



September 17, 2003

Mr. Don Hwang
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Alameda County

SEP 23 2003

Environmental Health

**Re: Third Quarter 2003 Groundwater Monitoring Report
ARCO Service Station #4931
731 West MacArthur Boulevard
Oakland, California
URS Project #38486330**

Dear Mr. Hwang:

On behalf of Atlantic Richfield Company (ARCO – an affiliated company of the Group Environmental Management Company), URS Corporation (URS) is submitting the *Third Quarter 2003 Groundwater Monitoring Report* for ARCO Service Station #4931, located at 731 West MacArthur Boulevard, Oakland, California.

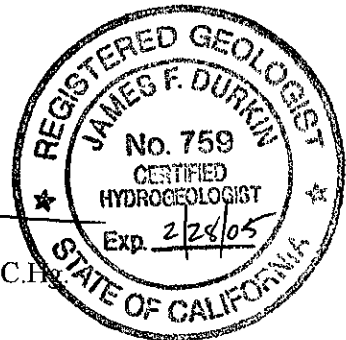
If you have any questions regarding this submission, please call (510) 874-3280.

Sincerely,

URS CORPORATION

Scott Robinson
Project Manager

James F. Durkin, C.H.G.
Senior Geologist



Enclosure: Third Quarter 2003 Groundwater Monitoring Report

cc: Mr. Paul Supple, ARCO (electronic copy uploaded to ENFOS)
Mr. Chuck Headlee, Regional Water Quality Control Board - San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, CA 94612



Atlantic Richfield Company
(a BP affiliated company)

P.O. Box 6549
Moraga, California 94570
Phone: (925) 299-8891
Fax: (925) 299-8872

Alameda County
SEP 28 2003
Environmental Health

September 17, 2003

RE: Third Quarter 2003 Groundwater Monitoring Report
ARCO Service Station #4931
731 West MacArthur Boulevard
Oakland, CA
URS Project # 38486330

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

Submitted by:

Paul Supple
Environmental Business Manager

R E P O R T

**THIRD QUARTER 2003
GROUNDWATER MONITORING**

ARCO SERVICE STATION #4931
731 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Prepared for
Atlantic Richfield Company

September 17, 2003

URS

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

38486330

Date: September 17, 2003
Quarter: 3Q 03

ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 4931 Address: 731 West MacArthur Boulevard, Oakland, California
Atlantic Richfield Co. Environmental Engineer: Paul Supple
Consulting Co./Contact Person: URS Corporation / Scott Robinson
Consultant Project No.: 38486330
Primary Agency: Alameda County Health Care Services Agency (ACHCSA)

WORK PERFORMED THIS QUARTER (Third – 2003):

1. Performed third quarter 2003 groundwater monitoring event on August 6, 2003.
2. Prepared and submitted third quarter 2003 groundwater monitoring report.

WORK PROPOSED FOR NEXT QUARTER (Fourth – 2003):

1. Perform fourth quarter 2003 groundwater monitoring event.
2. Prepare and submit fourth quarter 2003 groundwater monitoring report.

Current Phase of Project: Remediation/GW monitoring/sampling
Frequency of Groundwater Sampling: Annual (2nd Quarter): A-7, A-13
Semi-Annual (2nd/4th Quarter): A-3, A-5, A-11, A-12
Quarterly: A-2, A-4, A-6, A-8, A-9
Frequency of Groundwater Monitoring: Quarterly
Free Product (FP) Present On-Site: Sheen in A-8
Current Remediation Techniques: Intrinsic Bioremediation Enhancement using ORC in A-4, A-8, A-9, and AR-1
Approximate Depth to Groundwater: 5.05 (AR-2) to 10.47 (AR-1) feet
Groundwater Gradient (direction): West-Southwest
Groundwater Gradient (magnitude): 0.018 feet per foot

DISCUSSION:

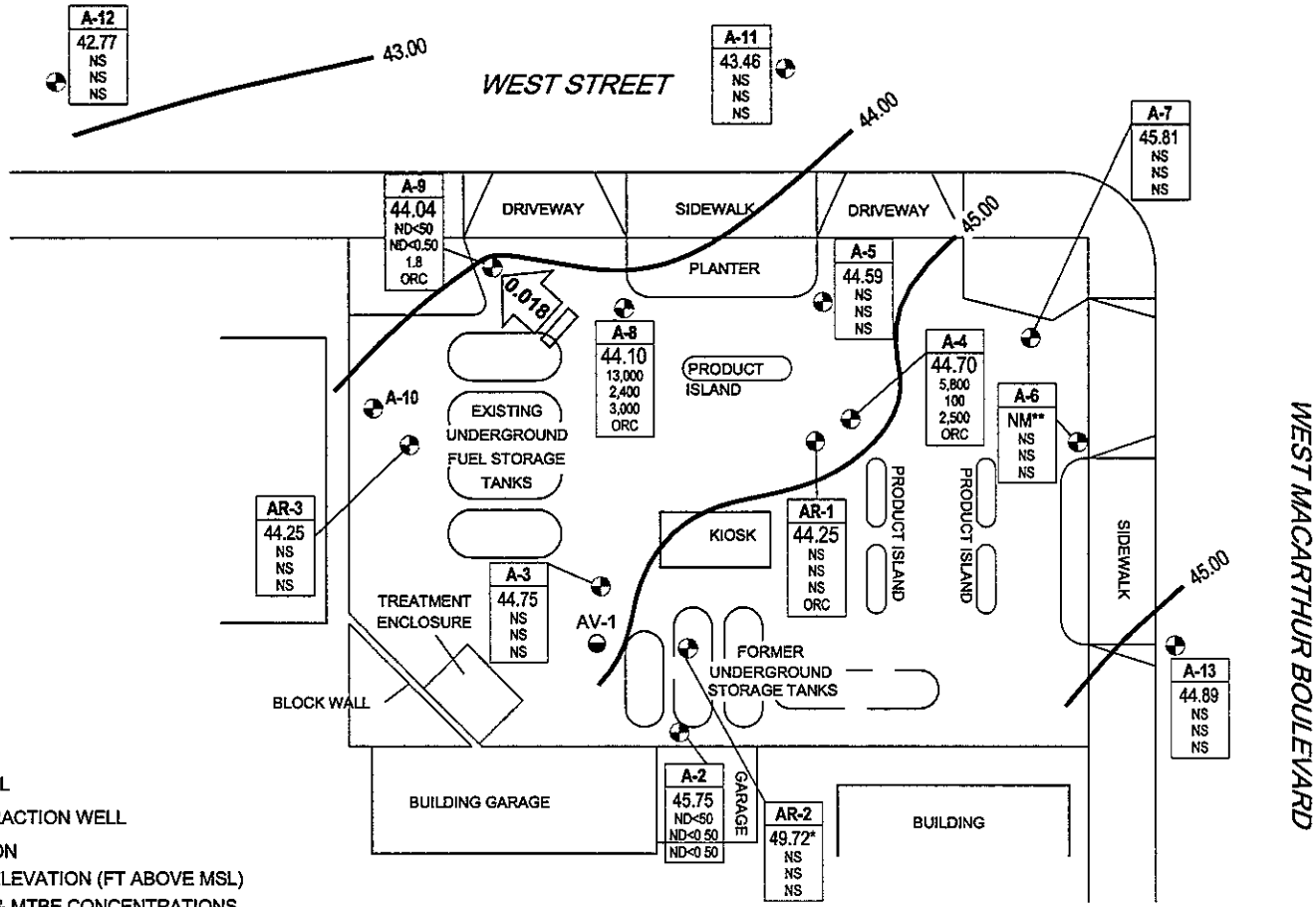
TPH-g was detected in two of the four wells sampled this quarter at concentrations of 5,800 µg/L (A-4) and 13,000 µg/L (A-8). Benzene was detected in two wells at concentrations of 100 µg/L (A-4) and 2,400 µg/L (A-8). MTBE was detected in three wells at concentrations ranging from 1.8 µg/L (A-9) to 3,000 µg/L (A-8). TAME was detected in two wells at concentrations of 560 µg/L (A-4) and 1,200 µg/L (A-8). Well A-6 was inaccessible for sampling as it appears to have been paved over.

RECOMMENDATIONS:

We recommend the following changes in sampling frequency due to consistently low or non-detectable concentrations of the constituents of concern: 1) well A-11 from semi-annual to annual, and 2) wells A-2 and A-9 from quarterly to annually. We further recommend adding well A-10 to the annual sampling event.

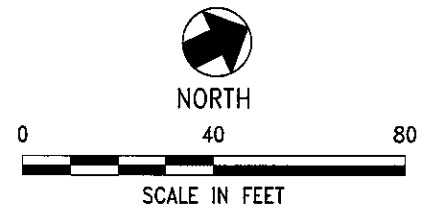
ATTACHMENTS:

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – August 6, 2003
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Oxygenate Analytical Data
- 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 and EDF/Geowell Submittal Confirmation



LEGEND

- MONITORING WELL
 - SOIL VAPOR EXTRACTION WELL
- | Well | WELL DESIGNATION |
|---------|---|
| ELEV | GROUNDWATER ELEVATION (FT ABOVE MSL) |
| TPH-g | TPH-g, BENZENE & MTBE CONCENTRATIONS IN MICROGRAMS PER LITER (µg/L) |
| Benzene | |
| MTBE | |
- * ELEVATION NOT USED IN CONTOURING
 - ** WELL PAVED OVER
 - ND< NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS
 - NM NOT MEASURED
 - NS NOT SAMPLED
 - ORC OXYGEN RELEASING COMPOUND (ORC) SOCK IN WELL
- 46.00 — GROUNDWATER ELEVATION CONTOUR (FT ABOVE MSL)
- 0.022 GROUNDWATER FLOW DIRECTION AND GRADIENT (FEET/FOOT)



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

URS	Project No. 38486330	GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP Third Quarter 2003 (August 6, 2003)	FIGURE 1
	Arco Service Station #4931 731 West MacArthur Boulevard Oakland, California		

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #4931
731 West Macarthur Boulevard
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH	
A-2	06/21/00	55.48	6.85	48.63	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<3.0	NA	NA	
	09/20/00		10.45	45.03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	12/26/00		6.27	49.21	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	03/20/01		4.57	50.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	06/12/01		9.27	46.21	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	09/23/01		10.75	44.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	12/31/01		4.13	51.35	ND<50	ND<0.5	ND<0.5	1	3.2	ND<2.5	NA	NA	
	03/21/02		3.26	52.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	04/17/02		3.72	51.76	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.1	NA	NA	
	08/12/02	NP		9.95	45.53	ND<10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50	3.1	7.7
	12/06/02	NP		10.01	45.47	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.0	3.1	6.1
	01/30/03*	NP		5.08	50.40	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.6	6.7
	05/28/03	NP		4.82	50.66	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	5.7	6.8
	08/06/03	NP		9.73	45.75	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.3	7.7
A-3	06/21/00	54.66	9.48	45.18	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	46	NA	NA	
	09/20/00		10.24	44.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	89.6	NA	NA	
	12/26/00		9.58	45.08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.11	NA	NA	
	03/20/01		6.34	48.32	NS	NS	NS	NS	NS	NS	NS	NS	
	06/12/01		9.76	44.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	86	NA	NA	
	09/23/01		10.55	44.11	NS	NS	NS	NS	NS	NS	NS	NS	
	12/31/01		3.70	50.96	ND<50	ND<0.5	ND<0.5	ND<0.5	1	60	NA	NA	
	03/21/02		5.75	48.91	NS	NS	NS	NS	NS	NS	NS	NS	
	04/17/02		7.27	47.39	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	45	NA	NA	
	08/12/02		9.71	44.95	NS	NS	NS	NS	NS	NS	NS	NS	
	12/06/02	P		9.55	45.11	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	150	2.4	6.6
	01/30/03*			6.05	48.61	NS	NS	NS	NS	NS	NS	NS	NS
	05/28/03	P		8.06	46.60	74	ND<0.50	ND<0.50	ND<0.50	ND<0.50	43	1.5	6.9
	08/06/03			9.91	44.75	NS	NS	NS	NS	NS	NS	NS	NS

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Oakland, California

Well Number	Date Sampled	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH	
A-4	06/21/00	54.73	9.49	45.24	2,100	110	2.1	11	5.9	2,000	NA	NA	
	09/20/00		10.33	44.40	1,540	127	ND<5.0	9.07	7.42	1,940	NA	NA	
	12/26/00		9.34	45.39	1,550	42.7	ND<5.0	11	10.9	1,210	NA	NA	
	03/20/01		7.56	47.17	913	40.9	ND<5.0	15.5	14.6	ND<25	NA	NA	
	06/12/01		9.83	44.90	2,000	230	ND<20	21	ND<20	4,700	NA	NA	
	09/23/01		10.54	44.19	1,600	35	ND<10	ND<10	ND<10	3,000	NA	NA	
	12/31/01		5.42	49.31	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	880	NA	NA	
	03/21/02		6.18	48.55	ND<5,000	ND<50	ND<50	ND<50	ND<50	1,400	NA	NA	
	04/17/02		7.34	47.39	1,300	79	31	17	55	2,200	NA	NA	
	08/12/02	P		9.56	45.17	2,400 ^a	120	ND<5.0	ND<5.0	ND<5.0	2,100	2.0	7.2
	12/06/02	P		10.02	44.71	2,200	110	10	42	56	2,000	NA	6.7
	01/30/03*	P		7.55	47.18	6,000	180	ND<50	85	ND<50	2,100	1.8	6.8
	05/28/03	P		8.94	45.79	6,000	120	ND<50	ND<50	ND<50	2,500	1.5	6.7
	P		10.03	44.70	5,800	100	ND<25	ND<25	33	2,500	1.5	6.7	
A-5	06/21/00	54.17	9.29	44.88	980	ND<0.5	ND<0.5	ND<0.5	ND<1.0	2,000	NA	NA	
	09/20/00		10.23	43.94	NS	NS	NS	NS	NS	NS	NS	NS	
	12/26/00		9.65	44.52	525	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1,200	NA	NA	
	03/20/01		8.05	46.12	NS	NS	NS	NS	NS	NS	NS	NS	
	06/12/01		9.81	44.36	830	ND<5.0	ND<5.0	ND<5.0	ND<5.0	3,200	NA	NA	
	09/23/01		10.42	43.75	NS	NS	NS	NS	NS	NS	NS	NS	
	12/31/01		6.03	48.14	320	ND<0.5	ND<0.5	ND<0.5	ND<0.5	60	NA	NA	
	03/21/02		6.71	47.46	NS	NS	NS	NS	NS	NS	NS	NS	
	04/17/02		8.01	46.16	1,600	ND<10	ND<10	ND<10	ND<10	3,200	NA	NA	
	08/12/02		9.87	44.30	NS	NS	NS	NS	NS	NS	NS	NS	
	12/06/02	P		9.66	44.51	310	ND<0.50	ND<0.50	ND<0.50	ND<0.50	330	1.9	6.6
	01/30/03*		7.67	46.50	NS	NS	NS	NS	NS	NS	NS	NS	
	05/28/03	P		8.56	45.61	ND<5,000	ND<50	ND<50	ND<50	ND<50	1,500	1.6	6.6
	P		9.58	44.59	NS	NS	NS	NS	NS	NS	NS	NS	

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Oakland, California

Well Number	Date Sampled	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH	
A-6	06/21/00	55.17	8.67	46.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<3.0	NA	NA	
	09/20/00		9.34	45.83	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	12/26/00		8.65	46.52	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	03/20/01		6.84	48.33	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	06/12/01		8.93	46.24	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7	NA	NA	
	09/23/01		9.74	45.43	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	12/31/01		4.81	50.36	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.2	NA	NA	
	03/21/02		5.44	49.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	04/17/02		6.95	48.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.1	NA	NA	
	08/12/02	NP		8.90	46.27	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	4.3	7.9
	12/06/02		Unable to Sample, Well Paved Over										
	01/30/03*		Unable to Sample, Well Paved Over										
	05/28/03		Unable to Sample, Well Paved Over										
	08/06/03		Unable to Sample, Well Paved Over										
	A-7	06/21/00	54.71	8.58	46.13	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<3.0	NA	NA
09/20/00			9.19	45.52	NS	NS	NS	NS	NS	NS	NS	NS	
12/26/00			8.50	46.21	NS	NS	NS	NS	NS	NS	NS	NS	
03/20/01			6.75	47.96	NS	NS	NS	NS	NS	NS	NS	NS	
06/12/01			8.80	45.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
09/23/01			9.59	45.12	NS	NS	NS	NS	NS	NS	NS	NS	
12/31/01			4.78	49.93	NS	NS	NS	NS	NS	NS	NS	NS	
03/21/02			5.35	49.36	NS	NS	NS	NS	NS	NS	NS	NS	
04/17/02			6.88	47.83	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.5	NA	NA	
08/12/02			8.77	45.94	NS	NS	NS	NS	NS	NS	NS	NS	
12/06/02			9.07	45.64	NS	NS	NS	NS	NS	NS	NS	NS	
01/30/03*			6.65	48.06	NS	NS	NS	NS	NS	NS	NS	NS	
05/28/03		P		7.63	47.08	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.8	2.3	6.7
08/06/03				8.90	45.81	NS	NS	NS	NS	NS	NS	NS	NS

**Table 1
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Oakland, California

Well Number	Date Sampled	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH	
A-8	06/21/00	53.77	9.07	44.70	810	ND<0.5	ND<0.5	ND<0.5	810	1,500	NA	NA	
	09/20/00		9.72	44.05	10,800	2,680	46	439	370	4,410	NA	NA	
	12/26/00		9.20	44.57	7,700	1,440	ND<50	202	106	2,230	NA	NA	
	03/20/01		7.51	46.26	ND<5,000	1,280	ND<50	53.9	ND<50	2,880	NA	NA	
	06/12/01		9.53	44.24	5,600	1,700	ND<50	61	54	2,900	NA	NA	
	09/23/01		10.08	43.69	10,000	3,500	ND<50	110	64	6,500	NA	NA	
	12/31/01		4.34	49.43	4,300	610	ND<10	60	24	520	NA	NA	
	03/21/02		6.67	47.10	6,600	1400	ND<50	130	ND<50	2,700	NA	NA	
	04/17/02		7.72	46.05	3,800	540	ND<10	ND<10	12	3,100	NA	NA	
	08/12/02	NP		9.64	44.13	9,400	1,800	ND<20	35	28	4,200	1.0	6.7
	12/06/02	NP		9.62	44.15	5,300	1,100	11	11	ND<10	2,200 ^b	1.4	6.7
	01/30/03*	NP		7.49	46.28	ND<10,000	1,100	ND<100	ND<100	ND<100	2,200	1.5	6.9
	05/28/03	NP		9.17	44.60	7,700	1,700	ND<50	ND<50	ND<50	2,100	1.0	6.8
08/06/03	NP		9.67	44.10	13,000	2,400	ND<50	ND<50	ND<50	3,000	0.9	6.5	
A-9	06/21/00	53.04	8.56	44.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	5.0	NA	NA	
	09/20/00		9.05	43.99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	12/26/00		8.49	44.55	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	03/20/01		6.95	46.09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	06/12/01		8.67	44.37	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.8	NA	NA	
	09/23/01		9.21	43.83	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	12/31/01		4.57	48.47	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	03/21/02		5.60	47.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	04/17/02		6.89	46.15	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	08/12/02	P		8.71	44.33	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	4.0	7.6
	12/06/02	P		8.77	44.27	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	1.1	6.7
	01/30/03*	P		6.88	46.16	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	0.9	6.8
	05/28/03	P		9.75	43.29	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.74	1.9	6.8
08/06/03	P		9.00	44.04	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	2.2	6.7	

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #4931
731 West Macarthur Boulevard
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH	
A-10	06/21/00	54.26	10.47	43.79	NS	NS	NS	NS	NS	NS	NS	NS	
	09/20/00		10.76	43.50	NS	NS	NS	NS	NS	NS	NS	NS	
	12/26/00		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/20/01		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/23/01		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/31/01		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/21/02		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/02		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/12/02		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/06/02		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01/30/03*		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	05/28/03		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/06/03		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS
A-11	06/21/00	53.74	9.54	44.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	4.0	NA	NA	
	09/20/00		10.62	43.12	NS	NS	NS	NS	NS	NS	NS	NS	
	12/26/00		10.03	43.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	03/20/01		8.49	45.25	NS	NS	NS	NS	NS	NS	NS	NS	
	06/12/01		10.21	43.53	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	09/23/01		10.77	42.97	NS	NS	NS	NS	NS	NS	NS	NS	
	12/31/01		6.06	47.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	03/21/02		7.14	46.60	NS	NS	NS	NS	NS	NS	NS	NS	
	04/17/02		8.41	45.33	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	08/12/02		10.25	43.49	NS	NS	NS	NS	NS	NS	NS	NS	
	12/06/02		P	10.43	43.31	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	2.4	6.7
	01/30/03*			8.42	45.32	NS	NS	NS	NS	NS	NS	NS	NS
	05/28/03		P	9.30	44.44	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.53	1.8	7.0
08/06/03		10.28	43.46	NS	NS	NS	NS	NS	NS	NS	NS		

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #4931
731 West Macarthur Boulevard
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH	
A-12	06/21/00	52.05	9.28	42.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	18	NA	NA	
	09/20/00		9.55	42.50	NS	NS	NS	NS	NS	NS	NS	NS	
	12/26/00		9.05	43.00	ND< 50	ND< 0.5	ND< 0.5	ND< 0.5	ND<0.5	17.3	NA	NA	
	03/20/01		7.92	44.13	NS	NS	NS	NS	NS	NS	NS	NS	
	06/12/01		9.26	42.79	ND< 50	ND< 0.5	ND< 0.5	ND< 0.5	ND<0.5	25	NA	NA	
	09/23/01		9.68	42.37	NS	NS	NS	NS	NS	NS	NS	NS	
	12/31/01		5.74	46.31	ND< 50	ND< 0.5	ND< 0.5	ND< 0.5	ND<0.5	9.5	NA	NA	
	03/21/02		6.64	45.41	NS	NS	NS	NS	NS	NS	NS	NS	
	04/17/02		7.68	44.37	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	29	NA	NA	
	08/12/02		9.30	42.75	NS	NS	NS	NS	NS	NS	NS	NS	
	12/06/02 ^c		P	9.38	42.67	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	13	2.3	6.5
	01/30/03*			7.87	44.18	NS	NS	NS	NS	NS	NS	NS	NS
	05/28/03		P	8.51	43.54	50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	1.4	7.0
08/06/03		9.28	42.77	NS	NS	NS	NS	NS	NS	NS	NS		
A-13	06/21/00	55.11	NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	
	09/20/00		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	
	12/26/00		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	
	03/20/01		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	
	06/12/01		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	
	09/23/01		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	
	12/31/01		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS	
	03/21/02		6.70	48.41	NS	NS	NS	NS	NS	NS	NS	NS	
	04/17/02		7.95	47.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA	
	08/12/02		10.11	45.00	NS	NS	NS	NS	NS	NS	NS	NS	
	12/06/02		10.26	44.85	NS	NS	NS	NS	NS	NS	NS	NS	
	01/30/03*		7.81	47.30	NS	NS	NS	NS	NS	NS	NS	NS	
	05/28/03		P	9.06	46.05	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.9	6.5
08/06/03		10.22	44.89	NS	NS	NS	NS	NS	NS	NS	NS		

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #4931
731 West Macarthur Boulevard
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
AR-1	06/21/00	54.72	NM	NC	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/00		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS
	12/26/00		9.95	44.77	NS	NS	NS	NS	NS	NS	NS	NS
	03/20/01		8.34	46.38	NS	NS	NS	NS	NS	NS	NS	NS
	06/12/01		10.17	44.55	NS	NS	NS	NS	NS	NS	NS	NS
	09/23/01		10.72	44.00	NS	NS	NS	NS	NS	NS	NS	NS
	12/31/01		5.91	48.81	NS	NS	NS	NS	NS	NS	NS	NS
	03/21/02		7.00	47.72	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/02		8.33	46.39	NS	NS	NS	NS	NS	NS	NS	NS
	08/12/02		10.18	44.54	NS	NS	NS	NS	NS	NS	NS	NS
	12/06/02		10.21	44.51	NS	NS	NS	NS	NS	NS	NS	NS
	01/30/03*		8.22	46.50	NS	NS	NS	NS	NS	NS	NS	NS
	05/28/03		9.62	45.10	NS	NS	NS	NS	NS	NS	NS	NS
08/06/03			10.47	44.25	NS	NS	NS	NS	NS	NS	NS	NS
AR-2	06/21/00	54.77	NM	NC	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/00		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS
	12/26/00		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS
	03/20/01		3.13	51.64	NS	NS	NS	NS	NS	NS	NS	NS
	06/12/01		4.51	50.26	NS	NS	NS	NS	NS	NS	NS	NS
	09/23/01		6.05	48.72	NS	NS	NS	NS	NS	NS	NS	NS
	12/31/01		2.79	51.98	NS	NS	NS	NS	NS	NS	NS	NS
	03/21/02		7.75	47.02	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/02		2.24	52.53	NS	NS	NS	NS	NS	NS	NS	NS
	08/12/02		4.93	49.84	NS	NS	NS	NS	NS	NS	NS	NS
	12/06/02		6.09	48.68	NS	NS	NS	NS	NS	NS	NS	NS
	01/30/03*		3.89	50.88	NS	NS	NS	NS	NS	NS	NS	NS
	05/28/03		3.33	51.44	NS	NS	NS	NS	NS	NS	NS	NS
08/06/03			5.05	49.72	NS	NS	NS	NS	NS	NS	NS	NS

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #4931
731 West Macarthur Boulevard
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
AR-3	06/21/00	54.19	NM	NC	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/00		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS
	12/26/00		9.70	44.49	NS	NS	NS	NS	NS	NS	NS	NS
	03/20/01		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS
	06/12/01		NM	NC	NS	NS	NS	NS	NS	NS	NS	NS
	09/23/01		10.43	43.76	NS	NS	NS	NS	NS	NS	NS	NS
	12/31/01		5.18	49.01	NS	NS	NS	NS	NS	NS	NS	NS
	03/21/02		6.78	47.41	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/02		8.06	46.13	NS	NS	NS	NS	NS	NS	NS	NS
	08/12/02		9.94	44.25	NS	NS	NS	NS	NS	NS	NS	NS
	12/06/02		9.99	44.20	NS	NS	NS	NS	NS	NS	NS	NS
	01/30/03*		7.96	46.23	NS	NS	NS	NS	NS	NS	NS	NS
	05/28/03		8.94	45.25	NS	NS	NS	NS	NS	NS	NS	NS
	08/06/03		9.94	44.25	NS	NS	NS	NS	NS	NS	NS	NS

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #4931
731 West Macarthur Boulevard
Oakland, California

TPH-g	= Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B modified (before 1/30/03)
MTBE	= Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted (before 1/30/03)
note	= Samples taken 12/06/02 analyzed using DHS LUFT
µg/L	= Micrograms per liter
mg/L	= Milligrams per liter
TOC	= Top of casing
DO	= Dissolved oxygen
NM	= Not measured
NC	= Not calculated
NS	= Not sampled
NA	= Not available
ND<	= Not detected at or above the specified laboratory detection limit
P	= Purge
NP	= Not purged
a	= Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
b	= The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
c	= This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose.
d	= The result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.
*	= Beginning this quarter, groundwater samples were analyzed by EPA method 8260B for TPH-g, BTEX, and fuel oxygenates.
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 #4931
731 West Macarthur Boulevard
Oakland, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
06/21/00	West-Southwest	0.031
09/20/00	Southwest	0.013
12/26/00	West	0.028
03/20/01	West	0.046
06/12/01	West	0.014
09/23/01	West	0.012
12/31/01	West	0.024
03/21/02	West	0.047
04/17/02	West	0.03
08/12/02	West	0.016
12/06/02	West	0.015
01/30/03	West	Variable
05/28/03	Westward	0.022 ^a
08/06/03	West-Southwest	0.018

a = using wells AR-1 and A-9

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 3
Fuel Oxygenate Analytical Data**

ARCO Service Station #4931
731 West MacArthur Boulevard
Oakland, California

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
A-2	01/30/03	ND<40	ND<20 ^a	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	05/28/03	ND<100	ND<20	1.1	ND<0.50	ND<0.50	ND<0.50	NA	NA
	08/06/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-3	01/30/03	NS	NS	NS	NS	NS	NS	NA	NA
	05/28/03	ND<100	ND<20	43	ND<0.50	ND<0.50	24	NA	NA
	08/06/03	NS	NS	NS	NS	NS	NS	NS	NS
A-4	01/30/03	ND<4,000	ND<2,000 ^a	2,100	ND<50	ND<50	530	NA	NA
	05/28/03	ND<10,000	ND<2,000	2,500	ND<50	ND<50	590	NA	NA
	08/06/03	ND<5,000	ND<1,000	2,500	ND<25	ND<25	560	ND<25	ND<25
A-5	01/30/03	NS	NS	NS	NS	NS	NS	NA	NA
	05/28/03	ND<10,000	ND<2,000	1,500	ND<50	ND<50	620	NA	NA
	08/06/03	NS	NS	NS	NS	NS	NS	NS	NS
A-7	01/30/03	NS	NS	NS	NS	NS	NS	NA	NA
	05/28/03	ND<100	ND<20	3.8	ND<0.50	ND<0.50	0.94	NA	NA
	08/06/03	NS	NS	NS	NS	NS	NS	NS	NS
A-8	01/30/03	ND<8,000	ND<4,000 ^a	2,200	ND<100	ND<100	900	NA	NA
	05/28/03	ND<10,000	ND<2,000	2,100	ND<50	ND<50	1,100	NA	NA
	08/06/03	ND<10,000	ND<2,000	3,000	ND<50	ND<50	1,200	ND<50	ND<50
A-9	01/30/03	ND<40	ND<20	1.1	ND<0.50	ND<0.50	ND<0.50	NA	NA
	05/28/03	ND<100	ND<20	0.74	ND<0.50	ND<0.50	ND<0.50	NA	NA
	08/06/03	ND<100	ND<20	1.8	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-11	01/30/03	NS	NS	NS	NS	NS	NS	NA	NA
	05/28/03	ND<100	ND<20	0.53	ND<0.50	ND<0.50	ND<0.50	NA	NA
	08/06/03	NS	NS	NS	NS	NS	NS	NS	NS

**Table 3
Fuel Oxygenate Analytical Data**

ARCO Service Station #4931
731 West MacArthur Boulevard
Oakland, California

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
A-12	01/30/03	NS	NS	NS	NS	NS	NS	NA	NA
	05/28/03	ND<100	ND<20	10	ND<0.50	ND<0.50	2.5	NA	NA
	08/06/03	NS	NS	NS	NS	NS	NS	NS	NS
A-13	01/30/03	NS	NS	NS	NS	NS	NS	NA	NA
	05/28/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	08/06/03	NS	NS	NS	NS	NS	NS	NS	NS

Note = All fuel oxygenate compounds analyzed using EPA Method 8260B

TBA = tert-Butyl alcohol

MTBE = Methyl tert-butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tert butyl ether

TAME = tert-Amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

NA = Not analyzed

µg/L = micrograms per liter

ND< = Not detected at or above laboratory reporting limits

NS = Not sampled

a = The result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.

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 TeflonTM 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 # 030806-DA2 Date 8/6/03 Client Arco/BP

Site 731 W. Macarthur Blvd. Oakland, CA

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	NPA
A-2	4					9.73	19.40	ToC	5
A-3	4					9.91	16.20		
A-4	4		ORC'S			10.03	19.42		P
A-5	3					9.58	24.59		
A-6	3		Paved Over			8.90 8.90	-		Z
A-7	3					8.90 8.90	22.24		
A-8	3		ORC'S			9.67	16.80		Z
A-9	6		ORC'S			9.00	37.81		P
A-11	3					10.28	29.71		
A-12	3					9.28	29.79		
A-13	3					10.22	29.05		
AR-1	6		ORC'S			10.47	29.39		
AR-2	6					5.05	26.28		
AR-3	4					9.94	28.95	↓	

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030806-PAZ	Station # 4931
Sampler: DA	Date: 8/6/03
Well I.D.: A-2	Well Diameter: 2 3 ④ 6 8
Total Well Depth: 19.40	Depth to Water: 9.73
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVP</u> Grade	D.O. Meter (if req'd): <u>YSI</u> 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: 5' If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

_____	x	No Purge	=	_____	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1305	69.9	7.7	978	←	clear

Did well dewater? Yes Gallons actually evacuated: ←

Sampling Time: 8:1308 Sampling Date: 8/6/03

Sample I.D.: A-2 Laboratory: Pace Sequoia Other _____

Analyzed for: ~~TPH-G~~ BTEX MTBE TPH-D Other: oxy's, Ethanol

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.3 mg/L
	O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030806-DAZ	Station # 4931
Sampler: DA	Date: 8/6/03
Well I.D.: A-4	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 19.42	Depth to Water: 10.03
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	<u>4"</u>	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Purge Method: <u>Bailer</u>	Sampling Method: <u>Bailer</u>
Disposable Bailer	<input checked="" type="checkbox"/> Disposable Bailer
Middleburg	Extraction Port
<input checked="" type="checkbox"/> Electric Submersible Extraction Pump	Other: _____
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.

<u>6.1</u>	x	<u>3</u>	=	<u>18.1</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
14:00	70.9	6.5	1426	6.5	grey, odor
1710	well	dewatered @ 8'g			DTW = 17.92
1420	71.7	6.7	1575	6.58	DTW = 17.18 @ departure
		SPH on bailer and reel			

Did well dewater? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Gallons actually evacuated: <u>8</u>
Sampling Time: <u>1423</u>	Sampling Date: <u>8/6/03</u>
Sample I.D.: <u>A-4</u>	Laboratory: Pace <u>Sequoia</u> Other _____

Analyzed for: <u>PPH-G</u> BTEX MTBE TPH-D Other: <u>Orly's, Ethanol</u>		
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: <u>1.5</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030806-PA2	Station # 4931
Sampler: OA	Date: 8/6/03
Well I.D.: A-6	Well Diameter: 2 3 4 6 8 ____
Total Well Depth: —	Depth to Water: —
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: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> 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.

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
		well	Paved Over		

Did well de-water? Yes <input type="checkbox"/> No <input type="checkbox"/>	Gallons actually evacuated: _____		
Sampling Time: _____	Sampling Date: _____		
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 #: 030806-PA2	Station # 4981
Sampler: DA	Date: 8/6/03
Well I.D.: 8/6 A-8	Well Diameter: 2 <input checked="" type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8 <input type="radio"/>
Total Well Depth: 16.50	Depth to Water: 9.67
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="radio"/> PVO Grade	D.O. Meter (if req'd): <input checked="" type="radio"/> 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 Sampling Method: Bailer

Disposable Bailer Disposable Bailer

Middleburg Extraction Port

Electric Submersible Other: _____

Extraction Pump

Other: _____

Top of Screen: 2' 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	No Purge	=	_____ Gals.
		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or <input checked="" type="radio"/> μ S)	Gals. Removed	Observations
1323	72.2	6.5	1190	—	grey, strong odor, sheer

Did well dewater? Yes No Gallons actually evacuated: —

Sampling Time: 1326 Sampling Date: 8/6/03

Sample I.D.: A-8 Laboratory: Pace Sequoia Other _____

Analyzed for: PHE-G RTEX MTBE TPH-D Other: Oxy's, Ethanol

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.9 mg/L
	O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030806-PAZ	Station # 4931
Sampler: DA	Date: 8/6/03
Well I.D.: A-9	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth: 37.81	Depth to Water: 9.00
Depth to Free Product:	Thickness of Free Product (feet): -
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>VSI</u> 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	Sampling Method: Bailer
Disposable Bailer	<input checked="" type="checkbox"/> Disposable Bailer
Middleburg	Extraction Port
<input checked="" type="checkbox"/> Electric Submersible Extraction Pump	Other: _____
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.

<u>42.7</u>	x	<u>3</u>	=	<u>127.2</u>	Gals.
I Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1342	68.5	6.9	656	42.5	clear
1350	68.9	6.8	654	85	"
1359	68.6	6.7	650	127.5	"

Did well dewater? Yes <input type="checkbox"/> <u>No</u>	Gallons actually evacuated: <u>127.5</u>	
Sampling Time: <u>1400</u>	Sampling Date: <u>8/6/03</u>	
Sample I.D.: <u>A-9</u>	Laboratory: Pace <u>Sequon</u> Other _____	
Analyzed for: TPH-G <u>BTEX</u> MTBE TPH-D Other: <u>Oxy's, Ethanol</u>		
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: <u>2.2</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

WELLHEAD INSPECTION CHECKLIST

Client Arco/BP Date 8/6/03

Site Address 731 w. MacArthur Blvd. Oakland, CA

Job Number 030806-DA2 Technician DA

Well ID	Well Inspected - No Corrective Action Required	Water Balled From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
A-2								2
A-3	X							
A-4								2
A-5								3
A-6							X	
A-7								2
A-8								4
A-9								4
A-11								2
A-12								1, #
A-13	X							
AR-1								4
AR-2								4
AR-3								4

NOTES: ① 3" flip cap broken, does not seal to c. Flip cap hinge broken. No lock/unable to lock w/out.

② 3" PVC flip cap may not seal TOC - no lock/unable to lock with standard 2357

③ TOC not level, no bolts in vault; ④ Missing all bolts, vault; 4 possible stripped bolt holes

A-6: paved over

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 PLAINE 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:

4931

Station #

731 W. MacArthur Blvd. Oakland, CA

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

135.5

added equip.
rinse water

10

any other
adjustments

TOTAL GALS.
RECOVERED

145.5

loaded onto
BTS vehicle #

49

BTS event #

030806-DAZ

time

date

1445

8/6/03

signature

David Allbut

REC'D AT

time

date

unloaded by
signature

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.



18 August, 2003

Scott Robinson
URS Corporation [Arco]
500 12th Street, Suite 200
Oakland, CA 94607

RE: ARCO #4931, Oakland, CA
Work Order: MMH0264

Enclosed are the results of analyses for samples received by the laboratory on 08/07/03 13:17. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa Allen
Project Manager

CA ELAP Certificate #1210



URS Corporation [Arco]
500 12th Street, Suite 200
Oakland CA, 94607

Project: ARCO #4931, Oakland, CA
Project Number: N/P
Project Manager: Scott Robinson

MMH0264
Reported:
08/18/03 10:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-2	MMH0264-01	Water	08/06/03 13:08	08/07/03 13:17
A-4	MMH0264-02	Water	08/06/03 14:23	08/07/03 13:17
A-8	MMH0264-03	Water	08/06/03 13:26	08/07/03 13:17
A-9	MMH0264-04	Water	08/06/03 14:00	08/07/03 13:17

There were no custody seals that were received with this project.

URS Corporation [Arco]
 500 12th Street, Suite 200
 Oakland CA, 94607

 Project: ARCO #4931, Oakland, CA
 Project Number: N/P
 Project Manager: Scott Robinson

 MMH0264
 Reported:
 08/18/03 10:01

Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-2 (MMH0264-01) Water Sampled: 08/06/03 13:08 Received: 08/07/03 13:17									
Ethanol	ND	100	ug/l	1	3H14039	08/14/03	08/14/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4

110 % 78-129

" " " "

A-4 (MMH0264-02) Water Sampled: 08/06/03 14:23 Received: 08/07/03 13:17

Ethanol	ND	5000	ug/l	50	3H14039	08/14/03	08/14/03	EPA 8260B	
tert-Butyl alcohol	ND	1000	"	"	"	"	"	"	
Methyl tert-butyl ether	2500	25	"	"	"	"	"	"	
Di-isopropyl ether	ND	25	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	25	"	"	"	"	"	"	
tert-Amyl methyl ether	560	25	"	"	"	"	"	"	
1,2-Dichloroethane	ND	25	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	25	"	"	"	"	"	"	
Benzene	100	25	"	"	"	"	"	"	
Toluene	ND	25	"	"	"	"	"	"	
Ethylbenzene	ND	25	"	"	"	"	"	"	
Xylenes (total)	33	25	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	5800	2500	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4

109 % 78-129

" " " "

URS Corporation [Arco]
 500 12th Street, Suite 200
 Oakland CA, 94607

 Project: ARCO #4931, Oakland, CA
 Project Number: N/P
 Project Manager: Scott Robinson

 MMH0264
 Reported:
 08/18/03 10:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3H14039 - EPA 5030B P/T
Blank (3H14039-BLK1)

Prepared & Analyzed: 08/14/03

Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.25		"	5.00		105	78-129			

Laboratory Control Sample (3H14039-BS1)

Prepared & Analyzed: 08/14/03

Methyl tert-butyl ether	10.5	0.50	ug/l	10.0		105	63-137			
Benzene	10.4	0.50	"	10.0		104	78-124			
Toluene	11.6	0.50	"	10.0		116	78-129			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.49		"	5.00		110	78-129			

Laboratory Control Sample (3H14039-BS2)

Prepared & Analyzed: 08/14/03

Methyl tert-butyl ether	10.6	0.50	ug/l	9.92		107	63-137			
Benzene	5.38	0.50	"	6.40		84.1	78-124			
Toluene	34.9	0.50	"	29.7		118	78-129			
Gasoline Range Organics (C6-C10)	404	50	"	440		91.8	70-113			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.40		"	5.00		108	78-129			

URS Corporation [Arco]
 500 12th Street, Suite 200
 Oakland CA, 94607

 Project: ARCO #4931, Oakland, CA
 Project Number: N/P
 Project Manager: Scott Robinson

 MMH0264
 Reported:
 08/18/03 10:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3H14039 - EPA 5030B P/T

Matrix Spike (3H14039-MS1)		Source: MMH0264-03			Prepared: 08/14/03		Analyzed: 08/15/03			
Methyl tert-butyl ether	3990	50	ug/l	992	3000	99.8	63-137			
Benzene	3050	50	"	640	2400	102	78-124			
Toluene	3320	50	"	2970	18	111	78-129			
Gasoline Range Organics (C6-C10)	52300	5000	"	44000	13000	89.3	70-113			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.40</i>		<i>"</i>	<i>5.00</i>		<i>108</i>	<i>78-129</i>			
Matrix Spike Dup (3H14039-MSD1)		Source: MMH0264-03			Prepared: 08/14/03		Analyzed: 08/15/03			
Methyl tert-butyl ether	3930	50	ug/l	992	3000	93.8	63-137	1.52	13	
Benzene	3000	50	"	640	2400	93.8	78-124	1.65	12	
Toluene	3510	50	"	2970	18	118	78-129	5.56	10	
Gasoline Range Organics (C6-C10)	55000	5000	"	44000	13000	95.5	70-113	5.03	9	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.39</i>		<i>"</i>	<i>5.00</i>		<i>108</i>	<i>78-129</i>			



URS Corporation [Arco]
500 12th Street, Suite 200
Oakland CA, 94607

Project: ARCO #4931, Oakland, CA
Project Number: N/P
Project Manager: Scott Robinson

MMH0264
Reported:
08/18/03 10:01

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



Chain of Custody Record

Project Name 030806-DA2
 BP BU/GEM CO Portfolio: _____
 BP Laboratory Contract Number: _____

Date: 8/6/03

Requested Due Date (mm/dd/yy) 8/20/03 MMH 0264

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: Latonya Pelt
 Tele/Fax: 408-776-9600 / 408-782-6308
 Report Type & QC Level: Send EDP Reports
 BP/GEM Account No.: _____

BP/GEM Facility No.: _____
 BP/GEM Facility Address: 731 W. MACARTHUR BLVD, OAKLAND, CA
 Site ID No. ARCO 4931
 Site Lat/Long: _____
 California Global ID #: T0600100107
 BP/GEM PM Contact: PAUL SUPPLE
 Address: P.O. Box 6549
Moraga, CA 94570
 Tele/Fax: 925-299-8891/925-299-8872

Consultant/Contractor: URS
 Address: 500 12th St., Ste. 200
Oakland, CA 94609-4014
 e-mail EDD: syed_rehan@urscorp.com
 Consultant/Contractor Project No.: J5-00004931.01 00427
 Consultant Tele/Fax: 510-874-3280/510-874-3268
 Consultant/Contractor PM: Scott Robinson
 Invoice to: Consultant/Contractor of BP/GEM (Circle one)
 BP/GEM Work Release No: _____

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Requested Analysis						Sample Point Lat/Long and Comments	
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	TPH-G/BTEX (8015/8021/8260)	TPH-D (8015)	MTBE (8021)	MTBE (8260)	MTBE, TAME, ETBE (8260)	DIFE, TEA (8260)		1,2-DCA & EDB (8260)
1	A-2	1308	X				01	W					X					X		
2	A-4	1423					02						X					X		
3	A-8	1326					03						X					X		
4	A-9	1400					04						X					X		
5																				
6																				
7																				
8																				
9																				
10																				

Sampler's Name: David Albert
 Sampler's Company: Alamo Tech
 Shipment Date: _____
 Shipment Method: _____
 Shipment Tracking No: _____

Relinquished By / Affiliation: David Albert / BTS
 Date: 8/7/03 Time: 13:17
 Accepted By / Affiliation: [Signature]
 Date: 8/7/03 Time: 12:05
13:17

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

Seals In Place Yes No No X Temperature Blank Yes No No X Cooler Temperature on Receipt 2°C Trip Blank Yes No No X

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP
 REC. BY (PRINT): [Signature]
 WORKORDER: MMN 6264

DATE REC'D AT LAB: 8/7/03
 TIME REC'D AT LAB: 13:17
 DATE LOGGED IN: 8-7-03

Drinking water for
 regulatory purposes: YES NO
 Wastewater for
 regulatory purposes: YES NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <input checked="" type="checkbox"/> Absent Intact / Broken*	01	A-C	A-2	(3) cans	HCL	L	8/6/03	
2. Chain-of-Custody <input checked="" type="checkbox"/> Present / Absent*	02	↓	↓ 4	↓	↓	↓	↓	
3. Traffic Reports or Packing List	03	↓	↓ 8	↓	↓	↓	↓	
4. Airbill: Airbill / Sticker Present / <input checked="" type="checkbox"/> Absent	04	↓	↓ 9	↓	↓	↓	↓	
5. Airbill #:								
6. Sample Labels: <input checked="" type="checkbox"/> Present / Absent								
7. Sample IDs: <input checked="" type="checkbox"/> Listed / Not Listed on Chain-of-Custody								
8. Sample Condition: <input checked="" type="checkbox"/> Intact / Broken* / Leaking*								
9. Does information on custody reports, traffic reports and sample labels agree? <input checked="" type="checkbox"/> Yes / No*								
10. Sample received within hold time: <input checked="" type="checkbox"/> Yes / No*								
11. Proper Preservatives used: <input checked="" type="checkbox"/> Yes / No*								
12. Temp Rec. at Lab: Is temp 4 +/- 2°C? <input checked="" type="checkbox"/> Yes / No** <small>(Acceptance range for samples requiring thermal pres.)</small>								
**Exception (if any): Metals / DFF (Direct From Field) or Problem COC								

***IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.**

ATTACHMENT C

HISTORIC GROUNDWATER DATA

Table 1
Groundwater Elevation and Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, and MTBE)

ARCO Service Station 4931
731 West MacArthur Boulevard, Oakland, California

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPH Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8021B* (ppb)	MTBE 8260 (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)
A-2	03/26/96	55.48	5.37	50.11	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM	
A-2	05/22/96	55.48	5.25	50.23	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM	
A-2	08/22/96	55.48	10.45	45.03	<50	1.1	1.8	<0.5	1.3	<2.5	NA	NM	
A-2	12/19/96	55.48	5.53	49.95	<50	<0.5	<0.5	<0.5	<0.5	2.7	NA	NM	
A-2	04/01/97	55.48	8.77	46.71	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NM	
A-2	05/27/97	55.48	9.87	45.61	<50	<0.5	<0.5	<0.5	<0.5	4.6	NA	NM	
A-2	08/12/97	55.48	11.11	44.37	<50	<0.5	<0.5	<0.5	<0.5	5.6	NA	NM	
A-2	11/14/97	55.48	10.63	44.85	<50	0.9	2.8	<0.5	2.4	27	NA	2.6	
A-2	03/18/98	55.48	3.58	51.90	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	NM	
A-2	05/19/98	55.48	4.82	50.66	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	1.30	P
A-2	07/29/98	55.48	8.94	46.54	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	1.2	NP
A-2	10/09/98	55.48	10.82	44.66	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	0.5	NP
A-2	02/19/99	55.48	4.46	51.02	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	3.0	P
A-2	06/02/99	55.48	5.59	49.89	<50	<0.5	0.6	<0.5	<0.5	<3	NA	5.35	NP
A-2	08/26/99	55.48	10.67	44.81	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	0.79	NP
A-2	10/26/99	55.48	4.61	50.87	<50	<0.5	<0.5	<0.5	<1	<3	NA	2.14	P
A-2	02/25/00	55.48	3.10	52.38	<50	<0.5	<0.5	<0.5	<1	<3	NA	4.21	NP
A-3	03/26/96	54.66	7.20	47.46	Not Sampled: Well Sampled Semiannually								
A-3	05/22/96	54.66	7.70	46.96	<50	1.2	1.9	0.7	1.3	NA	NA	NM	
A-3	08/22/96	54.66	10.88	43.78	Not Sampled: Well Sampled Semiannually								
A-3	12/19/96	54.66	7.70	46.96	5,900	<25	<25	<25	<25	NA	5,300	NM	
A-3	04/01/97	54.66	9.78	44.88	Not Sampled: Well Sampled Semiannually								
A-3	05/27/97	54.66	10.55	44.11	2,300	<20	<20	<20	<20	3,800	NA	NM	
A-3	08/12/97	54.66	11.12	43.54	Not Sampled: Well Sampled Semiannually								
A-3	11/14/97	54.66	8.24	46.42	<1,000	<10	<10	<10	<10	1,500	NA	3.8	
A-3	03/18/98	54.66	5.05	49.61	Not Sampled: Well Sampled Semiannually								
A-3	05/19/98	54.66	9.00	45.66	<250	<2.5	<2.5	<2.5	<2.5	220	NA	4.60	P
A-3	07/29/98	54.66	9.86	44.80	Not Sampled: Well Sampled Semiannually								
A-3	10/09/98	54.66	11.36	43.30	<250	<2.5	<2.5	<2.5	<2.5	260	NA	1.0	NP
A-3	02/19/99	54.66	6.19	48.47	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	2.5	NP
A-3	06/02/99	54.66	10.82	43.84	120	<1	<1	<1	<1	160	NA	2.78	NP

Table 1
Groundwater Elevation and Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, and MTBE)

ARCO Service Station 4931
731 West MacArthur Boulevard, Oakland, California

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPH Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8021B* (ppb)	MTBE 8260 (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)	
A-3	08/26/99	54.66	10.73	43.93	Not Sampled: Well Sampled Semiannually								0.95	
A-3	10/26/99	54.66	6.58	48.08	<50	<0.5	<0.5	<0.5	<1	32	NA	2.06	NP	
A-3	02/25/00	54.66	5.41	49.25	Not Sampled: Well Sampled Semiannually									
A-4	03/26/96	54.73	7.95	46.78	8,900	1,200	21	200	220	NA	NA	NM		
A-4	05/22/96	54.73	8.35	46.38	5,300	700	<10	170	130	NA	NA	NM		
A-4	08/22/96	54.73	11.03	43.70	3,000	480	<5.0	75	26	150	NA	NM		
A-4	12/19/96	54.73	8.67	46.06	<2,000	<20	<20	<20	<20	NA	15,000	NM		
A-4	04/01/97	54.73	11.95	42.78	8,900	1,700	22	310	260	6,900	NA	NM		
A-4	05/27/97	54.73	10.80	43.93	7,100	960	<20	150	74	7,900	NA	NM		
A-4	08/12/97	54.73	11.38	43.35	4,300	670	12	51	27	2,800	NA	NM		
A-4	11/14/97	54.73	7.74	46.99	<20,000	300	500	<200	<200	27,000	NA	2.2		
A-4	03/18/98	54.73	6.80	47.93	4,700	600	<20	99	94	1,200	NA	1.0		
A-4	05/19/98	54.73	9.06	45.67	<2000	<20	<20	<20	720	2,000	NA	1.28	P	
A-4	07/29/98	54.73	10.05	44.68	8,400	1,300	<20	290	130	1,800	NA	0.7	NP	
A-4	10/09/98	54.73	11.20	43.53	3,500	400	<20	54	<20	1,700	NA	1.0	NP	
A-4	02/19/99	54.73	6.85	47.88	<1,000	<10	<10	<10	12	650	NA	0.1	NP	
A-4	06/02/99	54.73	11.00	43.73	6,100	760	16	260	89	2,300	NA	1.12	NP	
A-4	08/26/99	54.73	10.80	43.93	1,100	68	5	8	4	1,400	NA	1.15	NP	
A-4	10/26/99	54.73	10.11	44.62	1,500	39	2.3	9.0	5	1,700	NA	10.12	NP	
A-4	02/25/00	54.73	5.90	48.83	870	53	1.1	4.6	20	600	NA	1.72	NP	
A-5	03/26/96	54.17	7.93	46.24	Not Sampled: Well Sampled Semiannually									
A-5	05/22/96	54.17	8.20	45.97	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM		
A-5	08/22/96	54.17	10.70	43.47	Not Sampled: Well Sampled Semiannually									
A-5	12/19/96	54.17	8.39	45.78	9,900	1,100	330	230	700	NA	24	NM		
A-5	04/01/97	54.17	10.83	43.34	Not Sampled: Well Sampled Semiannually									
A-5	05/27/97	54.17	10.65	43.52	100	<0.5	<0.5	<0.5	<0.5	120	NA	NM		
A-5	08/12/97	54.17	11.05	43.12	Not Sampled: Well Sampled Semiannually									
A-5	11/14/97	54.17	10.51	43.66	<50	<0.5	<0.5	<0.5	<0.5	41	NA	4.8		
A-5	03/18/98	54.17	8.10	46.07	Not Sampled: Well Sampled Semiannually									
A-5	05/19/98	54.17	9.31	44.86	590	<5	<5	<5	<5	710	NA	2.48	P	

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Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPH Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8021B* (ppb)	MTBE 8260 (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)
A-5	07/29/98	54.17	9.89	44.28	Not Sampled: Well Sampled Semiannually								
A-5	10/09/98	54.17	11.02	43.15	690	<5	<5	<5	<5	710	NA	1.0	NP
A-5	02/19/99	54.17	6.82	47.35	<2,000	<20	<20	<20	<20	2,300	NA	0.6	NP
A-5	06/02/99	54.17	10.82	43.35	1,500	<0.5	2.3	<0.5	<0.5	2,400	NA	2.81	NP
A-5	08/26/99	54.17	10.65	43.52	Not Sampled: Well Sampled Semiannually								
A-5	10/26/99	54.17	10.35	43.82	380	<0.5	<0.5	<0.5	<1	440	NA	0.49	
A-5	02/25/00	54.17	6.89	47.28	Not Sampled: Well Sampled Semiannually								
A-6	03/26/96	55.17	7.15	48.02	52	2.7	<0.5	1.1	2.0	NA	NA	NM	
A-6	05/22/96	55.17	7.35	47.82	<50	2.4	<0.5	0.88	1.7	NA	NA	NM	
A-6	08/22/96	55.17	10.12	45.05	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NM	
A-6	12/19/96	55.17	7.43	47.74	<50	1.7	<0.5	0.78	1.5	<2.5	NA	NM	
A-6	04/01/97	55.17	9.97	45.20	<50	4.7	<0.5	1.9	3.2	<2.5	NA	NM	
A-6	05/27/97	55.17	9.66	45.51	<50	0.69	<0.5	<0.5	<0.5	<2.5	NA	NM	
A-6	08/12/97	55.17	10.43	44.74	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NM	
A-6	11/14/97	55.17	9.76	45.41	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	<1.0	
A-6	03/18/98	55.17	7.00	48.17	<50	6.2	0.5	2.3	2.6	<3	NA	3.0	
A-6	05/19/98	55.17	8.27	46.90	<50	<0.5	<0.5	1.3	4.7	<3	NA	2.16	P
A-6	07/29/98	55.17	8.96	46.21	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	0.8	NP
A-6	10/09/98	55.17	10.23	44.94	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	1.0	NP
A-6	02/19/99	55.17	5.79	49.38	<50	<0.5	<0.5	<0.5	<0.5	5	NA	0.4	NP
A-6	06/02/99	55.17	9.71	45.46	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	2.00	NP
A-6	08/26/99	55.17	9.79	45.38	<50	<0.5	<0.5	<0.5	0.7	<3	NA	0.66	NP
A-6	10/26/99	55.17	9.70	45.47	<50	<0.5	<0.5	<0.5	<1	<3	NA	1.66	NP
A-6	02/25/00	55.17	5.68	49.49	<50	<0.5	<0.5	<0.5	<1	<3	NA	1.22	NP
A-7	03/26/96	54.71	6.90	47.81	Not Sampled: Well Sampled Semiannually								
A-7	05/22/96	54.71	8.27	46.44	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM	
A-7	08/22/96	54.71	9.80	44.91	Not Sampled: Well Sampled Semiannually								
A-7	12/19/96	54.71	7.19	47.52	Not Sampled: Well Sampled Annually								
A-7	04/01/97	54.71	9.63	45.08	Not Sampled: Well Sampled Annually								
A-7	05/27/97	54.71	9.34	45.37	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NM	

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ARCO Service Station 4931
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Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPH Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8021B* (ppb)	MTBE 8260 (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)	
A-7	08/12/97	54.71	10.10	44.61	Not Sampled: Well Sampled Annually									
A-7	11/14/97	54.71	9.35	45.36	Not Sampled: Well Sampled Annually									
A-7	03/18/98	54.71	6.75	47.96	Not Sampled: Well Sampled Annually									
A-7	05/19/98	54.71	8.85	45.86	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	1.82	P	
A-7	07/29/98	54.71	8.84	45.87	Not Sampled: Well Sampled Annually									
A-7	10/09/98	54.71	10.05	44.66	Not Sampled: Well Sampled Annually									
A-7	02/19/99	54.71	5.57	49.14	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	4.7	NP	
A-7	06/02/99	54.71	9.56	45.15	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	2.17	NP	
A-7	08/26/99	54.71	9.66	45.05	Not Sampled: Well Sampled Annually								0.49	
A-7	10/26/99	54.71	9.54	45.17	Not Sampled: Well Sampled Annually								1.26	
A-7	02/25/00	54.71	5.60	49.11	Not Sampled: Well Sampled Annually									
A-8	03/26/96	53.77	7.10	46.67	48,000	2,600	<100	650	1,100	NA	NA	NM		
A-8	05/22/96	53.77	7.20	46.57	14,000	2,800	160	320	190	NA	NA	NM		
A-8	08/22/96	53.77	11.57	42.20	8,000	1,000	76	150	96	4,300	NA	NM		
A-8	12/19/96	53.77	8.04	45.73	12,000	450	110	210	230	<500	NA	NM		
A-8	04/01/97	53.77	9.98	43.79	Not Sampled: Well Sampled Semiannually									
A-8	05/27/97	53.77	11.45	42.32	11,000	1,600	100	220	210	2,300	NA	NM		
A-8	08/12/97	53.77	11.59	42.18	Not Sampled: Well Sampled Semiannually									
A-8	11/14/97	53.77	9.85	43.92	26,000	2,300	<200	400	400	4,100	NA	2.2		
A-8	03/18/98	53.77	7.80	45.97	Not Sampled: Well Sampled Semiannually									
A-8	05/19/98	53.77	8.78	44.99	88,000	4,200	150	640	600	6,700	NA	1.36	P	
A-8	07/29/98	53.77	9.59	44.18	46,000	4,900	160	620	580	13,000	NA	0.5	NP	
A-8	10/09/98	53.77	11.23	42.54	130,000	3,700	110	500	770	7,300	NA	1.0	NP	
A-8	02/19/99	53.77	6.51	47.26	<1,000	39	<10	<10	<10	840	NA	0.2	NP	
A-8	06/02/99	53.77	10.68	43.09	8,500	1,300	32	180	110	6,700	NA	1.31	NP	
A-8	08/26/99	53.77	10.43	43.34	6,200	870	17	64	60	3,700	NA	0.69	NP	
A-8	10/26/99	53.77	10.23	43.54	15,000	2,800	140	370	360	480	NA	0.62	NP	
A-8	02/25/00	53.77	5.93	47.84	2,600	330	6.6	18	26	1,100	NA	1.43	NP	
A-9	03/26/96	53.04	7.05	45.99	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM		
A-9	05/22/96	53.04	7.20	45.84	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM		

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Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPH Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8021B* (ppb)	MTBE 8260 (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)
A-9	08/22/96	53.04	9.68	43.36	<50	<0.5	<0.5	<0.5	<0.5	8.5	NA	NM	
A-9	12/19/96	53.04	7.43	45.61	<50	<0.5	<0.5	<0.5	<0.5	2.6	NA	NM	
A-9	04/01/97	53.04	9.95	43.09	Not Sampled: Well Sampled Semiannually								
A-9	05/27/97	53.04	9.56	43.48	<50	2.3	<0.5	<0.5	<0.5	45	NA	NM	
A-9	08/12/97	53.04	10.15	42.89	Not Sampled: Well Sampled Semiannually								
A-9	11/14/97	53.04	8.64	44.40	<200	<2.0	<2.0	<2.0	<2.0	190	NA	9.6	
A-9	03/18/98	53.04	6.45	46.59	Not Sampled: Well Sampled Semiannually								
A-9	05/19/98	53.04	8.35	44.69	<50	<0.5	<0.5	<0.5	<0.5	7	NA	1.27	P
A-9	07/29/98	53.04	8.74	44.30	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	0.99	NP
A-9	10/09/98	53.04	10.05	42.99	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	1.0	NP
A-9	02/19/99	53.04	6.91	46.13	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	2.0	NP
A-9	06/02/99	53.04	9.72	43.32	<50	<0.5	<0.5	<0.5	<0.5	16	NA	2.32	NP
A-9	08/26/99	53.04	9.48	43.56	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	0.71	NP
A-9	10/26/99	53.04	9.17	43.87	1,500	6.2	0.7	78	11	91	NA	2.15	NP
A-9	02/25/00	53.04	5.84	47.20	<50	<0.5	<0.5	<0.5	<1	<3	NA	1.55	NP
A-10	03/26/96	54.26	8.28	45.98	Not Sampled: Well Removed from Sampling Program								
A-10	05/22/96	54.26	8.60	45.66	Not Sampled: Well Removed from Sampling Program								
A-10	08/22/96	54.26	10.98	43.28	Not Sampled: Well Removed from Sampling Program								
A-10	12/19/96	54.26	8.80	45.46	Not Sampled: Well Removed from Sampling Program								
A-10	04/01/97	54.26	11.15	43.11	Not Sampled: Well Removed from Sampling Program								
A-10	05/27/97	54.26	10.90	43.36	Not Sampled: Well Removed from Sampling Program								
A-10	08/12/97	54.26	11.30	42.96	Not Sampled: Well Removed from Sampling Program								
A-10	11/14/97	54.26	10.80	43.46	Not Sampled: Well Removed from Sampling Program								
A-10	03/18/98				----- Well Removed from Survey Program -----								
A-11	03/26/96	53.74	8.10	45.64	Not Sampled: Well Sampled Semiannually								
A-11	05/22/96	53.74	8.25	45.49	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM	
A-11	08/22/96	53.74	10.58	43.16	Not Sampled: Well Sampled Semiannually								
A-11	12/19/96	53.74	8.37	45.37	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NM	
A-11	04/01/97	53.74	10.95	42.79	Not Sampled: Well Sampled Semiannually								
A-11	05/27/97	53.74	10.60	43.14	<50	<0.5	<0.5	<0.5	<0.5	3.1	NA	NM	

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A-11	08/12/97	53.74	11.07	42.67	Not Sampled: Well Sampled Semiannually								
A-11	11/14/97	53.74	10.58	43.16	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	1.6	
A-11	03/18/98	53.74	8.14	45.60	Not Sampled: Well Sampled Semiannually								
A-11	05/19/98	53.74	9.40	44.34	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	1.13	P
A-11	07/29/98	53.74	10.32	43.42	Not Sampled: Well Sampled Semiannually								
A-11	10/09/98	53.74	10.91	42.83	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	2.0	NP
A-11	02/19/99	53.74	6.77	46.97	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	1.8	NP
A-11	06/02/99	53.74	10.95	42.79	<50	<0.5	<0.5	<0.5	<0.5	6	NA	1.38	NP
A-11	08/26/99	53.74	11.05	42.69	Not Sampled: Well Sampled Semiannually								
A-11	10/26/99	53.74	10.81	42.93	<50	<0.5	<0.5	<0.5	<1	4	NA	0.49	
A-11	02/25/00	53.74	6.70	47.04	Not Sampled: Well Sampled Semiannually								
A-12	03/26/96	52.05	7.83	44.22	Not Sampled: Well Sampled Semiannually								
A-12	05/22/96	52.05	7.80	44.25	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM	
A-12	08/22/96	52.05	9.97	42.08	Not Sampled: Well Sampled Semiannually								
A-12	12/19/96	52.05	8.18	43.87	85	<0.5	<0.5	<0.5	<0.5	170	NA	NM	
A-12	04/01/97	52.05	10.30	41.75	Not Sampled: Well Sampled Semiannually								
A-12	05/27/97	52.05	10.05	42.00	50	12	<0.5	<0.5	<0.5	96	NA	NM	
A-12	08/12/97	52.05	10.46	41.59	Not Sampled: Well Sampled Semiannually								
A-12	11/14/97	52.05	9.70	42.35	<50	<0.5	<0.5	<0.5	<0.5	75	NA	7.0	
A-12	03/18/98	52.05	8.15	43.90	Not Sampled: Well Sampled Semiannually								
A-12	05/19/98	52.05	9.15	42.90	<50	<0.5	<0.5	<0.5	<0.5	29	NA	1.47	P
A-12	07/29/98	52.05	9.38	42.67	Not Sampled: Well Sampled Semiannually								
A-12	10/09/98	52.05	10.21	41.84	<50	<0.5	<0.5	<0.5	<0.5	7	NA	2.0	NP
A-12	02/19/99	52.05	6.96	45.09	<50	<0.5	<0.5	<0.5	<0.5	<3	NA	5.2	NP
A-12	06/02/99	52.05	10.25	41.80	<50	<0.5	<0.5	<0.5	<0.5	7	NA	1.38	NP
A-12	08/26/99	52.05	9.91	42.14	Not Sampled: Well Sampled Semiannually								
A-12	10/26/99	52.05	9.73	42.32	<50	<0.5	<0.5	<0.5	<1	12	NA	0.51	
A-12	02/25/00	52.05	6.97	45.08	Not Sampled: Well Sampled Semiannually								
A-13	03/26/96	55.11			----- Well Inaccessible -----								
A-13	05/22/96	55.11			----- Well Inaccessible -----								

Table 1
Groundwater Elevation and Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, and MTBE)

ARCO Service Station 4931
731 West MacArthur Boulevard, Oakland, California

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPH Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8021B* (ppb)	MTBE 8260 (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)	
AR-1	02/25/00	54.72	7.15	47.57	Not Sampled: Well Removed from Sampling Program									
AR-2	03/26/96	54.77	4.93	49.84	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM		
AR-2	05/22/96	54.77	5.65	49.12	NS	NS	NS	NS	NS	NS	NS	NM		
AR-2	08/22/96	54.77	7.27	47.50	<50	<0.5	<0.5	<0.5	<0.5	200	NA	NM		
AR-2	12/19/96	54.77	7.78	46.99	Not Sampled: Well Removed from Sampling Program									
AR-2	04/01/97	54.77	6.80	47.97	Not Sampled: Well Removed from Sampling Program									
AR-2	05/27/97	54.77	6.32	48.45	Not Sampled: Well Removed from Sampling Program									
AR-2	08/12/97	54.77	7.43	47.34	Not Sampled: Well Removed from Sampling Program									
AR-2	11/14/97	54.77	8.95	45.82	Not Sampled: Well Removed from Sampling Program									
AR-2	03/18/98	54.77	NM	NM	Not Sampled: Well Removed from Sampling Program									
AR-2	05/19/98	54.77	NM	NM	Not Sampled: Well Removed from Sampling Program									
AR-2	07/29/98	54.77	4.47	50.30	Not Sampled: Well Removed from Sampling Program									
AR-2	10/09/98	54.77	6.90	47.87	Not Sampled: Well Removed from Sampling Program									
AR-2	02/19/99	54.77	3.80	50.97	Not Sampled: Well Removed from Sampling Program									
AR-2	06/02/99	54.77	4.61	50.16	Not Sampled: Well Removed from Sampling Program									
AR-2	08/26/99	54.77	5.22	49.55	Not Sampled: Well Removed from Sampling Program									
AR-2	10/26/99	54.77	3.20	51.57	Not Sampled: Well Removed from Sampling Program								0.44	
AR-2	02/25/00	54.77	2.33	52.44	Not Sampled: Well Removed from Sampling Program								1.79	
AR-3	03/26/96	54.19	7.95	46.24	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NM		
AR-3	05/22/96	54.19	8.30	45.89	NS	NS	NS	NS	NS	NS	NS	NM		
AR-3	08/22/96	54.19	10.84	43.35	Not Sampled: Well Removed from Sampling Program									
AR-3	12/19/96	54.19	8.56	45.63	Not Sampled: Well Removed from Sampling Program									
AR-3	04/01/97	54.19	11.24	42.95	Not Sampled: Well Removed from Sampling Program									
AR-3	05/27/97	54.19	10.67	43.52	Not Sampled: Well Removed from Sampling Program									
AR-3	08/12/97	54.19	11.10	43.09	Not Sampled: Well Removed from Sampling Program									
AR-3	11/14/97	54.19	10.60	43.59	Not Sampled: Well Removed from Sampling Program									
AR-3	03/18/98	54.19	NM	NM	Not Sampled: Well Removed from Sampling Program									
AR-3	05/19/98	54.19	NM	NM	Not Sampled: Well Removed from Sampling Program									
AR-3	07/29/98	54.19	9.95	44.24	Not Sampled: Well Removed from Sampling Program									
AR-3	10/09/98	54.19	11.20	42.99	Not Sampled: Well Removed from Sampling Program									

Table 1
Groundwater Elevation and Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, and MTBE)

ARCO Service Station 4931
731 West MacArthur Boulevard, Oakland, California

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPH Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8021B* (ppb)	MTBE 8260 (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)
AR-3	02/19/99	54.19	6.98	47.21	Not Sampled: Well Removed from Sampling Program								
AR-3	06/02/99	54.19	10.80	43.39	Not Sampled: Well Removed from Sampling Program								
AR-3	08/26/99	54.19	10.69	43.50	Not Sampled: Well Removed from Sampling Program								
AR-3	10/26/99	54.19	NM	NM	Not Sampled: Well Removed from Sampling Program								0.40
AR-3	02/25/00	54.19	7.21	46.98	Not Sampled: Well Removed from Sampling Program								

TPH = Total petroleum hydrocarbons by modified EPA method 8015
 BTEX = Benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 10/26/99).
 MTBE = Methyl tert-butyl ether
 * = EPA method 8020 prior to 10/26/99
 MSL = Mean sea level
 TOB = Top of box
 ppb = Parts per billion
 ppm = Parts per million
 < = Less than laboratory detection limit stated to the right
 NA = Not analyzed
 NM = Not measured
 NS = Not sampled

**Table 2
Groundwater Flow Direction and Gradient**

**ARCO Service Station 4931
731 West MacArthur Boulevard, Oakland, California**

Date Measured	Average Flow Direction	Average Hydraulic Gradient
03/26/96	Southwest	0.03
05/22/96	Southwest	0.04
08/22/96	Southwest	0.02
12/19/96	Southwest	0.03
04/01/97	Southwest	0.03
05/27/97	Southwest	0.04
08/12/97	Southwest	0.02
11/14/97	Southwest	0.02
03/18/98	West	0.03
05/19/98	West-Southwest	0.02
07/29/98	West-Southwest	0.02
10/09/98	Southwest	0.007
02/19/99	Southwest	0.04
06/02/99	West	0.04
08/26/99	West-Southwest	0.02
10/26/99	West-Northwest	0.13
02/25/00	West-Southwest	0.05

ATTACHMENT D

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

09/09/03

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #4931, Oakland, CA
Work Order Number:	MMH0264
Global ID:	T0600100107
Lab Report Number:	MMH0264081820031001

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Labfct1	Run	Sub
MMH02640818200 A-2		MMH026401	W	CS	8260FAB	SW5030B	08/06/03	08/14/03	08/14/03	3H14039	1	
31001												
MMH02640818200 A-4		MMH026402	W	CS	8260FAB	SW5030B	08/06/03	08/14/03	08/14/03	3H14039	1	
31001												
MMH02640818200 A-8		MMH026403	W	CS	8260FAB	SW5030B	08/06/03	08/14/03	08/14/03	3H14039	1	
31001												
MMH02640818200 A-9		MMH026404	W	CS	8260FAB	SW5030B	08/06/03	08/14/03	08/14/03	3H14039	1	
31001												
		3H14039BS1	WQ	BS1	8260FAB	SW5030B	//	08/14/03	08/14/03	3H14039	1	
		3H14039BS2	WQ	BS2	8260FAB	SW5030B	//	08/14/03	08/14/03	3H14039	1	
		3H14039BLK1	WQ	LB1	8260FAB	SW5030B	//	08/14/03	08/14/03	3H14039	1	
		3H14039MS1	W	MS1	8260FAB	SW5030B	//	08/14/03	08/15/03	3H14039	1	
		3H14039MSD1	W	SD1	8260FAB	SW5030B	//	08/14/03	08/15/03	3H14039	1	

EDFSAMP: Error Summary Log

09/09/03

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

EDFTEST: Error Summary Log

09/09/03

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

EDFRES: Error Summary Log

09/09/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3H14039MS1	MS1	W	8260FAB	PR	08/15/03	1	DCA12D4
Warning: extra parameter	3H14039MS1	MS1	W	8260FAB	PR	08/15/03	1	GROC6C10
Warning: extra parameter	3H14039MSD1	SD1	W	8260FAB	PR	08/15/03	1	DCA12D4
Warning: extra parameter	3H14039MSD1	SD1	W	8260FAB	PR	08/15/03	1	GROC6C10
Warning: extra parameter	MMH026401	CS	W	8260FAB	PR	08/14/03	1	DCA12D4
Warning: extra parameter	MMH026401	CS	W	8260FAB	PR	08/14/03	1	GROC6C10
Warning: extra parameter	MMH026402	CS	W	8260FAB	PR	08/14/03	1	DCA12D4
Warning: extra parameter	MMH026402	CS	W	8260FAB	PR	08/14/03	1	GROC6C10
Warning: extra parameter	MMH026403	CS	W	8260FAB	PR	08/14/03	1	DCA12D4
Warning: extra parameter	MMH026403	CS	W	8260FAB	PR	08/14/03	1	GROC6C10
Warning: extra parameter	MMH026404	CS	W	8260FAB	PR	08/14/03	1	DCA12D4
Warning: extra parameter	MMH026404	CS	W	8260FAB	PR	08/14/03	1	GROC6C10
Warning: extra parameter	3H14039BLK1	LB1	WQ	8260FAB	PR	08/14/03	1	DCA12D4
Warning: extra parameter	3H14039BLK1	LB1	WQ	8260FAB	PR	08/14/03	1	GROC6C10
Warning: extra parameter	3H14039BS1	BS1	WQ	8260FAB	PR	08/14/03	1	DCA12D4
Warning: extra parameter	3H14039BS2	BS2	WQ	8260FAB	PR	08/14/03	1	DCA12D4
Warning: extra parameter	3H14039BS2	BS2	WQ	8260FAB	PR	08/14/03	1	GROC6C10

EDFQC: Error Summary Log

09/09/03

Error type	Lablctcl	Anmcode	Parlabel	Qccode	Labqid
There are no errors in this data files					

EDFCL: Error Summary Log

09/09/03

Error type	Clevdate	Anmcode	Exmcode	Parlabel	Cicode
There are no errors in this data file	//				

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Date/Time of Submittal: 9/9/2003 10:38:20 AM

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Facility Name: ARCO

Submittal Title: 3rd Qtr 2003 Monitoring Report

Submittal Type: GW Monitoring Report

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