Delta
Environmental
Consultants, Inc.

3164 Gold Camp Drive
Suite 200
Rancho Cordova, CA 95670-6021
U.S.A.
916/638-2085
FAX: 916/638-8385

RECEIVED 6/26/02

STID 744

MAR 28 2002

March 19, 2002

Mr. Paul Supple
ARCO Products Company
P.O. Box 6549
Moraga, CA 94570

Subject: *Quarterly Groundwater Monitoring Report, Fourth Quarter 2001*
ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California
Delta Project No. D000-306

Dear Mr. Supple:

Delta Environmental Consultants, Inc. is submitting the attached report that presents the results of the fourth quarter 2001 groundwater monitoring at ARCO Products Company Service Station No. 2111 located at 1156 Davis Street, San Leandro, California. The monitoring program complies with the Alameda County Health Care Services Agency requirements regarding underground tank investigations.

The interpretations contained in this report represent our professional opinions and are based, in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeological and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions concerning this project, please contact Steven W. Meeks at (916) 536-2613.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Steven W. Meeks, P.E.
Project Manager
California Registered Civil Engineer No. C057461

REGISTERED PROFESSIONAL ENGINEER
STEVEN WHITTEN MEEKS
C 057461
EXP.
CIVIL
STATE OF CALIFORNIA

3/22/02

TLA (LRP010.306.doc)
Enclosures

cc: Mr. Amir Gholami – Alameda County Health Care Services Agency
Mr. Mike Bakaldin, San Leandro Fire Department, Hazardous Materials Program

Date: March 25, 2002

ARCO QUARTERLY GROUNDWATER MONITORING REPORT

Station No.: 2111	Address: 1156 Davis Street, San Leandro, CA
ARCO Environmental Engineer/Phone No.:	Paul Supple 925-299-8891
Consulting Co./Contact Person	Delta Environmental Consultants, Inc. Steven W. Meeks, P.E.
Consultant Project No.:	D000-306
Primary Agency/Regulatory ID No.	Alameda County Health Care Services Agency

WORK PERFORMED THIS QUARTER

1. Performed quarterly groundwater monitoring and sampling for fourth quarter 2001
2. Due to scheduling issues with the vacuum truck supplier, the pump out event occurred on October 19, 2001 during the fourth quarter 2001.
3. Prepared and submitted third quarter 2001 groundwater monitoring report.

WORK PROPOSED FOR NEXT QUARTER

1. Perform quarterly groundwater monitoring and sampling for first quarter 2002.
2. Prepare and submit fourth quarter 2001 groundwater monitoring report.
3. Perform high vacuum dual phase extraction testing at site.

QUARTERLY MONITORING:

Current Phase of Project	Quarterly groundwater monitoring
Frequency of Groundwater Sampling:	Quarterly: MW-2 through MW-7
Frequency of Groundwater Monitoring:	Quarterly (groundwater)
Is Free Product (FP) Present On–Site:	Yes
FP Recovered this Quarter:	Approximately 1.0 gallon
Cumulative FP Recovered to Date:	Approximately 1.98 gallons
Bulk Soil Removed This Quarter:	None
Bulk Soil Removed to Date:	Unknown
Current Remediation Techniques:	Bailing free product as needed
Approximate Depth to Groundwater:	14.42
Groundwater Gradient:	0.003 ft/ft West-Northwest

DISCUSSION:

- A dual phase extraction test has been tentatively scheduled for this site in 2002. In an effort not to affect the test, the fourth quarter well pump out event has been tentatively rescheduled to occur sometime in the late first quarter or early second quarter 2002 period.
- Free Product (LPH) in MW-2 or MW-7 continues to be checked and recovered on a monthly basis by a Delta Technician.

ATTACHMENTS:

- Table 1 Groundwater Elevation and Analytical Data
- Table 2 Groundwater Flow Direction and Gradient
- Table 3 LPH Remediation Ground Water Pumpout Recovery Analytical Data
- Figure 1 Groundwater Analytical Summary Map
- Figure 2 Groundwater Elevation Contour Map
- Appendix A Sampling and Analysis Procedures
- Appendix B Historical Groundwater Elevation Analytical Data Table
  Groundwater Flow Direction and Gradient Table
- Appendix C Certified Analytical Reports with Chain–of–Custody Documentation

TABLE 1

GROUNDWATER ANALYTICAL DATA

ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as Gasoline (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)
MW-1	06/26/00	39.60	16.46	23.14	NA	NA	NA	NA	NA	NA	NA
	07/20/00		16.89	22.71	110	<0.5	<0.5	2.7	360	2,100	NA
	09/19/00		17.62	21.98	76	<0.5	<0.5	2.3	290	1,500	NA
	12/21/00		17.39	22.21	64	2.89	1.31	4.57	257	1,080	1,060
	03/13/01		15.7	23.9	52.5	<5.0	<5.0	<5.0	<500	1,430	1,370
	09/18/01		18.24	21.36	64	7.3	<5.0	52	<500	810	1,100
	12/28/01		15.95	23.65	<5.0	<5.0	5.00	22	<500	1,200	1,100
MW-2	06/26/00	37.99	14.60	23.39[a]	NA	NA	NA	NA	NA	NA	NA
	07/20/00		15.14	22.85	2,300	18,000	2,500	19,000	95,000	13,000	NA
	09/19/00		15.95	22.04	1,200	6,300	2,000	14,000	63,000	19,000	NA
	12/21/00		15.60	22.39	1,090	2,130	1,160	9,460	45,900	22,400	24,700
	12/21/00[b]		NM	NC	360	189	213	626	5,010	54,300	89,200
	03/13/01		13.77	23.9	98.1	<5.0	<5.0	6.42	3,650	3,590	3,260
	3/13/2001[b]		NM	NC	525	466	408	1,460	<20,000	91,700	76,000
	9/18/2001[a]		16.86	21.13	NS	NS	NS	NS	NS	NS	NS
	12/28/01		14.28	23.71	1,500	3,800	1,300	4,800	31,000	9,300	8,800
MW-3	06/26/00	39.32	15.96	23.36	NA	NA	NA	NA	NA	NA	NA
	07/20/00		16.42	22.90	<0.5	<0.5	<0.5	<1.0	<50	130	NA
	09/19/00		17.18	22.14	17	<0.5	1.4	2.4	190	160	NA
	12/21/00		16.97	22.35	17.8	<0.5	2.47	2.5	187	143	125
	03/13/01		15.17	24.15	2.83	<0.5	<0.5	<0.5	72.4	126	122
	09/18/01		17.81	21.51	6.4	<0.5	3.5	1.6	140	110	75
	12/28/01		15.44	23.88	5.9	<0.5	0.99	0.55	130	90	63

TABLE 1

GROUNDWATER ANALYTICAL DATA

ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as Gasoline (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)
MW-4	06/26/00	38.10	14.59	23.51	NA	NA	NA	NA	NA	NA	NA
	07/20/00		15.04	23.06	7.9	<0.5	<0.5	1.1	97	51	NA
	09/19/00		15.83	22.27	7.0	<0.5	<0.5	<1.0	110	60	NA
	12/21/00		15.59	22.51	5.6	<0.5	1.72	<0.5	120	46.3	48.6
	03/13/01		13.73	24.37	0.796	<0.5	<0.5	<0.5	76	53.7	50.0
	09/18/01		16.50	21.59	<0.5	<0.5	<0.5	<0.5	<50	25	26.0
	12/28/01		14.03	24.07	<0.5	<0.5	<0.5	<0.5	<50	15	11.0
MW-5	06/26/00	37.21	14.27	22.94	NA	NA	NA	NA	NA	NA	NA
	07/20/00		14.69	22.52	<0.5	<0.5	<0.5	<1.0	55	14,000	NA
	09/19/00		15.36	21.85	<0.5	<0.5	<0.5	<1.0	54	13,000	NA
	12/21/00		15.15	22.06	2.51	<0.5	<0.5	0.961	72.9	19,200	21,200
	03/13/01		13.5	23.71	<5	<5	<5	<5	<500	15,900	20,000
	09/18/01		15.94	21.27	<100	<100	<100	<1,000	<10,000	22,000	20,000
	12/28/01		13.45	23.76	<100	<100	<100	<100	<10,000	10,000	10,000
MW-6	06/26/00	37.11	13.46	23.65	NA	NA	NA	NA	NA	NA	NA
	07/20/00		13.94	23.17	<0.5	<0.5	<0.5	<1.0	<50	<3.0	NA
	09/19/00		14.41	22.70	<0.5	<0.5	<0.5	<1.0	<50	<3.0	NA
	12/21/00		14.53	22.58	<0.5	<0.5	<0.5	<0.5	<50	<2.5	NA
	03/13/01		12.67	24.44	<0.5	<0.5	<0.5	<0.5	<50	<2.5	NA
	09/18/01		15.42	21.69	<0.5	<0.5	<0.5	<0.5	<50	<2.5	<2.0
	12/28/01		12.96	24.15	<0.5	<0.5	<0.5	<0.5	<50	12	<0.5

TABLE 1

GROUNDWATER ANALYTICAL DATA

ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as Gasoline (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)
MW-7	06/26/00	38.68	14.34	24.34	NA	NA	NA	NA	NA	NA	NA
	07/20/00		15.26	23.42	5.4	<0.5	2.8	5.9	14,000	71,000	NA
	09/19/00		15.70	22.98	420	38	470	220	8,400	5,600	NA
	12/21/00		16.02	22.66	NS[a]	NS[a]	NS[a]	NS[a]	NS[a]	NS[a]	NS[a]
	03/13/01		14.18	24.50	154	63	46.3	127	<2,000	175,000	160,000
	09/18/01		17.02	21.66	1,900	<1,000	<1,000	2,800	<100,000	190,000	370,000
	12/28/01		14.81	23.87	<200	<200	<200	<200	<20,000	84,000	72,000

[a] Product sheen noted

[b] Well was sampled after batch extraction event.

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted

µg/L = Micrograms per liter

NM = Not measured

NC = Not calculated

Note: Please refer to Appendix B for Historical Groundwater Elevation and Analytical Data Tables developed by IT Corporation

TABLE 3

LPH REMEDIATION GROUNDWATER PUMPOUT RECOVERY ANALYTICAL DATA

ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California

Well Number	Date Sampled	Benzene (µg/L)	Toluene (µg/L	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as Gasoline (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Gallons Pumped	Cummulative Gallons
MW-2	09/19/00	1,200	6,300	2,000	14,000	63,000	19,000	NA	2,500	2,500
	12/21/00	1,090	2,130	1,160	9,460	45,900	22,400	24,700	0	2,500
	12/21/00[a]	360	189	213	626	5,010	54,300	89,200	5,000	7,500
	03/13/01	98.1	<5.0	<5.0	6.42	3,650	3,590	3,260	0	7,500
	03/13/01[a]	525	466	408	1,460	<20,000	91,700	76,00	5,000	12,500
	10/19/01	780	1200	350	1,600	12,000	29,000	NA	0	17,500
	10/19/01[a]	200	240	160	480	<10,000	3,000	NA	4,800	22,300
MW-7	09/19/00	420	38	470	720	8,400	5,600	NA	100	100
	12/21/00	NS	NS	NS	NS	NS	NS	NS	0	100
	03/13/01	NS	NS	NS	NS	NS	NS	NS	0	100
	10/19/01	1,100	<1,000	<1,000		<100,000	210,000	NA	0	100
	10/19/01[a]	<500	<500	<500		<50,000	91,000	NA	200	300

[a] Sampled after purging

TPH = Total Petroleum Hydrocarbons
MTBE = Methyl tertiary butyl ether
µg/L = Micrograms per liter
NA = Not Analyzed

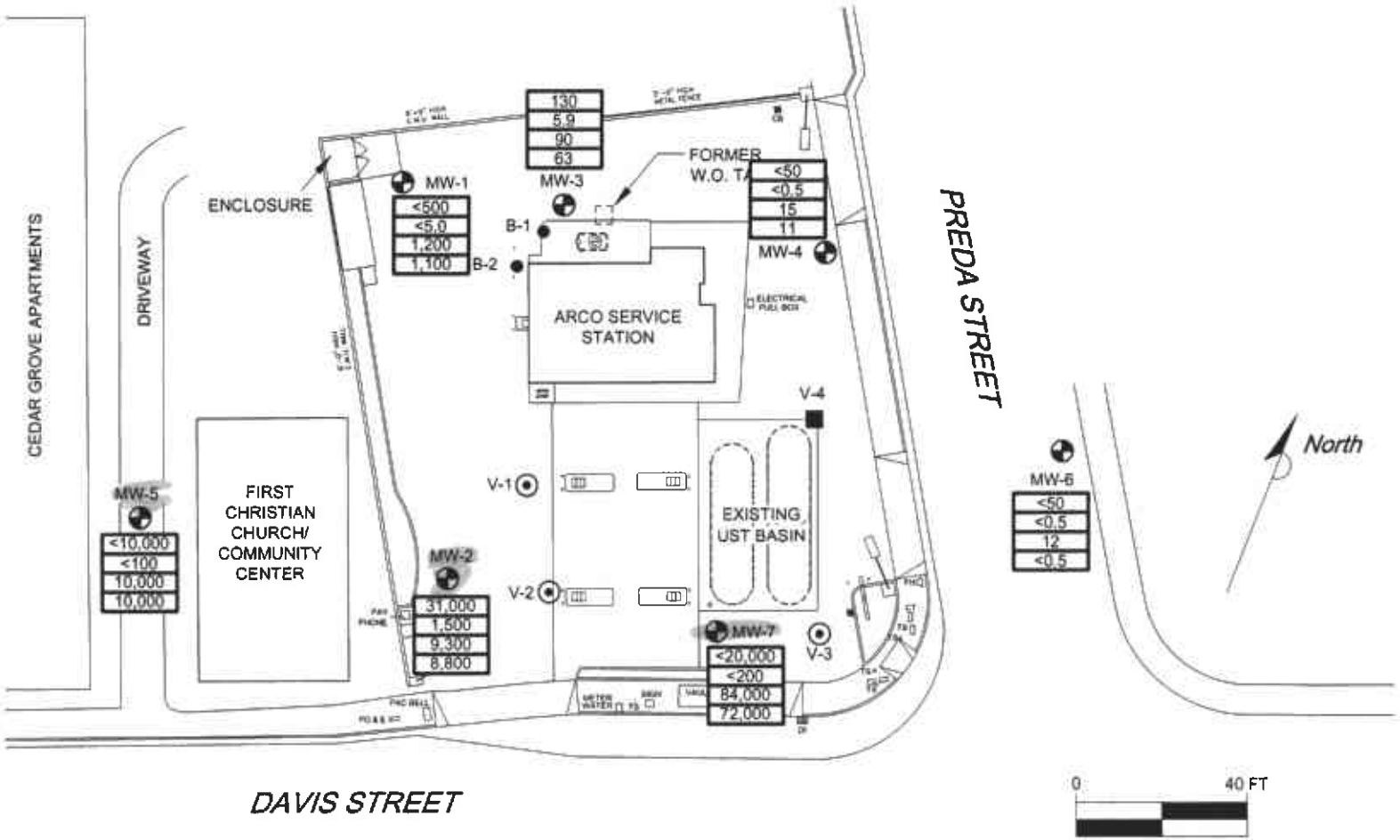
TABLE 2

GROUNDWATER FLOW DIRECTION AND GRADIENT

ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
07/20/00	West-Northwest	0.006
09/19/00	West-Northwest	0.004
12/21/00	West-Northwest	0.004
03/13/01	West-Northwest	0.005
05/30/01	West-Northwest	0.004
09/18/01	West-Northwest	0.003
12/28/01	West-Northwest	0.003

Note: Please refer to Appendix B for Historical Groundwater Elevation and Analytical Data Tables developed by IT Corporation



LEGEND:

MW-1	MONITORING WELL LOCATION
V-1	VAPOR EXTRACTION WELL LOCATION
B-1	SOIL BORING LOCATION
V-4	DESTROYED WELL LOCATION
<50	TPH AS GASOLINE IN MICROGRAMS PER LITER (µg/L)
<0.5	BENZENE IN µg/L
<2.5	MTBE IN µg/L BY EPA METHOD 8020
NA	MTBE IN µg/L BY EPA METHOD 8260
NA	NOT ANALYZED/ NOT APPLICABLE

FIGURE 1
GROUND WATER ANALYTICAL SUMMARY
FOURTH QUARTER 2001 (12/28/01)
ARCO SERVICE STATION NO. 2111
1156 DAVIS STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. D000-306	DRAWN BY TLA 3/12/02
FILE NO. 2111-1	PREPARED BY TLA
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.

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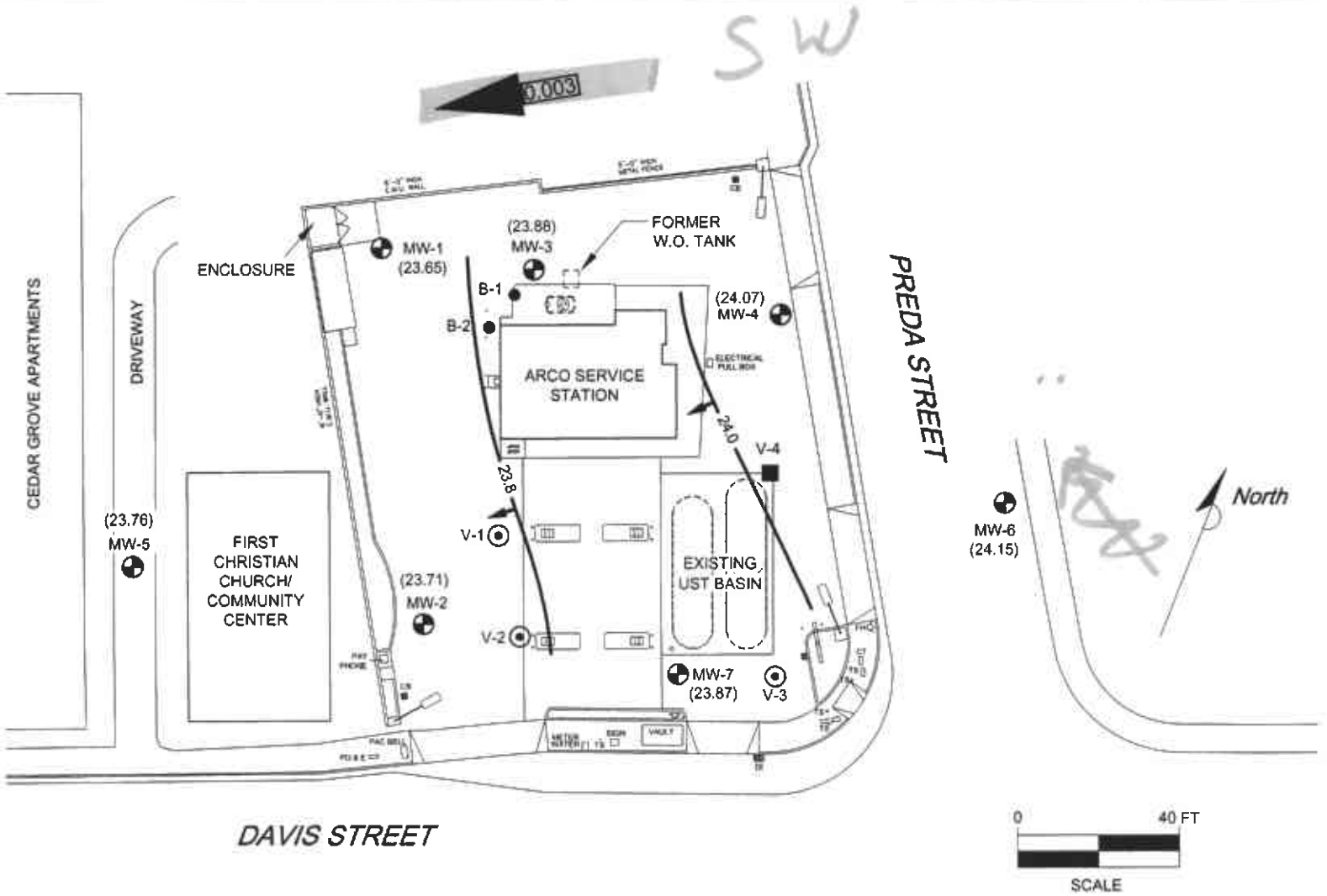

LEGEND:

MW-1	MONITORING WELL LOCATION
V-1	VAPOR EXTRACTION WELL LOCATION
B-1	SOIL BORING LOCATION
V-4	DESTROYED WELL LOCATION
(23.65)	GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (MSL)
24.0	WATER TABLE CONTOUR IN FEET ABOVE MSL
	GROUND WATER FLOW DIRECTION
0.003	APPROXIMATE GROUND WATER FLOW GRADIENT

FIGURE 2
GROUND WATER ELEVATION CONTOUR MAP
FOURTH QUARTER 2001 (12/28/01)
ARCO SERVICE STATION NO. 2111
1156 DAVIS STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. D000-306	DRAWN BY TLA 3/12/02
FILE NO. 2111-1	PREPARED BY TLA
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Delta Environmental Consultants, Inc.

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FIELD METHODS AND PROCEDURES

1.0 GROUND WATER AND LIQUID-PHASE HYDROCARBON DEPTH ASSESSMENT

A water/liquid-phase hydrocarbon (LPH) interface probe was used to assess the thickness of LPH, if present, and a water level indicator was used to measure ground water depth in monitoring wells that did not contain LPH. Depth to ground water was measured from the top of each monitoring well casing. The tip of the water level indicator was subjectively analyzed for LPH sheen. All measurements and physical observations were recorded in the field.

2.0 SUBJECTIVE ANALYSIS OF GROUND WATER

Prior to purging, a water sample was collected from the monitoring well for subjective analysis. The sample was retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer was then retrieved and the sample contained within the bailer was examined for LPH and the appearance of a LPH sheen.

3.0 MONITORING WELL PURGING AND SAMPLING

Monitoring wells were purged using a centrifugal pump or disposable bailers until pH, temperature, and conductivity of the purge water had stabilized and a minimum of three to four well volumes of water had been removed. Ground water removed from the wells was stored in 55-gallon barrels at the site. The barrels were labeled with corresponding monitoring well numbers and the date of purging. After purging, ground water levels were allowed to stabilize. A ground water sample was then removed from each of the wells using a dedicated disposable bailer. If the well was purged dry, it was allowed to sufficiently recharge and a sample was collected. Samples were collected in air-tight vials, appropriately labeled, and stored on ice from the time of collection through the time of delivery to the laboratory. A chain-of-custody form was completed to document possession of the samples. Ground water samples were transported to the laboratory and analyzed within the EPA-specified holding times for the requested analyses. Purge water will be collected from the storage barrels in a vacuum truck and transported to an appropriate facility for treatment and/or disposal.

If the depth to groundwater was above the top of screens of the monitoring wells, then the wells were purged. Before sampling occurred, a polyvinyl chloride (PVC) bailer, centrifugal pump, low–flow submersible pump, or Teflon bailer was used to purge standing water in the casing and gravel pack from the monitoring well. Monitoring wells were purged according to the protocol previously stated in the first paragraph of this sub-section. In most monitoring wells, the amount of water purged before sampling was greater than or equal to three casing volumes. Some monitoring wells were expected to be evacuated to dryness after removing fewer than three casing volumes. These low–yield monitoring wells were allowed to recharge for up to 24 hours. Samples were obtained as soon as the monitoring wells recharged to a level sufficient for sample collection. If insufficient water recharged after 24 hours, the monitoring well was recorded as dry for the sampling event.

APPENDIX B

Historical Data Tables
(IT Corporation)

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-1	08-01-95	39.60	17.45	ND	22.15	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
MW-1	12-14-95	39.60	17.09	ND	22.51	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	03-21-96	39.60	14.72	ND	24.88	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	05-24-96	39.60	15.94	ND	23.66	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	08-09-96	39.60	17.89	ND	21.71	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	11-06-96	39.60	18.66	ND	20.94	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	03-24-97	39.60	16.13	ND	23.47	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	05-27-97	39.60	17.23	ND	22.37	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	08-07-97	39.60	18.68	ND	20.92	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	11-10-97	39.60	19.19	ND	20.41	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	02-16-98	39.60	12.61	ND	26.99	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	04-15-98	39.60	14.30	ND	25.30	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	07-24-98	39.60	16.40	ND	23.20	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	10-19-98	39.60	17.90	ND	21.70	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
MW-1	01-28-99	39.60	16.85	ND	22.75	01-28-99	<20,000	580	<200	<200	320	14,000	--	--		
MW-1	06-25-99	39.60	17.35	ND	22.25	06-25-99	730	140	5	3	2	7,700	--	--	0.79	NP
MW-1	08-25-99	39.60	18.20	ND	21.40	08-25-99	390	66	8.5	<2.5	8.6	3,700	--	--	1.56	NP
MW-1	11-10-99	39.60	17.77	ND	21.83	11-10-99	360	70	13	2.2	13	980	--	--	0.30	NP
MW-1	02-09-00	39.60	16.25	ND	23.35	02-09-00	190	4.5	0.9	<0.5	12	3,500	--	--	0.53	NP
MW-2	08-01-95	37.99	15.67	ND	22.32	08-01-95	23,000	1,300	310	500	3,500	--	--	--		
MW-2	12-14-95	37.99	15.36	ND	22.63	12-14-95	7,300	900	25	180	1,000	<200	--	--		
MW-2	03-21-96	37.99	12.84	ND	25.15	03-21-96	9,600	850	30	280	1,400	250	--	--		
MW-2	05-24-96	37.99	14.03	ND	23.96	05-24-96	2,300	300	<5	73	310	<25	--	--		
MW-2	08-09-96	37.99	16.10	ND	21.89	08-09-96	2,800	290	6	75	320	50	--	--		

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation	Depth to Water	Free Product Thickness	Groundwater Elevation	Water Sample Field Date	TPHG LUFT Method	Benzene EPA 8021B*	Toluene EPA 8021B*	Ethylbenzene EPA 8021B*	Total Xylenes EPA 8021B*	MTBE EPA 8021B*	MTBE EPA 8260	TRPH EPA 418.1	LUFT Method	Dissolved Oxygen	Purged/ Not Purged
		ft-MSL	feet	feet	ft-MSL		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	P/NP
MW-2	11-06-96	37.99	16.98	ND	21.01	11-06-96	750	76	<1	15	51	110	--	--	--		
MW-2	03-24-97	37.99	14.22	ND	23.77	03-24-97	790	18	<1	2	6	280	--	--	--		
MW-2	05-27-97	37.99	15.42	ND	22.57	05-28-97	750	14	<1	<1	10	150	--	--	--		
MW-2	08-07-97	37.99	16.92	ND	21.07	08-07-97	360	31	<2.5	<2.5	15	260	--	--	--		
MW-2	11-10-97	37.99	17.52	ND	20.47	11-10-97	1,300	82	<5	14	49	550	--	--	--		
MW-2	02-16-98	37.99	12.04	ND	25.95	02-16-98	<2,500	<25	<25	<25	<25	4,200	--	--	--		
MW-2	04-15-98	37.99	12.34	ND	25.65	04-15-98	<10,000	<100	<100	<100	<100	7,300	--	--	--		
MW-2	07-24-98	37.99	14.45	ND	23.54	07-24-98	<2,500	<25	<25	<25	<25	1,500	--	--	--		
MW-2	10-19-98	37.99	16.08	ND	21.91	10-19-98	<1,000	18	<10	<10	<10	1,100	--	--	--		
MW-2	01-28-99	37.99	15.59	0.02	22.41 [1]	01-28-99	160,000	3,000	24,000	4,400	31,000	23,000	--	--	--		
MW-2	06-25-99	37.99	19.20	3.73[4]	21.51 [1]	06-25-99	120,000	6,900	21,000	2,600	19,000	18,000	17,000[3]	--	--	0.49	NP
MW-2	08-25-99	37.99	16.49	0.02	21.51 [1]	08-25-99	92,000	2,200	16,000	3,200	19,000	11,000	9,400[3]	--	--	0.84	NP
MW-2	11-10-99	37.99	16.08	ND	21.91	11-10-99	56,000	2,400	5,900	1,500	10,000	17,000	21,000[3]	--	--	0.41	NP
MW-2	02-09-00	37.99	14.85	ND	23.14	02-09-00	1,700	270	14	17	21	70,000	55,000[3]	--	--	0.97	NP
MW-3	08-01-95	39.32	17.00	ND	22.32	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	600	76[2]		
MW-3	12-14-95	39.32	16.70	ND	22.62	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	<50		
MW-3	03-21-96	39.32	14.17	ND	25.15	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	<50		
MW-3	05-24-96	39.32	15.30	ND	24.02	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	<50		
MW-3	08-09-96	39.32	17.58	ND	21.74	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	--		
MW-3	11-06-96	39.32	18.33	ND	20.99	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	03-24-97	39.32	15.44	ND	23.88	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	05-27-97	39.32	16.75	ND	22.57	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	08-07-97	39.32	18.35	ND	20.97	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	11-10-97	39.32	18.83	ND	20.49	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation	Depth to Water	Free Product Thickness	Groundwater Elevation	Water Sample Field Date	TPHG LUFT Method	Benzene EPA 8021B*	Toluene EPA 8021B*	Ethylbenzene EPA 8021B*	Total Xylenes EPA 8021B*	MTBE EPA 8021B*	MTBE EPA 8260	TRPH EPA 418.1	LUFT Method	Dissolved Oxygen	Purged/ Not Purged
		ft-MSL	feet	feet	ft-MSL		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	P/NP
MW-3	02-16-98	39.32	11.99	ND	27.33	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	04-15-98	39.32	13.75	ND	25.57	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	07-24-98	39.32	15.90	ND	23.42	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	10-19-98	39.32	17.45	ND	21.87	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	01-28-99	39.32	16.40	ND	22.92	01-28-99	<100	14	4	<1	6	100	--	--	--		
MW-3	06-25-99	39.32	17.92	ND	21.40	06-25-99	83	9.0	1.4	<0.5	2.5	220	--	--	--	1.11	NP
MW-3	08-25-99	39.32	17.79	ND	21.53	08-25-99	240	41	12	3.7	9.9	160	--	--	--	1.13	NP
MW-3	11-10-99	39.32	17.37	ND	21.95	11-10-99	620	100	9.7	4.1	21	150	--	--	--	0.24	NP
MW-3	02-09-00	39.32	15.77	ND	23.55	02-09-00	<50	<0.5	0.7	<0.5	<1	180	--	--	--	0.62	NP
MW-4	08-01-95	38.10	15.65	ND	22.45	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--		
MW-4	12-14-95	38.10	15.35	ND	22.75	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	03-21-96	38.10	12.74	ND	25.36	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	05-24-96	38.10	14.03	ND	24.07	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	08-09-96	38.10	16.10	ND	22.00	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	11-06-96	38.10	17.00	ND	21.10	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	03-24-97	38.10	14.21	ND	23.89	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	05-27-97	38.10	15.38	ND	22.72	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	08-07-97	38.10	16.95	ND	21.15	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	11-10-97	38.10	17.53	ND	20.57	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	02-16-98	38.10	10.65	ND	27.45	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	04-15-98	38.10	12.20	ND	25.90	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	07-24-98	38.10	14.47	ND	23.63	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	10-19-98	38.10	16.20	ND	21.90	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	01-28-99	38.10	15.02	ND	23.08	01-28-99	340	52	5.5	<0.5	74	31	--	--	--		

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-4	06-25-99	38.10	15.57	ND	22.53	06-25-99	510	78	4.1	0.5	18	94	--	--	--	0.90	NP
MW-4	08-25-99	38.10	16.43	ND	21.67	08-25-99	660	130	21	6.4	39	110	--	--	--	1.01	NP
MW-4	11-10-99	38.10	16.02	ND	22.08	11-10-99	510	98	5.1	3.1	15	69	--	--	--	0.28	NP
MW-4	02-09-00	38.10	14.30	ND	23.80	02-09-00	<50	<0.5	0.9	<0.5	<1	55	--	--	--	0.67	NP
MW-5	03-21-96	37.21	12.60	ND	24.61	03-22-96	<50	<0.5	<0.5	<0.5	<0.5	82	--	--	--		
MW-5	05-24-96	37.21	13.71	ND	23.50	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	7	--	--	--		
MW-5	08-09-96	37.21	15.60	ND	21.61	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	8	--	--	--		
MW-5	11-06-96	37.21	16.36	ND	20.85	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	100	--	--	--		
MW-5	03-24-97	37.21	13.87	ND	23.34	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	460	--	--	--		
MW-5	05-27-97	37.21	14.71	ND	22.50	05-28-97	<100	<1	<1	<1	<1	120	--	--	--		
MW-5	08-07-97	37.21	16.90	ND	20.31	08-07-97	<250	<2.5	<2.5	<2.5	<2.5	250	--	--	--		
MW-5	11-10-97	37.21	16.88	ND	20.33	11-10-97	<1,000	<10	<10	<10	<10	770	--	--	--		
MW-5	02-16-98	37.21	10.56	ND	26.65	02-16-98	<200	<2	<2	<2	<2	230	--	--	--		
MW-5	04-15-98	37.21	12.20	ND	25.01	04-15-98	<500	<5	<5	<5	<5	900	--	--	--		
MW-5	07-24-98	37.21	14.20	ND	23.01	07-24-98	<500	<5	<5	<5	<5	570	--	--	--		
MW-5	10-19-98	37.21	15.74	ND	21.47	10-19-98	<250	<2.5	<2.5	<2.5	<2.5	300	--	--	--		
MW-5	01-28-99	37.21	14.60	ND	22.61	01-28-99	<500	8	<5	<5	<5	290	--	--	--		
MW-5	06-25-99	37.21	15.10	ND	22.11	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	1,300	--	--	--	0.76	NP
MW-5	08-25-99	37.21	15.91	ND	21.30	08-25-99	<50	<0.5	<0.5	<0.5	<0.5	6,700	--	--	--	0.98	NP
MW-5	11-10-99	37.21	15.52	ND	21.69	11-10-99	130	2.0	7.0	1.3	21	5,000	--	--	--	0.21	NP
MW-5	02-09-00	37.21	14.03	ND	23.18	02-09-00	92	<0.5	0.8	<0.5	1.0	7,900	--	--	--	0.51	NP
MW-6	03-21-96	37.11	11.55	ND	25.56	03-22-96	<50	<0.5	1.9	<0.5	<0.5	<3	--	--	--		
MW-6	05-24-96	37.11	12.80	ND	24.31	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	6	--	--	--		

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation	Depth to Water	Free Product Thickness	Groundwater Elevation	Water Sample Field Date	TPHG LUFT Method	Benzene EPA 8021B*	Toluene EPA 8021B*	Ethylbenzene EPA 8021B*	Total Xylenes EPA 8021B*	MTBE EPA 8021B*	MTBE EPA 8260	TRPH EPA 418.1 LUFT Method	Dissolved Oxygen	Purged/ Not Purged
		ft-MSL	feet	feet	ft-MSL		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	P/NP
MW-6	08-09-96	37.11	Not surveyed			08-09-96	Not sampled: Car parked on well									
MW-6	11-06-96	37.11	Not surveyed			11-06-96	Not sampled: Car parked on well									
MW-6	03-24-97	37.11	13.06	ND	24.05	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	05-27-97	37.11	14.30	ND	22.81	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	08-07-97	37.11	16.40	ND	20.71	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	11-10-97	37.11	16.53	ND	20.58	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	02-16-98	37.11	Not surveyed			02-16-98	Not sampled: Car parked on well									
MW-6	04-15-98	37.11	10.95	ND	26.16	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	07-24-98	37.11	13.30	ND	23.81	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	10-19-98	37.11	Not surveyed			10-19-98	Not sampled: Car parked on well									
MW-6	01-28-99	37.11	13.92	ND	23.19	01-28-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	06-25-99	37.11	15.47	ND	21.64	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	0.74	NP
MW-6	08-25-99	37.11	15.39	ND	21.72	08-25-99	<50	<0.5	3.4	0.6	3.7	<3	--	--	--	0.92	NP
MW-6	11-10-99	37.11	14.92	ND	22.19	11-10-99	<50	<0.5	<0.5	<0.5	<1	<3	--	--	--	0.31	NP
MW-6	02-09-00	37.11	13.30	ND	23.81	02-09-00	<50	<0.5	0.9	<0.5	1.3	<3	--	--	--	0.79	NP
MW-7	03-21-96	38.68	13.32	ND	25.36	03-22-96	32,000	870	450	970	4,900	280	--	--	--		
MW-7	05-24-96	38.68	14.58	ND	24.10	05-24-96	22,000	570	40	42	1,900	<200[2]	--	--	--		
MW-7	08-09-96	38.68	15.33	ND	23.35	08-09-96	14,000	390	<10	180	470	<200[2]	--	--	--		
MW-7	11-06-96	38.68	16.95	ND	21.73	11-06-96	9,500	440	<10	210	150	<100[2]	--	--	--		
MW-7	03-24-97	38.68	14.65	ND	24.03	03-24-97	6,400	420	<10	260	13	480	--	--	--		
MW-7	05-27-97	38.68	15.58	ND	23.10	05-28-97	5,000	420	<5	230	10	460	--	--	--		
MW-7	08-07-97	38.68	17.10	ND	21.58	08-07-97	3,900	350	<5	200	10	330	--	--	--		
MW-7	11-10-97	38.68	18.05	ND	20.63	11-10-97	5,600	590	10	370	43	540	--	--	--		
MW-7	02-16-98	38.68	12.03	ND	26.65	02-16-98	<5,000	390	<50	<50	61	4,300	--	--	--		

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation	Depth to Water	Free Product Thickness	Groundwater Elevation	Water Sample Field Date	TPHG LUFT Method	Benzene EPA 8021B*	Toluene EPA 8021B*	Ethylbenzene EPA 8021B*	Total Xylenes EPA 8021B*	MTBE EPA 8021B*	MTBE EPA 8260	TRPH EPA 418.1 [2] LUFT Method	Dissolved Oxygen	Purged/ Not Purged
		ft-MSL	feet	feet	ft-MSL		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	P/NP
MW-7	04-15-98	38.68	13.02	ND	25.66	04-15-98	<10,000	<100	<100	<100	<100	8,900	--	--	--	
MW-7	07-24-98	38.68	14.18	ND	24.50	07-24-98	5,800	180	<50	74	<50	4,200	--	--	--	
MW-7	10-19-98	38.68	15.99	ND	22.69	10-19-98	<2,500	54	<25	72	<25	3,000	--	--	--	
MW-7	01-28-99	38.68	15.69	ND	22.99	01-28-99	4,500	560	250	<50	94	6,200	--	--	--	
MW-7	06-25-99	38.68	15.36	ND	23.32	06-25-99	3,900	520	160	46	100	45,000	63,000[3]	--	--	0.56	NP
MW-7	08-25-99	38.68	16.71	ND	21.97	08-25-99	3,400	730	77	51	110	62,000	76,000[3]	--	--	0.90	NP
MW-7	11-10-99	38.68	16.76	ND	21.92	11-10-99	15,000	340	19	13	20	55,000	91,000[3]	--	--	0.37	NP
MW-7	02-09-00	38.68	14.45	0.03	24.25 [1]	02-09-00	Not sampled: free product present										

ft-MSL: elevation in feet, relative to mean sea level
TPHG: total petroleum hydrocarbons as gasoline, California DHS LUFT Method
MTBE: Methyl tert-butyl ether
TRPH: total recoverable petroleum hydrocarbons
TPHD: total petroleum hydrocarbons as diesel, California DHS LUFT Method
*: EPA method 8020 prior to 11/10/99
EPA: United States Environmental Protection Agency
µg/L: micrograms per liter
mg/L: milligrams per liter
ND: none detected
--: not available or not analyzed
<: less than laboratory detection limit stated to the right
[1]: [corrected elevation (Z')] = Z + (h * 0.73) where: Z = measured elevation, h = floating product thickness, 0.73 = density ratio of oil to water
[2]: chromatogram fingerprint is not characteristic of diesel
[3]: also analyzed for fuel oxygenates
[4]: this value is suspected to be erroneous based on subsequent check by bailer (following day). See discussion

Table 2
Groundwater Flow Direction and Gradient

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
08-01-95	NR	NR
12-14-95	West	0.002
03-21-96	West-Southwest	0.005
05-24-96	West	0.003
08-09-96	West-Northwest	0.01
11-06-96	West-Northwest	0.007
03-24-97	West	0.005
05-27-97	North-Northwest	0.006
08-07-97	West	0.009
11-10-97	West	0.002
02-16-98	South-Southwest	0.013
04-15-98	West-Southwest	0.014
07-24-98	Northwest	0.01
10-19-98	West	0.008
01-28-99	Southwest	0.01
06-25-99	North-Northwest	0.017
08-25-99	West-Northwest	0.005
11-10-99	West-Southwest	0.002
02-09-00	**West-Northwest**	**0.015**

NR: not recorded

Delta Environmental Consultants, Inc.

3164 Gold Camp Drive, Suite 200
Rancho Cordova, California 95670
Direct: (916) 638-2085
Fax: (916) 638-8385

Site Contact & Phone Number: ______

Arco Site Address: **1156 Davis Street**
San Leandro, California
Arco Project Manager: **Paul Supple**
Site Sampled By: **Stratus (CH)**

Arco Site Number: **Arco 2111**
Delta Project No.: **D000-306**
Delta Project PM: **Steve Meeks**
Date Sampled: **12/28/01**

Water Level Data							Purge Volume Calculations					Sampling Analytes				Sample Record		
Well ID	Time	Depth to Water (feet)	Depth to Product (feet)	Top of Screen Interval (feet)	Total Depth of Well (feet)	Check if Purge Not Required	Casing Water Column (A)	Well Diameter (inches)	Multiplier Value (B)	Three Casing Volumes (gallons)	Actual Water Purged (gallons)	BTEX (8020) VOA	TPH-g (8015M) VOA	MTBE (8020) VOA	Dissolved Oxygen (mg/L)	Sample Freqency (A, S, Q)	Sample I.D.	Sample Time
MW-1	9:30	**15.95**	**N/A**	12.5	26.0	☑	10.05	**4 inch**	**2.0**	20.1	NP	☑	☑	☑	0.94	Q/2,5,8,11	**MW-1**	9:35
MW-2	9:26	**14.28**	**16.76**	12.0	26.3	☑	12.02	**4 inch**	**2.0**	24.0	NP	☑	☑	☑	0.36	Q/2,5,8,11	**MW-2**	8:15
MW-3	9:50	**15.44**	**N/A**	11.9	26.5	☑	11.06	**4 inch**	**2.0**	22.1	NP	☑	☑	☑	1.22	Q/2,5,8,11	**MW-3**	9:50
MW-4	9:54	**14.03**	**N/A**	10.0	21.6	☑	7.57	**4 inch**	**2.0**	15.1	NP	☑	☑	☑	1.09	Q/2,5,8,11	**MW-4**	10:00
MW-5	10:38	**13.45**	**N/A**	9.4	23.6	☑	10.15	**2 inch**	**0.5**	5.1	NP	☑	☑	☑	1.11	Q/2,5,8,11	**MW-5**	10:40
MW-6	10:13	**12.96**	**N/A**	10.0	24.8	☑	11.84	**2 inch**	**0.5**	5.9	NP	☑	☑	☑	0.99	Q/2,5,8,11	**MW-6**	10:15
MW-7	10:28	**14.81**	**N/A**	12.0	26.9	☑	12.09	**4 inch**	**2.0**	24.2	NP	☑	☑	☑	0.45	Q/2,5,8,11	**MW-7**	10:30
						☐						☐	☐	☐				
						☐						☐	☐	☐				
***Use Separate COC for Sample from MW-5**						☐						☐	☐	☐				
						☐						☐	☐	☐				
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						☐						☐	☐	☐				
						☐						☐	☐	☐				

(A)-Casing Water Column: Depth to Bottom - Depth to Water **(B)-Multiplier Values:** (2" Well: 0.5) (4" Well: 2.0) (6" Well: 4.4) **Sampling Sequence: Quarterly:** MW-6, MW-5, MW-4, MW-3, MW-1, MW-7, MW-2

Sampling Notes: List depth of Sample on C.O.C. [I.e. MW-1(30)]. Make Sure to Note on C.O.C. "Provide Lowest Reporting Limit Available." Original Copies of Field Sampling Sheets are Located in Project File
If the water level is below the top of the screen, take a grab sample and check box for NO PURGE (NP). If the water level is above the screen, purge as normal.

APPENDIX D

Certified Analytical Reports
And
Chain-of-Custody Documentation

Sequoia Analytical

819 Striker Avenue, Suite 8
Sacramento, CA 9583
(916) 921-960
FAX (916) 921-010
www.sequoialabs.com

January 14 , 2002

Steven Meeks
Delta Environmental Consultants (Rancho Cordova)
3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670
RE: ARCO 2111, San Leandro, CA / S201008

Enclosed are the results of analyses for samples received by the laboratory on 01/02/02. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew
Client Services Representative

For
Lito Diaz
Laboratory Director

CA ELAP Certificate Number 1624

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Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 16:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	S201008-01	Water	12/28/01 09:35	01/02/02 14:15
MW-2	S201008-02	Water	12/28/01 09:15	01/02/02 14:15
MW-3	S201008-03	Water	12/28/01 09:52	01/02/02 14:15
MW-4	S201008-04	Water	12/28/01 10:00	01/02/02 14:15
MW-6	S201008-05	Water	12/28/01 10:15	01/02/02 14:15
MW-7	S201008-06	Water	12/28/01 10:30	01/02/02 14:15
TB	S201008-07	Water	12/28/01 06:00	01/02/02 14:15

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Sacramento, CA 9583
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www.sequoialabs.con

Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 16:53

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (S201008-01) Water Sampled: 12/28/01 09:35 Received: 01/02/02 14:15									
Purgeable Hydrocarbons	ND	500	ug/l	10	2010072	01/07/02	01/07/02	DHS LUFT	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	**5.0**	5.0	"	"	"	"	"	"	
Xylenes (total)	**22**	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**1200**	25	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.3 %*		*60-140*		"	"	"	
MW-2 (S201008-02) Water Sampled: 12/28/01 09:15 Received: 01/02/02 14:15									
Purgeable Hydrocarbons	**31000**	5000	ug/l	100	2010072	01/07/02	01/07/02	DHS LUFT	
Benzene	**1500**	50	"	"	"	"	"	"	
Toluene	**3800**	50	"	"	"	"	"	"	
Ethylbenzene	**1300**	50	"	"	"	"	"	"	
Xylenes (total)	**4800**	50	"	"	"	"	"	"	
Methyl tert-butyl ether	**9300**	250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*104 %*		*60-140*		"	"	"	
MW-3 (S201008-03) Water Sampled: 12/28/01 09:52 Received: 01/02/02 14:15									
Purgeable Hydrocarbons	**130**	50	ug/l	1	2010072	01/07/02	01/07/02	DHS LUFT	HC-12
Benzene	**5.9**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**0.99**	0.50	"	"	"	"	"	"	
Xylenes (total)	**0.55**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**90**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*92.2 %*		*60-140*		"	"	"	

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Sacramento, CA 95834
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www.sequoialabs.com

Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 16:53

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (S201008-04) Water Sampled: 12/28/01 10:00 Received: 01/02/02 14:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	2010072	01/07/02	01/07/02	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**15**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*100 %*	*60-140*		"	"	"	"	
MW-6 (S201008-05) Water Sampled: 12/28/01 10:15 Received: 01/02/02 14:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	2010072	01/07/02	01/07/02	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**12**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.4 %*	*60-140*		"	"	"	"	
MW-7 (S201008-06) Water Sampled: 12/28/01 10:30 Received: 01/02/02 14:15									
Purgeable Hydrocarbons	ND	20000	ug/l	400	2010072	01/07/02	01/07/02	DHS LUFT	
Benzene	ND	200	"	"	"	"	"	"	
Toluene	ND	200	"	"	"	"	"	"	
Ethylbenzene	ND	200	"	"	"	"	"	"	
Xylenes (total)	ND	200	"	"	"	"	"	"	
Methyl tert-butyl ether	**84000**	1000	"	"	"	"	"	"	E
Surrogate: a,a,a-Trifluorotoluene		*92.4 %*	*60-140*		"	"	"	"	

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Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 16:53

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB (S201008-07) Water Sampled: 12/28/01 06:00 Received: 01/02/02 14:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	2010089	01/07/02	01/07/02	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*93.2 %*		*60-140*	"	"	"	"	

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Sacramento, CA 9583
(916) 921-960
FAX (916) 921-010
www.sequoialabs.com

Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 16:53

MTBE Confirmation by EPA Method 8260B

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (S201008-01) Water	**Sampled: 12/28/01 09:35**	**Received: 01/02/02 14:15**							
Methyl tert-butyl ether	**1100**	5.0	ug/l	10	2010114	01/10/02	01/10/02	EPA 8260B	
Surrogate: 1,2-DCA-d4		*112 %*	*60-140*		"	"	"	"	
MW-2 (S201008-02) Water	**Sampled: 12/28/01 09:15**	**Received: 01/02/02 14:15**							
Methyl tert-butyl ether	**8800**	50	ug/l	100	2010114	01/10/02	01/10/02	EPA 8260B	
Surrogate: 1,2-DCA-d4		*110 %*	*60-140*		"	"	"	"	
MW-3 (S201008-03) Water	**Sampled: 12/28/01 09:52**	**Received: 01/02/02 14:15**							
Methyl tert-butyl ether	**63**	0.50	ug/l	1	2010114	01/10/02	01/10/02	EPA 8260B	
Surrogate: 1,2-DCA-d4		*100 %*	*60-140*		"	"	"	"	
MW-4 (S201008-04) Water	**Sampled: 12/28/01 10:00**	**Received: 01/02/02 14:15**							
Methyl tert-butyl ether	**11**	0.50	ug/l	1	2010114	01/10/02	01/10/02	EPA 8260B	
Surrogate: 1,2-DCA-d4		*104 %*	*60-140*		"	"	"	"	
MW-6 (S201008-05) Water	**Sampled: 12/28/01 10:15**	**Received: 01/02/02 14:15**							
Methyl tert-butyl ether	ND	0.50	ug/l	1	2010114	01/10/02	01/10/02	EPA 8260B	
Surrogate: 1,2-DCA-d4		*110 %*	*60-140*		"	"	"	"	
MW-7 (S201008-06) Water	**Sampled: 12/28/01 10:30**	**Received: 01/02/02 14:15**							
Methyl tert-butyl ether	**72000**	1000	ug/l	2000	2010114	01/10/02	01/10/02	EPA 8260B	
Surrogate: 1,2-DCA-d4		*106 %*	*60-140*		"	"	"	"	

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819 Striker Avenue, Suite
Sacramento, CA 9583
(916) 921-960
FAX (916) 921-010
www.sequoialabs.co

Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 16:53

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010072 - EPA 5030B (P/T)										
Blank (2010072-BLK1)				Prepared & Analyzed: 01/07/02						
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*9.66*		"	*10.0*		*96.6*	*60-140*			
LCS (2010072-BS1)				Prepared & Analyzed: 01/07/02						
Benzene	9.40	0.50	ug/l	10.0		94.0	70-130			
Toluene	9.27	0.50	"	10.0		92.7	70-130			
Ethylbenzene	9.03	0.50	"	10.0		90.3	70-130			
Xylenes (total)	27.8	0.50	"	30.0		92.7	70-130			
Methyl tert-butyl ether	9.50	2.5	"	10.0		95.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.1*		"	*10.0*		*101*	*60-140*			
LCS Dup (2010072-BSD1)				Prepared & Analyzed: 01/07/02						
Benzene	9.21	0.50	ug/l	10.0		92.1	70-130	2.04	25	
Toluene	9.21	0.50	"	10.0		92.1	70-130	0.649	25	
Ethylbenzene	8.90	0.50	"	10.0		89.0	70-130	1.45	25	
Xylenes (total)	27.3	0.50	"	30.0		91.0	70-130	1.81	25	
Methyl tert-butyl ether	9.08	2.5	"	10.0		90.8	70-130	4.52	25	
Surrogate: a,a,a-Trifluorotoluene	*9.63*		"	*10.0*		*96.3*	*60-140*			
Batch 2010089 - EPA 5030B (P/T)										
Blank (2010089-BLK1)				Prepared & Analyzed: 01/07/02						
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*9.00*		"	*10.0*		*90.0*	*60-140*			

Sequoia Analytical

819 Striker Avenue, Suite E
Sacramento, CA 95834
(916) 921-9600
FAX (916) 921-0100
www.sequoialabs.com

Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 16:53

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010089 - EPA 5030B (P/T)										
LCS (2010089-BS1)				Prepared & Analyzed: 01/07/02						
Benzene	8.65	0.50	ug/l	10.0		86.5	70-130			
Toluene	9.03	0.50	"	10.0		90.3	70-130			
Ethylbenzene	9.08	0.50	"	10.0		90.8	70-130			
Xylenes (total)	27.8	0.50	"	30.0		92.7	70-130			
Methyl tert-butyl ether	8.35	2.5	"	10.0		83.5	70-130			
Surrogate: a,a,a-Trifluorotoluene	*9.82*		"	*10.0*		*98.2*	*60-140*			
Matrix Spike (2010089-MS1)		**Source: S201010-01**		Prepared & Analyzed: 01/07/02						
Benzene	11.3	0.50	ug/l	10.0	2.7	86.0	60-140			
Toluene	8.99	0.50	"	10.0	ND	89.9	60-140			
Ethylbenzene	8.47	0.50	"	10.0	ND	84.7	60-140			
Xylenes (total)	25.5	0.50	"	30.0	ND	85.0	60-140			
Methyl tert-butyl ether	12.9	2.5	"	10.0	20	NR	60-140			QM-07
Surrogate: a,a,a-Trifluorotoluene	*8.03*		"	*10.0*		*80.3*	*60-140*			
Matrix Spike Dup (2010089-MSD1)		**Source: S201010-01**		Prepared: 01/07/02 Analyzed: 01/08/02						
Benzene	11.1	0.50	ug/l	10.0	2.7	84.0	60-140	1.79	25	
Toluene	8.78	0.50	"	10.0	ND	87.8	60-140	2.36	25	
Ethylbenzene	8.22	0.50	"	10.0	ND	82.2	60-140	3.00	25	
Xylenes (total)	24.9	0.50	"	30.0	ND	83.0	60-140	2.38	25	
Methyl tert-butyl ether	14.7	2.5	"	10.0	20	NR	60-140	13.0	25	QM-07
Surrogate: a,a,a-Trifluorotoluene	*7.71*		"	*10.0*		*77.1*	*60-140*			

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Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 16:53

MTBE Confirmation by EPA Method 8260B - Quality Control

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010114 - EPA 5030B [P/T]										
Blank (2010114-BLK1)				Prepared & Analyzed: 01/10/02						
Methyl tert-butyl ether	ND	0.50	ug/l							
Surrogate: 1,2-DCA-d4	*24.3*		"	*25.0*		*97.2*	*60-140*			
LCS (2010114-BS1)				Prepared & Analyzed: 01/10/02						
Methyl tert-butyl ether	24.2	0.50	ug/l	25.0		96.8	70-130			
Surrogate: 1,2-DCA-d4	*25.9*		"	*25.0*		*104*	*60-140*			
Matrix Spike (2010114-MS1)	**Source: S201013-09**			Prepared & Analyzed: 01/10/02						
Methyl tert-butyl ether	22.0	0.50	ug/l	25.0	1.7	81.2	60-140			
Surrogate: 1,2-DCA-d4	*24.6*		"	*25.0*		*98.4*	*60-140*			
Matrix Spike Dup (2010114-MSD1)	**Source: S201013-09**			Prepared & Analyzed: 01/10/02						
Methyl tert-butyl ether	24.8	0.50	ug/l	25.0	1.7	92.4	60-140	12.0	25	
Surrogate: 1,2-DCA-d4	*25.7*		"	*25.0*		*103*	*60-140*			

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Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 16:53

Notes and Definitions

E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
HC-12	Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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
RPD	Relative Percent Difference

ARCO ◆

Work Authorization No. 2599300

Chain of Custody

ARCO Facility No.	2111	City (Facility)	San Leandro	Project Manager (Consultant)	Steve Meeks
ARCO engineer	Paul Supple	Telephone no. (ARCO)		Telephone no. (Consultant)	638 2085
Fax no. (Consultant)	638-8385				
Company name (Consultant)	Delta	Address (Consultant)	Rancho Cordova		

Laboratory name: Sequoia

Contract number:

Method of shipment:

Special detection Limit/reporting:

Special QA/QC:

Remarks: Confirm MTBE by 8260

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8021	BTEX/TPH MTBE EPA M602/8021/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	BTEX + MTBE EPA 8260	BTEX + Standard Oxygenates EPA 8260	TCLP Metals☐ VOA☐ Semi VOA☐	CAM Metals EPA 6010/7000 TTLC☐ STLC☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
MW-1		4		X		X	X	12-28-01	935		X						S201008-01				
MW-2		↓		↓		↓	↓	↓	915		↓								-02		
MW-3		↓		↓		↓	↓	↓	952		↓								-03		
MW-4		↓		↓		↓	↓	↓	10.00		↓								-04		
MW-6		↓		↓		↓	↓	↓	1015		↓								-05		
MW-7		↓		↓		↓	↓	↓	1030		↓								-06		
TB		2		↓		↓	↓	↓	600		↓								-07		

Type or Work
- ☐ Dispenser Work
- ☐ Line Job
- ☐ Routine Sampling
- ☐ Site Acquisitions
- ☐ Site Assessment
- ☐ UST Removal
- ☐ UST Replacement
- ☐ Other ________

Lab number:

Turnaround time
- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample:

Temperature received: 7.3°C

Relinquished by sampler	Date	Time	Received by
[signature] for Delta	01-02-02	1415	Monica Grozen 1/2/02 1415
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory / Date / Time

Sequoia
Analytical

819 Striker Avenue, Suite 8
Sacramento, CA 95834
(916) 921-9600
FAX (916) 921-0100
www.sequoialabs.com

14 January, 2002

Steven Meeks
Delta Environmental Consultants (Rancho Cordova)
3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670

RE: ARCO 2111, San Leandro, CA
Sequoia Report: S201009

Enclosed are the results of analyses for samples received by the laboratory on 01/02/02 14:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew
Client Services Representative

Lito Diaz
Laboratory Director

CA ELAP Certificate #1624

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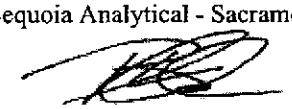
Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 17:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-5	S201009-01	Water	12/28/01 10:40	01/02/02 14:15

Sequoia Analytical - Sacramento



Ron Chew, Client Services Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 17:15

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (S201009-01) Water Sampled: 12/28/01 10:40 Received: 01/02/02 14:15									
Purgeable Hydrocarbons	ND	10000	ug/l	200	2010128	01/08/02	01/08/02	DHS LUFT	
Benzene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	
Xylenes (total)	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	**10000**	500	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*91.0 %*		*60-140*		"	"	"	

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Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 17:15

MTBE Confirmation by EPA Method 8260B

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (S201009-01) Water Sampled: 12/28/01 10:40 Received: 01/02/02 14:15									
Methyl tert-butyl ether	**10000**	100	ug/l	200	2010114	01/10/02	01/10/02	EPA 8260B	
Surrogate: 1,2-DCA-d4		*112 %*	*60-140*		"	"	"	"	

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Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 17:15

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010128 - EPA 5030B (P/T)										
Blank (2010128-BLK1)				Prepared & Analyzed: 01/08/02						
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*8.60*		"	*10.0*		*86.0*	*60-140*			
LCS (2010128-BS1)				Prepared & Analyzed: 01/08/02						
Benzene	9.37	0.50	ug/l	10.0		93.7	70-130			
Toluene	9.71	0.50	"	10.0		97.1	70-130			
Ethylbenzene	9.92	0.50	"	10.0		99.2	70-130			
Xylenes (total)	27.5	0.50	"	30.0		91.7	70-130			
Methyl tert-butyl ether	10.5	2.5	"	10.0		105	70-130			
Surrogate: a,a,a-Trifluorotoluene	*8.89*		"	*10.0*		*88.9*	*60-140*			
Matrix Spike (2010128-MS1)	**Source: S201019-03**			Prepared & Analyzed: 01/08/02						
Benzene	8.93	0.50	ug/l	10.0	ND	89.3	60-140			
Toluene	9.48	0.50	"	10.0	ND	94.8	60-140			
Ethylbenzene	9.61	0.50	"	10.0	ND	96.1	60-140			
Xylenes (total)	26.6	0.50	"	30.0	ND	88.7	60-140			
Methyl tert-butyl ether	10.8	2.5	"	10.0	4.0	68.0	60-140			
Surrogate: a,a,a-Trifluorotoluene	*9.18*		"	*10.0*		*91.8*	*60-140*			
Matrix Spike Dup (2010128-MSD1)	**Source: S201019-03**			Prepared: 01/08/02 Analyzed: 01/09/02						
Benzene	8.60	0.50	ug/l	10.0	ND	86.0	60-140	3.76	25	
Toluene	9.25	0.50	"	10.0	ND	92.5	60-140	2.46	25	
Ethylbenzene	9.29	0.50	"	10.0	ND	92.9	60-140	3.39	25	
Xylenes (total)	25.9	0.50	"	30.0	ND	86.3	60-140	2.67	25	
Methyl tert-butyl ether	12.4	2.5	"	10.0	4.0	84.0	60-140	13.8	25	
Surrogate: a,a,a-Trifluorotoluene	*8.16*		"	*10.0*		*81.6*	*60-140*			

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Delta Environmental Consultants (Rancho Cordova	Project: ARCO 2111, San Leandro, CA	
3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 17:15

MTBE Confirmation by EPA Method 8260B - Quality Control

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010114 - EPA 5030B [P/T]										
Blank (2010114-BLK1)				Prepared & Analyzed: 01/10/02						
Methyl tert-butyl ether	ND	0.50	ug/l							
Surrogate: 1,2-DCA-d4	*24.3*		"	*25.0*		*97.2*	*60-140*			
LCS (2010114-BS1)				Prepared & Analyzed: 01/10/02						
Methyl tert-butyl ether	24.2	0.50	ug/l	25.0		96.8	70-130			
Surrogate: 1,2-DCA-d4	*25.9*		"	*25.0*		*104*	*60-140*			
Matrix Spike (2010114-MS1)		**Source: S201013-09**		Prepared & Analyzed: 01/10/02						
Methyl tert-butyl ether	22.0	0.50	ug/l	25.0	1.7	81.2	60-140			
Surrogate: 1,2-DCA-d4	*24.6*		"	*25.0*		*98.4*	*60-140*			
Matrix Spike Dup (2010114-MSD1)		**Source: S201013-09**		Prepared & Analyzed: 01/10/02						
Methyl tert-butyl ether	24.8	0.50	ug/l	25.0	1.7	92.4	60-140	12.0	25	
Surrogate: 1,2-DCA-d4	*25.7*		"	*25.0*		*103*	*60-140*			

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3164 Gold Camp Drive Ste. 200	Project Number: 2111, San Leandro, CA	**Reported:**
Rancho Cordova CA, 95670	Project Manager: Steven Meeks	01/14/02 17:15

Notes and Definitions

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
RPD	Relative Percent Difference

ARCO ◆

Work Authorization No. 2599300

Chain of Custody

ARCO Facility No. 2111	City (Facility) San Leandro	Project Manager (Consultant) Steve Meeks	Laboratory name Sequoia
ARCO engineer Paul Supple	Telephone no. (ARCO)	Telephone no. (Consultant) 638 2085	Fax no. (Consultant) 6382385
Company name (Consultant) Delta	Address (Consultant) Rancho Cordova		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8021	BTEX/TPH EPA M602/8021/8015 MTBE	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	BTEX + MTBE EPA 8260	BTEX + Standard Oxygenates EPA 8260	TCLP Semi Metals ☐ VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐			
MW-5		4		X		X	X	12-28-01	1040		+			$20	100	9-01						

Special detection Limit/reporting

Special QA/QC

Remarks: Confirm MTBE by 8260

Type of Work
- ☐ Dispenser Work
- ☐ Line Job
- ☐ Routine Sampling
- ☐ Site Acquisitions
- ☐ Site Assessment
- ☐ UST Removal
- ☐ UST Replacement
- ☐ Other _____

Lab number

Turnaround time
- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample:

Temperature received: 7.3°

Relinquished by sampler	Date 01-2-02	Time 1415	Received by Monica Gregson
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory / Date / Time

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant