ALTON GEOSCIENCE
THE RESULTS TEAM

May 25, 1994

MOBIL OIL CORPORATION
2063 Main Street, #501
Oakley, California 94537

ALTON GEOSCIENCE
30A Lindbergh Avenue
Livermore, California 94550
Alton Project No. 30-0065

ATTN: MS. CHERINE FOUTCH

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

RE: QUARTERLY GROUND WATER MONITORING AND SAMPLING REPORT, SECOND QUARTER 1994

This report presents the results of joint fluid-level monitoring and ground water sampling with Kaprealian Engineering Inc. (KEI). On April 26, 1994, fluid-levels were measured from Monitoring Wells MW-1 through MW-12 and RW-1, with the exception of MW-3, MW-7, and MW-8 which were dry. In accordance with standard regulatory protocol, a ground water sample was not collected from Monitoring Well MW-2 and RW-1 due to the presence of free product. In addition, monitoring and sampling data was obtained from Unocal Station No. 0543 for Monitoring Wells MW-1 through MW-5. Ground water samples were submitted to a state-certified laboratory for analysis. The results are attached.

ATTACHMENTS:

- Figure 1: Vicinity Map
- Figure 2: Ground Water Elevation Contour Map
- Figure 3: Dissolved-Phase Hydrocarbon Concentrations
- Table 1: Summary of Ground Water Sampling and Analyses
- Appendix: Field Procedures, Laboratory Reports and Chain of Custody Records

Please call us at (510) 606-9150, if you have any questions regarding this project.

ALTON GEOSCIENCE
Northern California Operations

Russell J. Earle
Staff Environmental Scientist

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Associate

REGISTERED GEOLOGIST
JAMES A. LEHRMAN
No. 5032
STATE OF CALIFORNIA

The ongoing project services summarized in this report have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. The findings are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.

cc: Mr Craig Mayfield, Alameda County Flood Control and Water Control District
Mr. Lester Feldman, California Regional Water Quality Control Board, San Francisco Bay Region

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30A Lindbergh Avenue
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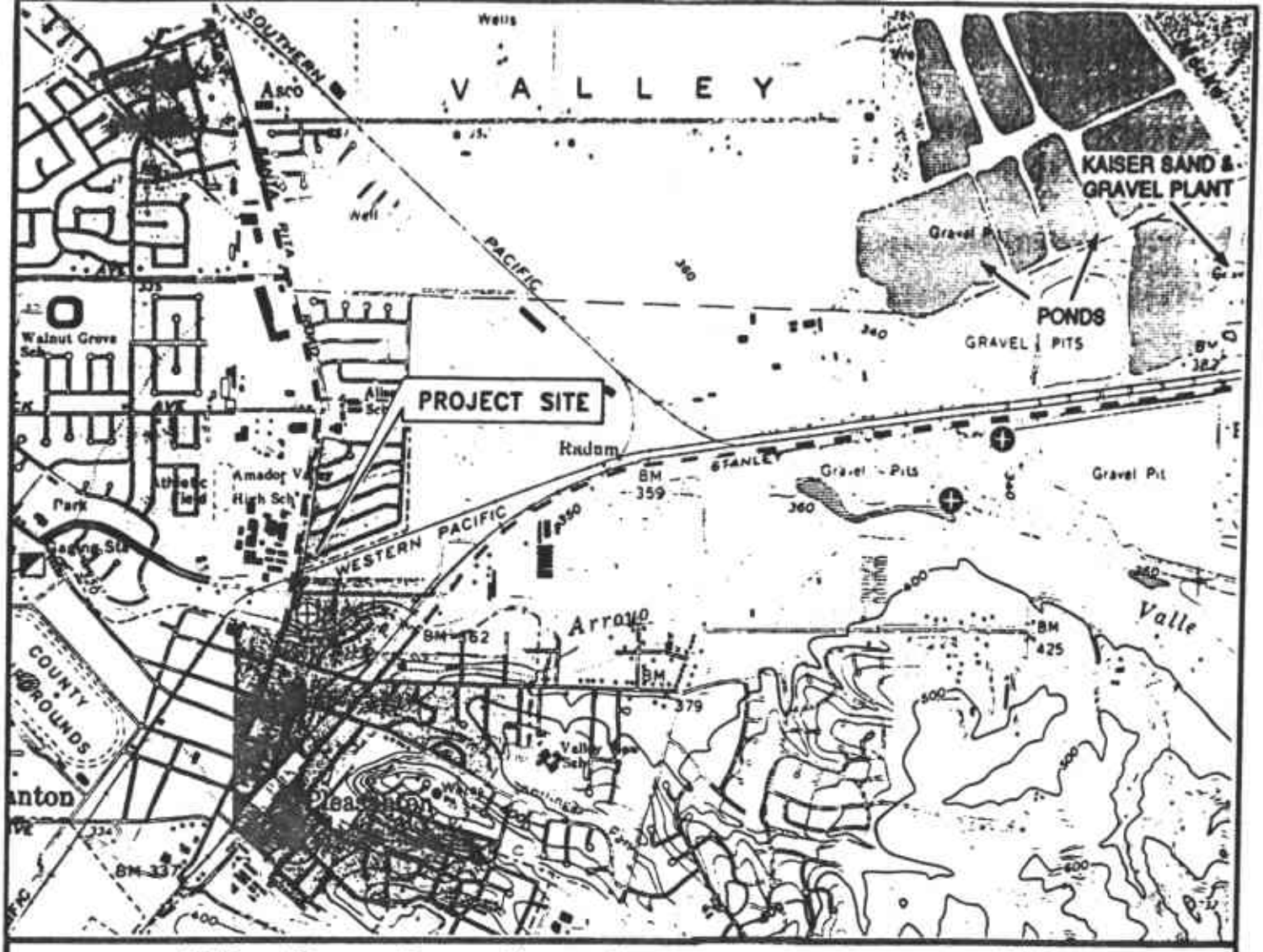
(510) 606-9150 • FAX (510) 606-9260



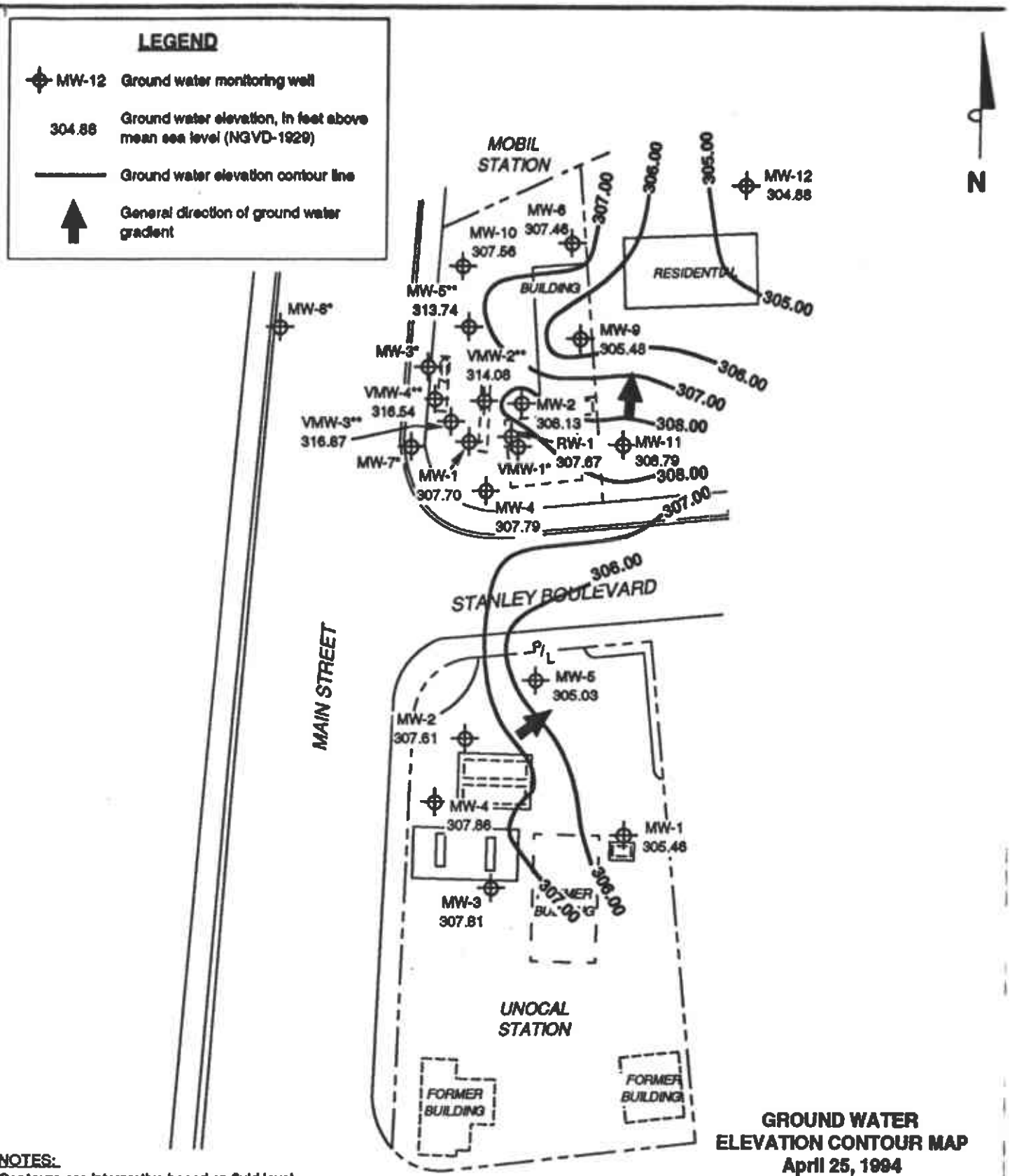
VICINITY MAP

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

ALTON GEOSCIENCE
Livermore, California

Project No. 30-0065

FIGURE 1



NOTES:
Contours are interpretive based on fluid level measurements collected April 25, 1994. Contour interval = 1.0 foot.
* = dry monitoring well.
** = monitoring well not used in contouring due to reading of water at well base extreme.

SCALE (feet)
0 30 60

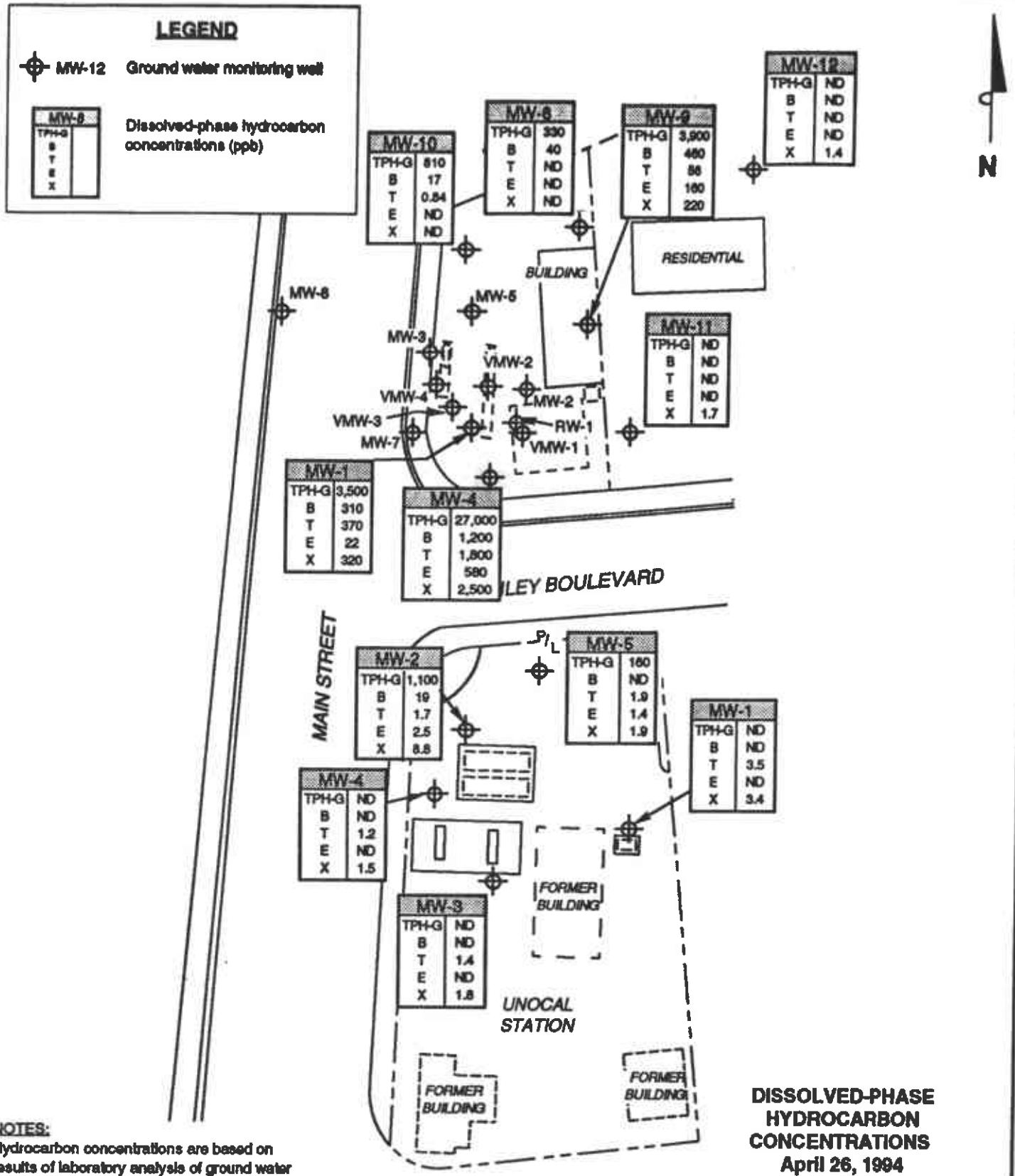
ALTON GEOSCIENCE
Livermore, California

GROUND WATER ELEVATION CONTOUR MAP
April 25, 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 5/25/94



NOTES:
Hydrocarbon concentrations are based on results of laboratory analysis of ground water samples collected April 26, 1994.
ND = not detected at detection limits stated in official laboratory reports. TPH-G= total petroleum hydrocarbons as gasoline; B = benzene; T = toluene; E = ethylbenzene; X = total xylenes; ppb = parts per billion.

SCALE (feet)
0 30 60

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS
April 26, 1994

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

FIGURE 3

ALTON GEOSCIENCE
Livermore, California

30-0065/Site Plan 5/25/94

Table 1

Summary of Ground Water Sampling and Analyses

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	—
	10/18/90		0.00	43.18	304.85	5,000	ND<1000	700	360	170	490	54	—	—
	08/06/91		0.00	38.65	309.38	2,600	—	310	340	110	340	ND<25	—	ND<5.0
	01/08/92		0.00	38.68	309.35	2,400	—	270	370	18	340	14	ND<50	
	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<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
	10/27/92		0.00	42.86	305.17	2,700	—	320	310	84	310	—	—	—
	01/22/93		0.00	34.86	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<0.5	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	—	—	—
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	—
	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	—	—	—	—	—	—	—	—	—
	01/22/93		Trace	35.55	312.90	—	—	—	—	—	—	—	—	—
	04/05/93		Trace	34.41	314.04	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Sampling and Analyses

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	07/06/93		Trace	35.98	312.47	—	—	—	—	—	—	—	—	—
(con't)	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	—	—	—	—	—	—	—	—	—
MW-3	04/12/90	347.97	0.00	23.18	324.79	2,100	—	32	56	31	170	117	ND<10	—
	10/18/90		0.00	14.28	333.69	110	ND<1000	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	—	—	—	—	—	—	—	—	—	—
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<25	—	ND<5.0
	01/08/92		0.00	38.65	309.42	3,400	—	600	880	220	1,100	9.2	ND<50	—
	04/30/92		0.00	39.88	308.19	7,200	—	650	1,200	210	1,200	ND<50	—	—
	07/31/92		0.00	43.07	305.00	3,800	—	320	340	120	360	—	—	—

Table 1

Summary of Ground Water Sampling and Analyses

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	10/27/92		0.00	42.78	305.29	9,000	—	440	750	190	900	—	—	—
(con't)	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	—	—	—
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	—	—	—	—	—	—	—	—	—	—
	11/30/93		—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		0.00	34.23	313.74	—	—	—	—	—	—	—	—	—
MW-6	10/18/90	348.23	0.00	43.60	304.63	3,000	ND<1000	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<5.0

Table 1

Summary of Ground Water Sampling and Analyses

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-6	01/08/92		0.00	39.18	309.05	370	—	81	3.9	4.5	2.9	5.4	ND<50	—
(con't)	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<0.5	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	0.5	—	—	—
	07/06/93		0.00	36.01	312.22	99	—	1.4	0.54	ND<0.5	ND<0.5	—	—	—
	11/30/93		0.00	38.36	309.87	86	—	9.1	ND<0.5	ND<0.5	ND<0.5	—	—	—
	01/27/94		0.00	42.57	305.66	140	—	1.7	ND<0.5	ND<0.5	ND<0.5	—	—	—
	04/25/94		0.00	40.77	307.46	—	—	—	—	—	—	—	—	—
	04/26/94		—	—	—	330	—	40	ND	ND	ND	—	—	—
MW-7	10/18/90	347.90	0.00	9.26	338.64	ND<50	ND<1000	0	0.5	ND<0.3	0.8	ND<0.5	—	—
	08/06/91		—	Dry	—	—	—	—	—	—	—	—	—	—
	01/08/92		0.00	23.79	324.11	220	—	7.8	1.7	ND<0.3	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	—	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Sampling and Analyses

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	10/18/90	348.90	0.00	11.30	337.60	900	ND<1000	3	5	7	62	ND<0.5	—	—
	08/06/91		—	Dry	—	—	—	—	—	—	—	—	—	—
	01/08/92		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/30/92		—	Dry	—	—	—	—	—	—	—	—	—	—
	07/31/92		0.00	12.04	336.86	270*	—	ND<0.5	ND<0.5	ND<0.5	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<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
	11/30/93		—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		—	Dry	—	—	—	—	—	—	—	—	—	—
MW-9	02/04/92	348.53	0.00	43.54	304.99	16,000	—	3,000	740	1,200	2,500	68	—	ND<5.0
	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	—	—	—

Table 1

Summary of Ground Water Sampling and Analyses

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-9	04/25/94		0.00	43.05	305.48	—	—	—	—	—	—	—	—	—
(con't)	04/26/94		—	—	—	3,900	—	460	56	160	220	—	—	—
MW-10	11/30/93	347.95	0.00	37.97	309.98	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
	01/27/94		0.00	42.16	305.79	ND<50	—	ND<0.5	ND<0.5	ND<0.5	1.2	—	—	—
	04/25/94		0.00	40.39	307.56	—	—	—	—	—	—	—	—	—
	04/26/94		—	—	—	810	—	17	0.84	ND	ND	—	—	—
MW-11	11/30/93	347.56	0.00	38.41	309.15	ND<50	—	ND<0.5	ND<0.5	ND<0.5	1.6	—	—	—
	01/27/94		0.00	38.02	309.54	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
	04/25/94		0.00	38.77	308.79	—	—	—	—	—	—	—	—	—
	04/26/94		—	—	—	ND	—	ND	ND	ND	1.7	—	—	—
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<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
	04/25/94		0.00	42.27	304.88	—	—	—	—	—	—	—	—	—
	04/26/94		—	—	—	ND	—	ND	ND	ND	1.4	—	—	—
VMW-1	11/30/93	348.05	—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		—	Dry	—	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Sampling and Analyses

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	—	—	—	—	—	—	—	—	—
VMW-3	11/30/93	348.10	—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		Trace	31.23	316.87	—	—	—	—	—	—	—	—	—
VMW-4	11/30/93	347.95	—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		—	31.41	316.54	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—	—	—	—

Table 1

Summary of Ground Water Sampling and Analyses

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#	01/27/94		0.00	43.41	307.37	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
(con't)	04/25/94		0.00	45.32	305.46	ND	—	ND	3.5	ND	3.4	—	—	—
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	—	—	—	—	—	—	—	—	—	—	—	—
	01/27/94		0.00	43.15	306.36	1,500	—	28	9.0	ND<0.5	20	—	—	—
	04/25/94		0.00	41.90	307.61	1,100	—	19	1.7	2.5	8.8	—	—	—
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<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
	04/25/94		0.00	43.23	307.81	ND	—	ND	1.4	ND	1.8	—	—	—

Table 1

Summary of Ground Water Sampling and Analyses

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<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
	04/25/94		0.00	42.28	307.86	ND	—	ND	1.2	ND	1.5	—	—	—
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	—	—	—

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 Kapreelian Engineering at former Unocal Station #0543; resurveyed by Kier & Wright Civil Engineers & Surveyors, Inc. 09/20/93.

APPENDIX

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

APPENDIX

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 DOT-approved 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

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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: Jim Lehrman

Client Project ID: Mobil 04-H6J / 3000065
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 404-1238

Sampled: Apr 26, 1994
Received: Apr 27, 1994
Reported: May 4, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 404-1238 MW-12	Sample I.D. 404-1239 MW-11	Sample I.D. 404-1240 MW-10	Sample I.D. 404-1241 MW-6	Sample I.D. 404-1242 MW-4	Sample I.D. 404-1243 MW-1
Purgeable Hydrocarbons	50	N.D.	N.D.	810	330	27,000	3,500
Benzene	0.5	N.D.	N.D.	17	40	1,200	310
Toluene	0.5	N.D.	N.D.	0.84	N.D.	1,800	370
Ethyl Benzene	0.5	N.D.	N.D.	N.D.	N.D.	580	22
Total Xylenes	0.5	1.4	1.7	N.D.	N.D.	2,500	320
Chromatogram Pattern:		--	--	Gasoline	Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	2.0	100	5.0
Date Analyzed:	5/2/94	5/2/94	5/2/94	5/3/94	5/3/94	5/2/94
Instrument Identification:	HP-2	HP-2	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	95	93	143*	101	102	95

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

Please Note:
* High surrogate recovery due to matrix interference from multiple peak coelution.

4041238.ALT <1>

Sequoia Analytical

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1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience	Client Project ID:	Mobil 04-H6J / 3000065	Sampled: Apr 26, 1994
30-A Lindbergh Ave.	Sample Matrix:	Water	Received: Apr 27, 1994
Livermore, CA 94550	Analysis Method:	EPA 5030/8015/8020	Reported: May 4, 1994
Attention: Jim Lehrman	First Sample #:	404-1244	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 404-1244 MW-9
Purgeable Hydrocarbons	50	3,900
Benzene	0.5	460
Toluene	0.5	56
Ethyl Benzene	0.5	160
Total Xylenes	0.5	220
Chromatogram Pattern:		Gasoline

Quality Control Data

Report Limit Multiplication Factor:	20
Date Analyzed:	5/3/94
Instrument Identification:	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	105

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

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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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: Jim Lehrman

Client Project ID: Mobil 04-H6J / 3000065
Matrix: Liquid

QC Sample Group: 4041238-44

Reported: May 4, 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#:	4041250	4041250	4041250	4041250
Date Prepared:	5/2/94	5/2/94	5/2/94	5/2/94
Date Analyzed:	5/2/94	5/2/94	5/2/94	5/2/94
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:	90	95	95	95
Matrix Spike Duplicate % Recovery:	90	95	95	93
Relative % Difference:	0.0	0.0	0.0	2.1
LCS Batch#:	1LCS050294	1LCS050294	1LCS050294	1LCS050294
Date Prepared:	5/2/94	5/2/94	5/2/94	5/2/94
Date Analyzed:	5/2/94	5/2/94	5/2/94	5/2/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	96	97	97	99
% 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.

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: ALTON GEO SCIENCE	Site SS #: 114-HLJ	Phase of Work:
Address: 30A LINDBERGH AVE	Mobil Site Address: 1024 MAIN ST PLEASANTON, CALIF	☐ A. Emrg. Response
City: LIVERMORE State: CA Zip Code:	Mobil Engineer: CHERYL J.	☐ B. Site Assessment
Telephone: 510-606-9156 FAX #: 510-606-7360	Consultant Project #: 30-1005.5	☐ C. Remediation
Project Contact: JIM LEHRMAN Sampled by: M. Reedburn	Sequoia's Work Order Release #:	☒ D. Monitoring
		☐ E. OGC/Claims

Turnaround Time: ☑ Standard TAT (5 - 10 Working Days)
☐ Other _____

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2				Comments
1. MW-13	4/26/94	H2O	2		X						4011238 AB	
2. MW-11												1239
3. MW-10												1240
4. MW-6												1241
5. MW-4												1242
6. MW-1												1243
7. MW-9												1244
8.												
9.												
10.												

Relinquished By:	Date: 4-27-94	Time:	Received By: Steve Tan	Date: 4/27/94	Time: 10'45
Relinquished By: Steve Tan	Date: 4/27	Time:	Received By: D Phillips	Date: 4-27	Time: 12'50
Relinquished By: D Phillips	Date: 4-27	Time: 4:50	Received By:	Date:	Time:

Method of Shipment

Sequoia Analytical
680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Client Project ID: Unocal 0843, 992 Main St, Pleasanton
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 404-1090

Sampled: Apr 25, 199
Received: Apr 25, 1994
Reported: May 9, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 404-1090 MW1	Sample I.D. 404-1091 MW2	Sample I.D. 404-1092 MW3	Sample I.D. 404-1093 MW4	Sample I.D. 404-1094 MW5	Sample I.D. Matrix Blank Blk4041369
Purgeable Hydrocarbons	50	N.D.	1,100	N.D.	N.D.	160	
Benzene	0.5	N.D.	19	N.D.	N.D.	N.D.	
Toluene	0.5	3.8	1.7	1.4	1.2	1.8	
Ethyl Benzene	0.5	N.D.	2.5	N.D.	N.D.	1.4	
Total Xylenes	0.5	3.4	6.3	1.8	1.5	1.9	
Chromatogram Pattern:		--	Gasoline	--	--	Gasoline	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	5/3/94	5/4/94	5/3/94	5/3/94	5/3/94	5/3/94
Instrument Identification:	HP-4	HP-2	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	99	105	95	91	90	96

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

Dan S. Kemp
Project Manager

4041090.MPD <1>

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: Jim Lehrman

Client Project ID: Mobil 04-H6J / 3000065
Matrix: Liquid
QC Sample Group: 4041238-44

Reported: May 4, 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#:	4041250	4041250	4041250	4041250
Date Prepared:	5/2/94	5/2/94	5/2/94	5/2/94
Date Analyzed:	5/2/94	5/2/94	5/2/94	5/2/94
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:	90	95	95	95
Matrix Spike Duplicate % Recovery:	90	95	95	93
Relative % Difference:	0.0	0.0	0.0	2.1
LCS Batch#:	1LCS050294	1LCS050294	1LCS050294	1LCS050294
Date Prepared:	5/2/94	5/2/94	5/2/94	5/2/94
Date Analyzed:	5/2/94	5/2/94	5/2/94	5/2/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	96	97	97	99
% 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.