



PACIFIC ENVIRONMENTAL GROUP, INC.

AN IT COMPANY

Quarterly Groundwater Monitoring Report First Quarter 1999

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

779
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Prepared for

Mr. Michael Whelan
ARCO Products Company

July 19, 1999

Prepared by

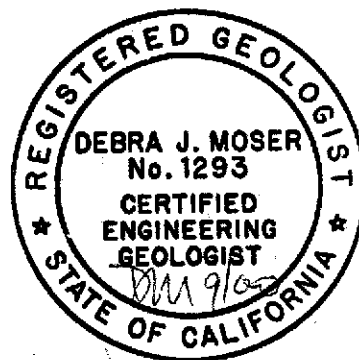
Pacific Environmental Group, Inc.
2025 Gateway Place, Suite 440
San Jose, California 95110

Project 330-006.2P

ENVIRONMENTAL
PROTECTION
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Shaw Garakani
Project Engineer

Debra J. Moser
Senior Geologist
CEG 1293



Date: July 19, 1999
 Quarter: 1Q99

ARCO QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 0608	Address: 17601 Hesperian Boulevard at Hacienda Avenue San Lorenzo, California
ARCO Environmental Engineer:	Michael Whelan
Consulting Co./Contact Person:	Pacific Environmental Group, Inc./Debra J. Moser
Consultant Project No.:	330-006.2P
Primary Agency/Regulatory ID No.:	Alameda County Health Care Services Agency
Monitoring Events Performed to Date:	40

WORK PERFORMED THIS QUARTER (First - 1999):

1. Submitted fourth quarter 1998 groundwater monitoring report.
2. Performed first quarter 1999 groundwater monitoring event on March 15 and 16, 1999.
3. Prepared first quarter 1999 groundwater monitoring report.
4. Continued monthly payments to homeowners for not using domestic irrigation wells.
5. Continued homeowner quarterly monitoring results notification program.

WORK PROPOSED FOR NEXT QUARTER (Second - 1999):

1. Submit first quarter 1999 groundwater monitoring report.
2. Perform second quarter 1999 groundwater monitoring event.
3. Prepare second quarter 1999 groundwater monitoring report.
4. Continue monthly payments to homeowners for not using domestic irrigation wells.
5. Continue homeowner quarterly monitoring results notification program.

Current Phase of Project:	<u>Monitoring</u>	(Assmnt, Remed., etc.)
Frequency of Groundwater Sampling:	<u>Semiannually</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>200</u>	(cubic yards)
Current Remediation Techniques:	<u>Natural Attenuation</u>	(SVE/Sparge/FP Removal, etc.)
Approximate Depth to Groundwater:	<u>8.20 to 12.48</u>	(Measure Feet)
Groundwater Gradient:	<u>West-Southwest</u>	(Direction)
	<u>0.003</u>	(Magnitude)
Period TPH-g/Benzene Removed:	<u>0.0/0.0</u>	(gallons)
Cumulative TPH-g/Benzene Removed:	<u>0.8/0.04</u>	(gallons)

DISCUSSION:

- Please refer to PEG's *Quarterly Groundwater Monitoring Report - Fourth Quarter 1996*, for historical groundwater elevation and analytical data.
- In a phone message dated June 9, 1998, the ACHCSA representative indicated that the MtBE Risk Assessment had been approved and the site would be reviewed for case closure.
- As indicated in PEG's *Quarterly Groundwater Monitoring Report - Fourth Quarter 1998*, effective second quarter 1999, the frequency of groundwater monitoring will be reduced as follows:

Wells MW-7, MW-13, MW-19, and MW-24 will be removed from the monitoring program since they are located upgradient or crossgradient from the site and the extent of the plume has been defined by other nearby monitoring wells. The frequency of groundwater sampling at Wells MW-14, MW-18, MW-21, MW-23, and MW-26 will be reduced from quarterly to annually during the first quarter. These wells are either located crossgradient from the site, or the extent of the plume has been defined by other nearby monitoring wells.

The frequency of groundwater sampling at Wells MW-14, MW-18, MW-21, MW-23, and MW-26 will be reduced from quarterly to annually during the first quarter. These wells are either located crossgradient from the site, or the extent of the plume has been defined by other nearby monitoring wells.

ATTACHMENTS:

- Table 1 - Groundwater Sampling Schedule
- Table 1A - Proposed Groundwater Sampling Schedule
- Table 2 - Groundwater Elevation and Analytical Data - Groundwater Monitoring Wells - Total Purgeable Petroleum Hydrocarbons
- Table 3 - Groundwater Analytical Data - Domestic Irrigation Wells
- Figure 1 - Groundwater Elevation Contour Map
- Figure 2 - TPPH-g/Benzene Concentration Map
- Attachment A - Field and Laboratory Procedures
- Attachment B - Certified Analytical Reports, Chain-of-Custody Documentation, and Field Data Sheets

cc: Mr. Amir K. Gholami, REHS, Alameda County Health Care Services Agency
Mr. Ron Sykora/Mr. Robert L. Webster, David D. Bohannon Organization
Mr. Kevin Graves, Regional Water Quality Control Board - San Francisco Bay Region
Dr. Charles Lapin, ARCO Products Company

Table 1
Groundwater Sampling Schedule

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Sampling Frequency
MW-5	a	a	a	a	Quarterly
MW-7	a	a	a	a	Quarterly
MW-8	a	a	a	a	Quarterly
MW-9	a	a	a	a	Quarterly
MW-10	a	a	a	a	Quarterly
MW-11	a	a	a	a	Quarterly
E-1A	a	a	a	a	Quarterly
MW-13	a	a	a	a	Quarterly
MW-14	a	a	a	a	Quarterly
MW-15	a	a	a	a	Quarterly
MW-16	a	a	a	a	Quarterly
MW-17	-----Destroyed-----				
MW-18	a	a	a	a	Quarterly
MW-19	a	a	a	a	Quarterly
MW-20	-----Destroyed-----				
MW-21	a	a	a	a	Quarterly
MW-22	a	a	a	a	Quarterly
MW-23	a	a	a	a	Quarterly
MW-24	a	a	a	a	Quarterly
MW-25	a	a	a	a	Quarterly
MW-26	a	a	a	a	Quarterly
Domestic Irrigation Wells					
590H	a	a	a	a	Quarterly
633H	a	a	a	a	Quarterly
634H	a	a	a	a	Quarterly
642H	a	a	a	a	Quarterly
675H	a	a	a	a	Quarterly
17197 VM	a	a	a	a	Quarterly

Table 1 (continued)
Groundwater Sampling Schedule

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Sampling Frequency
Domestic Irrigation Wells (cont.)					
17200 VM	-----Destroyed-----				
17203 VM	a	a	a	a	Quarterly
17302 VM	a	a	a	a	Quarterly
17348 VE	a	a	a	a	Quarterly
17349 VM	a	a	a	a	Quarterly
17371 VM	a	a	a	a	Quarterly
17372 VM	a	a	a	a	Quarterly
17393 VM	-----Destroyed-----				
a. Samples analyzed for TPH-g, BTEX compounds, and MtBE according to EPA Methods 8015 (modified) and 8020.					

Table 1A
Proposed Groundwater Sampling Schedule
 (Effective Second Quarter 1999)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Sampling Frequency
MW-5	a	a	a	a	Quarterly
MW-7	-----Removed from Program-----				
MW-8	a	a	a	a	Quarterly
MW-9	a	a	a	a	Quarterly
MW-10	a	a	a	a	Quarterly
MW-11	a	a	a	a	Quarterly
E-1A	a	a	a	a	Quarterly
MW-13	-----Removed from Program-----				
MW-14	a				Annually
MW-15	a	a	a	a	Quarterly
MW-16	a	a	a	a	Quarterly
MW-17	-----Destroyed-----				
MW-18	a				Annually
MW-19	-----Removed from Program-----				
MW-20	-----Destroyed-----				
MW-21	a				Annually
MW-22	a	a	a	a	Quarterly
MW-23	a				Annually
MW-24	-----Removed from Program-----				
MW-25	a	a	a	a	Quarterly
MW-26	a				Annually
Domestic Irrigation Wells					
590H	a	a	a	a	Quarterly
633H	a	a	a	a	Quarterly
634H	a	a	a	a	Quarterly
642H	a	a	a	a	Quarterly
675H	a	a	a	a	Quarterly
17197 VM	a	a	a	a	Quarterly

Table 1A (continued)
Proposed Groundwater Sampling Schedule
 (Effective Second Quarter 1999)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Sampling Frequency
Domestic Irrigation Wells (cont.)					
17200 VM	-----Destroyed-----				
17203 VM	a	a	a	a	Quarterly
17302 VM	a	a	a	a	Quarterly
17348 VE	a	a	a	a	Quarterly
17349 VM	a	a	a	a	Quarterly
17371 VM	a	a	a	a	Quarterly
17372 VM	a	a	a	a	Quarterly
17393 VM	-----Destroyed-----				
a. Samples analyzed for TPPH-g, BTEX compounds, and MtBE according to EPA Methods 8015 (modified) and 8020.					

Table 2
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-5	†† 03/13,14/96	33.99	9.75	24.24	1,600	30	<10	13	<10	NA	NM
	05/28,29/96		11.48	22.51	240	2.4	<0.50	<0.50	<0.50	NA	NM
	08/28/96		12.58	21.41	250	210	8.0	<1.0	<1.0	210	NM
	11/25,26/96		12.07	21.92	<500	<5.0	<5.0	<5.0	<5.0	280	NM
	03/31/97 †		12.42	21.57	<50	<0.50	<0.50	<0.50	<0.50	41	NM
	06/25/97		12.64	21.35	NS	NS	NS	NS	NS	NS	NM
	09/09,10/97		12.75	21.24	<50	<0.50	<0.50	<0.50	<0.50	19	NM
	11/24,25/97		12.60	21.39	<50	0.9	<0.50	<0.50	<0.50	23	1.4
	03/19,20/98		10.43	23.56	61	1.0	0.56	0.55	<0.50	75	1.2
	06/04/98		11.24	22.75	150	<0.30	<0.30	0.32	0.74	20	1.4
	09/21,22/98		12.45	21.54	110	0.59	<0.50	<0.50	<0.50	25	1.8
	12/14,15/98		11.85	22.14	<200	<2.0	<2.0	<2.0	<2.0	600	1.2
	03/15,16/99		11.05	22.94	50.9	<0.50	<0.50	<0.50	<0.50	211	1.0
MW-7	03/13,15/96	34.40	9.73	24.67	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		11.60	22.80	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		12.63	21.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25,26/96		12.10	22.30	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		11.72	22.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		12.98	21.42	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		12.25	22.15	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24,25/97		12.57	21.83	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.0
	03/19,20/98		10.35	24.05	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.0
	06/04/98		11.30	23.10	<50	<0.30	<0.30	<0.30	<0.60	<10	0.7
	09/21,22/98		12.48	21.92	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.4
	12/14,15/98		11.90	22.50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.2
	03/15,16/99		11.10	23.30	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.0
MW-8	03/13,14/96	32.79	8.90	23.89	670	5.1	<2.0	<2.0	<2.0	NA	NM
	05/28,29/96		10.58	22.21	490	<1.0	<1.0	0.91	0.91	NA	NM
	08/28/96		11.30	21.49	680	29	2.1	3.0	2.4	80	NM
	11/25/96		10.80	21.99	620	1.2	2.6	2.9	2.0	46	NM
	03/31-04/01/97		10.76	22.03	530	<1.0	1.7	2.0	3.8	380	NM
	06/25/97		11.65	21.14	480	6.7	0.69	0.8	0.71	88	NM
	09/09,10/97		11.67	21.12	570	57	<1.0	2.1	1.7	57	2.0

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-8	09/09,10/97		--	--	--	--	--	--	--	48	--
(cont.)	11/24,25/97		11.50	21.29	530	3.0	1.7	1.9	1.5	26	2.0
	03/19,20/98		9.40	23.39	440	1.4	<0.50	<0.50	3.7	140	2.2
	06/03/98		10.25	22.54	360	2.2	1.2	1.8	1.0	47	0.3
	09/21,22/98		11.37	21.42	380	<2.5	<2.5	<2.5	<2.5	620	0.0
	12/14,15/98		10.80	21.99	<50	<0.50	<0.50	<0.50	<0.50	1,600	0.0
	03/15,16/99		10.00	22.79	<500	<5.0	<5.0	<5.0	<5.0	625	0.0
MW-9	03/13,15/96	32.11	7.65	24.46	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		9.67	22.44	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		10.78	21.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.24	21.87	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		9.95	22.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.85	21.26	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.87	21.24	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24,25/97		10.70	21.41	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	03/19,20/98		8.63	23.48	<50	<0.50	<0.50	<0.50	<0.50	58	4.8
	06/04/98		9.35	22.76	<50	<0.30	<0.30	<0.30	<0.60	<10	2.0
	09/21,22/98		10.55	21.56	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	12/14,15/98		9.98	22.13	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	03/15,16/99		9.10	23.01	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.0
MW-10	†† 03/13,14/96	31.67	7.78	23.89	870	35	<5.0	5.2	7.0	NA	NM
	05/29/96		10.00	21.67	800	<1.0	<1.0	<1.0	<1.0	NA	NM
	08/28/96		10.93	20.74	NS	NS	NS	NS	NS	NS	NM
	11/25,26/96		10.45	21.22	1,100	6.0	4.9	3.8	9.5	200	NM
	03/31/97	†	10.15	21.52	160	<0.50	<0.50	<0.50	<0.50	140	NM
	06/25/97		10.99	20.68	800	4.2	1.4	1.5	1.4	170	NM
	09/09,10/97		11.08	20.59	950	<1.2	3.3	2.5	3.7	240	2.0
	09/09,10/97	a	--	--	--	--	--	--	--	210	--
	11/24,25/97		10.85	20.82	920	5.7	6.7	<5.0	<5.0	160	2.4
	11/24,25/97		--	--	--	--	--	--	--	160	--
	03/19/98		8.78	22.89	330	1.7	<0.50	<0.50	<0.50	130	1.0
	06/04/98		9.59	22.08	680	<0.30	4.8	2.3	8.6	79	0.0

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-10 (cont.)	09/21,22/98		10.77	20.90	650	<0.50	<0.50	3.5	1.3	99	0.0
	12/14/98		10.18	21.49	828	<1.0	<1.0	3.39	<1.0	152	0.4
	03/15,16/99		9.30	22.37	910	17.6	1.3	5.24	<1.0	268	0.0
MW-11	03/13,14/96	32.54	8.60	23.94	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		10.55	21.99	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		11.52	21.02	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		11.00	21.54	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		10.88	21.66	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		11.65	20.89	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		11.75	20.79	80	<0.50	<0.50	<0.50	0.65	<2.5	2.0
	11/24,25/97		11.50	21.04	<50	<0.50	<0.50	<0.50	<0.50	3.8	2.4
	03/19/98		9.43	23.11	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	06/03/98		10.27	22.27	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.8
	09/21,22/98		11.43	21.11	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	12/14/98		10.85	21.69	<50	<0.50	<0.50	<0.50	<0.50	<2.0	1.4
	03/15,16/99		10.05	22.49	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.2
E-1A †† (MW-12)	03/13,14/96	33.06	10.35	22.71	2,700	38	<5.0	130	6.2	NA	NM
	05/28,29/96		11.50	21.56	1,400	410	18	55	5.5	NA	NM
	08/28/96		11.70	21.36	NS	NS	NS	NS	NS	NS	NM
	11/25,26/96		11.18	21.88	4,300	13	<5.0	100	20	220	NM
	03/31/97 †		12.65	20.41	1,900	7.9	<2.0	62	3.5	140	NM
	06/25/97		11.82	21.24	4,900	21	<5.0	53	6.8	160	NM
	09/09,10/97		11.85	21.21	3,200	9.0	<5.0	45	<5.0	85	2.0
	09/09,10/97 a		--	--	--	--	--	--	--	70	--
	11/24,25/97		11.75	21.31	2,000	10	<2.5	42	2.8	65	1.0
	03/19,20/98		9.65	23.41	11,000	1,300	<0.50	550	380	220	6.2
	06/04/98 b		10.47	22.59	4,500	3.3	0.92	41	4.0	51	1.5
	09/21,22/98		11.60	21.46	3,300	1.7	<0.50	29	3.6	52	1.8
	12/14,15/98		11.10	21.96	3,100	21	6.7	28	<5.0	140	1.0
03/15,16/99		10.25	22.81	3,900	24.5	<20	41.2	<20	296	1.0	

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-13	03/13,15/96	35.42	10.90	24.52	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		12.90	22.52	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		13.89	21.53	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		13.41	22.01	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		13.11	22.31	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		13.98	21.44	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		14.09	21.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		13.90	21.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	03/19,20/98		11.80	23.62	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.8
	06/04/98		12.63	22.79	<50	<0.30	<0.30	<0.30	<0.60	<10	1.3
	09/21,22/98		13.77	21.65	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	12/14,15/98		13.28	22.14	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/15,16/99 b		12.48	22.94	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.2
MW-14	03/13,15/96	30.46	6.63	23.83	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		8.83	21.63	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		9.83	20.63	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		9.33	21.13	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		9.04	21.42	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		9.94	20.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.08	20.38	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		9.78	20.68	<50	<0.50	<0.50	<0.50	<0.50	2.9	2.6
	03/19/98		7.92	22.54	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	06/03/98		8.52	21.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.1
	09/21,22/98		9.72	20.74	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.8
	12/14/98		9.15	21.31	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.8
	03/15,16/99		8.20	22.26	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.6
MW-15	03/13,15/96	31.41	8.13	23.28	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		10.30	21.11	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		11.30	20.11	<50	<0.50	<0.50	<0.50	<0.50	5.3	NM
	11/25/96		10.83	20.58	<50	<0.50	<0.50	<0.50	<0.50	12	NM
	03/31-04/01/97		10.45	20.58	<50	<0.50	<0.50	<0.50	<0.50	7.2	NM
	06/25/97		11.39	20.02	<50	<0.50	<0.50	<0.50	<0.50	7.0	NM
	09/09,10/97		11.50	19.91	----- Well Inaccessible -----						

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MIBE (ppb)	Dissolved Oxygen (ppm)
MW-15 (cont.)	11/24,25/97										
	03/19/98		9.15	22.26	<50	<0.50	<0.50	<0.50	<0.50	5.3	2.2
	06/04/98										
	09/21,22/98										
	12/14/98		10.63	20.78	<50	<0.50	<0.50	<0.50	<0.50	48.2	1.8
	03/15,16/99										
MW-16	03/13/96	31.39	8.62	22.77	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		10.90	20.49	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		11.84	19.55	<50	<0.50	<0.50	<0.50	<0.50	89	NM
	11/25/96		11.32	20.07	<50	<0.50	<0.50	<0.50	<0.50	66	NM
	03/31-04/01/97		11.06	20.33	<50	<0.50	<0.50	<0.50	<0.50	49	NM
	06/25/97		11.92	19.47	<50	<0.50	<0.50	<0.50	<0.50	59	NM
	09/09,10/97		12.03	19.36	<50	<0.50	<0.50	<0.50	<0.50	63	3.0
	09/09,10/97 ^a		--	--	--	--	--	--	--	86	--
	11/24,25/97		11.76	19.63	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	03/19/98		9.80	21.59	<50	<0.50	<0.50	<0.50	<0.50	8.4	3.0
	06/03/98		10.55	20.84	<50	<0.50	<0.50	<0.50	<0.50	22	1.6
	09/21,22/98		11.77	19.62	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.2
	12/14/98		11.20	20.19	<50	<0.50	<0.50	<0.50	<0.50	25	1.0
03/15,16/99		10.30	21.09	<50	<0.50	<0.50	<0.50	<0.50	<5.0	3.6	
MW-17	----- Well Destroyed -----										
MW-18	03/13/96	29.70	7.53	22.17	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		9.88	19.82	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		10.82	18.88	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.18	19.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		10.14	19.56	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.94	18.76	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		11.00	18.70	<50	<0.50	<0.50	<0.50	<0.50	<2.5	4.0
	11/24,25/97		10.65	19.05	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.4
	03/19/98		8.95	20.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	06/03/98		9.57	20.13	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.8

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-18 (cont.)	09/21,22/98		10.80	18.90	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	12/14/98		10.18	19.52	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.6
	03/15,16/99		9.20	20.50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0
MW-19	03/13/96	29.02	7.06	21.96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		9.42	19.60	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		10.33	18.69	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		9.67	19.35	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		9.65	19.37	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.41	18.61	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.47	18.55	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24,25/97		10.35	18.67	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.6
	03/19/98		8.67	20.35	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/03/98		9.15	19.87	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2
	09/21,22/98		10.28	18.74	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	12/14/98		9.70	19.32	<50	<0.50	<0.50	0.588	0.647	<2.0	2.4
	03/15,16/99		----- Well Inaccessible -----								
MW-20	----- Well Destroyed -----										
MW-21	03/13/96	28.72	7.58	21.14	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		9.85	18.87	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		10.75	17.97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.00	18.72	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		10.03	18.69	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.83	17.89	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.90	17.82	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		10.50	18.22	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/19/98		9.08	19.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.08
	06/03/98		9.57	19.15	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.6
	09/21,22/98		10.75	17.97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.4
	12/14/98		10.11	18.61	<50	<0.50	<0.50	<0.50	<0.50	<2.0	0.6
	03/15,16/99		9.10	19.62	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-22	03/13/96	29.29	7.83	21.46	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		10.33	18.96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		11.28	18.01	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.61	18.68	<50	<0.50	<0.50	<0.50	<0.50	3.0	NM
	12/30/96		10.61	18.68	NA	NA	NA	NA	NA	3.3	NM
	03/31-04/01/97		10.56	18.73	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		11.51	17.78	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		11.45	17.84	<50	<0.50	<0.50	<0.50	<0.50	3.4	1.0
	11/24,25/97		11.08	18.21	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.6
	03/19/98		9.40	19.89	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	06/03/98		10.00	19.29	<50	<0.50	<0.50	<0.50	<0.50	0.87	3.2
	09/21,22/98		11.27	18.02	<50	<0.50	<0.50	<0.50	<0.50	2.1	2.8
	12/14/98		10.65	18.64	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.4
	03/15,16/99		9.67	19.62	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.4
MW-23	03/13/96	30.99	9.13	21.86	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		11.37	19.62	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		12.31	18.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		11.76	19.23	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		11.56	19.43	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		12.39	18.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		12.53	18.46	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		12.13	18.86	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/19/98		10.22	20.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.4
	06/03/98		11.03	19.96	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.3
	09/21,22/98		12.31	18.68	<50	<0.50	0.54	1.9	<0.50	<2.5	2.2
	12/14/98		11.67	19.32	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.0
	03/15,16/99		10.82	20.17	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.6
	MW-24		03/13,15/96	34.38	10.10	24.28	<50	<0.50	<0.50	<0.50	<0.50
05/28/96		12.25	22.13		<50	<0.50	<0.50	<0.50	<0.50	NA	NM
08/28/96		13.28	21.10		<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
11/25/96		12.71	21.67		<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
03/31-04/01/97		12.50	21.88		<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
06/25/97		13.38	21.00		<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-24 (cont.)	09/09,10/97		13.46	20.92	<50	<0.50	<0.50	<0.50	<0.50	<2.5	5.0
	11/24,25/97		13.25	21.13	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/19,20/98		11.32	23.06	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	06/04/98		12.00	22.38	<50	<0.30	<0.30	<0.30	<0.60	<10	0.8
	09/21,22/98		13.13	21.25	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.4
	12/14,15/98		12.53	21.85	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.2
	03/15,16/99		11.58	22.80	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.0
MW-25	03/13,14/96	34.12	9.61	24.51	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		11.30	22.82	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		12.32	21.80	<50	<0.50	<0.50	<0.50	<0.50	51	NM
	11/25/96		11.83	22.29	<50	<0.50	<0.50	<0.50	<0.50	110	NM
	03/31-04/01/97		11.55	22.57	<50	<0.50	<0.50	<0.50	<0.50	39	NM
	06/25/97		14.57	19.55	<50	<0.50	<0.50	<0.50	<0.50	49	NM
	09/09,10/97		12.45	21.67	<50	<0.50	<0.50	<0.50	<0.50	78	1.0
	09/09,10/97 a		--	--	--	--	--	--	--	79	--
	11/24,25/97		12.30	21.82	<50	<0.50	<0.50	<0.50	<0.50	130	0.0
	03/19,20/98		10.18	23.94	<50	<0.50	<0.50	<0.50	<0.50	96	1.8
	06/04/98		11.00	23.12	<50	<0.30	<0.30	<0.30	<0.60	44	0.8
	09/21,22/98		12.13	21.99	<50	<0.50	<0.50	<0.50	<0.50	150	0.4
	12/14,15/98		11.60	22.52	<50	<0.50	<0.50	<0.50	<0.50	44	1.0
03/15,16/99		10.78	23.34	<50	<0.50	<0.50	<0.50	<0.50	26.6	2.0	
MW-26	03/13,15/96	33.71	9.38	24.33	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		11.57	22.14	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		12.55	21.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		12.03	21.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		11.84	21.87	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		12.94	20.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		12.77	20.94	<50	<0.50	<0.50	<0.50	<0.50	<2.5	5.0
	11/24,25/97		12.55	21.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.6
	03/19,20/98		10.55	23.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	06/04/98		11.22	22.49	<50	<0.30	<0.30	<0.30	<0.60	<10	2.1

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-26	09/21,22/98		12.45	21.26	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
(cont.)	12/14,15/98		11.83	21.88	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	03/15,16/99		10.86	22.85	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0
TPPH = Total purgeable petroleum hydrocarbons MtBE = Methyl tert-butyl ether MSL = Mean sea level TOB = Top of box ppb = Parts per billion ppm = Parts per million < = Less than laboratory detection limit stated to the right. † = Well sampled without purging. †† = ORC program at well was initiated on September 21, 1995 and discontinued on May 15, 1997.					NA = Not analyzed NM = Not measured NS = Not sampled a. MtBE result confirmed by EPA Method 8260. b. Depths to water originally measured from TOC. Depth to water adjusted to reflect a TOB measurement by adding the average difference between TOB and TOC measurements over the last four gauging events.						

Table 3
Groundwater Analytical Data
Domestic Irrigation Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
590 H	03/14/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96 a	NS	NS	NS	NS	NS	NA	NM
	11/26/96	NS	NS	NS	NS	NS	NS	NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97 a	NS	NS	NS	NS	NS	NS	NM
	09/09/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24/97 a	NS	NS	NS	NS	NS	NS	NM
	03/19/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.8
	09/21/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.2
	12/14/98	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.2
	03/15/99 a	NS	NS	NS	NS	NS	NS	NM
633 H	03/14/96	480	10	11	1.8	140	NA	NM
	05/13/96 b	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	3.70	NM
	12/30/96	--	--	--	--	--	4.9 c	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM
	06/25/97 a	NS	NS	NS	NS	NS	NS	NM
	09/10/97	<50	<0.50	<0.50	<0.50	0.66	<2.5	1.0
	11/24/97	110	2.0	2.1	1.0	4.2	<2.5 c	NM
	03/19/98	150	1.8	0.62	<0.50	28	77	NM
	03/19/98	--	--	--	--	--	<2.0 c	NM
	06/03/98	480	6.2	4.3	2.9	120	28	1.3
	09/21/98	<50	<0.50	<0.50	<0.50	0.66	<2.5	1.2
12/14/98	<50	<0.50	<0.50	<0.50	2.21	11.7	NM	
03/15/99	<50	0.513	<0.50	<0.50	0.542	31	NM	
634 H	03/13/96 a	NS	NS	NS	NS	NS	NA	NM
	05/27/96 a	NS	NS	NS	NS	NS	NA	NM
	08/29/96 a	NS	NS	NS	NS	NS	NA	NM
	11/26/96	NS	NS	NS	NS	NS	NS	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM
	06/25/97 a	NS	NS	NS	NS	NS	NS	NM
	09/09/97 g	NS	NS	NS	NS	NS	NS	NM
	11/24/97 g	NS	NS	NS	NS	NS	NS	NM
	03/19/98 e	NS	NS	NS	NS	NS	NS	NM
	06/03/98 e	NS	NS	NS	NS	NS	NS	NM
	09/21/98 e	NS	NS	NS	NS	NS	NS	NM
	12/14/98 e	NS	NS	NS	NS	NS	NS	NM
	03/15/99 e	NS	NS	NS	NS	NS	NS	NM
642 H	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM
	H 06/25/97	NS	NS	NS	NS	NS	NS	NM
	09/09/97 a	NS	NS	NS	NS	NS	NS	NM
	11/24/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/19/98 a	NS	NS	NS	NS	NS	NS	NM

Table 3 (continued)
Groundwater Analytical Data
Domestic Irrigation Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
642 (cont.)	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	NM
	09/21/98 a	NS	NS	NS	NS	NS	NS	NM
	12/14/98 a	NS	NS	NS	NS	NS	NS	NM
	03/15/99 a	NS	NS	NS	NS	NS	NS	NM
675 H	03/13/96 a	NS	NS	NS	NS	NS	NA	NM
	05/27/96 a	NS	NS	NS	NS	NS	NA	NM
	08/29/96 d	NS	NS	NS	NS	NS	NA	NM
	11/26/96	NS	NS	NS	NS	NS	NS	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM
	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97 f	NS	NS	NS	NS	NS	NS	NM
	11/24/97 f	NS	NS	NS	NS	NS	NS	NM
	03/19/98 f	NS	NS	NS	NS	NS	NS	NM
	06/03/98 f	NS	NS	NS	NS	NS	NS	NM
	09/21/98 a,f	NS	NS	NS	NS	NS	NS	NM
	12/14/98 f	NS	NS	NS	NS	NS	NS	NM
	03/15/99 f	NS	NS	NS	NS	NS	NS	NM
17197 VM	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/19/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.2
	09/21/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	12/14/98	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.4
	03/15/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.6
17200 VM	03/15/96	730	<1.0	<1.0	1.5	1.7	NA	NM
	05/27/96	200	<0.50	<0.50	1.4	1.8	NA	NM
	08/29/96	Well Destroyed						
17203 VM	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97 f	NS	NS	NS	NS	NS	NS	NM
	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97 f	NS	NS	NS	NS	NS	NS	NM
	11/24/97 f	NS	NS	NS	NS	NS	NS	NM
	03/19/98	Well Dry						
	VM	06/03/98 f	NS	NS	NS	NS	NS	NS
09/21/98 f	NS	NS	NS	NS	NS	NS	NS	NM
12/14/98 f	NS	NS	NS	NS	NS	NS	NS	NM
03/15/99 f	NS	NS	NS	NS	NS	NS	NS	NM
17302 VM	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM

Table 3 (continued)
Groundwater Analytical Data
Domestic Irrigation Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

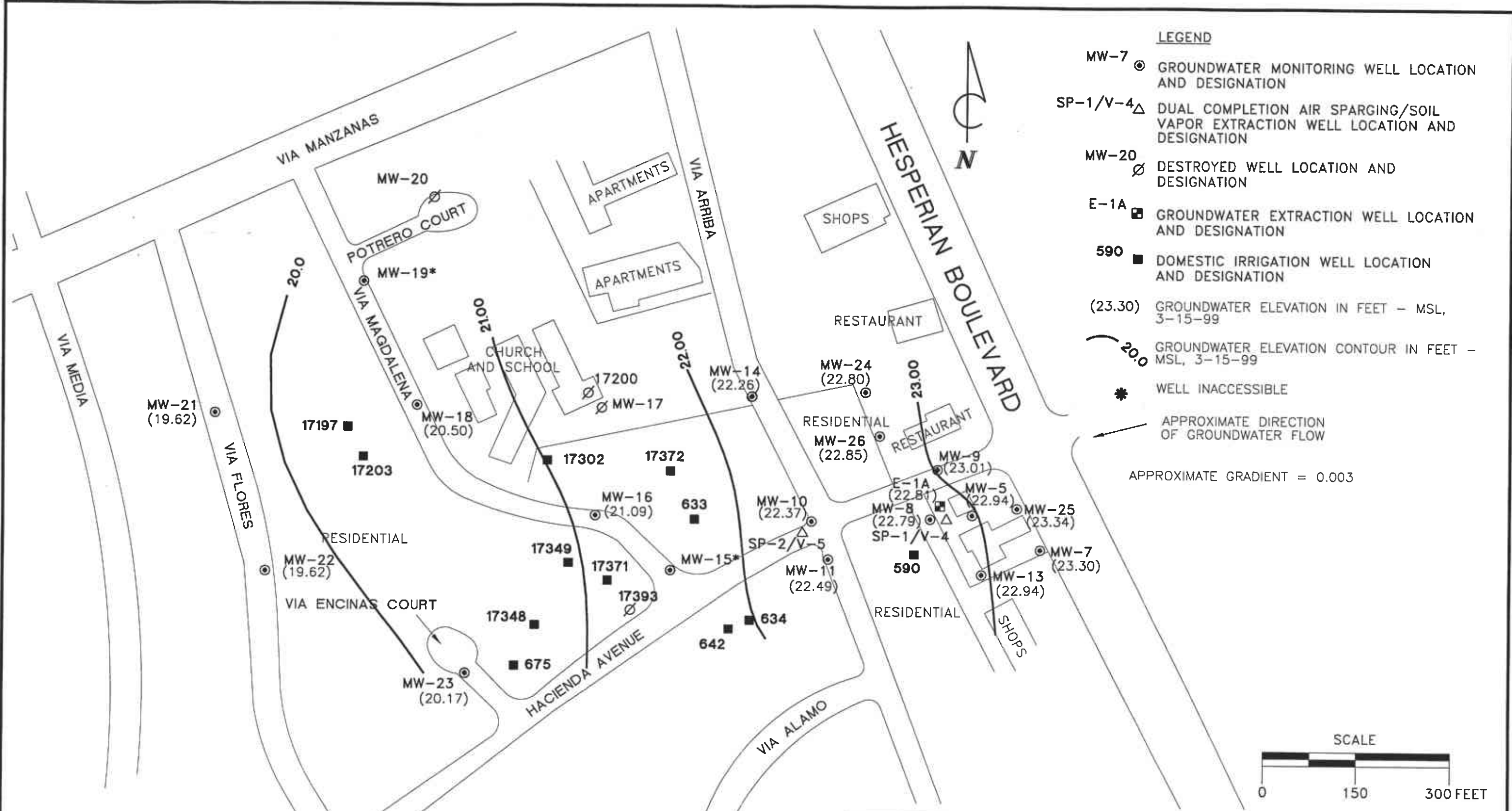
ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)	
17302 (cont.)	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM	
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM	
	09/09/97 f	NS	NS	NS	NS	NS	NS	NM	
	11/24/97 f	NS	NS	NS	NS	NS	NS	NM	
	03/19/98 f	NS	NS	NS	NS	NS	NS	NM	
	06/03/98 f	NS	NS	NS	NS	NS	NS	NM	
	09/21/98 f	NS	NS	NS	NS	NS	NS	NM	
	12/14/98 f	NS	NS	NS	NS	NS	NS	NM	
	03/15/99 f	NS	NS	NS	NS	NS	NS	NM	
17348 VE	03/13/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM	
	05/27/96	Well Dry							
	08/29/96	Well Dry							
	11/26/96	Well Dry							
	03/31/97	Well Dry							
	06/25/97	Well Inaccessible							
	09/09/97 g	NS	NS	NS	NS	NS	NS	NM	
	11/24/97 g	NS	NS	NS	NS	NS	NS	NM	
	03/19/98 a	NS	NS	NS	NS	NS	NS	NM	
	06/03/98 a	NS	NS	NS	NS	NS	NS	NM	
	09/21/98 a	NS	NS	NS	NS	NS	NS	NM	
	12/14/98 a	NS	NS	NS	NS	NS	NS	NM	
	03/15/99 a	NS	NS	NS	NS	NS	NS	NM	
17349 VM	03/15/96	1,700	<2.0	<2.0	2.5	13	NA	NM	
	05/27/96	320	4.2	1.3	0.95	0.71	NA	NM	
	08/29/96	410	7.5	<0.50	<0.50	1.1	NA	NM	
	11/26/96	300	<1.0	1.7	<1.0	2.1	55 *	NM	
	03/31/97	430	<1.0	2.7	<1.0	1.0	57 c	NM	
	06/25/97 **	2,100	30	<5.0	<5.0	6.7	140	NM	
	08/18/97	320	2.0	<0.5	<0.5	<0.5	34	NM	
	08/18/97	--	--	--	--	--	31 c	NM	
	09/09/97	380	6.0	1.4	0.98	<0.50	38	3.0	
	09/09/97	--	--	--	--	--	34 c	NM	
	11/24/97	240	<1.0	1.1	<1.0	1.4	53	2.4	
	11/24/97	--	--	--	--	--	33 ct	NM	
	03/19/98	1,300	14	<0.50	<0.50	1.2	250	1.0	
	03/19/98	--	--	--	--	--	27 c	NM	
	06/03/98	860	8.7	<0.50	0.7	8.0	38	4.9	
	07/29/98	860	20	2.1	<1.2	<1.2	27	NM	
	07/29/98	--	--	--	--	--	25 c	NM	
	VM	09/21/98	200	<0.50	<0.50	<0.50	14	14	5.2
		12/14/98	254	<0.50	6.92	0.604	1.58	21.7	1.0
	03/15/99	172	1.35	<0.50	<0.50	<0.50	24.2	3.6	
17371 VM	03/13/96 e	NS	NS	NS	NS	NS	NA	NM	
	05/27/96 e	NS	NS	NS	NS	NS	NA	NM	
	08/29/96 e	NS	NS	NS	NS	NS	NA	NM	
	11/26/96 e	NS	NS	NS	NS	NS	NS	NM	
	03/31/97 e	NS	NS	NS	NS	NS	NS	NM	
	06/25/97 e	NS	NS	NS	NS	NS	NS	NM	
	09/09/97 e	NS	NS	NS	NS	NS	NS	NM	
	11/24/97 e	NS	NS	NS	NS	NS	NS	NM	
	03/19/98 e	NS	NS	NS	NS	NS	NS	NM	

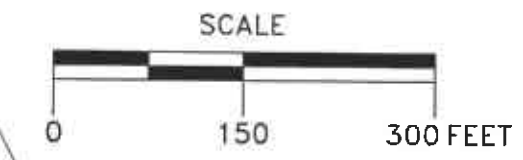
Table 3 (continued)
Groundwater Analytical Data
Domestic Irrigation Wells
 Total Purgeable Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)


ARCO Service Station 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

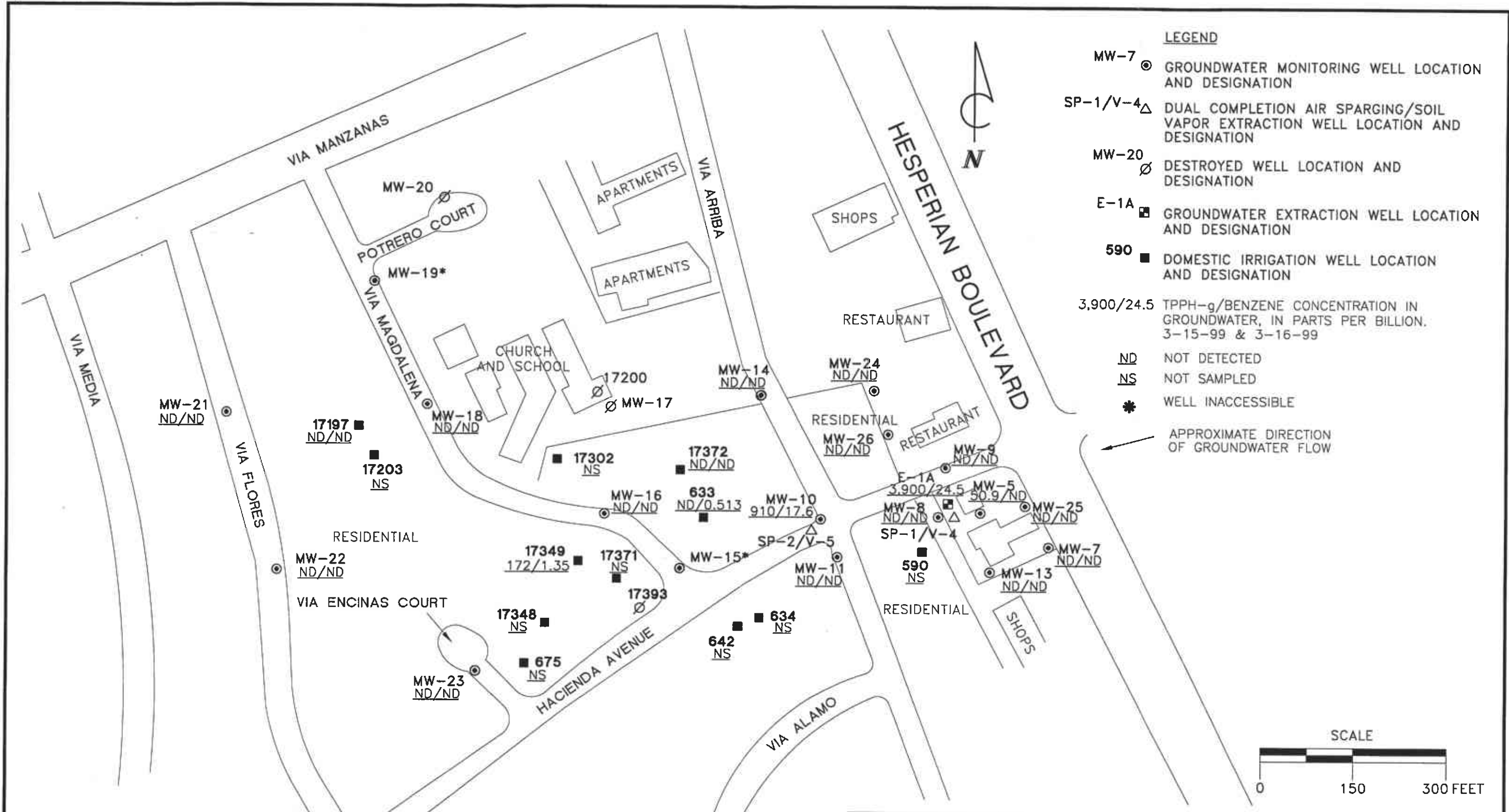
Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
17371 (cont.)	06/03/98 e	NS	NS	NS	NS	NS	NS	NM
	09/21/98 e	NS	NS	NS	NS	NS	NS	NM
	12/14/98 e	NS	NS	NS	NS	NS	NS	NM
	03/15/99 e	NS	NS	NS	NS	NS	NS	NM
17372 VM	03/14/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	4.0
	11/24/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	03/19/98	<50	<0.50	<0.50	<0.50	<0.50	1,200	1.8
	03/19/98	--	--	--	--	--	1,400 c	NM
	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	16,000	1.8
	07/29/98	<200	<2.0	<2.0	<2.0	<2.0	940	NM
	07/29/98	--	--	--	--	--	1,100 c	NM
	09/21/98	<50	<0.50	<0.50	<0.50	<0.50	200	1.6
09/21/98	--	--	--	--	--	360 c	NM	
12/14/98	<50	<0.50	0.823	<0.50	<0.50	20.1	3.8	
03/15/99	<50	<0.50	<0.50	<0.50	<0.50	6.66	4.6	
17393 VM	03/14/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
17393 VM (cont.)	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97 a	NS	NS	NS	NS	NS	NS	NM
	06/25/97	Well Destroyed						
TPPH = Total purgeable petroleum hydrocarbons MtBE = Methyl tert-butyl ether NA = Not analyzed NS = Not sampled ppb = Parts per billion H = Hacienda Avenue VM = Via Magdalena VE = Via Encinas < = Less than laboratory detection limit stated to the right. † = Less than laboratory detection limit stated to the right. * = MtBE data maybe anomalous; unable to confirm with EPA Method 8260. ** = Concentration data are suspect due to inadequate purging. Well resampled on August 18, 1997 for confirmation purposes. a. Owner not available to approve sampling access; well not sampled. b. Well resampled to confirm data of March 14, 1996. c. MtBE result confirmed by EPA Method 8260. d. Pumping equipment obstructing sampling access; well not sampled. e. Access denied by owner; well not sampled. f. Pump on well does not work. g. Well blocked and pump non-operational; well cannot be sampled. Note: Homeowners are contacted 1 week prior to sampling event.								



- LEGEND**
- MW-7 ○ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
 - SP-1/V-4 △ DUAL COMPLETION AIR SPARGING/SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
 - MW-20 ∅ DESTROYED WELL LOCATION AND DESIGNATION
 - E-1A □ GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
 - 590 ■ DOMESTIC IRRIGATION WELL LOCATION AND DESIGNATION
 - (23.30) GROUNDWATER ELEVATION IN FEET - MSL, 3-15-99
 - 20.0 GROUNDWATER ELEVATION CONTOUR IN FEET - MSL, 3-15-99
 - * WELL INACCESSIBLE
 - ← APPROXIMATE DIRECTION OF GROUNDWATER FLOW
- APPROXIMATE GRADIENT = 0.003

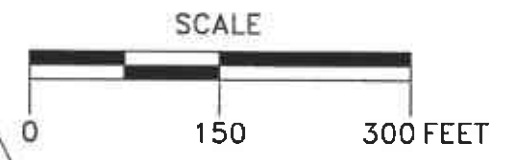



 PACIFIC ENVIRONMENTAL GROUP, INC.	TITLE: GROUNDWATER ELEVATION CONTOUR MAP			
	PREPARED FOR: ARCO SERVICE STATION 0608 17601 HESPERIAN BOULEVARD AT HACIENDA AVENUE SAN LORENZO, CALIFORNIA			
DATE: 5-7-99	PROJECT: 330-006.2P	SCALE: 1"=150'-0"	FIGURE: 1	



LEGEND

- MW-7 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- SP-1/V-4 DUAL COMPLETION AIR SPARGING/SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- MW-20 DESTROYED WELL LOCATION AND DESIGNATION
- E-1A GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
- 590 DOMESTIC IRRIGATION WELL LOCATION AND DESIGNATION
- 3,900/24.5 TPPH-g/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION. 3-15-99 & 3-16-99
- ND NOT DETECTED
- NS NOT SAMPLED
- * WELL INACCESSIBLE
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW



 PACIFIC ENVIRONMENTAL GROUP, INC.	TITLE: TPPH-g/BENZENE CONCENTRATION MAP			
	PREPARED FOR: ARCO SERVICE STATION 0608 17601 HESPERIAN BOULEVARD AT HACIENDA AVENUE SAN LORENZO, CALIFORNIA			
DATE: 5-7-99	PROJECT: 330-006.2P	SCALE: 1"=150'-0"	FIGURE: 2	

ATTACHMENT A
FIELD AND LABORATORY PROCEDURES

ATTACHMENT A

FIELD AND LABORATORY PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of 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.

Analytical Procedures

Laboratory. The groundwater samples were analyzed for the presence of total purgeable petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylenes, and methyl tert-butyl ether. The analyses were performed according to EPA Methods 8015 (modified) and 8020, 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 B.

Field. Dissolved oxygen is measured in the field utilizing Hydac AccuVac test kit.

ATTACHMENT B

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



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D
1551 Industrial Road

Redwood City, CA 94063 (650) 364-9600
Walnut Creek, CA 94598 (925) 988-9600
Sacramento, CA 95834 (916) 921-9600
Petaluma, CA 94954 (707) 792-1865
San Carlos, CA 94070-4111 (650) 232-9600

APR 08 1999
FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342
FAX (650) 232-9612

March 31, 1999

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

RE: Arco(1)/L903136

Dear Shaw Garakani:

Enclosed are the results of analyses for sample(s) received by the laboratory on March 16, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,


Mike Gregory
Project Manager D.M.





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/15/99 Received: 3/16/99 Reported: 3/31/99
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ANALYTICAL REPORT FOR L903136

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW10	L903136-01	Water	3/15/99
MW11	L903136-02	Water	3/15/99
MW14	L903136-03	Water	3/15/99
MW16	L903136-04	Water	3/15/99
MW18	L903136-05	Water	3/15/99
MW21	L903136-06	Water	3/15/99
MW22	L903136-07	Water	3/15/99
MW23	L903136-08	Water	3/15/99
633H	L903136-09	Water	3/15/99
17197VM	L903136-10	Water	3/15/99
17349VM	L903136-11	Water	3/15/99
17372VM	L903136-12	Water	3/15/99





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Sample Description: MW10
Laboratory Sample Number: L903136-01

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030085	3/19/99	3/19/99		100	910	ug/l	1
Benzene	"	"	"		1.00	17.6	"	
Toluene	"	"	"		1.00	1.30	"	
Ethylbenzene	"	"	"		1.00	5.24	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Methyl tert-butyl ether	"	"	"		10.0	268	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		118	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/15/99 Received: 3/16/99 Reported: 3/31/99
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Sample Description: MW11
Laboratory Sample Number: L903136-02

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030082	3/18/99	3/18/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		101	%	





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Sample Description: MW14
Laboratory Sample Number: L903136-03

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030082	3/18/99	3/18/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		98.7	%	





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Sample Description: **MW16**
Laboratory Sample Number: **L903136-04**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030082	3/18/99	3/18/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		109	%	





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Sample Description: MW18
Laboratory Sample Number: L903136-05

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030082	3/18/99	3/18/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		114	%	





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Sample Description: MW21
Laboratory Sample Number: L903136-06

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030082	3/18/99	3/18/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		107	%	





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Sample Description: MW22
Laboratory Sample Number: L903136-07

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030085	3/19/99	3/19/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		90.0	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/15/99 Received: 3/16/99 Reported: 3/31/99
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Sample Description: MW23
Laboratory Sample Number: L903136-08

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030085	3/19/99	3/19/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		93.9	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/15/99 Received: 3/16/99 Reported: 3/31/99
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Sample Description: 633H
Laboratory Sample Number: L903136-09

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030082	3/18/99	3/18/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	0.513	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	0.542	"	
Methyl tert-butyl ether	"	"	"		5.00	31.0	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		109	%	





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Pacific Environmental Group
2025 Gateway Place, Suite 440
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Project: Arco(1)
Project Number: Arco 330-006.2L, 608
Project Manager: Shaw Garakani

Sampled: 3/15/99
Received: 3/16/99
Reported: 3/31/99

Sample Description: **17197VM**
Laboratory Sample Number: **L903136-10**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030084	3/19/99	3/19/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		103	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/15/99 Received: 3/16/99 Reported: 3/31/99
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Sample Description: 17349VM
Laboratory Sample Number: L903136-11

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030082	3/18/99	3/18/99		50.0	172	ug/l	
Benzene	"	"	"		0.500	1.35	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	24.2	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		121	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/15/99 Received: 3/16/99 Reported: 3/31/99
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Sample Description: **17372VM**
Laboratory Sample Number: **L903136-12**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030082	3/18/99	3/18/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	6.66	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		110	%	





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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9030082			Date Prepared: 3/18/99			Extraction Method: EPA 5030B [P/T]				
Blank			9030082-BLK1							
Purgeable Hydrocarbons as Gasoline	3/18/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.2	"	70.0-130	112			
LCS			9030082-BS1							
Benzene	3/18/99	10.0		10.0	ug/l	70.0-130	100			
Toluene	"	10.0		10.0	"	70.0-130	100			
Ethylbenzene	"	10.0		9.23	"	70.0-130	92.3			
Xylenes (total)	"	30.0		31.5	"	70.0-130	105			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.3	"	70.0-130	113			
Matrix Spike			9030082-MS1		L903127-03					
Benzene	3/18/99	10.0	ND	10.5	ug/l	60.0-140	105			
Toluene	"	10.0	ND	10.4	"	60.0-140	104			
Ethylbenzene	"	10.0	ND	9.24	"	60.0-140	92.4			
Xylenes (total)	"	30.0	ND	33.2	"	60.0-140	111			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.4	"	70.0-130	114			
Matrix Spike Dup			9030082-MSD1		L903127-03					
Benzene	3/18/99	10.0	ND	10.3	ug/l	60.0-140	103	25.0	1.92	
Toluene	"	10.0	ND	10.8	"	60.0-140	108	25.0	3.77	
Ethylbenzene	"	10.0	ND	11.2	"	60.0-140	112	25.0	19.2	
Xylenes (total)	"	30.0	ND	31.2	"	60.0-140	104	25.0	6.51	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.8	"	70.0-130	108			
Batch: 9030084			Date Prepared: 3/19/99			Extraction Method: EPA 5030B [P/T]				
Blank			9030084-BLK1							
Purgeable Hydrocarbons as Gasoline	3/19/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.2	"	70.0-130	102			





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/15/99 Received: 3/16/99 Reported: 3/31/99
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS <u>9030084-BS1</u>										
Purgeable Hydrocarbons as Gasoline	3/19/99	250		238	ug/l	70.0-130	95.2			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		17.6	"	70.0-130	176			2
Matrix Spike <u>9030084-MS1</u> <u>L903136-10</u>										
Purgeable Hydrocarbons as Gasoline	3/19/99	250	ND	240	ug/l	60.0-140	96.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		18.2	"	70.0-130	182			2
Matrix Spike Dup <u>9030084-MSD1</u> <u>L903136-10</u>										
Purgeable Hydrocarbons as Gasoline	3/19/99	250	ND	258	ug/l	60.0-140	103	25.0	7.04	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		18.8	"	70.0-130	188			2
Batch: 9030085 <u>Date Prepared: 3/19/99</u> <u>Extraction Method: EPA 5030B [P/T]</u>										
Blank <u>9030085-BLK1</u>										
Purgeable Hydrocarbons as Gasoline	3/19/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.89	"	70.0-130	98.9			
LCS <u>9030085-BS1</u>										
Benzene	3/19/99	10.0		9.24	ug/l	70.0-130	92.4			
Toluene	"	10.0		9.47	"	70.0-130	94.7			
Ethylbenzene	"	10.0		9.70	"	70.0-130	97.0			
Xylenes (total)	"	30.0		28.6	"	70.0-130	95.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.64	"	70.0-130	96.4			
Matrix Spike <u>9030085-MS1</u> <u>L903136-08</u>										
Benzene	3/19/99	10.0	ND	9.58	ug/l	60.0-140	95.8			
Toluene	"	10.0	ND	9.71	"	60.0-140	97.1			
Ethylbenzene	"	10.0	ND	9.83	"	60.0-140	98.3			
Xylenes (total)	"	30.0	ND	29.2	"	60.0-140	97.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.24	"	70.0-130	92.4			
Matrix Spike Dup <u>9030085-MSD1</u> <u>L903136-08</u>										
Benzene	3/19/99	10.0	ND	9.03	ug/l	60.0-140	90.3	25.0	5.91	
Toluene	"	10.0	ND	9.22	"	60.0-140	92.2	25.0	5.18	
Ethylbenzene	"	10.0	ND	9.31	"	60.0-140	93.1	25.0	5.43	
Xylenes (total)	"	30.0	ND	27.7	"	60.0-140	92.3	25.0	5.27	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.60	"	70.0-130	86.0			





Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/15/99 Received: 3/16/99 Reported: 3/31/99
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Notes and Definitions

#	Note
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- 1 Chromatogram Pattern: Gasoline C6-C12
- 2 High surrogate recovery due to spike.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference



ARCO Facility no. 608	City (Facility) 17601 Hesperian Blvd, San Jose, CA	Project manager (Consultant) SHAW GARRAN	Laboratory name Sequoia
ARCO engineer Mike Wheeler	Telephone no. (ARCO)	Telephone no. (Consultant) (408) 441 7500	Contract number
Consultant name PACIFIC ENVIRONMENTAL GROUP	Address (Consultant) 2005 GATEWAY PLACE #140 SAN JOSE CA 95110		Method of shipment
Fax no. (Consultant) (408) 441 7539			Special detection Limit/reporting

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX 602/EPA 8020	MTBE BTEX/TPH EPA 1602/8020/8015	TPH Modified 8015 Gas <input type="checkbox"/> Diesel <input type="checkbox"/>	Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/>	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCMP Metals <input type="checkbox"/> VOA <input type="checkbox"/>	Semi Metals <input type="checkbox"/> VOA <input type="checkbox"/>	CMM Metals EPA 601/0700 TTLC <input type="checkbox"/> STL <input type="checkbox"/>	Lead Org./DHS <input type="checkbox"/> Lead EPA 7420/7421 <input type="checkbox"/>			
			Soil	Water	Other	Ice	Acid																	
Mw1001	1	3	W					3-15-99	14:05	X														
Mw1102	2								13:50															
Mw1404	4								13:35															
Mw1604	4								13:00															
Mw1805	5								13:05															
Mw2106	6								12:50															
Mw2207	7								12:35															
Mw2308	8								12:20															
*1833H	9								10:45															
*17197Vm	10								11:35															
*17349Vm	11								11:15															
*17372Vm	12								10:40															

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks

*RUN EPA 8060 ON THIS WELLS W/ MTBE GREATER THAN 35 PPB

Lab number L903136

Turnaround time

Condition of sample:

Relinquished by sampler [Signature]

Relinquished by [Signature] Date 3-15-99 Time 10:00

Relinquished by [Signature] Date 3/16/99 Time 10:30

Relinquished by [Signature] Date 3-16-99 Time

Temperature received:

Received by [Signature] Date 3/16/99 Time 12:30

Received by laboratory [Signature] Date 3/16/99 Time 12:30

Priority Rush 1 Business Day

Rush 2 Business Days

Expedited 5 Business Days

Standard 10 Business Days



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APR 08 1999

March 26, 1999

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

RE: Arco(1)/L903153

Dear Shaw Garakani:

Enclosed are the results of analyses for sample(s) received by the laboratory on March 17, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mike Gregory
Project Manager D.M.





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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ANALYTICAL REPORT FOR L903153

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E1A	L903153-01	Water	3/16/99
MW5	L903153-02	Water	3/16/99
MW7	L903153-03	Water	3/16/99
MW8	L903153-04	Water	3/16/99
MW9	L903153-05	Water	3/16/99
MW13	L903153-06	Water	3/16/99
MW24	L903153-07	Water	3/16/99
MW25	L903153-08	Water	3/16/99
MW26	L903153-09	Water	3/16/99





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Sample Description: **EIA**
Laboratory Sample Number: **L903153-01**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030080	3/22/99	3/22/99		2000	3900	ug/l	1
Benzene	"	"	"		20.0	24.5	"	
Toluene	"	"	"		20.0	ND	"	
Ethylbenzene	"	"	"		20.0	41.2	"	
Xylenes (total)	"	"	"		20.0	ND	"	
Methyl tert-butyl ether	"	"	"		200	296	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		94.7	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Sample Description: **MW5**
Laboratory Sample Number: **L903153-02**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030078	3/22/99	3/22/99		50.0	50.9	ug/l	4
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	211	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		84.1	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Sample Description: MW7
Laboratory Sample Number: L903153-03

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030085	3/19/99	3/19/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		84.1	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Sample Description: **MW8**
Laboratory Sample Number: **L903153-04**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030080	3/22/99	3/22/99		500	ND	ug/l	
Benzene	"	"	"		5.00	ND	"	
Toluene	"	"	"		5.00	ND	"	
Ethylbenzene	"	"	"		5.00	ND	"	
Xylenes (total)	"	"	"		5.00	ND	"	
Methyl tert-butyl ether	"	"	"		50.0	625	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		88.4	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Sample Description: MW9
Laboratory Sample Number: L903153-05

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030085	3/19/99	3/19/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		86.5	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Sample Description: **MW13**
Laboratory Sample Number: **L903153-06**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030085	3/19/99	3/19/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		78.7	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Sample Description: **MW24**
Laboratory Sample Number: **L903153-07**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030085	3/19/99	3/19/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		79.9	%	





Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D
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FAX (650) 232-9612

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Sample Description: MW25
Laboratory Sample Number: L903153-08

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030080	3/22/99	3/22/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	26.6	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		94.9	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Sample Description: MW26
Laboratory Sample Number: L903153-09

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9030085	3/19/99	3/19/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		78.6	%	





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9030078			Date Prepared: 3/22/99			Extraction Method: EPA 5030B [P/T]				
Blank			9030078-BLK1							
Purgeable Hydrocarbons as Gasoline	3/22/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		7.99	"	70.0-130	79.9			
LCS			9030078-BS1							
Benzene	3/22/99	10.0		9.78	ug/l	70.0-130	97.8			
Toluene	"	10.0		9.97	"	70.0-130	99.7			
Ethylbenzene	"	10.0		10.5	"	70.0-130	105			
Xylenes (total)	"	30.0		30.9	"	70.0-130	103			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.97	"	70.0-130	99.7			
Matrix Spike			9030078-MS1		L903163-01					
Benzene	3/22/99	10.0	53.9	74.4	ug/l	60.0-140	NR			2
Toluene	"	10.0	28.6	45.1	"	60.0-140	165			
Ethylbenzene	"	10.0	20.5	35.2	"	60.0-140	147			
Xylenes (total)	"	30.0	56.1	93.1	"	60.0-140	123			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.1	"	70.0-130	101			
Matrix Spike Dup			9030078-MSD1		L903163-01					
Benzene	3/22/99	10.0	53.9	70.9	ug/l	60.0-140	170	25.0	18.7	3
Toluene	"	10.0	28.6	43.7	"	60.0-140	151	25.0	8.86	
Ethylbenzene	"	10.0	20.5	34.0	"	60.0-140	135	25.0	8.51	
Xylenes (total)	"	30.0	56.1	91.5	"	60.0-140	118	25.0	4.15	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.0	"	70.0-130	100			
Batch: 9030080			Date Prepared: 3/22/99			Extraction Method: EPA 5030B [P/T]				
Blank			9030080-BLK1							
Purgeable Hydrocarbons as Gasoline	3/22/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.1	"	70.0-130	111			





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS		9030080-BS1								
Benzene	3/22/99	10.0		9.75	ug/l	70.0-130	97.5			
Toluene	"	10.0		9.71	"	70.0-130	97.1			
Ethylbenzene	"	10.0		9.57	"	70.0-130	95.7			
Xylenes (total)	"	30.0		29.8	"	70.0-130	99.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.5	"	70.0-130	115			
Matrix Spike		9030080-MS1								
Benzene	3/22/99	10.0		8.90	ug/l	60.0-140				
Toluene	"	10.0		8.97	"	60.0-140				
Ethylbenzene	"	10.0		6.94	"	60.0-140				
Xylenes (total)	"	30.0		28.8	"	60.0-140				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.5	"	70.0-130	115			
Matrix Spike Dup		9030080-MSD1								
Benzene	3/22/99	10.0		9.92	ug/l	60.0-140			25.0	
Toluene	"	10.0		10.1	"	60.0-140			25.0	
Ethylbenzene	"	10.0		10.4	"	60.0-140			25.0	
Xylenes (total)	"	30.0		30.3	"	60.0-140			25.0	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		12.1	"	70.0-130	121			
Batch: 9030085		Date Prepared: 3/19/99			Extraction Method: EPA 5030B [P/T]					
Blank		9030085-BLK1								
Purgeable Hydrocarbons as Gasoline	3/19/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.89	"	70.0-130	98.9			
LCS		9030085-BS1								
Benzene	3/19/99	10.0		9.24	ug/l	70.0-130	92.4			
Toluene	"	10.0		9.47	"	70.0-130	94.7			
Ethylbenzene	"	10.0		9.70	"	70.0-130	97.0			
Xylenes (total)	"	30.0		28.6	"	70.0-130	95.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.64	"	70.0-130	96.4			
Matrix Spike		9030085-MS1		L903136-08						
Benzene	3/19/99	10.0	ND	9.58	ug/l	60.0-140	95.8			
Toluene	"	10.0	ND	9.71	"	60.0-140	97.1			
Ethylbenzene	"	10.0	ND	9.83	"	60.0-140	98.3			





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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Project: Arco(1) Project Number: Arco 330-006.2L, 608 Project Manager: Shaw Garakani	Sampled: 3/16/99 Received: 3/17/99 Reported: 3/26/99
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike (continued)										
	9030085-MS1		L903136-08							
Xylenes (total)	3/19/99	30.0	ND	29.2	ug/l	60.0-140	97.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.24	"	70.0-130	92.4			
Matrix Spike Dup										
	9030085-MSD1		L903136-08							
Benzene	3/19/99	10.0	ND	9.03	ug/l	60.0-140	90.3	25.0	5.91	
Toluene	"	10.0	ND	9.22	"	60.0-140	92.2	25.0	5.18	
Ethylbenzene	"	10.0	ND	9.31	"	60.0-140	93.1	25.0	5.43	
Xylenes (total)	"	30.0	ND	27.7	"	60.0-140	92.3	25.0	5.27	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.60	"	70.0-130	86.0			





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

Project: Arco(1)
Project Number: Arco 330-006.2L, 608
Project Manager: Shaw Garakani

Sampled: 3/16/99
Received: 3/17/99
Reported: 3/26/99

Notes and Definitions

#	Note
1	Chromatogram Pattern: Gasoline C6-C12
2	Analyses are not controlled on matrix spike RPD and/or percent recoveries when the sample concentration is significantly higher than the spike level.
3	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit.
4	Chromatogram pattern: Unidentified hydrocarbons C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference



ARCO Products Company
Division of AtlanticRichfieldCompany

33000600 Task Order No.

22340

Chain of Custody

ARCO Facility no. 608	City (Facility) 17000 (Spring) Blvd San Jose CA	Project manager (Consultant) SHAW GARAGANI	Laboratory name Seduvia
ARCO engineer Mike Wheeler	Telephone no. (ARCO)	Telephone no. (Consultant) (408) 441-7500	Contract number
Consultant name PACIFIC ENVIRONMENTAL GROUP	Address (Consultant) 2005 GATEWAY PLACE #440 SAN JOSE CA		

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX 602/EPA 8020	STEX/TPH EPA 8620/8020/8015	TPH Modified 8015 Gas <input type="checkbox"/> Diesel <input type="checkbox"/>	Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/>	TPH EPA 418.1/SMS503E	EPA 601/8010	EPA 624/8240	EPA 825/8270	TCLP Metals <input type="checkbox"/> VOA <input type="checkbox"/> VOA <input type="checkbox"/> Semi <input type="checkbox"/>	CAM Metals EPA 801/7000 TTL <input type="checkbox"/> STL <input type="checkbox"/>	Lead Org/DHS <input type="checkbox"/> Lead EPA 7420/7421 <input type="checkbox"/>	Method of shipment	Special detection Limit/reporting	Special QA/QC	Remarks		
			Soil	Water	Other	Ice	Acid																			
EIA-01		3		W				3/16/99	10:45		X															
MW5-02									10:40																	
MW7-03									9:40																	
MW8-04									10:15																	
MW9-05									9:05																	
MW13-06									10:00																	
MW14-07									8:35																	
MW15-08									9:25																	
MW16-09									8:50																	

Condition of sample:	Temperature received:	Lab number L903153
Relinquished by sampler <i>[Signature]</i>	Date 3/16/99 Time 14:00	Turnaround time
Relinquished by <i>[Signature]</i>	Date 3/17/99 Time 10:15	Priority Rush 1 Business Day <input type="checkbox"/>
Relinquished by <i>[Signature]</i>	Date 3/17/99 Time 12:49	Rush 2 Business Days <input type="checkbox"/>
		Expedited 5 Business Days <input type="checkbox"/>
		Standard 10 Business Days <input checked="" type="checkbox"/>

MAR 19 1999

FIELD SERVICES / O & M REQUEST

SITE INFORMATION FORM

Project #:330-006.2L 1st time visit

Station #:0608 1st 2nd 3rd 4th Date of Request: 1Q99

Site Address: 17601 Hesperian Blvd. Monthly Ideal Field Date: 3/15,16
 San Lorenzo, California Semi-Monthly Purge water 27.75 + 50 gal / DECON

County:Alameda Weekly Budget Hrs. _____

Project Manager: Shaw Garakani One time Event Actual Hrs. 16 321

Requestor: Krissy Flesoras Other. _____ Mob de Mob _____

Client: Arco Client P.O.C.: M. Whelan. Total Wells _____

Prefield contacts: All Homeowners are to be contacted 1-2 weeks in advance of arrival.

Field Tasks: For General Description

Quarterly Monitoring Event. Measure TOB/TOC, and DO. Purge all wells, irrigation wells for at least 15 minutes before sampling. Also record time when purging starts and when purging is stopped. Instruct Sequoia to run EPA 8260 on homeowner wells with MtBE greater than 35 ppb. Attempt to sample all homeowner wells and if wells are non-operational, note the problem as best as you can and what it would take to repair pump/well. Sample homeowner wells on March 15, 1999.

WA#22340

Comments, remarks, from Field Staff (include problems encountered)

TASK Completed per protocol

Completed by: [Signature]

Date: 3-15-16-99

Checked by: _____

WELL SAMPLING REQUEST

SAMPLING PROTOCOL										
Project No.	Station #	Project Name	SEQUENCE	Project Manager	Approval	Date/s	Laboratory:		Client Engineer:	
330-006.2L	608	17601 Hesperian, San Lorenzo	1Q99	Shaw Garakani			Sequoia	22340	Mike Wheilan	

Well Number	Ideal Sampling Order	Sample I.D.	Sampling Frequency	Analyses	TOB TOC	Well Depth	Top of Screen	Casing Diameter	Well goes Dry?	Comments
MW-5	16		QLY	MIBE/GAS/BTEX	TOB/TOC	14		4"	YES	Please repair or replace
MW-7	15		QLY	MIBE/GAS/BTEX	TOB/TOC	19		3"	NO	missing or broken locks, j-plugs,
MW-8	17		QLY	MIBE/GAS/BTEX	TOB/TOC	22		3"	NO	slip caps, lid bolts ect. Please
MW-9	14		QLY	MIBE/GAS/BTEX	TOB/TOC	19		3"	YES	note any repairs performed or that
MW-10	18		QLY	MIBE/GAS/BTEX	TOB/TOC	22		3"	YES	need to be performed.
MW-11	10		QLY	MIBE/GAS/BTEX	TOB/TOC	19		3"	YES	
MW-13	9		QLY	MIBE/GAS/BTEX	TOB/TOC	23.5		3"	YES	
MW-14	8		QLY	MIBE/GAS/BTEX	TOB/TOC	24		3"	YES	
MW-15	7		QLY	MIBE/GAS/BTEX	TOB/TOC	24		3"	YES	
MW-16	6		QLY	MIBE/GAS/BTEX	TOB/TOC	23		3"	YES	
MW-18	5		QLY	MIBE/GAS/BTEX	TOB/TOC	22		3"	YES	
MW-19	4		QLY	MIBE/GAS/BTEX	TOB/TOC	22		3"	YES	
MW-21	3		QLY	MIBE/GAS/BTEX	TOB/TOC	22		3"	YES	
MW-22	2		QLY	MIBE/GAS/BTEX	TOB/TOC	22		3"	YES	
MW-23	1		QLY	MIBE/GAS/BTEX	TOB/TOC	22		3"	YES	
MW-24	11		QLY	MIBE/GAS/BTEX	TOB/TOC	20		2"	YES	
MW-25	12		QLY	MIBE/GAS/BTEX	TOB/TOC	21		2"	YES	
MW-26	13		QLY	MIBE/GAS/BTEX	TOB/TOC	20		2"	YES	
E-1A	19		QLY	MIBE/GAS/BTEX	TOB/TOC	26		?	YES	

Summary of Domestic Wells Sampling Contacts
 ARCO Service Station #0608
 17601 Hesperian, San Lorenzo

CALL AT LEAST ONE WEEK IN ADVANCE OF EVENT EACH QUARTER
 Document with copy of this log in project file
 DOCUMENT EVENT WITH A SAMPLING FORM FROM ALL HOMES WHETHER SAMPLED OR
 NOT!!!!!!!!!!!!!!!

Quarter calling for	Address	Contact Name Phone #	Date Contacted	Pump Assessment	Notes
AUG 27 98	590 Hacienda	Mr. & Mrs. Silva (510) 276-1534		operational	Need homeowner there to sample. Well in backyard.
SEP 18 98					Knock first. Sample early-mid morn. Well in backyard.
1Q99					3/3 No Answer. 3/9 No Answer. 3/12 No Answer. <i>No access. NO ONE HOME</i>

AUG 27 98	633 Hacienda	Mr. Dahmann (510) 276-3860		operational	Well redeveloped with new pump as of 10/7/94. No access unless someone is home.
SEP 18 98					Well redeveloped with new pump as 10/7/94. Okay to sample anytime.
1Q99					3/3 No answer. 3/9 No Answer. 3/12 No Answer. He has no message machine.

AUG 27 98	642 Hacienda	Ms. Corregedor (510) 481-1063	Don't Call Not authorized	operational	Won't allow access.
SEP 18 98					Message 09/14-16/98. Unable to be contacted.
1Q99					Contacted 3/3. Okay to sample anytime. <i>No Access. No one HOME</i>

AUG 27 98	675 Hacienda	Mr. & Mrs. Roberts (510) 276-7389		non-operational	Okay to enter 1st shed on the right (must use entry gate @ right side of house) to obtain sample, if not home. PLEASE LOCK GATE ON YOUR WAY OUT!!!
SEP 18 98					Message 09/14-16/98. Unable to be contacted.
1Q99					3/10 Message. Okay to sample anytime. <i>Pump not working NEED PRESS. tank & power to pump</i>

AUG 27 98	17348 Via Encinas	Mr. Luehrs (510)278-9059		non operational	Ok to enter backyard and grab bailer sample if resident not home; KNOCK FIRST.
SEP 18 98					Attempt to sample in the morning on Sep. 21 st . Knock first so that the dog can be leashed
1Q99					3/10 message. Okay to sample before 11:30 on March 15. <i>No Access. AM NO ONE HOME</i>

AUG 27 98	17197 Via Magdalena	Mr. Schrag (510) 278-1904		operational	Grab sample off hose bib on front porch. Call him before heading to site to turn on hose bib to purge.
SEP 18 98					Ok to sample anytime.
1Q99					3/3. Okay to sample anytime.

AUG 27 98	17200 Via Magdalena	Cavalry Church (510) 278-2555	not need call	non-operational	Well destroyed. Has been built over with a classroom.
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AUG 27 98	17203 Via Magdalena	Mrs. Toles (510) 276-6797		operational	AFTER 10AM ONLY!!! OK to enter back yard and sample if not home; KNOCK FIRST! Pump not working.
SEP 18 98					Okay to enter anytime. Pump not working 2Q98 possibly due to an obstruction. If pump does not work 3Q98, then let homeowner know so that she can get somebody to fix it.
1Q99					3/3. Okay to sample anytime. <i>Pump not working</i>

AUG 27 98	17302 Via Magdalena	Mr. & Mrs. Johanson (510) 278-5987		non-operational	Foot valve broken--no pressure & not holding it's prime. Call before next sampling to see if fixed.
SEP 18 98					Pump still non-operational. Foot valve is not the problem. Has not been fixed due to lack of funds.
1Q99					3/3. Owner said that the well is non-operational and needs a new pump. Has not had the money to replace it. Not authorized to enter property or sample.

AUG 27 98	17349 Via Magdalena	Mr. Kast (510)278-1263		operational	OK to enter back yard and sample if not home; well shed in back yard; KNOCK FIRST!
SEP 18 98					Ok to enter backyard and sample anytime
1Q99					3/3. Okay to sample anytime.

AUG 27 98	17371 Via Magdalena	Mr. Manry (510) 317-9724	Don't Call Not authorized	operational	Won't allow access.
SEP 18 98					won't allow access (past attempts). No answer, 9/14-16/98.
1Q99					3/3 No Answer. 3/9 No Answer. 3/12 No Answer. Won't allow access in past attempts. <i>NO ACCESS</i>

AUG 27 98	17372 Via Magdalena	Mr. Pimental (510) 278-6304		operational	Authorization to enter & start anytime. Sampled from hose bib in back yard; resident is usually using the hose when you get there. CALL FIRST!
SEP 18 98					Okay to sample anytime. Sampled from hose bib in backyard.
1Q99					3/3. Okay to sample anytime.

AUG 27 98	17393 Via Magdalena	Mr. James Whaley (510) 278-5576	Don't Call well cov'd over	non-operational	Pump disassembled & well covered over. No access due to new fence. WELL ABANDONED 7/97!
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FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN DATE: 3-15-99
 CLIENT/STATION NO.: ARCO/0608 FIELD TECHNICIAN: RE DAY OF WEEK: Mon

PROBE TYPE/ID No.
 Oil/Water IF/ _____
 H₂O level indicator _____
 Other: _____

Dtw 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	H ₂ O		
											COLOR												
	MW5	9:17	-	-	-	-	-	14.00	10.65 / 10.65	11.05 / 4.05													
	MW7	10:53	-	-	-	-	-	19.00	10.65 / 10.65	11.10 / 11.10													
	MW8	9:55	-	-	-	-	-	22.00	9.15 / 9.15	10.00 / 10.00													
	MW9	9:39	-	-	-	-	-	19.00	8.55 / 8.55	9.10 / 9.10													
	MW10	9:31	-	-	-	-	-	22.00	8.68 / 8.68	9.30 / 9.30													
	MW11	9:28	-	-	-	-	-	19.00	9.65 / 9.65	10.05 / 10.05													
	MW13	9:58	-	-	-	-	-	23.5	12.15 / 12.15														
	MW14	9:24	-	-	-	-	-	21.00	7.90 / 7.90	8.20 / 8.20													
	MW15							24.00															

Comments: _____

MW 15 COVER BY CAR CLEAR 3/5/10-99

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-006-2L LOCATION: 17601 HESPERIAN BLVD DATE: 3-15-99
 CLIENT/STATION NO.: ARC010608 FIELD TECHNICIAN: JAN [unclear] FE DAY OF WEEK: MON

PROBE TYPE/ID No.

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

Dtw 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	H ₂ O			
										COLOR															
	MW-16	9:20	-	-	-	-	-	23.00	9.85 9.85	10.30 10.30															
	MW-17																								
	MW-18	9:18	-	-	-	-	-	22.00	8.90 8.90	9.20 9.20															
	MW-19							22.00																	
	MW-20																								
	MW-21	9:15	-	-	-	-	-	22.00	8.60 8.60	9.10 9.10															
	MW-22	9:14	-	-	-	-	-	22.00	9.10 9.10	9.67 9.67															
	MW-23	9:08	-	-	-	-	-	22.00	10.55 10.55	10.82 10.82															
	E1-A	10:05	-	-	-	-	-	26.00	8.65 8.65	10.25 10.25															

Comments: MW 19 CAR PARK ON TOP. CHECK 3/15-16/99

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-006.2 L LOCATION: 17601 HESPERIAN RD DATE: 3-15-99
 CLIENT/STATION NO.: ARCO/1608 FIELD TECHNICIAN: SAJ HUNTER DAY OF WEEK: MOND.

PROBE TYPE/ID No.

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

Dtw 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)						LIQUID REMOVED (gallons) SPH / H ₂ O			
											SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	Fresh	Weathered	Gas	Oil		VISCOSITY		
																		Light	Medium	Heavy
							COLOR													
	MW24	9:35	-	-	-	-	-	21.00	11.03 11.08	11.58 11.58										
	MW25	9:50	-	-	-	-	-	21.00	10.20 10.85	10.78 10.78										
	MW26	9:37	-	-	-	-	-	20.00	10.40 10.40	10.86 10.86										

Comments: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-5
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

WELL INFORMATION

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

CASING DIAMETER

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

GAL/ LINEAR FT.

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 1100 DTW 1065 = 3.35 x Gal/Linear Foot 0.38 = 1.27 x Number of Casings 3 = Calculated Purge 381

DATE PURGED: 3 16 99 START: 10:29 END (2400 hr): _____ PURGED BY: PE
 DATE SAMPLED: 3 16 99 START: 10:40 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>10:32</u>	<u>1.25</u>	<u>7.78</u>	<u>1090</u>	<u>60.9</u>	<u>CLEAR</u>	<u>Mod</u>	<u>Faint</u>
<u>10:34</u>	<u>2.5</u>	<u>7.10</u>	<u>1080</u>	<u>60.9</u>	<u>CLEAR</u>	<u>Mod</u>	<u>Faint</u>
<u>10:36</u>	<u>3.45</u>	<u>7.31</u>	<u>1090</u>	<u>61.1</u>	<u>CLEAR</u>	<u>Mod</u>	<u>Faint</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 _____

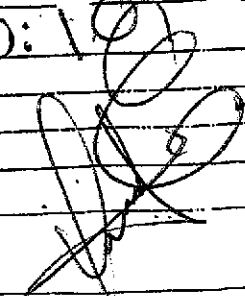
PURGING EQUIPMENT/I.D. #

Bailor: _____
 Centrifugal Pump: _____
 Other: _____
 Airlift Pump: _____
 Dedicated: _____

SAMPLING EQUIPMENT/I.D. #

Bailor: 1580
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-5</u>	<u>3-16-99</u>	<u>10:40</u>	<u>3</u>	<u>40ml</u>	<u>VQA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 10

 SIGNATURE: _____



FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-7
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

WELL INFORMATION

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 checked="" 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 19.00 DTW 10.65 $8.35 \times \text{Foot } 0.38 = 3.17$ Gal/Linear x Casings 3 = Purge 9.51

DATE PURGED: 3 16 99 START: 9:28 END (2400 hr): _____ PURGED BY: PE
 DATE SAMPLED: 3 16 99 START: 9:40 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. ($\mu\text{mhos/cm @ } 25^\circ\text{C}$)	TEMPERATURE ($^\circ\text{F}$)	COLOR	TURBIDITY	ODOR
<u>9:31</u>	<u>3</u>	<u>7.55</u>	<u>1010</u>	<u>60.0</u>	<u>cloudy</u>	<u>Mod</u>	<u>None</u>
<u>9:34</u>	<u>0</u>	<u>7.50</u>	<u>1030</u>	<u>61.5</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</u>
<u>9:37</u>	<u>9</u>	<u>7.3</u>	<u>1000</u>	<u>61.8</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</u>

Pumped dry Yes No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #

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

SAMPLING EQUIPMENT/I.D. #

- Bailor: 15-17
- Dedicated: _____
- Other: _____

Cobalt 0-100 Clear Cloudy Yellow Brown	NTU 0-200 Heavy Moderate Light Trace	Strong Moderate Faint None
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SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-7</u>	<u>3-16-99</u>	<u>9:40</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: NA 00

[Handwritten Signature]

SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-8
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

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

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

TD 22.00 DTW 9.15 = 1285 Gal/Linear Foot 0.38 = 488 x Casings 3 = Purge 1401

DATE PURGED: 3 16 99 START: 10:09 END (2400 hr): _____ PURGED BY: PE
 DATE SAMPLED: 3 16 99 START: 10:15 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>10:09</u>	<u>9.25</u>	<u>7.38</u>	<u>1100</u>	<u>61.3</u>	<u>Clear</u>	<u>Mod</u>	<u>None</u>
<u>10:10</u>	<u>9.5</u>	<u>7.33</u>	<u>1100</u>	<u>62.5</u>	<u>Clear</u>	<u>light</u>	<u>None</u>
<u>10:13</u>	<u>14.5</u>	<u>7.14</u>	<u>1070</u>	<u>63.2</u>	<u>Clear</u>	<u>light</u>	<u>None</u>

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

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

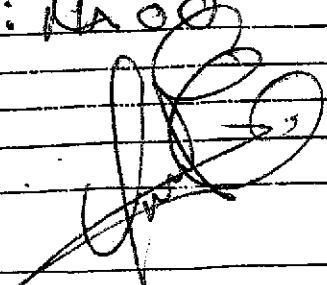
PURGING EQUIPMENT/I.D. #

Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D. #

Bailor: 15-19
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-8</u>	<u>3-16-99</u>	<u>10:15</u>	<u>3</u>	<u>40ml</u>	<u>VCA</u>	<u>HCL</u>	<u>GPB/BTEX</u>

REMARKS: DO: NA 00

 SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-9
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

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

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

GAL/ LINEAR FT.

SAMPLE TYPE

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

TD 1900 DTW 8.55 = 10.45 Gal/Linear Foot 0.38 = 3.97 x Casings 3 = Purge 11.91 Calculated

DATE PURGED: 3 16 99 START: 8:55 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3 16 99 START: 9:05 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>8:58</u>	<u>4</u>	<u>7.83</u>	<u>1120</u>	<u>69.0</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</u>
<u>9:01</u>	<u>8</u>	<u>7.00</u>	<u>1150</u>	<u>60.9</u>	<u>Cloudy</u>	<u>Light</u>	<u>None</u>
<u>9:04</u>	<u>10</u>	<u>7.09</u>	<u>1150</u>	<u>61.6</u>	<u>Cloudy</u>	<u>Light</u>	<u>None</u>

Pumped dry Yes No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #

Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D. #

Bailor: 15-13
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-9</u>	<u>3-16-99</u>	<u>9:05</u>	<u>3</u>	<u>40ml</u>	<u>VQA</u>	<u>HCL</u>	<u>GPB/BTEX</u>

REMARKS: DO: 20

SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-10
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

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

CASING
DIAMETER **GAL/**
LINEAR FT.
 2 _____ 0.17
 3 _____ 0.38
 4 _____ 0.66
 4.5 _____ 0.83
 5 _____ 1.02
 6 _____ 1.5
 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 2200 - DTW 808 = 1332 Gal/Linear Foot 0.38 = 508 Number of Casings 3 Calculated Purge 1518

DATE PURGED: 3/5/99 START: 13:50 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3/5/99 START: 14:05 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>13:55</u>	<u>5</u>	<u>7.18</u>	<u>801</u>	<u>61.8</u>	<u>cloudy</u>	<u>light</u>	<u>FAINT</u>
<u>13:58</u>	<u>10</u>	<u>6.61</u>	<u>799</u>	<u>62.2</u>	<u>cloudy</u>	<u>light</u>	<u>FAINT</u>
<u>14:02</u>	<u>15</u>	<u>6.51</u>	<u>801</u>	<u>62.5</u>	<u>cloudy</u>	<u>light</u>	<u>FAINT</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 _____

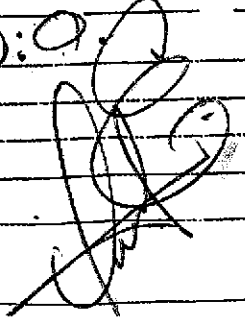
PURGING EQUIPMENT/I.D. #

Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D. #

Bailor: 15-13
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW10</u>	<u>3-16-99</u>	<u>14:05</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 9.0


SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-11
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. QUIZ

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

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

TD 1900 DTW 965 = $9.35 \frac{\text{Gal/Linear Foot}}{\text{Casing}} \times 0.38 = 3.55 \times 3 = 10.65$ Number of Casings 3 Calculated = Purge 1065

DATE PURGED: 3 15 99 START: 1338 END (2400 hr): _____ PURGED BY: PE
 DATE SAMPLED: 3 15 99 START: 1350 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
13:41	35	7.45	903	64.9	Cloudy	Mod	None
13:44	7	6.75	887	64.5	Cloudy	Mod	None
13:47	105	6.00	880	64.9	Cloudy	Mod	None

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. #

SAMPLING EQUIPMENT/I.D. #

Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

Bailor: 1512
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-11</u>	<u>3-15-99</u>	<u>13:50</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 10

[Handwritten Signature]

SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-13
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

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 checked="" 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; _____

TD 235 - DTW 12.15 = 11.35 Gal/Linear Foot 0.38 = 4.31 x Number of Casings 3 = Calculated Purge 12.93

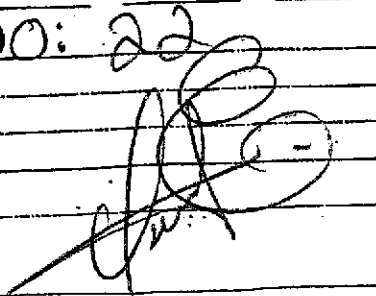
DATE PURGED: 3 16 99 START: 9:40 END (2400 hr): _____ PURGED BY: PE
 DATE SAMPLED: 3 16 99 START: 10:00 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>9:49</u>	<u>4.5</u>	<u>7.35</u>	<u>1110</u>	<u>60.9</u>	<u>Cloudy</u>	<u>Mod</u>	<u>NONE</u>
<u>9:52</u>	<u>9</u>	<u>7.20</u>	<u>1110</u>	<u>61.8</u>	<u>Cloudy</u>	<u>Mod</u>	<u>NONE</u>
<u>9:55</u>	<u>13.5</u>	<u>7.08</u>	<u>1130</u>	<u>63.5</u>	<u>Cloudy</u>	<u>Mod</u>	<u>NONE</u>

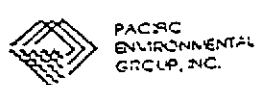
Pumped dry Yes / No
 FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:
 DTW: _____ TOB/TOC _____
 PURGING EQUIPMENT/I.D. #
 Bailor: _____
 Centrifugal Pump: _____
 Other: _____
 Airlift Pump: _____
 Dedicated: _____
 Bailor: 15-10
 Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D. #
 Cobalt 0-100
 Clear
 Cloudy
 Yellow
 Brown
 NTU 0-200
 Heavy
 Moderate
 Light
 Trace
 Strong
 Moderate
 Faint
 None

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-13</u>	<u>3-16-99</u>	<u>10:00</u>	<u>3</u>	<u>40ml</u>	<u>VCA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 2.2


SIGNATURE: _____



FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-14
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

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

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

TD 2100 - DTW 790 = 101 Gal/Linear Foot 038 = 0.11 x Number of Casings 3 = Calculated Purge 1835

DATE PURGED: 3/5/99 START: 13:23 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3/5/99 START: 13:35 END (2400 hr): _____ SAMPLED BY: RE

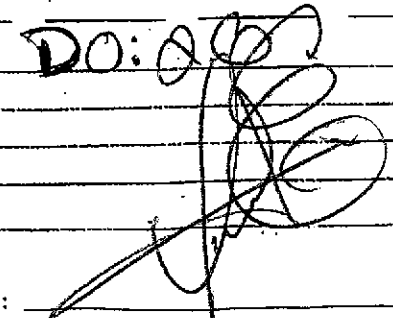
TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>13:29</u>	<u>0</u>	<u>7.24</u>	<u>888</u>	<u>69.4</u>	<u>Cloudy</u>	<u>mod</u>	<u>None</u>
<u>13:30</u>	<u>12</u>	<u>6.93</u>	<u>879</u>	<u>63.9</u>	<u>Cloudy</u>	<u>mod</u>	<u>None</u>
<u>13:33</u>	<u>10</u>	<u>6.75</u>	<u>883</u>	<u>69.0</u>	<u>Cloudy</u>	<u>mod</u>	<u>None</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: 15-10
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-14</u>	<u>3-15-99</u>	<u>13:35</u>	<u>3</u>	<u>40ml</u>	<u>VQA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 2.0


FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-16
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

WELL INFORMATION

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

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

CASING DIAMETER GAL/LINEAR FT.
 2 _____ 0.17
 3 _____ 0.38
 4 _____ 0.66
 4.5 _____ 0.83
 5 _____ 1.02
 6 _____ 1.5
 8 _____ 2.6

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

TD 2300 - DTW 985 = 1315 Gal/Linear Foot 0.38 = 499 x Number of Casings 3 = Purge 1497

DATE PURGED: 3/15/99 START: 1300 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3/15/99 START: 1300 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>13:11</u>	<u>5</u>	<u>7.33</u>	<u>805</u>	<u>63.7</u>	<u>cloudy</u>	<u>1.00</u>	<u>None</u>
<u>13:14</u>	<u>10</u>	<u>6.99</u>	<u>805</u>	<u>63.8</u>	<u>cloudy</u>	<u>1.00</u>	<u>None</u>
<u>13:17</u>	<u>15</u>	<u>6.72</u>	<u>776</u>	<u>63.8</u>	<u>cloudy</u>	<u>1.00</u>	<u>None</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. #

Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D. #

Bailor: 15-5
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-16</u>	<u>3/15/99</u>	<u>13:20</u>	<u>3</u>	<u>40ml</u>	<u>VQA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 3.9

SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-18
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

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

CASING
DIAMETER **GAL/**
LINEAR FT.
 2 _____ 0.17
 3 _____ 0.38
 4 _____ 0.66
 4.5 _____ 0.83
 5 _____ 1.02
 6 _____ 1.5
 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 2200 DTW 8.90 = 13.1 Gal/Linear Foot 0.38 = 1.99 Number of Casings 3 Calculated = Purge 1.93

DATE PURGED: 3/15/99 START: 12:54 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3/15/99 START: 13:05 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>12:54</u>	<u>5</u>	<u>6.98</u>	<u>909</u>	<u>63.8</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</u>
<u>13:00</u>	<u>10</u>	<u>6.65</u>	<u>914</u>	<u>64.4</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</u>
<u>13:03</u>	<u>15</u>	<u>6.63</u>	<u>916</u>	<u>64.5</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</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 _____

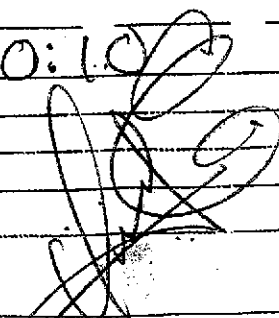
PURGING EQUIPMENT/I.D. #

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

SAMPLING EQUIPMENT/I.D. #

Bailer: 15-3
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-18</u>	<u>3-15-99</u>	<u>13:05</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GA5/BTEX</u>
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

REMARKS: DO: 1.0


SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006 2L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-21
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

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 checked="" 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: _____

TD 221.00 DTW 8.00 = 13.4 Gal/Linear x Foot 0.38 = 509 x Casings 3 = Purge 1507

DATE PURGED: 3/13/99 START: 12:30 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3/16/99 START: 12:50 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>12:39</u>	<u>5</u>	<u>7.05</u>	<u>997</u>	<u>62.0</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</u>
<u>12:40</u>	<u>10</u>	<u>6.73</u>	<u>892</u>	<u>63.5</u>	<u>Cloudy</u>	<u>Light</u>	<u>None</u>
<u>12:45</u>	<u>15</u>	<u>6.07</u>	<u>915</u>	<u>65.1</u>	<u>Clear</u>	<u>Light</u>	<u>None</u>

Pumped dry Yes No

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

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #

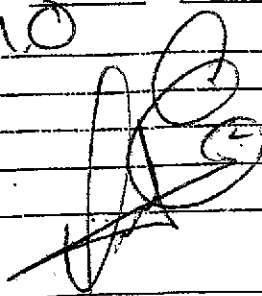
- Bailor: _____
- Centrifugal Pump: _____
- Other: _____
- Airlift Pump: _____
- Dedicated: _____

SAMPLING EQUIPMENT/I.D. #

- Bailor: 15-1
- Dedicated: _____
- Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-21</u>	<u>3/16/99</u>	<u>12:50</u>	<u>3</u>	<u>40ml</u>	<u>VGA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 1.0



SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-22
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

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

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

CASING
DIAMETER _____ **GAL/**
LINEAR FT. _____
 2 _____ 0.17
 3 _____ 0.38
 4 _____ 0.66
 4.5 _____ 0.83
 5 _____ 1.02
 6 _____ 1.5
 8 _____ 2.6

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

TD 22.00 DTW 9.10 = 1060 Gal/Linear x Foot 0.38 = 4.78 x Casings 3 = Purge 14.36

DATE PURGED: 3/15/99 START: 12:25 END (2400 hr): _____ PURGED BY: PE
 DATE SAMPLED: 3/15/99 START: 12:35 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>12:28</u>	<u>1.5</u>	<u>8.82</u>	<u>867</u>	<u>61.6</u>	<u>Clear</u>	<u>Mod</u>	<u>None</u>
<u>12:31</u>	<u>9.5</u>	<u>8.68</u>	<u>817</u>	<u>61.9</u>	<u>Clear</u>	<u>light</u>	<u>None</u>
<u>12:34</u>	<u>14.25</u>	<u>8.61</u>	<u>816</u>	<u>62.1</u>	<u>Clear</u>	<u>light</u>	<u>None</u>

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

Pumped dry Yes No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

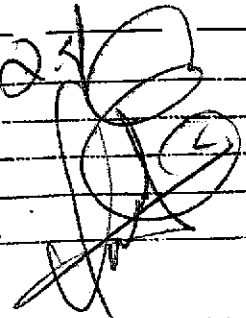
PURGING EQUIPMENT/I.D. #

Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

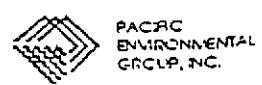
SAMPLING EQUIPMENT/I.D. #

Bailor: 15-0
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-22</u>	<u>3/15/99</u>	<u>12:35</u>	<u>3</u>	<u>40ml</u>	<u>VCA</u>	<u>HCL</u>	<u>GA5/BTEX</u>

REMARKS: DO: 2.1


SIGNATURE: _____



FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006 2L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-23
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. QUIZ

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 LINEAR FT.
 2 _____ 0.17
 3 _____ 0.38
 4 _____ 0.66
 4.5 _____ 0.83
 5 _____ 1.02
 6 _____ 1.5
 8 _____ 2.6

SAMPLE TYPE

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

TD 0200 DTW 10.55 = 11.55 Gal/Linear Foot 0.38 = 4.35 x Casings 3 = Purge 1305

DATE PURGED: 3/16/99 START: 10:08 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 3/15/99 START: 12:20 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>12:11</u>	<u>9.05</u>	<u>6.60</u>	<u>1140</u>	<u>63.1</u>	<u>Cloudy</u>	<u>light</u>	<u>None</u>
<u>12:14</u>	<u>8.5</u>	<u>6.10</u>	<u>955</u>	<u>62.9</u>	<u>Cloudy</u>	<u>light</u>	<u>None</u>
<u>12:17</u>	<u>12.75</u>	<u>6.13</u>	<u>945</u>	<u>62.9</u>	<u>Cloudy</u>	<u>light</u>	<u>None</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 _____

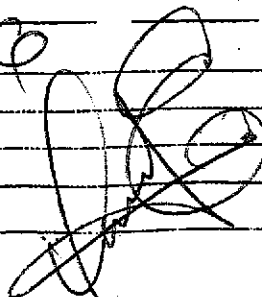
PURGING EQUIPMENT/I.D. #

Bailor: _____
 Centrifugal Pump: _____
 Other: _____
 Airlift Pump: _____
 Dedicated: _____

SAMPLING EQUIPMENT/I.D. #

Bailor: 15-1
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-23</u>	<u>3-15-99</u>	<u>12:20</u>	<u>3</u>	<u>40ml</u>	<u>VCA</u>	<u>HCL</u>	<u>GPS/BTEX</u>
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

REMARKS: DO:20


SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006 2L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-04
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. QUIZ

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

SAMPLE TYPE

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

TD 21.00 DTW 11.28 = 9.72 Gal/Linear x Foot 0.17 = 1.65 Number of Casings 3 Calculated = Purge 1.95

DATE PURGED: 3 16 99 START: 8:25 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3 16 99 START: 8:35 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>8:28</u>	<u>1.15</u>	<u>7.38</u>	<u>1230</u>	<u>60.8</u>	<u>Cloudy</u>	<u>Mod</u>	<u>NONE</u>
<u>8:31</u>	<u>3.5</u>	<u>7.25</u>	<u>1230</u>	<u>60.7</u>	<u>Cloudy</u>	<u>Mod</u>	<u>NONE</u>
<u>8:34</u>	<u>5.05</u>	<u>7.15</u>	<u>1290</u>	<u>61.5</u>	<u>Cloudy</u>	<u>Mod</u>	<u>NONE</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: _____
 Centrifugal Pump: _____
 Other: _____
 Airlift Pump: _____
 Dedicated: _____

SAMPLING EQUIPMENT/I.D. #

Bailer: 15-12
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-04</u>	<u>3-16-99</u>	<u>8:35</u>	<u>3</u>	<u>40ml</u>	<u>VDA</u>	<u>HCL</u>	<u>GPB/BTEX</u>

REMARKS: DO: NA 0.00

SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-25
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

WELL INFORMATION

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

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

CASING DIAMETER	GAL/ LINEAR FT.
<input type="checkbox"/> 2	0.17
<input checked="" 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: _____

TD 2100 DTW 1005 = 10.15 x Foot 0.29 = 1.82 Gal/Linear x Casings 3 = Purge 5.48 Calculated

DATE PURGED: 3 16 99 START: 9:11 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3 16 99 START: 9:25 END (2400 hr): _____ SAMPLED BY: RE

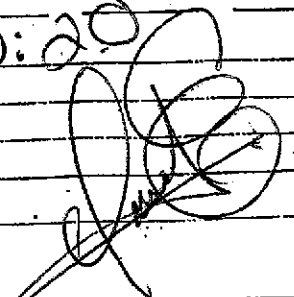
TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>9:14</u>	<u>175</u>	<u>7.85</u>	<u>1120</u>	<u>59.3</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</u>
<u>9:17</u>	<u>35</u>	<u>7.51</u>	<u>1130</u>	<u>59.7</u>	<u>Cloudy</u>	<u>Light</u>	<u>None</u>
<u>9:20</u>	<u>505</u>	<u>7.35</u>	<u>1140</u>	<u>60.1</u>	<u>Cloudy</u>	<u>Light</u>	<u>None</u>

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

PURGING EQUIPMENT/I.D. #
 Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D. #
 Bailor: 15-19
 Dedicated: _____
 Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-25</u>	<u>3-16-99</u>	<u>9:25</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 20

 SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006 2L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-26
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

WELL INFORMATION

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

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

CASING DIAMETER	GAL/ LINEAR FT.
<input type="checkbox"/> 2	0.17
<input checked="" 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: _____

TD 2000 DTW 10.40 = 9.6 Gal/Linear 0.38 x Foot 1.03 = 1.03 x Casings 3 = Calculated Purge 489

DATE PURGED: 3 16 99 START: 8:40 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 3 16 99 START: 8:50 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>8:43</u>	<u>1.75</u>	<u>7.80</u>	<u>1070</u>	<u>60.5</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</u>
<u>8:45</u>	<u>3.5</u>	<u>7.55</u>	<u>1050</u>	<u>60.7</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</u>
<u>8:48</u>	<u>5.25</u>	<u>7.39</u>	<u>1070</u>	<u>60.2</u>	<u>Cloudy</u>	<u>Mod</u>	<u>None</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. #

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

SAMPLING EQUIPMENT/I.D. #

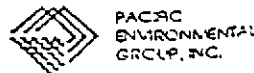
- Bailor: 15-10
- Dedicated: _____
- Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-26</u>	<u>3-16-99</u>	<u>8:50</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 1.0

[Handwritten Signature]

SIGNATURE: _____



FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: WELL-A
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. QUIZ

WELL INFORMATION

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

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

CASING DIAMETER	GAL/LINEAR FT.
<input type="checkbox"/> 2	0.17
<input checked="" 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 checked="" 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 2600 - DTW 865 = 1735 Gal/Linear Foot 1.5 = 2600 Number of Casings 3 = Purge 7807

DATE PURGED: 3 16 99 START: 10:20 END (2400 hr): PURGED BY: PE
 DATE SAMPLED: 3 16 99 START: 10:45 END (2400 hr): SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
<u>10:26</u>	<u>20</u>	<u>7.00</u>	<u>1000</u>	<u>64.2</u>	<u>CLEAR</u>	<u>Light</u>	<u>FAINT</u>
<u>10:32</u>	<u>52</u>	<u>6.93</u>	<u>939</u>	<u>64.9</u>	<u>CLEAR</u>	<u>Light</u>	<u>FAINT</u>
<u>10:38</u>	<u>78</u>	<u>6.84</u>	<u>1080</u>	<u>65.3</u>	<u>CLEAR</u>	<u>Light</u>	<u>FAINT</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

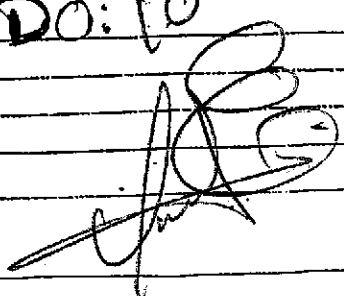
PURGING EQUIPMENT/I.D. #

- Bailor:
- Centrifugal Pump:
- Other:
- Airlift Pump:
- Dedicated:

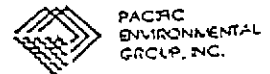
SAMPLING EQUIPMENT/I.D. #

- Bailor: 15-13
- Dedicated:
- Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>WELL-A</u>	<u>3-16-99</u>	<u>10:45</u>	<u>3</u>	<u>40ml</u>	<u>VQA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 10


SIGNATURE:



FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-633H
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. QUIZ

WELL INFORMATION

CASING

GAL/

DIAMETER

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 _____ - DTW _____ = _____ Gal/Linear x Foot 0.38 = _____ Number of Casings 3 Calculated Purge _____

DATE PURGED: 3/15/99 START: 10:05 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3/15/99 START: 10:05 END (2400 hr): _____ SAMPLED BY: RE

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

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 2.01 1030 63.8 Clear Light None

PURGING EQUIPMENT/I.D. #

SAMPLING EQUIPMENT/I.D. #

Bailor: _____
 Centrifugal Pump: _____
 Other: _____
 Airlift Pump: _____
 Dedicated: _____

Bailor: 15-
 Dedicated: _____
 Other: APAB

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-633H</u>	<u>3/15/99</u>	<u>10:15</u>	<u>3</u>	<u>40ml</u>	<u>VQA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: NA 10:05 10:13
Purge about 90 gal

SIGNATURE: _____



FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-17197VA
SAN LORENZO CA.

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. Ruiz

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

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

TD _____ - DTW _____ = _____ Gal/Linear x Foot 0.38 = _____ Number of 3 Casings = _____ Calculated Purge

DATE PURGED: 3/15/99 START: 11:19 END (2400 hr): _____ PURGED BY: RE
 DATE SAMPLED: 3/15/99 START: 11:35 END (2400 hr): _____ SAMPLED BY: RE

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

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 8.55 8.05 _____ 000 clear light none

PURGING EQUIPMENT/I.D. #

Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D. #

Bailor: 15-
 Dedicated: _____
 Other: Grab

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-17197VA</u>	<u>3-15-99</u>	<u>11:35</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS:

DO: 1.02 TOB/TOC 8.55 8.05 000 clear light none
11:19
11:29

SIGNATURE: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006 2L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-17349
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. QUIZ VM

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 _____ - DTW _____ = _____ Gal/Linear x Foot 0.38 = _____ Number of 3 Casings = Purge _____ Calculated

DATE PURGED: 3 99 START: 10:55 END (2400 hr): _____ PURGED BY: PE
 DATE SAMPLED: 3 15 99 START: 11:15 END (2400 hr): _____ SAMPLED BY: PE

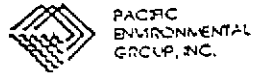
TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR

Pumped dry Yes / No
 FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:
 DTW: _____ TOB/TOC 0.19 803 01.0 Clear Light None

PURGING EQUIPMENT/I.D. #
 Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____
 SAMPLING EQUIPMENT/I.D. #
 Bailor: 15-
 Dedicated: _____
 Other: GRAB

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-17349 VM</u>	<u>3-15-99</u>	<u>11:15</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 3.0 START 10:55 11:10
PURGE 700ml.

SIGNATURE: _____


FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-0062L LOCATION: 17601 HESPERIAN BLVD WELL ID #: MW-1732VM
SAN LORENZO CA.
 CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

CASING

GAL/

DIAMETER

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 _____ - DTW _____ = _____ Gal/Linear x Foot 0.38 = _____ Number of 3 Casings = _____ Calculated Purge

DATE PURGED: 3 99 START: _____ END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 3 15 99 START: 10:40 END (2400 hr): _____ SAMPLED BY: RE

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

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 0.71 819 01.3 clear light none

PURGING EQUIPMENT/I.D. #

Bailor: _____ Airlift Pump: _____
 Centrifugal Pump: _____ Dedicated: _____
 Other: _____

SAMPLING EQUIPMENT/I.D. #

Bailor: 15-
 Dedicated: _____
 Other: ORAB

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
<u>MW-1732VM</u>	<u>3-15-99</u>	<u>10:40</u>	<u>3</u>	<u>40ml</u>	<u>VOA</u>	<u>HCL</u>	<u>GAS/BTEX</u>

REMARKS: DO: 1.0

SIGNATURE: _____

ARCO Products Company
Division of AtlanticRichfieldCompany

3300000000 Task Order No. 20340

Chain of Custody

ARCO Facility no. 6008 City (Facility) 1760 Collier in Bluffs in Berkeley
 Project manager (Consultant) SHAW GREENMAN
 ARCO engineer Mike Wheeler Telephone no. (ARCO) Telephone no. (Consultant) 408)4417500 Fax no. (Consultant) 408)4417539
 Consultant name PACIFIC ENVIRONMENTAL GROUP Address (Consultant) 2005 Gateway place #140 San Jose CA 95110

Laboratory name Sequoia
 Contract number

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX 602/EPA 8020	MTBE BTEX/TPH EPA MS2/6020/8015	TPH Modified 8015 Gas <input type="checkbox"/> Diesel <input type="checkbox"/>	Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/>	TPH EPA 418.1/SM503E	EPA 801/8010	EPA 824/8240	EPA 825/8270	TCLP Metals <input type="checkbox"/> VOA <input type="checkbox"/> VOA <input type="checkbox"/>	CAM Metals EPA 801/7000 TLC <input type="checkbox"/> STLC <input type="checkbox"/>	Lead Org./DHS Lead EPA 7420/7421 <input type="checkbox"/>		
			Soil	Water	Other	Ice	Acid															
Mw10		3		w			4 HCL	3-15-99	10:05		X											
Mw11																						
Mw14																						
Mw16																						
Mw18																						
Mw21																						
Mw22																						
Mw23																						
*1233H																						
*17197Vn																						
*17349Vn																						
*17372Vn																						

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks
 *RUN EPA 80160
 ON THIS WELLS
 W/MTBE
 GRATER THAN
 35 PPB

Lab number

Turnaround time

Condition of sample: [Signature]
 Relinquished by sampler: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]

Date 3-15-99 Time 10:00
 Date Time
 Date Time

Temperature received:
 Received by
 Received by
 Received by laboratory Date Time

Priority Rush 1 Business Day
 Rush 2 Business Days
 Expedited 5 Business Days
 Standard 10 Business Days

