



**Pacific Gas and
Electric Company**

ENVIRONMENTAL
PROTECTION

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STW 69
LS

Technical and Ecological Services 3400 Crow Canyon Road
San Ramon, CA 94583

925.820.2000

April 20, 2000

Ms. Jennifer Eberle
Hazardous Materials Specialist
Alameda County Department of Environmental Health
UST Local Oversight Program
1131 Harbor Way Parkway, 2nd Floor
Alameda, CA 94502-6577

Re: Groundwater Monitoring and Sampling Annual Report, Oakland Power Plant,
Oakland, California

Dear Ms. Eberle:

Enclosed is a copy of the Groundwater Monitoring and Sampling Annual Report for Oakland Power Plant at 50 Martin Luther King Jr. Way, Oakland, California. The purpose of this report is to present the results of annual groundwater monitoring and sampling activities conducted at the site on February 16, 2000. This report is submitted to your office as requested in your letter dated April 23, 1993.

The analytical results show that diesel-range hydrocarbons were detected in the groundwater samples collected from wells MW-1-2, MW-1-3, and MW-2-3 at concentrations of 710 micrograms per liter ($\mu\text{g/L}$), 150 $\mu\text{g/L}$, and 190 $\mu\text{g/L}$, respectively.

Based on water level measurements made at the site, shallow groundwater is present about 3.5 feet below the surface and groundwater flowed to the north-northwest at a gradient of approximately 0.007 foot per foot.

Should you have any questions regarding this report, please contact me at (925) 866-5882.

Sincerely,

Korbin D. Creek
Supervisor, Land and Water Quality Unit

KSPiini(925-866-5472):djs
402.331-00.102/101

pc: Craig R. Fletcher
Darrell S. Klingman

Enclosure

TES

**Groundwater Monitoring and
Sampling Annual Report**

**Oakland Power Plant
50 Martin Luther King Jr. Way
Oakland, California**

February 2000

Prepared by
Technical and Ecological Services

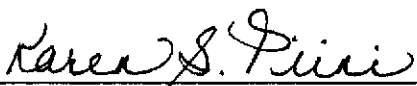
April 2000

Report No.: 402.331-00.101

**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:



Korbin D. Creek
Supervisor, Land and Water Quality Unit

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1 INTRODUCTION

This report presents the results of groundwater monitoring performed during the 2000 annual monitoring event to comply with the monitoring requirements for underground diesel dump tanks Nos. 2 and 3 Oakland Power Plant located at 50 Martin Luther King Jr. Way, Oakland, California (see Figure 1).

2 GROUNDWATER GRADIENT AND DIRECTION

The 2000 annual groundwater levels were measured at Oakland Power Plant on February 16, 2000, using an electronic sounding device, and recorded on the monitoring well water level / floating product survey form included in Appendix A. The groundwater elevations are summarized in Table 1. The February data were used to construct a groundwater contour map (Figure 2). February water levels ranged from a low of 10.21 feet above mean sea level (MSL) in well MW-1-3 to a high of 10.64 feet above MSL in well MW-2-3. The estimated groundwater gradient is approximately 0.007 foot per foot (ft/ft) to the north-northwest.

3 SAMPLING, ANALYSIS, AND MONITORING PROGRAM RESULTS

Groundwater samples were collected from wells MW-1-2, MW-1-3, and MW-2-3 on February 16, 2000, consistent with the protocol presented in Figure 3. Samples collected from these wells were analyzed for total petroleum hydrocarbons as diesel (TPHD) using U.S. Environmental Protection Agency (USEPA) Method 3510/8015. Field readings from the 2000 annual monitoring event, including sample temperature, conductivity, and pH, are recorded on the purging and sampling log sheets (see Appendix A).

Based on a letter dated January 11, 1996 from Jennifer Eberle, the Hazardous Materials Specialist with the Alameda County Environmental Health Services Department, the analysis for BTEX was eliminated for well MW-2-3 and the field blank. The analysis for BTEX was eliminated for wells MW-1-2 and MW-1-3 in the second quarter of 1994.

The February 2000 and historical analytical data are summarized in Table 1. Certified analytical reports and chain-of-custody records are included in Appendix B. The analytical results are discussed below:

- Diesel-range hydrocarbons were detected in the groundwater samples collected from wells MW-1-2, MW-1-3, and MW-2-3 at concentrations of 710 micrograms per liter ($\mu\text{g/L}$), 150 $\mu\text{g/L}$, and 190 $\mu\text{g/L}$, respectively.

4 FIELD AND LABORATORY QUALITY CONTROL RESULTS

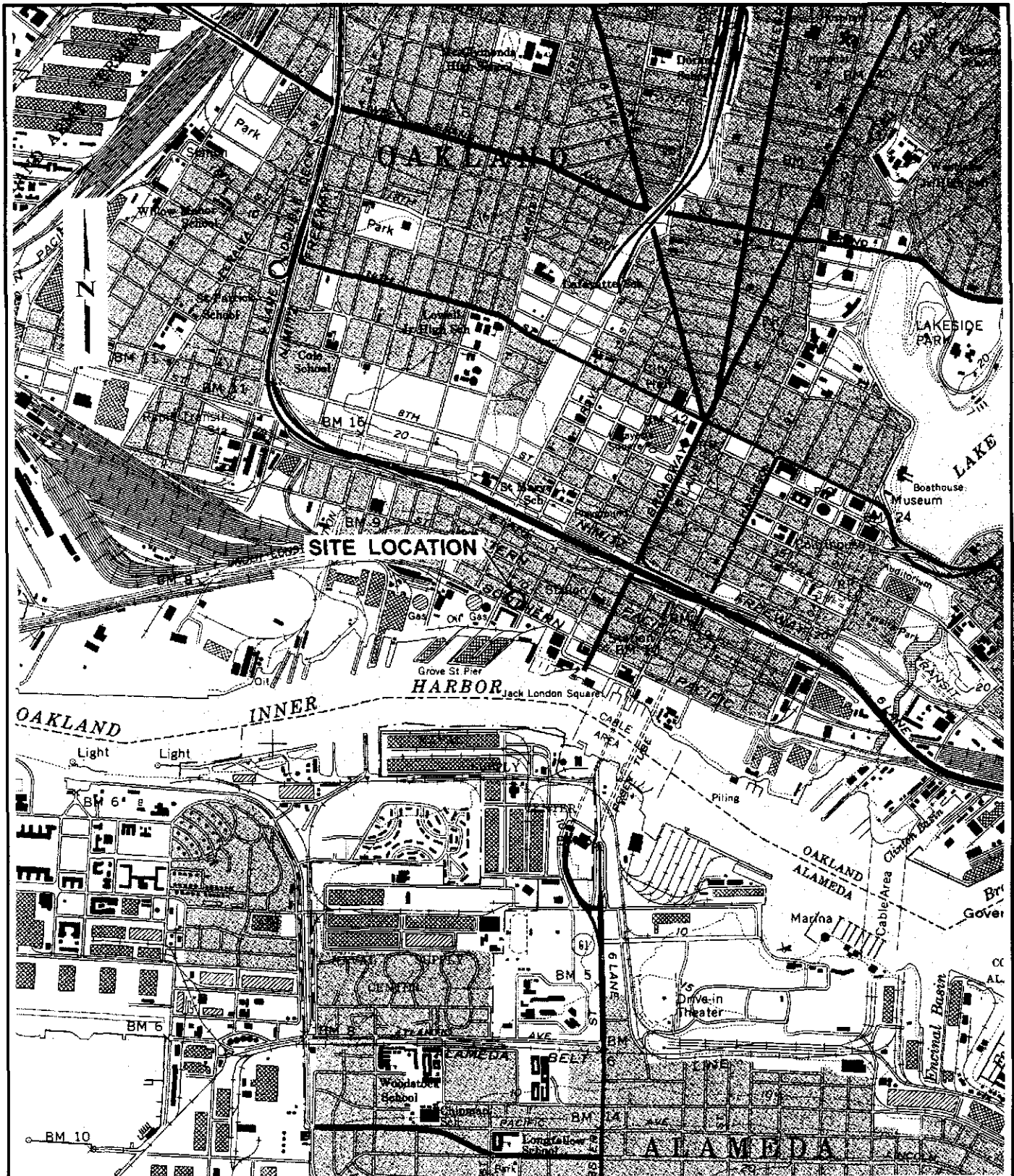
Analytical data were evaluated for accuracy and precision based on field and laboratory quality control (QC) sample performance. The field QC consisted of collecting one field blank and analyzing it for TPHD.

The field blank was collected to assess the effect of field environments on the analytical results and to identify false positives. No parameters were detected above their respective method reporting limits in the field blank, indicating 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 between sample collection and analysis by the laboratory. These limits assist in determining data validity. 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. Recoveries of MS were within the laboratory acceptance limits.

The field and laboratory QC results indicate that the analytical data are of acceptable quality.



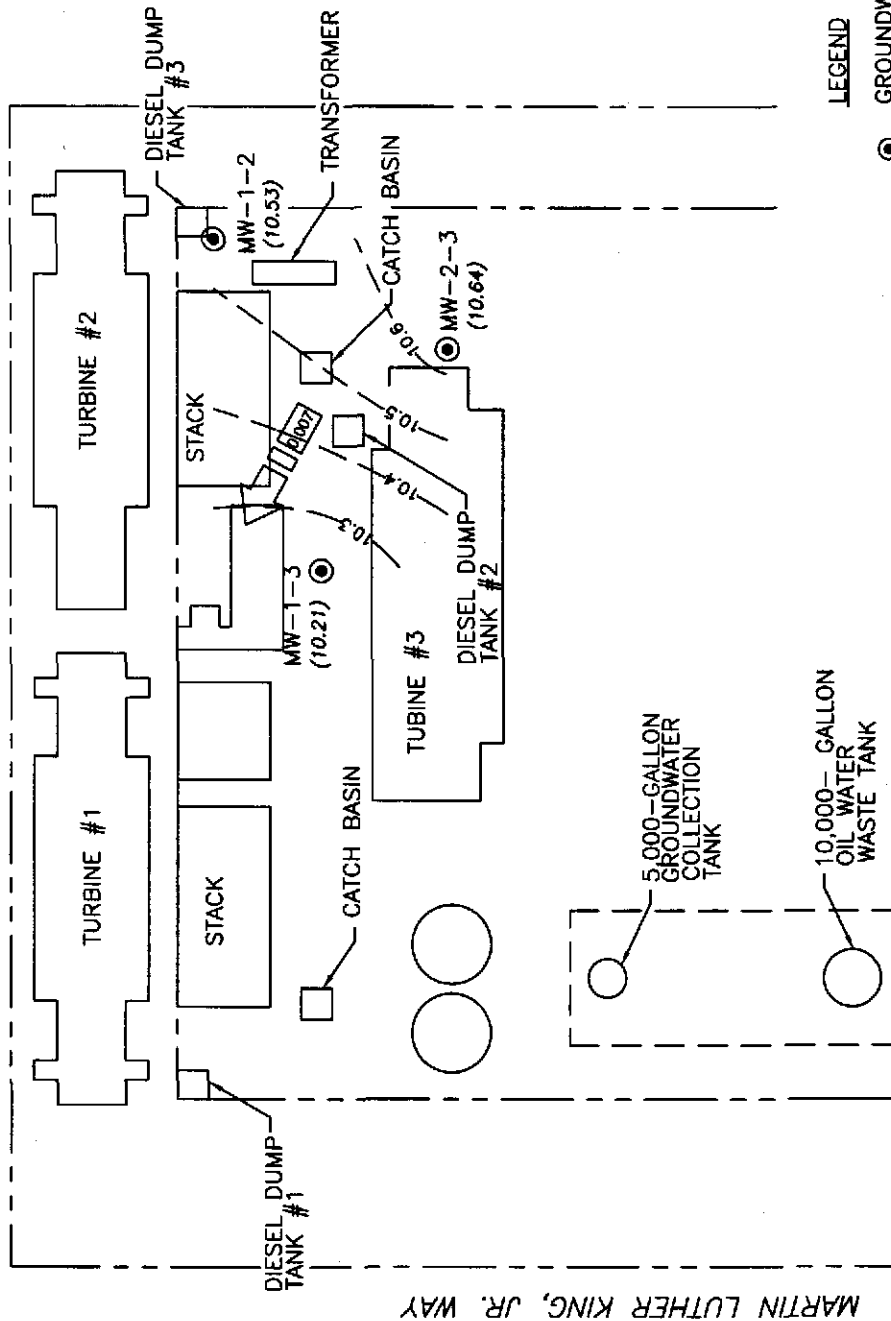
Base map from U.S. Geological Survey 7.5 minute series.
 Quadrangle: Oakland West, Calif.

0 2000 Feet



Figure 1. Site Location Map of Oakland Power Plant.

EMBARCADERO WAY

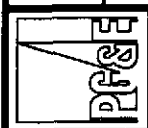
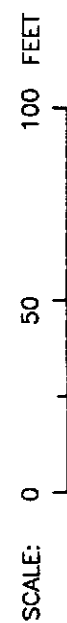


MARTIN LUTHER KING, JR. WAY

JEFFERSON STREET

LEGEND

- ⊙ GROUNDWATER MONITORING WELL
- (10.19) GROUNDWATER ELEVATION (Ft-MSL)
- GROUNDWATER ELEVATION CONTOUR (Ft-MSL)
- ⏏ APPROXIMATE DIRECTION OF GROUNDWATER FLOW SHOWING GRADIENT, Ft./Ft



Oakland Power Plant
Groundwater Contour Map - February 16, 2000

TECHNICAL AND ECOLOGICAL SERVICES - LWQU

DRN: LKE	DATE: 3/27/00
CHK: KP	SCALE: As Shown
APP: EPJ	SHEET: Oakland PP
REV.	REV.
	0

FIGURE 2

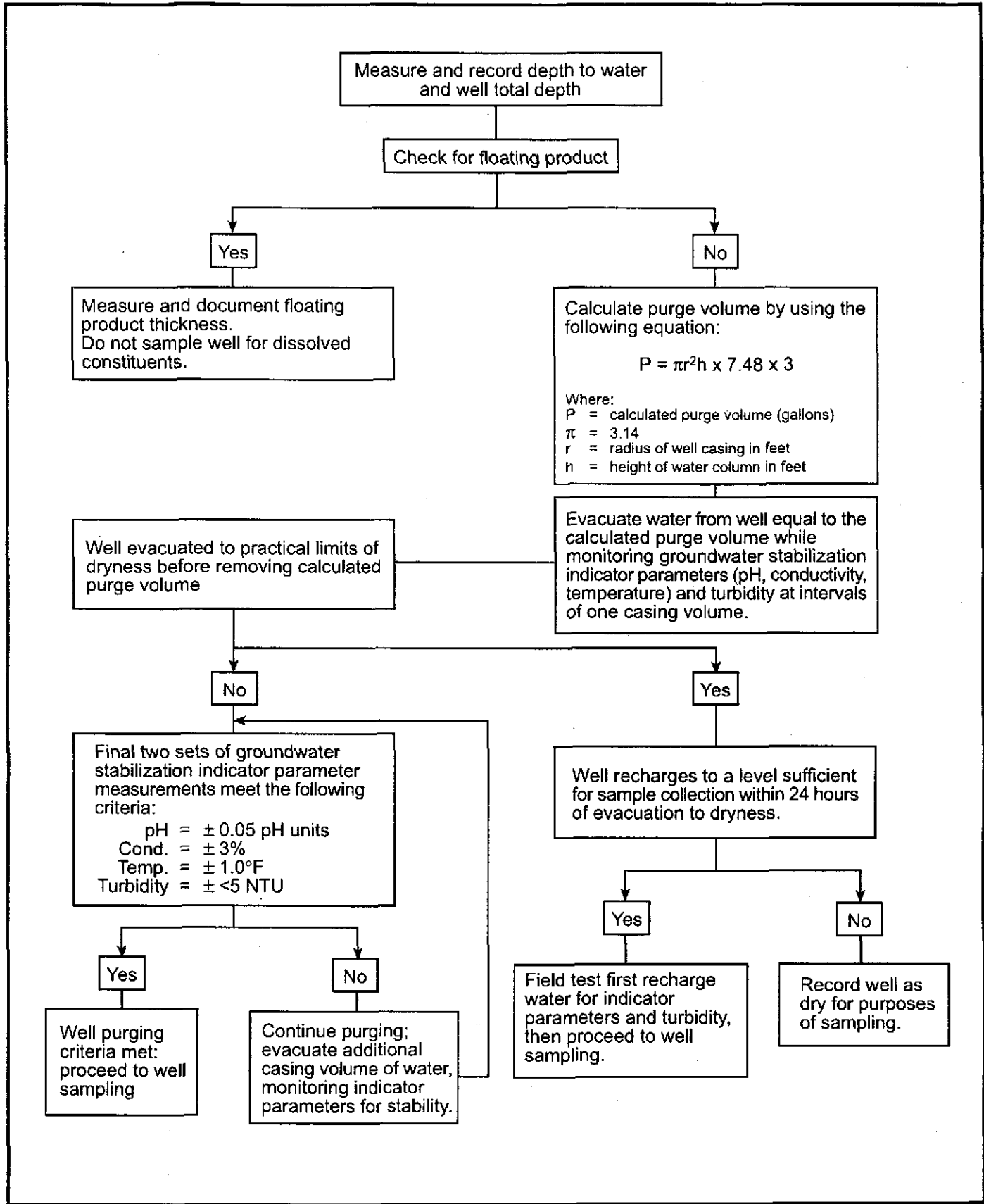


Figure 3. Monitoring Well Purging Protocol



Table 1
Oakland Power Plant
February 2000 and Historical Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethyl-benzene $\mu\text{g/L}$	Total Xylenes $\mu\text{g/L}$
MW-1-2	06/22/93	13.95	5.05	8.90	1,500 ¹	<0.5	<0.5	<0.5	<0.5
MW-1-2	09/22/93		5.91	8.04	240	<0.5	<0.5	<0.5	<0.5
Dup	09/22/93		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-1-2	12/28/93		4.77	9.18	200	<0.5	<0.5	<0.5	<0.5
Dup	12/28/93		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-1-2	04/11/94		4.66	9.29	---	<0.5	<0.5	<0.5	<0.5
Dup	04/11/94		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-1-2	04/20/94		4.86	9.09	600	---	---	---	---
MW-1-2	06/29/94		5.18	8.77	520	---	---	---	---
MW-1-2	10/07/94		4.55	9.40	590	---	---	---	---
MW-1-2	01/03/95		4.11	9.84	650 ¹	---	---	---	---
MW-1-2	03/24/95		3.57	10.38	740 ¹	---	---	---	---
MW-1-2	06/30/95		4.69	9.26	540	---	---	---	---
MW-1-2	10/12/95		5.35	8.60	230 ¹	---	---	---	---
MW-1-2	01/18/96		4.19	9.76	600 ¹	---	---	---	---
MW-1-2	02/19/96		4.03	9.92	670 ¹	---	---	---	---
MW-1-2	02/28/97		4.73	9.22	1,800 ¹	---	---	---	---
MW-1-2	02/24/98		3.50	10.45	430 ¹	---	---	---	---
MW-1-2	02/17/99		3.33	10.62	130 ^{1,5}	---	---	---	---
MW-1-2	02/16/00		3.42	10.53	710 ¹	---	---	---	---
MW-1-3	06/22/93	14.01	5.15	8.86	160 ¹	<0.5	<0.5	<0.5	<0.5
MW-1-3	09/22/93		5.57	8.44	430	<0.5	<0.5	<0.5	<0.5
MW-1-3	12/28/93		5.13	8.88	<50	<0.5	<0.5	<0.5	<0.5
MW-1-3	04/11/94		5.01	9.00	---	<0.5	<0.5	<0.5	<0.5
MW-1-3	04/20/94		5.09	8.92	<50	---	---	---	---
MW-1-3	06/29/94		5.30	8.71	280 ¹	---	---	---	---
MW-1-3	10/07/94		5.69	8.32	160 ¹	---	---	---	---
MW-1-3	01/03/95		4.62	9.39	210 ¹	---	---	---	---
MW-1-3	06/30/95		4.89	9.12	231 ¹	---	---	---	---

Table 1
Oakland Power Plant
February 2000 and Historical Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzene $\mu\text{g/L}$	Total Xylenes $\mu\text{g/L}$
MW-1-3	10/12/95		5.43	8.58	190 ¹	---	---	---	---
MW-1-3	01/18/96		4.72	9.29	240 ¹	---	---	---	---
MW-1-3	02/19/96		4.41	9.60	290 ¹	---	---	---	---
MW-1-3	02/28/97		4.90	9.11	1,500 ¹	---	---	---	---
MW-1-3	02/24/98		3.82	10.19	160 ¹	---	---	---	---
MW-1-3	02/17/99		4.10	9.91	<50 ⁵	---	---	---	---
MW-1-3	02/16/00		3.80	10.21	150 ¹	---	---	---	---
MW-2-3	06/22/93	13.91	5.00	8.91	560 ²	3	<0.5	<0.5	<0.5
MW-2-3	09/22/93		5.50	8.41	460	<0.5	<0.5	<0.5	<0.5
MW-2-3	12/28/93		4.74	9.17	<50 ³	<0.5	<0.5	<0.5	<0.5
MW-2-3	04/11/94		5.62	8.29	---	<0.5	<0.5	<0.5	<0.5
MW-2-3	04/20/94		5.83	8.08	<50	---	---	---	---
MW-2-3	06/29/94		5.14	8.77	920 ^{1,4}	<0.5	<0.5	<0.5	<0.5
MW-2-3	10/07/94		5.50	8.41	<50	16	13	6	24
MW-2-3	01/03/95		4.11	9.80	190 ¹	<0.5	<0.5	<0.5	<0.5
MW-2-3	03/24/95		3.47	10.44	110 ¹	<0.5	<0.5	<0.5	<0.5
Dup	03/24/95		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-2-3	06/30/95		4.66	9.25	187 ¹	<0.5	<0.5	<0.5	<0.5
Dup	06/30/95		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-2-3	10/12/95		5.30	8.61	290 ¹	<0.5	<0.5	<0.5	<0.5
MW-2-3	01/18/96		4.15	9.76	370 ¹	---	---	---	---
MW-2-3	02/19/96		3.97	9.94	320 ¹	---	---	---	---
MW-2-3	02/28/97		4.70	9.21	610 ¹	---	---	---	---
MW-2-3	02/24/98		3.40	10.51	140 ¹	---	---	---	---
MW-2-3	02/17/99		3.31	10.60	<50 ⁵	---	---	---	---
MW-2-3	02/16/00		3.27	10.64	190 ¹	---	---	---	---

Table 1
Oakland Power Plant
February 2000 and Historical Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethyl-benzene $\mu\text{g/L}$	Total Xylenes $\mu\text{g/L}$
Travel Blank	09/22/93				--	<0.5	<0.5	<0.5	<0.5
Travel Blank	12/28/93				--	<0.5	<0.5	<0.5	<0.5
Travel Blank	04/11/94				--	<0.5	<0.5	<0.5	<0.5
Travel Blank	01/03/95				--	<0.5	<0.5	<0.5	<0.5
Travel Blank	03/24/95				--	<0.5	0.5	<0.5	<0.5
Travel Blank	06/30/95				--	<0.5	<0.5	<0.5	<0.5
Travel Blank	10/12/95				--	<0.5	<0.5	<0.5	<0.5
Trip Blank	01/18/96				<50	--	--	--	--
Field Blank	02/19/96				<50	--	--	--	--
Field Blank	02/28/97				<50	--	--	--	--
Field Blank	02/24/98				<50	--	--	--	--
Field Blank	02/17/99				<50	--	--	--	--
Field Blank	02/16/00				<50	--	--	--	--

TPHD = Total petroleum hydrocarbons as diesel.

ft/MSL = Feet with respect to mean sea level.

$\mu\text{g/L}$ = Micrograms per liter.

Dup = Blind duplicate.

1 Unknown hydrocarbon in diesel range quantified as diesel.

2 Motor oil at a concentration of 3.1 milligrams per liter detected in sample.

3 Motor oil at a concentration of 2.9 milligrams per liter detected in sample.

4 Unknown hydrocarbon in motor oil range was also observed in sample.

5 Sample preparation included silica gel clean-up.

-- = Not analyzed.

Appendix A

**MONITORING WELL WATER LEVEL / FLOATING PRODUCT SURVEY FORM
AND
PURGING AND SAMPLING LOG SHEETS**

PG & E PURGING AND SAMPLING LOG

SITE CALCANO PP JOB ID _____
 PURGE DATE 2/16/00 BY D.L. WRIGHT
 SAMPLE DATE 2/16/00 BY D.L. WRIGHT

WELL # MW-1-2
 WEATHER RAIN

WATER ELEVATION / VOLUME CALCULATIONS

MEASURING POINT (MP) TOC @ HYDROCARBON ODOR YES NO
 DEPTH OF WELL (DTB) 13.5 FT THICKNESS _____
 DEPTH TO WATER (DTW) 3.42 FT
 TOTAL WATER DEPTH 10.08 FT
 MEASUREMENT METHOD SOLINST SLOPE INDICATOR

TOC ELEV = _____ FT - DTW _____ FT = GW ELEV. _____ FT

PURGE VOLUME CALCULATIONS

10.08 FT WATER * CASING FACTOR = 6.65 GAL/CASING VOL * 3 VOLUMES = 19.95 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						
0930	0934	6.75	8.07	1289	CLEAR	15.5	
0935	0942	13.5	7.44	1190	CLEAR	16.3	H ₂ S odor
0943	0950	20.0	7.35	1123	CLEAR	16.3	H ₂ S odor

METHOD OF DISCHARGE DISPOSAL GROUND BARREL POND (CIRCLE ONE)
 METHOD OF PURGING HOMELITE BAILER HAND PUMP SUBMERSIBLE WATERRA (CIRCLE ONE) HONOR
 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 = 1000
 pH 7 = 7.00 COND. 10,000 = _____
 pH 10 = 10.01

SAMPLES
 LAB ANALYSIS SEE "COC"
 LABORATORY CH20MALAB.
 SAMPLE TIME 1000
 REMARKS _____

PG & E PURGING AND SAMPLING LOG

SITE OKLAHOMA JOB ID _____
 PURGE DATE 2/16/00 BY DL. WRIGHT
 SAMPLE DATE 2/16/00 BY DL. WRIGHT

WELL # MW-1-3
 WEATHER RAIN

WATER ELEVATION / VOLUME CALCULATIONS

MEASURING POINT (MP) TOC @ _____ HYDROCARBON ODOR YES NO
 DEPTH OF WELL (DTB) 7.1 FT THICKNESS _____
 DEPTH TO WATER (DTW) 3.80 FT
 TOTAL WATER DEPTH 3.3 FT
 MEASUREMENT METHOD SOLINST SLOPE INDICATOR

TOC ELEV = _____ FT - DTW _____ FT = GW ELEV. _____ FT

PURGE VOLUME CALCULATIONS

3.30 FT WATER * CASING FACTOR = 2.18 GAL/CASING VOL * 3 VOLUMES = 6.54 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						
1039	1033	2.25	7.79	1863	U. LIGHT	17.5	NO ODORS
1035	1038	4.50	7.82	1486	CLEAR	16.2	
1039	1041	6.75	7.82	1351	U. LIGHT	15.7	

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 YSI 350 CALIBRATED YES NO COND. METER YSI 3500 CALIBRATED YES NO
 TEMP. CORRECTED YES NO CALIBRATION DATA _____ pH 4 = 4.00 COND. 1,000 = 1000
 pH 7 = 7.00 COND. 10,000 = _____
 pH 10 = 10.01

SAMPLES
 LAB ANALYSIS SEE LOC
 LABORATORY AROMA LAB
 SAMPLE TIME 1100
 REMARKS _____

PG & E PURGING AND SAMPLING LOG

SITE Oakland PP JOB ID _____
 PURGE DATE 2/16/00 BY DL. WRIGHT
 SAMPLE DATE 2/16/00 BY DL. WRIGHT

WELL # MW-2-3
 WEATHER RAIN

WATER ELEVATION / VOLUME CALCULATIONS

MEASURING POINT (MP) TOC @ HYDROCARBON ODOR YES NO
 DEPTH OF WELL (DTB) 13.3 FT THICKNESS _____
 DEPTH TO WATER (DTW) 3.27 FT
 TOTAL WATER DEPTH 10.03 FT
 MEASUREMENT METHOD SOLINST SLOPE INDICATOR

TOC ELEV = _____ FT - DTW _____ FT = GW ELEV. _____ FT

PURGE VOLUME CALCULATIONS

10.03 FT WATER * CASING FACTOR = 6.62 GAL/CASING VOL * 3 VOLUMES = 19.86 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						
<u>1108</u>	<u>1114</u>	<u>6.75</u>	<u>7.20</u>	<u>1534</u>	<u>MEDIUM</u>	<u>16.8</u>	<u>Grey color</u>
<u>1115</u>	<u>1118</u>	<u>13.5</u>	<u>7.37</u>	<u>1530</u>	<u>1.46HT</u>	<u>17.2</u>	<u>well empty</u>
<u>1119</u>	<u>1133</u>	<u>20.0</u>	<u>7.20</u>	<u>1427</u>	<u>CLEAR</u>	<u>16.7</u>	<u>well recirculating</u>

METHOD OF DISCHARGE DISPOSAL GROUND BARREL POND (CIRCLE ONE)
 METHOD OF PURGING HOMELITE BAILER HAND PUMP SUBMERSIBLE WATERRA (CIRCLE ONE) HOMDA
 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 = 1008
 pH 7 = 7.00 COND. 10,000 = _____
 pH 10 = 10.01

SAMPLES
 LAB ANALYSIS SEE COI
 LABORATORY CHROMA LAB
 SAMPLE TIME 1200
 REMARKS _____

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

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-02-0334

Diesel

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: OAKLAND PP

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1-2	Water	02/16/2000 10:00	1
MW-1-3	Water	02/16/2000 11:00	2
QC-1	Water	02/16/2000 11:30	3
MW-2-3	Water	02/16/2000 12:00	4

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

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-02-0334

To: P.G.& E TES

Attn.: Karen Plini

Test Method: 8015m

Prep Method: 3510/8015M

Diesel

Sample ID: MW-1-2	Lab Sample ID: 2000-02-0334-001
Project: OAKLAND PP	Received: 02/17/2000 17:40
Sampled: 02/16/2000 10:00	Extracted: 02/24/2000 09:24
Matrix: Water	QC-Batch: 2000/02/24-02.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	710 ✓	50	ug/L	1.00	02/24/2000 19:46	ndp
<i>Surrogate(s)</i> o-Terphenyl	98.9	60-130	%	1.00	02/24/2000 19:46	

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

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-02-0334

To: P.G.& E TES

Attn.: Karen Plini

Test Method: 8015m

Prep Method: 3510/8015M

Diesel

Sample ID: MW-2-3	Lab Sample ID: 2000-02-0334-004
Project: OAKLAND PP	Received: 02/17/2000 17:40
Sampled: 02/16/2000 12:00	Extracted: 02/24/2000 09:24
Matrix: Water	QC-Batch: 2000/02/24-02.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	190 /	50	ug/L	1.00	02/24/2000 22:00	ndp
<i>Surrogate(s)</i> o-Terphenyl	93.5	60-130	%	1.00	02/24/2000 22:00	

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-02-0334

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

Test Method: 8015m
Prep Method: 3510/8015M

Batch QC Report Diesel

Method Blank	Water	QC Batch # 2000/02/24-02.10
MB: 2000/02/24-02.10-001		Date Extracted: 02/24/2000 09:22

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	02/24/2000 15:20	
Surrogate(s) o-Terphenyl	95.0	60-130	%	02/24/2000 15:20	

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-02-0334

To: P.G.& E TES

Test Method: 8015m

Attn: Karen Pilni

Prep Method: 3510/8015M

Batch QC Report

Diesel

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2000/02/24-02.10
LCS: 2000/02/24-02.10-002	Extracted: 02/24/2000 09:22	Analyzed 02/24/2000 20:34
LCSD: 2000/02/24-02.10-003	Extracted: 02/24/2000 09:22	Analyzed 02/24/2000 21:13

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	828	992	1250	1250	66.2	79.4	18.1	60-130	25		
Surrogate(s) o-Terphenyl	19.0	21.3	20.0	20.0	95.0	106.5		60-130			

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-02-0334

To: P.G.& E TES

Attn: Karen Piini

Test Method: 8015m

Prep Method: 3510/8015M

Legend & Notes

Diesel

Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard



2000-02-0334

50566

Chain of Custody Record

From: Pacific Gas & Electric Company PG&E Facility Sample Site
 Address or Location: 3400 CROW CANYON RD.
 City: SAN RAFAEL, CA (Zip) 94583
 Contact Name/Phone No.: DAWSON WRIGHT (925) 866-5373

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

NORMAL (10 days or less) RUSH OTHER, Specify _____
 Turnaround Time _____
 Date & Time _____
 TELEPHONE Give Results to: KAREN PINNI (925) 866-5472
 Name: POFAX
 Project Name: AICKLAND PP Project Supervisor (Name/Phone No.): DARRELL KINGSMITH (925) 866-5883
 Sampled by: (Signature)

Sample No./ Equipment Serial No.	Sampled Date Time	Sample Type/Description	Containers No.	Size	Analysis Requested	Remarks
1. MW-1-2	2/16/00 1000	WATER	2	1L		
2. MW-1-3	1100	↓	3	↓		
3. QC-1	1130	↓	3	↓		
4. MW-2-3	1200					
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						

Relinquished by (Name&Dept.): DAWSON WRIGHT
 Date & Time: 2/17/00 0740
 Received by (Name&Dept.): [Signature]
 Date & Time: 2/17/00 0923
 Relinquished by (Name&Dept.): [Signature]
 Date & Time: 2/17/00 1716
 Received by (Name&Dept.): [Signature]

Ship Via:
 Date & Time: 2/17/00 0740
 Date & Time: 2/17/00 0923
 Date & Time: 02/17/00 0740
 Bill of Lading/Airbill No.:

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