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URS

December 22, 2003

Alameda County
JAN 0 8 2004
Environmental Health

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

Re: Fourth Quarter 2003 Groundwater Monitoring Report
ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, California
URS Project #38486333

Dear Mr. Seery:

On behalf of Atlantic Richfield Company (ARCO – a BP affiliated company), URS Corporation (URS) is submitting the *Fourth Quarter 2003 Groundwater Monitoring Report* for ARCO Service Station #5387, located at 20200 Hesperian Boulevard, Hayward, California.

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

Sincerely,

URS CORPORATION

Scott Robinson
Project Manager

James F. Durkin, C.Hg.
Senior Geologist

REGISTERED GEOLOGIST
JAMES F. DURKIN
No. 7569
CERTIFIED HYDROGEOLOGIST
Exp. 2/28/05
STATE OF CALIFORNIA

Enclosure: Fourth Quarter 2003 Groundwater Monitoring Report

cc: Mr. Paul Supple, ARCO, (electronic copy uploaded to ENFOS)

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

Atlantic Richfield Company
(a BP affiliated company)

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

Alameda County
JAN 06 2004
Environmental Health

December 22, 2003

RE: Fourth Quarter 2003 Groundwater Monitoring Report
ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, CA
URS Project #38486333

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

REPORT

FOURTH QUARTER 2003 GROUNDWATER MONITORING

ARCO SERVICE STATION #5387
20200 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

Prepared for
Atlantic Richfield Company

December 22, 2003

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

38486333

URS

Date: December 22, 2003
Quarter: 4Q 03

ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Former Facility No.:	5387	Address:	20200 Hesperian Boulevard, Hayward, California
ARCO Environmental Business Manager:			Paul Supple
Consulting Co./Contact Person:			URS Corporation / Scott Robinson
Consultant Project No.:			38486333
Primary Agency:			Alameda County Health Care Services Agency (ACHCSA)

WORK PERFORMED THIS QUARTER (Fourth – 2003):

1. Performed fourth quarter groundwater monitoring event on November 17, 2003.
2. Prepared and submitted fourth quarter 2003 groundwater monitoring report.
3. Hydrogen peroxide injections performed on wells MW-1, MW-2, AR-1, AR-2, and A-7 on December 16, 2003
4. Performed well repairs on MW-1, MW-3, A-4, A-6, AR-1 and AR-2 on November 14, 2003. The top of casing for MW-3 was lowered by 0.17 feet during repairs (Attachment D).

WORK PROPOSED FOR NEXT QUARTER (First – 2004):

1. Perform first quarter 2004 groundwater monitoring event.
2. Prepare and submit first quarter 2004 groundwater monitoring report.

Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	Quarterly: Wells MW-1, MW-2, AR-1, AR-2, A-7 Semi-annually (1st and 3rd Quarters): Wells A-4, A-5, A-8, and A-9 Annually (3rd Quarter): Wells MW-3, A-6, and A-10
Frequency of Groundwater Monitoring:	Quarterly
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	Natural Attenuation
Approximate Depth to Groundwater:	9.93 ft (MW-3) to 13.84 ft (A-7)
Groundwater Gradient (direction):	West
Groundwater Gradient (magnitude):	0.003 feet per foot

URS

DISCUSSION:

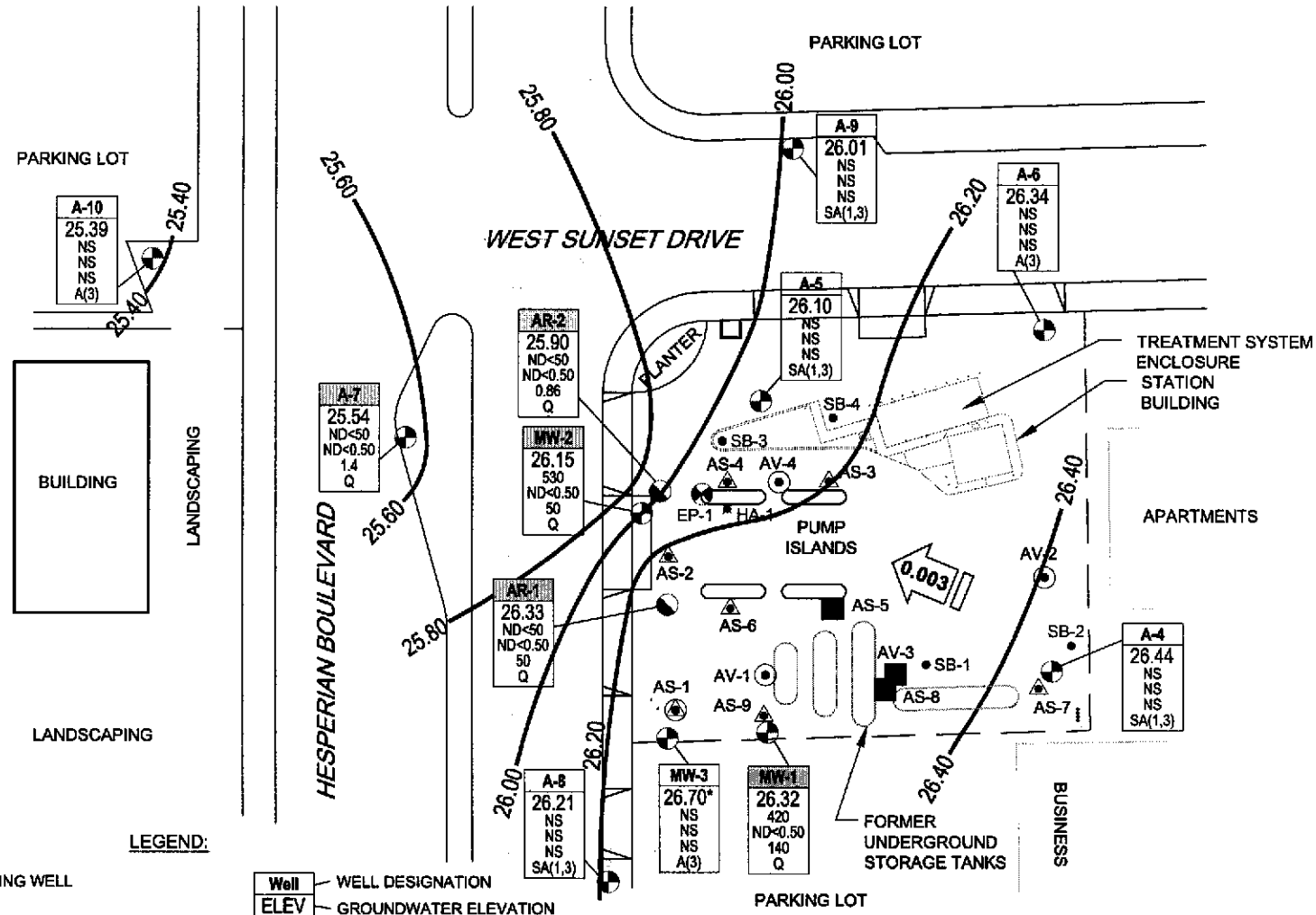
TPH-g was detected above the laboratory reporting limit in two of the five wells sampled this quarter at concentrations of 420 µg/L (MW-1) and 530 µg/L (MW-2). Benzene was not detected above the laboratory reporting limit in any of the wells sampled this quarter. MTBE was detected above the laboratory reporting limit in all five wells at concentrations ranging from 0.86 µg/L (AR-2) to 140 µg/L (MW-1). TAME was detected above the laboratory reporting limit in two wells at concentrations of 1.7 µg/L (MW-1) and 6.2 µg/L (MW-2).

Beginning this quarter, the sampling frequency in wells A-4, A-5, A-8, and A-9 was reduced from quarterly to semi-annually and in wells MW-3, A-6, and A-10 from quarterly to annually.

ATTACHMENTS:

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – November 17, 2003
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Fuel 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 – EDCC Report and EDF/Geowell Submittal Confirmation
- Attachment D – Well Repair Field Data Sheets

X:\x_env_waste\BP GEM\Sites\Scott Robinson\Paul Supple\5387\Monitoring\Qtr. 4, 2003\Drawings\GWEC-AS_11-17.dwg, 12/23/2003 10:03:50 AM, JKMT, URS



LEGEND:

- ABANDONED MONITORING WELL
- MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- SOIL VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL
- EXTRACTION POINT
- 26.00 APPOXIMATE GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MSL)
- 0.003 GROUNDWATER FLOW DIRECTION AND GRADIENT (FEET/FOOT)
- WELL PROPOSED HYDROGEN PEROXIDE WELL

Well	WELL DESIGNATION
ELEV	GROUNDWATER ELEVATION
TPH-g Benzene MTBE	TPH-g, BENZENE & MTBE CONCENTRATIONS (µg/L)
A/SA/Q	SAMPLING FREQUENCY
*	NOT USED IN GROUNDWATER ELEVATION CONTOURS
ND<	NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS
NS	NOT SAMPLED
A(3)	SAMPLED ANNUALLY, 3RD QUARTER
SA(1,3)	SAMPLED SEMI-ANNUALLY, 1ST & 3RD QUARTERS
Q	SAMPLED QUARTERLY

NORTH

0 50 100

SCALE IN FEET

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

URS

Project No. 38486333

ARCO Service Station 5387
20200 Hesperian Boulevard
Hayward, California

GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP
Fourth Quarter 2003 (November 17, 2003)

FIGURE
1

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
AR-1	09/14/92		38.11	29.00**	4.00**	15.21	22.90	820	67	ND<1.0	8.8	6.7	---	---	---
	11/12/92					15.36	22.75	140	66	ND<0.5	4.3	3.7	---	---	---
	02/11/93					12.81	25.30	360	190	ND<2.5	8.6	ND<2.5	---	---	---
	04/14/93					11.77	26.34	420	240	5.2	30	8.7	---	---	---
	08/12/93					13.55	24.56	370	150	ND<2	11	ND<2	---	---	---
	10/26/93					13.98	24.13	240	98	ND<2	11	ND<2	---	---	---
	02/17/94		37.46			12.15	25.31	4,700	1,100	ND<10	140	26	---	---	---
	05/03/94					12.03	25.43	620	130	1.3	48	4.3	---	---	---
	08/17/94		37.33			12.92	24.41	3,600	630	ND<5	200	12	---	---	---
	11/18/94					12.41	24.92	12,100	720	6.1	337	15	---	---	---
	09/26/95		37.46			11.34	26.12	ND	8.3	ND	ND	ND	---	---	---
	12/06/95					11.87	25.59	120	20	ND	20	0.6	---	---	---
	02/14/96					10.48	26.98	ND	ND	ND	ND	0.52	---	---	---
	10/29/96					11.80	25.66	ND	ND	0.99	ND	ND	---	---	---
	01/29/97					11.25	26.21	ND<50	0.41	ND<0.3	ND<0.3	ND<0.3	ND<20	---	---
	04/30/97					12.24	25.22	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					10.80	26.66	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					11.90	25.56	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					11.20	26.26	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					12.20	25.26	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					9.10	28.36	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	10/22/98					9.80	27.66	270	2.1	ND<0.3	3.6	ND<0.5	190	---	---
	01/13/99					10.10	27.36	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					11.35	26.11	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	1.1	2.9	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.6*	---	---
	09/23/02	P				11.26	26.20	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	20.2	1.6	6.9
	12/09/02	P				11.35	26.11	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	26.6	1.8	6.9
	02/11/03[e]	P				9.91	27.55	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.7	1.2	6.7
	06/27/03	NP				10.30	27.16	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.6	1.6	7.0
	09/04/03[f]					---	---	---	---	---	---	---	---	---	---
	11/17/03	**P**				**11.13**	**26.33**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.4**	**1.8**	**6.7**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
AR-2	03/30/93		38.39	32.98	2.98	11.53	26.86	390	4.1	1.6	ND<0.5	47	---	---	---
	04/14/93					11.87	26.52	310	18	ND<0.5	0.67	36	---	---	---
	08/12/93					13.59	24.80	130	16	ND<0.5	1.7	0.57	---	---	---
	10/26/93					14.25	24.14	110	15	ND<0.5	1.8	ND<0.5	---	---	---
	02/17/94					12.76	25.22	130	2.9	ND<0.5	15	0.8	---	---	---
	05/03/94					12.60	25.38	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	08/17/94		38.18			13.86	24.32	3,000	140	140	220	91	---	---	---
	11/18/94					13.33	24.85	623	10.5	10.5	27.9	8.0	---	---	---
	09/26/95		37.98	32.98	2.98	11.67	26.31	ND	ND	ND	ND	ND	---	---	---
	12/06/95					12.32	25.66	320	12	12	23	2.1	---	---	---
	02/14/96					10.74	27.24	ND	ND	ND	ND	0.76	---	---	---
	10/29/96					11.95	26.03	ND	ND	ND	ND	ND	---	---	---
	01/29/97					11.35	26.63	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/30/97					12.15	25.83	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					11.20	26.78	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					12.14	25.84	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					10.05	27.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					12.10	25.88	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					9.50	28.48	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	10/22/98					10.45	27.53	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/13/99					10.50	27.48	ND<50	ND<0.3	0.40	ND<0.3	0.53	ND<20	---	---
	04/29/99					11.48	26.50	ND<50	ND<0.3	ND<0.3	ND<0.3	0.82	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	39*	---	---
	09/23/02	P				12.22	25.76	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	4.43	1.0	7.1
	12/09/02	P				12.30	25.68	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	1.1	7.0
	02/11/03[e]	P				10.80	27.18	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.75	1.8	6.9
	06/27/03	NP				11.14	26.84	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.0	0.9	6.4
	09/04/03[f]					---	---	---	---	---	---	---	---	---	---
	11/17/03	**P**				**12.08**	**25.90**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**0.86**	**1.8**	**6.8**

Table 1
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ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
MW-1	08/08/86		38.36	32.26	7.26	11.25	27.11	7,040	132	8.7	439	230	---	---	---
	12/24/91					16.12	22.24	2,200	190	8.5	6.9	2.6	---	---	---
	03/10/92					13.34	25.02	2,800	270	29	56	39	---	---	---
	06/09/92					14.12	24.24	2,900	960	27	99	63	---	---	---
	09/14/92					15.34	23.02	2,600	450	ND<5.0	45	21	---	---	---
	11/12/92					15.46	22.90	1,600	310	7.2	22	8.9	---	---	---
	02/11/93					11.95	26.41	4,000	510	47	200	91	---	---	---
	04/14/93					11.65	26.71	1,700	260	20	100	70	---	---	---
	08/12/93					12.93	25.43	830	60	3.8	39	3.6	---	---	---
	10/26/93					14.13	24.23	8,800	140	ND<10	41	ND<10	---	---	---
	02/17/94		37.26			11.86	25.40	1,200	130	12	54	58	---	---	---
	05/03/94					11.58	25.68	---	---	---	---	---	---	---	---
	08/17/94		37.33			12.78	24.55	3,900	86	5.1	78	9.4	---	---	---
	11/18/94					12.31	25.02	6,350	112	8.4	107	35	---	---	---
	09/26/95		37.26			11.26	26.00	ND	ND	ND	ND	ND	---	---	---
	12/06/95					12.16	25.10	4,100	0.86	0.46	0.38	0.92	---	---	---
	02/14/96					8.53	28.73	ND	ND	0.56	ND	0.82	---	---	---
	10/29/96					10.23	27.03	130	ND	ND	ND	ND	---	---	---
	01/29/97					8.15	29.11	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/30/97					8.05	29.21	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					10.50	26.76	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					11.15	26.11	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					4.95	32.31	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					8.10	29.16	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					8.02	29.24	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	40	---	---
	10/22/98					9.70	27.56	230	0.43	1.9	0.99	0.99	33	---	---
	01/13/99					9.60	27.66	ND<50	0.43	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					8.05	29.21	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	^31/17	---	---
	01/15/02					---	---	ND<50	ND<0.05	ND<0.5	ND<0.5	ND<0.5	21	---	---
	04/24/02					---	---	160	1.5	ND<0.50	ND<0.50	ND<0.50	770*	---	---
	09/23/02[a]					---	---	---	---	---	---	---	---	---	---
	12/09/02	P				11.22	26.04	998	ND<0.50	ND<0.50	ND<0.50	1.37[b]	855(d)/ 1310*	2.2	7.0
	02/11/03[e]	P				9.70	27.56	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	76	1.6	6.7

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
MW-1	06/27/03	P				10.10	27.16	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	170	0.8	6.8
(Cont'd)	09/04/03[f]					---	---	---	---	---	---	---	---	---	---
	11/17/03	**P**				**10.94**	**26.32**	**420**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**140**	**1.7**	**6.7**
MW-2	08/08/86		38.58	32.99	7.99	11.62	26.96	1,910	20.1	2.8	1.8	---	---	---	---
	12/24/91					16.50	22.08	23,000	1,500	1,100	480	1,400	---	---	---
	03/10/92					13.50	25.08	210,000	44,000	3,900	1,700	5,800	---	---	---
	06/09/92					14.52	24.06	33,000	2,300	370	780	2,600	---	---	---
	09/14/92					15.78	22.80	16,000	3,700	10	470	1,000	---	---	---
	11/12/92					15.98	22.60	16,000	3,800	86	470	910	---	---	---
	02/11/93					12.27	26.31	27,000	3,500	720	1,600	380	---	---	---
	04/14/93					12.01	26.57	27,000	3,500	220	2,200	5,100	---	---	---
	08/12/93					13.81	24.77	16,000	1,600	27	1,300	1,200	---	---	---
	10/26/93					14.53	24.05	12,000	1,200	ND<25	510	330	---	---	---
	02/17/94					12.81	25.77	15,000	1,800	21	850	540	---	---	---
	05/03/94					12.63	25.95	---	---	---	---	---	---	---	---
	08/17/94		37.99			13.69	24.30	14,000	850	13	640	270	---	---	---
	11/18/94		38.06			13.18	24.88	14,900	640	3.4	532	156	---	---	---
	09/26/95		37.99			12.23	25.76	5,100	40	25	2.5	18	---	---	---
	12/06/95					12.82	25.17	810	34	23	11	11	---	---	---
	02/14/96					10.87	27.12	420	0.75	0.54	0.64	0.53	---	---	---
	10/29/96					12.95	25.04	670	1.7	1.3	0.6	0.8	---	---	---
	01/29/97					11.15	26.84	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/30/97					11.09	26.90	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					11.70	26.29	330	ND<0.3	0.58	0.53	ND<0.5	ND<20	---	---
	10/22/97					11.05	26.94	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					9.50	28.49	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					11.15	26.84	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					10.20	27.79	78	ND<0.3	ND<0.3	ND<0.3	ND<0.5	97	---	---
	10/22/98					11.10	26.89	270	0.37	2.0	0.91	0.73	26	---	---
	01/13/99					11.10	26.89	650	5.8	1.0	1.4	1.1	ND<20	---	---
	04/29/99					11.05	26.94	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	^23/16	---	---
	01/15/02					---	---	1,200	15	4.5	ND<0.5	ND<0.5	190	---	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, *California*

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[9] (mg/L)	pH[9]
MW-2	04/24/02					---	---	1,300	18	ND<10	ND<10	ND<10	170*	---	---
(Cont'd)	09/23/02	P				12.15	25.84	1,440	11.2	0.730	ND<0.500	ND<1.50	228	1.6	6.9
	12/09/02	P				12.20	25.79	1,770	8.08	0.694	2.47	3.79 (b)	529(d)/ 902*	6.2	6.7
	02/11/03°	P				10.79	27.20	1,100	ND<0.50	ND<0.50	ND<0.50	0.53	71	1.2	6.8
	06/27/03	P				11.20	26.79	520	ND<0.50	ND<0.50	ND<0.50	ND<0.50	45	0.8	6.8
	09/04/03	P				11.84	26.15	500	ND<0.50	ND<0.50	ND<0.50	ND<0.50	28	1.2	6.9
	11/17/03	**P**				**11.98**	**26.15**	**530**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**50**	**3.1**	**6.7**
MW-3	08/08/86		37.77	31.80	6.80	10.61	27.16	7,450	510	549	409	1,380	---	---	---
	12/24/91					15.60	22.17	6,800	450	10	610	45	---	---	---
	03/10/92					12.90	24.87	11,000	2,500	75	400	560	---	---	---
	06/09/92					13.60	24.17	16,000	2,000	69	1,300	2,600	---	---	---
	09/14/92					14.78	22.99	14,000	630	ND<50	1,500	2,400	---	---	---
	11/12/92					14.92	22.85	7,400	400	ND<25	860	330	---	---	---
	02/11/93					11.65	26.12	8,600	580	ND<20	710	300	---	---	---
	04/14/93					11.16	26.61	6,900	300	8.8	580	99	---	---	---
	08/12/93					12.82	24.95	3,400	56	ND<5	190	ND<5	---	---	---
	10/26/93					13.60	24.17	2,900	42	ND<10	76	ND<10	---	---	---
	02/17/94		36.80			11.53	25.27	3,100	160	ND<10	36	8.6	---	---	---
	05/03/94					11.36	25.44	2,300	44	ND<2.5	8.0	ND<2.5	---	---	---
	08/17/94		36.87			12.38	24.49	1,900	7.0	ND<9.5	4.4	ND<5	---	---	---
	11/18/94					11.93	24.94	909	1.1	ND<0.5	0.9	4.0	---	---	---
	09/26/95		36.80			10.96	25.84	410	1.3	1.9	2.3	3.3	---	---	---
	12/06/95					11.56	25.24	---	0.9	4.6	3.0	4.3	---	---	---
	02/14/96					7.47	29.33	99	ND	0.49	0.46	ND	---	---	---
	10/29/96					9.80	27.00	250	0.7	0.6	ND	ND	---	---	---
	01/29/97					7.50	29.30	170	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/30/97					12.10	24.70	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					9.90	26.90	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					12.10	24.70	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					7.50	29.30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					12.30	24.50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					8.30	28.50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
MW-3	10/22/98					9.10	27.70	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
(Cont'd)	01/13/99					9.50	27.30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					5.93	30.87	ND<50	ND<0.3	0.35	ND<0.3	ND<0.5	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.9	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---	---
	09/23/02	P				10.30	26.50	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500	1.0	6.9
	12/09/02	P				10.38	26.42	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	1.7	6.7
	02/11/03[e]	P				8.85	27.95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.6	6.7
	06/27/03	P				9.12	27.68	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.61	0.9	6.8
	09/04/03	P				9.85	27.05	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.0	6.9
	11/17/2003[h]		**36.63**			**9.93**	**26.70**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
A-4	03/06/91		39.46	29.53**	4.53**	13.22	26.24	34,000	11,000	870	2,500	2,100	---	---	---
	12/24/91		39.86			17.60	22.26	1,900	29	1.9	25	29	---	---	---
	03/10/92					14.76	25.10	7,400	37	ND<0.60	11	73	---	---	---
	06/09/92					15.63	24.23	4,500	3.2	1.5	37	16	---	---	---
	09/14/92					16.83	23.03	1,300	ND<2.5	2.5	61	6.8	---	---	---
	11/12/92					16.97	22.89	610	7.2	0.98	34	0.97	---	---	---
	02/11/93					13.43	26.43	740	2.4	ND<0.5	5.0	3.5	---	---	---
	04/14/93					13.06	26.80	380	ND<0.5	ND<0.5	10	1.6	---	---	---
	08/12/93					14.94	24.92	1,200	0.93	ND<0.5	0.91	ND<0.5	---	---	---
	10/26/93					15.52	24.34	160	ND<0.5	ND<0.5	1.0	ND<0.5	---	---	---
	02/17/94		39.46			14.02	25.44	320	0.5	ND<0.5	28	0.9	---	---	---
	05/03/94					13.85	25.61	130	ND<0.5	ND<0.5	1.1	ND<0.5	---	---	---
	08/17/94		39.53			14.95	39.53	62	34.58	ND<0.5	ND<0.5	ND<0.5	---	---	---
	11/18/94					14.46	25.07	98	1.3	0.6	ND<0.5	ND<0.5	---	---	---
	12/06/95					13.82	25.71	ND	0.6	ND	ND	ND	---	---	---
	02/14/96					11.24	28.29	ND	ND	2.3	ND	0.71	---	---	---
	10/29/96					13.50	26.03	140	ND	ND	ND	ND	---	---	---
	01/29/97					12.65	26.88	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/30/97					13.97	25.56	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					12.70	26.83	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					13.95	25.58	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-4	01/28/98					11.90	27.63	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
(Cont'd)	04/22/98					13.92	25.61	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					10.80	28.73	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	10/22/98					12.60	26.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/13/99					12.60	26.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					12.61	26.92	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.2	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---	---
	09/23/02[e]					---	---	---	---	---	---	---	---	---	---
	12/09/02	P				13.36	26.17	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	2.4	6.6
	02/11/03[e]	P				11.82	27.71	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.53	1.8	6.6
	06/27/03	P				12.12	27.41	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.2	6.7
	09/04/03[e]					---	---	---	---	---	---	---	---	---	---
	11/17/03					**13.09**	**26.44**	—	—	—	—	—	—	—	—
A-5	12/24/91		38.94	28.47**	8.47**	16.85	22.09	1,600	21	ND<0.30	32	52	---	---	---
	03/10/92					13.83	25.11	1,000	1.6	ND<0.30	43	100	---	---	---
	06/09/92					14.91	24.03	680	34	ND<1.5	14	16	---	---	---
	09/14/92					16.14	22.80	770	12	ND<0.30	51	65	---	---	---
	11/12/92					16.35	22.59	520	3.0	ND<2.5	29	36	---	---	---
	02/11/93					13.21	25.73	150	1.6	0.96	5.1	1.5	---	---	---
	04/14/93					12.97	25.97	190	5.4	ND<0.5	1.5	0.97	---	---	---
	08/12/93					14.12	24.82	230	1.7	ND<0.5	5.3	0.94	---	---	---
	10/26/93					14.72	24.22	190	2.8	ND<0.5	5.5	2.0	---	---	---
	02/17/94		38.47			13.20	25.27	340	ND<0.5	ND<0.5	13	2.9	---	---	---
	05/03/94					13.08	25.39	170	1.4	ND<0.5	4.0	1.9	---	---	---
	08/17/94		38.54			14.18	24.36	270	0.6	ND<0.5	7.3	1.1	---	---	---
	11/18/94					13.73	24.81	338	---	ND<0.5	4.6	ND<0.5	---	---	---
	09/26/95		38.47			12.44	26.03	ND	0.63	1.1	ND	1.2	---	---	---
	12/06/95					12.92	25.55	ND	ND	ND	ND	ND	---	---	---
	02/14/96					10.76	27.71	ND	ND	2.0	ND	1.1	---	---	---
	10/29/96					12.35	26.12	ND	ND	ND	ND	ND	---	---	---
	01/29/97					10.85	27.62	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-5	04/30/97					13.56	24.91	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
(Cont'd)	07/31/97					11.80	26.67	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					12.20	26.27	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					10.12	28.35	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					13.50	24.97	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					10.20	28.27	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	10/22/98					11.50	26.97	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/13/99					10.15	28.32	ND<50	0.32	0.38	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					11.50	26.97	ND<50	ND<0.3	ND<0.3	ND<0.3	0.58	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.0	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.2*	---	---
	09/23/02	P				12.55	25.92	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	1.30	1.0	6.7
	12/09/02	P				12.60	25.87	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	1.9	6.6
	02/11/03[e]	P				11.37	27.10	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.97	1.2	6.7
	06/27/03	P				11.55	26.92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.98	1.5	6.8
	09/04/03	P				12.21	26.26	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.50	3.1	7.0
	11/17/03					**12.37**	**26.10**	---	---	---	---	---	---	---	---
A-6	12/24/91		39.07			16.88	22.19	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---
	03/10/92					13.73	25.34	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---
	06/09/92					14.95	24.12	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---
	09/14/92					16.20	22.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	11/12/92					16.35	22.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	02/11/93					13.04	26.03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	04/14/93					12.23	26.84	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	08/12/93					14.18	24.89	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	10/26/93					14.85	24.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	05/03/94					13.66	25.41	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	08/17/94		38.78			14.34	24.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	11/18/94					13.76	25.02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	09/26/95					12.56	26.22	ND	ND	ND	ND	ND	---	---	---
	12/06/95					13.18	25.60	ND	ND	ND	ND	ND	---	---	---
	02/14/96					12.46	26.32	ND	ND	ND	ND	ND	---	---	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	*Purge/* Not Purged	*Casing* Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	*Benzene* (µg/L)	*Toluene* (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-6	10/29/96					12.40	26.38	50	ND	ND	ND	ND	---	---	---
(Cont'd)	01/29/97					13.85	24.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/30/97					12.49	26.29	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					12.10	26.68	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					15.20	23.58	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					13.80	24.98	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					12.45	26.33	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					10.30	28.48	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	10/22/98					11.10	27.68	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/13/99					10.40	28.38	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					13.80	24.98	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.7	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---	---
	09/23/02	P				12.61	26.17	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500	1.4	6.8
	12/09/02	P				12.67	26.11	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	2.6	6.7
	02/11/03[e]	P				11.21	27.57	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.0	6.7
	06/27/03	P				11.60	27.18	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	5.0	6.9
	09/04/03	P				12.29	26.49	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.8	6.9
	11/17/03					**12.44**	**26.34**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
A-7	12/24/91		39.95	6	4.38**	18.11	21.84	10,000	88	16	170	610	---	---	---
	03/10/92					15.30	24.65	320	9.3	0.54	8.8	34	---	---	---
	06/09/92					16.12	23.83	340	11	1.1	8.9	26	---	---	---
	09/14/92					17.35	22.60	510	12	ND<2.0	30	51	---	---	---
	11/12/92					17.47	22.48	760	17	0.83	50	73	---	---	---
	02/11/93					13.80	26.15	260	20	1.0	11	21	---	---	---
	04/14/93					13.60	26.35	1,300	89	2.1	48	87	---	---	---
	08/12/93					15.54	24.41	360	9.0	ND<0.50	13	9.0	---	---	---
	10/26/93					16.28	23.67	99	1.7	ND<0.50	4.0	3.0	---	---	---
	02/17/94		39.38			14.44	24.94	1,300	38	ND<1	35	25	---	---	---
	05/03/94					14.34	25.04	330	8.1	ND<0.5	7.8	3.7	---	---	---
	08/17/94		39.45			15.40	24.05	350	2.2	ND<0.5	9.6	3.6	---	---	---
	11/18/94					14.95	24.50	412	1.3	ND<0.5	6.2	2	---	---	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-7	09/26/95		39.38			13.92	25.46	ND	ND	ND	ND	ND	---	---	---
(Cont'd)	12/06/95					14.42	24.96	ND	ND	ND	ND	ND	---	---	---
	02/14/96					12.38	27.00	ND	ND	1.1	ND	0.59	---	---	---
	10/29/96					12.33	27.05	ND	ND	ND	ND	ND	---	---	---
	01/29/97					13.10	26.28	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/30/97					11.70	27.68	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					13.25	26.13	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					14.42	24.96	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					13.00	26.38	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					11.65	27.73	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					11.20	28.18	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	10/22/98					13.75	25.63	51	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/13/99					14.45	24.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					13.74	25.64	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.8	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	7.2*	---	---
	09/23/02	P				13.78	25.60	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	3.48	0.8	6.7
	12/09/02	P				13.97	25.41	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	2.2	6.8
	02/11/03[e]	P				12.35	27.03	54	ND<0.50	ND<0.50	ND<0.50	ND<0.50	21	1.7	6.3
	06/27/03	P				12.95	26.43	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.4	1.3	6.8
	09/04/03	P				13.59	25.79	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.4	2.6	6.9
	11/17/03	**P**				**13.84**	**25.54**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.4**	**3.5**	**6.5**
A-8	09/14/92		37.23	26.76**	1.76**	14.19	23.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	11/12/92					14.35	22.88	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	02/11/93					11.25	25.98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	04/14/93					12.33	24.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	08/12/93					12.41	24.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	10/26/93					13.02	24.21	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	02/17/94		36.76			11.47	25.29	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	05/03/94					11.35	25.41	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	08/17/94		36.84			12.34	24.50	ND<50	ND<0.5	1.7	ND<0.5	1.4	---	---	---
	11/18/94					11.90	24.94	ND<50	1.0	ND<0.5	ND<0.5	ND<0.5	---	---	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[9] (mg/L)	pH[9]
A-8	09/26/95		36.76			10.94	25.82	ND<50	ND	ND	ND	ND	---	---	---
(Cont'd)	12/06/95					11.42	25.34	ND<50	ND	ND	ND	ND	---	---	---
	02/14/96					8.80	27.96	ND<50	ND	0.48	ND	ND	---	---	---
	10/29/96					11.30	25.46	ND<50	ND	ND	ND	ND	---	---	---
	01/29/97					7.60	29.16	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/30/97					10.54	26.22	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					11.20	25.56	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					12.14	24.62	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					4.43	32.33	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					10.55	26.21	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					9.07	27.69	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	10/22/98					12.12	24.64	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/13/99					9.60	27.16	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					9.08	27.68	ND<50	ND<0.3	ND<0.3	ND<0.3	1.5	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.6	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---	---
	09/23/02	P				10.75	26.01	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500	1.0	6.8
	12/09/02	P				10.81	25.95	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	2.1	6.6
	02/11/03[e]	P				9.90	26.86	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.4	6.5
	06/27/03	P				9.73	27.03	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.0	6.8
	09/04/03	P				10.32	26.44	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.1	6.9
	11/17/03					**10.55**	**26.21**	---	---	---	---	---	---	---	---
A-9	09/14/92		38.71	28.19	4.19	16.12	22.59	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	11/12/92					16.29	22.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	02/11/93					12.31	26.40	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	04/14/93					12.01	26.70	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	08/12/93					13.90	24.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	10/26/93					14.86	23.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	02/17/94		38.19			12.99	25.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	08/17/94					14.03	24.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	11/18/94		37.24			13.44	23.80	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	09/26/95					12.43	25.81	ND<50	ND<0.5	ND	ND	ND	---	---	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-9	12/06/95		38.19			13.14	25.05	ND<50	ND<0.5	ND	ND	ND	---	---	---
(Cont'd)	02/14/96					9.05	29.14	ND<50	ND	1.8	0.49	0.82	---	---	---
	10/29/96					12.85	25.34	ND<50	ND	ND	ND	ND	---	---	---
	01/29/97					9.02	29.17	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/30/97					12.05	26.14	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
	07/31/97					12.18	26.01	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	10/22/97					7.45	30.74	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	01/28/98					21.25	16.94	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					12.10	26.09	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					10.40	27.79	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	10/22/98					1.55	24.64	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/13/99					12.05	26.14	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					7.43	30.76	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.3	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---	---
	09/23/02	P				12.35	25.84	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500	1.6	6.8
	12/09/02	P				12.37	25.82	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	3.2	7.1
	02/11/03[e]	P				10.97	27.22	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.0	6.7
	06/27/03	P				11.41	26.78	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.9	6.7
	09/04/03	P				12.00	26.19	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.3	6.9
	11/17/03					**12.18**	**26.01**	---	---	---	---	---	---	---	---
A-10	12/07/92		38.94			16.81	22.13	660	30	ND<2.5	ND<2.5	ND<2.5	---	---	---
	02/11/93					13.15	25.79	210	ND<0.5	0.97	ND<0.5	ND<0.5	---	---	---
	04/14/93					12.19	26.75	770	ND<0.5	3.0	0.76	1.9	---	---	---
	08/12/93					14.87	24.07	390	ND<0.5	ND<0.5	ND<0.5	0.84	---	---	---
	10/26/93					15.65	23.29	290	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	02/17/94		38.66			14.16	24.50	52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	05/03/94					14.00	24.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	08/17/94		38.72			15.08	23.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	11/18/94					14.68	24.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
	09/26/95		38.66			13.58	25.08	ND	ND	ND	ND	ND	---	---	---
	12/06/95					14.24	24.42	ND	ND	ND	ND	ND	---	---	---

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, MSL)	Bottom of Screen (ft., MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-10	02/14/96					6.70	31.96	ND	ND	ND	ND	ND	---	---	---
(Cont'd)	10/29/96					14.10	24.56	ND	ND	ND	ND	1.1	---	---	---
	01/29/97					11.20	24.46	ND<50	0.41	4.8	0.6	4.4	37	---	---
	04/30/97					12.66	26.00	ND<20	0.40	4.2	0.5	3.8	50	---	---
	07/31/97					13.20	25.46	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/22/98					12.60	26.06	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	07/08/98					8.08	30.58	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	10/22/98					11.15	27.51	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/13/99					9.60	29.06	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
	04/29/99					11.15	27.51	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	---	---
	04/24/02					---	---	NS	NS	NS	NS	NS	NS	---	---
	09/23/02					DRY	DRY	NS	NS	NS	NS	NS	NS	NS	NS
	12/19/02	P				12.75	25.91	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5 (c)	---	---
	02/11/03[e]	P				12.21	26.45	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.9	1.3	6.7
	06/27/03	P				12.66	26.00	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.99	0.8	7.2
	09/04/03	P				13.31	25.35	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	0.9	6.9
	11/17/03					**13.27**	**25.39**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

MSL	= Mean Sea Level.
TPH	= Total Petroleum Hydrocarbons analyzed using EPA Method 8015B Modified (prior to 2/11/03).
MTBE	= Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted (prior to 2/11/03).
DO	= Dissolved oxygen.
ND <	= Not detected at or above the laboratory reporting limits.
P	= Purge.
NP	= No Purge.
" --- "	= Not analyzed/Not Measured/Not available.
mg/L	= Micrograms per liter.
mg/L	= Milligrams per liter.
*	= Analyzed by EPA Method 8260B.
**	= elevations were taken from cross-sectional figures, not original boring logs.
^	= Analytical results as measured by EPA Methods 8020 / 8260.
(a)	= well inaccessible.
(b)	= The analyte concentration may be artificially elevated due to coeluting compounds or components.
(c)	= The closing calibration was outside acceptance limits by 2%. This should be considered in evaluating the results. The average % difference for all analytes. met the 15% requirement and the QC suggests that the calibration linearity is not a factor.
(d)	= Estimated value. The reported value exceeds the calibration range of the analysis.
(e)	= TPH-g, BTEX, and MTBE analyzed by EPA method 8260 B beginning first quarter monitoring event (2/11/03).
(f)	= Unable to gauge because the bolt was warped on the well head.
(g)	= DO and pH are field measurements.
(h)	= Well MW-3 top of casing was lowered by 0.17 feet during repairs on 11/14/03.
Source	=The data in this table prior to September 2002 was provided to URS by ARCO and its previous consultants. URS has not verified the accuracy of this data.

Table 2

Groundwater Flow Direction and Gradient

ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
04/24/02	-	-
09/23/02	West	0.004
12/09/02	West	0.003
02/11/03	West	0.007
06/27/03	West	0.005
09/04/03	West	0.005
11/17/03	**West**	**0.003**

Table 3

Fuel Oxygenate Analytical Data
ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, 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)
MW-1	02/11/03	ND<100	ND<20	76	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<1,000	ND<200	170	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/17/03	**ND<100**	**ND<20 (b)**	**140**	**ND<0.50**	**ND<0.50**	**1.7**	**NA**	**NA**
MW-2	02/11/03	ND<100	ND<20	71	ND<0.50	ND<0.50	13	NA	NA
	06/27/03	ND<100	ND<20	45	ND<0.50	ND<0.50	5.4	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	28	ND<0.50	ND<0.50	3.8	ND<0.50	ND<0.50
	11/17/03	**ND<100**	**30 (b)**	**50**	**ND<0.50**	**ND<0.50**	**6.2**	**NA**	**NA**
MW-3	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100	ND<20	0.61	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-4	02/11/03	ND<100	ND<20	0.53	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-5	02/11/03	ND<100	ND<20	0.97	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100	ND<20	0.98	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-6	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

Table 3

Fuel Oxygenate Analytical Data
ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, 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-7	02/11/03	ND<100	ND<20	21	ND<0.50	6.5	ND<0.50	NA	NA
	06/27/03	ND<100	ND<20	9.4	ND<0.50	ND<0.50	2.1	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	3.4	ND<0.50	ND<0.50	0.86	ND<0.50	ND<0.50
	11/17/03	**ND<100**	**ND<20 (b)**	**1.4**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**
A-8	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-9	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-10	02/11/03	ND<100	ND<20	1.9	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100 (a)	ND<20	0.99	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	1.1	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
AR-1	02/11/03	ND<100	ND<20	4.7	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100 (a)	ND<20	1.6	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	11/17/03	**ND<100**	**ND<20 (b)**	**1.4**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**
AR-2	02/11/03	ND<100	ND<20	0.75	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100 (a)	ND<20	6.0	ND<0.50	ND<0.50	2.6	ND<0.50	ND<0.50
	11/17/03	**ND<100**	**ND<20 (b)**	**0.86**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**

Table 3

Fuel Oxygenate Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, 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)

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

Abbreviations:

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
µg/L	= micrograms per liter
ND<	= Not detected at or above specified laboratory reporting limit
NA	= Data not available, not analyzed, or not applicable
(a)	= The continuing calibration verification was outside of client contractual acceptance limits by 11.7% low. However, it was within method acceptance limits. The data should be useful for its intended purpose.
(b)	The result was reported with a possible low bias due to the continuing calibration verification falling outside the 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 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 # 031107-BA1 Date 11/17/03 Client Arco 5387

Site 2020 Hesperian Blvd, Hayward

	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	2					10.94	28.58	TOC	2x2 Vault
	MW-2	2					11.98	28.39		
60	MW-3	2					9.93	27.98		2x2 Vault
60	A-4	3					13.09	34.58		Bent Casing
60	A-5	3					12.37	29.52		
60	A-6	3					12.44	34.40		
	A-7	3					13.84	35.03		
60	A-8	2					10.55	33.45		
60	A-9	2					12.18	33.13		
60	A-10	2					13.27	33.33		Bent Casing
	AR-1	6					11.13	33.92		2x2 Vault Dbl. Tubing
	AR-2	6					12.08	35.17	↓	2x2 Vault

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030117-FA1	Station # 5387
Sampler: Blaine Tech Services	Date: 11/17/03
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 28.58	Depth to Water: 10.94
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 / (Positive Air Displacement) / 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.

2.9 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 8.7 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1031	68.2	6.8	1,049	2.9	cloudy gray
1034	67.6	6.7	1,048	5.8	"
1037	67.4	6.7	1,048	8.7	"

Did well dewater? Yes (No) Gallons actually evacuated: 8.7

Sampling Time: 1040 Sampling Date: 11/17/03

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

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: TOG; Ethanol; All by 8260; Ferrous Iron (Hach); Alkalinity (SM2320B), Nitrate/Sulfate (EPA300)

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge):	1.7 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 031117-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 11/17/03
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 28.39	Depth to Water: 11.98
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 / (Positive Air Displacement) / 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.

2.7 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 8.1 Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1008	67.7	6.6	1,067	2.7	cloudy gray, odor
1010	67.9	6.8	1,061	5.4	"
1012	68.1	6.7	1,058	8.1	"

Did well dewater? Yes (No)	Gallons actually evacuated: 8.1
Sampling Time: 1015	Sampling Date: 11/17/03
Sample I.D.: MW-2	Laboratory: (Pace) Sequoia Other ______
Analyzed for: (TPH-G BTEX) MTBE TPH-D	Other: + Oxys + Ethanol ALL by 8260; Alkalinity (SM2320B); Nitrate/Sulfate (E300); Ferrous Iron (Hach [illegible])
D.O. (if req'd): Pre-purge: ____ mg/L	(Post-purge:) 3.1 mg/L
O.R.P. (if req'd): Pre-purge: ____ mV	Post-purge: ____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 031117-BA1	Station # 5387
Sampler: Brian Alcock	Date: 11/17/03
Well I.D.: A-7	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 35.03	Depth to Water: 13.84
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 / Positive Air Displacement / (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.

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
0938	65.0	6.2	1,313	7.9	cloudy gray
0940	68.0	6.4	1,114	15.8	clear
0942	68.1	6.5	1,100	23.7	"

Did well dewater? Yes (No)	Gallons actually evacuated: 23.7
Sampling Time: 0945	Sampling Date: 11/17/03
Sample I.D.: A-7	Laboratory: (Pace) Sequoia Other ________

Analyzed for: (TPH-G BTEX) MTBE TPH-D Other: 7 Oxys + Ethanol ALL by 8260; Alkalinity (SM2320B); Nitrate/Sulfate (E300) Ferrous Iron (Hach)

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	3.5 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 031117-BA1	Station # 5387
Sampler: Brian Alcorn	Date: 11/17/03
Well I.D.: AR-1	Well Diameter: 2 3 4 (6) 8 ____
Total Well Depth: 33.92	Depth to Water: 11.13
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 / Positive Air Displacement / (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.

1 Case Volume (Gals.)	x	Specified Volumes	=	Calculated Volume
33.5	x	3	=	100.5 Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1107	68.8	6.9	1,058	33.5	cloudy brown-gray
1112	67.5	6.8	1,079	67.0	clear
1117	67.8	6.7	1,078	100.5	"

Did well dewater? Yes (No)	Gallons actually evacuated: 100.5
Sampling Time: 1120	Sampling Date: 11/17/03
Sample I.D.: AR-1	Laboratory: (Pace) Sequoia Other____
Analyzed for: (TPH-G BTEX) MTBE TPH-D	Other: 7 Oxys + Ethanol All by 8260; Alkalinity (SM2320B); Nitrate/Sulfate (E300); Ferrous Iron (Hach)
D.O. (if req'd): Pre-purge: ____ mg/L	(Post-purge): 1.8 mg/L
O.R.P. (if req'd): Pre-purge: ____ mV	Post-purge: ____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 031117-FA1	Station # 5387
Sampler: Brian Alcorn	Date: 11/17/03
Well I.D.: AR-2	Well Diameter: 2 3 4 (6) 8 ____
Total Well Depth: 35.17	Depth to Water: 12.08
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 / Positive Air Displacement / (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.

1 Case Volume (Gals.)	x	Specified Volumes	=	Calculated Volume
32.4	x	3	=	97.2 Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1137	69.1	6.9	1,072	32.4	cloudy brown
1142	68.2	6.9	1,128	64.8	"
1147	67.3	6.8	1,121	97.2	"

Did well dewater? Yes (No)	Gallons actually evacuated: 97.2
Sampling Time: 1150	Sampling Date: 11/17/03
Sample I.D.: AR-2	Laboratory: (Pace) Sequoia Other ____
Analyzed for: (TPH-G BTEX) MTBE TPH-D	Other: 7 Oxys + Ethanol ALL by 8260; Alkalinity (SM2320B); Nitrate/Sulfate (E300) Ferrous Iron (Hach)

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	1.8 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

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:

5387

Station #

20200 Hesperian Blvd, Hayward

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

_____

added equip. rinse water_____

any other adjustments_____

TOTAL GALS. RECOVERED 240

loaded onto BTS vehicle # 58

BTS event # 031117.BA1

time 1200

date 11/17/03

signature _____

* *

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 ARCO 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

3 December, 2003

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

RE: ARCO #5387, Hayward, CA
Work Order: MMK0620

Enclosed are the results of analyses for samples received by the laboratory on 11/17/03 15:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James Hartley For Theresa Allen
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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Morgan Hill, CA 95037
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www.sequoialabs.com

URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MMK0620-01	Water	11/17/03 10:40	11/17/03 15:50
MW-2	MMK0620-02	Water	11/17/03 10:15	11/17/03 15:50
A-7	MMK0620-03	Water	11/17/03 09:45	11/17/03 15:50
AR-1	MMK0620-04	Water	11/17/03 11:20	11/17/03 15:50
AR-2	MMK0620-05	Water	11/17/03 11:50	11/17/03 15:50
TB-5387-11172003	MMK0620-06	Water	11/17/03 12:00	11/17/03 15:50

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. 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.sequoialabs.com

URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMK0620-01) Water Sampled: 11/17/03 10:40 Received: 11/17/03 15:50									
Ethanol	ND	100	ug/l	1	3K26028	11/26/03	11/27/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	O-10
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	**1.7**	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics	**420**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*78-129*		"	"	"	"	
MW-1 (MMK0620-01RE1) Water Sampled: 11/17/03 10:40 Received: 11/17/03 15:50									
Methyl tert-butyl ether	**140**	5.0	ug/l	10	3L01027	12/01/03	12/01/03	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*78-129*		"	"	"	"	
MW-2 (MMK0620-02) Water Sampled: 11/17/03 10:15 Received: 11/17/03 15:50									
Ethanol	ND	100	ug/l	1	3K26028	11/26/03	11/27/03	EPA 8260B	
tert-Butyl alcohol	**30**	20	"	"	"	"	"	"	O-10
Methyl tert-butyl ether	**50**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	**6.2**	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics	**530**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*78-129*		"	"	"	"	

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

URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-7 (MMK0620-03) Water Sampled: 11/17/03 09:45 Received: 11/17/03 15:50									
Ethanol	ND	100	ug/l	1	3K26028	11/26/03	11/27/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	O-10
Methyl tert-butyl ether	**1.4**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*78-129*		"	"	"	"	
AR-1 (MMK0620-04) Water Sampled: 11/17/03 11:20 Received: 11/17/03 15:50									
Ethanol	ND	100	ug/l	1	3K26028	11/26/03	11/27/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	O-10
Methyl tert-butyl ether	**1.4**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*78-129*		"	"	"	"	

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

URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AR-2 (MMK0620-05) Water Sampled: 11/17/03 11:50 Received: 11/17/03 15:50									
Ethanol	ND	100	ug/l	1	3K26028	11/26/03	11/27/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	O-10
Methyl tert-butyl ether	**0.86**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*78-129*		"	"	"	"	

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500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMK0620-01) Water	**Sampled: 11/17/03 10:40**	**Received: 11/17/03 15:50**							
Bicarbonate Alkalinity	**420**	25	mg/l	5	3K25011	11/24/03	11/24/03	SM 2320B	
Carbonate Alkalinity	ND	25	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	25	"	"	"	"	"	"	
Total Alkalinity	**420**	25	"	"	"	"	"	"	
MW-2 (MMK0620-02) Water	**Sampled: 11/17/03 10:15**	**Received: 11/17/03 15:50**							
Bicarbonate Alkalinity	**480**	25	mg/l	5	3K25011	11/24/03	11/24/03	SM 2320B	
Carbonate Alkalinity	ND	25	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	25	"	"	"	"	"	"	
Total Alkalinity	**480**	25	"	"	"	"	"	"	
A-7 (MMK0620-03) Water	**Sampled: 11/17/03 09:45**	**Received: 11/17/03 15:50**							
Bicarbonate Alkalinity	**380**	25	mg/l	5	3K25011	11/24/03	11/24/03	SM 2320B	
Carbonate Alkalinity	ND	25	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	25	"	"	"	"	"	"	
Total Alkalinity	**380**	25	"	"	"	"	"	"	
AR-1 (MMK0620-04) Water	**Sampled: 11/17/03 11:20**	**Received: 11/17/03 15:50**							
Bicarbonate Alkalinity	**450**	25	mg/l	5	3K25011	11/24/03	11/24/03	SM 2320B	
Carbonate Alkalinity	ND	25	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	25	"	"	"	"	"	"	
Total Alkalinity	**450**	25	"	"	"	"	"	"	
AR-2 (MMK0620-05) Water	**Sampled: 11/17/03 11:50**	**Received: 11/17/03 15:50**							
Bicarbonate Alkalinity	**460**	25	mg/l	5	3K25011	11/24/03	11/24/03	SM 2320B	
Carbonate Alkalinity	ND	25	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	25	"	"	"	"	"	"	
Total Alkalinity	**460**	25	"	"	"	"	"	"	

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Morgan Hill, CA 95037
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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Ferrous Iron by Hach method 8146/1;10 Phenanthroline Method

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMK0620-01) Water	**Sampled: 11/17/03 10:40**	**Received: 11/17/03 15:50**							
Ferrous Iron	**0.25**	0.10	mg/l	1	3L01010	11/18/03	11/18/03	Hach Co. 8146	
MW-2 (MMK0620-02) Water	**Sampled: 11/17/03 10:15**	**Received: 11/17/03 15:50**							
Ferrous Iron	**2.7**	0.50	mg/l	5	3L01010	11/18/03	11/18/03	Hach Co. 8146	
A-7 (MMK0620-03) Water	**Sampled: 11/17/03 09:45**	**Received: 11/17/03 15:50**							
Ferrous Iron	**0.15**	0.10	mg/l	1	3L01010	11/18/03	11/18/03	Hach Co. 8146	
AR-1 (MMK0620-04) Water	**Sampled: 11/17/03 11:20**	**Received: 11/17/03 15:50**							
Ferrous Iron	**2.8**	0.50	mg/l	5	3L01010	11/18/03	11/18/03	Hach Co. 8146	
AR-2 (MMK0620-05) Water	**Sampled: 11/17/03 11:50**	**Received: 11/17/03 15:50**							
Ferrous Iron	**0.13**	0.10	mg/l	1	3L01010	11/18/03	11/18/03	Hach Co. 8146	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Anions by EPA Method 300.0

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMK0620-01) Water	**Sampled: 11/17/03 10:40**	**Received: 11/17/03 15:50**							
Nitrate as NO3	**0.90**	0.50	mg/l	1	3K21026	11/18/03	11/18/03	EPA 300.0	
Sulfate as SO4	**39**	5.0	"	10	"	"	11/18/03	"	
MW-2 (MMK0620-02) Water	**Sampled: 11/17/03 10:15**	**Received: 11/17/03 15:50**							
Nitrate as NO3	ND	0.50	mg/l	1	3K21026	11/18/03	11/18/03	EPA 300.0	
Sulfate as SO4	**20**	5.0	"	10	"	"	11/18/03	"	
A-7 (MMK0620-03) Water	**Sampled: 11/17/03 09:45**	**Received: 11/17/03 15:50**							
Nitrate as NO3	**33**	5.0	mg/l	10	3K21026	11/18/03	11/18/03	EPA 300.0	
Sulfate as SO4	**45**	5.0	"	"	"	"	"	"	
AR-1 (MMK0620-04) Water	**Sampled: 11/17/03 11:20**	**Received: 11/17/03 15:50**							
Nitrate as NO3	**23**	5.0	mg/l	10	3K21026	11/18/03	11/18/03	EPA 300.0	
Sulfate as SO4	**40**	5.0	"	"	"	"	"	"	
AR-2 (MMK0620-05) Water	**Sampled: 11/17/03 11:50**	**Received: 11/17/03 15:50**							
Nitrate as NO3	**31**	5.0	mg/l	10	3K21026	11/18/03	11/18/03	EPA 300.0	
Sulfate as SO4	**44**	5.0	"	"	"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

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
Batch 3K26028 - EPA 5030B P/T										
Blank (3K26028-BLK1)				Prepared & Analyzed: 11/26/03						
Ethanol	ND	100	ug/l							O-09
tert-Butyl alcohol	ND	20	"							O-09
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	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.87*		"	*5.00*		*117*	*78-129*			
Laboratory Control Sample (3K26028-BS1)				Prepared & Analyzed: 11/26/03						
Ethanol	218	100	ug/l	200		109	31-186			O-09
tert-Butyl alcohol	63.4	20	"	50.0		127	0-206			O-09
Methyl tert-butyl ether	10.9	0.50	"	10.0		109	63-137			
Di-isopropyl ether	8.86	0.50	"	10.0		88.6	76-130			
Ethyl tert-butyl ether	8.57	0.50	"	10.0		85.7	61-141			
tert-Amyl methyl ether	10.3	0.50	"	10.0		103	56-140			
1,2-Dichloroethane	12.1	0.50	"	10.0		121	77-136			
1,2-Dibromoethane (EDB)	11.6	0.50	"	10.0		116	77-132			
Benzene	12.9	0.50	"	10.0		129	78-124			Q-LIM
Toluene	10.3	0.50	"	10.0		103	78-129			
Ethylbenzene	9.67	0.50	"	10.0		96.7	84-117			
Xylenes (total)	28.1	0.50	"	30.0		93.7	83-125			
Surrogate: 1,2-Dichloroethane-d4	*5.32*		"	*5.00*		*106*	*78-129*			

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Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

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
Batch 3K26028 - EPA 5030B P/T										
Laboratory Control Sample (3K26028-BS2)				Prepared: 11/26/03 Analyzed: 11/27/03						
Methyl tert-butyl ether	8.22	0.50	ug/l	9.92		82.9	63-137			
Benzene	7.37	0.50	"	6.40		115	78-124			
Toluene	35.9	0.50	"	29.7		121	78-129			
Ethylbenzene	7.30	0.50	"	6.96		105	84-117			
Xylenes (total)	35.5	0.50	"	33.7		105	83-125			
Gasoline Range Organics	446	50	"	440		101	70-113			
Surrogate: 1,2-Dichloroethane-d4	*5.06*		"	*5.00*		*101*	*78-129*			
Laboratory Control Sample Dup (3K26028-BSD1)				Prepared & Analyzed: 11/26/03						
Ethanol	243	100	ug/l	200		122	31-186	10.8	37	O-09
tert-Butyl alcohol	64.3	20	"	50.0		129	0-206	1.41	22	O-09
Methyl tert-butyl ether	11.0	0.50	"	10.0		110	63-137	0.913	13	
Di-isopropyl ether	9.32	0.50	"	10.0		93.2	76-130	5.06	9	
Ethyl tert-butyl ether	8.83	0.50	"	10.0		88.3	61-141	2.99	9	
tert-Amyl methyl ether	10.4	0.50	"	10.0		104	56-140	0.966	12	
1,2-Dichloroethane	12.0	0.50	"	10.0		120	77-136	0.830	13	
1,2-Dibromoethane (EDB)	11.5	0.50	"	10.0		115	77-132	0.866	9	
Benzene	12.6	0.50	"	10.0		126	78-124	2.35	12	Q-LIM
Toluene	10.0	0.50	"	10.0		100	78-129	2.96	10	
Ethylbenzene	9.59	0.50	"	10.0		95.9	84-117	0.831	10	
Xylenes (total)	28.0	0.50	"	30.0		93.3	83-125	0.357	11	
Surrogate: 1,2-Dichloroethane-d4	*5.35*		"	*5.00*		*107*	*78-129*			
Laboratory Control Sample Dup (3K26028-BSD2)				Prepared: 11/26/03 Analyzed: 11/27/03						
Methyl tert-butyl ether	9.08	0.50	ug/l	9.92		91.5	63-137	9.94	13	
Benzene	6.72	0.50	"	6.40		105	78-124	9.23	12	
Toluene	34.5	0.50	"	29.7		116	78-129	3.98	10	
Ethylbenzene	6.94	0.50	"	6.96		99.7	84-117	5.06	10	
Xylenes (total)	35.0	0.50	"	33.7		104	83-125	1.42	11	
Gasoline Range Organics	413	50	"	440		93.9	70-113	7.68	9	
Surrogate: 1,2-Dichloroethane-d4	*5.08*		"	*5.00*		*102*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

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
Batch 3K26028 - EPA 5030B P/T										
Matrix Spike (3K26028-MS1)	**Source: MMK0621-02**			Prepared: 11/26/03		Analyzed: 11/27/03				
Ethanol	1630	1000	ug/l	2000	ND	81.5	31-186			O-09
tert-Butyl alcohol	787	200	"	500	240	109	0-206			O-09
Methyl tert-butyl ether	438	5.0	"	100	300	138	63-137			QM-07
Di-isopropyl ether	145	5.0	"	100	ND	145	76-130			QM-07
Ethyl tert-butyl ether	109	5.0	"	100	ND	109	61-141			
tert-Amyl methyl ether	97.3	5.0	"	100	1.4	95.9	56-140			
1,2-Dichloroethane	113	5.0	"	100	ND	113	77-126			
1,2-Dibromoethane (EDB)	108	5.0	"	100	ND	108	77-132			
Benzene	637	5.0	"	100	450	187	78-124			QM-07
Toluene	119	5.0	"	100	10	109	78-129			
Ethylbenzene	235	5.0	"	100	110	125	84-117			QM-07
Xylenes (total)	388	5.0	"	300	70	106	83-125			
Surrogate: 1,2-Dichloroethane-d4	*5.30*		*"*	*5.00*		*106*	*78-129*			
Matrix Spike Dup (3K26028-MSD1)	**Source: MMK0621-02**			Prepared: 11/26/03		Analyzed: 11/27/03				
Ethanol	1840	1000	ug/l	2000	ND	92.0	31-186	12.1	37	O-09
tert-Butyl alcohol	640	200	"	500	240	80.0	0-206	20.6	22	O-09
Methyl tert-butyl ether	398	5.0	"	100	300	98.0	63-137	9.57	13	
Di-isopropyl ether	161	5.0	"	100	ND	161	76-130	10.5	9	QM-07, QR-07
Ethyl tert-butyl ether	118	5.0	"	100	ND	118	61-141	7.93	9	
tert-Amyl methyl ether	96.4	5.0	"	100	1.4	95.0	56-140	0.929	12	
1,2-Dichloroethane	106	5.0	"	100	ND	106	77-126	6.39	13	
1,2-Dibromoethane (EDB)	104	5.0	"	100	ND	104	77-132	3.77	9	
Benzene	584	5.0	"	100	450	134	78-124	8.68	12	QM-07
Toluene	110	5.0	"	100	10	100	78-129	7.86	10	
Ethylbenzene	222	5.0	"	100	110	112	84-117	5.69	10	
Xylenes (total)	372	5.0	"	300	70	101	83-125	4.21	11	
Surrogate: 1,2-Dichloroethane-d4	*4.98*		*"*	*5.00*		*99.6*	*78-129*			

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Sequoia Analytical

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

URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

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
Batch 3L01027 - EPA 5030B P/T										
Blank (3L01027-BLK1)				Prepared & Analyzed: 12/01/03						
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	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.44*		"	*5.00*		*109*	*78-129*			
Laboratory Control Sample (3L01027-BS1)				Prepared & Analyzed: 12/01/03						
Ethanol	222	100	ug/l	200		111	31-186			
tert-Butyl alcohol	47.2	20	"	50.0		94.4	0-206			
Methyl tert-butyl ether	9.59	0.50	"	10.0		95.9	63-137			
Di-isopropyl ether	9.04	0.50	"	10.0		90.4	76-130			
Ethyl tert-butyl ether	9.26	0.50	"	10.0		92.6	61-141			
tert-Amyl methyl ether	9.51	0.50	"	10.0		95.1	56-140			
1,2-Dichloroethane	10.2	0.50	"	10.0		102	77-136			
1,2-Dibromoethane (EDB)	9.25	0.50	"	10.0		92.5	77-132			
Benzene	9.50	0.50	"	10.0		95.0	78-124			
Toluene	8.80	0.50	"	10.0		88.0	78-129			
Ethylbenzene	8.60	0.50	"	10.0		86.0	84-117			
Xylenes (total)	25.6	0.50	"	30.0		85.3	83-125			
Surrogate: 1,2-Dichloroethane-d4	*5.38*		"	*5.00*		*108*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

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
Batch 3L01027 - EPA 5030B P/T										
Laboratory Control Sample Dup (3L01027-BSD1)				Prepared: 12/01/03 Analyzed: 12/02/03						
Ethanol	202	100	ug/l	200		101	31-186	9.43	37	
tert-Butyl alcohol	47.3	20	"	50.0		94.6	0-206	0.212	22	
Methyl tert-butyl ether	9.68	0.50	"	10.0		96.8	63-137	0.934	13	
Di-isopropyl ether	9.33	0.50	"	10.0		93.3	76-130	3.16	9	
Ethyl tert-butyl ether	9.48	0.50	"	10.0		94.8	61-141	2.35	9	
tert-Amyl methyl ether	9.73	0.50	"	10.0		97.3	56-140	2.29	12	
1,2-Dichloroethane	10.4	0.50	"	10.0		104	77-136	1.94	13	
1,2-Dibromoethane (EDB)	9.20	0.50	"	10.0		92.0	77-132	0.542	9	
Benzene	10.3	0.50	"	10.0		103	78-124	8.08	12	
Toluene	9.51	0.50	"	10.0		95.1	78-129	7.76	10	
Ethylbenzene	9.37	0.50	"	10.0		93.7	84-117	8.57	10	
Xylenes (total)	27.6	0.50	"	30.0		92.0	83-125	7.52	11	
Surrogate: 1,2-Dichloroethane-d4	*5.18*		"	*5.00*		*104*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K25011 - General Preparation										
Blank (3K25011-BLK1)				Prepared & Analyzed: 11/24/03						
Bicarbonate Alkalinity	ND	5.0	mg/l							
Carbonate Alkalinity	ND	5.0	"							
Hydroxide Alkalinity	ND	5.0	"							
Total Alkalinity	ND	5.0	"							
Laboratory Control Sample (3K25011-BS1)				Prepared & Analyzed: 11/24/03						
Total Alkalinity	99.8	5.0	mg/l	100		99.8	80-120			
Matrix Spike (3K25011-MS1)	**Source: MMK0607-01**			Prepared & Analyzed: 11/24/03						
Total Alkalinity	129	5.0	mg/l	100	27	102	75-125			
Matrix Spike Dup (3K25011-MSD1)	**Source: MMK0607-01**			Prepared & Analyzed: 11/24/03						
Total Alkalinity	129	5.0	mg/l	100	27	102	75-125	0.00	20	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Ferrous Iron by Hach method 8146/1;10 Phenanthroline Method - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3L01010 - General Preparation										
Blank (3L01010-BLK1)				Prepared & Analyzed: 11/18/03						
Ferrous Iron	ND	0.10	mg/l							
Laboratory Control Sample (3L01010-BS1)				Prepared & Analyzed: 11/18/03						
Ferrous Iron	0.434	0.10	mg/l	0.400		108	87-118			
Matrix Spike (3L01010-MS1)	**Source: MMK0620-05**			Prepared & Analyzed: 11/18/03						
Ferrous Iron	0.631	0.10	mg/l	0.400	0.13	125	87-118			QM-07
Matrix Spike Dup (3L01010-MSD1)	**Source: MMK0620-05**			Prepared & Analyzed: 11/18/03						
Ferrous Iron	0.638	0.10	mg/l	0.400	0.13	127	87-118	1.10	10	QM-07

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Anions by EPA Method 300.0 - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K21026 - General Preparation										
Blank (3K21026-BLK1)				Prepared: 11/18/03 Analyzed: 11/19/03						
Nitrate as NO3	ND	0.50	mg/l							
Sulfate as SO4	ND	0.50	"							
Laboratory Control Sample (3K21026-BS1)				Prepared: 11/18/03 Analyzed: 11/19/03						
Nitrate as NO3	10.6	0.50	mg/l	10.0		106	90-110			
Sulfate as SO4	9.65	0.50	"	10.0		96.5	90-110			
Matrix Spike (3K21026-MS1)	**Source: MMK0675-01**			Prepared & Analyzed: 11/18/03						
Nitrate as NO3	12300	50	mg/l	1000	11000	130	80-124			QM-4X
Sulfate as SO4	1450	50	"	1000	410	104	72-140			
Matrix Spike Dup (3K21026-MSD1)	**Source: MMK0675-01**			Prepared & Analyzed: 11/18/03						
Nitrate as NO3	12100	50	mg/l	1000	11000	110	80-124	1.64	10	
Sulfate as SO4	1420	50	"	1000	410	101	72-140	2.09	10	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MMK0620
500 12th Street, Suite 200	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	12/03/03 15:58

Notes and Definitions

O-09	The result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.
O-10	The result was reported with a possible low bias due to the continuing calibration verification falling outside the acceptance criteria.
Q-LIM	The percent recovery was outside of the control limits. The samples results may still be useful for their intended purpose.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-4X	The spike recovery was outside of control limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QR-07	The RPD was outside control limits. The results may still be useful for their intended purpose.
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

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Chain of Custody Record

bp

Project Name 5387 GWM
BP BU/GEM CO Portfolio Retail
BP Laboratory Contract Number: Atlantic Richfield Company
Date: 11/17/03 Requested Due Date (mm/dd/yy) 14 day TAT

On-site Time:	0845 Temp: 68
Off- site Time:	1205 Temp: 72
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Send To:	BP/GEM Facility No.: ARCO 5387	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 20200 Hesperian Blvd, HAYWARD, CA	Address: 500 12th St., Ste. 200
Lab Address: 885 Jarvis Dr.	Site ID No. ARCO 5387	Oakland, CA 94609-4014
Morgan Hill, CA 95037	Site Lat/Long:	e-mail EDD: donna.cosper@URSCorp.com
	California Global ID #:	Consultant/Contractor Project No.: 15-00005387.01 00427
Lab PM Theresa Allen	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-893-3600/510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address: P.O. Box 6549	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: 1 Send EDF Reports	Moraga, CA 94570	Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Account No.:	Tele/Fax: 925-299-8891/925-299-8872	BP/GEM Work Release No: INTRIM -50591

Lab Bottle Order No: HMK0620

Item No.	Sample Description	Time	Matrix: Soil/Solid	Water/Liquid	Sediments	Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TPH-G / BTEX (8015/8021/8260)	TPH-D (8015)	MTBE (8021)	MTBE (8260)	MTBE, TAME, ETBE DIPE, TBA (8260)	1,2-DCA & EDB (8260)	Ethanol (8260)	Nitrate, Sulfate (EPA 300)	Alkalinity (SM2320B)	Ferrous Iron (Hach 8146)	Sample Point Lat/Long and Comments
1	MW-1	1040		X			01	4	1			3	X				X	-	X	X	X	X	
2	MW-2	1015		X			02	4	1			3	X				X		X	X	X	X	
3	A-7	0945		X			03	4	1			3	X				X		X	X	X	X	
4	AR-1	1120		X			04	4	1			3	X				X		X	X	X	X	
5	AR-2	1150		X			05	4	1			3	X				X		X	X	X	X	
6	TB-5387-111703	1200		X			06	2				2											ON HOLD
7																							
8																							
9																							
10																							

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Brian Brown						
Sampler's Company: Blaine Tech Services		11/17/03	1512		11/17/03	1512
Shipment Date:		11/17/03	1550		11/15/03	1550
Shipment Method:						
Shipment Tracking No:						

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

Custody Seals In Place Yes X No ___ Temperature Blank Yes X No ___ Cooler Temperature on Receipt 2 °F/C Trip Blank Yes X No ___

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

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP
REC. BY (PRINT): R
WORKORDER: MMK0620

DATE REC'D AT LAB: 11/17/03
TIME REC'D AT LAB: 1550
DATE LOGGED IN: 11/17/03

DRINKING WATER for regulatory purposes: YES / (NO)
WASTE WATER 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) / Absent Intact / Broken*	01		MW-1	(3) Voas	HCl	W	11/17/03	3263020
				L	(1) 1L Poly	-			
2. Chain-of-Custody	(Present) / Absent*	02		MW-2	Same	Same			
3. Traffic Reports or Packing List:	Present / (Absent)	03		A-7					
		04		AR-1					
4. Airbill:	Airbill / Sticker Present / (Absent)	05		AR-2					
		06		TB	(2) Voas	HCl	↓	↓	↓
5. Airbill #:									
6. Sample Labels:	(Present) / Absent								
7. Sample IDs:	(Listed) / Not Listed on Chain-of-Custody								
8. Sample Condition:	(Intact) / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree?	(Yes) / No*								
10. Sample received within hold time:	(Yes) / No*								
11. Adequate sample volume received?	(Yes) / No*								
12. Proper Preservatives used:	(Yes) / No*								
13. Temp Rec. at Lab: 2°C Is temp 4 +/-2°C?	(Yes) / No**								

(Acceptance range for samples requiring thermal pres.)
**Exception (if any): METALS / OFF ON ICE or Problem COC

11/17/03 R

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

SRL rv 4.xls
Revision 4 (11/10/03)
Replaces Revision 3 (03/18/03)
Effective 11/10/03

ATTACHMENT C

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

AB2886 Electronic Delivery

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been succcessfully uploaded!

Confirmation Number:	1328189730
Date/Time of Submittal:	12/5/2003 4:46:05 PM
Facility Global ID:	T0600101368
Facility Name:	ARCO
Submittal Title:	Fourth Quarter 2003 Groundwater Monitoring Report
Submittal Type:	GW Monitoring Report

Logged in as URSCORP-OAKLAND (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

AB2886 Electronic Delivery

Main Menu | View/Add Facilities | Upload EDD | Check EDD

UPLOADING A GEO_WELL FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title:	**Fourth Quarter 2003 Groundwater Monitoring Report - Geowell for Site #5387**
Submittal Date/Time:	**12/5/2003 5:00:05 PM**
Confirmation Number:	**2089085221**

Back to Main Menu

Logged in as URSCORP-OAKLAND (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

ATTACHMENT D

WELL REPAIR FIELD DATA SHEETS

REPAIR DATA SHEET

Client Arco/BP #5387 Date 11/4/03

Site Address 20200 Hesperian Blvd., Hayward, CA

Job Number 031104-MG1 Technician MG

Repair Location AR-2

Deficiencies Corrected Vault lid welded to vault rim. Drilled, and cut off bolts. Opened vault, unable to repair bolt holes.

Materials Used

Repair Location AR-1

Deficiencies Corrected Vault lid welded to vault rim. Cut off welds, and one bolt. Opened vault, unable to repair bolt holes.

Materials Used

Repair Location MW-1

Deficiencies Corrected Vault lid welded to vault rim. Drilled out + cut off bolts. Opened vault, unable to repair bolt holes

Materials Used

Repair Location AR-1 continued.

Deficiencies Corrected Old Vapor Ext. cap not sealing well. Replace w/ new 6" cap + lock.

Materials Used 6" cap, lock

Repair Location MW-3

Deficiencies Corrected Casing cracked. Lowered casing 0.17' No lock. Added new lock.

Materials Used lck

Repair Location A-6

Deficiencies Corrected Bolts/tabs stripped. Helicoiled 2 tabs + added 2 new bolts

Materials Used 2 helicoils, 2 bolts.

REPAIR DATA SHEET

Client Arco/BP #5387 Date 11/4/03

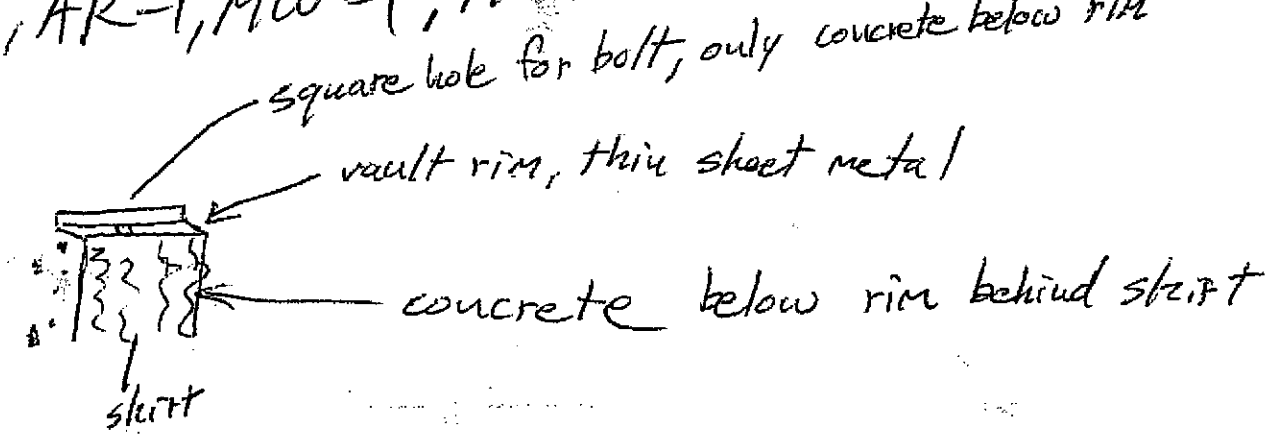
Site Address 20200 Hesperian Blvd., Hayward, CA

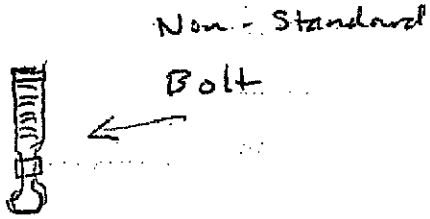
Job Number 031104-MB1 Technician MB

Repair Location A-4	Repair Location
Deficiencies Corrected Bolts bent, tabs clogged w/ dirt. Tapped tabs + added 2 new bolts.	Deficiencies Corrected
Materials Used 2 bolts	Materials Used
Repair Location	Repair Location
Deficiencies Corrected	Deficiencies Corrected
Materials Used	Materials Used
Repair Location	Repair Location
Deficiencies Corrected	Deficiencies Corrected
Materials Used	Materials Used

SITE:
ARLO 5307

AR-2, AR-1, MW-1, MW-3





Error Summary Log

12/30/03

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #5387, Hayward, CA
Work Order Number:	MMK0620
Global ID:	NA
Lab Report Number:	MMK0620120320031612

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
MMK06201203200 31612	A-7	MMK062003	W	CS	8260TPH	SW5030B	11/17/03	11/26/03	11/27/03	3K26028	1	
MMK06201203200 31612	A-7	MMK062003	W	CS	A2320B	METHOD	11/17/03	11/24/03	11/24/03	3K25011	1	
MMK06201203200 31612	A-7	MMK062003	W	CS	E300.0	METHOD	11/17/03	11/18/03	11/18/03	3K21026	1	
MMK06201203200 31612	A-7	MMK062003	W	CS	H8146	METHOD	11/17/03	11/18/03	11/18/03	3L01010	1	
MMK06201203200 31612	AR-1	MMK062004	W	CS	8260TPH	SW5030B	11/17/03	11/26/03	11/27/03	3K26028	1	
MMK06201203200 31612	AR-1	MMK062004	W	CS	A2320B	METHOD	11/17/03	11/24/03	11/24/03	3K25011	1	
MMK06201203200 31612	AR-1	MMK062004	W	CS	E300.0	METHOD	11/17/03	11/18/03	11/18/03	3K21026	1	
MMK06201203200 31612	AR-1	MMK062004	W	CS	H8146	METHOD	11/17/03	11/18/03	11/18/03	3L01010	1	
MMK06201203200 31612	AR-2	MMK062005	W	CS	8260TPH	SW5030B	11/17/03	11/26/03	11/27/03	3K26028	1	
MMK06201203200 31612	AR-2	MMK062005	W	CS	A2320B	METHOD	11/17/03	11/24/03	11/24/03	3K25011	1	
MMK06201203200 31612	AR-2	MMK062005	W	CS	E300.0	METHOD	11/17/03	11/18/03	11/18/03	3K21026	1	
MMK06201203200 31612	AR-2	MMK062005	W	CS	H8146	METHOD	11/17/03	11/18/03	11/18/03	3L01010	1	
MMK06201203200 31612	MW-1	MMK062001	W	CS	8260TPH	SW5030B	11/17/03	11/26/03	11/27/03	3K26028	1	
MMK06201203200 31612	MW-1	MMK062001	W	CS	A2320B	METHOD	11/17/03	11/24/03	11/24/03	3K25011	1	
MMK06201203200 31612	MW-1	MMK062001	W	CS	E300.0	METHOD	11/17/03	11/18/03	11/18/03	3K21026	1	
MMK06201203200 31612	MW-1	MMK062001	W	CS	H8146	METHOD	11/17/03	11/18/03	11/18/03	3L01010	1	
MMK06201203200 31612	MW-1	MMK062001R1	W	CS	8260TPH	SW5030B	11/17/03	12/01/03	12/01/03	3L01027	1	
MMK06201203200 31612	MW-2	MMK062002	W	CS	8260TPH	SW5030B	11/17/03	11/26/03	11/27/03	3K26028	1	
MMK06201203200 31612	MW-2	MMK062002	W	CS	A2320B	METHOD	11/17/03	11/24/03	11/24/03	3K25011	1	
MMK06201203200 31612	MW-2	MMK062002	W	CS	E300.0	METHOD	11/17/03	11/18/03	11/18/03	3K21026	1	

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
MMK06201203200	MW-2	MMK062002	W	CS	H8146	METHOD	11/17/03	11/18/03	11/18/03	3L01010	1	
31612												
		MMK060701	W	NC	A2320B	METHOD	/ /	11/24/03	11/24/03	3K25011	1	
		MMK062102	W	NC	8260TPH	SW5030B	/ /	11/26/03	11/27/03	3K26028	1	
		MMK067501	W	NC	E300.0	METHOD	/ /	11/18/03	11/18/03	3K21026	1	
		3K21026BS1	WQ	BS1	E300.0	METHOD	/ /	11/18/03	11/19/03	3K21026	1	
		3K21026BLK1	WQ	LB1	E300.0	METHOD	/ /	11/18/03	11/19/03	3K21026	1	
		3K21026MS1	W	MS1	E300.0	METHOD	/ /	11/18/03	11/18/03	3K21026	1	
		3K21026MSD1	W	SD1	E300.0	METHOD	/ /	11/18/03	11/18/03	3K21026	1	
		3K25011BS1	WQ	BS1	A2320B	METHOD	/ /	11/24/03	11/24/03	3K25011	1	
		3K25011BLK1	WQ	LB1	A2320B	METHOD	/ /	11/24/03	11/24/03	3K25011	1	
		3K25011MS1	W	MS1	A2320B	METHOD	/ /	11/24/03	11/24/03	3K25011	1	
		3K25011MSD1	W	SD1	A2320B	METHOD	/ /	11/24/03	11/24/03	3K25011	1	
		3K26028BSD1	WQ	BD1	8260TPH	SW5030B	/ /	11/26/03	11/26/03	3K26028	1	
		3K26028BSD2	WQ	BD2	8260TPH	SW5030B	/ /	11/26/03	11/27/03	3K26028	1	
		3K26028BS1	WQ	BS1	8260TPH	SW5030B	/ /	11/26/03	11/26/03	3K26028	1	
		3K26028BS2	WQ	BS2	8260TPH	SW5030B	/ /	11/26/03	11/27/03	3K26028	1	
		3K26028BLK1	WQ	LB1	8260TPH	SW5030B	/ /	11/26/03	11/26/03	3K26028	1	
		3K26028MS1	W	MS1	8260TPH	SW5030B	/ /	11/26/03	11/27/03	3K26028	1	
		3K26028MSD1	W	SD1	8260TPH	SW5030B	/ /	11/26/03	11/27/03	3K26028	1	
		3L01010BS1	WQ	BS1	H8146	METHOD	/ /	11/18/03	11/18/03	3L01010	1	
		3L01010BLK1	WQ	LB1	H8146	METHOD	/ /	11/18/03	11/18/03	3L01010	1	
		3L01010MS1	W	MS1	H8146	METHOD	/ /	11/18/03	11/18/03	3L01010	1	
		3L01010MSD1	W	SD1	H8146	METHOD	/ /	11/18/03	11/18/03	3L01010	1	
		3L01027BSD1	WQ	BD1	8260TPH	SW5030B	/ /	12/01/03	12/02/03	3L01027	1	
		3L01027BS1	WQ	BS1	8260TPH	SW5030B	/ /	12/01/03	12/01/03	3L01027	1	
		3L01027BLK1	WQ	LB1	8260TPH	SW5030B	/ /	12/01/03	12/01/03	3L01027	1	

EDFSAMP: Error Summary Log

12/30/03

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

EDFTEST: Error Summary Log

12/30/03

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

EDFRES: Error Summary Log

12/30/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3K21026MS1	MS1	W	E300.0	PR	11/18/03	1	NO3
Warning: extra parameter	3K21026MSD1	SD1	W	E300.0	PR	11/18/03	1	NO3
Warning: extra parameter	MMK062001	CS	W	A2320B	PR	11/24/03	1	ALKB
Warning: extra parameter	MMK062001	CS	W	A2320B	PR	11/24/03	1	ALKC
Warning: extra parameter	MMK062001	CS	W	A2320B	PR	11/24/03	1	ALKH
Warning: extra parameter	MMK062001	CS	W	E300.0	PR	11/18/03	1	NO3
Warning: extra parameter	MMK062002	CS	W	A2320B	PR	11/24/03	1	ALKB
Warning: extra parameter	MMK062002	CS	W	A2320B	PR	11/24/03	1	ALKC
Warning: extra parameter	MMK062002	CS	W	A2320B	PR	11/24/03	1	ALKH
Warning: extra parameter	MMK062002	CS	W	E300.0	PR	11/18/03	1	NO3
Warning: extra parameter	MMK062003	CS	W	A2320B	PR	11/24/03	1	ALKB
Warning: extra parameter	MMK062003	CS	W	A2320B	PR	11/24/03	1	ALKC
Warning: extra parameter	MMK062003	CS	W	A2320B	PR	11/24/03	1	ALKH
Warning: extra parameter	MMK062003	CS	W	E300.0	PR	11/18/03	1	NO3
Warning: extra parameter	MMK062004	CS	W	A2320B	PR	11/24/03	1	ALKB
Warning: extra parameter	MMK062004	CS	W	A2320B	PR	11/24/03	1	ALKC
Warning: extra parameter	MMK062004	CS	W	A2320B	PR	11/24/03	1	ALKH
Warning: extra parameter	MMK062004	CS	W	E300.0	PR	11/18/03	1	NO3
Warning: extra parameter	MMK062005	CS	W	A2320B	PR	11/24/03	1	ALKB
Warning: extra parameter	MMK062005	CS	W	A2320B	PR	11/24/03	1	ALKC
Warning: extra parameter	MMK062005	CS	W	A2320B	PR	11/24/03	1	ALKH
Warning: extra parameter	MMK062005	CS	W	E300.0	PR	11/18/03	1	NO3
Warning: extra parameter	MMK067501	NC	W	E300.0	PR	11/18/03	1	NO3
Warning: extra parameter	3K21026BLK1	LB1	WQ	E300.0	PR	11/19/03	1	NO3
Warning: extra parameter	3K21026BS1	BS1	WQ	E300.0	PR	11/19/03	1	NO3

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3K25011BLK1	LB1	WQ	A2320B	PR	11/24/03	1	ALKB
Warning: extra parameter	3K25011BLK1	LB1	WQ	A2320B	PR	11/24/03	1	ALKC
Warning: extra parameter	3K25011BLK1	LB1	WQ	A2320B	PR	11/24/03	1	ALKH

EDFQC: Error Summary Log

12/30/03

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

EDFCL: Error Summary Log

12/30/03

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

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Submittal Type: GW Monitoring Report

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