GROUNDWATER MONITORING AND SAMPLING ANNUAL REPORT

OAKLAND POWER PLANT
50 MARTIN LUTHER KING JR. WAY
OAKLAND, CALIFORNIA
FIRST QUARTER, 1996

Prepared for

Pacific Gas and Electric company

March 1996

Prepared by

EMCON
1433 North Market Boulevard
Sacramento, California 95834

Project 0143-117.01

CONTENTS

1 INTRODUCTION

This report presents data collected during the first quarter 1996 monitoring period at Pacific Gas and Electric Company (PG&E) Oakland Power Plant, 50 Martin Luther King, Jr. Way, Oakland, California (see Figure 1). In accordance with a letter received from Alameda County Environmental Health Services Department dated January 11, 1996, benzene, toluene, ethylene, and total xylenes (BTEX) analysis was deleted from well MW-2-3. In addition, annual sampling and reporting will be conducted during the first quarter of each year.

2 GROUNDWATER GRADIENT AND DIRECTION

First quarter groundwater levels were measured at PG&E's Oakland Power Plant on February 19, 1996, using an electronic sounding device, and recorded on the monitoring well data form included in Appendix A. The groundwater elevations are summarized in the table. The February data were used in constructing a groundwater contour map (see Figure 2). February water levels ranged from a low of 9.60 feet above mean sea level (MSL) in well MW-1-3 to a high of 9.94 feet above MSL in well MW-2-3. The **estimated groundwater gradient is approximately 0.005 foot per foot (ft/ft) to the 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 19, 1996, consistent with the protocol presented in Figure 3. Samples collected from wells MW-1-2, MW-1-3, and MW-2-3 were analyzed for diesel by the U.S. Environmental Protection Agency (USEPA) Method 3510/8015M. Based on a letter dated January 11, 1996, from Hazardous Materials Specialist, Jennifer Eberle, with the Alameda County Health Care Services Department, the analysis for BTEX was eliminated from well MW-2-3, as well as from the field blank. The analysis for BTEX in wells MW-1-2 and MW-1-3 was eliminated in the second quarter of 1994. Field readings from the first quarter 1996 (annual sampling event) monitoring event are recorded on the water sample field data sheets (see Appendix A) and summarized in the table.

The analytical results are discussed below. First quarter 1996 and historical analytical data are summarized in the table. Certified analytical reports and chain-of-custody records are included in Appendix B.

An unknown hydrocarbon in the diesel range was detected in samples collected from wells MW-1-2, MW-1-3, and MW-2-3 at concentrations of 670, 290, and 320 micrograms per litter (µg/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 diesel.

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.

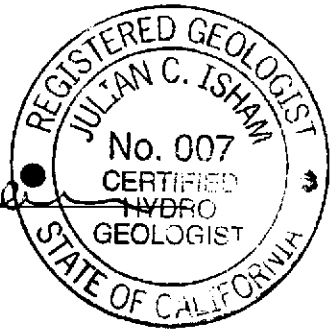
Holding times are established by the USEPA and refer to the maximum time allowed to pass between sample collection and analysis by the laboratory. These limits assist in determining data validity. The method blank results are used to assess the effect of the laboratory environment on the analytical results. The MS 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.

The material and data in this report were prepared under the supervision and direction of the undersigned.

EMCON



J. C. Isham
Geology Manager
C.H.G. 007

Harold R. Duke
Project Manager

Table
Oakland Power Plant
First Quarter 1996 Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD ug/L	Benzene ug/L	Toluene ug/L	Ethyl-benzene ug/L	Total Xylenes ug/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-1-3	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
Oakland Power Plant
First Quarter 1996 Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD ug/L	Benzene ug/L	Toluene ug/L	Ethyl-benzene ug/L	Total Xylenes ug/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-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]	---	---	---	---
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

Table
Oakland Power Plant
First Quarter 1996 Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD ug/L	Benzene ug/L	Toluene ug/L	Ethyl-benzene ug/L	Total Xylenes ug/L
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	---	---	---	---

TPHD = Total petroleum hydrocarbons as diesel.

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

ug/L = Micrograms per liter.

Dup = Blind duplicate.

[1] Unknown hydrocarbon in diesel range quantified as diesel.

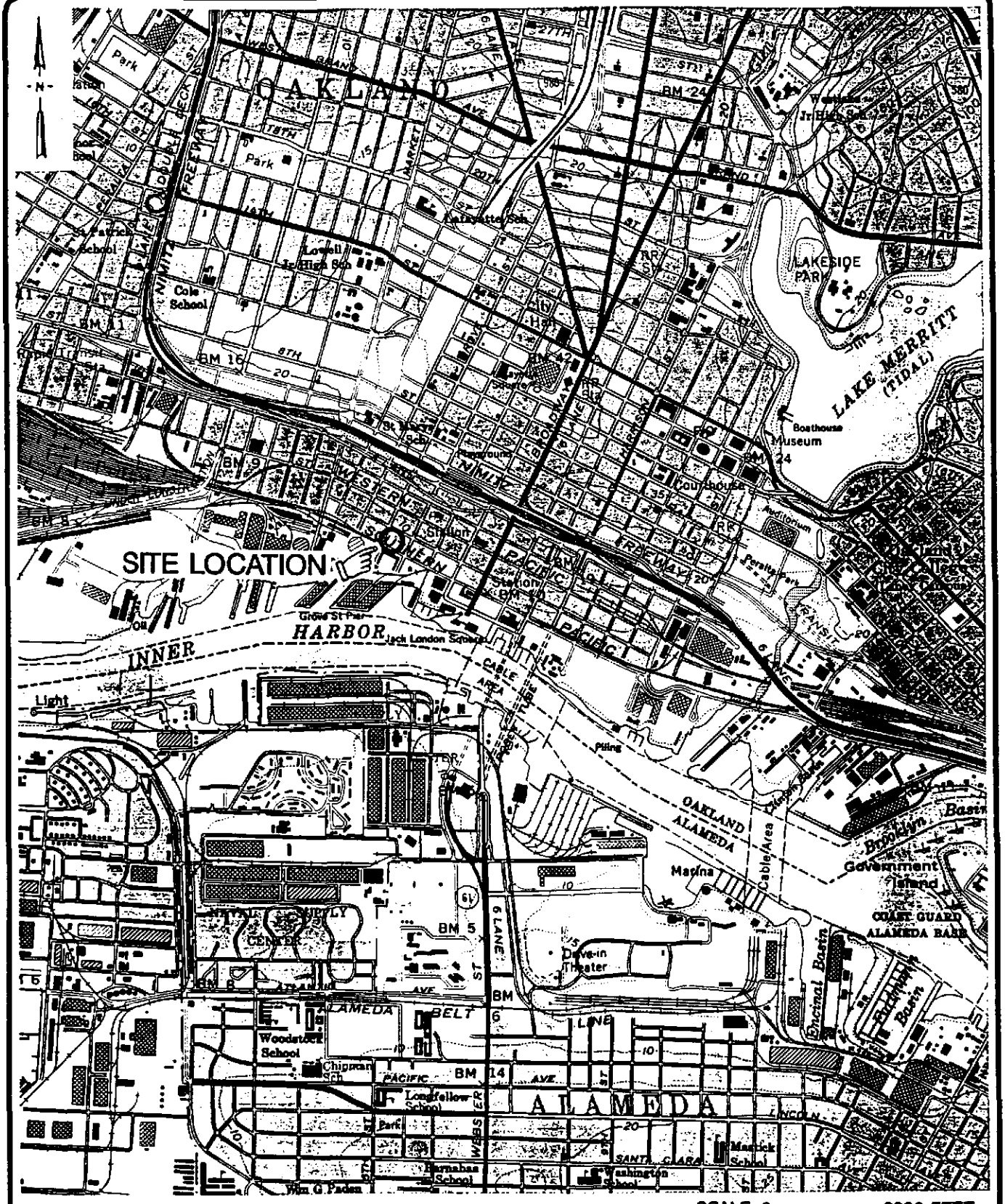
[2] Motor oil at a concentration of 3.1 milligrams per liter detected in sample.

[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.

-- = Not analyzed.

152753



Base map from U.S. Geologic Survey 7.5 minute series quadrangle: Oakland West, California

10/95

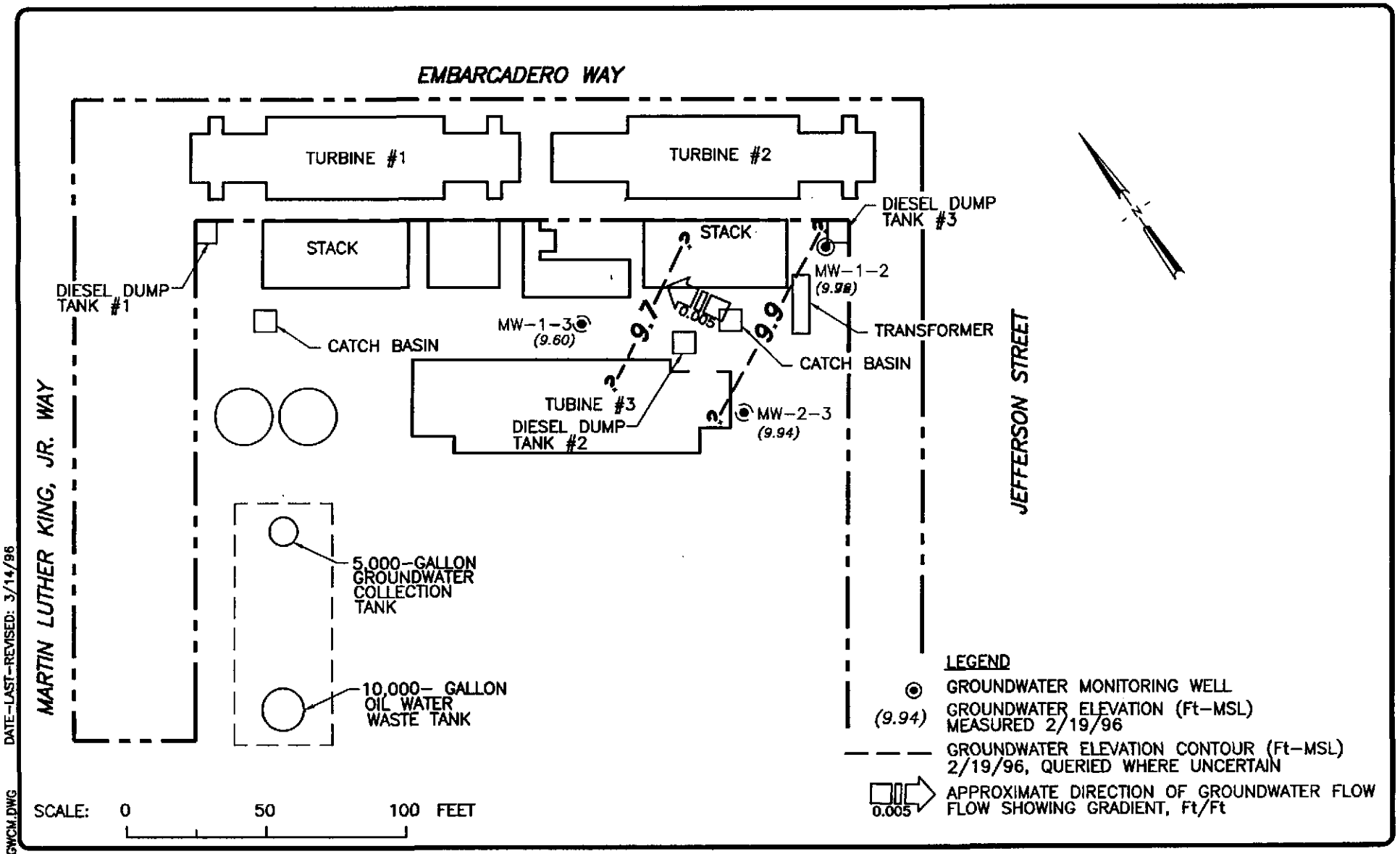
emcon

PACIFIC GAS AND ELECTRIC COMPANY
OAKLAND POWER PLANT
50 MARTIN LUTHER KING, JR. WAY
OAKLAND, CALIFORNIA

SITE LOCATION MAP

FIGURE
1

PROJECT NO.
0143-117.01



DATE-LAST-REVISED: 3/14/96

I:\DWGS\PG&E\117GWCM.DWG

EMCON

PACIFIC GAS & ELECTRIC
OAKLAND POWER PLANT
OAKLAND, CALIFORNIA

GROUNDWATER CONTOUR MAP
FIRST QUARTER 1996

FIGURE
2
PROJECT NO.
0143-117.01

MONITORING WELL PURGING PROTOCOL

EMCON

MEASURE AND RECORD DEPTH TO WATER AND WELL TOTAL DEPTH

CHECK FOR FLOATING PRODUCT

YES

MEASURE AND DOCUMENT FLOATING PRODUCT THICKNESS. DO NOT SAMPLE WELL FOR DISSOLVED CONSTITUENTS.

NO

CALCULATE PURGE VOLUME BY USING THE FOLLOWING EQUATION:

$$P = \pi r^2 h \times 7.48 \times 3$$

where:

- P = calculated purge volume (gallons)
- π = 3.14
- r = radius of well casing in feet
- h = height of water column in feet

EVACUATE WATER FROM WELL EQUAL TO THE CALCULATED PURGE VOLUME WHILE MONITORING GROUND-WATER STABILIZATION INDICATOR PARAMETERS (pH, CONDUCTIVITY, TEMPERATURE) AND TURBIDITY AT INTERVALS OF ONE CASING VOLUME.

WELL EVACUATED TO PRACTICAL LIMITS OF DRYNESS BEFORE REMOVING CALCULATED PURGE VOLUME

NO

FINAL TWO SETS OF GROUND-WATER STABILIZATION INDICATOR PARAMETER MEASUREMENTS MEET THE FOLLOWING CRITERIA:

pH	= ±	0.05 pH units
COND.	= ±	3 %
TEMP.	= ±	1.0 °F
TURBIDITY	= ±	<5 NTU

YES

WELL PURGING CRITERIA MET; PROCEED TO WELL SAMPLING

NO

CONTINUE PURGING; EVACUATE ADDITIONAL CASING VOLUME OF WATER, MONITORING INDICATOR PARAMETERS FOR STABILITY.

YES

WELL RECHARGES TO A LEVEL SUFFICIENT FOR SAMPLE COLLECTION WITHIN 24 HOURS OF EVACUATION TO DRYNESS.

YES

FIELD TEST FIRST RECHARGE WATER FOR INDICATOR PARAMETERS AND TURBIDITY, THEN PROCEED TO WELL SAMPLING.

NO

RECORD WELL AS DRY FOR PURPOSES OF SAMPLING.

EMCON

MONITORING WELL PURGING PROTOCOL

FIGUR

3

EMCON - Field Services
1921 Ringwood Avenue
San Jose, California

Signature

Historical Monitoring Well Data
PG&E Oakland
20143-117.001

Depth to liquid : 0.01 foot — Total depth : 0.1 foot

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
	10/12/95 01/18/95		5.35	5.35	ND	13.5	
MW-1-2	2-15-96		4.03	4.08	NA	13.5	Time: 1032 Lock: 0464
	10/12/95 01/18/95		5.43	5.43	ND	7.2	
MW-1-3			4.41	4.41		7.1	Time: 1036 Lock: NONE
	10/12/95 01/18/95		5.30	5.30	ND	13.3	
MW-2-3			3.97	3.97	NA	13.3	Time: 1033 Lock: 3204

Rev 3. 2/94

WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO. 20143-117 001 SAMPLE ID: MW-1-2

PURGED BY: M. Gallegos/C. Haro CLIENT NAME: PG&E

SAMPLED BY: ↓ LOCATION: Oakland, CA

TYPE. Ground Water X Surface Water ____ Treatment Effluent ____ Other ____

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

CASING ELEVATION (feet/MSL) N/R VOLUME IN CASING (gal.): 6.18

DEPTH TO WATER (feet) 4.03 CALCULATED PURGE (gal.): 18.56

DEPTH OF WELL (feet) 13.5 ACTUAL PURGE VOL. (gal.): 9.0

DATE PURGED 2-19-96 Start (2400 Hr) 1059 End (2400 Hr) 1103

DATE SAMPLED ↓ Start (2400 Hr) 1110 End (2400 Hr) —

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1101	6.5	7.24	2130	63.8	cloudy	mod
1103	~~13.0~~ 9.0	well dried			↓	↓
	~~19.0~~					
1110	Recharge	7.18	2060	63.2	↓	↓

D. O. (ppm): N/R ODOR: Strong 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

— 2" Bladder Pump
— Centrifugal Pump
— Submersible Pump
— Well Wizard™
— Bailer (Teflon®)
X Bailer (PVC)
— Bailer (Stainless Steel)
— Dedicated

Other: ____

SAMPLING EQUIPMENT

— 2" Bladder Pump
— DDL Sampler
— Dipper
— Well Wizard™
X Bailer (Teflon®)
— Bailer (Stainless Steel)
— Submersible Pump
— Dedicated

Other: ____

WELL INTEGRITY: Good LOCK #: 3490

REMARKS well dried at 9.0 gallons

well sampled for [illegible]

Meter Calibration: Date. 2/19/96 Time 1040 Meter Serial #: [illegible] Temperature °F 69.2

EC 1000 993 1000 DI ____ pH 7 [illegible] 700 pH 10 997 1000 (pH 4 [illegible]) ____

Location of previous calibration: ____

Signature [signature] Reviewed By: KR Page 1 of 3

Rev 3/2/94

WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 2143-117.001 SAMPLE ID: MW-1-3

PURGED BY: M.G/C.C. CLIENT NAME: PG+E

SAMPLED BY: 〃 LOCATION: Oakland, 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.): 1.75

DEPTH TO WATER (feet): 4.41 CALCULATED PURGE (gal.): 5.27

DEPTH OF WELL (feet): 7.1 ACTUAL PURGE VOL. (gal.): 5.5

DATE PURGED: 2-15-96 Start (2400 Hr) 1116 End (2400 Hr) 1120

DATE SAMPLED: 〃 Start (2400 Hr) 1122 End (2400 Hr) ____

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (μmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1117	2.0	7.59	2600	63.3	Cloudy	Light
1118	[illegible]	7.56	2440	62.5	Clear	Clear
1120	5.5	7.55	2400	62.2	〃	〃

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

(COBALT 0 - 500) (NTU 0 - 200 or 0 - 1000)

Field QC samples collected at this well: NR

Parameters field filtered at this well: NR

PURGING EQUIPMENT

- ____ 2" Bladder Pump
- ____ Centrifugal Pump
- ____ Submersible Pump
- ____ Well Wizard™
- ____ Bailer (Teflon®)
- X Bailer (PVC)
- ____ Bailer (Stainless Steel)
- ____ Dedicated

Other ____

SAMPLING EQUIPMENT

- ____ 2" Bladder Pump
- ____ DDL Sampler
- ____ Dipper
- ____ Well Wizard™
- X Bailer (Teflon®)
- ____ Bailer (Stainless Steel)
- ____ Submersible Pump
- ____ Dedicated

Other: ____

WELL INTEGRITY: Good LOCK #: 5950

REMARKS: All samples taken

Meter Calibration: Date 2-15-96 Time ____ Meter Serial #: 9004 Temperature °F ____

EC 1000 ____ ____ DI ____ pH 7 ____ ____ pH 10 ____ ____ pH 4 ____ ____

Location of previous calibration: MW-1-2

Signature: [illegible] Reviewed By: KR Page 2 of 3

Rev 3. 2/94

WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO. 20143-117.001 SAMPLE ID: MW-2-3

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

SAMPLED BY: " LOCATION: OAKLAND, CA

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

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

CASING ELEVATION (feet/MSL): N/R VOLUME IN CASING (gal.): 6.09

DEPTH TO WATER (feet): 3.97 CALCULATED PURGE (gal.): 18.24

DEPTH OF WELL (feet): 13.3 ACTUAL PURGE VOL. (gal.): 8.0

DATE PURGED: 2-19-96 Start (2400 Hr) 1134 End (2400 Hr) 1138

DATE SAMPLED: " Start (2400 Hr) 1145 End (2400 Hr) ___

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1137	6.0	7.13	2460	64.8	Cloudy	mod
1147	N change	7.30	2310	64.8	"	"

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

(COBALT 0 - 500): NR

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

Field QC samples collected at this well: QC-1 ~~FB-1~~ (1150) (KR)

Parameters field filtered at this well: NR

PURGING EQUIPMENT

___ 2" Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Well Wizard™
___ Other
___ Bailer (Teflon®)
X Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated

SAMPLING EQUIPMENT

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

WELL INTEGRITY: Good LOCK #: 345

REMARKS: Well dried up at 8.0 gallons

All Samples taken

Meter Calibration: Date: 2/19/96 Time ___ Meter Serial #: ___ Temperature °F: ___

EC 1000 ___ ___ ; EC ___ ___ ; pH 7 ___ ___ ; pH 10 ___ ___ ; pH 4 ___ ___

Location of previous calibration: MW-2

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

EMCON - Drum Inventory Record

20143-117.001	Oakland, CA	2-19-94
Project No	**Location**	**Date**
PG&E-Oakland	M. Gallegos/C. Howe	Monday
Client	**Sampler**	**Day of Week**

DRUM NUMBER OR ID	WELL OR SOURCE ID(s)	TYPE OF MATERIAL	AMOUNT OF MATERIAL IN DRUM	DATE ACCUMULATED OR GENERATED
A	MW-1-2 MW-1-3 MW-2-3	Groundwater	23.0 Gallons	2-19-94

Sketch locations of drums, include drum ID's

COMMENTS:

Number of Drums From This Event 1

Total Number of Drums At Site 1

EMCON

GROUNDWATER SAMPLING AND ANALYSIS REQUEST FORM

PROJECT NAME: **PACIFIC GAS & ELECTRIC-Oakland Power Plant**
50 Martin Luther King Way
DATE SUBMITTED: **19-Feb-96**

SPECIAL INSTRUCTIONS / CONSIDERATIONS :
Annual Water Quality Monitoring

BRING TWO DRUMS AND FIELD BLANK WATER FOR TPH-DIESE
MUST BE ON SITE BY 10:00AM. Gate is not staffed. Ring bell to be let in.
Take some extra locks along
Survey water levels prior to well purging and sampling.
Purge three casing volumes prior to sample collection
Purge with a jacuzzi or with bailers; sample with teflon bailers.
Drum purge water. Label and store drums by Hazardous
Waste storage area shed on the west side of the yard.

Deliver the samples to Chromalab when finished. (See attached map)

Authorization: _____

Project No. : **20143-117.001**
Task Code: _____

Send Results To: **J. C. Isham**

Coordinator: **Steve Horton**

Well Locks:
3490

TES Contact: Gary Nulty — Phone No.: (510) 866-5812
Site Contact: NA — Phone No.: NA

Well ID or Source	Casing Diameter (inches)	Casing Length (feet)	ANALYSES REQUESTED
MW-1-2	4.0	13.5	**TPHD by EPA 3510/8015M** (Fill 2, 1 Liter Glass, NP)
MW-1-3	4.0	7.2	
MW-2-3	4.0	12.3	
Sample In Indicated Order			
QC-1 (Field Blank)			**TPHD by EPA 3510/8015M** (2, 1 Liter Glass, NP)

Laboratory and Lab QC Instructions: all samples submitted to Chromalab; please send results to J. C. Isham

CHROMALAB, INC.

Environmental Services (SDB)

February 27, 1996 *Submission #:* 9602589

EMCON ASSOCIATES-SACRAMENTO

Atten: J.C. Isham

Project: PG&E, OAKLAND *Project#:* 20143-117.001
Received: February 20, 1996

re: 4 samples for TPH - Diesel analysis.

Method: EPA 3550/8015M

Matrix: WATER *Extracted:* February 21, 1996
Sampled: February 19, 1996 *Run#:* 703 *Analyzed:* February 23, 1996

Spl#	CLIENT SPL ID	DIESEL (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
79325	MW-1-2	N.D.	50	N.D.	82.8	1
	Note: Hydrocarbons in the diesel range, conc. = 670ug/L.					
79326	MW-1-3	N.D.	50	N.D.	82.8	1
	Note: Hydrocarbons in the diesel range, conc. = 290ug/L.					
79327	MW-2-3	N.D.	50	N.D.	82.8	1
	Note: Hydrocarbons in the diesel range, conc. = 320ug/L.					
79328	QC-1	N.D.	50	N.D.	82.8	1

Kayvan Kimyai FOR
Chemist

Alex Tam
Semivolatiles Supervisor

916-928-3341 GC

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 PG+E - OAKLAND

Reference/Subm # 26500/9602589

Checklist completed by: [signature] / 2/21/96 (Signature / Date)

Date/Time Received 2/20/96 1815

Received by BMorrow / MPak (Date / Time)

Carrier name

Logged in by MP / 2/20/96 (Initials / 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? 3.6°C

pH upon receipt 6 pH adjusted <2 Check performed by: CR 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

589/79325 - 79328

26500

EMCON - San Jose

CHAIN OF CUSTODY /LABORATORY ANALYSIS REQUEST FORM

1921 Ringwood Avenue, San Jose, CA 95131 (408) 453-7300 FAX (408) 437-9526

Date 2-20-96 Page ___ of ___

Project Name: Pacific Gas & Electric, Oakland
Project Number: 20143-117.001
Project Manager: J. C. Isham

Company/Address: EMCON
1433 North Market Blvd, Suite 2
Sacramento, CA 95834-9014
Phone: (916) 928-0415

Sampler's Signature:

SUBM #: 9602589 REF:
CLIENT: EMCON
DUE: 02/27/96
REF #:26500

Sample I.D.	Date	Time	LAB I.D.	Sample Matrix	Number of Containers	TPH-DIESEL (EPA 3510/8015M)										REMARKS
						NP										Preservations
MW-1-2	2/19/96	1110		H2O	2	X										
MW-1-3	"	1122		H2O	2	X										
MW-2-3	"	1145		H20	2	X										
QC-1	"	1150		H20	2	X										

Relinquished By	Received By
Signature: [signature]	Signature: [signature]
Printed Name: Manuel Gallegos	Printed Name: [signature]
Firm: Emcon	Firm: Chromalab
Date/Time: 2/20/96 1345	Date/Time: 2-20-96 1345

Relinquished By	Received By
Signature: [signature]	Signature: Mimie Pak
Printed Name: [signature]	Printed Name: Chromalab
Firm: 2-20-96 1815	Firm: 2/20/96 1815
Date/Time	Date/Time

TURNAROUND REQUIREMENTS
___ 24 hr ___ 48 hr
X Standard
___ Provide Verbal Preliminary Results
___ Provide FAX Preliminary Results
Requested Report Date ___

REPORT REQUIREMENTS
X I. Routine Report
___ II. Report (includes DUP, MS MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ RWQCB (MDLs/PQLs/TRACE#)

INVOICE INFORMATION
P.O. # ___
Bill to: ___

SAMPLE RECEIPT
Shipping VIA: ___
Shipping #: ___
Condition: ___
Lab No: ___

Special Instructions/Comments:
Tier I QC

Please send results to J.C. Isham