RO-077

URS

January 31, 2003

Alameda County
FEB 04 2003
Environmental Health

Ms. Eva Chu
Hazardous Materials Speacialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Third Quarter 2002 Groundwater Monitoring Report
ARCO Service Station #6148
5131 Shattuck Avenue
Oakland, Califrornia
URS Project #38465989

Dear Ms. Chu:

On behalf of Atlantic Richfield Company (ARCO - an affiliated company of the Group Environmental Management Company), URS Corporation (URS) is submitting the *Third Quarter 2002 Groundwater Monitoring Report* for ARCO Service Station #6148, located at 5131 Shattuck Avenue, Oakland, California.

If you have any questions regarding this submission, please call (510) 874-3280.

Sincerely,
URS CORPORATION

Scott Robinson
Project Manager

REGISTERED PROFESSIONAL ENGINEER
AMY P. BRECKENRIDGE
No. C057141
Exp. 12/31/05
CIVIL
STATE OF CALIFORNIA

Amy P. Breckenridge, P.E.
Portfolio Mananger

Enclosure: Third Quarter 2002 Groundwater Monitoring Report

cc: Mr. Paul Supple, ARCO, PO Box 6549, Moraga, California 94570

URS Corporation
500 12th Street, Suite 200
Oakland, CA 94607-4014
Tel: 510.893.3600
Fax: 510.874.3268

ARCO Products Company
4 Centerpointe Drive
La Palma, California 90623-1066
Telephone 714 670 5300

Mailing Address: P.O. Box 6549
Moraga, California 94549

January 31, 2003

Re: ARCO Station # 6148 • 5131 Shattuck Avenue • Oakland, CA
Third Quarter 2002 Quarterly Monitoring Report

"I declare, that to the best of my knowledge a the present time, that the information and/or recommendations contained in the attached proposal or report are true and correct."

Submitted by:

Paul Supple
Environmental Engineer

REPORT

THIRD QUARTER 2002 GROUNDWATER MONITORING

ARCO SERVICE STATION #6148
5131 SHATTUCK AVENUE
OAKLAND, CALIFORNIA

Prepared for
Atlantic Richfield Company

January 31, 2003

URS
URS Corporation
500 12th Street, Suite 200
Oakland, California 94607

38465989

URS

Date: January 31, 2003
Quarter: 3Q 02

ATLANTC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.:	6148	Address:	5131 Shattuck Avenue, Oakland, CA
ARCO Environmental Engineer:			Paul Supple
Consulting Co./Contact Person:			URS Corporation/ Scott Robinson
Consultant Project No.:			38465989
Primary Agency:			ACHCSA

WORK PERFORMED THIS QUARTER (Third – 2002):

1. Performed third quarter 2002 groundwater monitoring event.
2. Prepared second quarter 2002 groundwater monitoring report.

WORK PROPOSED FOR NEXT QUARTER (Fourth – 2002):

1. Perform fourth quarter 2002 groundwater monitoring event.
2. Prepare third quarter 2002 groundwater monitoring report.

Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	Wells MW-1, MW-2, MW-3, & MW-5 Quarterly
	Well MW-4 Semi-Annually (1st/3rd Quarter)
	Wells MW-6 & MW-7 Annually (1st Quarter)
Frequency of Groundwater Monitoring:	Quarterly
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	SVE, Air-Sparge and Air-Bubbling Systems (non-operational)
Bulk Soil Removed to Date:	560 cubic yards
Approximate Depth to Groundwater:	13.96 (MW-4) to 17.69 (MW-1) feet
Groundwater Gradient (direction):	Southwest
Groundwater Gradient (magnitude):	0.016 feet per foot

DISCUSSION:

TPH-g was detected in two of the six wells sampled this quarter at concentrations of 170 µg/L in well MW-2 and 750 µg/L in well MW-3. Benzene was detected in two wells at concentrations of 11 µg/L in well MW-3 and 22 µg/L in well MW-2. MTBE was detected in well MW-3 at a concentration of 14 µg/L. Well MW-5 was not sampled due to an ORC sock wedged in the well.

URS

ATTACHMENTS:

- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – August 19, 2002
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment C – Historic Groundwater Data
- Attachment D – EDCC Report and EDF/Geowell Submittal Confirmation

Table 1
Groundwater Elevation and AnalyticalL Data

ARCO Service Station No. 6148
5131 Shattuck Avenue
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
MW-1	06/21/00	107.80	17.49	90.31	<50	<0.5	<0.5	<0.5	<1.0	<3.0
	09/20/00		17.64	90.16	<50	<0.5	0.677	<0.5	0.969	<2.5
	12/22/00		16.87	90.93	186	5.38	0.522	9.52	30.2	8.91
	03/26/01		16.60	91.20	<50	<0.5	<0.5	<0.5	<0.5	9.1
	05/30/01		17.10	90.70	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/23/01		17.53	90.27	<50	<0.5	<0.5	<0.5	<0.5	6.7
	12/28/01		15.57	92.23	<50	2.7	<0.5	<0.5	<0.5	20
	03/21/02		15.57	92.23	NS	NS	NS	NS	NS	NS
	04/17/02		16.25	91.55	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	08/19/02		**17.69**	**90.11**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2.5**
MW-2	06/21/00	107.28	17.19	90 09	69	<0.5	<0.5	<0.5	<1.0	12
	09/20/00		17.31	89.97	<50	0 964	<0.5	<0.5	<.05	5.05
	12/22/00		16.58	90.70	2,140	174	60.2	118	438	123
	03/26/01		16.45	90.83	8,490	333	148	495	1,660	<250
	05/30/01		16.83	90.45	4,700	200	71	260	780	43
	09/23/01		17.30	89.98	160	5.9	1.8	0.80	41	14
	12/28/01		15.38	91.90	1,800	54	<5.0	<5.0	240	30
	03/21/02		15.36	91.92	NS	NS	NS	NS	NS	NS
	04/17/02		16.01	91.27	<50	<0.5	<0 5	<0.5	<0.5	10
	08/19/02		**17.53**	**89.75**	**170** [1]	**22**	**0.92**	**14**	**26**	**<2.5**

Table 1
Groundwater Elevation and AnalyticalL Data

ARCO Service Station No. 6148
5131 Shattuck Avenue
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
MW-3	06/21/00	107.61	17.52	90.09	200	<0.5	<0.5	<0.5	2.1	24
	09/20/00		17.61	90.00	<50	<0.5	<0.5	<0.5	<0.5	20
	12/22/00		16.85	90.76	227	4.73	1.06	2.58	5.22	27.3
	03/26/01		16.79	90 82	287	6.29	1.58	6.47	12.1	24.2
	05/30/01		17.11	90.50	500	10	<0.5	7.00	16	20
	09/23/01		17.57	90.04	400	6.4	0.74	<0.5	0.62	22
	12/28/01		15.41	92.20	270	2.5	2.4	<0.5	2.3	9.2
	03/21/02		15.58	92.03	NS	NS	NS	NS	NS	NS
	04/17/02		16.25	91.36	360	2.5	0.72	<0.5	<0.5	12
	08/19/02		**17.66**	**89.95**	**750** [2]	**11**	**2.1**	**<0.5**	**2.4**	**14**
MW-4	06/21/00	106.71	16.00	90.71	1,400	5.3	7.3	36	85	4
	09/20/00		16.03	90.68	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/22/00		NM	NC	NS	NS	NS	NS	NS	NS
	03/26/01		15.05	91.66	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	05/30/01		15.62	91.09	NS	NS	NS	NS	NS	NS
	09/23/01		16.07	90.64	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/28/01		13.68	93.03	NS	NS	NS	NS	NS	NS
	03/21/02		14.04	92 67	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	04/17/02		14.78	91.93	NS	NS	NS	NS	NS	NS
	08/19/02		**16.18**	**90.53**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2.5**

Table 1
Groundwater Elevation and AnalyticalL Data

ARCO Service Station No. 6148
5131 Shattuck Avenue
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
MW-5	06/21/00	106.60	16.52	90.08	67	<0.5	<0.5	<0.5	<1.0	10
	09/20/00		16.34	90.26	<50	<0.5	<0.5	<0.5	<0.5	3.48
	12/22/00		15.58	91.02	341	11.5	2.53	4.02	6.25	146
	03/26/00		15.45	91.15	767	12.4	<5.0	<5.0	<5.0	163
	05/30/01		15.77	90.83	110	2.3	<0.5	<0.5	0.81	72
	09/23/01		16.16	90.44	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/28/01		14 09	92.51	240	2.8	1.9	<0.5	2.6	48
	03/21/02		14.43	92.17	NS	<0.5	<0.5	<0.5	<0.5	NS
	04/17/02		14.96	91.64	<50	<0 5	<0.5	<0.5	<0.5	<2.5
	08/19/02		**16.34**	**90.26**	**NS [3]**	**NS [3]**	**NS [3]**	**NS [3]**	**NS [3]**	**NS [3]**
MW-6	06/21/00	105.13	13.91	91.22	NS	NS	NS	NS	NS	NS
	09/20/00		14.03	91.10	NS	NS	NS	NS	NS	NS
	12/22/00		NM	NC	NS	NS	NS	NS	NS	NS
	03/26/01		12 59	92.54	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	05/30/01		13.40	91.73	NS	NS	NS	NS	NS	NS
	09/23/01		13.49	91.64	NS	NS	NS	NS	NS	NS
	12/28/01		12.07	93.06	NS	NS	NS	NS	NS	NS
	03/21/02		11 79	93.34	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	04/17/02		12.45	92.68	NS	NS	NS	NS	NS	NS
	08/19/02		**13.96**	**91.17**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2.5**

Table 1
Groundwater Elevation and AnalyticalL Data

ARCO Service Station No. 6148
5131 Shattuck Avenue
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
MW-7	06/21/00	107.05	14.57	92.48	NS	NS	NS	NS	NS	NS
	09/20/00		14.58	92.47	NS	NS	NS	NS	NS	NS
	12/22/00		13.21	93.84	NS	NS	NS	NS	NS	NS
	03/26/01		13.18	93.87	71.4	<0.5	<0.5	<0.5	<0.5	<2.5
	05/30/01		13.80	93.25	NS	NS	NS	NS	NS	NS
	09/23/01		14.27	92.78	NS	NS	NS	NS	NS	NS
	12/28/01		12.24	94.81	NS	NS	NS	NS	NS	NS
	03/21/02		12.16	94.89	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	04/17/02		13.08	93.97	NS	NS	NS	NS	NS	NS
	08/19/02		**14.73**	**92.32**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2.5**

TPH = Total Petroleum Hydrocarbons

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

mg/L = Micrograms per liter

NM = Not measured

NC = Not calculated

NS = Not Sampled

1 = Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.

2 = Chromatogram Pattern Gasoline C6-C10

3 = Well MW-5 not sampled due to ORC scocks wedged in well

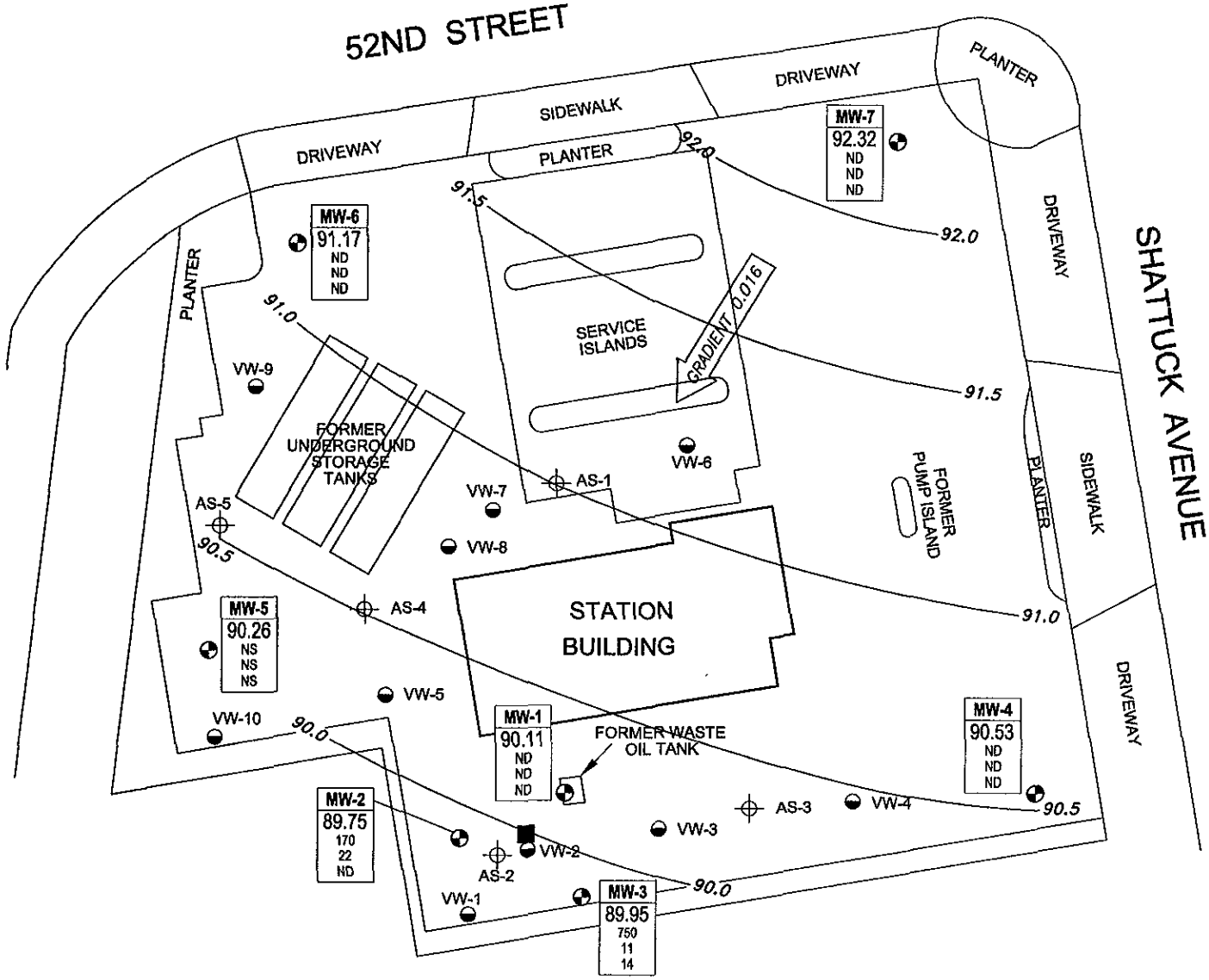
Source. The data within this table collected prior to August 2002 was provided to URS by Group Environmental Management Company and their previous consultants URS has not verified the accuracy of this information.

Table 2
Groundwater Flow Direction and Gradient

ARCO Service Station #6148
5131 Shattuck Avenue
Oakland, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
06/21/00	South-Southwest	0.02
09/20/00	South-Southwest	0.017
12/22/00	South-Southwest	0.022
03/26/01	South-Southwest	0.020
05/30/01	South-Southwest	0.020
09/23/01	South-Southwest	0.019
12/28/01	Southwest	0.019
03/21/02	Southwest	0.019
04/17/02	Southwest	0.017
08/19/02	**Southwest**	**0.016**

Source The data within this table collected prior to August 2002 was provided to URS by Group Environmental Management Company and their previous consultants URS has not verified the accuracy of this information



LEGEND:

MW-1	MONITORING WELL LOCATION
AS-2	AIR SPARGING WELL
VW-1	SOIL VAPOR EXTRACTION WELL LOCATION
■	DESTROYED WELL LOCATION
Well	WELL DESIGNATION
ELEV	GROUNDWATER ELEVATION (FT/MSL)
TPH-g Benzene MTBE	CONCENTRATION OF TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BENZENE, AND MTBE IN GROUNDWATER IN
ND	NOT DETECTED
NS	NOT SAMPLED
92.0	GROUNDWATER ELEVATION CONTOUR (FT/MSL)
	APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT

NORTH

0 30 60

SCALE IN FEET

NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

X:\x_env\waste\BP GEMSites\Scott Robinson\Paul Supple\6148\Reports\Monitoring\Qtr. 3, 2002\Drawings\GWEC-AS.dwg

URS

Project No. 38465989

Arco Service Station 6148
5131 Shattuck Avenue
Oakland, California

GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP
Third Quarter 2002 (August 19, 2002)

FIGURE
1

ATTACHMENT A

FIELD PROCEDURES AND FIELD DATA SHEETS

FIELD PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

WELL GAUGING DATA

Project # 020618-AM 2 Date 4-17-02 Client Arco 6148

Site #6148 5131 Shattuck Ave. Oakland

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC		
MW-1	4					17.69	25.70		S	NP
* MW-2	4					17.53	25.40		S	NP
MW-3	4					17.66	25.90		S	NP
MW-4	4					16.16	26.00		S	P
* MW-5	4					16.34	25.00		S	NP
MW-6	4					13.96	26.60		S	P
MW-7	4					14.73	27.00		S	P
* GAUGED W/ SOCKS IN WELL										

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020618-BM-2	Station # BARCO 6148
Sampler: AM	Date: 6-19-02
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 25.70	Depth to Water: 17.69
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer ✓ / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer / ✓ Disposable Bailer / Extraction Port / Other: ___

Top of Screen: 11.5' GRAB SAMPLE

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

___ (1 Case Volume (Gals.)) X 3 (Specified Volumes) = ___ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1239	66.0	7.1	752	0	Clear

Did well dewater? Yes (No) Gallons actually evacuated: 0

Sampling Time: 1239 Sampling Date: 6-19-02

Sample I.D.: MW-1 Laboratory: Pace (Sequoia) Other ___

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	7.40	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020418-Am-2	Station # ARCO 6146
Sampler: Am	Date: 4-19-02
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 25.60	Depth to Water: 17.53
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Other: ___

Top of Screen: 12'

GRAB SAMPLE

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1 Case Volume (Gals.)	X	Specified Volumes	=	Calculated Volume
___	X	3	=	___ Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
12:55	65.6	6.9	592	0	Cloudy

Did well dewater? Yes (No) Gallons actually evacuated: 0

Sampling Time: 12:55 Sampling Date: 4-19-02

Sample I.D.: MW-2 Laboratory: Pace (Sequoia) Other ___

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	3.0 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020418-BM-2	Station # ARCO 6146
Sampler: AM	Date: 4-19-02
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 25.90	Depth to Water: 17.66
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer X / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer / X Disposable Bailer / Extraction Port / Other: ___

Top of Screen: 10'

GRAB sample

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

___ (1 Case Volume (Gals.)) X 3 (Specified Volumes) = ___ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
13:00	15.3	6.6	597	0	Clear

Did well dewater? Yes (No) Gallons actually evacuated: 0

Sampling Time: 13:00 Sampling Date: 4-19-02

Sample I.D.: MW-3 Laboratory: Pace (Sequoia) Other ___

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	1.4 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020418-BM-2	Station # ARCO 6148
Sampler: AM	Date: 4-19-02
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 26.00	Depth to Water: 16.16
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / Disposable Bailer / Middleburg / Electric Submersible (X) / Extraction Pump / Other: ___

Sampling Method: Bailer / (X) Disposable Bailer / Extraction Port / Other: ___

Top of Screen: ___

If well is listed as a no-purge, confirm that water level is below the top of screen: Otherwise, the well must be purged.

6.3 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 18.9 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
13:54	66.4	6.8	409	6.3	Cloudy
13:55	66.2	6.7	430	12.6	" "
13:56	67.5	6.8	432	18.9	" "

Did well dewater? Yes (No) Gallons actually evacuated: 18.9

Sampling Time: 13:51 Sampling Date: 4-19-02

Sample I.D.: MW-4 Laboratory: Pace (Sequoia) Other ___

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	1.9 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020418-BM-2	Station # ARCO 6148
Sampler: AM	Date: 4-19-02
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 25.00	Depth to Water: 16.34
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer X / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer / X Disposable Bailer / Extraction Port / Other: ___

Top of Screen: 12'

GRAB SAMPLE

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

___ (1 Case Volume (Gals.)) X 3 (Specified Volumes) = ___ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
			ORC		
UNABLE TO GET SAMPLE^ sock's wedged					
In well					

Did well dewater? Yes No		Gallons actually evacuated:		
Sampling Time:		Sampling Date: 4-19-02		
Sample I.D.:		Laboratory: Pace (Sequoia) Other ___		
Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:				
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020418-BM-2	Station # ARCO 6146
Sampler: AM	Date: 4-19-02
Well I.D.: MW-6	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 26.60	Depth to Water: 13.96
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / Disposable Bailer / Middleburg / Electric Submersible ✓ / Extraction Pump / Other: ____

Sampling Method: Bailer / ✓ Disposable Bailer / Extraction Port / Other: ____

Top of Screen: ____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

8.2 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 24.6 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
13:20	65.4	7.0	465	8.2	Cloudy
13:22	66.3	6.9	437	16.4	" "
13:24	67.0	6.9	429	24.6	" "

Did well dewater? Yes (No) Gallons actually evacuated: 24.6

Sampling Time: 13:24 Sampling Date: 4-19-02

Sample I.D.: MW-6 Laboratory: Pace (Sequoia) Other ____

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	7.8 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020418-BM-2	Station # ARCO 6148
Sampler: AM	Date: 6-19-02
Well I.D.: MW-7	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 27.00	Depth to Water: 14.73
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Middleburg / Electric Submersible X / Extraction Pump / Other: ____

Sampling Method: Bailer / X Disposable Bailer / Extraction Port / Other: ____

Top of Screen: ____ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

7.9 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 23.7 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
13:37	67.0	6.9	394	7.9	cloudy
13:39	68.6	6.8	389	15.6	" "
13:41	69.5	6.7	396	23.7	" "

Did well dewater? Yes (No) Gallons actually evacuated: 23.7

Sampling Time: 13:41 Sampling Date: 6-19-02

Sample I.D.: MW-7 Laboratory: Pace (Sequoia) Other ____

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	7.9	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

bp

Chain of Custody Record

Project Name ~~D206~~ 020919-M-2

BP BU/GEM CO Portfolio:

BP Laboratory Contract Number:

Requested Due Date (mm/dd/yy)

Date: 4-19-02

On-site Time:	Temp:
Off- site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

d To:	BP/GEM Facility No.:	Consultant/Contractor: URS
Name: SEQUOIA	BP/GEM Facility Address: 5131 Shattuck Ave, OAKLAND, CA	Address: 500 12th St., Ste. 200
Address: 885 Jarvis Dr.	Site ID No. ARCO 6148	Oakland, CA 94609-4014
Morgan Hill, CA 95037	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #: T0600100103	Consultant/Contractor Project No.: J5-00006148.01 00427
PM: Latonya Pelt	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-1735/510-874-3268
e/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Scott Robinson
ort Type & QC Level: Send EDF Reports		Invoice to: Consultant/Contractor or BP/GEM (Circle one)
GEM Account No.:	Tele/Fax:	BP/GEM Work Release No:

Bottle Order No:

n No.	Sample Description	Time	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Sediments	Matrix: Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	Preservatives: H_2SO_4	Preservatives: HNO_3	Preservatives: HCl	Requested Analysis: TPH-G / BTEX (8015 / 8021)	Requested Analysis: TPH -D (8015)	Requested Analysis: MTBE (8021)	Requested Analysis: MTBE, TAME, ETBE DIPE, TBA (8260)	Requested Analysis: 1,2-DCA & EDB (8260)	Sample Point Lat/Long and Comments
1	Mw-1	12:39		W				3				X	X		X			
2	MW-2	12:55		↓				↓				↓	X		X			
3	Mw-3	13:00											X		X			
4	Mw-4	13:56											X		X			
5	M-6	13:24											X		X			
6	Mw-7	13:46											X		X			
7																		
8																		
9																		
10																		

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
upler's Name: Albert						
npler's Company: Blaine tech		4-19-02			8/29/02	1100
ipment Date:						
ipment Method:						
ipment Tracking No:						

ecial Instructions: Address Invoice to BP/GEM but send to URS for approval

stody Seals In Place Yes___ No___ Temperature Blank Yes___ No___ Cooler Temperature on Receipt ___°F/C Trip Blank Yes___ No___

WELLHEAD INSPECTION CHECKLIST AND REPAIR ORDER

Client BP Arco Inspection Date 6-19-02

Site Address 5131 Shattuck Ave Oakland Inspected By AM

1. Lid on box?	6. Casing secure?	12. Water standing in wellbox?	15. Well cap functional?
2. Lid broken?	7. Casing cut level?	12a. Standing above the top of casing?	16. Can cap be pulled loose?
3. Lid bolts missing?	8. Debris in wellbox?	12b. Standing below the top of casing?	17. Can cap seal out water?
4. Lid bolts stripped?	9. Wellbox is too far above grade?	12c. Water even with the top of casing?	18. Padlock present?
5. Lid seal intact?	10. Wellbox is too far below grade?	13. Well cap present?	19. Padlock functional?
	11. Wellbox is crushed/damaged?	14. Well cap found secure?	

☒ Check box if no deficiencies were found. Note below deficiencies you were able to correct.

Well I.D.	Deficiency	Corrective Action Taken

Note below all deficiencies that could not be corrected and still need to be corrected.

Well I.D.	Persisting Deficiency	BTS Office assigns or defers Correction to:	Date assigned	Date corrected

BP GEM OIL COMPANY TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING** FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

Arco 6146
Station #

5131 Shattuck Ave, Oakland
Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

added equip. rinse water 5

any other adjustments

TOTAL GALS. RECOVERED 69

loaded onto BTS vehicle # 11

BTS event # 020619-AR2 time 1410 date 6/19/02

signature

* *

REC'D AT Alberta Manor time 1600 date 6/19/02

unloaded by signature

Chain of Custody Record

Project Name 020819-AM-7

BP BU/GEM CO Portfolio:

BP Laboratory Contract Number:

Date: 4-19-02 Requested Due Date (mm/dd/yy):

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Send To:	BP/GEM Facility No.:	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 5331 Shattuck Ave, OAKLAND, CA	Address: 500 12th St., Ste. 200
Lab Address: 885 Jarvis Dr.	Site ID No. ARCO 5148	Oakland, CA 94609-4014
Morgan Hill, CA 95037	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #: T0600100103	Consultant/Contractor Project No.: 25-00006148.01 00427
Lab PM: Latonya Pelt	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-1735/510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: Send EDF Reports		Invoice to: Consultant/Contractor or (BP/GEM) (circle one)
BP/GEM Account No.:	Tele/Fax:	BP/GEM Work Release No:

Item No.	Sample Description	Time	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Sediments	Matrix: Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	Preservatives: H_2SO_4	Preservatives: HNO_3	Preservatives: HCl	Requested Analysis: TPH-G/BTEX (8015/8021)	Requested Analysis: TPH-D (8015)	Requested Analysis: MTBE (8021)	Requested Analysis: MTBE, TAME, DIPE, TBA (8260)	Requested Analysis: 1,2-DCA & EDB (8260)	Sample Point Lat/Long and Comments
1	MW-1	12:39		W			ML10438-01	3				X	X		X			
2	MW-2	12:55					02						X		X			
3	MW-3	13:00					03						X		X			
4	MW-4	13:56					04						X		X			
5	MW-6	13:24					05						X		X			
6	MW-7	13:40					06						X		X			
7																		
8																		
9																		
10																		

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Hubert		4-19-02			4/20/02	1100
Sampler's Company: Blaine tech		4/19/02	1225		4/20/02	1325
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Address Invoice to BP/GEM but send to URS for approval

Seals In Place Yes ___ No ✓ Temperature Blank Yes ___ No ✓ Cooler Temperature on Receipt 4°C °F/C Trip Blank Yes ___ No ✓

Distribution: White Copy - Laboratory / Yellow Copy - BP/GEM / Pink Copy - Consultant/Contractor

BP COC Rev. 1 2/5/02

ATTACHMENT B

LABORATORY PROCEDURES, CERTIFIED ANALYTICAL REPORTS, AND CHAIN-OF-CUSTODY RECORDS

LABORATORY PROCEDURES

Laboratory Procedures

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by Group Environmental Management Company have been reviewed and verified by that laboratory.

Sequoia
Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

29 August, 2002

Scott Robinson
URS Corporation
500 12th Street, Suite 100
Oakland, CA 94607

RE: ARCO #6148, Oakland, Ca
Sequoia Report: MLH0438

Enclosed are the results of analyses for samples received by the laboratory on 08/20/02 13:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya K. Pelt

Latonya Pelt
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

URS Corporation	Project: ARCO #6148, Oakland, Ca	
500 12th Street, Suite 100	Project Number: ARCO #6148, Oakland, CA	Reported:
Oakland CA, 94607	Project Manager: Scott Robinson	08/29/02 10:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MLH0438-01	Water	08/19/02 12:39	08/20/02 13:25
MW-2	MLH0438-02	Water	08/19/02 12:55	08/20/02 13:25
MW-3	MLH0438-03	Water	08/19/02 13:00	08/20/02 13:25
MW-4	MLH0438-04	Water	08/19/02 13:56	08/20/02 13:25
MW-6	MLH0438-05	Water	08/19/02 15:24	08/20/02 13:25
MW-7	MLH0438-06	Water	08/19/02 13:48	08/20/02 13:25

Sequoia Analytical - Morgan Hill

Latonya K. Pelt

Latonya Pelt, Project Manager

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.

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialab.com

URS Corporation	Project: ARCO #6148, Oakland, Ca	
500 12th Street, Suite 100	Project Number: ARCO #6148, Oakland, CA	Reported:
Oakland CA, 94607	Project Manager: Scott Robinson	08/29/02 10:01

Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (ML#0438-01) Water Sampled: 08/19/02 12:39 Received: 08/20/02 13:25									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2H26002	08/26/02	08/26/02	8015Bm/8021B	
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		*101 %*		*70-130*	"	"	"	"	
MW-2 (ML#0438-02) Water Sampled: 08/19/02 12:55 Received: 08/20/02 13:25									
Gasoline Range Organics (C6-C10)	**170**	50	ug/l	1	2H26002	08/26/02	08/26/02	8015Bm/8021B	HC-31
Benzene	**22**	0.50	"	"	"	"	"	"	
Toluene	**0.92**	0.50	"	"	"	"	"	"	
Ethylbenzene	**14**	0.50	"	"	"	"	"	"	
Xylenes (total)	**26**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*114 %*		*70-130*	"	"	"	"	
MW-3 (ML#0438-03) Water Sampled: 08/19/02 13:00 Received: 08/20/02 13:25									
Gasoline Range Organics (C6-C10)	**750**	50	ug/l	1	2H26002	08/26/02	08/26/02	8015Bm/8021B	HC-13
Benzene	**11**	0.50	"	"	"	"	"	"	
Toluene	**2.1**	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	**2.4**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**14**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*117 %*		*70-130*	"	"	"	"	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
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FAX (408) 782-6308
www.sequoialabs.com

URS Corporation	Project: ARCO #6148, Oakland, Ca	
500 12th Street, Suite 100	Project Number: ARCO #6148, Oakland, CA	Reported:
Oakland CA, 94607	Project Manager: Scott Robinson	08/29/02 10:01

Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (MLH0438-04) Water Sampled: 08/19/02 13:56 Received: 08/20/02 13:25									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2H26002	08/26/02	08/26/02	8015Bm/8021B	
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		*97.7 %*		*70-130*	"	"	"	"	
MW-6 (MLH0438-05) Water Sampled: 08/19/02 13:24 Received: 08/20/02 13:25									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2H26002	08/26/02	08/26/02	8015Bm/8021B	
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		*105 %*		*70-130*	"	"	"	"	
MW-7 (MLH0438-06) Water Sampled: 08/19/02 13:48 Received: 08/20/02 13:25									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2H26002	08/26/02	08/26/02	8015Bm/8021B	
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		*92.4 %*		*70-130*	"	"	"	"	

Sequoia Analytical

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URS Corporation	Project: ARCO #6148, Oakland, Ca	
500 12th Street, Suite 100	Project Number: ARCO #6148, Oakland, CA	Reported:
Oakland CA, 94607	Project Manager: Scott Robinson	08/29/02 10:01

Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2H26002 - EPA 5030B [P/T]										
Blank (2H26002-BLK1)				Prepared & Analyzed: 08/26/02						
Gasoline Range Organics (C6-C10)	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	*10.0*		"	*10.0*		*100*	*70-130*			
LCS (2H26002-BS1)				Prepared & Analyzed: 08/26/02						
Benzene	10.1	0.50	ug/l	10.0		101	70-130			
Toluene	10.2	0.50	"	10.0		102	70-130			
Ethylbenzene	10.5	0.50	"	10.0		105	70-130			
Xylenes (total)	31.1	0.50	"	30.0		104	70-130			
Surrogate: a,a,a-Trifluorotoluene	*11.1*		"	*10.0*		*111*	*70-130*			
LCS (2H26002-BS2)				Prepared & Analyzed: 08/26/02						
Gasoline Range Organics (C6-C10)	231	50	ug/l	250		92.4	70-130			
Surrogate: a,a,a-Trifluorotoluene	*11.3*		"	*10.0*		*113*	*70-130*			
Matrix Spike (2H26002-MS1)	Source: MLH0425-14			Prepared & Analyzed: 08/26/02						
Gasoline Range Organics (C6-C10)	546	50	ug/l	550	ND	99.3	60-140			
Benzene	11.7	0.50	"	6.60	ND	177	60-140			QM-07
Toluene	39.5	0.50	"	39.7	ND	99.5	60-140			
Ethylbenzene	9.62	0.50	"	9.20	ND	105	60-140			
Xylenes (total)	46.0	0.50	"	46.1	ND	99.8	60-140			
Surrogate: a,a,a-Trifluorotoluene	*10.0*		"	*10.0*		*100*	*70-130*			
Matrix Spike Dup (2H26002-MSD1)	Source: MLH0425-14			Prepared & Analyzed: 08/26/02						
Gasoline Range Organics (C6-C10)	537	50	ug/l	550	ND	97.6	60-140	1.66	25	
Benzene	11.6	0.50	"	6.60	ND	176	60-140	0.858	25	QM-07
Toluene	39.7	0.50	"	39.7	ND	100	60-140	0.505	25	
Ethylbenzene	9.46	0.50	"	9.20	ND	103	60-140	1.68	25	
Xylenes (total)	45.2	0.50	"	46.1	ND	97.7	60-140	1.75	25	
Surrogate: a,a,a-Trifluorotoluene	*10.4*		"	*10.0*		*104*	*70-130*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

URS Corporation	Project: ARCO #6148, Oakland, Ca	
500 12th Street, Suite 100	Project Number: ARCO #6148, Oakland, CA	Reported:
Oakland CA, 94607	Project Manager: Scott Robinson	08/29/02 10:01

Notes and Definitions

HC-12	Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
HC-21	Chromatogram Pattern: Gasoline C6-C10
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

Chain of Custody Record

bp

Project Name: ~~G1SB~~ 020819-AA-2
BP BU/GEM CO Portfolio:
BP Laboratory Contract Number:
Requested Due Date (mm/dd/yy)

Date: 8-19-02

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Send To:
Lab Name: SEQUOIA
Lab Address: 885 Jarvis Dr. Morgan Hill, CA 95037
Lab PM: Lalonya Pelt
Tele/Fax: 408-776-9600 / 408-782-6308
Report Type & QC Level: Send EDF Reports
BP/GEM Account No:
Lab Bottle Order No:

BP/GEM Facility No.:
BP/GEM Facility Address: 5131 Shattuck Ave. OAKLAND, CA
Site ID No. ARCO 6148
Site Lat/Long:
California Global ID #: T0600100103
BP/GEM PM Contact: PAUL SUPPLE
Address:
Tele/Fax:

Consultant/Contractor: URS
Address: 500 12th St., Ste. 200 Oakland, CA 94609-4014
e-mail EDD: syed_rehan@urscorp.com
Consultant/Contractor Project No.: 15-00006148.01 00427
Consultant Tele/Fax: 510-874-1735/510-874-3268
Consultant/Contractor PM: Scott Robinson
Invoice to: Consultant/Contractor or BP/GEM (circle one)
BP/GEM Work Release No:

Item No.	Sample Description	Time	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Sediments	Matrix: Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	Preservatives: H_2SO_4	Preservatives: HNO_3	Preservatives: HCl	Requested Analysis: TPH-G / BTEX (8015/8021)	TPH-D (8015)	MTBE (8021)	MTBE, TAME, ETBE, DIPE, TBA (8260)	1,2-DCA & EDB (8260)	Sample Point Lat/Long and Comments
1	MW-1	12:39		W			NLH0428-01	3				X	X		X			
2	MW-2	12:55		↓			02	↓				↓	X		X			
3	MW-3	13:00		↓			03	↓				↓	X		X			
4	MW-4	12:55		↓			04	↓				↓	X		X			
5	MW-6	13:24		↓			05	↓				↓	X		X			
6	MW-7	13:40		↓			06	↓				↓	X		X			
7																		
8																		
9																		
10																		

Sampler's Name: Albert
Sampler's Company: Blaine tech
Shipment Date:
Shipment Method:
Shipment Tracking No:

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature]	8-19-02		[signature]	8/20/02	1100
[signature]	8/20/02	1325	[signature]	8/20/02	1325

Special Instructions: Address Invoice to BP/GEM but send to URS for approval

Seals In Place Yes ___ No ✓ Temperature Blank Yes ___ No ✓ Cooler Temperature on Receipt 4°C °F/C Trip Blank Yes ___ No ✓

Distribution: White Copy - Laboratory / Yellow Copy - BP/GEM / Pink Copy - Consultant/Contractor

BP COC Rev. 1 2/5/01

ATTACHMENT C

HISTORIC GROUNDWATER DATA

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present**

ARCO Service Station 6148
5131 Shattuck Avenue, Oakland, California

Well Number	Date Gauged/ Sampled	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TRPH (mg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-1	03-20-95	108.03	15.75	ND	92.28	830	140	5	41	110	--	--		
MW-1	06-06-95	108.03	17.68	ND	90.35	210	30	<0.5	7.3	16	--	--		
MW-1	08-24-95	107.80	17.45	ND	90.35	Not sampled: well was inaccessible due to construction								
MW-1	11-16-95	107.80	17.64	ND	90.16	<50	5.6	<0.5	1.4	1.2	55	--		
MW-1	02-27-96	107.80	15.21	ND	92.59	1,400	240	88	44	110	200	--		
MW-1	05-15-96	107.80	17.53	ND	90.27	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-1	08-14-96	107.80	17.15	ND	90.65	98	18	<0.5	1.9	1	45	--		
MW-1	11-11-96	107.80	17.78	ND	90.02	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-1	03-25-97	107.80	17.68	ND	90.12	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	05-15-97	107.80	17.91	ND	89.89	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-1	10-26-97	107.80	18.85	ND	88.95	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	11-10-97	107.80	18.10	ND	89.70	<50	<0.5	<0.5	<0.5	<0.5	4	--		
MW-1	02-13-98	107.80	13.15	ND	94.65	<100	8.4	<1	<1	14	130	--		
MW-1	05-12-98	107.80	12.30	ND	95.50	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	07-28-98	107.80	17.04	ND	90.76	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	10-28-98	107.80	18.10	ND	89.70	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	02-12-99	107.80	15.84	ND	91.96	72	<0.5	<0.5	<0.5	<0.5	23	--		
MW-1	06-03-99	107.80	17.62	ND	90.18	890	33	1.5	12	2.8	250	--	1.44	NP
MW-1	10-26-99	107.80	16.92	ND	90.88	<50	<0.5	<0.5	<0.5	<1	9	--	9.58	NP
MW-2	03-20-95	107.43	15.50	ND#	91.93	Not sampled: floating product entered well during purging								
MW-2	06-06-95	107.43	17.43	ND	90.00	1,200	60	21	35	140	--	--		
MW-2	08-24-95	107.28	17.22	ND	90.06	Not sampled: well was inaccessible due to construction								
MW-2	11-16-95	107.28	17.36	ND	89.92	360	45	1.3	7.1	7.5	210	--		
MW-2	02-27-96	107.28	14.82	ND	92.46	8,900	1,400	980	150	550	940	--		
MW-2	05-15-96	107.28	17.40	ND	89.88	480	82	48	8	48	87	--		
MW-2	08-14-96	107.28	17.00	ND	90.28	130	22	4	2	9	120	--		

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MW-2	11-11-96	107.28	17.55	ND	89.73	1,200	150	120	21	160	110	--		
MW-2	03-25-97	107.28	17.32	ND	89.96	670	23	58	13	120	28	--		
MW-2	05-15-97	107.28	17.61	ND	89.67	<50	<0.5	<0.5	<0.5	<0.5	23	--		
MW-2	10-26-97	107.28	18.43	ND	88.85	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-2	11-10-97	107.28	17.84	ND	89.44	<100	<1	<1	<1	1	74	--		
MW-2	02-13-98	107.28	12.75	ND	94.53	220	9.5	3.9	3.7	48	84	--		
MW-2	05-12-98	107.28	17.02	ND	90.26	3,900	210	280	86	910	35	--		
MW-2	07-28-98	107.28	17.30	ND	89.98	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-2	10-28-98	107.28	17.80	ND	89.48	170	17	<0.5	1.7	5.0	24	--		
MW-2	02-12-99	107.28	15.55	ND	91.73	12,000	620	95	490	2,200	270	--		
MW-2	06-03-99	107.28	17.31	ND	89.97	<50	<0.5	<0.5	<0.5	1.1	8	--	2.53	NP
MW-2	10-26-99	107.28	16.58	ND	90.70	<50	1.0	<0.5	<0.5	3	<3	--	8.17	NP
MW-3	03-20-95	107.77	15.60	ND	92.17	29,000	880	190	760	2,000	--	16		
MW-3	06-06-95	107.77	17.54	ND	90.23	22,000	450	54	380	1,300	--	7.1		
MW-3	08-24-95	107.61	17.42	ND	90.19	Not sampled: well was inaccessible due to construction								
MW-3	11-16-95	107.61	17.58	ND	90.03	13,000	210	<20	320	1,000	790	8.3		
MW-3	02-27-96	107.61	15.03	ND	92.58	9,700	94	15	290	720	430	10		
MW-3	05-15-96	107.61	17.35	ND	90.26	5,600	66	12	37	67	230	--		
MW-3	08-14-96	107.61	17.10	ND	90.51	830	17	<1*	8	7	110	--		
MW-3	11-11-96	107.61	17.73	ND	89.88	500	28	3	12	13	150	--		
MW-3	03-25-97	107.61	17.99	ND	89.62	<50	<0.5	<0.5	<0.5	<0.5	94	--		
MW-3	05-15-97	107.61	17.84	ND	89.77	<50	<0.5	<0.5	<0.5	<0.5	65	--		
MW-3	10-26-97	107.61	18.50	ND	89.11	220	4	<1	<1	<1	160	--		
MW-3	11-10-97	107.61	18.00	ND	89.61	350	8	<2	3	3	230	--		
MW-3	02-13-98	107.61	13.00	ND	94.61	<50	1.3	<0.5	<0.5	1	21	--		
MW-3	05-12-98	107.61	17.20	ND	90.41	120	<0.5	<0.5	<0.5	<0.9	71	--		

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Well Number	Date Gauged/ Sampled	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TRPH (mg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-3	07-28-98	107.61	17.46	ND	90.15	<50	1.4	<0.5	<0.5	<0.5	52	--		
MW-3	10-28-98	107.61	18.00	ND	89.61	170	<0.5	<0.5	<0.5	0.7	35	--		
MW-3	02-12-99	107.61	15.76	ND	91.85	120	2.0	0.6	<0.5	1.3	37	--		
MW-3	06-03-99	107.61	Well inaccessible: Surveyed well VW-1 as an alternative ----------											
MW-3	10-26-99	107.61	16.69	ND	90.92	630	14	0.7	13	2	38	--	1.24	NP
MW-4	03-20-95	106.58	13.85	ND	92.73	88	1	<0.5	<0.5	0.7	--	--		
MW-4	06-06-95	106.58	15.70	ND	90.88	<50	<0.5	<0.5	<0.5	<0.5	--	--		
MW-4	08-24-95	106.71	15.86	ND	90.85	Not sampled: well was inaccessible due to construction								
MW-4	11-16-95	106.71	16.10	ND	90.61	<50	<0.5	<0.5	<0.5	<0.5	6	--		
MW-4	02-27-96	106.71	13.72	ND	92.99	<50	<0.5	<0.5	<0.5	<0.5	10	--		
MW-4	05-15-96	106.71	15.90	ND	90.81	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	08-14-96	106.71	15.68	ND	91.03	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	11-11-96	106.71	16.19	ND	90.52	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	03-25-97	106.71	16.10	ND	90.61	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	05-15-97	106.71	16.38	ND	90.33	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	10-26-97	106.71	17.78	ND	88.93	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	11-10-97	106.71	16.43	ND	90.28	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	02-13-98	106.71	13.05	ND	93.66	<50	1.3	0.7	<0.5	2.3	19	--		
MW-4	05-12-98	106.71	15.69	ND	91.02	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	07-28-98	106.71	15.93	ND	90.78	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	10-28-98	106.71	16.40	ND	90.31	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	02-12-99	106.71	14.13	ND	92.58	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	06-03-99	106.71	16.00	ND	90.71	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	10-26-99	106.71	15.76	ND	90.95	Not sampled: well sampled semi-annually, during the first and third qtr.							1.72	
MW-5	03-20-95	106.68	14.92	ND	91.76	21,000	6,900	450	800	1,300	--	--		

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MW-5	06-06-95	106.68	16.61	ND	90.07	6,500	1,700	<20	120	69	--	--		
MW-5	08-24-95	106.60	16.47	ND	90.13	Not sampled: well was inaccessible due to construction								
MW-5	11-16-95	106.60	16.69	ND	89.91	1,800	470	<5	17	5	1,000	--		
MW-5	02-27-96	106.60	14.35	ND	92.25	10,000	1,000	71	690	1,000	440/450*	--		
MW-5	05-15-96	106.60	16.58	ND	90.02	3,400	350	6	72	20	220	--		
MW-5	08-14-96	106.60	17.26	ND	89.34	2,100	130	2.7	47	4.7	220	--		
MW-5	11-11-96	106.60	16.62	ND	89.98	1,200	31	1	8	2	130	--		
MW-5	03-25-97	106.60	16.38	ND	90.22	<50	<0.5	<0.5	<0.5	<0.5	5	--		
MW-5	05-15-97	106.60	16.54	ND	90.06	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-5	10-26-97	106.60	17.60	ND	89.00	<50	<0.5	<0.5	<0.5	<0.5	7	--		
MW-5	11-10-97	106.60	16.78	ND	89.82	<50	<0.5	<0.5	<0.5	<0.5	24	--		
MW-5	02-13-98	106.60	12.21	ND	94.39	11,200	51	<10	<10	<10	2,000	--		
MW-5	05-12-98	106.60	NR	ND	NR	Not sampled: well inaccessible								
MW-5	07-28-98	106.60	16.47	ND	90.13	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-5	10-28-98	106.60	16.80	ND	89.80	<50	0.8	<0.5	<0.5	<0.5	99	--		
MW-5	02-12-99	106.60	14.88	ND	91.72	<1,000	<10	<10	<10	<10	1,100	--		
MW-5	06-03-99	106.60	16.65	ND	89.95	290	10	<0.5	<0.5	0.6	200	--	2.45	NP
MW-5	10-26-99	106.60	16.10	ND	90.50	<50	<0.5	<0.5	<0.5	<1	11	--	NM	NP
MW-6	03-20-95	105.16	12.13	ND	93.03	<50	<0.5	<0.5	<0.5	<0.5	--	--		
MW-6	06-06-95	105.16	13.95	ND	91.21	<50	<0.5	<0.5	<0.5	<0.5	--	--		
MW-6	08-24-95	105.13	14.07	ND	91.06	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-6	11-16-95	105.13	14.34	ND	90.79	<60	<0.5	<0.5	<0.5	<0.5	--	--		
MW-6	02-27-96	105.13	12.00	ND	93.13	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-6	05-15-96	105.13	14.10	ND	91.03	Not sampled: well sampled annually, during the first quarter								
MW-6	08-14-96	105.13	13.70	ND	91.43	Not sampled: well sampled annually, during the first quarter								
MW-6	11-11-96	105.13	14.11	ND	91.02	Not sampled: well sampled annually, during the first quarter								

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MW-6	03-25-97	105.13	14.15	ND	90.98	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-6	05-15-97	105.13	14.44	ND	90.69	Not sampled: well sampled annually, during the first quarter								
MW-6	10-26-97	105.13	16.02	ND	89.11	Not sampled: well sampled annually, during the first quarter								
MW-6	11-10-97	105.13	14.52	ND	90.61	Not sampled: well sampled annually, during the first quarter								
MW-6	02-13-98	105.13	10.06	ND	95.07	<50	<0.5	<0.5	<0.5	<0.5	8	--		
MW-6	05-12-98	105.13	13.75	ND	91.38	Not sampled: well sampled annually, during the first quarter								
MW-6	07-28-98	105.13	14.06	ND	91.07	Not sampled: well sampled annually, during the first quarter								
MW-6	10-28-98	105.13	14.71	ND	90.42	Not sampled: well sampled annually, during the first quarter								
MW-6	02-12-99	105.13	12.22	ND	92.91	<100	<1	<1	<1	<1	110	--		
MW-6	06-03-99	105.13	13.95	ND	91.18	Not sampled: well sampled annually, during the first quarter								
MW-6	10-26-99	105.13	14.06	ND	91.07	Not sampled: well sampled annually, during the first quarter							3.94	
MW-7	03-20-95	107.08	12.32	ND	94.76	<50	<0.5	<0.5	<0.5	<0.5	--	--		
MW-7	06-06-95	107.08	14.59	ND	92.49	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-7	08-24-95	107.05	14.64	ND	92.41	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	11-16-95	107.05	15.30	ND	91.75	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-7	02-27-96	107.05	12.24	ND	94.81	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	05-15-96	107.05	14.65	ND	92.40	Not sampled: well sampled annually, during the first quarter								
MW-7	08-14-96	107.05	14.35	ND	92.70	Not sampled: well sampled annually, during the first quarter								
MW-7	11-11-96	107.05	14.92	ND	92.13	Not sampled: well sampled annually, during the first quarter								
MW-7	03-25-97	107.05	14.80	ND	92.25	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	05-15-97	107.05	15.27	ND	91.78	Not sampled: well sampled annually, during the first quarter								
MW-7	10-26-97	107.05	16.68	ND	90.37	Not sampled: well sampled annually, during the first quarter								
MW-7	11-10-97	107.05	15.37	ND	91.68	Not sampled: well sampled annually, during the first quarter								
MW-7	02-13-98	107.05	10.80	ND	96.25	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	05-12-98	107.05	14.32	ND	92.73	Not sampled: well sampled annually, during the first quarter								
MW-7	07-28-98	107.05	14.79	ND	92.26	Not sampled: well sampled annually, during the first quarter								

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present**

ARCO Service Station 6148
5131 Shattuck Avenue, Oakland, California

Well Number	Date Gauged/ Sampled	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TRPH (mg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-7	10-28-98	107.05	15.57	ND	91.48	Not sampled: well sampled annually, during the first quarter								
MW-7	02-12-99	107.05	12.46	ND	94.59	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	06-03-99	107.05	14.53	ND	92.52	Not sampled: well sampled annually, during the first quarter								
MW-7	10-26-99	107.05	14.74	ND	92.31	Not sampled: well sampled annually, during the first quarter							1.97	
VW-1	06-03-99	NR	17.51	ND	NR	420	2.3	0.6	2.0	2.2	74	--	1.28	P

ft-MSL: elevation in feet, relative to mean sea level
TPH: total petroleum hydrocarbons as gasoline, California DHS LUFT Method
BTEX: Benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 10/26/99)
MTBE: Methyl tert-butyl ether by EPA method 8021B. (EPA method 8020 prior to 10/26/99).
TRPH: total recoverable petroleum hydrocarbons
µg/L: micrograms per liter
mg/L: milligrams per liter
NR: not reported; data not available
ND: none detected
#: floating product entered the well during purging
- -: not analyzed or not applicable
*. confirmed by EPA 8240
** For previous historical groundwater elevation and analytical data please refer to *Fourth Quarter 1995 Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, ARCO Service Station 6148, Oakland, California,* (EMCON, March 4, 1996).

ATTACHMENT D

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

12/30/02

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #6148, Oakland, Ca
Work Order Number:	MLH0438
Global ID:	T0600100103
Lab Report Number:	MLH0438082920021001

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
MLH04380829200 21001	MW-1	MLH043801	W	CS	SW8020F	SW5030B	08/19/02	08/26/02	08/26/02	2H26002	1	
MLH04380829200 21001	MW-2	MLH043802	W	CS	SW8020F	SW5030B	08/19/02	08/26/02	08/26/02	2H26002	1	
MLH04380829200 21001	MW-3	MLH043803	W	CS	SW8020F	SW5030B	08/19/02	08/26/02	08/26/02	2H26002	1	
MLH04380829200 21001	MW-4	MLH043804	W	CS	SW8020F	SW5030B	08/19/02	08/26/02	08/26/02	2H26002	1	
MLH04380829200 21001	MW-6	MLH043805	W	CS	SW8020F	SW5030B	08/19/02	08/26/02	08/26/02	2H26002	1	
MLH04380829200 21001	MW-7	MLH043806	W	CS	SW8020F	SW5030B	08/19/02	08/26/02	08/26/02	2H26002	1	
		MLH042514	W	NC	SW8020F	SW5030B	/ /	08/26/02	08/26/02	2H26002	1	
		2H26002BS1	WQ	BS1	SW8020F	SW5030B	/ /	08/26/02	08/26/02	2H26002	1	
		2H26002BS2	WQ	BS2	SW8020F	SW5030B	/ /	08/26/02	08/26/02	2H26002	1	
		2H26002BLK1	WQ	LB1	SW8020F	SW5030B	/ /	08/26/02	08/26/02	2H26002	1	
		2H26002MS1	W	MS1	SW8020F	SW5030B	/ /	08/26/02	08/26/02	2H26002	1	
		2H26002MSD1	W	SD1	SW8020F	SW5030B	/ /	08/26/02	08/26/02	2H26002	1	

EDFSAMP: Error Summary Log

12/30/02

Error type	Logcode	Projname	Npdlwo	Sampid	Matrix
There are no errors in this data file					

EDFTEST: Error Summary Log

12/30/02

Error type	Labsampid	Qccode	Anmcode	Exmcode	Anadate	Run number
There are no errors in this data file					/ /	0

EDFRES: Error Summary Log

12/30/02

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	2H26002MS1	MS1	W	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	2H26002MS1	MS1	W	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	2H26002MSD1	SD1	W	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	2H26002MSD1	SD1	W	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	MLH042514	NC	W	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	MLH042514	NC	W	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	MLH043801	CS	W	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	MLH043801	CS	W	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	MLH043801	CS	W	SW8020F	PR	08/26/02	1	MTBE
Warning. extra parameter	MLH043802	CS	W	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	MLH043802	CS	W	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	MLH043802	CS	W	SW8020F	PR	08/26/02	1	MTBE
Warning: extra parameter	MLH043803	CS	W	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	MLH043803	CS	W	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	MLH043803	CS	W	SW8020F	PR	08/26/02	1	MTBE
Warning: extra parameter	MLH043804	CS	W	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	MLH043804	CS	W	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	MLH043804	CS	W	SW8020F	PR	08/26/02	1	MTBE
Warning: extra parameter	MLH043805	CS	W	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	MLH043805	CS	W	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	MLH043805	CS	W	SW8020F	PR	08/26/02	1	MTBE
Warning: extra parameter	MLH043806	CS	W	SW8020F	PR	08/26/02	1	AAATFBZME
Warning. extra parameter	MLH043806	CS	W	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	MLH043806	CS	W	SW8020F	PR	08/26/02	1	MTBE
Warning: extra parameter	2H26002BLK1	LB1	WQ	SW8020F	PR	08/26/02	1	AAATFBZME

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	2H26002BLK1	LB1	WQ	SW8020F	PR	08/26/02	1	GROC6C10
Warning: extra parameter	2H26002BLK1	LB1	WQ	SW8020F	PR	08/26/02	1	MTBE
Warning: extra parameter	2H26002BS1	BS1	WQ	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	2H26002BS2	BS2	WQ	SW8020F	PR	08/26/02	1	AAATFBZME
Warning: extra parameter	2H26002BS2	BS2	WQ	SW8020F	PR	08/26/02	1	GROC6C10

EDFQC: Error Summary Log

12/30/02

Error type	Lablotctl	Anmcode	Parlabel	Qccode	Labqcid
There are no errors in this data files					

EDFCL: Error Summary Log

12/30/02

Error type	Clrevdate	Anmcode	Exmcode	Parlabel	Clcode
There are no errors in this data file	/ /				

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Date/Time of Submittal: 12/30/2002 1:06:13 PM
Facility Global ID: T0600100103
Facility Name: ARCO
Submittal Title: EDCC Report for # 6148
Submittal Type: GW Monitoring Report

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