

PACIFIC
ENVIRONMENTAL
GROUP INC.

ENVIRONMENTAL
PROTECTION
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EOS

Quarterly Groundwater Monitoring Report First Quarter 1996

ARCO Service Station 2162
15135 Hesperian Boulevard at Ruth Court
San Leandro, California

Prepared for

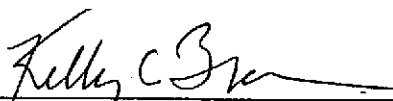
ARCO Products Company

May 14, 1996


Prepared by

Pacific Environmental Group, Inc.
2025 Gateway Place, Suite 440
San Jose, California 95110

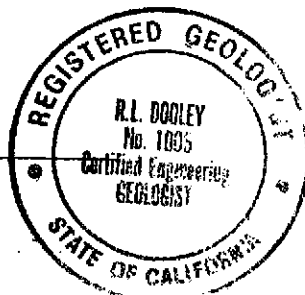
Project 330-107.2C



Kelly C. Brown
Project Manager



R. Lee Dooley
Senior Geologist
CEG 1006



Date: May 14, 1996

Quarter: 1Q96

ARCO QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 2162 Address: 15135 Hesperian Boulevard at Ruth Court, San Leandro
ARCO Environmental Engineer: Michael Whelan
Consulting Co./Contact Person: Pacific Environmental Group, Inc./Kelly Brown
Consultant Project No.: 330-107.2C
Primary Agency/Regulatory ID No.: Alameda County Health Care Services Agency

WORK PERFORMED THIS QUARTER (First - 1996):

1. Performed first quarter 1996 groundwater monitoring event.
2. Prepared first quarter 1996 groundwater monitoring report.
3. Prepared response to Alameda County Health Care Services Agency letter dated February 23, 1996, rescinding June 7, 1993 work plan.

WORK PROPOSED FOR NEXT QUARTER (Second - 1996):

1. Perform second quarter 1996 groundwater monitoring event.
2. Prepare second quarter 1996 groundwater monitoring report.

Current Phase of Project:	<u>Monitoring</u>	(Assmnt, Remed., etc.)
Frequency of Groundwater Sampling:	<u>Quarterly</u>	(Quarterly, etc.)
Frequency of Groundwater Monitoring:	<u>Quarterly</u>	(Monthly, etc.)
Is Free Product (FP) Present On-Site:	<u>No</u>	(Yes/No)
FP Recovered this Quarter:	<u>None</u>	(gallons)
Cumulative FP Recovered to Date:	<u>None</u>	(gallons)
Bulk Soil Removed This Quarter:	<u>None</u>	(cubic yards)
Bulk Soil Removed to Date:	<u>960</u>	(cubic yards)
Current Remediation Techniques:	<u>None</u>	(SVES/Sparge/FP Removal, etc.)
Approximate Depth to Groundwater:	<u>6.5 to 7.5</u>	(Measure Feet)
Groundwater Gradient:	<u>Southwest</u>	(Direction)
	<u>0.009</u>	(Magnitude)

DISCUSSION:

- TPPH-g and benzene remain within historical levels.

May 14, 1996

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ATTACHMENTS:

- Table 1 - Groundwater Sampling Schedule
- Table 2 - Groundwater Elevation and Analytical Data
- Figure 1 - Groundwater Elevation Contour Map
- Figure 2 - TPPH-g/Benzene Concentration Map
- Attachment A - Historical Groundwater Elevation and Analytical Data Tables
- Attachment B - Field and Laboratory Procedures
- Attachment C - Certified Analytical Report, Chain-of-Custody Documentation, and Field Data Sheets

cc: Mr. John Jang, Regional Water Quality Control Board - S.F. Bay Region
Mr. Mike Bakaldin, City of San Leandro Fire Department, Hazardous
Materials Division
Mr. Scott Seery, Alameda County Health Care Services Agency

Table 1
Groundwater Sampling Schedule

ARCO Service Station 2162
15135 Hesperian Boulevard at Ruth Court
San Leandro, California

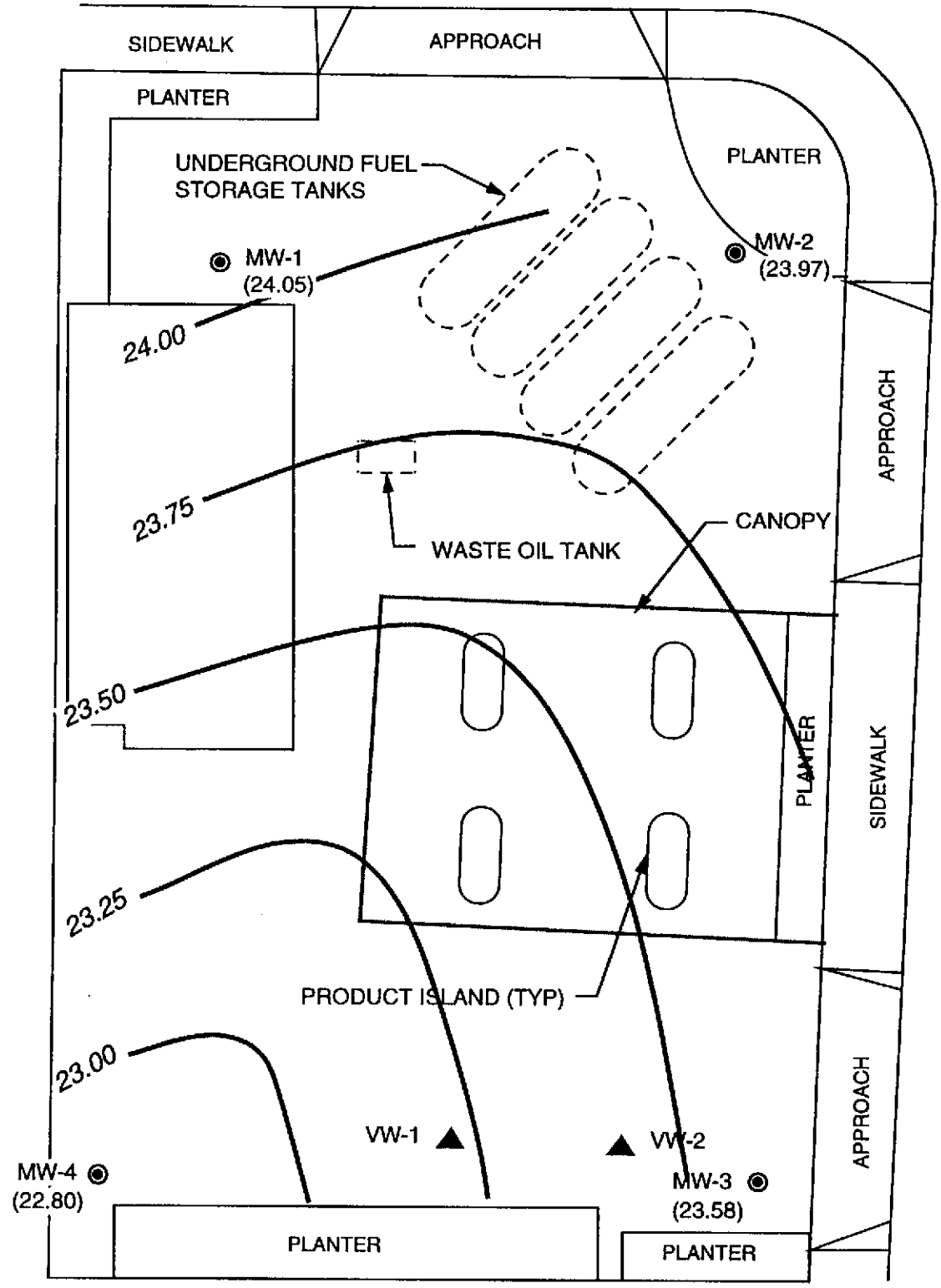
Well Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Sampling Frequency
MW-1	a	a	a	a	Quarterly
MW-2	a	a	a	a	Quarterly
MW-3	a	a	a	a	Quarterly
MW-4	a	a	a	a	Quarterly
a. Samples analyzed for TPH-g and BTEX compounds according to EPA Methods 8015 (modified) and 8020.					

Table 2
Groundwater Elevation and Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline and BTEX Compounds)

ARCO Service Station 2162
 15135 Hesperian Boulevard at Ruth Court
 San Leandro, California

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Xylenes (ppb)
MW-1	02/26/96	31.19	7.14	24.05	<50	<0.50	<0.50	<0.50	<0.50
MW-2	02/26/96	30.38	6.41	23.97	770	<0.50	<0.50	45	28
MW-3	02/26/96	30.30	6.72	23.58	120	<0.50	<0.50	<0.50	<0.50
MW-4	02/26/96	30.39	7.59	22.80	110	<0.50	<0.50	<0.50	<0.50
MSL = Mean sea level TOC = Top of casing ppb = Parts per billion < = Denotes laboratory detection limit									

RUTH COURT



LEGEND

- MW-4 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- VW-1 ▲ SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- (23.97) GROUNDWATER ELEVATION IN FEET - MSL, 2-26-96
- 23.50 — GROUNDWATER ELEVATION CONTOUR IN FEET - MSL, 2-26-96

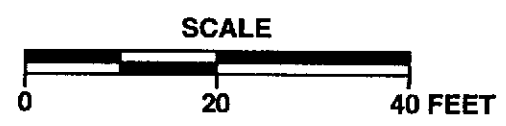


APPROXIMATE DIRECTION OF GROUNDWATER FLOW
 APPROXIMATE GRADIENT = 0.009

SOURCE: MAP BY RESNA



PACIFIC ENVIRONMENTAL GROUP, INC.

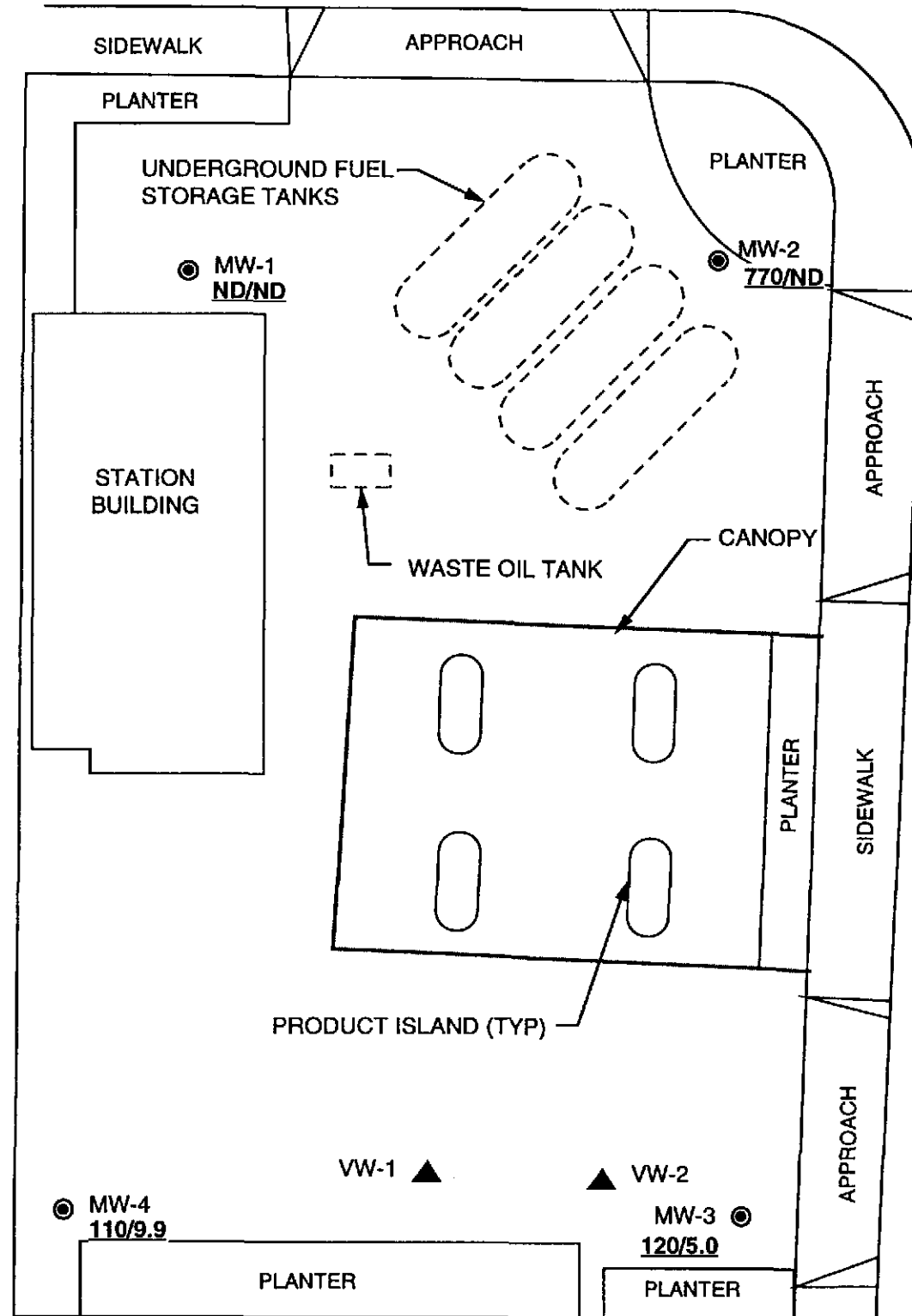


ARCO SERVICE STATION 2162
 15135 Hesperian Boulevard at Ruth Court
 San Leandro, California

GROUNDWATER ELEVATION CONTOUR MAP

FIGURE: **1**
 PROJECT: 330-107.2C

RUTH COURT



LEGEND

- MW-4 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- VW-1 ▲ SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- 770/ND TPPH-g/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION, 2-26-96
- ND NOT DETECTED

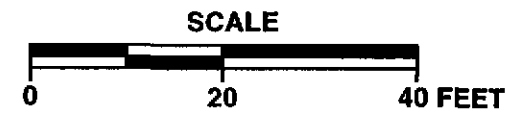


APPROXIMATE DIRECTION OF GROUNDWATER FLOW

SOURCE: MAP BY RESNA



PACIFIC ENVIRONMENTAL GROUP, INC.



ARCO SERVICE STATION 2162
15135 Hesperian Boulevard at Ruth Court
San Leandro, California

TPPH-g/BENZENE CONCENTRATION MAP

FIGURE:
2
PROJECT:
330-107.2C

ATTACHMENT A
HISTORICAL GROUNDWATER ELEVATION AND
ANALYTICAL DATA TABLES

Table A-1
Historical Groundwater Elevation Data

ARCO Service Station 2162
 15135 Hesperian Boulevard at Ruth Court
 San Leandro, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	
MW-1	09/30/92	31.19	10.68	20.51	
	10/16/92		10.83	20.36	
	01/14/93		7.25	23.94	
	02/24/93		7.23	23.96	
	03/30/93		7.58	23.61	
	04/14/93		7.96	23.23	
	05/19/93		8.26	22.93	
	06/17/93		8.42	22.77	
	07/28/93		8.68	22.51	
	08/11/93		9.07	22.12	
	09/28/93		9.60	21.59	
	10/15/93		9.51	21.68	
	11/16/93		--- Well Inaccessible ---		
	12/16/93		8.70	22.49	
	02/15/94		8.51	22.68	
	03/18/94		8.46	22.73	
	05/05/94		8.66	22.53	
	08/05/94		9.50	21.69	
	11/21/94		8.83	22.36	
	02/24/95		7.90	23.29	
05/31/95	7.86	23.33			
08/23/95	8.74	22.45			
11/22/95	9.50	21.69			
MW-2	09/30/92	30.38	9.74	20.64	
	10/16/92		9.91	20.47	
	01/14/93		6.56	23.82	
	02/24/93		6.67	23.71	
	03/30/93		6.76	23.62	
	04/14/93		7.10	23.28	
	05/19/93		7.40	22.98	
	06/17/93		7.51	22.87	
	07/28/93		7.73	22.65	
	08/11/93		8.11	22.27	
	09/28/93		8.57	21.81	
	10/15/93		8.56	21.82	
	11/16/93		8.87	21.51	
	12/16/93		7.92	22.46	
	02/15/94		7.62	22.76	
	03/18/94		7.57	22.81	
	05/05/94		7.75	22.63	
08/05/94	8.53	21.85			
11/21/94	7.92	22.46			
02/24/95	6.98	23.40			
05/31/95	6.97	23.41			
08/23/95	7.83	22.55			
11/22/95	8.54	21.84			
MW-3	09/30/92	30.30	9.93	20.37	
	10/16/92		10.13	20.17	
	01/14/93		6.71	23.59	
	02/24/93		6.82	23.48	
	03/30/93		7.07	23.23	
	04/14/93		7.41	22.89	
	05/19/93		7.72	22.58	
	06/17/93		7.86	22.44	
	07/25/93		8.13	22.17	

Table A-1 (continued)
Historical Groundwater Elevation Data

ARCO Service Station 2162
 15135 Hesperian Boulevard at Ruth Court
 San Leandro, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-3 (cont.)	08/11/93		8.45	21.85
	09/28/93		8.96	21.34
	10/15/93		8.85	21.45
	11/16/93		9.09	21.21
	12/16/93		8.10	22.20
	02/15/94		7.88	22.42
	03/18/94		7.88	22.42
	05/05/94		8.08	22.22
	08/05/94		8.82	21.48
	11/21/94		8.17	22.13
	02/24/95		7.40	22.90
	05/31/95		7.35	22.95
	08/23/95		8.15	22.15
	11/22/95		8.84	21.46
	MW-4	09/30/92	30.39	11.15
10/16/92			11.33	19.06
01/14/93			7.49	22.90
02/24/93			7.57	22.82
03/30/93			8.06	22.33
04/14/93			8.48	21.91
05/19/93			7.80	22.59
06/17/93			8.94	21.45
07/25/93			9.28	21.11
05/11/93			9.61	20.78
09/25/93			10.14	20.25
10/15/93			10.00	20.39
11/16/93			10.22	20.17
12/16/93			9.11	21.28
02/15/94			8.97	21.42
03/15/94			8.99	21.40
05/05/94			9.21	21.18
08/05/94		10.02	20.37	
11/21/94		9.30	21.09	
02/24/95		8.46	21.93	
05/31/95		8.41	21.98	
08/23/95		9.32	21.07	
11/22/95		9.98	20.41	
MSL = Mean sea level				
TOC = Top of casing				

Table A-2
Historical Groundwater Analytical Data
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline and BTEX Compounds)

ARCO Service Station 2162
 15135 Hesperian Boulevard at Ruth Court
 San Leandro, California

Well Number	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
MW-1	09/30/92	1,100	6.2	<0.50	6.9	<0.50
	10/16/92	790	3.0	0.8	5.6	2.9
	01/14/93	660	1.2	<1 a	15	4.6
	04/14/93	310	<1 a	<1 a	<1 a	
	08/11/93	660	0.8	<0.7	9.0	<1 b
	10/15/93	620	0.7	<0.5	5.9	2.2
	02/15/94	650	1.9	<0.5	4.5	4.9 b
	05/05/94	510	<0.5	<0.5	<1	1.6
	08/05/94	310	<0.5	<0.5	1.5	1.2
	11/21/94	330	<0.5	<0.5	1.5	1.1
	02/24/95	120	<0.50	<0.50	<0.50	<0.50
	05/31/95	<50	<0.50	<0.50	<0.50	<0.50
	08/23/95	160	<0.50	<0.50	<0.50	<0.50
	11/22/95	70	<0.50	<0.50	<0.50	<0.50
MW-2	09/30/92	1,000	9.6	<0.50	45	110
	10/16/92	630	8	<1 a	37	64
	01/14/93	7,800	33	5	340	920
	04/14/93	1,600	7	<5 a	220	520
	08/11/93	1,600	4.3	<1 a	80	120
	10/15/93	1,100	1.7	<1 a	62	70
	02/15/94	490	1.8	1.5	49	37
	05/05/94	360	<0.5	<0.5	27	18
	08/05/94	680	<0.5	<0.5	42	37
	11/21/94	500	<0.5	<0.5	40	25
	02/24/95	650	<0.50	<0.50	52	48
	05/31/95	450	<0.50	<0.50	33	33
	08/23/95	180	<0.50	<0.50	12	9.5
	11/22/95	88	<0.50	<0.50	2.1	1.3
MW-3	09/30/92	<50	<0.50	<0.50	<0.50	<0.50
	10/16/92	<50	<0.50	<0.50	<0.50	<0.50
	01/14/93	52	<0.50	<0.50	<0.50	<0.50
	04/14/93	360	86	2.1	5.1	4.0
	08/11/93	69	1.1	<0.5	<0.5	<0.5
	10/15/93	<50	<0.5	<0.5	<0.5	<0.5
	02/15/94	<50	<0.5	<0.5	<0.5	<0.5
	05/05/94	<50	<0.5	<0.5	<0.5	<0.5
	08/05/94	<50	<0.5	<0.5	<0.5	<0.5
	11/21/94	<50	<0.5	<0.5	<0.5	<0.5
	02/24/95	<50	0.93	<0.50	<0.50	<0.50
	05/31/95	120	24	<0.50	<0.50	<0.50
	08/23/95	85	<0.5	<0.5	<0.5	<0.5
	11/22/95	<50	<0.50	<0.50	<0.50	<0.50
MW-4	09/30/92	330	81	<0.50	<0.50	<0.50
	10/16/92	250	44	<0.50	<0.50	0.7
	01/14/93	260	29	0.6	<0.50	1.1
	04/14/93	NS	NS	NS	NS	NS
	08/11/93	150	21	<0.5	<0.5	<0.5
	10/15/93	190	12	<0.5	<0.5	<0.5
	02/15/94	<50	2.0	<0.5	<0.5	<0.5
	05/05/94	160	17	<0.5	<0.5	0.6
	08/05/94	120	10	<0.5	<0.5	<0.5
	11/21/94	120	17	<0.5	<0.5	0.6

Table A-2 (continued)
Historical Groundwater Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline and BTEX Compounds)

ARCO Service Station 2162
 15135 Hesperian Boulevard at Ruth Court
 San Leandro, California

Well Number	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
MW-4	02/24/95	110	14	<0.50	<0.50	<0.50
(cont.)	05/31/95	97	11	<0.50	<0.50	<0.50
	08/23/95	110	16	<0.50	<0.50	<0.50
	11/22/95	71	6.2	<0.50	<0.50	<0.50
ppb	= Parts per billion					
NS	= Not sampled, separate-phase hydrocarbon entered well during purging.					
a.	Raised MRL due to high analyte concentration requiring sample dilution					
b.	Raised MRL due to matrix interference					

Table A-3
Historical Groundwater Analytical Data
Total Methyl t-Butyl Ether

ARCO Service Station 2162
15135 Hesperian Boulevard at Ruth Court
San Leandro, California

Well Number	Date Sampled	Methyl t-Butyl Ether (ppb)
MW-1	8/23/95	<2.5
MW-2	8/23/95	<2.5
MW-3	8/23/95	41
MW-4	8/23/95	<2.5

ppb = Parts per billion

ATTACHMENT B
FIELD AND LABORATORY PROCEDURES

ATTACHMENT B

FIELD AND LABORATORY PROCEDURES

Sampling Procedures

The sampling procedure for each well consists of first measuring the water level and checking for the presence of separate-phase hydrocarbons (SPH) using either an electronic indicator and a clear Teflon[®] bailer or an oil-water interface probe. Wells not containing SPH are then purged of approximately three casing volumes of water (or to dryness) using a centrifugal pump, gas displacement pump, or bailer. Equipment used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored in order to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially recover. Groundwater samples are collected using a Teflon[®] bailer, placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to a California State-certified laboratory.

Laboratory Procedures

The groundwater samples were analyzed for the presence of total purgeable petroleum hydrocarbons calculated as gasoline, benzene, toluene, ethylbenzene, and xylenes. The analyses were performed according to EPA Methods 8015 (modified), 8020, and 5030 utilizing a purge-and-trap extraction technique. Final detection was by gas chromatography using flame- and photo-ionization detectors. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical report, chain-of-custody documentation, and field data sheets are presented as Attachment C.

ATTACHMENT C

**CERTIFIED ANALYTICAL REPORT,
CHAIN-OF-CUSTODY DOCUMENTATION,
AND FIELD DATA SHEETS**



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

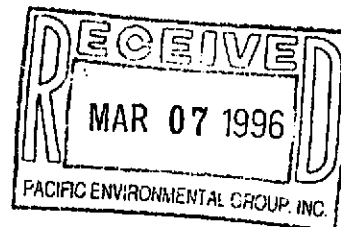
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(415) 364-9600
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FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Kelly Brown

Project: 330-107.21/2162, San Leandro



Enclosed are the results from samples received at Sequoia Analytical on February 27, 1996.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9602H85 -01	LIQUID, MW-1	02/26/96	TPHGBW Purgeable TPH/BTEX
9602H85 -02	LIQUID, MW-2	02/26/96	TPHGBW Purgeable TPH/BTEX
9602H85 -03	LIQUID, MW-3	02/26/96	TPHGBW Purgeable TPH/BTEX
9602H85 -04	LIQUID, MW-4	02/26/96	TPHGBW Purgeable TPH/BTEX
9602H85 -05	LIQUID, TB-1	02/26/96	TPHGBW Purgeable TPH/BTEX

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Claudia Hirotsu
Project Manager

Quality Assurance Department



Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Client Proj. ID: 330-107.21/2162, San Leandro
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9602H85-01

Sampled: 02/26/96
Received: 02/27/96
Analyzed: 02/28/96
Reported: 03/05/96

Attention: Kelly Brown

QC Batch Number: GC022896BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	77

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Claudia Hirotsu
Project Manager



Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Client Proj. ID: 330-107.21/2162, San Leandro Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9602H85-02	Sampled: 02/26/96 Received: 02/27/96 Analyzed: 02/28/96 Reported: 03/05/96
------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

QC Batch Number: GC022896BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	770
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	45
Xylenes (Total)	0.50	28
Weathered Gas		C8-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	72

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Claudia Hirotsu

Claudia Hirotsu
Project Manager



Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Client Proj. ID: 330-107.21/2162, San Leandro Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9602H85-03	Sampled: 02/26/96 Received: 02/27/96 Analyzed: 02/28/96 Reported: 03/05/96
Attention: Kelly Brown		

QC Batch Number: GC022896BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	120
Benzene	0.50	5.0
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Weathered Gas		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Claudia Hirotsu
Project Manager



Pacific Environmental Group	Client Proj. ID: 330-107.21/2162, San Leandro	Sampled: 02/26/96
2025 Gateway Place, Suite 440	Sample Descript: MW-4	Received: 02/27/96
San Jose, CA 95110	Matrix: LIQUID	
Attention: Kelly Brown	Analysis Method: 8015Mod/8020	Analyzed: 02/28/96
	Lab Number: 9602H85-04	Reported: 03/05/96

QC Batch Number: GC022896BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	110
Benzene	0.50	9.9
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Weathered Gas		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	76

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Claudia Hirotsu
Project Manager



**Sequoia
Analytical**

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

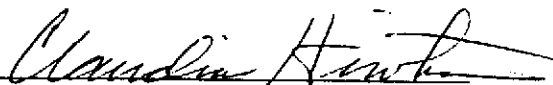
Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Client Proj. ID: 330-107.21/2162, San Leandro Sample Descript: TB-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9602H85-05	Sampled: 02/26/96 Received: 02/27/96 Analyzed: 02/29/96 Reported: 03/05/96
Attention: Kelly Brown		
QC Batch Number: GC022996BTEX03A		
Instrument ID: GCHP03		

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	87

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Claudia Hirotsu
Project Manager



Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Kelly Brown

Client Project ID: 330-107.2I / 2162, San Leandro
Matrix: LIQUID

Work Order #: 9602H85 01-04

Reported: Mar 6, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022896BTEX21A	GC022896BTEX21A	GC022896BTEX21A	GC022896BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9602B2101	9602B2101	9602B2101	9602B2101
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/28/96	2/28/96	2/28/96	2/28/96
Analyzed Date:	2/28/96	2/28/96	2/28/96	2/28/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.0	8.7	8.8	26
MS % Recovery:	80	87	88	87
Dup. Result:	8.0	8.6	8.7	26
MSD % Recov.:	80	86	87	87
RPD:	0.0	1.2	1.1	0.0
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	BLK022896	BLK022896	BLK022896	BLK022896
Prepared Date:	2/28/96	2/28/96	2/28/96	2/28/96
Analyzed Date:	2/28/96	2/28/96	2/28/96	2/28/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.4	8.7	8.8	26
LCS % Recov.:	94	87	88	87

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130
---------------------------	--------	--------	--------	--------

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Claudia Hirotsu
Claudia Hirotsu
Project Manager

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference



Pacific Environmental Group Client Project ID: 330-107.2I / 2162, San Leandro
 2025 Gateway Place, Suite 440 Matrix: LIQUID
 San Jose, CA 95110
 Attention: Kelly Brown Work Order #: 9602H85 05 Reported: Mar 6, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022996BTEX03A	GC022996BTEX03A	GC022996BTEX03A	GC022996BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9602B2101	9602B2101	9602B2101	9602B2101
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/29/96	2/29/96	2/29/96	2/29/96
Analyzed Date:	2/29/96	2/29/96	2/29/96	2/29/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	30
MS % Recovery:	100	100	100	100
Dup. Result:	10	10	9.8	30
MSD % Recov.:	100	100	98	100
RPD:	0.0	0.0	2.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	BLK022996	BLK022996	BLK022996	BLK022996
Prepared Date:	2/29/96	2/29/96	2/29/96	2/29/96
Analyzed Date:	2/29/96	2/29/96	2/29/96	2/29/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	31
LCS % Recov.:	100	100	100	103

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:
 The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

 Claudia Hirotsu
 Project Manager

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: ARCO
 REC. BY (PRINT): SROSS

WORKORDER: 9602485
 DATE OF LOG-IN: 2/28/96

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION(ETC.)
1. Custody Seal(s)	Present / <u>Absent</u> Intact / Broken*	1	g-c	MW-1	(3) VOAS	LIG	2/26/96	
2. Custody Seal Nos.:	Put in Remarks Section	2	}	MW-2	↓	↓	↓	
3. Chain-of-Custody Records:	<u>Present</u> / Absent*	3		MW-3				
4. Traffic Reports or Packing List:	Present / <u>Absent</u>	4		MW-4				
5. Airbill:	Airbill / Sticker Present / <u>Absent</u>	5	a-b	TB-1	(2) VOAS	↓	↓	
6. Airbill No.:	_____							
7. Sample Tags:	<u>Present</u> / Absent*							
Sample Tag Nos.:	<u>Listed</u> / Not Listed on Chain-of-Custody							
8. Sample Condition:	<u>Intact</u> / Broken* / Leaking*							
9. Does information on custody reports, traffic reports and sample tags agree?	<u>Yes</u> / No*							
10. Proper preservatives used:	<u>Yes</u> / No*							
11. Date Rec. at Lab:	<u>2-27-96</u>							
12. Temp. Rec. at Lab:	<u>11°C</u>							
13. Time Rec. at Lab:	<u>1152</u>							

2-27-96
SROSS

* if Circled, contact Project manager and attach record of resolution

ARCO Products Company
Division of AtlanticRichfieldCompany

330-107.2I Task Order No. 19348 00

Chain of Custody

ARCO Facility no. 2162	City (Facility) 15135 Hesperian W. San Leandro	Project manager (Consultant) Kelly Brown	Laboratory name SEQUOIA
ARCO engineer Mike Whelan	Telephone no. (ARCO)	Telephone no. (Consultant) (408) 441-7500	Contract number 19348 00
Consultant name Pacific Environmental Group	Address (Consultant) 2025 Gateway PL #440 San Jose CA 95110		Method of shipment
			Special detection Limit/reporting EB 27 11 2

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX EPA 802/EPA 8020	BTEX/TPH GAS EPA 1602/1620/8015	TPH Modified 8015 Gas Diesel	Oil and Grease 413.1 413.2	TPH EPA 418.1/SM503E	EPA 801/8010	EPA 824/8240	EPA 825/8270	TCMP Metals VOA VOA	Semi Metals EPA 8010/7000 TTLG STL	Lead Org./DHS Lead EPA 7420/7421	
			Soil	Water	Other	Ice	Acid														
MW1	1	3		✓		✓	HCL	2/26/96	1610		✓										
MW2	3	1		↓		↓			1455		✓										
MW3	3	1		↓		↓			1545		✓										
MW4	4	1		↓		↓			1520		✓										
TB-1	5	2		↓		↓			—		✓										

Special QA/QC

Remarks

Lab number **9602 H85**

Turnaround time

Priority Rush 1 Business Day

Rush 2 Business Days

Expedited 5 Business Days

Standard 10 Business Days

Condition of sample:	Temperature received:
Relinquished by sampler Chal M...	Date 2/26/96 Time 1730
Relinquished by Konrad Dejung	Date 2/27/96 Time 1015
Relinquished by Steve Wright	Date 2/23/96 Time 1140
Received by Konrad Dejung	Date 2-27-96 Time 1152
Received by Steve Wright	
Received by laboratory S Ross	

4 wells

FIELD SERVICES / O & M REQUEST

SITE INFORMATION FORM

Project #:330-107.2I

1st time visit

Station #:2162

1st 2nd 3rd 4th

Date of Request:2/19/96

Site Address:15135 Hesperian blvd.
San Leandro, California

Monthly

Ideal Field Date:

Semi-Monthly

County:Alameda

Weekly

Budget Hrs. _____

Project Manager:Kelly Brown

One time Event

Actual Hrs. _____

Requestor:Chuck Graves

Other. _____

Mob de Mob _____

Client:Arco

Client P.O.C.:Mike Whelan

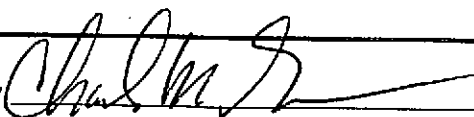
Prefield contacts:

Field Tasks: For General Description

First quarter 1996 groundwater sampling event: DTW/DTL on all wells from TOB/TOC
Sample per attached protocol

WA# 19348 00

Comments, remarks, from Field Staff (include problems encountered

Completed by 

Date: 2/26/96

Checked by: _____

WELL SAMPLING REQUEST

SAMPLING PROTOCOL								
Project No. 330-107.21	Station # 2162	Project Name 5135 Hesperian San Lorenz	SEQUENCE 1Q96	Project Manager Kelly Brown	Approval <i>LB 2/21/06</i>	Date/s	Laboratory: Sequoia	Client Engineer: Mike Whelan

Well Number	Ideal Sampling Order	Sample I.D.	Sampling Frequency	Analyses	TOB TOC	Well Depth	Casing Diameter	Well goes Dry?	Comments
MW-1			QLY	GAS/BTEX	TOB/TOC	16'	4"		
MW-2			QLY	GAS/BTEX	TOB/TOC	16'	4"		
MW-3			QLY	GAS/BTEX	TOB/TOC	15'	4"		
MW-4			QLY	GAS/BTEX	TOB/TOC	18'	4"		
TB-1			QLY	GAS/BTEX					

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

 PROJECT No.: 330-107.2F LOCATION: 15135 Hesperian bl. San Leandro DATE: 2-26-96

 CLIENT/STATION NO.: 2162 FIELD TECHNICIAN: Chuck Gran DAY OF WEEK: Monday

PROBE TYPE/ID No. _____

 Oil/Water IF/ _____
 H₂O level indicator _____
 Other: _____

Dw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE PHASE HYDROCARBONS (SPH)													
											SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	Fresh	Weathered	Gas	Oil	VISCOSITY			LIQUID REMOVED (gallons)				
																	Light	Medium	Heavy		SPH			
												COLOR			H ₂ O									
	MW1	1559	✓	✓	✓	✓	✓	16.00	7.14 7.14	7.35 7.35														
	MW2	14:38	✓	✓	✓	✓	✓	16.00	6.41 6.41	6.74 6.74														
	MW3	1522	✓	✓	✓	✓	✓	15.00	6.72 6.72	6.98 6.98														
	MW4	1506	✓	✓	✓	✓	✓	18.00	7.59 7.59	7.82 7.82														

 Comments: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-107.2F LOCATION: 15135 Hesperian blvd. San Leandro WELL ID #: MW1

CLIENT/STATION No.: 2162 FIELD TECHNICIAN: C. GRAVES

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC _____
 Depth to water: _____ TOB _____ TOC _____
 Total depth: _____ TOB _____ TOC _____
 Date: _____ Time (2400): _____

Probe Type and I.D. #
 Oil/Water interface
 Electronic indicator
 Other: _____

CASING DIAMETER	GAL/ LINEAR FT.
<input type="checkbox"/> 2	0.17
<input type="checkbox"/> 3	0.38
<input checked="" type="checkbox"/> 4	0.66
<input type="checkbox"/> 4.5	0.83
<input type="checkbox"/> 5	1.02
<input type="checkbox"/> 6	1.5
<input type="checkbox"/> 8	2.6

SAMPLE TYPE

Groundwater
 Duplicate
 Extraction well
 Trip blank
 Field blank
 Equipment blank
 Other: _____

TD 16.00 - DTW 7.14 = 886 Gal/Linear Foot 0.66 = 5.85 Number of Casings 3 = Calculated Purge 17.54

DATE PURGED: 2/26/96 START: 1602 END (2400 hr): 1608 PURGED BY: CG

DATE SAMPLED: 2/26/96 START: 1610 END (2400 hr): 1610 SAMPLED BY: CG

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>1605</u>	<u>6</u>	<u>7.61</u>	<u>840</u>	<u>59.5</u>	<u>BRN</u>	<u>>200</u>	<u>NO</u>
<u>1607</u>	<u>12</u>	<u>7.41</u>	<u>870</u>	<u>62.6</u>	<u>BRN</u>	<u>7200</u>	<u>NO</u>
<u>1608</u>	<u>18</u>	<u>7.31</u>	<u>885</u>	<u>63.4</u>	<u>BRN</u>	<u>68.7</u>	<u>NO</u>

Pumped dry Yes No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D.

Bailer: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D.

Bailer: 29-Y
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW1</u>	<u>2/26</u>	<u>1610</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS, BTEX</u>

REMARKS: _____

10/1/99

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-107.2E LOCATION: 15135 Hesperian Blvd. San Leandro WELL ID #: MW2

CLIENT/STATION No.: 2162 FIELD TECHNICIAN: C. GRAVES

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC _____
 Depth to water: _____ TOB _____ TOC _____
 Total depth: _____ TOB _____ TOC _____
 Date: _____ Time (2400): _____

Probe Type and I.D. #
 Oil/Water interface
 Electronic Indicator
 Other: _____

CASING DIAMETER	GAL/ LINEAR FT.
<input type="checkbox"/> 2	0.17
<input type="checkbox"/> 3	0.38
<input checked="" type="checkbox"/> 4	0.66
<input type="checkbox"/> 4.5	0.83
<input type="checkbox"/> 5	1.02
<input type="checkbox"/> 6	1.5
<input type="checkbox"/> 8	2.6

SAMPLE TYPE

Groundwater
 Duplicate
 Extraction well
 Trip blank
 Field blank
 Equipment blank
 Other: _____

TD 16.00 - DTW 6.41 = 9.59 Gal/Linear Foot 0.66 = 6.33 x Number of Casings 3 = Calculated Purge 18.99

DATE PURGED: 2/26/96 START: 1446 END (2400 hr): 1453 PURGED BY: CG
 DATE SAMPLED: 2/26/96 START: 1455 END (2400 hr): 1455 SAMPLED BY: CG

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>1449</u>	<u>6.5</u>	<u>7.40</u>	<u>927</u>	<u>68.5</u>	<u>Clear</u>	<u>21.6</u>	<u>NO</u>
<u>1451</u>	<u>13</u>	<u>7.35</u>	<u>938</u>	<u>67.9</u>	<u>Clear</u>	<u>19.4</u>	<u>NO</u>
<u>1453</u>	<u>19</u>	<u>7.35</u>	<u>885</u>	<u>67.6</u>	<u>Clear</u>	<u>20.21</u>	<u>NO</u>

Pumped dry Yes No

Cobalt 0-100 Clear Cloudy Yellow Brown	NTU 0-200 Heavy Moderate Light Trace	Strong Moderate Faint None
----------------------------------------------------	--------------------------------------------------	-------------------------------------

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D.

Bailer: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D.

Bailer: 29-3
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW2</u>	<u>2/26</u>	<u>1455</u>	<u>3</u>	<u>40ml</u>	<u>VQA</u>	<u>HCL</u>	<u>GAS, BTEX</u>

REMARKS: _____

SIGNATURE: [Signature]

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-107-2F LOCATION: 15135 Hesperian blvd. San Leandro WELL ID #: AW-TB-1

CLIENT/STATION No.: 2162 FIELD TECHNICIAN: C. GRAVES

WELL INFORMATION

CASING

**GAL/
LINEAR FT.**

Depth to Liquid: _____ TOB _____ TOC _____
 Depth to water: _____ TOB _____ TOC _____
 Total depth: _____ TOB _____ TOC _____
 Date: _____ Time (2400): _____

CASING DIAMETER	GAL/ LINEAR FT.
<input type="checkbox"/> 2	0.17
<input type="checkbox"/> 3	0.38
<input type="checkbox"/> 4	0.66
<input type="checkbox"/> 4.5	0.83
<input type="checkbox"/> 5	1.02
<input type="checkbox"/> 6	1.5
<input type="checkbox"/> 8	2.6

- SAMPLE TYPE**
- Groundwater
 - Duplicate
 - Extraction well
 - Trip blank
 - Field blank
 - Equipment blank
 - Other: _____

Probe Type and I.D. #

- Oil/Water interface
- Electronic indicator
- Other: _____

TD _____ - DTW _____ = _____ x Foot _____ = _____ x Casings 3 = Calculated Purge _____

DATE PURGED: 2/26/96 START: _____ END (2400 hr): _____ PURGED BY: CG
 DATE SAMPLED: 2/26/96 START: _____ END (2400 hr): _____ SAMPLED BY: CG

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
			<u>Trip</u>				
			<u>Blank</u>				

Pumped dry Yes/No _____

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #

- Bailer: _____
- Centrifugal Pump: _____
- Other: _____
- Airlift Pump: _____
- Dedicated: _____

SAMPLING EQUIPMENT/I.D. #

- Bailer: _____
- Dedicated: _____
- Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>AW</u>	<u>2/26</u>	<u>—</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS, BTEX</u>
<u>TB-1</u>							

REMARKS: _____

SIGNATURE: [Signature]

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-107.2E LOCATION: 15135 Hesperian Blvd. San Leandro WELL ID #: MW3

CLIENT/STATION No.: 2162 FIELD TECHNICIAN: C. GRAVES

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC _____
 Depth to water: _____ TOB _____ TOC _____
 Total depth: _____ TOB _____ TOC _____
 Date: _____ Time (2400): _____

Probe Type and I.D. #
 Oil/Water interface
 Electronic Indicator 29
 Other; _____

<u>CASING</u>		<u>GAL/</u>
<u>DIAMETER</u>	_____	<u>LINEAR FT.</u>
<input type="checkbox"/>	2	0.17
<input type="checkbox"/>	3	0.38
<input checked="" type="checkbox"/>	4	0.66
<input checked="" type="checkbox"/>	4.5	0.83
<input type="checkbox"/>	5	1.02
<input type="checkbox"/>	6	1.5
<input type="checkbox"/>	8	2.6

SAMPLE TYPE

Groundwater
 Duplicate
 Extraction well
 Trip blank
 Field blank
 Equipment blank
 Other; _____

TD 15.00 - DTW 6.72 = 8.28 Gal/Linear Foot 66 = 5.46 x Number of Casings 3 = Calculated Purge 16.39

DATE PURGED: 2/26/96 START: 1536 END (2400 hr): 1543 PURGED BY: CG
 DATE SAMPLED: 2/26/96 START: 1545 END (2400 hr): 1545 SAMPLED BY: CG

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>1539</u>	<u>5.5</u>	<u>7.52</u>	<u>807</u>	<u>65.9</u>	<u>Clear</u>	<u>12.19</u>	<u>NO</u>
<u>1541</u>	<u>11.0</u>	<u>7.27</u>	<u>853</u>	<u>62.7</u>	<u>clear</u>	<u>8.61</u>	<u>NO</u>
<u>1543</u>	<u>16.5</u>	<u>7.20</u>	<u>906</u>	<u>63.4</u>	<u>Clear</u>	<u>3.49</u>	<u>NO</u>

Pumped dry Yes No
 FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:
 DTW: _____ TOB/TOC _____

<p><u>PURGING EQUIPMENT/I.D. #</u></p> <p><input type="checkbox"/> Bailer: _____ <input checked="" type="checkbox"/> Centrifugal Pump: _____ <input type="checkbox"/> Other: _____</p>	<p><u>SAMPLING EQUIPMENT/I.D. #</u></p> <p><input checked="" type="checkbox"/> Bailer: <u>29-5</u> <input type="checkbox"/> Dedicated: _____ <input type="checkbox"/> Other: _____</p>
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SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW3</u>	<u>2/26</u>	<u>1545</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS, BTEX</u>

REMARKS: _____

SIGNATURE: [Signature]

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-107-2F LOCATION: 15135 Hesperian Blvd. San Leandro WELL ID #: MW4

CLIENT/STATION No.: 2162 FIELD TECHNICIAN: C. GRAVES

WELL INFORMATION

CASING DIAMETER

GAL/ LINEAR FT.

SAMPLE TYPE

Depth to Liquid: _____ TOB _____ TOC _____
 Depth to water: _____ TOB _____ TOC _____
 Total depth: _____ TOB _____ TOC _____
 Date: _____ Time (2400): _____

- 2 _____ 0.17
- 3 _____ 0.38
- 4 _____ 0.66
- 4.5 _____ 0.83
- 5 _____ 1.02
- 6 _____ 1.5
- 8 _____ 2.6

- Groundwater
- Duplicate
- Extraction well
- Trip blank
- Field blank
- Equipment blank
- Other; _____

Probe Type and I.D. #
 Oil/Water interface _____
 Electronic Indicator _____
 Other; _____

TD 18.00 - DTW 7.59 = 10.41 x Gal/Linear Foot 0.66 = 6.87 x Number of Casings 3 = Calculated = Purge 20.61

DATE PURGED: 2/26/96 START: 1511 END (2400 hr): 1518 PURGED BY: CG
 DATE SAMPLED: 2/26/96 START: 1520 END (2400 hr): 1520 SAMPLED BY: CG

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>1513</u>	<u>7</u>	<u>7.47</u>	<u>864</u>	<u>63.1</u>	<u>BAN</u>	<u>720</u>	<u>NO</u>
<u>1516</u>	<u>14</u>	<u>7.16</u>	<u>885</u>	<u>65.0</u>	<u>BAN</u>	<u>86.7</u>	<u>NO</u>
<u>1518</u>	<u>21</u>	<u>7.14</u>	<u>886</u>	<u>65.7</u>	<u>Clear</u>	<u>23.7</u>	<u>NO</u>

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #

SAMPLING EQUIPMENT/I.D. #

- Bailer: _____
- Centrifugal Pump: 29
- Other: _____
- Airlift Pump: _____
- Dedicated: _____

- Bailer: 29-4
- Dedicated: _____
- Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW4</u>	<u>2/26</u>	<u>1520</u>	<u>3</u>	<u>4cm</u>	<u>VBA</u>	<u>HCL</u>	<u>GAS, BTEX</u>

REMARKS: _____

SIGNATURE: [Signature]

ARCO Facility no. 2162 City (Facility) 15135 Hesperian W. San Leandro Project manager (Consultant) Kelly Brown

ARCO engineer Mike Whelan Telephone no. (ARCO) Telephone no. (48) 441-7500 Fax no. (48) 441-9102

Consultant name Pacific Environmental Group Address (Consultant) 2025 Gateway PL #440 San Jose CA 95110

Laboratory name Sequoia

Contract number 19348 00

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH GAS EPA 1602/8020/8015	TPH Modified 8015 Gas Diesel	Oil and Grease 413.1 413.2	TPH EPA 418.1/SM503E	EPA 801/8010	EPA 824/8240	EPA 825/8270	TCPLP Metals VOA VOC	Semi Metals VOA	CAMEL Metals EPA 6010/7000 TTLC STLC	Lead Org/DHS Lead EPA 7420/7421		
			Soil	Water	Other	Ice	Acid																
MW1		3		✓		✓	HCL	2/26/96	1610		✓												
MW2		↓		↓		↓	↓	↓	↓		✓												
MW3		↓		↓		↓	↓	↓	↓		✓												
MW4		↓		↓		↓	↓	↓	↓		✓												
TB-1		2		↓		↓	↓	↓	↓		✓												

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks

Condition of sample: Relinquished by sampler Date 2/26/96 Time 1730 Temperature received: Received by

Relinquished by Date Time Received by

Relinquished by Date Time Received by laboratory Date Time

Priority Rush 1 Business Day

Rush 2 Business Days

Expedited 5 Business Days

Standard 10 Business Days