TES

Groundwater Monitoring and Sampling Annual Report

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

February 2002

Prepared by

Technical and Ecological Services

April 2002

Report No.: 402.331-02.41

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

Pacific Gas and Electric Company

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

925.820.2000

April 23, 2002

S10 64 /197

Ms. Priya Ganguli
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. Ganguli:

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 20, 2002. 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 and MW-1-3 at concentrations of 130 and 260 micrograms per liter (µg/L), respectively.

Based on water level measurements made at the site, shallow groundwater is present about 4.0 feet below the surface and groundwater flowed to the north-northwest at a gradient of approximately 0.006 foot per foot.

Based on the low concentrations of diesel-range hydrocarbons measured in samples taken from monitoring wells MW-1-2, MW-1-3, and MW-2-3 during the past five years, we believe that no additional monitoring is warranted at this site and ask that you issue a "no-further-action" letter.

Please contact me at (925) 866-5882 if you wish to discuss this request.

Sincerely,

Korbin D. Creek
Supervisor, Land and Water Quality Unit

KDC:me
402.331-02.41Ltr.doc

pc: Betsy Brunswick
Darrell S. Klingman

Enclosure

Prepared by:

Elizabeth A. Frantz
Environmental Technical Specialist

Approved by:

Korbin D. Creek
Supervisor, Land and Water Quality Unit

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FIGURES

TABLES

1 INTRODUCTION

This report presents the results of groundwater monitoring performed during the 2002 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 2002 annual groundwater levels were measured at Oakland Power Plant on February 20, 2002, 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 9.33 feet above mean sea level (MSL) in well MW-1-3 to a high of 9.82 feet above MSL in well MW-1-2. The estimated groundwater gradient is approximately 0.006 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 20, 2001, 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 2002 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.

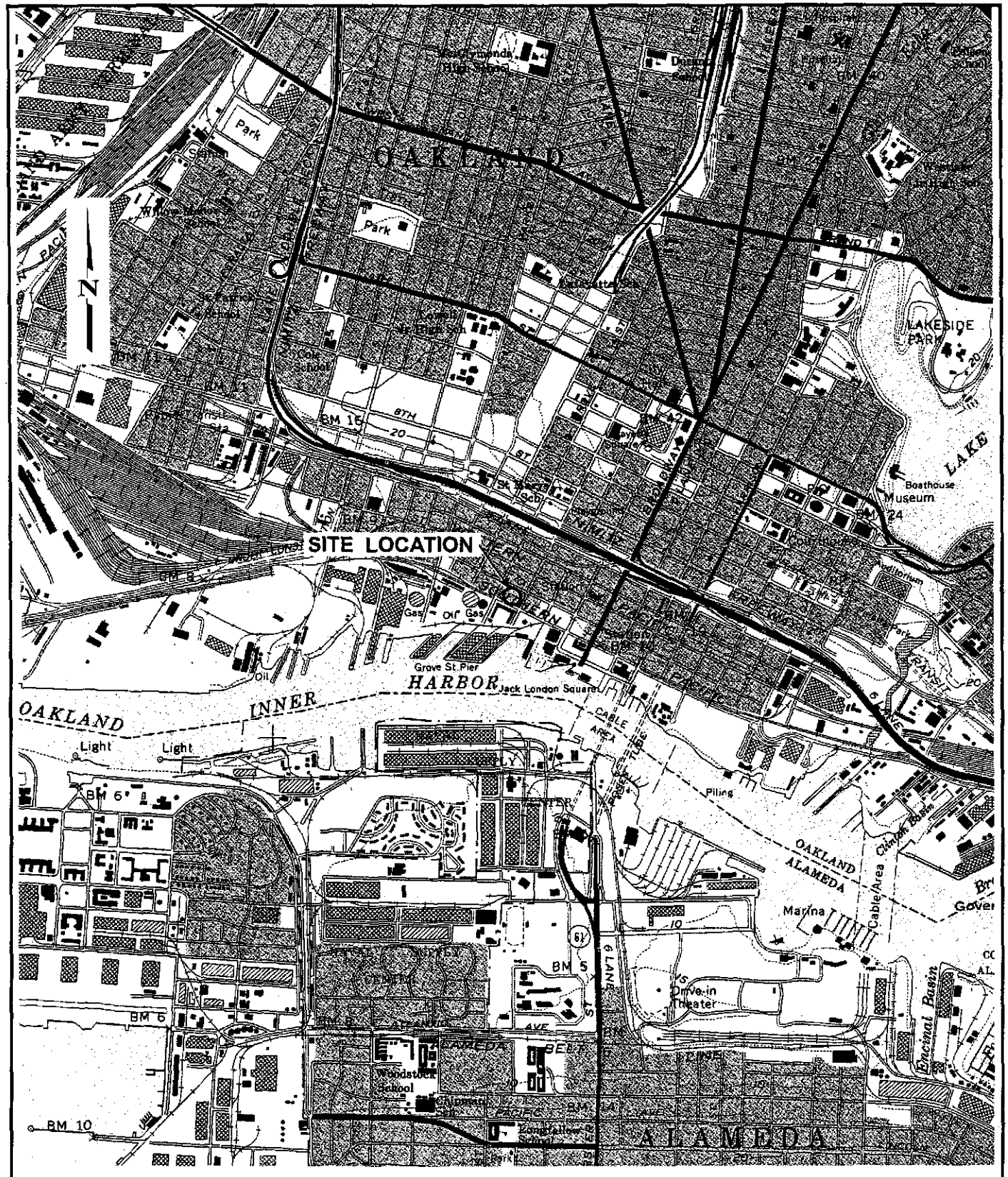
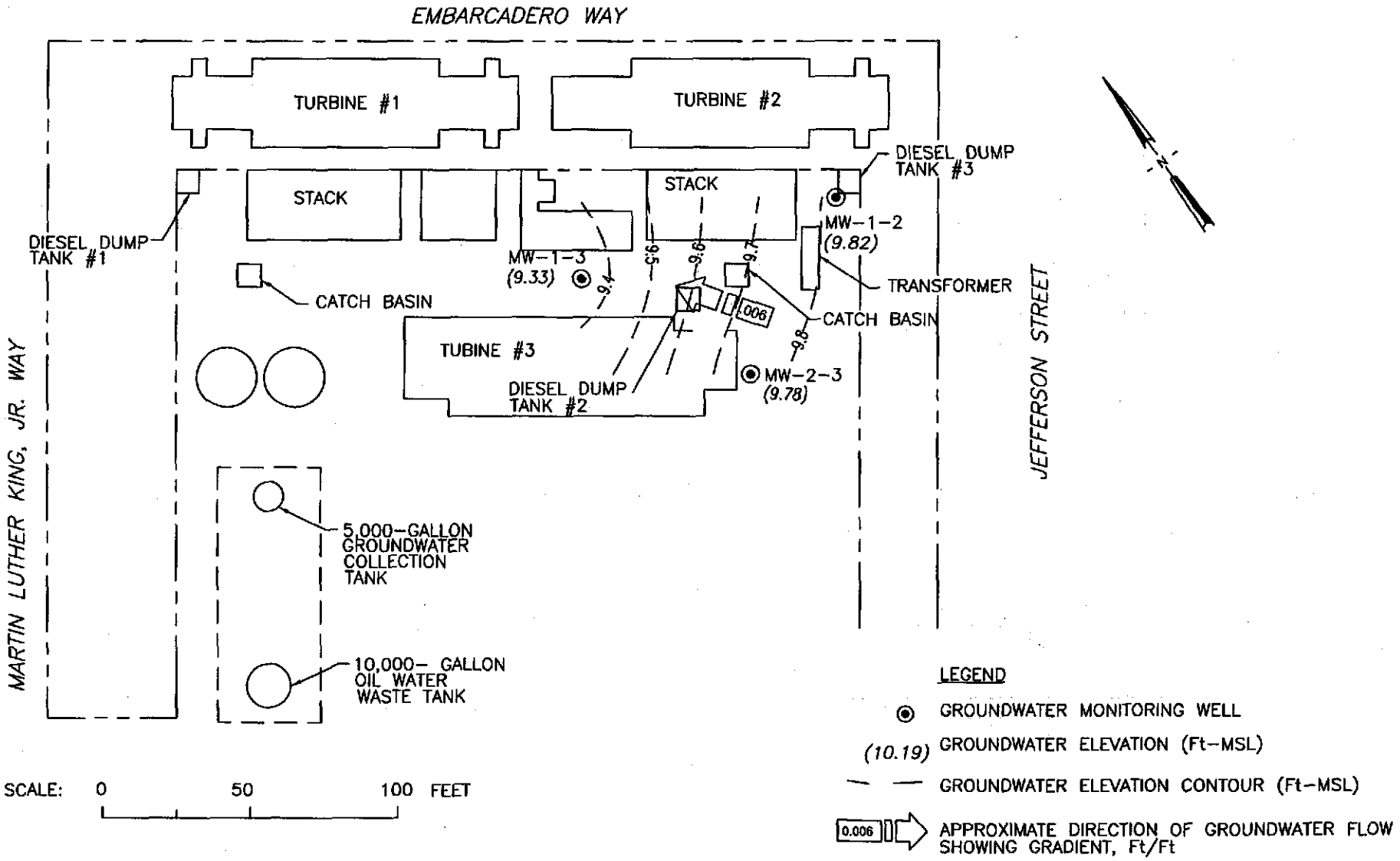


Figure 1. Site Location Map of Oakland Power Plant.

gmdwtr/serv-ctr/Oakland PP



Oakland Power Plant
Groundwater Contour Map - February 20, 2002

TECHNICAL AND ECOLOGICAL SERVICES – LWQU

DRN:LKE	DATE : 4/8/02
CHK:EF	SCALE: As Shown
APR:EPJ	SHEET Oakland PP

FIGURE 2

REV. 0

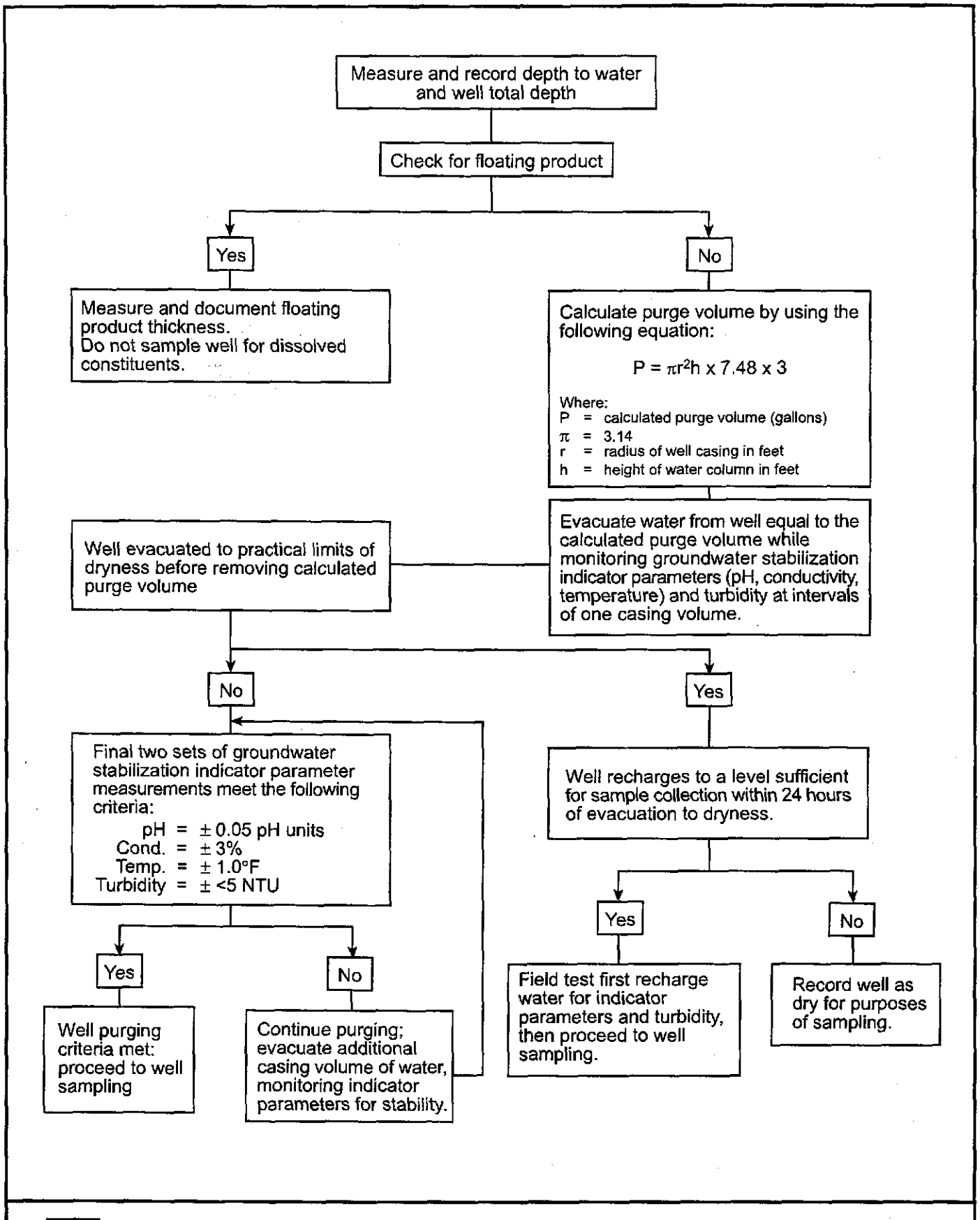


Figure 3. Monitoring Well Purging Protocol

grndwtr/protocol

Table 1
Oakland Power Plant
February 2002 and Historical Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD µg/L	Benzene µg/L	Toluene µg/L	Ethyl-benzene µg/L	Total Xylenes µg/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-1-2	03/01/01		4.00	9.95	140 [1]	---	---	---	---
MW-1-2	02/20/02		4.13	9.82	130 [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]	---	---	---	---

Table 1
Oakland Power Plant
February 2002 and Historical Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD µg/L	Benzene µg/L	Toluene µg/L	Ethyl-benzene µg/L	Total Xylenes µg/L
MW-1-3	06/30/95		4.89	9.12	231 [1]	---	---	---	---
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-1-3	03/01/01		4.28	9.73	<50	---	---	---	---
MW-1-3	02/20/02		4.68	9.33	260 [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 2002 and Historical Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD µg/L	Benzene µg/L	Toluene µg/L	Ethyl-benzene µg/L	Total Xylenes µg/L
MW-2-3	03/01/01		3.93	9.98	<50	---	---	---	---
MW-2-3	02/20/02		4.13	9.78	<50	---	---	---	---
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	---	---	---	---
Field Blank	03/01/01				<50	---	---	---	---
QCEB	02/20/02				<50	---	---	---	---

TPHD = Total petroleum hydrocarbons as diesel.
ft/MSL = Feet with respect to mean sea level.
µg/L = Micrograms per liter.
Dup = Blind duplicate.
QCEB = Nomenclature used for Field Blank for State Tank Fund Sites.
[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

FIELD REPORT
WATER LEVEL / FLOATING PRODUCT SURVEY
PACIFIC GAS & ELECTRIC COMPANY - TES

Site location: OAKLAND PP

Survey date: 2/20/02

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
MW1-2		0930		4.13					
MW1-3		0935		4.68					
MW-2-3		0940		4.13					

Comments:

Signature

TES - DRUM INVENTORY RECORD

00531 OPP
Swims No.

OAKLAND PP
Location

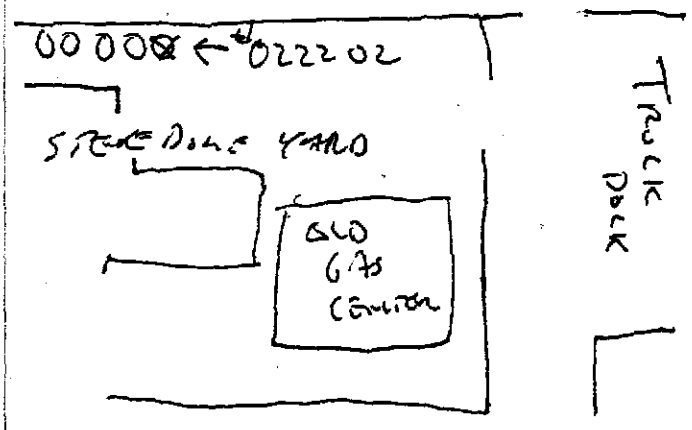
2/20/02
Date

K. CREEK
Site Lead

D. WRIGHT
Sampler

DRUM NUMBER (6 digit date + seq. #) eg. 070498A	WELL NO. OR SOURCE ID	TYPE OF MATERIAL	AMOUNT OF MATERIAL IN DRUM	DATE ACCUMULATED OR GENERATED
022002	MW 1-2, 1-3, 2-3	GROUND WATER	40 gal	2/20/02

Sketch locations of drums, include drum ID's



Comments:

Number of drums from this event: 1

Total number of drums at site: 5

Pacific Gas & Electric Co. - TES
Groundwater Purging and Sampling Log

Site: OAKLAND PP | Job ID: | Well ID: MW 1-2
Purge date: 2/20/02 | Sampler: TC WRIGHT | Weather: OVERCAST
Sample date: 2/20/02 | Sampler: DW

Depth measurements and purge volume calculation

Measuring point: TOC @ | Hydrocarbon odor: yes (no)
Depth of well (DTB): 13.5 ft. | Thickness:
Depth to water (DTW): 4.13 ft.
Total water depth (TD): 9.37 ft.
Measurement method: solinst slope indicator

TD		casing factor		gal. per vol.		volumes		total purge volume (gal)
9.37	x	.66	=	6.1	x	3	=	18.3

Casing factor: for 2" dia. = 0.17 gallons per ft.
for 3" dia. = 0.38 gallons per ft.
for 4" dia. = 0.66 gallons per ft.
for 6" dia. = 1.47 gallons per ft.

Purge water data

Time Start	Time End	Cumulative volume (gal.)	pH	Conductivity (umho/cm)	Turbidity	Temp. (deg. C)	Comments
1030	1034	6.0	7.58	1775	CLEAR	16.7	H_2S odor
1039	1043	12.0	7.41	1400	CLEAR	16.3	
1048	1053	18.0	7.40	1350	CLEAR	16.6	

Methods

(circle methods used)

Discharge disposal:	ground (barrel)	pond	treatment system	
Purging:	~~surface pump~~	bailer	submersible	
Sampling:	~~disp. bailer~~	bailer	dedicated pump	
Decontamination:	(soap/DI)	pressure wash	dedicated equip.	

Calibration

calibrated (yes) no
temp. corrected (yes) no

pH meter: YSI 3500
pH 4 = 4.01
pH 7 = 7.00
pH 10 = 9.98

Cond. meter: YSI 3500
std. 1,000 = 552
std. 10,000 =

Samples

Sample time: 1215
Lab analyses: TPH-D

Remarks

Pacific Gas & Electric Co. - TES
Groundwater Purging and Sampling Log

Site: OAKLAND RP | Job ID: | Well ID: MW 1-3
Purge date: 2/20/02 | Sampler DC WRIGHT | Weather: OVERCAST
Sample date: 2/20/02 | Sampler DCW

Depth measurements and purge volume calculation

Measuring point: TOC @
Depth of well (DTB): 7.1 ft
Depth to water (DTW): 4.68 ft
Total water depth (TD): 2.42 ft
Measurement method: solinst slope indicator
Hydrocarbon odor: yes (no)
Thickness:

TD		casing factor		gal. per vol.		volumes		total purge volume (gal)
2.42	x	0.66	=	1.5	x	3	=	4.5

Casing factor: for 2" dia. = 0.17 gallons per ft.
for 3" dia. = 0.38 gallons per ft.
for 4" dia. = 0.66 gallons per ft.
for 6" dia. = 1.47 gallons per ft.

Purge water data

Time Start	Time End	Cumulative volume (gal.)	pH	Conductivity (umho/cm)	Turbidity	Temp. (deg. C)	Comments
1130	1132	1.5	7.55	2650	LIGHT	16.6	BROWN COLOR
1137	1139	2.5	7.79	2400	LIGHT	16.7	
1144	1146	4.0	7.82	2025	CLEAR	16.2	

Methods

(circle methods used)

Discharge disposal:	~~ground~~ (barrel)	pond	treatment system	
Purging:	~~surface pump~~	bailer	submersible	
Sampling:	~~disp. bailer~~	bailer	dedicated pump	
Decontamination:	~~soap/DI~~	pressure wash	dedicated equip.	

Calibration

calibrated (yes) no
temp. corrected (yes) no

pH meter: YSI 3500
pH 4 = 4.01
pH 7 = 7.00
pH 10 = 9.98

Cond. meter: YSI 3500
std. 1,000 = 992
std. 10,000 =

Samples

Sample time: 1230
Lab analyses: TPH-D

Remarks

Pacific Gas & Electric Co. - TES
Groundwater Purging and Sampling Log

Site: OAKLAND PP | Job ID: | Well ID: MW2-3
Purge date: 2/20/02 | Sampler: DLWright | Weather: OVERCAST
Sample date: 2/20/02 | Sampler: DLW

Depth measurements and purge volume calculation

Measuring point: TOC @ | Hydrocarbon odor: yes (no)
Depth of well (DTB): 13.3 ft. | Thickness:
Depth to water (DTW): 4.13 ft.
Total water depth (TD): 9.17 ft.
Measurement method: (solinst) slope indicator

TD		casing factor		gal. per vol.		volumes		total purge volume (gal)
9.17	x	.66	=	6	x	3	=	18

Casing factor: for 2" dia. = 0.17 gallons per ft.
for 3" dia. = 0.38 gallons per ft.
for 4" dia. = 0.66 gallons per ft.
for 6" dia. = 1.47 gallons per ft.

Purge water data

Time Start	Time End	Cumulative volume (gal.)	pH	Conductivity (umho/cm)	Turbidity	Temp. (deg. C)	Comments
1003	1010	6.0	7.20	2100	MED	18.6	GREY/SLT/ORG ODOR
1100	1103	10.0	7.42	1845	CLEAR	18.3	
1113	1115	13.0	7.45	1860	CLEAR	17.8	SLOW RECHARGE

Methods

(circle methods used)

Discharge disposal:	ground (barrel)	pond	treatment system	
Purging:	surface pump	bailer	submersible	
Sampling:	disp. bailer	bailer	dedicated pump	
Decontamination:	soap/DI	pressure wash	dedicated equip.	

Calibration

calibrated (yes) no
temp. corrected (yes) no

pH meter [redacted] 4/7/10 | Cond. meter 4/1 3500
pH 4 = 4.01 | std. 1,000 = 992
pH 7 = 7.00 | std. 10,000 =
pH 10 = 9.98

Samples

Sample time: 1245
Lab analyses: TPH-D

Remarks

Appendix B

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Submission #: 2002-02-0354

Diesel with Silica Gel Clean-up

STL San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

P.G.& E TES	✉ 3400 Crow Canyon Road San Ramon, CA 94583-1393
Attn: Elizabeth Frantz	Phone: (925) 866-5472 Fax: (925) 866-5681
	Project: Oakland PP

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
QCEB	Water	02/20/2002 12:00	1
MW1-2	Water	02/20/2002 12:15	2
MW1-3	Water	02/20/2002 12:30	3
MW2-3	Water	02/20/2002 12:45	4

Submission #: 2002-02-0354

SEVERN TRENT SERVICES

Diesel with Silica Gel Clean-up

P.G.& E TES
Attn: Elizabeth Frantz

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

STL San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID:	**QCEB**	Lab Sample ID:	2002-02-0354-001
Project:	Oakland PP	Received:	02/21/2002 09:37
		Extracted:	02/22/2002 11:45
Sampled:	02/20/2002 12:00	QC-Batch:	2002/02/22-03.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	02/25/2002 16:30	
Surrogate(s)						
o-Terphenyl	105.3	60-130	%	1.00	02/25/2002 16:30	

Submission #: 2002-02-0354

SEVERN TRENT SERVICES

Diesel with Silica Gel Clean-up

P.G.& E TES
Attn: Elizabeth Frantz

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

STL San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID:	**MW1-2**	Lab Sample ID:	2002-02-0354-002
Project:	Oakland PP	Received:	02/21/2002 09:37
		Extracted:	02/22/2002 11:45
Sampled:	02/20/2002 12:15	QC-Batch:	2002/02/22-03.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	130	50	ug/L	1.00	02/25/2002 17:08	ndp
Surrogate(s)						
o-Terphenyl	100.1	60-130	%	1.00	02/25/2002 17:08	

Submission #: 2002-02-0354

SEVERN TRENT SERVICES

Diesel with Silica Gel Clean-up

P.G.& E TES
Attn: Elizabeth Frantz

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

STL San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID:	**MW1-3**	Lab Sample ID:	2002-02-0354-003
Project:	Oakland PP	Received:	02/21/2002 09:37
		Extracted:	02/22/2002 11:45
Sampled:	02/20/2002 12:30	QC-Batch:	2002/02/22-03.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	260	50	ug/L	1.00	02/25/2002 17:53	ndp
Surrogate(s)						
o-Terphenyl	105.5	60-130	%	1.00	02/25/2002 17:53	

Submission #: 2002-02-0354

SEVERN TRENT SERVICES

Diesel with Silica Gel Clean-up

P.G.& E TES
Attn: Elizabeth Frantz

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

STL San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID:	**MW2-3**	Lab Sample ID:	2002-02-0354-004
Project:	Oakland PP	Received:	02/21/2002 09:37
		Extracted:	02/22/2002 11:45
Sampled:	02/20/2002 12:45	QC-Batch:	2002/02/22-03.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	02/26/2002 07:03	
Surrogate(s)						
o-Terphenyl	94.6	60-130	%	1.00	02/26/2002 07:03	

SEVERN TRENT SERVICES

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CA DHS ELAP#1094

Diesel with Silica Gel Clean-up

Batch QC report

Test Method: 8015M

Prep Method: 3510/8015 M

Method Blank **Water** **QC Batch # 2002/02/22-03.10**

MB: 2002/02/22-03.10-001

Date Extracted: 02/22/2002 11:45

Compound	Result	Rep.Limit	Unit	Analyzed	Flag
Diesel	ND	50	ug/L	02/22/2002 19:31	
Surrogate(s)					
o-Terphenyl	102.6	60-130	%	02/22/2002 19:31	

Submission #: 2002-02-0354

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CA DHS ELAP#1094

Diesel with Silica Gel Clean-up

Batch QC report

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

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2002/02/22-03.10**

LCS: 2002/02/22-03.10-002 Extracted: 02/22/2002 11:45 Analyzed: 02/22/2002 17:52

LCSD: 2002/02/22-03.10-003 Extracted: 02/22/2002 11:45 Analyzed: 02/22/2002 18:29

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery		RPD	Ctrl.Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recover	RPD	LCS	LCSD
Diesel	1040	1010	1250	1250	83.2	80.8	2.9	60-130	25		
Surrogate(s)											
o-Terphenyl	20.5	19.9	20.0	20.0	102.6	99.4		60-130	0		

SEVERN TRENT SERVICES

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CA DHS ELAP#1094

Diesel with Silica Gel Clean-up

Legend & Notes

Test Method: 8015M

Prep Method: 3510/8015M

Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

Pacific Gas and Electric Company™

Chain of Custody Record

2002-02-0354

62-1174 (Rev 2/98)
Environmental Affairs

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

Ship To: Lab Name: STL SF
Address:
City: , CA (Zip)
Phone No.
Contact Name:

Turnaround Time
☒ NORMAL (10 days or less) ☐ RUSH Due Date & Time ☐ OTHER, Specify 10 DAY TAT
☐ TELEPHONE ☒ FAX Give Results to: ELIZABETH RAMIREZ (925) 866-5681 Name / FAX

Project Name: OAKLAND PP
Project Supervisor (Name/Phone No.): K. CREEK (925) 866-5882
Sampled by (Signature) (Print Name) DAWSON WRIGHT

Sample No./ Equipment Serial No.	Sampled Date	Sampled Time	Sample Type/Description	Containers No.	Containers Size	TPH-D (EPA 3510/8015M W/SILICA GEL CLEANUP							Remarks
1. QCEB	2/20	1200	H2O	2	1L	X							NOTE:
2. MW 1-2	↓	1215	↓	2	↓	X							STATE TANK LIC. SITE
3. MW 1-3		1230		2		X							GLOBAL ID NO. T0600100992
4. MW 2-3		1245		2		X							VALID FIELD PT. NAMES
5.													ARE THE SAME AS
6.													SAMPLE NUMBERS.
7.													PLEASE PROVIDE EDD
8.													FILES AND E-MAIL TO
9.													emk1@pge.com
10.													
11.													
12.													

Relinquished by (Name&Dept.):	Date&Time:	Received by (Name&Dept.):	Date&Time:	Ship Via:
Relinquished by (Name&Dept.):	Date&Time:	Received by (Name&Dept.):	Date&Time:	Bill of Lading/Airbill No.:
Relinquished by (Name&Dept.):	Date&Time:	Received by (Name&Dept.):	Date&Time: 2/21/02 9:37	4.3°C

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