Pacific Gas and Electric Company

Environmental Compliance Unit
4525 Hollis Street
Emeryville, CA 94608-2999
510/450-5710

Michelle Boscoe
Senior Environmental Coordinator

August 15, 1995

95 AUG 21 PM 3:38

Ms. Susan Hugo
Senior Hazardous Materials Specialist
Alameda County Environmental Health Dept.
1131 Harbor Bay Parkway #250
Alameda, CA 94502-6577

Dear Ms. Hugo:

Re: PG&E's Groundwater Monitoring and Sampling Report, Pacific Gas & Electric's Emeryville Materials Facility, Emeryville, California

Enclosed are two copies of the above-referenced report, performed for the second quarter of 1995 ending in June. The report was prepared by EMCON, and summarizes groundwater flow direction, hydraulic gradient, and the results of laboratory chemical analyses of groundwater samples collected in June of 1995.

Findings of the report include:

- The depth to ground water ranges from 9.5 to 13.85 feet below the surface. Ground water flow was to the west to northwest with a gradient of 0.1 ft/ft to 0.04 ft/ft respectively.

- TEPH which matches a transformer oil standard is present in well ESE-1 (350 ug/l). All other compounds were below the method detection limit.

If you have any questions about this report, or the work plan on the same site submitted previously, please call me at (510) 455-5710.

Michelle E. Boscoe, REA, RHSP
Senior Environmental Coordinator

Enclosures

cc: Rafat A. Shahid, Environmental Health
Gil Jensen, Alameda County District Attorney's Office
Gordon Coleman, Acting Chief, Environmental Protection Division
Kevin Graves, San Francisco Bay RWQCB
Sum Arigala, San Francisco Bay RWQCB

ENVIRONMENTAL
95 AUG 21 PM 3:39

GROUNDWATER MONITORING AND SAMPLING REPORT

Maintenance Facility
Emeryville, California

Prepared for

Pacific Gas and Electric Company
Technical and Ecological Services

July 25, 1995

Prepared by

EMCON
1921 Ringwood Avenue
San Jose, California 95131

Project 0143-014.02

CONTENTS

TABLES AND ILLUSTRATIONS

Tables

Figures

1 INTRODUCTION

This report presents data collected during the second quarter 1995 monitoring period at the Pacific Gas and Electric Company (PG&E) Maintenance facility in Emeryville, California (Figure 1). The work was conducted consistent with EMCON's proposal P94-110.19 dated December 7, 1994.

2 GROUNDWATER GRADIENT AND DIRECTION

First quarter groundwater levels were measured at the PG&E Maintenance Facility on June 15, 1995, using an electronic sounding device, and recorded on the historical monitoring well data form included in Appendix A. The groundwater elevations are summarized in Table 1. The June data were used in constructing a groundwater contour map (Figure 2). June water levels ranged from a low of 13.64 feet above mean sea level (MSL) in well ESE-3 to a high of 17.40 feet above MSL in well MW-4. The estimated groundwater gradient varies from approximately 0.01 foot per foot (ft/ft) to the west near 53rd Street to approximately 0.04 ft/ft to the northwest between monitoring wells ESE-2 and MW-4.

3 SAMPLING, ANALYSIS, AND MONITORING PROGRAM RESULTS

Groundwater samples were collected from wells ESE-1 through ESE-4 on June 15, 1995, consistent with the protocol presented in Figure 3, and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by U.S. Environmental Protection Agency (USEPA) method 602/8020; polychlorinated biphenyls (PCBs) by USEPA method 8080; and total extractable petroleum hydrocarbons (TEPH) as diesel, and dielectric/transformer oil by USEPA method 3510/8015. Temperature, pH, and electrical conductivity (EC) were measured in the field and recorded on the water sample field data sheets (Appendix A). Field readings from the second quarter 1995 monitoring event are summarized in Table 1.

The analytical results are discussed below. Second quarter 1995 and historical analytical data are summarized in Table 2.

BTEX and PCBs were not detected at or above the method reporting limit (MRL) in any sample collected from ESE-1 through ESE-4.

Petroleum hydrocarbons were detected in the diesel range in well ESE-1. Chromalab, Inc., compared the peak in the chromatogram from this event with the chromatogram for the reference standard supplied by PG&E. The chromatogram peak in ESE-1 was similar to that of transformer oil and the concentration was estimated to be 350 micrograms per liter (µg/L). Transformer oil was not detected at or above the MRL in samples collected from ESE-2, ESE-3, and ESE-4. TEPH as diesel, was not detected in the samples collected from wells ESE-1 through ESE-4. Certified analytical reports and chain-of-custody records are included in Appendix B.

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 trip blank and one field blank and analyzing them for BTEX.

Field and trip blanks are collected to assess the effect of field and laboratory environments on the analytical results and to identify false positives. No parameters were detected above their respective MRLs in the field blank or trip 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) and matrix spike duplicate (MSD) 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 method blank results are used to assess the effect of the laboratory environment on the analytical results. The MS and MSD recoveries are used to assess accuracy, and the relative percent difference (RPD) between the MS and MSD is used to assess the precision of the analytical results.

All analyses were done within the holding times specified by the USEPA. No compounds were detected in the daily method blanks. Recoveries of MS and MSD, and the RPDs between the duplicate results, were within the laboratory acceptance limits.

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

Table 1
Field Measurements
Second Quarter 1995 and Historical Data
Pacific Gas and Electric Company
Emeryville, California

Sample Designation	Date	Top-of-Casing Elevation (ft, MSL)[1]	Depth to Water (feet)	Groundwater Elevation (ft, MSL)	Measured Well Depth (feet)	pH (units)	Temperature (°F)	Electrical Conductivity (µmhos/cm)[2]
ESE-1	03/28/94	23.66	10.06	13.60	30.8	8.48	73.1	600
ESE-1	04/07/94	23.66	10.22	13.44	NM[3]	NS[4]	NS	NS
ESE-1	12/12/94	23.66	9.18	14.48	30.6	7.26	63.4	588
ESE-1	3/13/95	23.66	8.20	15.46	30.6	7.33	63.3	548
ESE-1	6/15/95	23.66	9.50	14.16	30.6	6.90	64.0	505
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[3]	NS	NS	NS
ESE-2	12/12/94	27.80	13.05	14.75	34.3	7.05	64.6	610
ESE-2	3/13/95	27.80	12.48	15.32	34.3	7.19	62.5	596
ESE-2	6/15/95	27.80	13.85	13.95	34.3	7.02	65.1	601
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	NM3	NS	NS	NS
ESE-3	12/12/94	23.91	10.62	13.29	31.0	7.19	63.9	600
ESE-3	3/13/95	23.91	9.45	14.46	31.0	6.99	62.5	600
ESE-3	6/15/95	23.91	10.27	13.64	31.0	7.10	64.9	556
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	NM3	NS	NS	NS
ESE-4	12/12/94	24.33	9.63	14.70	31.6	7.11	63.1	591
ESE-4	3/13/95	24.33	8.90	15.43	31.6	7.16	61.2	595
ESE-4	6/15/95	24.33	9.81	14.52	31.6	7.05	64.1	565
MW-4	3/13/95	28.14	9.84	18.30	14.7	NS	NS	NS
MW-4	6/15/95	28.14	10.74	17.40	14.7	NS	NS	NS

[1] ft, MSL = feet relative to mean sea level
[2] µmhos/cm = micromhos per centimeter at 77°F
[3] NM = not measured
[4] NS = not sampled

Table 2

Analytical Data
Second Quarter 1995 and Historical Data
Pacific Gas and Electric Company
Emeryville, California
(µg/L)[1]

Sample Designation	Sample Date	PCBs[2]	TEPH[3]	Benzene	Toluene	Ethylbenzene	Xylenes
ESE-1	03/28/94	<1[4]	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	3/13/95	1.3	500[5]	<0.5	<0.5	<0.5	<0.5
ESE-1	6/15/95	<0.5	350[5]	<0.5	<0.5	<0.5	<0.5
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	3/13/95	<0.5	120[6]	<0.5	<0.5	<0.5	<0.5
ESE-2	6/15/95	<0.5	<50	<0.5	<0.5	<0.5	<0.5
ESE-3	03/28/93	<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	3/13/95	<0.5	<50	<0.5	<0.5	<0.5	<0.5
ESE-3	6/15/95	<0.5	<50	<0.5	<0.5	<0.5	<0.5
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	3/13/95	<0.5	57[6]	<0.5	<0.5	<0.5	<0.5
ESE-4	6/15/95	<0.5	<50	<0.5	<0.5	<0.5	<0.5
Trip blank	03/28/94	<1	<50	<0.3	<0.3	<0.3	<0.3
Trip blank	12/12/94	NA[7]	NA	<0.5	<0.5	<0.5	<0.5
Trip blank	3/13/95	NA	NA	<0.5	<0.5	<0.5	<0.5
Trip blank	6/15/95	NA	NA	<0.5	<0.5	<0.5	<0.5

Table 2

Analytical Data
Second Quarter 1995 and Historical Data
Pacific Gas and Electric Company
Emeryville, California

(µg/L)[1]
(continued)

Sample Designation	Sample Date	PCB[2]	TEPH[3]	Benzene	Toluene	Ethylbenzene	Xylenes
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	3/13/95	NA	NA	<0.5	<0.5	<0.5	<0.5
Field blank	6/15/95	NA	NA	<0.5	<0.5	<0.5	<0.5

1 µg/L = micrograms per liter
2 PCBs = polychlorinated biphenyls
3 TEPH = total extractable petroleum hydrocarbons
4 < = not detected at or above the specified method reporting limit
5 Compounds similar to client-supplied transformer oil were found.
6 Compounds in diesel range do not match laboratory standard for transformer oil.
7 NA = not analyzed

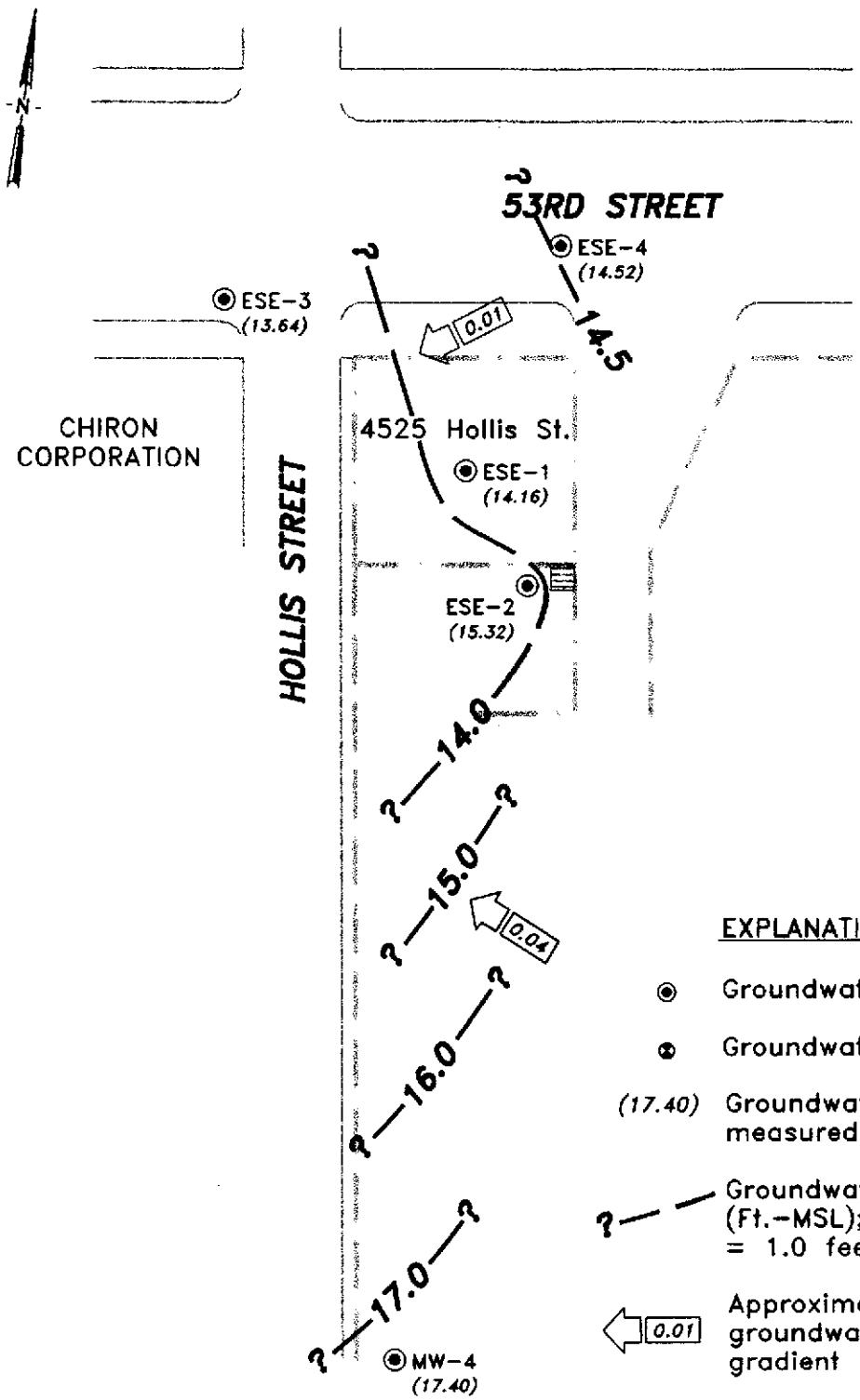
152753

EMCON Associates

PACIFIC GAS & ELECTRIC COMPANY
QUARTERLY MONITORING PROGRAM
EMERYVILLE, CALIFORNIA

SITE LOCATION

FIGURE
1
PROJECT NO.
143-014.02



EMCON

PACIFIC GAS & ELECTRIC COMPANY
QUARTERLY MONITORING PROGRAM
EMERYVILLE, CALIFORNIA

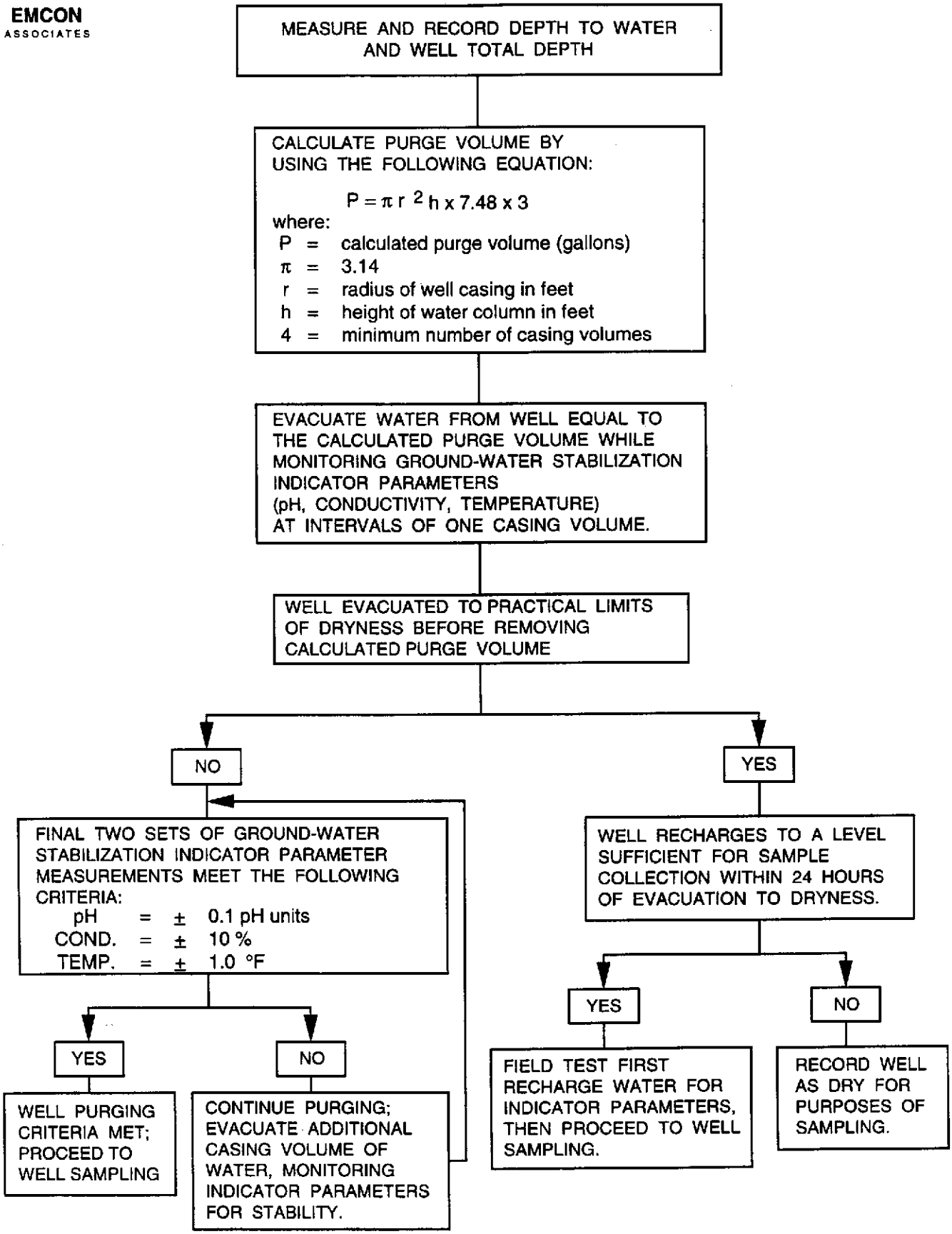
GROUNDWATER CONTOURS
SECOND QUARTER 1995

FIGURE
2
PROJECT NO.
143-014.02

Figure 3

MONITORING WELL PURGING PROTOCOL

EMCON ASSOCIATES



APPENDIX A

HISTORICAL MONITORING WELL DATA FORM AND WATER SAMPLE FIELD DATA SHEETS

EMCON - Field Services
1921 Ringwood Avenue
San Jose, California

Signature

Historical Monitoring Well Data
PG&E Emeryville
0143-014.002

Well ID	Date	Depth to Floating Product (feet)	First Depth to Water (feet)	Second Depth to Water (feet)	Floating Product Thickness (feet)	Well Total Depth (feet)	Comments
Depth to liquid : 0.01 foot							Total depth : 0.1 foot
	12/12/94	ND	9.18	9.18	NA	30.6	
	03/13/95	ND	8.26	8.26	NA	30.6	
ESE-1	6/15/95		9.50	9.50	N/A	30.6	Time: 0955 Lock: None
	12/12/94	ND	13.05	13.05	NA	34.3	
	03/13/95	ND	12.48	12.48	NA	34.3	
ESE-2			13.85	13.85	N/A	34.3	Time: 0950 Lock: Dolphin
	12/12/94	ND	10.62	10.62	NA	31.0	
	03/13/95	ND	9.45	9.45	NA	31.0	
ESE-3			10.27	10.27	N/A	31.0	Time: 0902 Lock: 3210
	12/12/94	ND	9.63	9.63	NA	31.6	
	03/13/95	ND	8.90	8.90	NA	31.6	
ESE-4		NA	9.81	9.81	N/A	31.6	Time: 0909 Lock: 3210
	03/13/95	ND	9.84	9.84	NA	14.7	
MW-4	6/15/95	N/A	10.74	10.74	N/A	14.7	Time: 0845 Lock: None

Rev. 3, 2/94

WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 0143-014.02 SAMPLE ID: FSE-1

PURGED BY: M. GALLEGOS CLIENT NAME: PG&E

SAMPLED BY: ↓ LOCATION: Emeryville, CA

TYPE: Ground Water ✓ Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 ✓ 3 ___ 4 ___ 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL):	N/R	VOLUME IN CASING (gal.):	3.441
DEPTH TO WATER (feet):	9.50	CALCULATED PURGE (gal.):	13.77
DEPTH OF WELL (feet):	30.16	ACTUAL PURGE VOL. (gal.):	14.0

DATE PURGED: 6-15-95 Start (2400 Hr) 0943 End (2400 Hr) 0957

DATE SAMPLED: ↓ Start (2400 Hr) 1005 End (2400 Hr) ___

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
0947	3.5	6.67	505	64.5	BRN	Heavy
0950	7.0	6.78	503	64.2		
0953	10.5	6.96	502	63.9		
0957	14.0	6.90	505	64.0	↓	↓

D. O. (ppm): N/R ODOR: None.

N/R (COBALT 0 - 500) N/R (NTU 0 - 200 or 0 - 1000)

Field QC samples collected at this well: N/R

Parameters field filtered at this well: N/R

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	___ Bailer (Teflon®)	___ 2" Bladder Pump	✓ Bailer (Teflon®)
___ Centrifugal Pump	✓ Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: ___	

WELL INTEGRITY: Good LOCK #: 3210

REMARKS: Oil Sample taken

Meter Calibration: Date: 6/15/95 Time: 0940 Meter Serial #: 9011 Temperature °F: 71.2

(EC 1000 1007/1000) (DI ___) (pH 7 6.97/7.00) (pH 10 1000/1000) (pH 4 3.97/___)

Location of previous calibration: ___

Signature: [signature] Reviewed By: KR Page 1 of 4

Rev. 3, 2/94

WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 0143-014.002 SAMPLE ID: ESE-2

PURGED BY: M. Gallegos CLIENT NAME: PG&E

SAMPLED BY: ↓ LOCATION: Emeryville, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 X 3 ___ 4 ___ 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): N/A VOLUME IN CASING (gal.): 3.33

DEPTH TO WATER (feet): 13.55 CALCULATED PURGE (gal.): 13.35

DEPTH OF WELL (feet): 34.3 ACTUAL PURGE VOL. (gal.): 13.5

DATE PURGED: 6-15-55 Start (2400 Hr) 1024 End (2400 Hr) 1036

DATE SAMPLED: 〃 Start (2400 Hr) 1045 End (2400 Hr) ___

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1028	3.0	7.00	607	64.8	BRN	Heavy
1030	6.5	7.01	603	64.9		
1033	10.0	7.00	593	64.6		
1036	13.5	7.02	601	65.1	〃	〃

D. O. (ppm): N/A ODOR: None

N/R (COBALT 0 - 500) 〃 (NTU 0 - 200 or 0 - 1000)

Field QC samples collected at this well: N/A

Parameters field filtered at this well: N/A

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	___ Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	X Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: ___	

WELL INTEGRITY: Good LOCK #: Dolphin

REMARKS: all sample filter

Meter Calibration: Date: 6-15-55 Time: ___ Meter Serial #: 5011 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: ESE-1

Signature: [signature] Reviewed By: KR Page 2 of 4

Rev. 3, 2/94

WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 0143-014.002 SAMPLE ID: ESE-3

PURGED BY: M. Reinhardt CLIENT NAME: PG&E

SAMPLED BY: ✓ LOCATION: Emeryville, CA

TYPE: Ground Water ✓ Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 ✓ 3 ___ 4 ___ 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL):	NR	VOLUME IN CASING (gal.):	3.38
DEPTH TO WATER (feet):	10.27	CALCULATED PURGE (gal.):	13.53
DEPTH OF WELL (feet):	31.0	ACTUAL PURGE VOL. (gal.):	14.0

DATE PURGED: 10-15-95 Start (2400 Hr) 1110 End (2400 Hr) 1124

DATE SAMPLED: " Start (2400 Hr) 1135 End (2400 Hr) ___

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1113	3.5	7.25	546	67.9	Brown	Heavy
1116	7.0	7.06	538	66.2	"	"
1120	10.5	7.06	551	65.2	"	"
1124	14.0	7.10	556	64.9	↓	↓

D. O. (ppm): NR ODOR: None

COLOR: N/A (COBALT 0 - 500)

TURBIDITY: NR (NTU 0 - 200 or 0 - 1000)

Field QC samples collected at this well: NR

Parameters field filtered at this well: NR

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	___ Bailer (Teflon®)	___ 2" Bladder Pump	✓ Bailer (Teflon®)
___ Centrifugal Pump	✓ Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: ___	

WELL INTEGRITY: Good LOCK #: 3210

REMARKS: pH Sample taken

Meter Calibration: Date: 6-15-95 Time: ___ Meter Serial #: 9011 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: ESE-1

Signature: [signature] Reviewed By: KR Page 3 of 4

Rev. 3, 2/94

WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 0143-014.002 SAMPLE ID: FSE-4

PURGED BY: M. Gallegos CLIENT NAME: PG+E

SAMPLED BY: JI LOCATION: Emeryville, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 1 3 ___ 4 ___ 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL):	NR	VOLUME IN CASING (gal.):	3.55
DEPTH TO WATER (feet):	9.81	CALCULATED PURGE (gal.):	14.22
DEPTH OF WELL (feet):	31.10	ACTUAL PURGE VOL. (gal.):	14.5

DATE PURGED: 6-15-95 Start (2400 Hr) 1158 End (2400 Hr) 1210

DATE SAMPLED: JI Start (2400 Hr) 1220 End (2400 Hr) ___

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1201	3.5	7.06	580	65.1	BRN	HEAVY
1204	7.0	7.05	571	64.9		
1207	10.5	7.06	563	64.6		
1210	14.5	7.05	565	64.1	↓	↓

D. O. (ppm): NR ODOR: None.

COLOR (visual): N/R (COBALT 0 - 500)

TURBIDITY (visual): NR (NTU 0 - 200 or 0 - 1000)

Field QC samples collected at this well: FR-1 (1220)

Parameters field filtered at this well: NR

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	___ Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	X Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: ___	

WELL INTEGRITY: Good LOCK #: 3210

REMARKS: All Samples taken

Meter Calibration: Date: 6-15-95 Time: ___ Meter Serial #: 9011 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: FSE-1

Signature: [signature] Reviewed By: KR Page 4 of 4

APPENDIX B

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

CHROMALAB, INC.

Environmental Services (SDB)

June 21, 1995 *Submission #:* 9506206

EMCON ASSOCIATES

Atten: Orrin Childs

Project: Not provided
Received: June 15, 1995

re: One sample for 8080 MOD PCBs - WATER analysis.

Sample ID: **ESE-1**
Spl#: 92639 *Matrix:* WATER *Extracted:* June 19, 1995
Sampled: June 15, 1995 *Run:* 7264-D *Analyzed:* June 20, 1995
Method: MOD. EPA 3510/8080

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE RESULT (%)
AROCLOR 1016	N.D.	0.5	N.D.	--
AROCLOR 1221	N.D.	0.5	N.D.	--
AROCLOR 1232	N.D.	0.5	N.D.	--
AROCLOR 1242	N.D.	0.5	N.D.	--
AROCLOR 1248	N.D.	0.5	N.D.	--
AROCLOR 1254	N.D.	0.5	N.D.	--
AROCLOR 1260	N.D.	0.5	N.D.	102

Dennis Mayugba
Chemist

Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

June 21, 1995 *Submission #:* 9506206

EMCON ASSOCIATES

Atten: Orrin Childs

Project: Not provided
Received: June 15, 1995

re: One sample for 8080 MOD PCBs - WATER analysis.

Sample ID: **ESE-2**
Spl#: 92640 *Matrix:* WATER *Extracted:* June 19, 1995
Sampled: June 15, 1995 *Run:* 7264-D *Analyzed:* June 20, 1995
Method: MOD. EPA 3510/8080

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE RESULT (%)
AROCLOR 1016	N.D.	0.5	N.D.	--
AROCLOR 1221	N.D.	0.5	N.D.	--
AROCLOR 1232	N.D.	0.5	N.D.	--
AROCLOR 1242	N.D.	0.5	N.D.	--
AROCLOR 1248	N.D.	0.5	N.D.	--
AROCLOR 1254	N.D.	0.5	N.D.	--
AROCLOR 1260	N.D.	0.5	N.D.	102

Dennis Mayugba
Chemist

Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

June 21, 1995 *Submission #:* 9506206

EMCON ASSOCIATES

Atten: Orrin Childs

Project: Not provided
Received: June 15, 1995

re: One sample for 8080 MOD PCBs - WATER analysis.

Sample ID: **ESE-3**
Spl#: 92641 *Matrix:* WATER *Extracted:* June 19, 1995
Sampled: June 15, 1995 *Run:* 7264-D *Analyzed:* June 20, 1995
Method: MOD. EPA 3510/8080

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE RESULT (%)
AROCLOR 1016	N.D.	0.5	N.D.	--
AROCLOR 1221	N.D.	0.5	N.D.	--
AROCLOR 1232	N.D.	0.5	N.D.	--
AROCLOR 1242	N.D.	0.5	N.D.	--
AROCLOR 1248	N.D.	0.5	N.D.	--
AROCLOR 1254	N.D.	0.5	N.D.	--
AROCLOR 1260	N.D.	0.5	N.D.	102

Dennis Mayugba
Chemist

Ali Kharrazi
Organic Manager

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

June 21, 1995 *Submission #:* 9506206

EMCON ASSOCIATES

Atten: Orrin Childs

Project: Not provided
Received: June 15, 1995

re: One sample for 8080 MOD PCBs - WATER analysis.

Sample ID: **ESE-4**
Spl#: 92642 *Matrix:* WATER *Extracted:* June 19, 1995
Sampled: June 15, 1995 *Run:* 7264-D *Analyzed:* June 20, 1995
Method: MOD. EPA 3510/8080

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE RESULT (%)
AROCLOR 1016	N.D.	0.5	N.D.	--
AROCLOR 1221	N.D.	0.5	N.D.	--
AROCLOR 1232	N.D.	0.5	N.D.	--
AROCLOR 1242	N.D.	0.5	N.D.	--
AROCLOR 1248	N.D.	0.5	N.D.	--
AROCLOR 1254	N.D.	0.5	N.D.	--
AROCLOR 1260	N.D.	0.5	N.D.	102

Dennis Mayugba
Chemist

Ali Kharrazi
Organic Manager

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

June 22, 1995 — *Submission #:* 9506206

EMCON ASSOCIATES — *Revised July 19, 1995*

Atten: Orrin Childs

Project: PG&E EMERYVILLE
Received: June 15, 1995

re: 4 samples for Diesel analysis.
Method: EPA 3510/8015M

Sampled: June 15, 1995 *Matrix:* WATER *Extracted:* June 16, 1995
Run: 7289-D *Analyzed:* June 17, 1995

Spl #	Sample ID	DIESEL (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE RESULT (%)
92639	ESE-1	N.D.	50	N.D.	70
	For above sample:	*SAMPLE PROFILE IS SIMILAR TO THAT OF TRANSFORMER OIL REFERENCE STANDARD SUPPLIED BY THE CLIENT. CONC=350 ug/L COMPARED TO DIESEL STD*			
92640	ESE-2	N.D.	50	N.D.	70
92641	ESE-3	N.D.	50	N.D.	70
92642	ESE-4	N.D.	50	N.D.	70

Dennis Mayugba
Chemist

Ali Kharrazi
Organic Manager

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

June 23, 1995 *Submission #:* 9506206

EMCON ASSOCIATES

Atten: Orrin Childs

Project: Not provided
Received: June 15, 1995

re: 6 samples for BTEX analysis.

Matrix: WATER
Sampled: June 15, 1995 *Run:* 7307-B *Analyzed:* June 20, 1995
Method: EPA 8020

Spl #	CLIENT SMPL ID	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
92639	ESE-1	N.D.	N.D.	N.D.	N.D.
92640	ESE-2	N.D.	N.D.	N.D.	N.D.
92641	ESE-3	N.D.	N.D.	N.D.	N.D.
92642	ESE-4	N.D.	N.D.	N.D.	N.D.
92643	FB-1	N.D.	N.D.	N.D.	N.D.
92644	TB-1	N.D.	N.D.	N.D.	N.D.
Reporting Limits		0.5	0.5	0.5	0.5
Blank Result		N.D.	N.D.	N.D.	N.D.
Blank Spike Result (%)		102	102	102	106

Billy Thach
Chemist

Ali Kharrazi
Organic Manager

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.
SAMPLE RECEIPT CHECKLIST

Client Name EMCON

Project

Reference/Subm # 22445/95DL206

Checklist completed by: [signature] / 6/19/95 (Signature / Date)

Date/Time Received 6/15/95 (Date) / 1355 (Time)

Received by I Alton

Carrier name

Logged in by DA (Initials) / 6/15/95 (Date)

Matrix H2O

Shipping container in good condition?			NA___ Yes___ No___
Custody seals present on shipping container?	Intact___	Broken___	Yes___ No___
Custody seals on sample bottles?	Intact___	Broken___	Yes___ No___
Chain of custody present?			Yes✓ No___
Chain of custody signed when relinquished and received?			Yes✓ No___
Chain of custody agrees with sample labels?			Yes✓ No___
Samples in proper container/bottle?			Yes✓ No___
Samples intact?			Yes✓ No___
Sufficient sample volume for indicated test?			Yes✓ No___
VOA vials have zero headspace?			NA___ Yes✓ No___
Trip Blank received?			NA___ Yes✓ No___
All samples received within holding time?			Yes✓ No___

Container temperature?_____

pH upon receipt _____ pH adjusted <2 Check performed by:_____ NA___

Any NO response must be detailed in the comments section below. If items are not applicable, they should be marked NA.

Client contacted?_____ Date contacted?_____

Person contacted?_____ Contacted by?_____

Regarding?_____

Comments:_____

Corrective Action:_____

SMPLRECD.CK

CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)

Chain of Custody

DATE 6-15-95 PAGE 1 OF 1

PROJ. MGR Olivia Mills
COMPANY Emcon
ADDRESS 1921 Ringwood Ave.
San Jose, CA. 95131

SAMPLERS (SIGNATURE) (PHONE NO.) 453-7300 (FAX NO.)

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020) (HC)	TPH - Diesel, TEPH (EPA 3510/3550, 8015) (HC)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080) (AR)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)		LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)				NUMBER OF CONTAINERS
ESE-1	6/15/95	1005	H2O			X	X						X												6
ESE-2		1045				X	X						X												6
ESE-3		1135				X	X						X												6
ESE-4		1220				X	X						X												6
FB-1		1230				X																			2
TB-1		—				X																			2

PROJECT INFORMATION

PROJECT NAME
PROJECT NUMBER
P.O. #

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS
HEAD SPACE
REC'D GOOD CONDITION/COLD
CONFORMS TO RECORD

TAT	STANDARD 5-DAY			24	48	72	OTHER

SPECIAL INSTRUCTIONS/COMMENTS:

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3
(SIGNATURE) 1355 (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
(PRINTED NAME) Manuel Gallegos 6/15/95 (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
(COMPANY) Emcon	(COMPANY)	(COMPANY)
RECEIVED BY 1.	**RECEIVED BY 2.**	**RECEIVED BY (LABORATORY) 3**
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) 1355 (TIME)
(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) TAMMI ALTON 6/15/95 (DATE)
(COMPANY)	(COMPANY)	(LAB) Chromalab