples collected from wells ESE-1, ESE-2, and ESE-3.
- Mineral oil was not detected at or above the MRL in the filtered samples collected from wells ESE-1, ESE-2, and ESE-3.

#### **4 FIELD LABORATORY QUALITY CONTROL RESULTS**

Analytical data were evaluated for accuracy and precision based on field and laboratory quality control (QC) sample performance.

A field blank was collected to assess the effect of field environments on the analytical results and to identify false positives. No petroleum hydrocarbons were detected in the field blank. There were no adverse effects from sampling or analytical procedures.

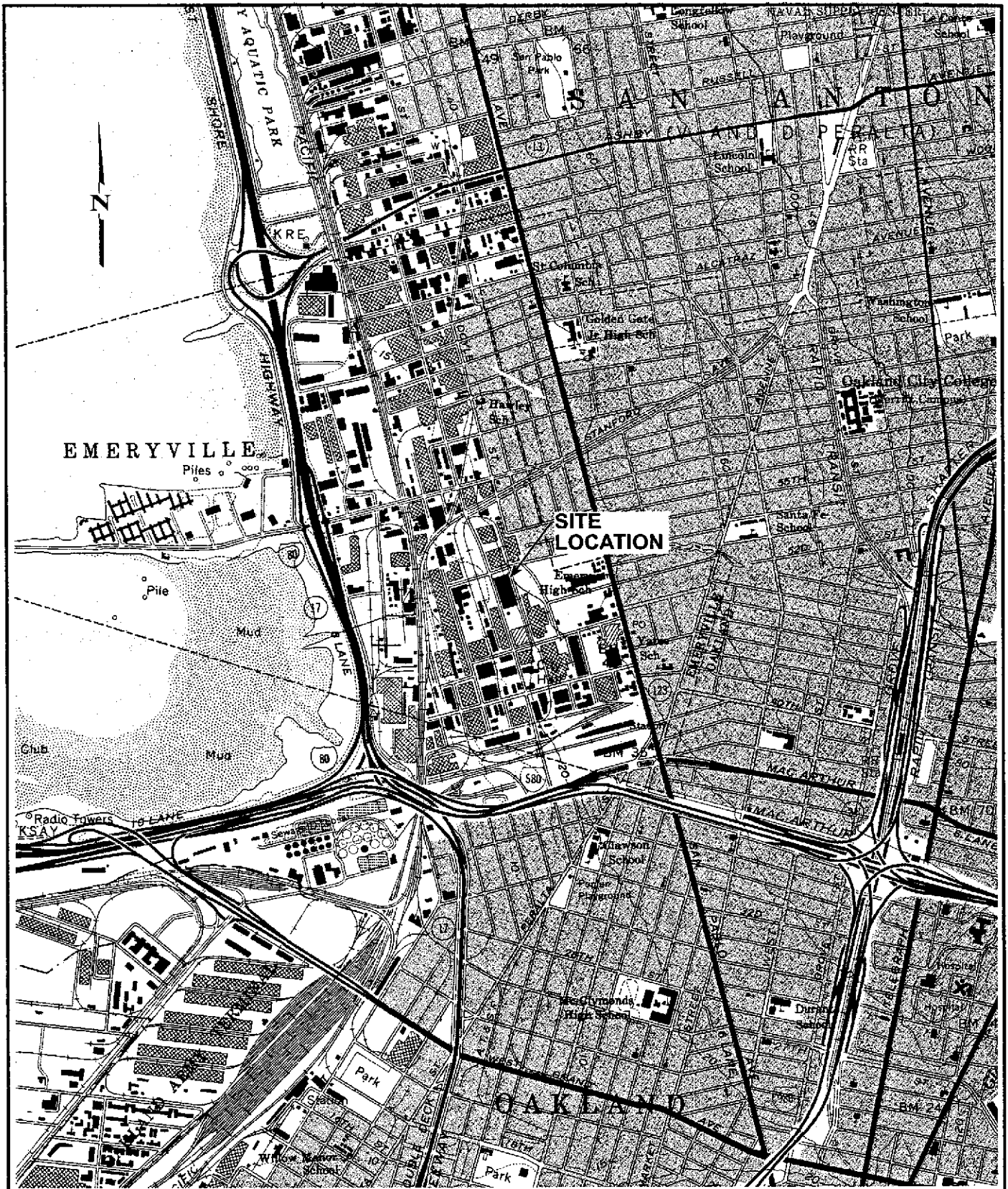
The laboratory QC consisted of checking adherence to holding times and evaluating method blanks and matrix spike (MS) results. Holding times are established by the USEPA and refer to the maximum time allowed to pass between sample collection and analysis by the laboratory. These limits assist in determining data validity.

The sample collected from well ESE-3 was analyzed after the recommended holding time had expired due to technician error. The sample was transported to the analytical laboratory, however, it had not been entered on the chain-of-custody, and therefore, was not analyzed. Analysis of the sample was requested on September 18, 2000 and completed on September 19, 2000. The results obtained are consistent with historical results for this well and are therefore considered to be valid.

The method blank results are used to assess the effect of the laboratory environment on the analytical results. The MS recoveries are used to assess accuracy.

All analyses were done within the holding times specified by the USEPA. No compounds were detected in the daily method blanks. The MS results were within the laboratory acceptance limits.

The laboratory QC results indicated that the analytical data are of acceptable quality.



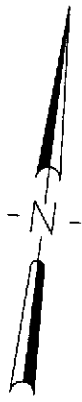
Base map from U.S. Geological Survey 7.5 minute series.  
 Quadrangle: Oakland West, Calif.

0 2000 Feet



Figure 1. Site Location Map of Emeryville Service Center





53RD STREET

ESE-4  
(ABANDONED)

ESE-3  
(12.68)

CHIRON CORPORATION

4525 Hollis St.

ESE-1  
(10.44)

0.07

ESE-2  
(13.60)

12

13

14

15

16

HOLLIS STREET

0.01

MW-4  
(17.16)

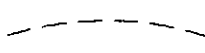
EXPLANATION



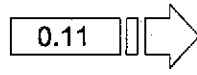
GROUNDWATER MONITORING WELL

(15.41)

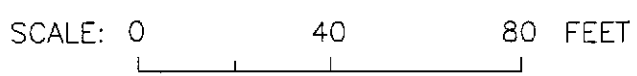
GROUNDWATER ELEVATION (Ft-MSL)



GROUNDWATER ELEVATION CONTOUR (Ft-MSL)



APPROXIMATE DIRECTION OF GROUNDWATER FLOW SHOWING GRADIENT (Ft/Ft)



**Emeryville Maintenance Facility  
Groundwater Contour Map - August 16, 2000**

TECHNICAL AND ECOLOGICAL SERVICES - LWQU

DRN:LKE	DATE : 9-8-00
CHK:KSP	SCALE: As Shown
APR:FFF	SHEET Emeryville

FIGURE 2

REV.  
0

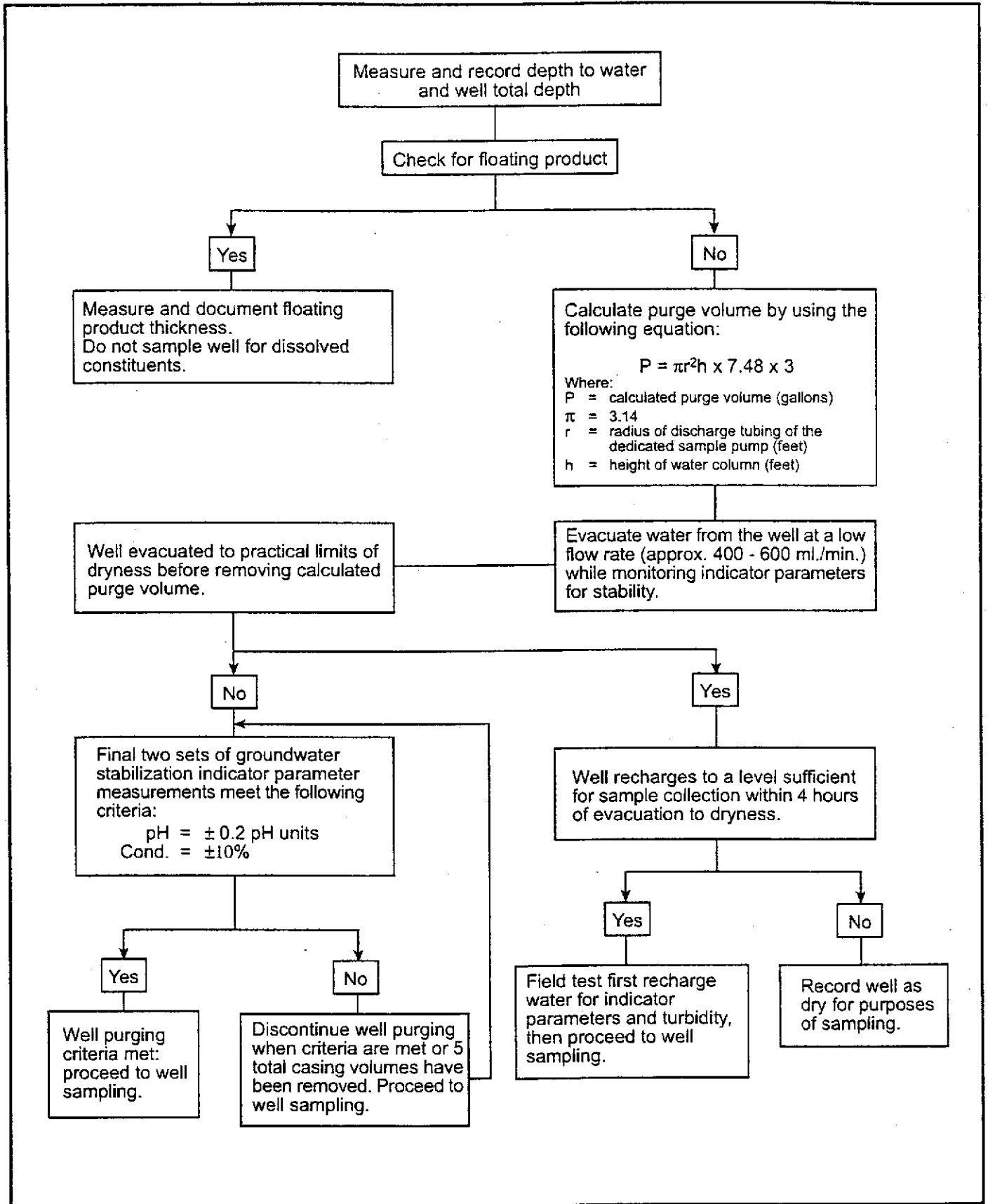


Figure 3. Monitoring Well Purging Protocol



**Table 1**  
**Emeryville Service Center**  
**Third Quarter 2000 and Historical Field Measurement Data**

Sample Designation	Date	Top-of-Casing Elevation (ft/MSL) <sup>1</sup>	Depth to Water (feet)	Groundwater Elevation (ft/MSL)	Measured Well Depth (feet)	pH (units)	Temperature (°F)	Electrical Conductivity (µmhos/cm)
ESE-1	03/28/94	23.66	10.06	13.60	20.8	8.48	73.1	600
ESE-1	04/07/94	23.66	10.22	13.44	NM <sup>3</sup>	NS <sup>4</sup>	NS	NS
ESE-1	12/12/94	23.66	9.18	14.48	30.6	7.26	63.4	588
ESE-1	03/13/95	23.66	8.20	15.46	30.6	7.33	63.3	548
ESE-1	06/15/95	23.66	9.50	14.16	30.6	6.90	64	505
ESE-1	09/15/95	23.66	10.13	13.53	30.6	6.80	65.1	505
ESE-1	12/15/95	23.66	10.55	13.11	33.8	7.04	65.1	511
ESE-1	03/15/96	23.66	11.79	11.87	33.6	6.94	64.9	540
ESE-1	06/14/96	23.66	12.68	10.98	33.6	6.93	67.4	517
ESE-1	10/07/96	23.66	12.56	11.10	34.0	6.94	73.3	494
ESE-1	12/04/96	23.66	12.67	10.99	34.2	6.80	64.4	507
ESE-1	02/14/97	23.66	12.62	11.04	34.2	6.96	67.5	509
ESE-1	05/16/97	23.66	13.05	10.61	34.2	7.07	69.0	534
ESE-1	08/22/97	23.66	12.60	11.06	34.0	6.32	67.4	597
ESE-1	11/14/97	23.66	12.32	11.34	33.7	7.35	65.9	600
ESE-1	02/13/98	23.66	10.61	13.05	33.7	7.21	61.8	621
ESE-1	05/15/98	23.66	12.64	11.02	33.7	7.19	68.0	598
ESE-1	08/21/98	23.66	12.61	11.05	33.6	7.15	68.2	603
ESE-1	12/01/98	23.66	12.16	11.50	33.2	6.86	66.7	483
ESE-1	02/11/99	23.66	11.45	12.21	33.2	6.80	66.6	567
ESE-1	05/12/99	23.66	13.12	10.54	33.7	6.95	67.6	562
ESE-1	11/29/99	23.66	13.11	10.55	30.6	3.77	66.2	614
ESE-1	02/15/00	23.66	16.45	7.21	34.0	6.86	67.1	615
ESE-1	05/26/00	23.66	13.20	10.46	30.6	6.55	67.6	616
ESE-1	08/16/00	23.66	13.22	10.44	30.6	6.76	69.1	609
ESE-2	03/28/94	27.80	10.13	17.67	34.2	7.67	67.5	580
ESE-2	04/07/94	27.80	14.37	13.43	NM	NS	NS	NS
ESE-2	12/12/94	27.80	13.05	14.75	34.3	7.05	64.6	610
ESE-2	03/13/95	27.80	12.48	15.32	34.3	7.19	62.5	596
ESE-2	06/15/95	27.80	13.85	13.95	34.3	7.02	65.1	601
ESE-2	09/15/95	27.80	14.22	13.58	34.3	6.91	65.6	627
ESE-2	12/15/95	27.80	11.65	16.15	34.1	7.12	64.7	591
ESE-2	03/15/96	27.80	12.87	14.93	34.1	7.01	65.8	669

**Table 1**  
**Emeryville Service Center**  
**Third Quarter 2000 and Historical Field Measurement Data**

Sample Designation	Date	Top-of-Casing Elevation (ft/MSL) <sup>1</sup>	Depth to Water (feet)	Groundwater Elevation (ft/MSL)	Measured Well Depth (feet)	pH (units)	Temperature (°F)	Electrical Conductivity (µmhos/cm)
ESE-2	06/14/96	27.80	13.94	13.86	34.1	7.08	67.1	607
ESE-2	10/07/96	27.80	13.58	14.22	34.0	7.10	74.6	558
ESE-2	12/04/96	27.80	14.20	13.60	34.4	6.89	65.0	618
ESE-2	02/14/97	27.80	13.80	14.00	34.4	7.02	66.3	578
ESE-2	05/16/97	27.80	14.07	13.73	34.4	7.00	69.9	580
ESE-2	08/22/97	27.80	14.35	13.45	34.4	6.49	66.1	623
ESE-2	11/14/97	27.80	13.80	14.00	34.4	7.23	66.8	649
ESE-2	02/13/98	27.80	11.52	16.28	34.4	7.15	62.4	646
ESE-2	05/15/98	27.80	13.56	14.24	34.4	7.29	68.7	611
ESE-2	08/21/98	27.80	13.63	14.17	34.4	7.21	67.1	603
ESE-2	12/01/98	27.80	13.18	14.62	34.1	6.88	71.8	516
ESE-2	02/11/99	27.80	12.39	15.41	34.1	6.50	67.1	633
ESE-2	05/12/99	27.80	14.12	13.68	34.2	6.94	68.4	546
ESE-2	11/29/99	27.80	---	---	34.2	NS	NS	NS
ESE-2	02/15/00	27.80	11.90	15.90	34.6	6.83	67.3	640
ESE-2	05/26/00	27.80	14.16	13.64	34.3	6.70	70.2	632
ESE-2	08/16/00	27.80	14.20	13.60	34.3	6.86	68.5	614
ESE-3	03/28/94	23.91	11.23	12.68	30.9	7.47	68.7	610
ESE-3	04/07/94	23.91	11.29	12.62	NM	NS	NS	NS
ESE-3	12/12/94	23.91	10.62	13.29	31.0	7.19	63.9	600
ESE-3	03/13/95	23.91	9.45	14.46	31.0	6.99	62.5	600
ESE-3	06/15/95	23.91	10.27	13.64	31.0	7.10	64.9	556
ESE-3	09/15/95	23.91	10.87	13.04	31.0	6.96	65.5	559
ESE-3	12/19/95	23.91	9.40	14.51	31.0	7.28	64.2	556
ESE-3	03/15/96	23.91	10.02	13.89	30.9	7.01	65.0	583
ESE-3	06/14/96	23.91	10.63	13.28	30.9	7.09	67.0	546
ESE-3	10/07/96	23.91	10.85	13.06	31.0	6.87	68.8	514
ESE-3	12/04/96 <sup>5</sup>	23.91	10.67	13.24	30.9	NM	NM	NM
ESE-3	02/14/97	23.91	10.75	13.16	30.9	7.01	65.9	506
ESE-3	05/16/97	23.91	10.99	12.92	31.0	7.40	69.9	539
ESE-3	08/22/97	23.91	10.65	13.26	31.0	6.86	66.6	563
ESE-3	11/14/97	23.91	10.50	13.41	31.0	7.47	65.8	583
ESE-3	02/13/98	23.91	9.32	14.59	31.0	7.04	63.7	602
ESE-3	05/15/98	23.91	10.72	13.19	31.0	7.42	67.8	593

**Table 1**  
**Emeryville Service Center**  
**Third Quarter 2000 and Historical Field Measurement Data**

Sample Designation	Date	Top-of-Casing Elevation (ft/MSL) <sup>1</sup>	Depth to Water (feet)	Groundwater Elevation (ft/MSL)	Measured Well Depth (feet)	pH (units)	Temperature (°F)	Electrical Conductivity (µmhos/cm)
ESE-3	08/21/98	23.91	10.65	13.26	31.0	6.95	65.8	600
ESE-3	12/01/98	23.91	10.35	13.56	30.8	6.92	65.5	489
ESE-3	02/11/99	23.91	10.44	13.47	30.8	6.80	66.7	564
ESE-3	05/12/99	23.91	11.37	12.54	30.9	6.87	68.7	530
ESE-3	11/29/99	23.91	11.53	12.38	31.0	6.92	66.2	604
ESE-3	02/15/00	23.91	9.39	14.52	31.1	6.90	66.6	608
ESE-3	05/26/00	23.91	11.45	12.46	31.0	6.88	69.6	623
ESE-3	08/16/00	23.91	11.23	12.68	31.0	6.91	68.7	609
ESE-4	03/28/94	24.33	10.63	13.70	31.4	7.77	66.3	610
ESE-4	04/07/94	24.33	10.85	13.48	NM	NS	NS	NS
ESE-4	12/12/94	24.33	9.63	14.70	31.6	7.11	63.1	591
ESE-4	03/13/95	24.33	8.90	15.43	31.6	7.16	61.2	595
ESE-4	06/15/95	24.33	9.81	14.52	31.6	7.05	64.1	565
ESE-4	09/15/95	24.33	10.85	13.48	31.6	7.01	66.3	584
ESE-4	12/15/95	24.33	8.72	15.61	31.6	7.05	64.6	555
ESE-4	03/15/96	24.33	9.29	15.04	31.5	7.01	63.7	600
ESE-4	06/14/96	24.33	10.23	14.10	31.5	7.04	66.0	591
ESE-4	10/07/96	24.33	10.44	13.89	31.5	6.89	70.1	541
ESE-4	12/04/96 <sup>5</sup>	24.33	10.31	14.02	31.5	NM	NM	NM
ESE-4	02/14/97	24.33	10.12	14.21	31.5	7.11	65.3	511
ESE-4	05/16/97	24.33	10.56	13.77	31.6	7.40	69.1	559
ESE-4	08/22/97 <sup>5</sup>	24.33	NM	NM	NM	NM	NM	NM
ESE-4	11/14/97	24.33	10.20	14.13	31.5	7.52	65.5	576
ESE-4	02/13/98 <sup>6</sup>	24.33	NM	NM	NM	NM	NM	NM
ESE-4	Well Abandoned							
MW-4	03/13/95	28.14	9.84	18.30	14.7	NS	NS	NS
MW-4	06/15/95	28.14	10.74	17.40	14.7	NS	NS	NS
MW-4	09/15/95	28.14	10.90	17.24	14.7	NS	NS	NS
MW-4	12/15/95	28.14	6.53	21.61	14.7	NS	NS	NS
MW-4	03/15/96	28.14	8.12	20.02	14.7	NS	NS	NS
MW-4	06/14/96	28.14	10.78	17.36	14.7	NS	NS	NS
MW-4	10/07/96	28.14	10.81	17.33	14.7	NS	NS	NS
MW-4	12/04/96	28.14	10.44	17.70	14.7	NS	NS	NS

**Table 1**  
**Emeryville Service Center**  
**Third Quarter 2000 and Historical Field Measurement Data**

Sample Designation	Date	Top-of-Casing Elevation (ft/MSL) <sup>1</sup>	Depth to Water (feet)	Groundwater Elevation (ft/MSL)	Measured Well Depth (feet)	pH (units)	Temperature (°F)	Electrical Conductivity (µmhos/cm)
MW-4	02/14/97	28.14	10.41	17.73	14.7	NS	NS	NS
MW-4	05/16/97	28.14	10.78	17.36	14.7	NS	NS	NS
MW-4	08/22/97	28.14	10.55	17.59	14.7	NS	NS	NS
MW-4	11/14/97	28.14	10.15	17.99	14.7	NS	NS	NS
MW-4	02/13/98	28.14	9.75	18.39	14.7	NS	NS	NS
MW-4	05/15/98	28.14	10.29	17.85	14.7	NS	NS	NS
MW-4	08/21/98	28.14	10.65	17.49	14.7	NS	NS	NS
MW-4	12/01/98	28.14	9.86	18.28	14.5	NS	NS	NS
MW-4	02/11/99	28.14	10.04	18.10	14.5	NS	NS	NS
MW-4	05/12/99	28.14	10.65	17.49	14.5	NS	NS	NS
MW-4	11/29/99	28.14	10.53	17.61	14.5	NS	NS	NS
MW-4	02/15/00	28.14	8.67	19.47	14.9	NS	NS	NS
MW-4	05/26/00	28.14	10.68	17.46	14.8	NS	NS	NS
MW-4	08/16/00	28.14	10.98	17.16	14.7	NS	NS	NS

<sup>1</sup> ft/MSL = feet relative to mean sea level.  
<sup>2</sup> umhos/cm = micromhos per centimeter at 77°F.  
<sup>3</sup> NM = not measured.  
<sup>4</sup> NS = not sampled.  
<sup>5</sup> Wells not sampled due to construction in the area resulting in heavy traffic.  
<sup>6</sup> Unable to locate well. Well area covered with mud and crushed rock from road construction.

**Table 2**  
**Emeryville Service Center**  
**Third Quarter 2000 and Historical Analytical Data**

Sample Designation	Sampling Date	PCBs <sup>10</sup> (µg/L) <sup>1</sup>	TEPH <sup>2</sup> as Motor Oil (µg/L)	MTBE <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESE-1	03/28/94	<1	340	---	<0.3	<0.3	<0.3	<0.3
ESE-1	12/12/94	<0.5	80	---	<0.5	<0.5	<0.5	<0.5
ESE-1	03/13/95	1.3	500 <sup>3</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	06/15/95	<0.5	350 <sup>3</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	09/15/95	<0.5	470 <sup>3</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	12/15/95	<0.5	440 <sup>3</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	03/15/96	<0.5	277	---	<0.5	<0.5	<0.5	<0.5
ESE-1	06/14/96	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-1	10/07/96	<0.5	110 <sup>4</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	12/04/96	<0.5	430 <sup>4</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	02/14/97	<0.5	1,600	---	<0.5	<0.5	<0.5	<0.5
ESE-1	05/16/97	<0.5	510 <sup>8</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	08/22/97	<0.5	740 <sup>8</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	11/14/97	<0.5	410 <sup>8</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	02/13/98	<0.5	<100 <sup>8</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-1	05/15/98	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-1	08/21/98	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-1	12/01/98	<0.50 / <0.54 <sup>A</sup>	180 / <100 <sup>A</sup>	---	<0.50	<0.50	<0.50	<0.50
ESE-1	02/11/99	<0.50	<100 <sup>B</sup>	---	<0.50	<0.50	<0.50	<0.50
ESE-1	05/12/99	<1	<500 <sup>B</sup>	<5	<0.50	<0.50	<0.50	<0.50
ESE-1	11/24/99	<0.5	<100	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-1	02/15/00	<0.50	<100 <sup>B</sup>	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-1	05/26/00	<0.50	<100 <sup>B</sup>	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-1	08/16/00	<0.50	<100 <sup>B</sup>	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-2	03/28/94	<1	250	---	0.8	1.5	<0.3	2.7
ESE-2	12/12/94	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-2	03/13/95	<0.5	120 <sup>5</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-2	06/15/95	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-2	09/15/95	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-2	12/15/95	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5

**Table 2**  
**Emeryville Service Center**  
**Third Quarter 2000 and Historical Analytical Data**

Sample Designation	Sampling Date	PCBs <sup>10</sup> (µg/L) <sup>1</sup>	TEPH <sup>2</sup> as Motor Oil (µg/L)	MTBE <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESE-2	03/15/96	<0.5	<59	---	<0.5	<0.5	<0.5	<0.5
ESE-2	06/14/96	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-2	10/07/96	<0.5	150 <sup>4</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-2	12/04/96	<0.5	380 <sup>4</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-2	02/14/97	<0.5	510	---	<0.5	<0.5	<0.5	<0.5
ESE-2	05/16/97	<0.5	190 <sup>8</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-2	08/22/97	<0.5	<100 <sup>8</sup>	---	<0.5	<0.5	0.51	<0.5
ESE-2	11/14/97	<0.52	<100 <sup>8</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-2	02/13/98	<0.5	<100 <sup>8</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-2	05/15/98	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-2	08/21/98	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-2	12/01/98	<0.50 / <0.54 <sup>A</sup>	<100 / <100 <sup>A</sup>	---	<0.50	<0.50	<0.50	<0.50
ESE-2	02/11/99	<0.50	<100 <sup>B</sup>	---	<0.50	<0.50	<0.50	<0.50
ESE-2	05/12/99	<1	<500 <sup>B</sup>	<5	<0.50	<0.50	<0.50	<0.50
ESE-2	11/29/99	---	---	---	---	---	---	---
ESE-2	02/15/00	<0.50	<100 <sup>B</sup>	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-2	05/26/00	<0.50	<100 <sup>B</sup>	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-2	08/16/00	<0.50	<100 <sup>B</sup>	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-3	03/28/94	<1	<50	---	<0.3	<0.3	<0.3	<0.3
ESE-3	12/12/94	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-3	03/13/95	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-3	06/15/95	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-3	09/15/95	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-3	12/15/95	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-3	03/15/96	<0.5	<59	---	<0.5	<0.5	<0.5	<0.5
ESE-3	06/14/96	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-3	10/07/96	<0.5	<100	---	<0.5	<0.5	<0.5	<0.5
ESE-3	12/04/96 <sup>6</sup>	NA <sup>7</sup>	NA	---	NA	NA	NA	NA
ESE-3	02/14/97	<0.5	<100	---	<0.5	<0.5	<0.5	<0.5
ESE-3	05/16/97	<0.5	<110 <sup>8</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-3	08/22/97	<0.5	<100 <sup>8</sup>	---	<0.5	<0.5	<0.5	<0.5



**Table 2**  
**Emeryville Service Center**  
**Third Quarter 2000 and Historical Analytical Data**

Sample Designation	Sampling Date	PCBs <sup>10</sup> (µg/L) <sup>1</sup>	TEPH <sup>2</sup> as Motor Oil (µg/L)	MTBE <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
ESE-3	11/14/97	<0.5	<100 <sup>B</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-3	02/13/98	<0.5	<100 <sup>B</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-3	05/15/98	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-3	08/21/98	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-3	12/01/98	<0.50 / <0.53 <sup>A</sup>	<100 / <100 <sup>A</sup>	---	<0.50	<0.50	<0.50	<0.50
ESE-3	02/11/99	<0.50	<100 <sup>B</sup>	---	<0.50	<0.50	<0.50	<0.50
ESE-3	05/12/99	<1	<500 <sup>B</sup>	<5	<0.50	<0.50	<0.50	<0.50
ESE-3	11/29/99	<0.50	<100	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-3	02/15/00	<0.50	<100 <sup>B</sup>	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-3	05/26/00	<0.50	<100 <sup>B</sup>	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-3	08/16/00	<0.50	<100 <sup>B</sup>	<5.0	<0.50	<0.50	<0.50	<0.50
ESE-4	03/28/94	<1	<50	---	<0.3	<0.3	<0.3	<0.3
ESE-4	12/12/94	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-4	03/13/95	<0.5	56 <sup>5</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-4	06/15/95	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-4	09/15/95	<0.5	<50	---	<0.5	<0.5	<0.5	<0.5
ESE-4	12/15/95	<0.5	57 <sup>5</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-4	03/15/96	<0.5	<59	---	<0.5	<0.5	<0.5	<0.5
ESE-4	06/14/96	<0.5	<500	---	<0.5	<0.5	<0.5	<0.5
ESE-4	10/07/96	<0.5	<100	---	<0.5	<0.5	<0.5	<0.5
ESE-4	12/04/96 <sup>6</sup>	NA	NA	---	NA	NA	NA	NA
ESE-4	02/14/97	<0.5	270 <sup>4</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-4	05/16/97	<0.5	<110 <sup>B</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-4	08/22/97 <sup>6</sup>	NA	NA	---	NA	NA	NA	NA
ESE-4	11/14/97	<0.5	<100 <sup>B</sup>	---	<0.5	<0.5	<0.5	<0.5
ESE-4	02/13/98 <sup>9</sup>	NA	NA	---	NA	NA	NA	NA
ESE-4	Well Abandoned							

**Table 2**  
**Emeryville Service Center**  
**Third Quarter 2000 and Historical Analytical Data**

Sample Designation	Sampling Date	PCBs <sup>10</sup> (µg/L) <sup>1</sup>	TEPH <sup>2</sup> as Motor Oil (µg/L)	MTBE <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
Trip Blank	03/28/94	<1	<50	---	<0.3	<0.3	<0.3	<0.3
Trip Blank	12/12/94	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Trip Blank	03/13/95	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Trip Blank	06/15/95	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Trip Blank	09/15/95	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Trip Blank	12/15/95	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	03/28/94	NA	NA	---	NA	NA	NA	NA
Field Blank	12/12/94	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	03/13/95	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	06/15/95	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	09/15/95	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	12/15/95	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	03/15/96	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	06/14/96	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	10/07/96	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	12/04/96	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	02/14/97	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	05/16/97	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	08/22/97	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	11/14/97	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	02/13/98	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	05/15/98	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	08/21/98	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	12/01/98	NA	NA	---	<0.5	<0.5	<0.5	<0.5
Field Blank	02/11/99	---	---	---	---	---	---	---
Field Blank	05/12/99	NA	NA	<5	<0.5	<0.5	<0.5	<0.5
Field Blank	11/29/99	NA	NA	<5.0	<0.5	<0.5	<0.5	<0.5
Field Blank	02/15/00	NA	NA	<5.0	<0.5	<0.5	<0.5	<0.5
Field Blank	05/26/00	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
Field Blank	08/16/00	NA	NA	<5.0	<0.5	<0.5	<0.5	<0.5

**Table 2**  
**Emeryville Service Center**  
**Third Quarter 2000 and Historical Analytical Data**

Sample Designation	Sampling Date	PCBs <sup>10</sup> (µg/L) <sup>1</sup>	TEPH <sup>2</sup> as Motor Oil (µg/L)	MTBE <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
<p>-- Samples not collected.</p> <p><sup>1</sup> µg/L = micrograms per liter.</p> <p><sup>2</sup> TEPH = Total Extractable Petroleum Hydrocarbons.</p> <p><sup>3</sup> Compounds similar to client-supplied transformer oil were found.</p> <p><sup>4</sup> Hydrocarbon reported does not match the pattern of laboratory standard for mineral oil.</p> <p><sup>5</sup> Compounds in diesel range not similar to laboratory standard for transformer oil.</p> <p><sup>6</sup> Wells not sampled due to construction in the area resulting in heavy traffic.</p> <p><sup>7</sup> NA = not analyzed.</p> <p><sup>8</sup> Quantitation for mineral oil is based on the response factor of diesel.</p> <p><sup>9</sup> Unable to locate well. Well area covered with mud and crushed rock from road construction.</p> <p><sup>10</sup> PCBs = Polychlorinated Biphenols.</p> <p><sup>11</sup> MTBE = Methyl Tertiary Butyl Ether.</p> <p><sup>A</sup> Analyses run on both unfiltered and filtered (silica gel) samples. Results reported as unfiltered / filtered.</p> <p><sup>B</sup> Analyses run on filtered (silica gel clean-up and glass filtration) samples.</p>								

Appendix A  
**WATER LEVEL / FLOATING PRODUCT SURVEY FORM  
AND  
PURGING AND SAMPLING LOG SHEETS**

**FIELD REPORT  
WATER LEVEL / FLOATING PRODUCT SURVEY  
PG&E TECHNICAL AND ECOLOGICAL SERVICES**

Site Location: **EMERYVILLE SERVICE CENTER** Survey Date: **8/16/80**

Sampler: **DAWSON WRIGHT**

Well ID	Casing Elevation (ft, MSL)	Time of Level	Total Depth (ft)	Depth to Water (ft)	Depth to Floating Product (ft)	Floating Product Thickness (ft)	Dissolved Oxygen (mg/L)	Temp. (°C)	Comments
MW-4		0830	14.7	10.98	NA	NA	-	-	
ESE-1		0840	30.6	13.22	NA	NA	-	-	
ESE-2		0845	34.3	14.20	NA	NA	-	-	
ESE-3		0855	31.0	11.23	NA	NA	-	-	

Comments:

  
Signature

**PG & E PURGING AND SAMPLING LOG**

SITE Emeryville St JOB ID \_\_\_\_\_  
 PURGE DATE 8/16/00 BY DLW  
 SAMPLE DATE 8/14/00 BY DLW

WELL # ESE-1  
 WEATHER SUNNY  
85°F

**WATER ELEVATION / VOLUME CALCULATIONS**

MEASURING POINT (MP) TOC @ HYDROCARBON OCCUR YES NO  
 DEPTH OF WELL (DTB) 30.6 FT THICKNESS \_\_\_\_\_  
 DEPTH TO WATER (DTW) 13.22 FT  
 TOTAL WATER DEPTH 17.38 FT  
 MEASUREMENT METHOD SOLINST SLOPE INDICATOR

TOC ELEV. \_\_\_\_\_ FT - DTW \_\_\_\_\_ FT = GW ELEV. \_\_\_\_\_ FT

**PURGE VOLUME CALCULATIONS**

17.38 FT WATER \* CASING FACTOR = 2.95 GAL/CASING VOL. \* 4 VOLUMES = 11.8 TOTAL PURGED (GALS)  
 CASING FACTOR FOR 2" DIA = 0.17 GAL / FT  
 (CIRCLE ONE) FOR 3" DIA = 0.38 GAL / FT  
FOR 4" DIA = 0.66 GAL / FT

**PURGING**

TIME		CUMULATIVE DISCHARGE (GAL)	pH	CONDUCTIVITY umho/cm	TURBIDITY	°C TEMP	COMMENTS
1103	1106	3.0	6.94	636	V. HEAVY	21.0	Muddy Bottom
1108	1111	6.0	6.71	613	MED. W	20.7	
1113	1116	9.0	6.74	611	U6HT	20.6	
1118	1121	12.0	6.76	609	U6HT	20.6	

METHOD OF DISCHARGE DISPOSAL GROUND BARREL POND (CIRCLE ONE)  
 METHOD OF PURGING HOMELITE BAILER HAND PUMP SUBMERSIBLE WATERRA (CIRCLE ONE) Hand  
 METHOD OF SAMPLING WELL WIZARD TEFLON BAILER HAND PUMP DISPOSABLE BAILER (CIRCLE ONE)  
 METHOD OF CLEANING ALCONOX / DI WATER STEAM CLEANER / DI WATER (CIRCLE ONE)  
 PUMP LINES / BAILER ROPES NEW, CLEANED, OR DEDICATED (CIRCLE ONE)  
 pH METER YSI 3500 CALIBRATED YES NO COND. METER YSI 3500 CALIBRATED YES NO  
 TEMP. CORRECTED YES NO CALIBRATION DATA \_\_\_\_\_  
 pH 4 = 4.00 COND. 1,000 = 1028  
 pH 7 = 6.99 COND. 10,000 = \_\_\_\_\_  
 pH 10 = 9.98

**SAMPLES**

LAB ANALYSIS see 'col'  
 LABORATORY Chrom AB  
 SAMPLE TIME 1130  
 REMARKS \_\_\_\_\_

**PG & E PURGING AND SAMPLING LOG**

SITE Emeryville JOB ID \_\_\_\_\_  
 PURGE DATE 8/16/00 BY DWJ  
 SAMPLE DATE 8/16/00 BY DWJ

WELL # ESE-2  
 WEATHER Sunny, 85°F

**WATER ELEVATION / VOLUME CALCULATIONS**

MEASURING POINT (MP) \_\_\_\_\_ TOC @ \_\_\_\_\_ HYDROCARBON ODOR YES  NO   
 DEPTH OF WELL (DTB) 34.3 FT THICKNESS \_\_\_\_\_  
 DEPTH TO WATER (DTW) 14.20 FT  
 TOTAL WATER DEPTH \_\_\_\_\_ FT  
 MEASUREMENT METHOD SOLINST SLOPE INDICATOR

TOC ELEV. = \_\_\_\_\_ FT - DTW \_\_\_\_\_ FT = GW ELEV. \_\_\_\_\_ FT

**PURGE VOLUME CALCULATIONS**

20.1 FT WATER \* CASING FACTOR 3.4 GAL/CASING VOL. \* 4 VOLUMES = 13.6 TOTAL PURGED (GALS)  
 CASING FACTOR (CIRCLE ONE) FOR 2" DIA = 0.17 GAL / FT  
 FOR 3" DIA = 0.38 GAL / FT  
 FOR 4" DIA = 0.66 GAL / FT

**PURGING**

TIME		CUMULATIVE DISCHARGE (GAL)	PH	CONDUCTIVITY umho/cm	TURBIDITY	°C TEMP	COMMENTS
START	END						
<u>1202</u>	<u>1205</u>	<u>3.5</u>	<u>6.79</u>	<u>626</u>	<u>CLEAR</u>	<u>20.8</u>	
<u>1207</u>	<u>1210</u>	<u>7.0</u>	<u>6.85</u>	<u>618</u>	<u>1/4 LITER</u>	<u>20.4</u>	
<u>1212</u>	<u>1215</u>	<u>10.5</u>	<u>6.86</u>	<u>612</u>	<u>1/4 LITER</u>	<u>20.5</u>	
<u>1217</u>	<u>1220</u>	<u>14.0</u>	<u>6.86</u>	<u>614</u>	<u>1/4 LITER</u>	<u>20.3</u>	

METHOD OF DISCHARGE DISPOSAL GROUND BARREL POND (CIRCLE ONE)  
 METHOD OF PURGING HOMELITE BAILER HAND PUMP SUBMERSIBLE WATERRA (CIRCLE ONE) HONDA  
 METHOD OF SAMPLING WELL WIZARD TEFLON BAILER HAND PUMP DISPOSABLE BAILER (CIRCLE ONE)  
 METHOD OF CLEANING ALCONOX / DI WATER STEAM CLEANER / DI WATER (CIRCLE ONE)  
 PUMP LINES / BAILER ROPES NEW, CLEANED, OR DEDICATED (CIRCLE ONE)  
 PH METER 513500 CALIBRATED YES  NO  COND. METER 513500 CALIBRATED YES  NO   
 TEMP. CORRECTED YES  NO  CALIBRATION DATA \_\_\_\_\_  
 pH 4 = 4.00 COND. 1,000 = 1028  
 pH 7 = 6.99 COND. 10,000 = \_\_\_\_\_  
 pH 10 = 9.98

SAMPLES \_\_\_\_\_  
 LAB ANALYSIS SEE 'LOC'  
 LABORATORY Citrochem LAB  
 SAMPLE TIME 1230 MS/MSD  
 REMARKS WELL IS ALSO ~~USED~~ SAMPLE

**PG & E PURGING AND SAMPLING LOG**

SITE Smeyville JOB ID \_\_\_\_\_  
 PURGE DATE 8/16/00 BY DLW  
 SAMPLE DATE 8/16/00 BY DLW

WELL # ES4-3  
 WEATHER SUN 149, 85°F

**WATER ELEVATION / VOLUME CALCULATIONS**

MEASURING POINT (MP) TOC @ HYDROCARBON ODOOR YES NO  
 DEPTH OF WELL (DTB) 31.0 FT THICKNESS \_\_\_\_\_  
 DEPTH TO WATER (DTW) 11.23 FT  
 TOTAL WATER DEPTH 19.77 FT  
 MEASUREMENT METHOD SOLINST SLOPE INDICATOR

TOC ELEV - \_\_\_\_\_ FT - DTW \_\_\_\_\_ FT = GW ELEV. \_\_\_\_\_ FT

**PURGE VOLUME CALCULATIONS**

19.77 FT WATER \* CASING FACTOR = 3.36 GAL/CASING VOL \* 4 VOLUMES = 13.4 TOTAL PURGED (GALS)  
 CASING FACTOR FOR 2" DIA = 0.17 GAL / FT  
 (CIRCLE ONE) FOR 3" DIA = 0.38 GAL / FT  
FOR 4" DIA = 0.66 GAL / FT

**PURGING**

TIME		CUMULATIVE DISCHARGE (GAL)	pH	CONDUCTIVITY umho/cm	TURBIDITY	°C TEMP	COMMENTS
START	END						
1330	1335	3.5	6.88	617	1.46 NTU	20.9	
1335	1338	7.0	6.90	611	1.46 NTU	20.4	
1341	1344	10.5	6.90	611	1.11	20.3	
1346	1350	14.0	6.91	609	1.01	20.4	

METHOD OF DISCHARGE DISPOSAL GROUND BARREL POND (CIRCLE ONE)  
 METHOD OF PURGING HOMELITE BAILER HAND PUMP SUBMERSIBLE WATERRA (CIRCLE ONE) Honda  
 METHOD OF SAMPLING WELL WIZARD TEFLON BAILER HAND PUMP DISPOSABLE BAILER (CIRCLE ONE)  
 METHOD OF CLEANING ALCONOX / DI WATER STEAM CLEANER / DI WATER (CIRCLE ONE)  
 PUMP LINES / BAILER ROPES NEW CLEANED OR DEDICATED (CIRCLE ONE)  
 PH METER 513500 CALIBRATED YES NO COND. METER 513500 CALIBRATED YES NO  
 TEMP. CORRECTED YES NO CALIBRATION DATA \_\_\_\_\_ pH 4 = 4.00 COND. 1,000 = 1028  
 pH 7 = 6.99 COND. 10,000 = \_\_\_\_\_  
 pH 10 = 9.98  
 SAMPLES SEE "COC"  
 LAB ANALYSIS CHROM LAB  
 LABORATORY \_\_\_\_\_  
 SAMPLE TIME 1400  
 REMARKS \_\_\_\_\_



Appendix B  
**CERTIFIED ANALYTICAL REPORTS  
AND  
CHAIN-OF-CUSTODY DOCUMENTATION**

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

PCBs - EPA 8082

<b>P.G. &amp; E TES</b>	☒ 3400 Crow Canyon Road San Ramon, CA 94583-1393
Attn: Karen Piini	Phone: (925) 866-5472 Fax: (925) 866-5681
Project #:	Project: Emeryville Service Center

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
ESE-1	Water	08/16/2000 11:30	1
ESE-2	Water	08/16/2000 12:30	2

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8082

Attn.: Karen Piini

Prep Method: 3510/8082

PCBs - EPA 8082

Sample ID: ESE-1	Lab Sample ID: 2000-08-0380-001
Project: Emeryville Service Center	Received: 08/17/2000 18:44
Sampled: 08/16/2000 11:30	Extracted: 08/18/2000 18:59
Matrix: Water	QC-Batch: 2000/08/18-04.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND ✓	0.50	ug/L	1.00	08/21/2000 17:53	
Aroclor 1221	ND	0.50	ug/L	1.00	08/21/2000 17:53	
Aroclor 1232	ND	0.50	ug/L	1.00	08/21/2000 17:53	
Aroclor 1242	ND	0.50	ug/L	1.00	08/21/2000 17:53	
Aroclor 1248	ND	0.50	ug/L	1.00	08/21/2000 17:53	
Aroclor 1254	ND	0.50	ug/L	1.00	08/21/2000 17:53	
Aroclor 1260	ND	0.50	ug/L	1.00	08/21/2000 17:53	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	106.6	62-123	%	1.00	08/21/2000 17:53	
Decachlorobiphenyl	128.0	56-136	%	1.00	08/21/2000 17:53	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8082

Attn.: Karen Piini

Prep Method: 3510/8082

PCBs - EPA 8082

Sample ID: ESE-2	Lab Sample ID: 2000-08-0380-002
Project: Emeryville Service Center	Received: 08/17/2000 18:44
Sampled: 08/16/2000 12:30	Extracted: 08/18/2000 18:59
Matrix: Water	QC-Batch: 2000/08/18-04.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND ✓	0.50	ug/L	1.00	08/21/2000 18:28	
Aroclor 1221	ND	0.50	ug/L	1.00	08/21/2000 18:28	
Aroclor 1232	ND	0.50	ug/L	1.00	08/21/2000 18:28	
Aroclor 1242	ND	0.50	ug/L	1.00	08/21/2000 18:28	
Aroclor 1248	ND	0.50	ug/L	1.00	08/21/2000 18:28	
Aroclor 1254	ND	0.50	ug/L	1.00	08/21/2000 18:28	
Aroclor 1260	ND ↓	0.50	ug/L	1.00	08/21/2000 18:28	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	96.3	62-123	%	1.00	08/21/2000 18:28	
Decachlorobiphenyl	54.3	56-136	%	1.00	08/21/2000 18:28	s

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G. & E TES

Test Method: 8082

Attn.: Karen Piini

Prep Method: 3510/8082

## Batch QC Report

PCBs - EPA 8082

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2000/08/18-04.14</b>
MB: 2000/08/18-04.14-001		Date Extracted: 08/18/2000 18:59

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aroclor 1016	ND	0.5	ug/L	08/21/2000 15:00	
Aroclor 1221	ND	0.5	ug/L	08/21/2000 15:00	
Aroclor 1232	ND	0.5	ug/L	08/21/2000 15:00	
Aroclor 1242	ND	0.5	ug/L	08/21/2000 15:00	
Aroclor 1248	ND	0.5	ug/L	08/21/2000 15:00	
Aroclor 1254	ND	0.5	ug/L	08/21/2000 15:00	
Aroclor 1260	ND	0.5	ug/L	08/21/2000 15:00	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	91.6	62-123	%	08/21/2000 15:00	
Decachlorobiphenyl	74.4	56-136	%	08/21/2000 15:00	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G. & E TES

Test Method: 8082

Attn: Karen Plini

Prep Method: 3510/8082

## Batch QC Report

PCBs - EPA 8082

### Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 2000/08/18-04.14

LCS: 2000/08/18-04.14-002      Extracted: 08/18/2000 18:59      Analyzed 08/21/2000 15:35

LCSD: 2000/08/18-04.14-003      Extracted: 08/18/2000 18:59      Analyzed 08/21/2000 16:09

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aroclor 1016	2.13	2.22	2.00	2.00	106.5	111.0	4.1	65-135	30		
Aroclor 1260	2.21	2.21	2.00	2.00	110.5	110.5	0.0	65-135	30		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyI	51.5	51.7	50	50	103.0	103.4		62-123			
Decachlorobiphenyl	43.1	44.9	50	50	86.2	89.8		56-136			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G. & E TES

Test Method: 8082

Attn.: Karen Piini

Prep Method: 3510/8082

## Batch QC Report

PCBs - EPA 8082

Matrix Spike ( MS / MSD )

Water

QC Batch # 2000/08/18-04.14

Sample ID: ESE-2

Lab Sample ID: 2000-08-0380-002

MS: 2000/08/18-04.14-004 Extracted: 08/18/2000 18:59 Analyzed: 08/21/2000 16:44 Dilution: 1.0

MSD: 2000/08/18-04.14-005 Extracted: 08/18/2000 18:59 Analyzed: 08/22/2000 13:27 Dilution: 1.0

Compound	Conc. [ug/L]			Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aroclor 1016	2.61	2.54	ND	2.02	2.03	129.2	125.1	3.2	65-135	30		
Aroclor 1260	2.30	2.22	ND	2.02	2.03	113.9	109.4	4.0	65-135	30		
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	51.8	48.0		50	50	103.6	96.0		62-123			
Decachlorobiphenyl	28.9	27.4		50	50	57.8	54.8		56-136			s

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
 Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: P.G.& E TES  
Attn:Karen Piini

Test Method: 8082  
Prep Method: 3510/8082

## Legend & Notes

PCBs - EPA 8082

## Analyte Flags

s

One surrogate recovery out of control, but second surrogate within QC limits confirms test performance.



TEPH w/ Silica Gel Clean-up

<b>P.G. &amp; E TES</b>	✉ 3400 Crow Canyon Road San Ramon, CA 94583-1393
Attn: Karen Piini	Phone: (925) 866-5472 Fax: (925) 866-5681
Project #:	Project: Emeryville Service Center

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
ESE-1	Water	08/16/2000 11:30	1
ESE-2	Water	08/16/2000 12:30	2

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Attn.: Karen Piini

Test Method: 8015m

Prep Method: 3510/8015M

TEPH w/ Silica Gel Clean-up

Sample ID: ESE-1	Lab Sample ID: 2000-08-0380-001
Project: Emeryville Service Center	Received: 08/17/2000 18:44
Sampled: 08/16/2000 11:30	Extracted: 08/18/2000 14:30
Matrix: Water	QC-Batch: 2000/08/18-04.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Mineral Oil	ND ✓	100	ug/L	1.00	08/22/2000 00:27	
<b>Surrogate(s)</b> o-Terphenyl	83.6	60-130	%	1.00	08/22/2000 00:27	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8015m

Attn.: Karen Piini

Prep Method: 3510/8015M

TEPH w/ Silica Gel Clean-up

Sample ID: <b>ESE-2</b>	Lab Sample ID: <b>2000-08-0380-002</b>
Project: Emeryville Service Center	Received: 08/17/2000 18:44
Sampled: 08/16/2000 12:30	Extracted: 08/18/2000 14:30
Matrix: Water	QC-Batch: 2000/08/18-04.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Mineral Oil	ND ✓	100	ug/L	1.00	08/22/2000 01:06	
<b>Surrogate(s)</b> o-Terphenyl	78.9	60-130	%	1.00	08/22/2000 01:06	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8015m

Attn.: Karen Piini

Prep Method: 3510/8015M

**Batch QC Report**  
TEPH w/ Silica Gel Clean-up

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2000/08/18-04.10</b>
MB: 2000/08/18-04.10-001		Date Extracted: 08/18/2000 14:30

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	08/21/2000 11:36	
Mineral Oil	ND	100	ug/L	08/21/2000 11:36	
<b>Surrogate(s)</b> o-Terphenyl	93.0	60-130	%	08/21/2000 11:36	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G. & E TES

Test Method: 8015m

Attn: Karen Piini

Prep Method: 3510/8015M

## Batch QC Report

TEPH w/ Silica Gel Clean-up

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2000/08/18-04.10
LCS: 2000/08/18-04.10-002	Extracted: 08/18/2000 14:30	Analyzed 08/21/2000 12:15
LCSD: 2000/08/18-04.10-003	Extracted: 08/18/2000 14:30	Analyzed 08/21/2000 12:54

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	787	862	1250	1250	63.0	69.0	9.1	60-130	25		
<b>Surrogate(s)</b>											
o-Terphenyl	17.5	16.7	20.0	20.0	87.5	83.5		60-130			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8015m

Attn.: Karen Piini

Prep Method: 3510/8015M

## Batch QC Report

TEPH w/ Silica Gel Clean-up

Matrix Spike ( MS / MSD )

Water

QC Batch # 2000/08/18-04.10

Sample ID: ESE-2

Lab Sample ID: 2000-08-0380-002

MS: 2000/08/18-04.10-004 Extracted: 08/18/2000 14:30 Analyzed: 08/22/2000 23:53 Dilution: 1.0

MSD: 2000/08/18-04.10-005 Extracted: 08/18/2000 14:30 Analyzed: 08/21/2000 16:05 Dilution: 1.0

Compound	Conc. [ug/L]			Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Diesel	752	764	0	1250	1250	60.2	61.1	1.5	60-130	25		
<b>Surrogate(s)</b> o-Terphenyl	21.7	20.7		20.0	20.0	108.5	103.5		60-130			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

Volatile Hydrocarbons by 8015/8020

<b>P.G. &amp; E TES</b>	☒ 3400 Crow Canyon Road San Ramon, CA 94583-1393
Attn: Karen Piini	Phone: (925) 866-5472 Fax: (925) 866-5681
Project #:	Project: Emeryville Service Center

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
ESE-1	Water	08/16/2000 11:30	1
ESE-2	Water	08/16/2000 12:30	2
FB-1	Water	08/16/2000 10:00	3

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G. & E TES

Test Method: 8020

Attn.: Karen Piini

Prep Method: 5030

Volatile Hydrocarbons by 8015/8020

Sample ID: ESE-1	Lab Sample ID: 2000-08-0380-001
Project: Emeryville Service Center	Received: 08/17/2000 18:44
Sampled: 08/16/2000 11:30	Extracted: 08/25/2000 18:08
Matrix: Water	QC-Batch: 2000/08/25-01.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Benzene	ND ✓	0.50	ug/L	1.00	08/25/2000 18:08	
Toluene	ND ✓	0.50	ug/L	1.00	08/25/2000 18:08	
Ethyl benzene	ND ✓	0.50	ug/L	1.00	08/25/2000 18:08	
Xylene(s)	ND ✓	0.50	ug/L	1.00	08/25/2000 18:08	
MTBE	ND ✓	5.0	ug/L	1.00	08/25/2000 18:08	
<b>Surrogate(s)</b>						
Trifluorotoluene	108.9	58-124	%	1.00	08/25/2000 18:08	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096



# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8020

Attn.: Karen Piini

Prep Method: 5030

Volatile Hydrocarbons by 8015/8020

Sample ID: ESE-2	Lab Sample ID: 2000-08-0380-002
Project: Emeryville Service Center	Received: 08/17/2000 18:44
Sampled: 08/16/2000 12:30	Extracted: 08/29/2000 04:45
Matrix: Water	QC-Batch: 2000/08/28-01.05

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Benzene	ND✓	0.50	ug/L	1.00	08/29/2000 04:45	
Toluene	ND✓	0.50	ug/L	1.00	08/29/2000 04:45	
Ethyl benzene	ND✓	0.50	ug/L	1.00	08/29/2000 04:45	
Xylene(s)	ND✓	0.50	ug/L	1.00	08/29/2000 04:45	
MTBE	ND✓	5.0	ug/L	1.00	08/25/2000 19:10	
<b>Surrogate(s)</b>						
Trifluorotoluene	89.8	58-124	%	1.00	08/29/2000 04:45	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8020

Attn.: Karen Piini

Prep Method: 5030

Volatile Hydrocarbons by 8015/8020

Sample ID: <b>FB-1</b>	Lab Sample ID: <b>2000-08-0380-003</b>
Project: <b>Emeryville Service Center</b>	Received: 08/17/2000 18:44
Sampled: 08/16/2000 10:00	Extracted: 08/25/2000 18:39
Matrix: Water	QC-Batch: 2000/08/25-01.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Benzene	ND ✓	0.50	ug/L	1.00	08/25/2000 18:39	
Toluene	ND ✓	0.50	ug/L	1.00	08/25/2000 18:39	
Ethyl benzene	ND ✓	0.50	ug/L	1.00	08/25/2000 18:39	
Xylene(s)	ND ✓	0.50	ug/L	1.00	08/25/2000 18:39	
MTBE	ND ✓	5.0	ug/L	1.00	08/25/2000 18:39	
<b>Surrogate(s)</b>						
Trifluorotoluene	103.8	58-124	%	1.00	08/25/2000 18:39	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8020  
8015M

Attn.: Karen Piini

Prep Method: 5030

**Batch QC Report**  
Volatile Hydrocarbons by 8015/8020

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2000/08/25-01.03</b>
MB: 2000/08/25-01.03-001		Date Extracted: 08/25/2000 05:11

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Benzene	ND	0.5	ug/L	08/25/2000 05:11	
Toluene	ND	0.5	ug/L	08/25/2000 05:11	
Ethyl benzene	ND	0.5	ug/L	08/25/2000 05:11	
Xylene(s)	ND	0.5	ug/L	08/25/2000 05:11	
MTBE	ND	5.0	ug/L	08/25/2000 05:11	
<b>Surrogate(s)</b>					
Trifluorotoluene	116.8	58-124	%	08/25/2000 05:11	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8020  
8015M

Attn.: Karen Plini

Prep Method: 5030

## Batch QC Report

Volatile Hydrocarbons by 8015/8020

Method Blank	Water	QC Batch # 2000/08/28-01.05
MB: 2000/08/28-01.05-001		Date Extracted: 08/28/2000 13:39

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Benzene	ND	0.5	ug/L	08/28/2000 13:39	
Toluene	ND	0.5	ug/L	08/28/2000 13:39	
Ethyl benzene	ND	0.5	ug/L	08/28/2000 13:39	
Xylene(s)	ND	0.5	ug/L	08/28/2000 13:39	
<b>Surrogate(s)</b>					
Trifluorotoluene	73.4	58-124	%	08/28/2000 13:39	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: P.G.& E TES

Test Method: 8020  
8015M

Attn: Karen Piini

Prep Method: 5030

### Batch QC Report

Volatile Hydrocarbons by 8015/8020

**Laboratory Control Spike (LCS/LCSD)**

**Water**

**QC Batch # 2000/08/25-01.03**

LCS: 2000/08/25-01.03-002

Extracted: 08/25/2000 05:41

Analyzed 08/25/2000 05:41

LCSD: 2000/08/25-01.03-003

Extracted: 08/25/2000 06:12

Analyzed 08/25/2000 06:12

Compound	Conc. [ ug/L ]		Exp.Conc. [ ug/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Benzene	53.1	56.1	50	50	106.2	112.2	5.5	77-123	20		
Toluene	54.3	57.7	50	50	108.6	115.4	6.1	78-122	20		
Ethyl benzene	53.7	57.0	50	50	107.4	114.0	6.0	70-130	20		
Xylene(s)	164	175	150	150	109.3	116.7	6.5	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	298	301	250	250	119.2	120.4		58-124			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8020  
8015M

Attn: Karen Piini

Prep Method: 5030

## Batch QC Report

Volatile Hydrocarbons by 8015/8020

Laboratory Control Spike (LCS/LCSD)		Water		QC Batch # 2000/08/28-01.05	
LCS:	2000/08/28-01.05-002	Extracted:	08/28/2000 14:27	Analyzed	08/28/2000 14:27
LCSD:	2000/08/28-01.05-003	Extracted:	08/28/2000 15:00	Analyzed	08/28/2000 15:00

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Benzene	104	104	100.0	100.0	104.0	104.0	0.0	77-123	20		
Toluene	102	99.5	100.0	100.0	102.0	99.5	2.5	78-122	20		
Ethyl benzene	103	104	100.0	100.0	103.0	104.0	1.0	70-130	20		
Xylene(s)	295	294	300	300	98.3	98.0	0.3	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	530	520	500	500	106.0	104.0		58-124			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-08-0380

To: P.G.& E TES

Test Method: 8020

Attn.: Karen Piini

Prep Method: 5030

## Batch QC Report

Volatile Hydrocarbons by 8015/8020

Matrix Spike ( MS / MSD )

Water

QC Batch # 2000/08/28-01.05

Sample ID: ESE-2

Lab Sample ID: 2000-08-0380-002

MS: 2000/08/28-01.05-004 Extracted: 08/29/2000 05:17 Analyzed: 08/29/2000 05:17 Dilution: 1.0

MSD: 2000/08/28-01.05-005 Extracted: 08/29/2000 05:50 Analyzed: 08/29/2000 05:50 Dilution: 1.0

Compound	Conc. [ug/L]			Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Benzene	102	104	ND	100.0	100.0	102.0	104.0	1.9	65-135	20		
Toluene	97.8	97.6	ND	100.0	100.0	97.8	97.6	0.2	65-135	20		
Ethyl benzene	103	102	ND	100.0	100.0	103.0	102.0	1.0	65-135	20		
Xylene(s)	290	289	ND	300	300	96.7	96.3	0.4	65-135	20		
<b>Surrogate(s)</b>												
Trifluorotoluene	501	512		500	500	100.2	102.4		58-124			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

Gas/BTEX Compounds by 8015M/8020

<b>P.G. &amp; E TES</b>	✉ 3400 Crow Canyon Road San Ramon, CA 94583-1393
Attn: Karen Piini	Phone: (925) 866-5472 Fax: (925) 866-5681
Project #:	Project: Emeryville Service Ctr.

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
ESE-3	Water	08/16/2000 15:00	1

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096



# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

To: P.G.& E TES

Test Method: 8020

Attn.: Karen Piini

Prep Method: 5030

Gas/BTEX Compounds by 8015M/8020

Sample ID: ESE-3	Lab Sample ID: 2000-09-0310-001
Project: Emeryville Service Ctr.	Received: 08/17/2000
Sampled: 08/16/2000 15:00	Extracted: 09/20/2000 01:18
Matrix: Water	QC-Batch: 2000/09/19-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Benzene	ND	0.50	ug/L	1.00	09/20/2000 01:18	
Toluene	ND	0.50	ug/L	1.00	09/20/2000 01:18	
Ethyl benzene	ND	0.50	ug/L	1.00	09/20/2000 01:18	
Xylene(s)	ND	0.50	ug/L	1.00	09/20/2000 01:18	
MTBE	ND	5.0	ug/L	1.00	09/20/2000 01:18	
<b>Surrogate(s)</b>						
Trifluorotoluene	81.7	58-124	%	1.00	09/20/2000 01:18	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

Printed on: 09/20/2000 14:45

Page 2 of 4

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

To: P.G.& E TES

Test Method: 8015M

8020

Attn.: Karen Piini

Prep Method: 5030

## Batch QC Report

Gas/BTEX Compounds by 8015M/8020

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2000/09/19-01.01</b>
MB: 2000/09/19-01.01-001		Date Extracted: 09/19/2000 09:21

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Benzene	ND	0.5	ug/L	09/19/2000 09:21	
Toluene	ND	0.5	ug/L	09/19/2000 09:21	
Ethyl benzene	ND	0.5	ug/L	09/19/2000 09:21	
Xylene(s)	ND	0.5	ug/L	09/19/2000 09:21	
MTBE	ND	5.0	ug/L	09/19/2000 09:21	
<b>Surrogate(s)</b>					
Trifluorotoluene	98.2	58-124	%	09/19/2000 09:21	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

To: P.G.& E TES

Test Method: 8015M  
8020

Attn: Karen Piini

Prep Method: 5030

## Batch QC Report

Gas/BTEX Compounds by 8015M/8020

Laboratory Control Spike (LCS/LCSD)		Water		QC Batch # 2000/09/19-01.01	
LCS:	2000/09/19-01.01-002	Extracted:	09/19/2000 06:51	Analyzed	09/19/2000 06:51
LCSD:	2000/09/19-01.01-003	Extracted:	09/19/2000 07:25	Analyzed	09/19/2000 07:25

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Benzene	99.2	99.7	100.0	100.0	99.2	99.7	0.5	77-123	20		
Toluene	96.4	97.0	100.0	100.0	96.4	97.0	0.6	78-122	20		
Ethyl benzene	94.2	95.6	100.0	100.0	94.2	95.6	1.5	70-130	20		
Xylene(s)	300	302	300	300	100.0	100.7	0.7	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	457	459	500	500	91.4	91.8		58-124			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

PCBs

P.G. & E TES

✉ 3400 Crow Canyon Road  
San Ramon, CA 94583-1393

Attn: Karen Piini

Phone: (925) 866-5472 Fax: (925) 866-5681

Project #:

Project: Emeryville Service Ctr.

## Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
ESE-3	Water	08/16/2000 15:00	1

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

Printed on: 09/20/2000 10:32

Page 1 of 5

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

To: P.G. & E TES

Test Method: 8082

Attn.: Karen Piini

Prep Method: 3510/8082

PCBs

Sample ID: ESE-3	Lab Sample ID: 2000-09-0310-001
Project: Emeryville Service Ctr.	Received: 08/17/2000
Sampled: 08/16/2000 15:00	Extracted: 09/18/2000 13:36
Matrix: Water	QC-Batch: 2000/09/18-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.50	ug/L	1.00	09/19/2000 11:12	
Aroclor 1221	ND	0.50	ug/L	1.00	09/19/2000 11:12	
Aroclor 1232	ND	0.50	ug/L	1.00	09/19/2000 11:12	
Aroclor 1242	ND	0.50	ug/L	1.00	09/19/2000 11:12	
Aroclor 1248	ND	0.50	ug/L	1.00	09/19/2000 11:12	
Aroclor 1254	ND	0.50	ug/L	1.00	09/19/2000 11:12	
Aroclor 1260	ND	0.50	ug/L	1.00	09/19/2000 11:12	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	84.5	62-123	%	1.00	09/19/2000 11:12	
Decachlorobiphenyl	25.0	56-136	%	1.00	09/19/2000 11:12	s

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

To: P.G. & E TES

Test Method: 8082

Attn.: Karen Piini

Prep Method: 3510/8082

## Batch QC Report PCBs

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2000/09/18-02.14</b>
MB: 2000/09/18-02.14-001		Date Extracted: 09/18/2000 13:36

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aroclor 1016	ND	0.5	ug/L	09/19/2000 10:39	
Aroclor 1221	ND	0.5	ug/L	09/19/2000 10:39	
Aroclor 1232	ND	0.5	ug/L	09/19/2000 10:39	
Aroclor 1242	ND	0.5	ug/L	09/19/2000 10:39	
Aroclor 1248	ND	0.5	ug/L	09/19/2000 10:39	
Aroclor 1254	ND	0.5	ug/L	09/19/2000 10:39	
Aroclor 1260	ND	0.5	ug/L	09/19/2000 10:39	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	86.6	62-123	%	09/19/2000 10:39	
Decachlorobiphenyl	74.8	56-136	%	09/19/2000 10:39	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

To: P.G. & E TES

Test Method: 8082

Attn: Karen Piini

Prep Method: 3510/8082

## Batch QC Report

PCBs

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2000/09/18-02.14
LCS: 2000/09/18-02.14-002	Extracted: 09/18/2000 13:36	Analyzed 09/19/2000 11:14
LCSD: 2000/09/18-02.14-003	Extracted: 09/18/2000 13:36	Analyzed 09/19/2000 11:48

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aroclor 1016	1.82	1.78	2.00	2.00	91.0	89.0	2.2	65-135	30		
Aroclor 1260	1.78	1.76	2.00	2.00	89.0	88.0	1.1	65-135	30		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyI	45.5	43.9	50	50	91.0	87.8		62-123			
Decachlorobiphenyl	40.1	39.7	50	50	80.2	79.4		56-136			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: P.G.& E TES

Attn: Karen Piini

Test Method: 8082

Prep Method: 3510/8082

## Legend & Notes

PCBs

### Analyte Flags

s

One surrogate recovery out of control, but second surrogate within QC limits confirms test performance.



# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

TEPH w/ Silica Gel Clean-up

<b>P.G. &amp; E TES</b>	☒ 3400 Crow Canyon Road San Ramon, CA 94583-1393
Attn: Karen Piini	Phone: (925) 866-5472 Fax: (925) 866-5681
Project #:	Project: Emeryville Service Ctr.

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
ESE-3	Water	08/16/2000 15:00	1

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

To: P.G.& E TES

Attn.: Karen Piini

Test Method: 8015M

Prep Method: 3510/8015M

TEPH w/ Silica Gel Clean-up

Sample ID: <b>ESE-3</b>	Lab Sample ID: <b>2000-09-0310-001</b>
Project: Emeryville Service Ctr.	Received: 08/17/2000
Sampled: 08/16/2000 15:00	Extracted: 09/18/2000 13:16
Matrix: Water	QC-Batch: 2000/09/18-04.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Mineral Oil	ND	100	ug/L	1.00	09/19/2000 23:32	
<i>Surrogate(s)</i> o-Terphenyl	82.5	60-130	%	1.00	09/19/2000 23:32	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

To: P.G.& E TES

Test Method: 8015M

Attn.: Karen Piini

Prep Method: 3510/8015M

**Batch QC Report**  
TEPH w/ Silica Gel Clean-up

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2000/09/18-04.10</b>
MB: 2000/09/18-04.10-001		Date Extracted: 09/18/2000 13:16

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	09/19/2000 17:07	
Mineral Oil	ND	100	ug/L	09/19/2000 17:07	
<b>Surrogate(s)</b> o-Terphenyl	84.0	60-130	%	09/19/2000 17:07	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-09-0310

To: P.G.& E TES

Test Method: 8015M

Attn: Karen Piini

Prep Method: 3510/8015M

## Batch QC Report

TEPH w/ Silica Gel Clean-up

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2000/09/18-04.10
LCS: 2000/09/18-04.10-002	Extracted: 09/18/2000 13:16	Analyzed 09/19/2000 17:45
LCSD: 2000/09/18-04.10-003	Extracted: 09/18/2000 13:16	Analyzed 09/19/2000 18:24

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%] RPD			Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD
Diesel	967	1070	1250	1250	77.4	85.6	10.1	60-130	25		
<b>Surrogate(s)</b> o-Terphenyl	23.1	22.6	20.0	20.0	115.5	113.0		60-130			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096



2000-08-0380

54008

Chain of Custody Record

From: Pacific Gas & Electric Company  PG&E Facility  Sample Site  
 Address or Location: 3400 CROWN CANYON RD.  
 City: SAN RAMON, CA (Zip) 94583  
 Contact Name/Phone No.: KAREN PIINI (925) 866-5472

Ship To: Lab Name: CHROMLAB  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_, CA (Zip) \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Contact Name: \_\_\_\_\_

Turnaround Time  
 NORMAL (10 days or less)  RUSH  OTHER, Specify \_\_\_\_\_  
 Due Date & Time \_\_\_\_\_  
 TELEPHONE  FAX Give Results to: KAREN PIINI (925) 866-5681  
 + FRED FUHT (925) 866-5808  
 Project Name: EMERYVILLE SERVICE CENTER  
 Project Supervisor (Name/Phone No.): FRED FUHT (925) 866-5808  
 Sampled by! (Signature) [Signature] (Print Name) DAWSON L. WRIGHT

Analysis Requested		Containers No. Size	Remarks
TEPH (EPA 350.6/5)	PCB's (EPA 8080)		
X	X	6	1) REQUEST SILICA GEL CLEANUP AND GLASS FILTRATION WITH C. F. PAK FOR TEPH  2) INCLUDE MS/MSD RESULTS IN LAB QC DATA
X	X	6	
X	X	6	
X	X	2	

Relinquished by (Name & Dept.): [Signature]	Date & Time: 8/17/00 0840	Received by (Name & Dept.): [Signature]	Date & Time: 8/17/00 0840	Ship Via:
Relinquished by (Name & Dept.): [Signature]	Date & Time: 8/17/00 1005	Received by (Name & Dept.): [Signature]	Date & Time: 8/17/00	Bill of Lading/Airbill No.:
Relinquished by (Name & Dept.): [Signature]	Date & Time: 8/17/00 1848	Received by (Name & Dept.): [Signature]	Date & Time:	
SAP Accounting Data:		Billing Contact:		Billing Address:

- Notes:
1. Samples are discarded by the laboratory 90 days after results are reported unless other arrangements are made.
  2. File a copy of this Chain of Custody Record, complete with appropriate laboratory signatures, with the test analysis results.
  3. The first "Relinquished by/Date" is the shipping date unless otherwise noted.
  4. The final PCB results will be the cumulative results added together for each PCB.
  5. When this form is computer-generated, send the completed original to the laboratory, and make copies for the originator and sampler.

Distribution (See note #5)  
 White: Laboratory  
 Canary: Originator  
 Pink: Sampler

