ALTON GEOSCIENCE
THE RESULTS TEAM

November 11, 1994

Mobil Oil Corporation
2063 Main Street, #501
Oakley, California 94537

Alton Project No.30-0065

ATTN: MS. CHERINE FOUTCH

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

RE: QUARTERLY PROGRESS REPORT,
FOURTH QUARTER 1994

Dear Ms.Foutch:

This quarterly report presents the results of joint fluid level monitoring and ground water sampling with Kaprealian Engineering, Inc. at the above-referenced site. On October 5, 1994, fluid levels were measured and ground water samples were collected in seven monitoring and four recovery wells. Ground water samples were submitted to a state-certified laboratory for analysis. In addition, monitoring and sampling data was obtained from Unocal Station No. 0543 for Monitoring Wells MW-1 through MW-5. The results of the investigation are attached. Fluids recovered during sampling activities were stored onsite in labeled, Department of Transportation approved drums prior to transport by IWM, Inc. for offsite recycling at McKittrick Disposal Facility.

ATTACHMENTS

Figure 1:	Ground Water Elevation Contour Map
Figure 2:	Dissolved-Phase Hydrocarbon Concentrations
Table 1:	Summary of Ground Water Monitoring and Analysis
Appendix:	General Field Procedures, Official Laboratory Reports, and Chain of Custody Records

This report was prepared in compliance with the requirements of the Alameda County Environmental Health Department.

30A Lindbergh Avenue
Livermore, California 94550
(510) 606-9150 • FAX (510) 606-9260

If you have any questions regarding this report, please call us at (510) 606-9150.

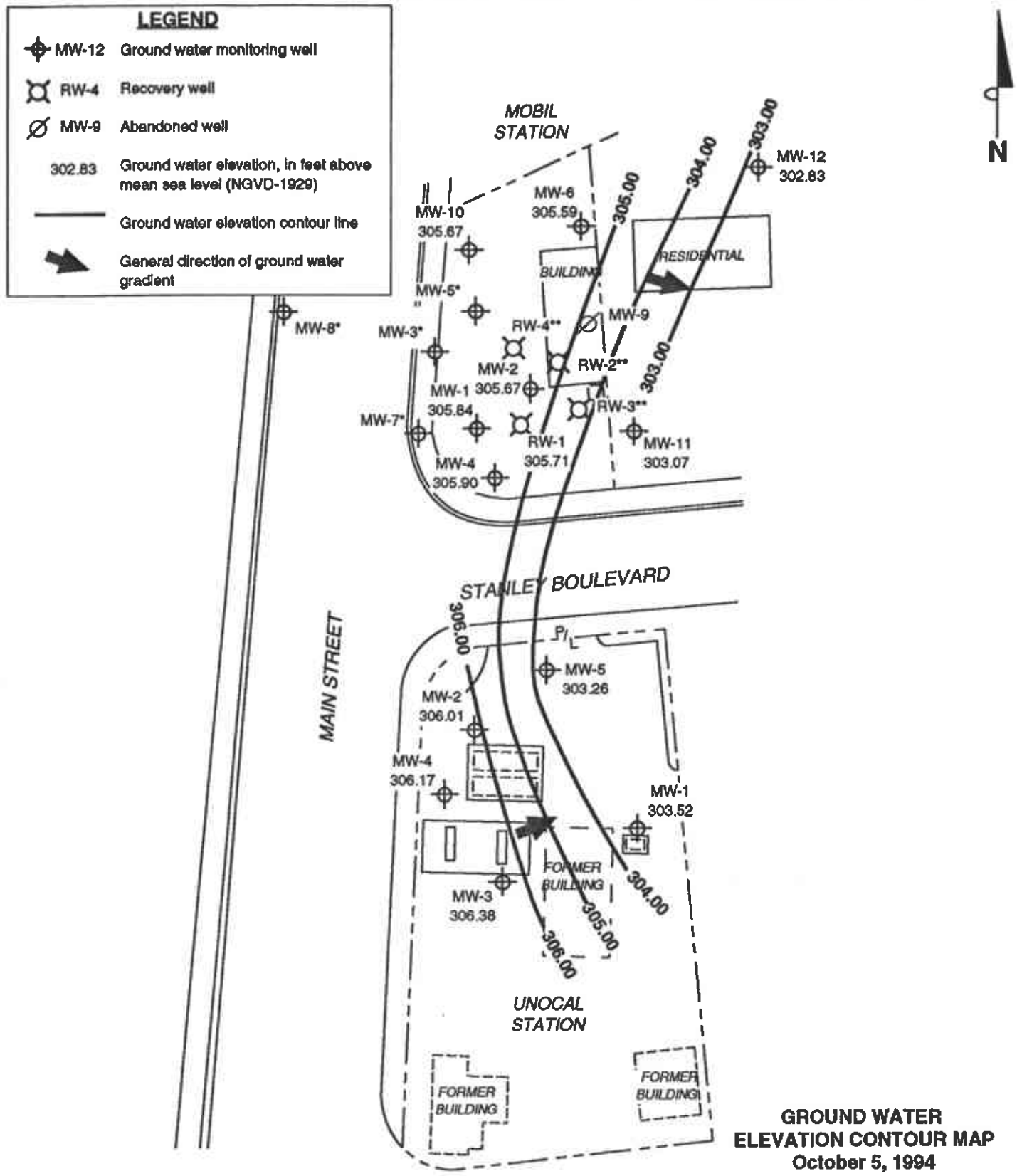
Sincerely,

ALTON GEOSCIENCE

Ailsa S. Le May
Geologist

Matthew W. Katen
Matthew W. Katen, RG
Senior Geologist

Attachments
30-0065/M:\...\04H6JR05.QFM



GROUND WATER ELEVATION CONTOUR MAP
October 5, 1994

Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California
and
Unocal Station #0543
922 Main Street
Pleasanton, California

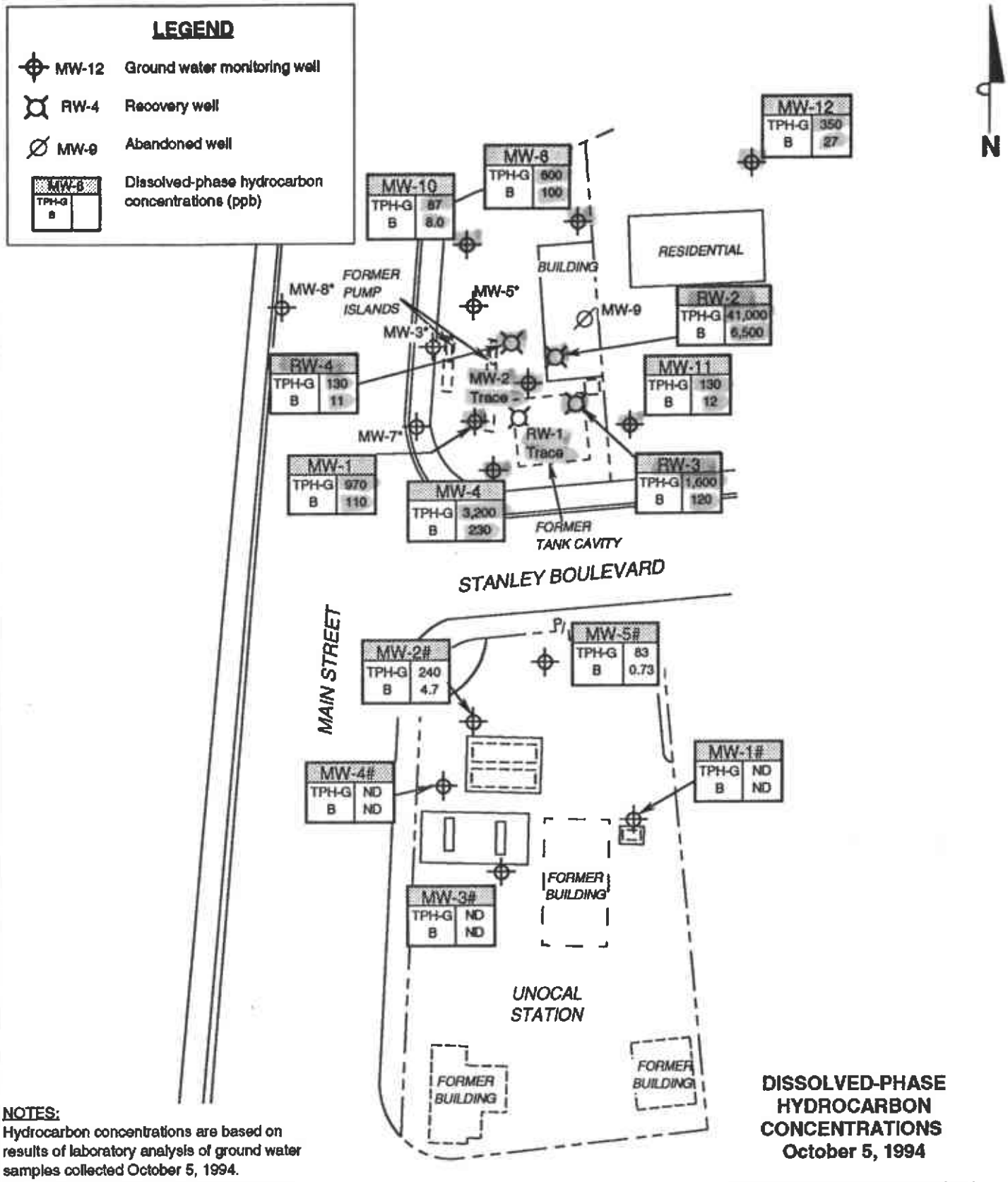
NOTES:
Contours are interpretive based on fluid level measurements collected October 5, 1994. Contour interval = 1.0 foot. * = shallow wells, not monitored. ** = well not surveyed.

ALTON GEOSCIENCE
Livermore, California

SCALE (feet)
0 30 60

FIGURE 1

30-0065/Site Plan 11/02/94



NOTES:
Hydrocarbon concentrations are based on results of laboratory analysis of ground water samples collected October 5, 1994.
ND = not detected at detection limits stated in official laboratory reports. TPH-G= total petroleum hydrocarbons as gasoline; B = benzene; ppb = parts per billion.
Trace = trace of liquid-phase hydrocarbon observed. * = shallow wells not monitored.

ALTON GEOSCIENCE
Livermore, California

SCALE (feet)
0 30 60

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS
October 5, 1994

Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California
and
Unocal Station #0543
922 Main Street
Pleasanton, California

FIGURE 2

30-0065/Site Plan 11/02/94

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
MW-1	04/12/90	348.03	0.00	43.57	304.46	3,600	—	73	13	3	180	45	ND	—
	10/18/90		0.00	43.18	304.85	5,000	ND	700	360	170	480	54	—	—
	08/06/91		0.00	38.65	309.38	2,600	—	310	340	110	340	ND	—	ND
	01/08/92		0.00	38.68	309.35	2,400	—	270	370	18	340	14	ND	
	04/30/92		0.00	39.93	308.10	1,300	—	150	120	12	160	4.3	—	—
	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	—	—	—
MW-2	04/12/90	348.45	0.00	44.14	304.31	64,000	—	5,500	7,600	1,900	7,800	200	ND	—
	10/18/90		0.00	43.18	305.27	83,000	10,000	6,800	9,100	2,400	11,000	460	—	—
	08/06/91		0.00	39.19	309.26	160,000	—	16,000	25,000	4,300	19,000	330	—	330
	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	420	—	—
	07/31/92		0.15	43.64	304.92	—	—	—	—	—	—	—	—	—
	10/27/92		Trace	43.53	304.92	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
MW-2	01/22/93		Trace	35.55	312.90	—	—	—	—	—	—	—	—	—
(con't)	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	—	—	—	—	—	—	—	—	—
MW-3	04/12/90	347.97	0.00	23.18	324.79	2,100	—	32	56	31	170	117	ND	—
	10/18/90		0.00	14.28	333.69	110	ND	3	3	1	5	2	—	—
	08/06/91		—	Dry	—	—	—	—	—	—	—	—	—	—
	01/08/92		0.00	32.36	315.61	680	—	8.9	26	8.5	72	5.7	—	—
	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	—	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
MW-4	10/18/90	348.07	0.00	43.16	304.91	9,600	2,000	180	500	200	1,200	9	—	—
	08/06/91		0.00	38.65	309.42	8,600	—	320	420	220	650	ND	—	ND
	01/08/92		0.00	38.65	309.42	3,400	—	600	880	220	1,100	9.2	ND	—
	04/30/92		0.00	39.88	308.19	7,200	—	650	1,200	210	1,200	ND	—	—
	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	—	—	—
	04/05/93		0.00	33.61	314.46	1,100	—	34	18	12	31	—	—	—
	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	—	—	—
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	—	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
MW-5	04/05/93		—	Dry	—	—	—	—	—	—	—	—	—	—
(con't)	07/06/93		—	Dry	—	—	—	—	—	—	—	—	—	—
	11/30/93		—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		0.00	34.23	313.74	—	—	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—	—	—
MW-6	10/18/90	348.23	0.00	43.60	304.63	3,000	ND	1,300	150	120	85	140	—	—
	08/06/91		0.00	39.07	309.16	1,600	—	220	10	5.2	14	8.3	—	ND
	01/08/92		0.00	39.18	309.05	370	—	81	3.9	4.5	2.9	5.4	ND	—
	04/30/92		0.00	40.46	307.77	610	—	180	8.4	6.8	3.3	7.0	—	—
	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	—	—	—
	10/05/94		0.00	42.64	305.59	600	—	100	5.6	11	12	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
MW-7	10/18/90	347.90	0.00	9.26	338.64	ND	ND	0	0.5	ND	0.8	ND	—	—
	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	—	—	—	—	—	—	—	—	—	—
MW-8	10/18/90	348.90	0.00	11.30	337.60	900	ND	3	5	7	62	ND	—	—
	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<50	—	ND	ND	ND	ND	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
MW-8	11/30/93		—	Dry	—	—	—	—	—	—	—	—	—	—
(con't)	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	10/05/94		—	—	—	—	—	—	—	—	—	—	—	—
MW-9	02/04/92	348.53	0.00	43.54	304.99	16,000	—	3,000	740	1,200	2,500	68	—	ND
	04/30/92		0.00	42.83	305.70	5,600	—	1,000	120	410	350	ND<50	—	—
	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	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
MW-10	04/26/94		—	—	—	810	—	17	0.84	ND	ND	—	—	—
(con't)	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	—	—	—
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	—	—	—
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	—	—	—
VMW-1	11/30/93	348.05	—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	10/05/94		—	—	—	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
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	—	—	—	—	—	—	—	—	—	—
VMW-3	11/30/93	348.10	—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		Trace	31.23	316.87	—	—	—	—	—	—	—	—	—
	07/08/94		—	Dry	—	—	—	—	—	—	—	—	—	—
VMW-4	11/30/93	347.95	—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		—	31.41	316.54	—	—	—	—	—	—	—	—	—
	07/08/94		—	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	—	—	—	—	—	—	—	—	—
RW-2	10/05/94	—	0.00	43.33	—	41,000	—	6,500	6,300	1,000	5,400	—	—	—
RW-3	10/05/94	—	0.00	44.66	—	1,600	—	120	180	26	170	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
RW-4	10/05/94	—	0.00	42.62	—	130	—	11	4.9	1.5	9.2	—	—	—
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	—	—	—	—	—	—	—	—	—
	10/05/94		0.00	47.26	303.52	ND	—	ND	ND	ND	ND	—	—	—
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	—	—	—	—	—	—	—	—	—
	07/06/93		0.00	37.82	312.01	4,700	—	17	15	30	28	—	—	—
	11/30/93	349.51	—	—	—	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
MW-2#	01/27/94		0.00	43.15	306.36	1,500	—	28	9.0	ND	20	—	—	—
(con't)	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	—	—	—	—	—	—	—	—	—
	10/05/94		0.00	43.50	306.01	240	—	4.7	2.5	0.52	2.6	—	—	—
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	—	—	—	—	—	—	—	—	—
	10/05/94		0.00	44.66	306.38	ND	—	ND	ND	ND	ND	—	—	—

Table 1

Summary of Ground Water Monitoring and Analysis

Former Mobil Station 04-H6J

Sample ID	Date	Casing Elevation (feet)	Product Thickness (feet)	Depth To Water	Ground Water Elevation	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)
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	—	—	—	—	—	—	—	—	—
	10/05/94		0.00	43.97	306.17	ND	—	ND	ND	ND	ND	—	—	—
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	—	—	—	—	—	—	—	—	—
	10/05/94		0.00	46.07	303.26	83	—	0.73	0.90	ND	3.0	—	—	—

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

APPENDIX

GENERAL FIELD PROCEDURES, OFFICIAL LABORATORY REPORTS, AND CHAIN OF CUSTODY RECORDS

GENERAL FIELD PROCEDURES

General field procedures used during fluid level monitoring and ground water sampling activities are described below.

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.

GROUND WATER SAMPLING

Ground water monitoring wells are purged and sampled in accordance with standard regulatory protocol. Typically, monitoring wells that contain no liquid-phase hydrocarbons are purged of ground water 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.

Ground water 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.

Sequoia Analytical

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

Alton Geoscience	Client Project ID:	Mobil 04-H6J / Pleasanton	Sampled: Oct 5, 1994
30-A Lindbergh Ave.	Sample Matrix:	Water	Received: Oct 6, 1994
Livermore, CA 94550	Analysis Method:	EPA 5030/8015/8020	Reported: Oct 17, 1994
Attention: Ron Scheele	First Sample #:	410-0340	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 410-0340 RW-2	Sample I.D. 410-0341 RW-4	Sample I.D. 410-0342 MW-4	Sample I.D. 410-0343 MW-11	Sample I.D. 410-0344 MW-12	Sample I.D. 410-0345 MW-1
Purgeable Hydrocarbons	50	41,000	130	3,200	130	350	970
Benzene	0.50	6,500	11	230	12	27	110
Toluene	0.50	6,300	4.9	280	19	56	140
Ethyl Benzene	0.50	1,000	1.5	73	4.6	13	21
Total Xylenes	0.50	5,400	9.2	210	24	67	90
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline

RECEIVED
OCT 28 1994

Quality Control Data

Report Limit Multiplication Factor:	100	20	20	1.0	4.0	10
Date Analyzed:	10/12/94	10/12/94	10/12/94	10/12/94	10/12/94	10/12/94
Instrument Identification:	HP-4	HP-4	HP-4	HP-4	HP-4	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	101	99	91	99	95	109

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

Karen L. Enstrom
Project Manager

Sequoia Analytical

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

Alton Geoscience	Client Project ID:	Mobil 04-H6J / Pleasanton	Sampled: Oct 5, 1994
30-A Lindbergh Ave.	Sample Matrix:	Water	Received: Oct 6, 1994
Livermore, CA 94550	Analysis Method:	EPA 5030/8015/8020	Reported: Oct 17, 1994
Attention: Ron Scheele	First Sample #:	410-0346	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 410-0346 RW-3	Sample I.D. 410-0347 MW-6	Sample I.D. 410-0348 MW-10
Purgeable Hydrocarbons	50	1,600	600	87
Benzene	0.50	120	100	8.0
Toluene	0.50	180	5.6	5.0
Ethyl Benzene	0.50	26	11	0.85
Total Xylenes	0.50	170	12	4.5
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	20	4.0	1.0
Date Analyzed:	10/12/94	10/12/94	10/12/94
Instrument Identification:	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	113	102	87

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

Karen L. Enstrom
Project Manager

Sequoia Analytical

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

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

Client Project ID: Mobil 04-H6J / Pleasanton
Matrix: Liquid

QC Sample Group: 4100340-348

Reported: Oct 17, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha
MS/MSD Batch#:	4100343	4100343	4100343	4100343
Date Prepared:	10/12/94	10/12/94	10/12/94	10/12/94
Date Analyzed:	10/12/94	10/12/94	10/12/94	10/12/94
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
Matrix Spike % Recovery:	110	115	120	118
Matrix Spike Duplicate % Recovery:	105	105	110	108
Relative % Difference:	4.7	9.1	8.7	8.8
LCS Batch#:	1LCS101294	1LCS101294	1LCS101294	1LCS101294
Date Prepared:	10/12/94	10/12/94	10/12/94	10/12/94
Date Analyzed:	10/12/94	10/12/94	10/12/94	10/12/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	96	96	100	100
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
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.

Sequoia Analytical

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

Client Project ID: Mobil 04-H6J / Pleasanton
Matrix: Liquid

QC Sample Group: 4100340-348

Reported: Oct 17, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha
MS/MSD Batch#:	4091997	4091997	4091997	4091997
Date Prepared:	10/12/94	10/12/94	10/12/94	10/12/94
Date Analyzed:	10/12/94	10/12/94	10/12/94	10/12/94
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
Matrix Spike % Recovery:	85	95	95	98
Matrix Spike Duplicate % Recovery:	80	90	90	95
Relative % Difference:	6.6	5.4	5.4	3.1
LCS Batch#:	2LCS101294	2LCS101294	2LCS101294	2LCS101294
Date Prepared:	10/12/94	10/12/94	10/12/94	10/12/94
Date Analyzed:	10/12/94	10/12/94	10/12/94	10/12/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	80	98	91	94
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
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.

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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Mobil Oil Consulting Firm: Alton Geoscience
Address: 30A Lindbergh Ave
City: Livermore State: CA Zip: 94550
Tel: 606 9150 Fax.: 606 9260

Station No./Site Address: 04 H6J Main St Pleasanton
Project Contact: Ron Scheele
Mobil Oil Engineer: Cherine Fouth
Sampler(s) (signature): [signature]

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 ☐ Diesel ☐	Oil & Grease - EPA 413.2	TPH - EPA 418.1	EPA 601/8010	EPA 624/8240	EPA 625/8270	Title 22 Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead Total ☐	EDB/DBCD - EPA 504	pH	Bioassay - Title 22 Haz. Waste	Bioassay - Effluent	
✓ RW-2	H2O	10/5	3:55	HCl	2	Voa		X									4100340				AB
✓ RW-4			4:10														4100341				
✓ MW-4			3:30														4100342				
✓ MW-11			2:00														4100343				
✓ MW-12			1:50														4100344				
✓ MW-1			3:45														4100345				
✓ RW-3			4:00														4100346				
✓ MW-6			3:00														4100347				
✓ MW-10			2:40														4100348				✓

CODING (check one)

- Code 1 ☐ Emergency Response
- Code 2 ☒ Site Assessment
- Code 3 ☐ Remediation (Plan Devlpmt.)
- Code 4 ☐ Active Remed. (Install./Start-up)
- Code 5 ☐ Active Remed. (O & M)
- Code 6 ☐ Passive Remed/ Monitoring
- Code 7 ☐ Closure
- Code 8 ☐ Construction
- Code 9 ☐ Litigation/Claims Fines

Relinquished by:	Date/Time:	Relinquished by:	Date/Time:
[signature]	10/6/94 0936	Received SL Wright	10/6/94 0936
Relinquished by: SL Wright	Date/Time: 10/6/94 1220	Relinquished by: Received [signature]	Date/Time: 10/6/94 1:40
Relinquished by: [signature]	Date/Time: 10/6/94 3:10	Relinquished in Lab by: Received PD Kelley	Date/Time: 10/6/94 3:10 pm

Remarks:

Turnaround Time: (check one):
Normal ✓ Same day ___
1 day ___ 2 day ___
5 day ___

Sample Integrity:
Intact ___ On Ice ___

Sequoia Analytical

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

Avo

MPDS Services
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal #0543, 992 Main St, Pleasanton
Matrix Descript: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 410-0421

Sampled: Oct 5, 1994
Received: Oct 5, 1994
Reported: Oct 20, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Purgeable Hydrocarbons µg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Total Xylenes µg/L
410-0421	MW-1	ND	ND	ND	ND	ND
410-0422	MW-2	240	4.7	2.6	0.52	2.6
410-0423	MW-3	ND	ND	ND	ND	ND
410-0424	MW-4	ND	ND	ND	ND	ND
410-0425	MW-5	83	0.73	0.90	ND	3.0
Detection Limits:		50	0.50	0.50	0.50	0.50

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as ND were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager