



ENVIRONMENTAL  
PROTECTION

97 JAN 22 PM 3:31

January 15, 1997

Mr. Scott Seery  
Alameda County Environmental Health Department  
Environmental Protection Division  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502

RE: FORMER MOBIL STATION 04-H6J  
1024 MAIN STREET  
PLEASANTON, CALIFORNIA

Alton Project No. 30-0065

Mr. Seery:

Please find enclosed the Fourth Quarter 1996 Progress Report for the subject location, prepared for Mobil Oil Corporation by Alton Geoscience. The contents of this report include:

Quarterly Progress Report Summary Sheet

- Exhibit 1: Sampling Schedule
- Exhibit 2: Groundwater Levels and Chemical Analysis
- Exhibit 3: Figures 1 through 3 (Vicinity Map, Groundwater Elevation Contour Map, and Dissolved-Phase Benzene Concentrations)
- Exhibit 4: Benzene Versus Groundwater Elevation Graphs
- Exhibit 5: Vapor Extraction System Performance Tables and Graphs
- Exhibit 6: Groundwater Remediation Performance Tables
- Exhibit 7: Well Purging and Groundwater Sampling Protocol
- Exhibit 8: Monitoring Well Sampling Forms
- Exhibit 9: Analytical Laboratory Data Sheets

If you have any questions regarding this report, please call Ms. Cherine Foutch, Mobil Engineer, at (510) 625-1173, or Mr. Ron Scheele, Alton Geoscience Project Geologist, at (510) 606-9150.

Sincerely,

ALTON GEOSCIENCE

Ron A. Scheele  
Project Geologist

cc: Ms. Cherine Foutch, Mobil Oil Corporation  
Mr. Kevin Graves, California Regional Water Quality Control Board, SFBR  
Mr. Gary Lee, Pleasanton Department of Works  
3000 Linderoth Avenue, Alameda County Flood Control & Water Conservation District  
Livermore, California 94550  
(510) 606-9150 • FAX (510) 606-9260

Alton Geoscience

Quarterly Progress Report Summary Sheet  
Fourth Quarter 1996

**Mobil Service Station 04-H6J**  
**1024 Main Street**  
**Pleasanton, California**

CRWQCB Case # N/A  
BAAQMD # 14053  
DSRSD sewer discharge permit # 95010

Number of water zones:	1	This Page	1
<b>FIELD ACTIVITY:</b>		Date Sampled:	8-Nov-96
Number of ground water wells on-site:	12	Ground Water Wells monitored:	7
Number of ground water wells off-site:	3	Ground Water Wells sampled:	10
		Ground Water Wells with Free Product:	0
Phase of Investigation: Vadose Zone:	Remediation	Ground Water Phase:	Remediation
<b>SITE HYDROGEOLOGY:</b>			
Approximate depth to ground water below ground surface:			40.0 feet
Approximate elevation of potentiometric surface above Mean Sea Level:			308 feet
Average Increase/Decrease in ground water elevations since last sampling episode:			0.98 foot Increase
Approximate flow direction and hydraulic gradient:			Northwest 0.02 foot/foot
<b>GROUND WATER CONTAMINATION (BENZENE MCL=1.0 ppb):</b>			
Wells containing free product:	1	Range in Thickness of Free Product:	~ 0.01 feet
Number of wells with concentrations below MCL:	5	Volume of Free Product Recovered This Period:	0
Number of wells with concentrations at or above MCL:	5	Volume of Free Product Recovered To Date:	0
Nature of contamination:	Gasoline	Range in Concentrations:	Benzene: <0.50 to 5,300 ppb TPH-G: <50 to 81,000 ppb
<b>GROUND WATER REMEDIATION PERFORMANCE</b>		Date Started:	5-May-95
Technology used:	Pump & treat w/ air stripper	Number of Wells Extracting Ground Water:	4 (RW-1 through RW-4)
Amount of Groundwater Extracted This Quarter(gallons):	200,290	Carbon Change:	N/A
Total Amount of Groundwater Extracted (gallons):	2,539,370		
Operating days this quarter:	24 days		
Total operating Days:	291 days		
<b>VAPOR EXTRACTION PERFORMANCE</b>		Date Started:	4-Apr-95
Technology used:	Catalytic Oxidizer	Maximum influent Concentration (ppmv):	350 ppmv
Number of vapor wells onsite:	9	Maximum Diluted Influent Concentration (ppmv):	130 ppmv
Number of vapor extraction wells open:	4	Amount of hydrocarbons removed this quarter:	70 gallons
Operating Days this quarter:	24 days	Cumulative amount of hydrocarbons removed:	3,629 gallons
Total operating Days:	305 days	Operating Mode:	Catalytic
		Conversion Date (Downsized VES blower):	1/8/96
<b>ADDITIONAL INFORMATION:</b>			
Site monitored and sampled quarterly, but jointly with former Unocal Station # 543 on a semi-annual schedule, i.e., first and third quarters.			
Monitoring Wells MW-3, MW-5, MW-7, MW-8 and Vapor Wells VMW-1 through VMW-4 are shallow wells which are historically dry.			
Vapor extraction wells MW-1, VMW-4 and combined groundwater/vapor extraction wells RW-2, RW-3, RW-4 were closed to soil vapor recovery.			
Due to electrical problems, there was limited remediation system operation.			
Groundwater purged from wells during sampling activities was treated and discharged through the onsite remediation system.			

Prepared by:

*Ron Tule* for

Chris Callegari  
Staff Geologist

Alton Project No: 30-0065

Approved by:

*Matthew W. Katen*  
California RG 5167

Matthew W. Katen, RG  
Senior Geologist

Submission Date: 1/15/97



**EXHIBIT 1**  
**SAMPLING SCHEDULE**

MONITORING WELL SAMPLING SCHEDULE 1996  
Former Mobil Station 04-H6J

Well Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
MW-1	X	X	X	X
MW-2	X	X	X	X
MW-3*				
MW-4	X	X	X	X
MW-5*				
MW-6	X	X	X	X
MW-7*				
MW-8*				
MW-10	X	X	X	X
MW-11	X	X	X	X
MW-12	X	X	X	X
RW-1	X	X	X	X
RW-2	X	X	X	X
RW-3	X	X	X	X
RW-4	X	X	X	X
<p>NOTES: X = well scheduled for sampling * = well historically dry, screened above water table</p>				

**EXHIBIT 2**

**GROUNDWATER LEVELS AND CHEMICAL ANALYSIS TABLE**

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-1	04/12/90	348.03	0.00	43.57	304.46	3,600	—	73	13	3	180	—
	10/18/90		0.00	43.18	304.85	5,000	ND	700	360	170	480	—
	08/06/91		0.00	38.65	309.38	2,600	—	310	340	110	340	—
	01/08/92		0.00	38.68	309.35	2,400	—	270	370	18	340	—
	04/30/92		0.00	39.93	308.10	1,300	—	150	120	12	160	—
	07/31/92		0.00	43.05	304.98	ND	—	ND	ND	ND	ND	—
	10/27/92		0.00	42.86	305.17	2,700	—	320	310	84	310	—
	01/22/93		0.00	34.88	313.15	2,800	—	190	340	87	320	—
	04/05/93		0.00	33.71	314.32	6,000	—	410	460	51	500	—
	07/06/93		0.00	35.46	312.57	2,200	—	140	240	32	180	—
	11/30/93		0.00	37.81	310.22	450	—	68	34	ND	48	—
	01/27/94		0.00	42.10	305.93	1,000	—	270	330	44	190	—
	04/25/94		0.00	40.33	307.70	—	—	—	—	—	—	—
	04/26/94		—	—	—	3,500	—	310	370	22	320	—
	07/08/94		0.00	41.39	306.64	640	—	120	87	15	43	—
	10/05/94		0.00	42.19	305.84	970	—	110	140	21	90	—
	02/21/95		0.00	34.73	313.30	3,500	—	200	270	24	100	—
	05/03/95		0.00	34.67	313.36	160	—	7.8	12	4.5	20	—
	08/04/95		0.00	37.00	311.03	1,900	—	99	330	40	570	10
	11/10/95		0.00	39.66	308.37	610	—	150	56	22	89	—
	02/12/96		0.00	36.19	311.84	470	—	3.0	37	7.8	140	1.3
	05/17/96		0.00	35.82	312.21	ND	—	ND	ND	ND	ND	ND
	08/12/96		0.00	38.44	309.59	ND	—	ND	ND	ND	ND	ND
	11/08/96		0.00	40.07	307.96	ND	—	ND	ND	ND	ND	ND

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-2	04/12/90	348.45	0.00	44.14	304.31	64,000	—	5,500	7,600	1,900	7,800	—
	10/18/90		0.00	43.18	305.27	83,000	10,000	6,800	9,100	2,400	11,000	—
	08/06/91		0.00	39.19	309.26	160,000	—	16,000	25,000	4,300	19,000	—
	01/08/92		0.02	39.40	309.07	—	—	—	—	—	—	—
	04/30/92		0.00	40.50	307.95	71,000	—	9,200	19,000	3,700	15,000	—
	07/31/92		0.15	43.64	304.92	—	—	—	—	—	—	—
	10/27/92		Trace	43.53	304.92	—	—	—	—	—	—	—
	01/22/93		Trace	35.55	312.90	—	—	—	—	—	—	—
	04/05/93		Trace	34.41	314.04	—	—	—	—	—	—	—
	07/06/93		Trace	35.98	312.47	—	—	—	—	—	—	—
	11/30/93		0.48	38.78	310.03	—	—	—	—	—	—	—
	01/27/94		0.01	42.50	305.96	—	—	—	—	—	—	—
	04/25/94		Trace	40.32	308.13	—	—	—	—	—	—	—
	07/08/94		Trace	42.46	305.99	—	—	—	—	—	—	—
	10/05/94		Trace	42.78	305.67	—	—	—	—	—	—	—
	02/21/95		0.12	34.88	313.66	—	—	—	—	—	—	—
	05/03/95		0.62	35.30	313.62	—	—	—	—	—	—	—
	08/04/95		0.20	37.21	311.39	—	—	—	—	—	—	—
	11/10/95		0.24	39.87	308.76	—	—	—	—	—	—	—
	02/12/96		Trace	36.16	312.29	—	—	—	—	—	—	—
05/17/96	0.00	35.95	312.50	57,000	—	950	3,000	940	6,500	ND		
08/12/96	0.00	38.45	310.00	86,000	—	18,000	16,000	1,700	10,000	ND		
11/08/96	0.01	40.27	308.19	—	—	—	—	—	—	—		
MW-3	04/12/90	347.97	0.00	23.18	324.79	2,100	—	32	56	31	170	—
	10/18/90		0.00	14.28	333.69	110	ND	3	3	1	5	—
	08/06/91		—	Dry	—	—	—	—	—	—	—	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-3	01/08/92		0.00	32.36	315.61	680	—	8.9	26	8.5	72	—
(cont)	04/30/92		—	Dry	—	—	—	—	—	—	—	—
	07/31/92		—	Dry	—	—	—	—	—	—	—	—
	10/27/92		—	Dry	—	—	—	—	—	—	—	—
	01/22/93		0.00	27.30	320.67	2,600	—	240	300	170	440	—
	04/05/93		—	Dry	—	—	—	—	—	—	—	—
	07/06/93		—	Dry	—	—	—	—	—	—	—	—
	11/30/93		—	Dry	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—
	04/25/94		—	Dry	—	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—
	02/21/95		—	Dry	—	—	—	—	—	—	—	—
	05/03/95		—	Dry	—	—	—	—	—	—	—	—
	08/04/95		—	Dry	—	—	—	—	—	—	—	—
	11/10/95		—	Dry	—	—	—	—	—	—	—	—
	02/12/96		—	Dry	—	—	—	—	—	—	—	—
	05/17/96		—	Dry	—	—	—	—	—	—	—	—
	08/12/96		—	Dry	—	—	—	—	—	—	—	—
	11/08/96		—	Dry	—	—	—	—	—	—	—	—
MW-4	10/18/90	348.07	0.00	43.16	304.91	9,600	2,000	180	500	200	1,200	—
	08/06/91		0.00	38.65	309.42	8,600	—	320	420	220	650	—
	01/08/92		0.00	38.65	309.42	3,400	—	600	880	220	1,100	—
	04/30/92		0.00	39.88	308.19	7,200	—	650	1,200	210	1,200	—
	07/31/92		0.00	43.07	305.00	3,800	—	320	340	120	360	—
	10/27/92		0.00	42.78	305.29	9,000	—	440	750	190	900	—
	01/22/93		0.00	34.76	313.31	12,000	—	540	1,200	320	1,900	—



## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-4	04/05/93		0.00	33.61	314.46	1,100	—	34	18	12	31	—
(con't)	07/06/93		0.00	35.37	312.70	4,000	—	220	300	43	440	—
	11/30/93		0.00	37.78	310.29	1,400	—	140	83	54	110	—
	01/27/94		0.00	42.10	305.97	910	—	140	75	24	94	—
	04/25/94		0.00	40.28	307.79	—	—	—	—	—	—	—
	04/26/94		—	—	—	27,000	—	1,200	1,800	580	2,500	—
	07/08/94		0.00	41.38	306.69	540	—	57	47	17	43	—
	10/05/94		0.00	42.17	305.90	3,200	—	230	280	73	210	—
	02/21/95		0.02	34.87	313.22	—	—	—	—	—	—	—
	05/03/95		0.00	34.81	313.26	—	—	—	—	—	—	—
	05/04/95		—	—	—	1,700	—	100	200	50	240	—
	08/04/95		0.00	37.18	310.89	2,500	—	92	67	49	150	12
	11/10/95		0.00	39.86	308.21	11,000	—	1,100	590	420	1,200	—
	02/12/96		0.00	36.38	311.69	77	—	4.5	2.4	ND	2.8	17
	05/17/96		0.00	36.00	312.07	470	—	50	ND	ND	8.9	ND
	08/12/96		0.00	38.63	309.44	4,000	—	830	180	160	250	ND
	11/08/96		0.00	40.28	307.79	1,100	—	160	35	41	110	ND
MW-5	10/18/90	347.97	—	**	—	—	—	—	—	—	—	—
	08/06/91		0.00	34.25	313.72	—	—	—	—	—	—	—
	01/08/92		0.00	34.22	313.75	—	—	—	—	—	—	—
	04/30/92		—	Dry	—	—	—	—	—	—	—	—
	07/31/92		—	Dry	—	—	—	—	—	—	—	—
	10/27/92		—	Dry	—	—	—	—	—	—	—	—
	01/22/93		—	Dry	—	—	—	—	—	—	—	—
	04/05/93		—	Dry	—	—	—	—	—	—	—	—
	07/06/93		—	Dry	—	—	—	—	—	—	—	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-5	11/30/93		—	Dry	—	—	—	—	—	—	—	—
(con't)	01/27/94		—	Dry	—	—	—	—	—	—	—	—
	04/25/94		0.00	34.23	313.74	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—
	02/21/95		—	Dry	—	—	—	—	—	—	—	—
	05/03/95		—	Dry	—	—	—	—	—	—	—	—
	08/04/95		—	Dry	—	—	—	—	—	—	—	—
	11/10/95		—	Dry	—	—	—	—	—	—	—	—
	02/12/96		—	Dry	—	—	—	—	—	—	—	—
	05/17/96		—	Dry	—	—	—	—	—	—	—	—
	08/12/96		—	Dry	—	—	—	—	—	—	—	—
	11/08/96		—	Dry	—	—	—	—	—	—	—	—
MW-6	10/18/90	348.23	0.00	43.60	304.63	3,000	ND	1,300	150	120	85	—
	08/06/91		0.00	39.07	309.16	1,600	—	220	10	5.2	14	—
	01/08/92		0.00	39.18	309.05	370	—	81	3.9	4.5	2.9	—
	04/30/92		0.00	40.46	307.77	610	—	180	8.4	6.8	3.3	—
	07/31/92		0.00	43.61	304.62	96	—	1,500	1,500	370	1,100	—
	10/27/92		0.00	43.68	304.55	9,400	—	27	ND	6	10	—
	01/22/93		0.00	35.66	312.57	250	—	12	2.4	1.4	1.9	—
	04/05/93		0.00	34.41	313.82	190	—	2.3	0.99	ND	0.5	—
	07/06/93		0.00	36.01	312.22	99	—	1.4	0.54	ND	ND	—
	11/30/93		0.00	38.36	309.87	86	—	9.1	ND	ND	ND	—
	01/27/94		0.00	42.57	305.66	140	—	1.7	ND	ND	ND	—
	04/25/94		0.00	40.77	307.46	—	—	—	—	—	—	—
	04/26/94		—	—	—	330	—	40	ND	ND	ND	—
	07/08/94		0.00	41.82	306.41	170	—	8.8	9.2	3.5	12	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-6	10/05/94		0.00	42.64	305.59	600	—	100	5.6	11	12	—
(cont')	02/21/95		0.01	35.55	312.69	—	—	—	—	—	—	—
	05/03/95		0.00	35.47	312.76	—	—	—	—	—	—	—
	05/04/95		—	—	—	350	—	6.8	1.8	7.4	7.1	—
	08/04/95		0.00	37.72	310.51	150	—	3.8	1.7	ND	1.1	6.5
	11/10/95		0.00	40.31	307.92	130	—	6.6	0.96	1.6	1.7	—
	02/12/96		0.00	36.92	311.31	65	—	2.8	1.6	0.57	1.3	5.2
	05/17/96		0.00	36.56	311.67	91	—	2.8	ND	ND	ND	ND
	08/12/96		0.00	39.12	309.11	75	—	4.6	2.6	ND	1.7	ND
	11/08/96		0.00	40.69	307.54	60	—	2.5	0.60	0.50	0.68	ND
MW-7	10/18/90	347.90	0.00	9.26	338.64	ND	ND	0	0.5	ND	0.8	—
	08/06/91		—	Dry	—	—	—	—	—	—	—	—
	01/08/92		0.00	23.79	324.11	220	—	7.8	1.7	ND	0.55	—
	04/30/92		—	Dry	—	—	—	—	—	—	—	—
	07/31/92		—	Dry	—	—	—	—	—	—	—	—
	10/27/92		—	Dry	—	—	—	—	—	—	—	—
	01/22/93		—	Dry	—	—	—	—	—	—	—	—
	04/05/93		—	Dry	—	—	—	—	—	—	—	—
	07/06/93		—	Dry	—	—	—	—	—	—	—	—
	11/30/93		—	Dry	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—
	04/25/94		—	Dry	—	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—
	02/21/95		—	Dry	—	—	—	—	—	—	—	—
	05/03/95		—	Dry	—	—	—	—	—	—	—	—
	08/04/95		—	Dry	—	—	—	—	—	—	—	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-7	11/10/95		—	Dry	—	—	—	—	—	—	—	—
(cont)	02/12/96		—	Dry	—	—	—	—	—	—	—	—
	05/17/96		—	Dry	—	—	—	—	—	—	—	—
	08/12/96		—	Dry	—	—	—	—	—	—	—	—
	11/08/96		—	Dry	—	—	—	—	—	—	—	—
MW-8	10/18/90	348.90	0.00	11.30	337.60	900	ND	3	5	7	62	—
	08/06/91		—	Dry	—	—	—	—	—	—	—	—
	01/08/92		—	Dry	—	—	—	—	—	—	—	—
	04/30/92		—	Dry	—	—	—	—	—	—	—	—
	07/31/92		0.00	12.04	336.86	270*	—	ND	ND	ND	1.3	—
	10/27/92		—	Dry	—	—	—	—	—	—	—	—
	01/22/93		—	Dry	—	—	—	—	—	—	—	—
	04/05/93		—	Dry	—	—	—	—	—	—	—	—
	07/06/93		0.00	7.48	341.42	ND	—	ND	ND	ND	ND	—
	11/30/93		—	Dry	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—
	04/25/94		—	Dry	—	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—
	10/05/94		—	—	—	—	—	—	—	—	—	—
	02/21/95		—	Dry	—	—	—	—	—	—	—	—
	05/03/95		—	Dry	—	—	—	—	—	—	—	—
	08/04/95		—	Dry	—	—	—	—	—	—	—	—
	11/10/95		—	Dry	—	—	—	—	—	—	—	—
	02/12/96		—	Dry	—	—	—	—	—	—	—	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-8	05/17/96		—	Dry	—	—	—	—	—	—	—	—
(cont')	08/12/96		—	Dry	—	—	—	—	—	—	—	—
	11/08/96		—	Dry	—	—	—	—	—	—	—	—
MW-9	02/04/92	348.53	0.00	43.54	304.99	16,000	—	3,000	740	1,200	2,500	—
	04/30/92		0.00	42.83	305.70	5,600	—	1,000	120	410	350	—
	07/31/92		0.00	47.36	301.17	93	—	1,800	1,900	620	940	—
	10/27/92		0.00	48.32	300.21	13,000	—	2,400	1,600	680	1,100	—
	01/22/93		0.00	39.11	309.42	5,600	—	1,200	200	510	350	—
	04/05/93		0.00	37.10	311.43	7,900	—	1,300	510	620	670	—
	07/06/93		0.00	39.21	309.32	3,200	—	510	46	170	150	—
	11/30/93		0.00	40.58	307.95	2,800	—	610	28	220	65	—
	01/27/94		0.00	44.32	304.21	11,000	—	1,400	130	230	700	—
	04/25/94		0.00	43.05	305.48	—	—	—	—	—	—	—
	04/26/94		—	—	—	3,900	—	460	56	160	220	—
	07/08/94		0.00	45.72	302.81	2,600	—	340	82	96	220	—
(Abandoned 08/01/94)												
MW-10	11/30/93	347.95	0.00	37.97	309.98	ND	—	ND	ND	ND	ND	—
	01/27/94		0.00	42.16	305.79	ND	—	ND	ND	ND	1.2	—
	04/25/94		0.00	40.39	307.56	—	—	—	—	—	—	—
	04/26/94		—	—	—	810	—	17	0.84	ND	ND	—
	07/08/94		0.00	41.45	306.50	110	—	18	12	3.7	14	—
	10/05/94		0.00	42.28	305.67	87	—	8.0	5.0	0.85	4.5	—
	02/21/95		0.00	35.14	312.81	70	—	3.6	12	1.8	9.5	—
	05/03/95		0.00	35.07	312.88	ND	—	ND	ND	ND	ND	—
	08/04/95		0.00	37.42	310.53	ND	—	ND	ND	ND	ND	ND

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-10	11/10/95		0.00	39.95	308.00	ND	—	ND	ND	ND	ND	—
(cont)	02/12/96		0.00	36.57	311.38	ND	—	ND	1.9	ND	1.2	1.2
	05/17/96		0.00	36.18	311.77	ND	—	ND	ND	ND	ND	ND
	08/12/96		0.00	38.76	309.19	ND	—	ND	ND	ND	ND	ND
	11/08/96		0.00	40.35	307.60	ND	—	ND	ND	ND	ND	ND
MW-11	11/30/93	347.56	0.00	38.41	309.15	ND	—	ND	ND	ND	1.6	—
	01/27/94		0.00	38.02	309.54	ND	—	ND	ND	ND	ND	—
	04/25/94		0.00	38.77	308.79	—	—	—	—	—	—	—
	04/26/94		—	—	—	ND	—	ND	ND	ND	1.7	—
	07/08/94		0.00	41.70	305.86	120	—	23	18	4.0	15	—
	10/05/94		0.00	44.49	303.07	130	—	12	19	4.6	24	—
	02/21/95		0.00	41.74	305.82	300	—	27	64	7.3	36	—
	05/03/95		0.00	34.64	312.92	ND	—	ND	ND	ND	ND	—
	08/04/95		0.00	35.28	312.28	ND	—	ND	ND	ND	ND	ND
	11/10/95		0.00	36.85	310.71	ND	—	ND	0.88	ND	0.88	—
	02/12/96		0.00	36.18	311.38	ND	—	ND	1.7	ND	1.2	1.3
	05/17/96		0.00	34.39	313.17	ND	—	ND	ND	ND	ND	ND
	08/12/96		0.00	35.64	311.92	ND	—	ND	ND	ND	ND	ND
	11/08/96		0.00	37.34	310.22	ND	—	ND	ND	ND	0.81	ND
MW-12	11/30/93	347.15	0.00	37.97	309.18	55	—	1.8	4.3	2.5	11	—
	01/27/94		0.00	44.02	303.13	ND	—	ND	ND	ND	ND	—
	04/25/94		0.00	42.27	304.88	—	—	—	—	—	—	—
	04/26/94		—	—	—	ND	—	ND	ND	ND	1.4	—
	07/08/94		0.00	43.26	303.89	53	—	8.4	7.4	1.9	7.1	—
	10/05/94		0.00	44.32	302.83	350	—	27	56	13	67	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-12	02/21/95		0.00	37.83	309.32	ND	—	4.0	4.0	0.77	3.6	—
(con't)	05/03/95		0.00	37.24	309.91	ND	—	ND	ND	ND	ND	—
	08/04/95		0.00	39.07	308.08	ND	—	ND	ND	ND	ND	ND
	11/10/95		0.00	41.24	305.91	ND	—	ND	ND	ND	ND	—
	02/12/96		0.00	38.19	308.96	ND	—	ND	2.1	ND	1.3	2.5
**	05/17/96		—	—	—	—	—	—	—	—	—	—
	08/12/96		0.00	40.32	306.83	ND	—	ND	ND	ND	ND	ND
	11/08/96		0.00	41.32	305.83	ND	—	ND	ND	ND	ND	ND
VMW-1	11/30/93	348.05	—	Dry	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—
	04/25/94		—	Dry	—	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—
	10/05/94		—	—	—	—	—	—	—	—	—	—
	02/21/95		—	Dry	—	—	—	—	—	—	—	—
	05/03/95		—	Dry	—	—	—	—	—	—	—	—
	08/04/95		—	Dry	—	—	—	—	—	—	—	—
	11/10/95		—	Dry	—	—	—	—	—	—	—	—
	02/12/96		—	Dry	—	—	—	—	—	—	—	—
	05/17/96		—	Dry	—	—	—	—	—	—	—	—
	08/12/96		—	Dry	—	—	—	—	—	—	—	—
	11/08/96		—	Dry	—	—	—	—	—	—	—	—
VMW-2	11/30/93	347.90	—	Dry	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—
	04/25/94		0.00	33.82	314.08	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
VMW-2 (con't)	02/21/95		—	Dry	—	—	—	—	—	—	—	—
	05/03/95		—	Dry	—	—	—	—	—	—	—	—
	08/04/95		—	Dry	—	—	—	—	—	—	—	—
	11/10/95		—	Dry	—	—	—	—	—	—	—	—
	02/12/96		—	Dry	—	—	—	—	—	—	—	—
	05/17/96		—	Dry	—	—	—	—	—	—	—	—
	08/12/96		—	Dry	—	—	—	—	—	—	—	—
	11/08/96		—	Dry	—	—	—	—	—	—	—	—
VMW-3	11/30/93	348.10	—	Dry	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—
	04/25/94		Trace	31.23	316.87	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—
	02/21/95		—	Dry	—	—	—	—	—	—	—	—
	05/03/95		—	Dry	—	—	—	—	—	—	—	—
	08/04/95		—	Dry	—	—	—	—	—	—	—	—
	11/10/95		—	Dry	—	—	—	—	—	—	—	—
	02/12/96		—	Dry	—	—	—	—	—	—	—	—
	05/17/96		—	Dry	—	—	—	—	—	—	—	—
	08/12/96		—	Dry	—	—	—	—	—	—	—	—
	11/08/96		—	Dry	—	—	—	—	—	—	—	—
VMW-4	11/30/93	347.95	—	Dry	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—
	04/25/94		—	31.41	316.54	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—
	02/21/95		—	Dry	—	—	—	—	—	—	—	—



## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
VMW-4	05/03/95		—	Dry	—	—	—	—	—	—	—	—
(con't)	08/04/95		—	Dry	—	—	—	—	—	—	—	—
	11/10/95		—	Dry	—	—	—	—	—	—	—	—
	02/12/96		—	Dry	—	—	—	—	—	—	—	—
	05/17/96		—	Dry	—	—	—	—	—	—	—	—
	08/12/96		—	Dry	—	—	—	—	—	—	—	—
	11/08/96		—	Dry	—	—	—	—	—	—	—	—
RW-1	11/30/93	347.89	Trace	37.75	310.14	—	—	—	—	—	—	—
	01/27/94		Trace	42.00	305.89	—	—	—	—	—	—	—
	04/25/94		0.02	40.24	307.67	—	—	—	—	—	—	—
	07/08/94		0.15	41.41	306.59	—	—	—	—	—	—	—
	10/05/94		Trace	42.18	305.71	—	—	—	—	—	—	—
	02/21/95		Trace	34.94	312.95	110,000	—	16,000	29,000	2,200	14,000	—
	05/03/95		0.01	34.83	313.07	—	—	—	—	—	—	—
	08/04/95		Trace	37.11	310.78	—	—	—	—	—	—	—
	11/10/95		0.02	39.74	308.17	—	—	—	—	—	—	—
	02/12/96		0.00	47.29	300.60	41,000	—	4,400	12,000	960	6,900	120
	05/17/96		0.00	47.53	300.36	81,000	—	2,700	8,600	1,100	6,300	ND
	08/12/96		0.00	39.75	308.14	140,000	—	12,000	25,000	2,200	15,000	ND
	11/08/96		—	—	—	81,000	—	5,300	11,000	1,300	8,900	ND
RW-2	10/05/94	—	0.00	43.33	—	41,000	—	6,500	6,300	1,000	5,400	—
	02/21/95	347.82	0.00	35.05	312.77	45,000	—	6,200	2,600	1,400	5,600	—
	05/03/95		0.00	35.11	312.71	30,000	—	3,600	2,000	1,000	5,700	—
	08/04/95		0.00	37.35	310.47	21,000	—	4,100	1,400	810	3,200	ND
	11/10/95		0.00	41.02	306.80	26,000	—	2,600	990	810	2,700	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
RW-2 (cont')	02/12/96		0.00	38.63	309.19	10,000	—	600	600	230	1,900	ND
	05/17/96		0.00	48.56	299.26	4,000	—	300	64	86	470	10
	08/12/96		0.00	44.74	303.08	5,400	—	1,100	36	320	190	ND
	11/08/96		—	—	—	3,500	—	480	48	150	150	ND
RW-3	10/05/94	—	0.00	44.66	—	1,800	—	120	180	26	170	—
	02/21/95	347.92	0.00	39.85	308.07	620	—	67	30	12	48	—
	05/03/95		0.00	40.12	307.80	780	—	31	28	6.0	40	—
	08/04/95		0.00	41.84	306.08	190	—	37	14	ND	19	8.1
	11/10/95		0.00	44.45	303.47	160	—	19	5.0	ND	4.4	—
	02/12/96		0.00	42.62	305.30	ND	—	0.78	2.0	ND	2.0	1.4
	05/17/96		0.00	48.90	299.02	52	—	2.8	0.5	ND	ND	3.6
	08/12/96		0.00	43.71	304.21	ND	—	0.87	ND	ND	ND	ND
	11/08/96		—	—	—	110	—	28	3.3	1.2	4.5	ND
RW-4	10/05/94	—	0.00	42.62	—	130	—	11	4.9	1.5	9.2	—
	02/21/95	348.29	0.02	35.40	312.91	—	—	—	—	—	—	—
	05/03/95		0.00	35.03	313.26	—	—	—	—	—	—	—
	05/04/95		—	—	—	2,900	—	330	130	120	410	—
	08/04/95		0.00	37.62	310.67	520	—	63	ND	14	2.1	6.1
	11/10/95		0.00	40.26	308.03	450	—	94	28	31	43	—
	02/12/96		0.00	36.84	311.45	52	—	1.5	2.0	2.9	2.4	4.0
	05/17/96		0.00	36.58	311.71	160	—	7.7	2.3	26	1.4	ND
	08/12/96		0.00	38.96	309.33	ND	—	ND	ND	ND	ND	ND
	11/08/96		—	—	—	ND	—	ND	ND	ND	ND	ND

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
<b>FORMER UNOCAL STATION #0543 WELLS</b>												
MW-1#	12/16/92	351.18	—	—	—	ND	ND	ND	ND	ND	ND	—
	02/02/93		0.00	37.76	313.42	—	—	—	—	—	—	—
	03/01/93		0.00	36.26	314.92	—	—	—	—	—	—	—
	04/14/93		0.00	36.56	314.62	ND	ND	ND	ND	ND	ND	—
	05/14/93		0.00	37.27	313.91	—	—	—	—	—	—	—
	06/15/93		0.00	38.02	313.16	—	—	—	—	—	—	—
	07/06/93		0.00	38.06	313.12	ND	ND	ND	ND	ND	ND	—
	11/30/93	350.78	—	—	—	—	—	—	—	—	—	—
	01/27/94		0.00	43.41	307.37	ND	—	ND	ND	ND	ND	—
	04/25/94		0.00	45.32	305.46	ND	—	ND	3.5	ND	3.4	—
	07/08/94		0.00	46.26	304.52	ND	—	ND	ND	ND	ND	—
	10/05/94		0.00	47.26	303.52	ND	—	ND	ND	ND	ND	—
	01/04/95		0.00	44.98	305.80	ND	—	ND	ND	ND	ND	—
	05/03/95		0.00	36.75	314.03	—	—	—	—	—	—	—
	08/04/95		0.00	38.54	312.24	—	—	—	—	—	—	—
	11/10/95		0.00	40.97	309.81	—	—	—	—	—	—	—
02/12/96		0.00	37.58	313.20	—	—	—	—	—	—	—	
08/19/96		0.00	39.01	311.77	—	—	—	—	—	—	—	
MW-2#	12/16/92	349.83	—	—	—	1,600	—	28	ND	5.1	5.6	—
	02/02/93		0.00	39.18	310.65	—	—	—	—	—	—	—
	03/01/93		0.00	34.33	315.50	—	—	—	—	—	—	—
	04/14/93		0.00	37.56	312.27	4,300	—	7.2	5.8	13	10	—
	05/14/93		0.00	37.49	312.34	—	—	—	—	—	—	—
	06/15/93		0.00	39.34	310.49	—	—	—	—	—	—	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-2#	07/06/93		0.00	37.82	312.01	4,700	—	17	15	30	28	—
(cont')	11/30/93	349.51	—	—	—	—	—	—	—	—	—	—
	01/27/94		0.00	43.15	306.36	1,500	—	28	9.0	ND	20	—
	04/25/94		0.00	41.90	307.61	1,100	—	19	1.7	2.5	8.8	—
	07/08/94		0.00	42.75	306.76	1,100	—	17	ND	ND	6	—
	10/05/94		0.00	43.50	306.01	240	—	4.7	2.5	0.52	2.6	—
	01/04/95		0.00	44.75	304.76	2,000	—	23	ND	ND	ND	—
	05/03/95		0.00	36.98	312.53	—	—	—	—	—	—	—
	08/04/95		0.00	39.15	310.36	2,000	—	40	ND	17	43	—
	11/10/95		0.00	41.45	308.06	1,400	—	13	2.8	2.7	4.0	—
	02/12/96		0.00	38.11	311.40	3,200	—	66	9.2	27	35	ND
	08/19/96		0.00	40.39	309.12	—	—	—	—	—	—	—
MW-3#	12/16/92	351.35	—	—	—	ND	—	ND	ND	ND	ND	—
	02/02/93		0.00	40.62	310.73	—	—	—	—	—	—	—
	03/01/93		0.00	35.7	315.65	—	—	—	—	—	—	—
	04/14/93		0.00	38.97	312.38	ND	—	ND	ND	ND	ND	—
	05/14/93		0.00	39.07	312.28	—	—	—	—	—	—	—
	06/15/93		0.00	40.68	310.67	—	—	—	—	—	—	—
	07/06/93		0.00	37.82	313.53	ND	—	ND	ND	ND	ND	—
	11/30/93	351.04	—	—	—	—	—	—	—	—	—	—
	01/27/94		0.00	44.25	306.79	ND	—	ND	ND	ND	ND	—
	04/25/94		0.00	43.23	307.81	ND	—	ND	1.4	ND	1.8	—
	07/08/94		0.00	44.01	307.03	ND	—	ND	ND	ND	ND	—
	10/05/94		0.00	44.66	306.38	ND	—	ND	ND	ND	ND	—
	01/04/95		0.00	44.90	306.14	ND	—	ND	ND	ND	ND	—
	05/03/95		0.00	38.61	312.43	—	—	—	—	—	—	—

## Groundwater Levels and Chemical Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-3# (con't)	08/04/95		0.00	40.75	310.29	—	—	—	—	—	—	—
	11/10/95		0.00	42.68	308.36	—	—	—	—	—	—	—
	02/12/96		0.00	39.54	311.50	—	—	—	—	—	—	—
	08/19/96		0.00	41.80	309.24	—	—	—	—	—	—	—
MW-4#	01/27/94	350.14	0.00	43.37	306.77	ND	—	ND	ND	ND	ND	—
	04/25/94		0.00	42.28	307.86	ND	—	ND	1.2	ND	1.5	—
	07/08/94		0.00	43.2	306.94	ND	—	ND	ND	ND	ND	—
	10/05/94		0.00	43.97	306.17	ND	—	ND	ND	ND	ND	—
	01/04/95		0.00	44.96	305.18	ND	—	ND	ND	ND	ND	—
	05/03/95		0.00	36.06	314.08	—	—	—	—	—	—	—
	08/04/95		0.00	38.10	312.04	63	—	0.77	1.1	1.9	15	—
	11/10/95		0.00	40.61	309.53	—	—	—	—	—	—	—
	02/12/96		0.00	37.24	312.90	ND	—	ND	0.98	ND	0.67	—
	08/19/96		0.00	39.08	311.06	—	—	—	—	—	—	—
MW-5#	01/27/94	349.33	0.00	44.76	304.57	320	—	1.8	1.3	2.6	4.5	—
	04/25/94		0.00	44.30	305.03	160	—	ND	1.9	1.4	1.9	—
	07/08/94		0.00	45.17	304.16	120	—	ND	ND	1.1	1.8	—
	10/05/94		0.00	46.07	303.26	83	—	0.73	0.90	ND	3.0	—
	01/04/95		0.00	46.38	302.95	210	—	ND	0.74	ND	0.90	—
	05/03/95		0.00	36.64	312.69	580	—	6.9	1.5	1.6	1.7	—
	08/04/95		0.00	39.00	310.33	550	—	5.4	0.76	1.2	11	—

## Groundwater Levels and Chemical Analysis

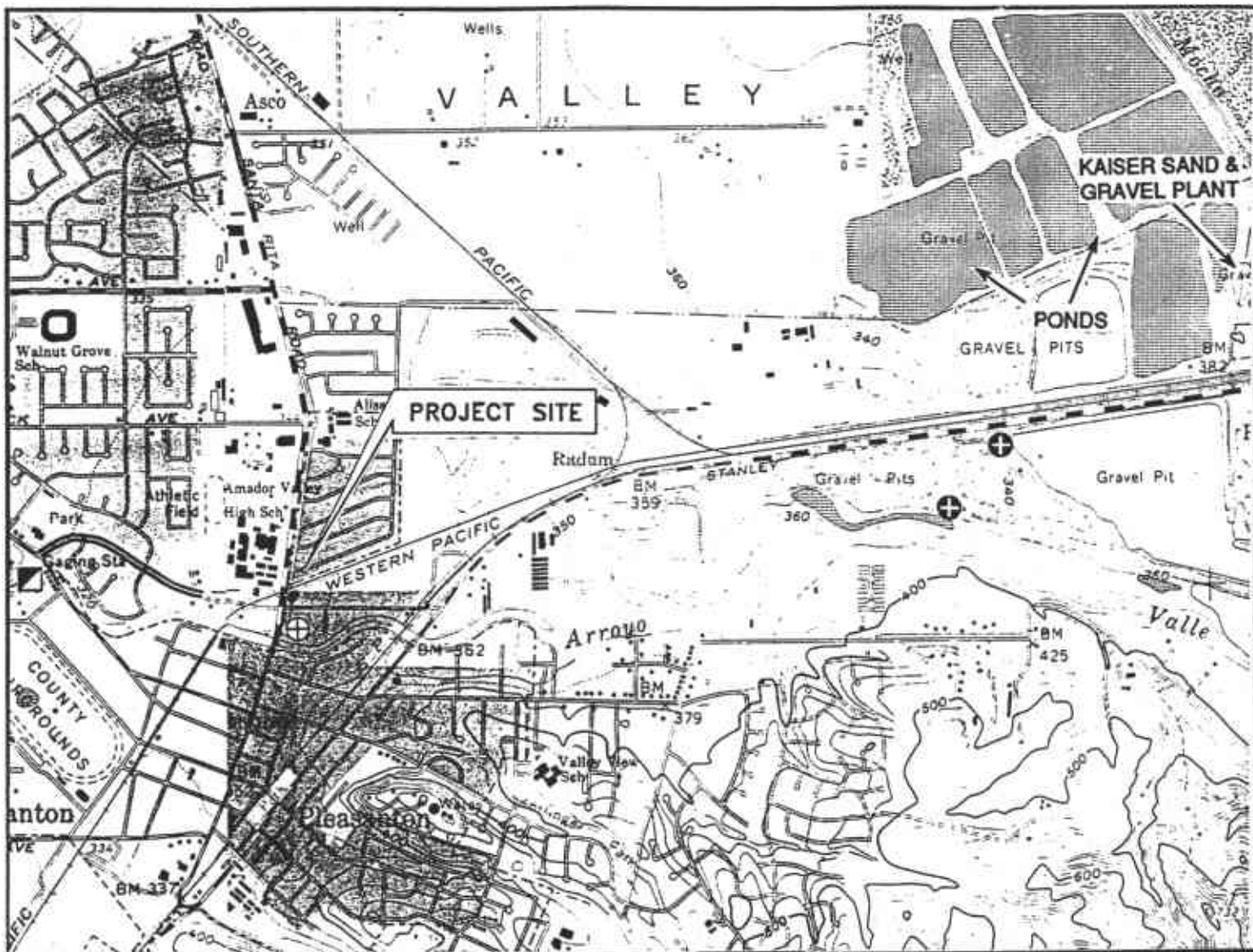
Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-5#	11/10/95		0.00	42.59	306.74	300	—	0.99	1.2	0.98	0.58	—
(con't)	02/12/96		0.00	37.25	312.08	420	—	8.2	2.1	1.7	1.2	—
	08/19/96		0.00	39.90	309.43	—	—	—	—	—	—	—

**NOTES:**

ppb = parts per billion  
 TPH-G = total petroleum hydrocarbons as gasoline  
 TPH-D = total petroleum hydrocarbons as diesel  
 ND = not detected at or above method detection limits  
 — = not measured/not analyzed  
 1,2-DCE = 1,2-Dichloroethane

\* = reported by laboratory as non-gasoline mixture  
 \*\* = well inaccessible  
 # = wells installed by Kaprealian Engineering at former Unocal Station #0543; resurveyed by Kier & Wright Civil Engineers & Surveyors, Inc. 09/20/93.  
 Trace = product present but too thin to be measured






SCALE 1:24,000



Source: U.S.G.S. Map  
Livermore Quadrangle  
California  
7.5 Minute Series

**LEGEND**

-  U.S.G.S. Gauging Station
-  City of Pleasanton Monitoring Well
-  Kaiser Discharge to Arroyo Valle









**VICINITY MAP**

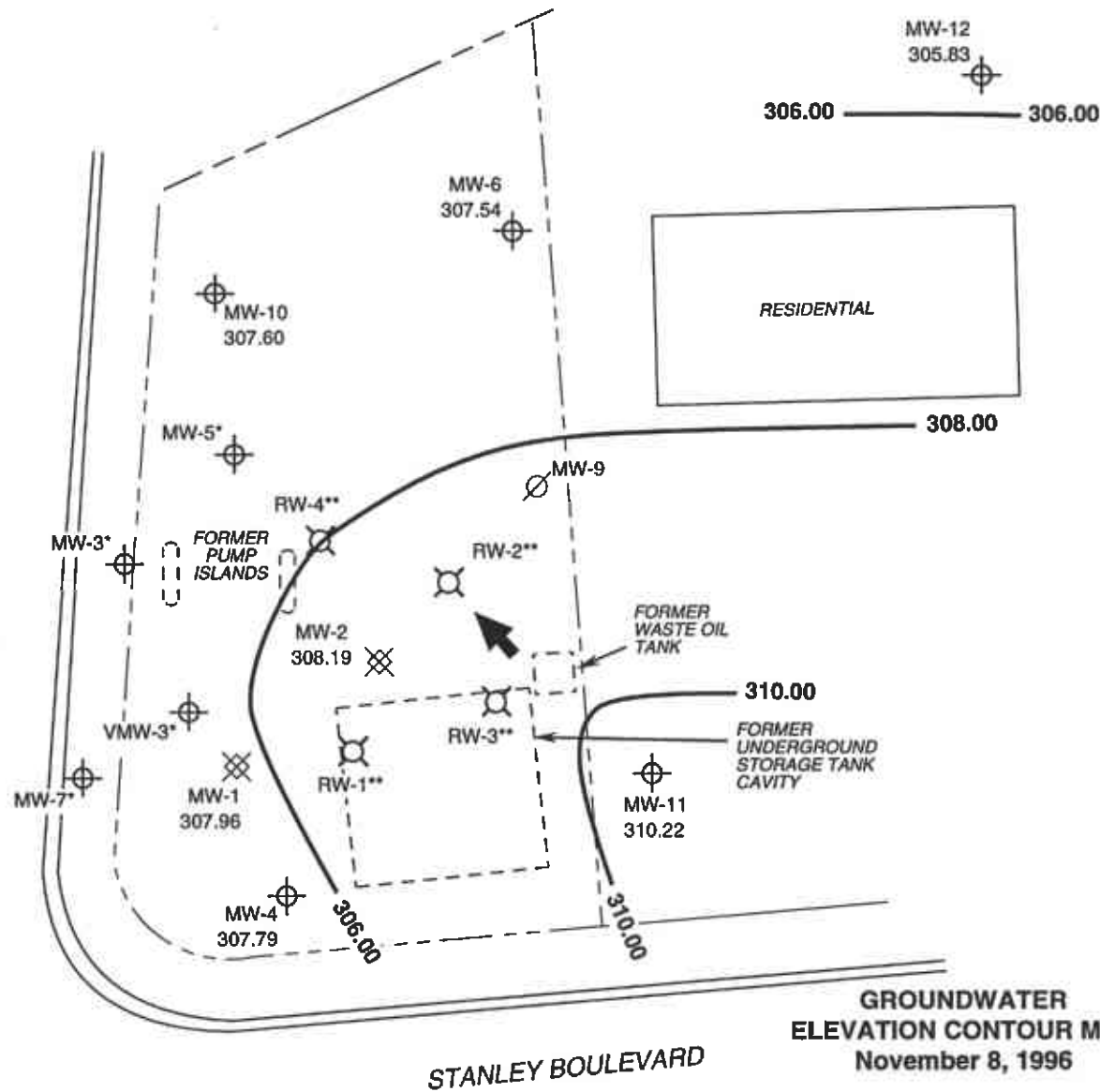
Former Mobil Station 04-H6J  
1024 Main Street  
Pleasanton, California

**FIGURE 1**

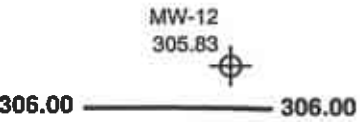
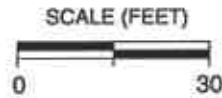
**LEGEND**

-  MW-12 Groundwater monitoring well
-  RW-3 Vapor extraction/groundwater recovery well
-  MW-2 Vapor extraction well
-  MW-9 Abandoned well
- 305.83 Groundwater elevation, in feet above mean sea level [NGVD-1929]
-  Groundwater elevation contour line
-  General direction of groundwater gradient

MAIN STREET



**NOTES:**  
 Contour lines are interpretive based on fluid level measurements collected November 8, 1996.  
 Contour Interval = 2.0 feet. \* = well historically dry;  
 \*\* = groundwater recovery wells not monitored.  
 Groundwater elevation contours based on static conditions, groundwater treatment system was not operating.








**GROUNDWATER ELEVATION CONTOUR MAP**  
 November 8, 1996

Former Mobil Station 04-H6J  
 1024 Main Street  
 Pleasanton, California

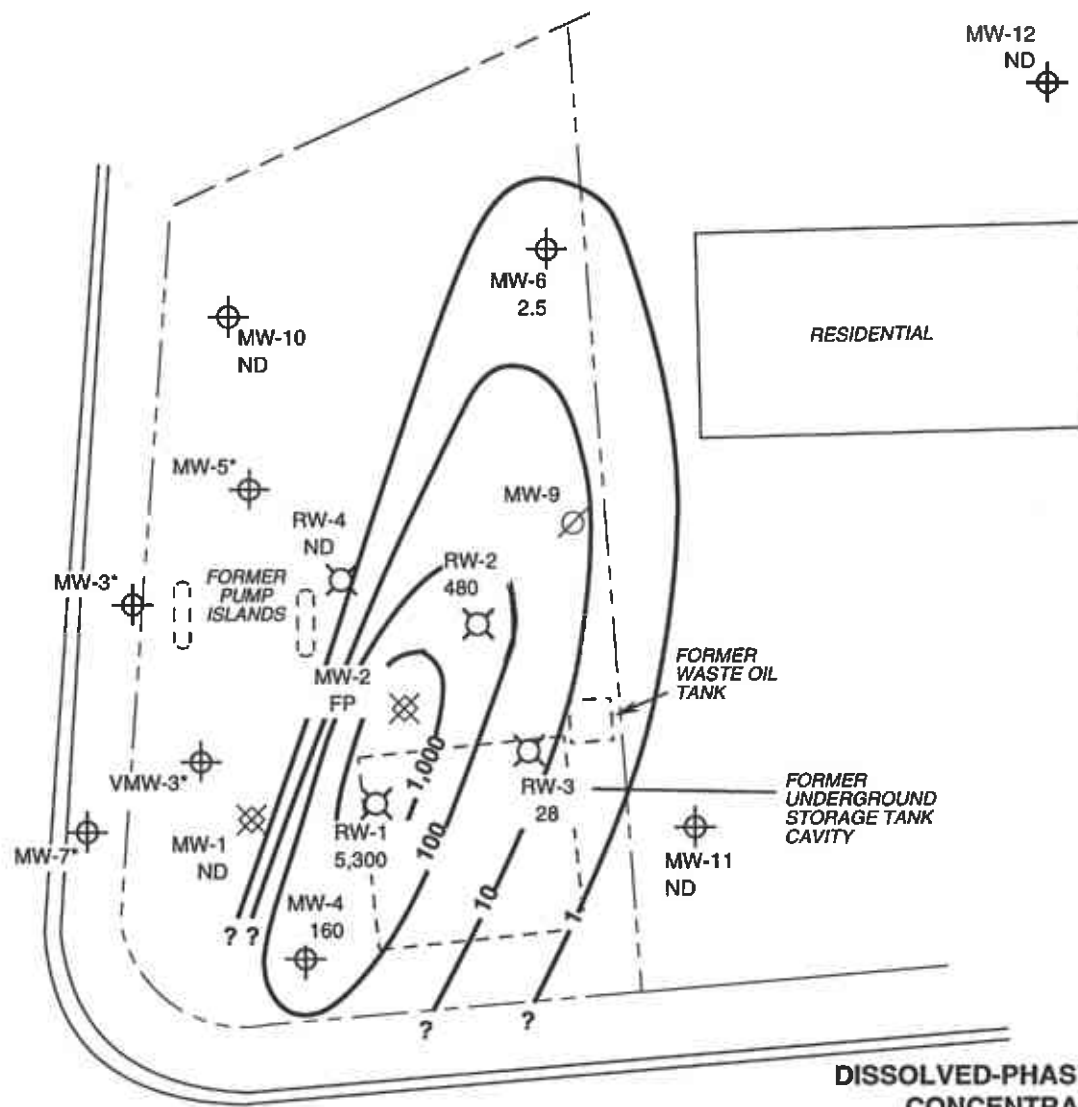
**FIGURE 2**



**LEGEND**

-  MW-12 ND Groundwater monitoring well showing dissolved-phase benzene concentration in ppb
-  RW-3 Vapor extraction/groundwater recovery well
-  MW-2 Vapor extraction well
-  MW-9 Abandoned well
-  Dissolved-phase benzene isoconcentration line

MAIN STREET



**NOTES:**  
 Results are based on groundwater samples collected November 8, 1996. ND = not detected at or above method detection limit; ppb = parts per billion; FP = free product. \* = dry well, not sampled.

**DISSOLVED-PHASE BENZENE CONCENTRATIONS**  
 November 8, 1996

Former Mobil Station 04-H6J  
 1024 Main Street  
 Pleasanton, California

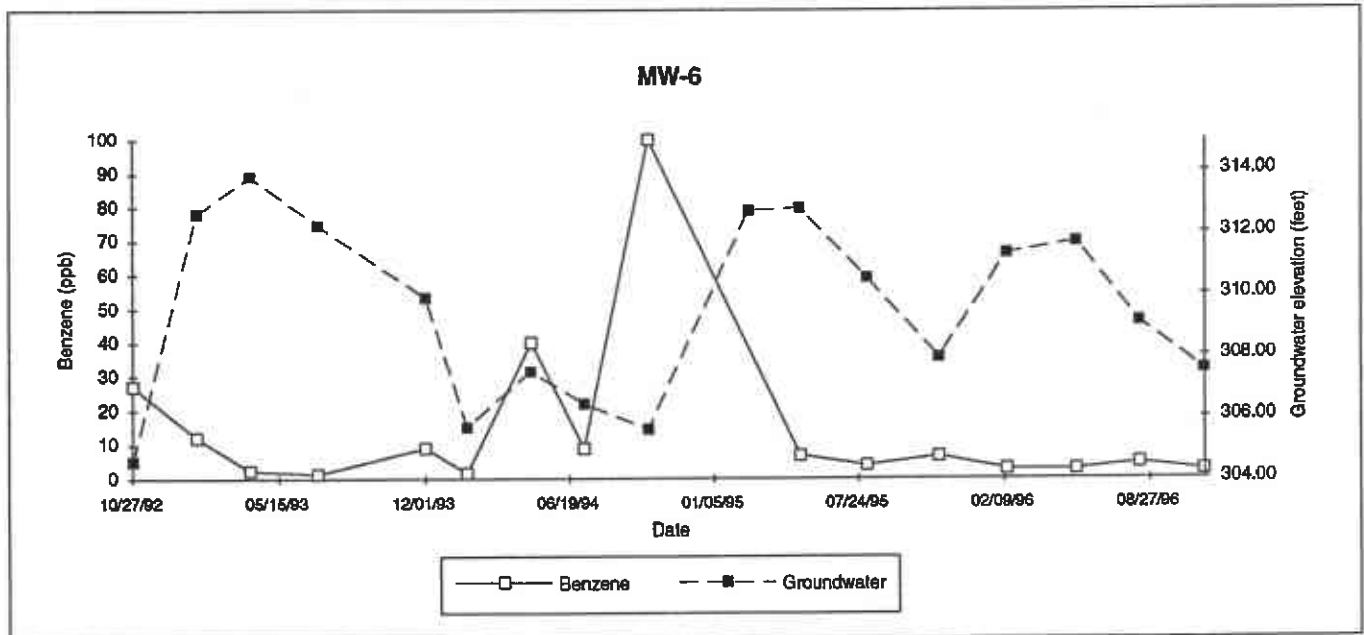
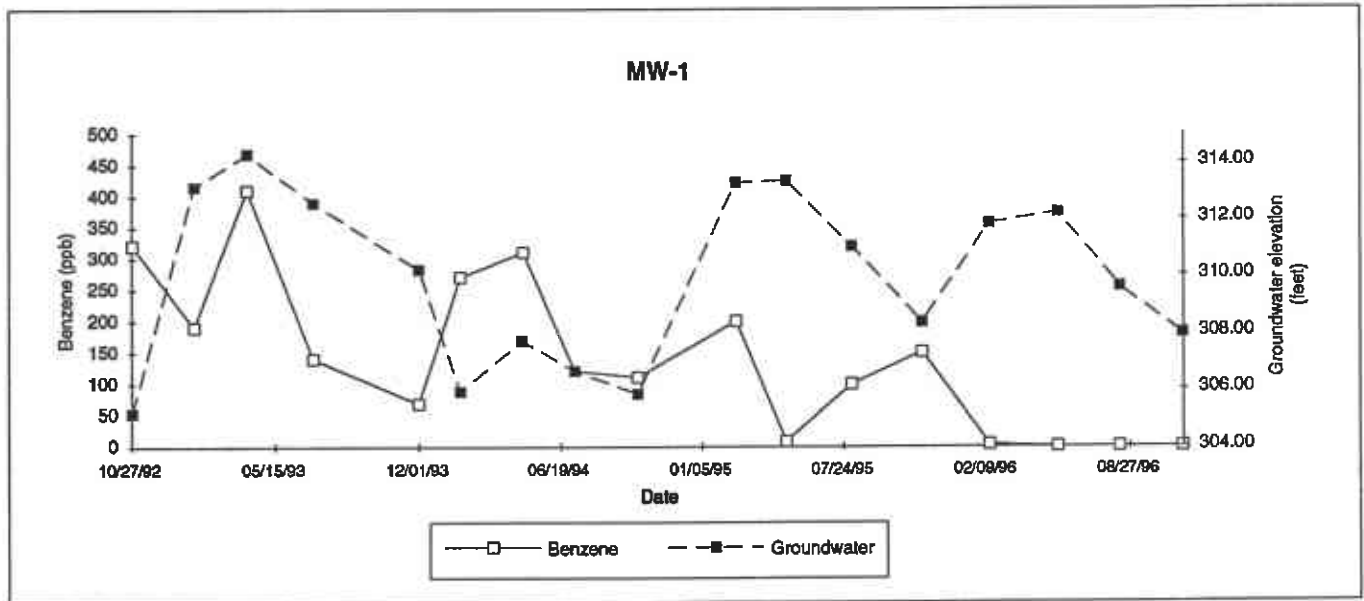
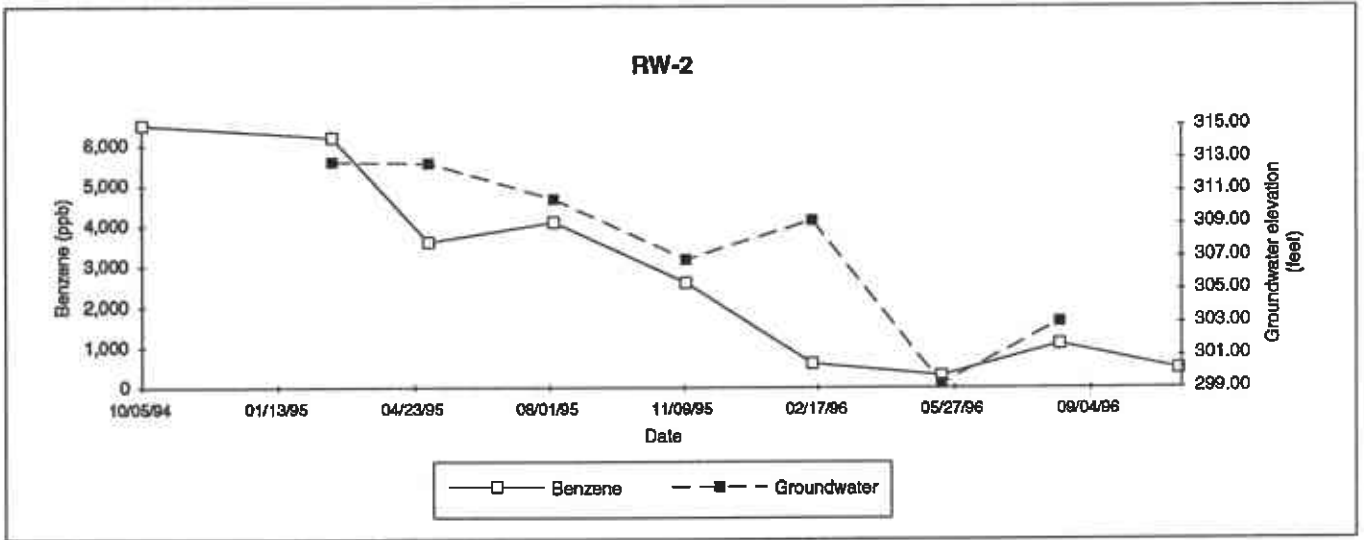


**FIGURE 3**

**EXHIBIT 4**

**BENZENE VERSUS GROUNDWATER ELEVATION GRAPHS**

## Benzene vs. Groundwater Elevation Graphs



**EXHIBIT 5**

**VAPOR EXTRACTION SYSTEM PERFORMANCE TABLES AND GRAPHS**

## Vapor Extraction System Monitoring

### Former Mobil Station # 04-H6J

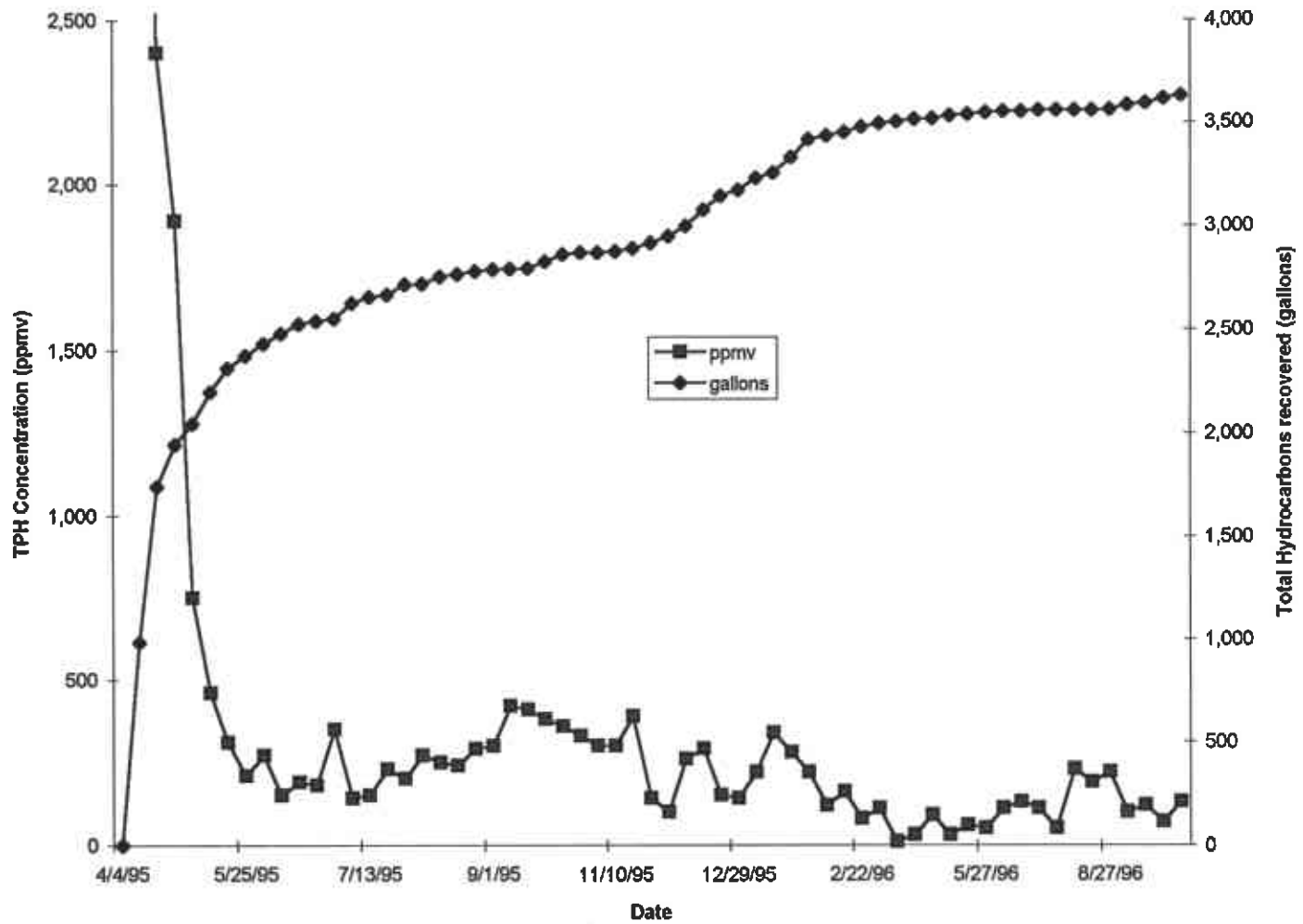
Date (mm/dd/yy)	Operation Time			INFLUENT						EFFLUENT					RECOVERY DATA			
	Hour Meter Reading (hours)	Operating Time (hours)	Up-Time Per Period (%)	Total Flow Rate (cfm)	Vacuum Reading at Well Header (in. H <sub>2</sub> O)	Inlet Temp. (deg F)	Total Well TPH-G Conc. (ppmv)	Influent TPH-G Conc. Total Well + Air Stripper (ppmv)		Effluent TPH-G Conc. (ppmv)		Effluent Benzene Conc. (ppmv)	Mass Emission TPH-G (lbs/day)	Mass Emission Benzene (lbs/day)	Outlet Temp. (deg F)	HC Recovery Per Period (gallons)	Cumulative HC Recovery (gallons)	Destruction Efficiency TPH-G (%)
								Field	Lab	Field	Lab							
4/4/95	11	0	0%	175	57	600	10,480	10,480	11,000	0	<1.2	0.030	0.0809	0.0008	809	0	0	100.0
4/12/95	202	191	99%	324	98	601	5,100	5,100	0	0					850	986	986	
4/22/95	440	238	99%	314	98	599	2,400	2,400	0	0					784	756	1,742	
4/28/95	535	95	99%	432	98	597	1,890	1,890	390	0	2.8	<0.016	0.4659	0.0020	710	202	1,944	99.3
5/5/95	801	88	31%	452	95	601	1,800	750	0	0					885	102	2,046	
5/12/95	788	167	99%	678	100	601	960	480	350	0	<2.3	<0.031	0.8006	0.0060	742	152	2,197	99.3
5/19/95	935	168	100%	678	100	601	1,010	310	0	0					701	116	2,314	
5/25/95	1080	144	100%	530	100	600	840	210	0	0					875	60	2,374	
6/1/95	1246	168	100%	535	97	598	870	270	0	0					883	57	2,431	
6/8/95	1415	167	99%	530	100	599	700	150	280	0	<1.2	<0.016	0.2450	0.0024	858	50	2,481	99.6
6/16/95	1807	192	100%	545	100	600	400	180	0	0					848	47	2,527	
6/23/95	1664	57	34%	640	98	601	620	180	0	0					847	15	2,542	
6/28/95	1695	31	26%	545	94	600	820	350	0	0					841	12	2,554	
7/7/95	1907	212	98%	545	90	601	320	140	0	0					835	75	2,629	
7/13/95	2055	148	103%	432	88	605	300	150	0	0					811	28	2,857	
7/18/95	2106	81	43%	471	74	599	690	230	320	0	2.1	0.044	0.3810	0.0059	848	12	2,669	99.3
7/26/95	2300	194	81%	432	84	NA	430	200	0	0					NA	50	2,719	
8/4/95	2303	3	2%	452	83	NA	690	270	0	0					NA	1	2,720	
8/11/95	2406	103	31%	689	88	NA	430	290	0	0					NA	37	2,757	
8/18/95	2440	34	20%	353	88	NA	480	240	0	0					NA	10	2,787	
8/28/95	2494	54	23%	432	82	600	730	290	370	0	<2.6	<0.016	0.4328	0.0020	879	15	2,782	99.3
9/1/95	2520	26	27%	441	88	629	190	300	0	0					878	3	2,791	
9/8/95	2524	4	3%	545	76	600	660	420	280	0	<2.3	0.029	0.4828	0.0045	893	2	2,793	99.2
9/14/95	2528	4	2%	354	54	600	670	410	0	0					857	2	2,795	
9/22/95	2625	97	51%	265	130	600	3,460	380	0	0					755	31	2,828	
9/29/95	2742	117	70%	334	115	600	3,200	390	0	0					879	34	2,861	
10/5/95	2771	29	20%	394	115	600	3,100	330	0	0					882	3	2,870	
10/12/95	2780	9	5%	324	100	600	2,310	300	320	0	<2.3	<0.016	0.2870	0.0015	712	2	2,872	99.3
11/10/95	2798	18	3%	324	100	600	2,310	300	0	0					712	5	2,877	
11/17/95	2839	41	24%	393	82	600	3,360	390	300	0	<2.3	<0.016	0.3482	0.0018	864	13	2,890	99.2
11/20/95	2910	71	99%	700	88	600	2,100	140	0	0					801	27	2,917	
11/27/95	3048	138	80%	700	88	587	830	100	0	0					803	30	2,948	
12/4/95	3213	168	100%	545	86	602	2,200	260	230	0	<2.3	<0.016	0.4828	0.0028	843	50	2,998	99.0
12/14/95	3383	170	71%	700	92	601	1,850	290	0	0					812	77	3,075	
12/21/95	3551	168	100%	700	94	600	1,150	150	0	0					808	89	3,144	
12/28/95	3658	105	55%	700	90	598	890	140	0	0					808	28	3,172	
1/5/96	3826	170	101%	692	91	597	630	220	0	0					800	57	3,228	
1/8/96	3897	71	99%	361	105	600	1,120	340	210	0	<2.3	<0.016	0.3198	0.0017	838	28	3,256	98.9
1/18/96	4132	235	98%	393	107	600	950	280	0	0					843	73	3,329	
2/2/96	4494	352	98%	353	105	600	720	220	0	0					830	87	3,416	
2/7/96	4602	118	98%	363	108	599	560	120	130	0	<2.3	0.024	0.3127	0.0018	813	18	3,436	98.2
2/12/96	4724	122	102%	383	105	600	630	160	0	0					802	15	3,451	
2/22/96	4965	241	100%	353	107	601	330	80	0	0					802	27	3,478	
2/29/96	5136	171	102%	353	105	596	480	110	0	0					801	15	3,493	
3/6/96	5281	145	101%	545	106	596	80	10	58	0	<2.3	<0.016	0.4828	0.0025	800	10	3,504	95.9
3/22/96	5662	381	99%	548	105	590	70	30	0	0					802	11	3,515	
4/8/96	5678	17	4%	648	90	577	190	90	0	0					800	1	3,516	
5/2/96	5942	283	46%	180	96	600	140	30	0	0					807	15	3,531	
5/14/96	6159	217	75%	272	95	581	130	80	180	0	18	0.038	0.2410	0.0012	802	8	3,537	98.7
6/27/96	6430	271	87%	254	90	598	140	50	0	0					801	10	3,547	
8/14/96	8508	78	18%	286	90	592	220	110	130	0	5.4	0.019	0.2534	0.0013	804	4	3,552	98.2
8/25/96	8521	13	6%	282	90	601	170	130	0	0					806	1	3,553	
7/8/96	8698	77	25%	147	90	599	140	110	166	0	<2.4	<0.016	0.1302	0.0007	801	5	3,558	98.6
7/26/96	8804	6	1%	221	92	599	210	50	0	0					815	0	3,558	
8/6/96	8807	3	1%	259	90	600	240	230	5	0					821	0	3,558	
8/12/96	8813	6	4%	241	92	600	250	190	176	20	<2.4	<0.016	0.2135	0.0011	821	1	3,559	98.7
8/27/96	8817	4	1%	260	88	598	230	220	0	0					816	1	3,560	
12/8/96	8818	201	8%	331	60	639	350	100	83	0	<2.4	<0.016	0.2932	0.0015	851	25	3,585	97.2
12/12/96	8906	88	61%	331	80	632	300	120	0	0					849	8	3,594	
12/23/96	7176	270	102%	331	60	633	300	70	0	0					849	23	3,616	
1/3/97	7321	145	55%	331	73	588	200	130	0	0					801	13	3,629	

Total to Date = 7310      45% = Average % Operation

NOTES:  
 ppmv = parts per million volume  
 cfm = cubic feet per minute  
 HC Recovery Per Period = Hydrocarbons recovered based on weekly field data and an average hydrocarbon density of 6.26 lbs. per gallon  
 HC Destruction Efficiency = Hydrocarbon destruction efficiency based on monthly lab data  
 Total Well TPH-G Conc. = Concentration of total petroleum hydrocarbons as gasoline of soil vapor extracted from all open wells

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Inlet TPH-G and Total Hydrocarbons Removed vs. Operating Time



**EXHIBIT 6**

**GROUNDWATER REMEDIATION PERFORMANCE TABLES**

Table 1

## Summary of Results of Groundwater Treatment System Monitoring

Former Mobil Station 04-H6J

Sample ID	Date of Sampling	Flow Meter Reading (gallons)	Effluent Discharge (gallons)	Average Flow Rate (gpd)	Total Discharged (gallons)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)
I-1	04/27/95	640	0	0	0	240	840	44	54	8.0	39
	05/05/95	55,200	54,560	6,820	54,560	—	—	—	—	—	—
	05/12/95	197,540	142,340	20,334	196,900	6,500	790	400	860	92	660
	05/25/95	328,980	131,440	10,111	328,340	—	—	—	—	—	—
	06/01/95	331,090	2,110	301	330,450	—	—	—	—	—	—
	06/08/95	460,730	129,640	18,520	460,090	780	130	82	130	15	140
	06/16/95	590,300	129,570	16,196	589,660	—	—	—	—	—	—
	06/23/95	626,890	36,590	5,227	626,250	—	—	—	—	—	—
	06/28/95	646,240	19,350	3,870	645,600	—	—	—	—	—	—
	07/07/95	646,930	690	77	646,290	—	—	—	—	—	—
	07/13/95	677,120	30,190	5,032	676,480	3,400	1,100	190	370	45	300
	07/18/95	711,770	34,650	6,930	711,130	—	—	—	—	—	—
	07/28/95	831,040	119,270	11,927	830,400	—	—	—	—	—	—
	08/04/95	831,940	900	129	831,300	—	—	—	—	—	—
	08/11/95	897,280	65,340	9,334	896,640	—	—	—	—	—	—
	08/17/95	918,610	21,330	3,555	917,970	—	—	—	—	—	—
	08/28/95	964,370	45,760	4,160	963,730	7,900	2,100	940	1,100	120	1,200
	09/01/95	969,900	5,530	1,383	969,260	—	—	—	—	—	—
	09/07/95	972,180	2,280	380	971,540	5,800	1,300	540	750	51	760
	09/14/95	975,490	3,310	473	974,850	—	—	—	—	—	—
	09/22/95	1,038,540	63,050	7,881	1,037,900	—	—	—	—	—	—
	09/29/95	1,114,830	76,290	10,899	1,114,190	—	—	—	—	—	—
	10/05/95	1,133,030	18,200	3,033	1,132,390	—	—	—	—	—	—
	10/12/95	1,139,200	6,170	881	1,138,560	2,700	690	280	470	45	270
	10/23/95	1,169,390	30,190	2,745	1,168,750	—	—	—	—	—	—
	11/10/95	1,169,390	0	0	1,168,750	—	—	—	—	—	—
	11/17/95	1,171,890	2,500	357	1,171,250	4,900	1,200	450	680	55	500
	11/20/95	1,221,950	50,060	16,687	1,221,310	—	—	—	—	—	—
	11/27/95	1,295,450	73,500	10,500	1,294,810	—	—	—	—	—	—



Table 1

## Summary of Results of Groundwater Treatment System Monitoring

Former Mobil Station 04-H6J

Sample ID	Date of Sampling	Flow Meter Reading (gallons)	Effluent Discharge (gallons)	Average Flow Rate (gpd)	Total Discharged (gallons)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)
I-1	12/04/95	1,400,780	105,330	15,047	1,400,140	2,300	380	290	510	27	230
(con't)	12/14/95	1,501,930	101,150	10,115	1,501,290	—	—	—	—	—	—
	12/21/95	1,608,890	106,960	15,280	1,608,250	—	—	—	—	—	—
	12/29/95	1,632,530	23,640	2,955	1,631,890	—	—	—	—	—	—
	01/05/96	1,690,780	58,250	8,321	1,690,140	—	—	—	—	—	—
	01/08/96	1,735,880	45,100	15,033	1,735,240	3,000	520	250	600	46	440
	01/18/96	1,865,520	129,640	12,964	1,864,880	—	—	—	—	—	—
	01/25/96	1,886,830	21,310	3,044	1,886,190	—	—	—	—	—	—
	02/02/96	2,014,240	127,410	15,926	2,013,600	—	—	—	—	—	—
	02/07/96	2,027,770	13,530	2,706	2,027,130	1,800	860	38	75	9.6	110
	02/12/96	2,027,950	180	36	2,027,310	—	—	—	—	—	—
	02/22/96	10	0	0	2,027,310	—	—	—	—	—	—
	02/29/96	14,090	14,080	2,011	2,041,390	—	—	—	—	—	—
	03/06/96	23,260	9,170	1,528	2,050,560	25,000	3,400	5,400	5,400	360	3,500
	03/14/96	34,660	11,400	1,425	2,061,960	—	—	—	—	—	—
	03/22/96	46,300	11,640	1,455	2,073,600	—	—	—	—	—	—
	04/08/96	54,120	7,820	460	2,081,420	10,000	2,000	690	1,500	120	930
	05/02/96	54,840	720	30	2,082,140	—	—	—	—	—	—
	05/14/96	139,900	85,060	7,088	2,167,200	4,400	840	330	820	53	580
	05/28/96	251,390	111,490	7,964	2,278,690	—	—	—	—	—	—
	06/14/96	264,690	13,300	782	2,291,990	1,200	330	170	16	51	120
	07/08/96	295,770	31,080	1,295	2,323,070	150	65	3.7	4.4	0.60	6.7
	07/25/96	298,890	3,120	184	2,326,190	—	—	—	—	—	—
	08/08/96	300,120	1,230	88	2,327,420	—	—	—	—	—	—
	08/12/96	302,120	2,000	500	2,329,420	890	190	110	190	14	120
	08/27/96	303,730	1,610	107	2,331,030	—	—	—	—	—	—
	09/13/96	311,780	8,050	474	2,339,080	—	—	—	—	—	—
	10/04/96	311,780	0	0	2,339,080	—	—	—	—	—	—
	11/08/96	311,780	0	0	2,339,080	—	—	—	—	—	—

Table 1

## Summary of Results of Groundwater Treatment System Monitoring

Former Mobil Station 04-H6J

Sample ID	Date of Sampling	Flow Meter Reading (gallons)	Effluent Discharge (gallons)	Average Flow Rate (gpd)	Total Discharged (gallons)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)
I-1	12/02/96	311,780	0	0	2,339,080	—	—	—	—	—	—
(con't)	12/06/96	337,540	25,760	6,440	2,364,840	630	160	48	120	8.9	69
	01/07/97	512,070	174,530	5,454	2,539,370	—	—	—	—	—	—
E-1	04/27/95	—	—	—	—	ND	87	ND	ND	ND	ND
	05/12/95	—	—	—	—	670	180	3.4	5.8	ND	9.8
	06/08/95	—	—	—	—	ND	ND	0.87	0.92	ND	1.4
	07/13/95	—	—	—	—	ND	110	ND	ND	ND	ND
	08/28/95	—	—	—	—	140	220	2.6	4.4	0.98	6.2
	09/07/95	—	—	—	—	200	290	5.8	6.9	0.77	93
	10/12/95	—	—	—	—	ND	120	ND	ND	ND	ND
	11/17/95	—	—	—	—	93	230	0.73	1.3	ND	1.4
	12/04/95	—	—	—	—	ND	120	ND	ND	ND	ND
	01/08/96	—	—	—	—	110	76	52	11	0.74	9.4
	02/07/96	—	—	—	—	840	470	4.2	7.7	2.1	16
	03/06/96	—	—	—	—	140	420	1.1	0.94	ND	0.59
	04/08/96	—	—	—	—	340	190	11	7.1	3.5	21
	05/14/96	—	—	—	—	630	330	13	31	3.8	29
	06/14/96	—	—	—	—	ND	79	ND	ND	ND	ND

Table 1

Summary of Results of Groundwater Treatment System Monitoring

Former Mobil Station 04-H6J

Sample ID	Date of Sampling	Flow Meter Reading (gallons)	Effluent Discharge (gallons)	Average Flow Rate (gpd)	Total Discharged (gallons)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)
E-1	07/08/96	—	—	—	—	ND	ND	0.71	ND	ND	ND
(con't)	08/12/96	—	—	—	—	73	72	1.7	3.0	ND	27
	12/06/96	—	—	—	—	ND	ND	ND	1.4	ND	0.57

Total Effluent Discharged to Date: 2,539,370 gallons

NOTES: ppb = parts per billion  
 TPH-G = total petroleum hydrocarbons as gasoline  
 ND = not detected at or above method detection limit  
 — = not measured/not analyzed  
 gpd = gallons per day  
 I-1 = influent  
 E-1 = effluent from primary carbon drum  
 TPH-D = total petroleum hydrocarbons as diesel  
 \* = new flow meter installed 02/22/96

**EXHIBIT 7**

**WELL PURGING AND GROUNDWATER SAMPLING PROTOCOL**

## WELL PURGING AND GROUNDWATER SAMPLING PROTOCOL

### FLUID-LEVEL MONITORING

Fluid-levels are monitored in the wells using an electronic interface probe with conductance sensors. The presence of liquid-phase hydrocarbons is verified using a hydrocarbon-reactive paste. The depth to liquid-phase hydrocarbons and water is measured relative to the well box top or top of casing. Well box or casing elevations are surveyed to within 0.02 foot relative to a county or city bench mark.

### GROUNDWATER SAMPLING

Groundwater monitoring wells are purged and sampled in accordance with standard regulatory protocol. Typically, monitoring wells that contain no liquid-phase hydrocarbons are purged of groundwater prior to sampling so that fluids sampled are representative of fluids within the formation. Temperature, pH, and specific conductance are typically measured after each well casing volume has been removed. Purging is considered complete when these parameters vary less than 10% from the previous readings, or when four casing volumes of fluid have been removed. Samples are collected without further purging if the well does not recharge within 2 hours to 80% of its volume before purging.

The purged water is either pumped directly into a licensed vacuum truck or temporarily stored in labeled drums prior to transport to an appropriate treatment or recycling facility. If an automatic recovery system (ARS) is operating at the site, purged water may be pumped into the ARS for treatment.

Groundwater samples are collected by lowering a 1.5-inch-diameter, bottom-fill, disposable polyethylene bailer just below the static water level in the well. The samples are carefully transferred from the check-valve-equipped bailer to 1-liter and 40-milliliter glass containers. The sample containers are filled to zero headspace and fitted with Teflon-sealed caps. Each sample is labeled with the project number, well number, sample date, and sampler's initials. Samples remain chilled at approximately 4°C prior to analysis by a state-certified laboratory.

**EXHIBIT 8**

**MONITORING WELL SAMPLING FORMS**

**FLUID MEASUREMENT FIELD FORM**

Project No.: 41-0063  
 Station No.: 04-H5J

Alton Personnel: CC  
 Date: 11/8/96

Well Number	Well Elevation	Depth to Water	Depth to Product	Free Product Thickness (ft)	Free Product Recovery	Total Depth	Comments
MW-3							
MW-5							
MW-7							
MW-8							
VMW-1							
VMW-2							
VMW-3							
VMW-4							
RW-1							
RW-2							
RW-3							
RW-4							
MW-10		40.35				54.37	
MW-11		37.34				45.05	
MW-12		41.32				54.70	
MW-6		40.69				54.09	
MW-1		40.07				50.59	
MW-4		40.28				48.96	
MW-2		40.27	40.26	.01		48.86	F.P. 0.01

System Pump

# GROUND WATER SAMPLING FIELD NOTES

04-H6J

Site: ~~4100~~

Project No.: 41-0063

Sampled By: CC

Date: 11/8/96

Well No. RW-3

Purge Method: \_\_\_\_\_

Well No. RW-4

Purge Method: \_\_\_\_\_

Total Depth (feet): \_\_\_\_\_

Depth to Product (feet): \_\_\_\_\_

Total Depth (feet): \_\_\_\_\_

Depth to Product (feet): \_\_\_\_\_

Depth to Water (feet): \_\_\_\_\_

Product Recovered (gallons): \_\_\_\_\_

Depth to Water (feet): \_\_\_\_\_

Product Recovered (gallons): \_\_\_\_\_

Water Column (feet): \_\_\_\_\_

Casing Diameter (Inches): \_\_\_\_\_

Water Column (feet): \_\_\_\_\_

Casing Diameter (Inches): \_\_\_\_\_

80% Recharge Depth (feet): \_\_\_\_\_

1 Well Volume (gallons): \_\_\_\_\_

80% Recharge Depth (feet): \_\_\_\_\_

1 Well Volume (gallons): \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
SYS Pump						
Total Purged				Time Sampled		10:15

Comments: \_\_\_\_\_

Turbidity = \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
SYS Pump						
Total Purged				Time Sampled		10:25

Comments: \_\_\_\_\_

Turbidity = \_\_\_\_\_

Well No. RW-2

Purge Method: \_\_\_\_\_

Well No. RW-1

Purge Method: \_\_\_\_\_

Total Depth (feet): \_\_\_\_\_

Depth to Product (feet): \_\_\_\_\_

Total Depth (feet): \_\_\_\_\_

Depth to Product (feet): \_\_\_\_\_

Depth to Water (feet): \_\_\_\_\_

Product Recovered (gallons): \_\_\_\_\_

Depth to Water (feet): \_\_\_\_\_

Product Recovered (gallons): \_\_\_\_\_

Water Column (feet): \_\_\_\_\_

Casing Diameter (Inches): \_\_\_\_\_

Water Column (feet): \_\_\_\_\_

Casing Diameter (Inches): \_\_\_\_\_

80% Recharge Depth (feet): \_\_\_\_\_

1 Well Volume (gallons): \_\_\_\_\_

80% Recharge Depth (feet): \_\_\_\_\_

1 Well Volume (gallons): \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
SYS Pump						
Total Purged				Time Sampled		10:30

Comments: \_\_\_\_\_

Turbidity = \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
SYS Pump						
Total Purged				Time Sampled		10:20

Comments: \_\_\_\_\_

Turbidity = \_\_\_\_\_

Well No. MW-10

Purge Method: SUB

Well No. MW-11

Purge Method: SUB

Total Depth (feet): 54.87

Depth to Product (feet): \_\_\_\_\_

Total Depth (feet): 45.05

Depth to Product (feet): \_\_\_\_\_

Depth to Water (feet): 40.35

Product Recovered (gallons): \_\_\_\_\_

Depth to Water (feet): 37.34

Product Recovered (gallons): \_\_\_\_\_

Water Column (feet): 14.02

Casing Diameter (Inches): 4"

Water Column (feet): 7.71

Casing Diameter (Inches): 4"

80% Recharge Depth (feet): 43.15

1 Well Volume (gallons): 9.25

80% Recharge Depth (feet): 38.88

1 Well Volume (gallons): 5.68

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
10:50				1.19	72.0	8.00
				0.79	69.0	7.91
				0.79	68.5	7.78
Total Purged			28	Time Sampled		11:20

Comments: \_\_\_\_\_

Turbidity = \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				1.27	76.3	8.12
				1.82	72.3	7.76
				1.65	69.3	7.25
Total Purged			15	Time Sampled		11:30

Comments: \_\_\_\_\_

Turbidity = \_\_\_\_\_



Alton Geoscience, Northern California Operations  
**GROUND WATER SAMPLING FIELD NOTES**

Site: 04-H6J Project No.: 4100628 Sampled By: CC Date: 11/8/26  
 Well No. MW-12 Purge Method: SUB Well No. MW-6 Purge Method: SUB  
 Total Depth (feet) 54.20 Depth to Product (feet): \_\_\_\_\_ Total Depth (feet) 34.09 Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): 41.32 Product Recovered (gallons): \_\_\_\_\_ Depth to Water (feet): 40.69 Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): 13.38 Casing Diameter (Inches): 4" Water Column (feet): 13.40 Casing Diameter (Inches): 6"  
 80% Recharge Depth (feet): 13.99 1 Well Volume (gallons): 8.83 80% Recharge Depth (feet): 43.37 1 Well Volume (gallons): 8.89

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
11:40				1.65	69.1	7.49
				1.08	67.7	7.44
				1.06	66.9	7.50
Total Purged			20	Time Sampled		12:00

Comments: Pumped Dry @ 20 Gal  
Turbidity = \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
12:20				1.27	67.5	8.01
				1.22	67.6	7.92
				1.20	67.5	7.82
Total Purged			27	Time Sampled		12:40

Comments: \_\_\_\_\_  
Turbidity = \_\_\_\_\_

Well No. MW-1 Purge Method: \_\_\_\_\_  
 Total Depth (feet) 50.59 Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): 40.07 Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): 10.52 Casing Diameter (Inches): 6"  
 80% Recharge Depth (feet): 42.17 1 Well Volume (gallons): 6.94

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
				1.76	82.1	8.44
				1.48	76.7	8.05
				1.38	73.8	7.91
Total Purged			21	Time Sampled		13:10

Comments: \_\_\_\_\_  
Turbidity = Very Turbid

Well No. MW-4 Purge Method: \_\_\_\_\_  
 Total Depth (feet) 48.96 Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): 40.28 Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): 8.68 Casing Diameter (Inches): 4"  
 80% Recharge Depth (feet): 42.01 1 Well Volume (gallons): 5.72

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
13:17				1.37	76.6	8.51
				1.18	73.1	7.92
				1.13	70.9	7.72
Total Purged			17	Time Sampled		13:35

Comments: \_\_\_\_\_  
Turbidity = \_\_\_\_\_

Well No. MW-2 Purge Method: \_\_\_\_\_  
 Total Depth (feet) 48.86 Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): 40.27 Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): 8.59 Casing Diameter (Inches): \_\_\_\_\_  
 80% Recharge Depth (feet): 41.88 1 Well Volume (gallons): \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
<u>Not Sampled</u>						
Total Purged				Time Sampled		

Comments: F.P. 0.01"  
Turbidity = \_\_\_\_\_

Well No. \_\_\_\_\_ Purge Method: \_\_\_\_\_  
 Total Depth (feet) \_\_\_\_\_ Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): \_\_\_\_\_ Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): \_\_\_\_\_ Casing Diameter (Inches): \_\_\_\_\_  
 80% Recharge Depth (feet): \_\_\_\_\_ 1 Well Volume (gallons): \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
*						
Total Purged				Time Sampled		

Comments: \_\_\_\_\_  
Turbidity = \_\_\_\_\_

**EXHIBIT 9**

**ANALYTICAL LABORATORY DATA SHEETS**



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
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Sacramento, CA 95834

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(916) 921-9600

FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Sample Matrix: Water  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 611-0496

Sampled: Nov 8, 1996  
Received: Nov 11, 1996  
Reported: Nov 20, 1996

QC Batch Number: GC111696 GC111696 GC111696 GC111696 GC111696 GC111696 GC111696

802002A 802002A 802002A 802002A 802002A 802002A 802002A

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 611-0496 RW-3	Sample I.D. 611-0497 RW-1	Sample I.D. 611-0498 RW-4	Sample I.D. 611-0499 RW-2	Sample I.D. 611-0500 MW-10	Sample I.D. 611-0501 MW-11
Purgeable Hydrocarbons	50	110	81,000	N.D.	3,500	N.D.	N.D.
Benzene	0.50	28	5,300	N.D.	480	N.D.	N.D.
Toluene	0.50	3.3	11,000	N.D.	48	N.D.	N.D.
Ethyl Benzene	0.50	1.2	1,300	N.D.	150	N.D.	N.D.
Total Xylenes	0.50	4.5	8,900	N.D.	150	N.D.	0.81
MTBE:	0.60	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		Gasoline	Gasoline	--	Gasoline	--	--

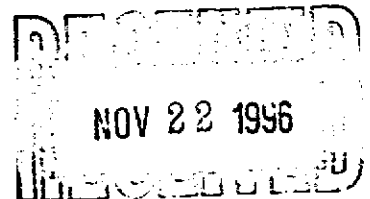
### Quality Control Data

Report Limit Multiplication Factor:	1.0	400	1.0	20	1.0	1.0
Date Analyzed:	11/16/96	11/16/96	11/16/96	11/16/96	11/16/96	11/16/96
Instrument Identification:	HP-2	HP-2	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	94	89	91	80	88	86

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Jim Bava  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

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FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Sample Matrix: Water  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 611-0502

Sampled: Nov 8, 1996  
Received: Nov 11, 1996  
Reported: Nov 20, 1996

QC Batch Number: GC111696 GC111696 GC111696 GC111696

802002A 802002A 802002A 802002A

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

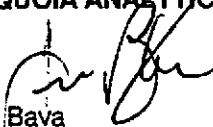
Analyte	Reporting Limit µg/L	Sample I.D. 611-0502 MW-12	Sample I.D. 611-0503 MW-6	Sample I.D. 611-0504 MW-1	Sample I.D. 611-0505 MW-4
Purgeable Hydrocarbons	50	N.D.	60	N.D.	1,100
Benzene	0.50	N.D.	2.5	N.D.	160
Toluene	0.50	N.D.	0.60	N.D.	35
Ethyl Benzene	0.50	N.D.	0.50	N.D.	41
Total Xylenes	0.50	N.D.	0.68	N.D.	110
MTBE:	0.60	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	Gasoline	--	Gasoline

### Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	20
Date Analyzed:	11/16/96	11/16/96	11/16/96	11/16/96
Instrument Identification:	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	75	81	87	83

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Jim Baya  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
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FAX (415) 364-9233  
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FAX (916) 921-0100

Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Matrix: Liquid

QC Sample Group: 6110496-505

Reported: Nov 20, 1996

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC111696 802002A	GC111696 802002A	GC111696 802002A	GC111696 802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD #:	6110372	6110372	6110372	6110372
Sample Conc.:	N.D.	0.65 µg/L	N.D.	1.4 µg/L
Prepared Date:	11/15/96	11/15/96	11/15/96	11/15/96
Analyzed Date:	11/15/96	11/15/96	11/15/96	11/15/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	17	19	22	64
MS % Recovery:	85	92	110	104
Dup. Result:	18	22	24	71
MSD % Recov.:	90	107	120	116
RPD:	5.7	15	8.7	11
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	2LCS111696	2LCS111696	2LCS111696	2LCS111696
Prepared Date:	11/15/96	11/15/96	11/15/96	11/15/96
Analyzed Date:	11/15/96	11/15/96	11/15/96	11/15/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	21	21	22	66
LCS % Recov.:	105	105	110	110

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL, #1271

Jim Bava  
Project Manager

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference





# SEQUOIA ANALYTICAL CHAIN OF CUSTODY

- 680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600 FAX (415) 364-9233
- 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
- 404 North Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Mobil Oil Consulting Firm: <u>Alton Geoscience</u>										Station No./Site Address: <u>04-H6J</u>																
Address: <u>30 A Lindbergh Ave</u>										Project Contact: <u>Ron Scheele</u>																
City: <u>Livermore</u>					State: <u>CA</u>					Zip: <u>94450</u>					Mobil Oil Engineer: <u>Cherine Fouts</u>											
Tel: <u>(510) 606-9150</u>					Fax: <u>(510) 606-9250</u>					Sampler(s) signature: <u>Wim Cully</u>																
Sample I.D.	Matrix	Date Sampled	Time	Preservation	Number of Containers	Type of Containers	BTEX - EPA 602/8020	BTEX - TPH	EPA M602/8015/8020 (GAS)	TPH EPA Modified 8015	Gas <input type="checkbox"/> Diesel <input type="checkbox"/>	Oil & Grease - EPA 413.2	TPH - EPA 418.1	EPA 601/8010	EPA 624/8240	EPA 625/8270	Title 22 Metals EPA 6010/7000	TTL <input type="checkbox"/> STL <input type="checkbox"/>	Lead Org./DHS <input type="checkbox"/>	Lead Total <input type="checkbox"/>	EDB/DBCD - EPA 504	pH	Bioassay - Title 22 Haz. Waste	Bioassay - Effluent	CODING (check one)	
<u>MW-4</u>	<u>H<sub>2</sub>O</u>	<u>11/8</u>	<u>13:35</u>	<u>HCl</u>	<u>3</u>	<u>Uoa</u>		<u>X</u>																	<u>X</u>	<u>MTBE*</u>
Relinquished by: <u>[Signature]</u>										Received by: <u>[Signature]</u>																
Date/Time: _____										Date/Time: <u>11/16 1745</u>																
Relinquished by: <u>[Signature]</u>										Received by: _____																
Date/Time: <u>11/16 1833</u>										Date/Time: _____																
Relinquished by: _____										Received in Lab by: <u>[Signature]</u>																
Date/Time: _____										Date/Time: <u>11/16 1833</u>																
Remarks: <u>* Run Highest Concentration for 8260 Confirmation</u>																										
Turnaround Time: (check one):															Sample Integrity:											
Normal _____															Intact _____											
1 day _____															On Ice _____											
5 day <u>X</u>																										



# Sequoia Analytical

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FAX (916) 921-0100

Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Sample Matrix: Air  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 612-0510

Sampled: Dec 6, 1996  
Received: Dec 6, 1996  
Reported: Dec 13, 1996

QC Batch Number: GC120996 GC120996 GC120996 GC120996

802002A 802002A 802002A 802002A

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 612-0510 I-1	Sample I.D. 612-0511 I-2	Sample I.D. 612-0512 I-3	Sample I.D. 612-0513 E-1
Purgeable Hydrocarbons	10	1,100	N.D.	340	N.D.
Benzene	0.050	19	N.D.	4.9	N.D.
Toluene	0.050	59	0.19	23	N.D.
Ethyl Benzene	0.050	4.8	N.D.	3.3	N.D.
Total Xylenes	0.050	33	0.26	29	N.D.
Chromatogram Pattern:		Gasoline	--	Gasoline	--

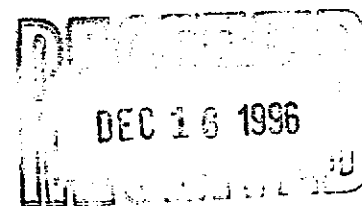
### Quality Control Data

Report Limit Multiplication Factor:	50	1.0	2.0	1.0
Date Analyzed:	12/9/96	12/9/96	12/9/96	12/9/96
Instrument Identification:	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	100	84	174	81

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Jim Bava  
Project Manager







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Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Sample Matrix: Air  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 612-0510

Sampled: Dec 6, 1996  
Received: Dec 6, 1996  
Reported: Dec 13, 1996

GC Batch Number: GC120996 GC120996 GC120996 GC120996

802002A 802002A 802002A 802002A

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit ppmv	Sample I.D. 612-0510 I-1	Sample I.D. 612-0511 I-2	Sample I.D. 612-0512 I-3	Sample I.D. 612-0513 E-1
Purgeable Hydrocarbons	2.4	269	N.D.	83	N.D.
Benzene	0.016	5.9	N.D.	1.5	N.D.
Toluene	0.013	16	0.050	6.1	N.D.
Ethyl Benzene	0.012	1.1	N.D.	0.76	N.D.
Total Xylenes	0.012	7.6	0.060	6.7	N.D.
Chromatogram Pattern:		Gasoline	--	Gasoline	--

### Quality Control Data

Report Limit Multiplication Factor:	50	1.0	2.0	1.0
Date Analyzed:	12/9/96	12/9/96	12/9/96	12/9/96
Instrument Identification:	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	100	84	174	81

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Jim Bava  
Project Manager



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Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Matrix: Vapor

QC Sample Group: 6120510-513

Reported: Dec 13, 1996

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC120996 802002A	GC120996 802002A	GC120996 802002A	GC120996 802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	100NGBTEX	100NGBTEX	100NGBTEX	100NGBTEX
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/9/96	12/9/96	12/9/96	12/9/96
Analyzed Date:	12/9/96	12/9/96	12/9/96	12/9/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.3	9.6	9.1	26
MS % Recovery:	83	96	91	87
Dup. Result:	8.3	9.6	9.0	25
MSD % Recov.:	83	96	90	83
RPD:	0.0	0.0	1.1	3.9
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	2LCS1420996	2LCS1420996	2LCS1420996	2LCS1420996
Prepared Date:	12/9/96	12/9/96	12/9/96	12/9/96
Analyzed Date:	12/9/96	12/9/96	12/9/96	12/9/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	19	23	22	66
LCS % Recov.:	95	115	110	110

MS/MSD	LCS	Control Limits
70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

  
Jim Bava  
Project Manager

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\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference





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Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Sample Matrix: Water  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 612-0669

Sampled: Dec 6, 1996  
Received: Dec 6, 1996  
Reported: Dec 16, 1996

QC Batch Number:

GC121396

GC121296

802004A

802002A

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 612-0669 I-1	Sample I.D. 612-0670 E-1
Purgeable Hydrocarbons	50	630	N.D.
Benzene	0.50	48	N.D.
Toluene	0.50	120	1.4
Ethyl Benzene	0.50	8.9	N.D.
Total Xylenes	0.50	69	0.57

Chromatogram Pattern:

Gasoline

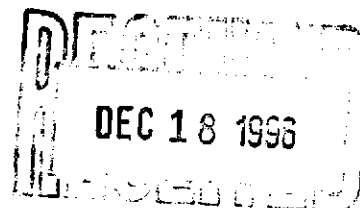
### Quality Control Data

Report Limit Multiplication Factor:	10	1.0
Date Analyzed:	12/13/96	12/12/96
Instrument Identification:	HP-4	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	93	84

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Jim Bava  
Project Manager



6120669.ALT <1>



# Sequoia Analytical

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Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Sample Matrix: Water  
Analysis Method: EPA 3510/8015 Mod.  
First Sample #: 612-0669

Sampled: Dec 6, 1996  
Received: Dec 6, 1996  
Reported: Dec 16, 1996

QC Batch Number: SP121396 SP121396  
8015EXA 8015EXA

## TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 612-0669 I-1	Sample I.D. 612-0670 E-1
Extractable Hydrocarbons	50	160	N.D.

Chromatogram Pattern: Diesel & Unidentified Hydrocarbons <C15 --

### Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Extracted:	12/13/96	12/13/96
Date Analyzed:	12/13/96	12/13/96
Instrument Identification:	HP-3A	HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Jim Bava  
Project Manager



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Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Matrix: Liquid

QC Sample Group: 6120669-670

Reported: Dec 17, 1996

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	GC121296 802002A	GC121296 802002A	GC121296 802002A	GC121296 802002A	SP121396 8015EXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3510
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Sharma
MS/MSD #:	6120637	6120637	6120637	6120637	BLK121396
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/12/96	12/12/96	12/12/96	12/12/96	12/13/96
Analyzed Date:	12/12/96	12/12/96	12/12/96	12/12/96	12/13/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L
Result:	19	24	24	70	300
MS % Recovery:	95	120	120	117	100
Dup. Result:	19	23	23	69	310
MSD % Recov.:	95	115	115	115	103
RPD:	0.0	4.3	4.3	1.4	3.3
RPD Limit:	0-25	0-25	0-25	0-25	0-50

LCS #:	2LCS121296	2LCS121296	2LCS121296	2LCS121296	LCS121396
Prepared Date:	12/12/96	12/12/96	12/12/96	12/12/96	12/13/96
Analyzed Date:	12/12/96	12/12/96	12/12/96	12/12/96	12/13/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L
LCS Result:	19	23	22	67	300
LCS % Recov.:	95	115	110	112	100

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130	60-140
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SEQUOIA ANALYTICAL, #1271

  
Jim Bava  
Project Manager

**Please Note:**

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\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference



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Alton Geoscience  
30-A Lindbergh Ave.  
Livermore, CA 94550  
Attention: Ron Scheele

Client Project ID: Mobil #04-H6J  
Matrix: Liquid

QC Sample Group: 612-0669, 670

Reported: Dec 17, 1996

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC121396 802004A	GC121396 802004A	GC121396 802004A	GC121396 802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	6120332	6120332	6120332	6120332
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/13/96	12/13/96	12/13/96	12/13/96
Analyzed Date:	12/13/96	12/13/96	12/13/96	12/13/96
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	17	18	18	53
MS % Recovery:	85	90	90	88
Dup. Result:	16	16	17	51
MSD % Recov.:	80	80	85	85
RPD:	6.0	12	5.7	3.8
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	4LCS121396	4LCS121396	4LCS121396	4LCS121396
Prepared Date:	12/13/96	12/13/96	12/13/96	12/13/96
Analyzed Date:	12/13/96	12/13/96	12/13/96	12/13/96
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	18	19	18	57
LCS % Recov.:	90	95	90	95

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130
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SEQUOIA ANALYTICAL, #1271

  
Jim Bava  
Project Manager

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