ALTON GEOSCIENCE
THE RESULTS TEAM

July 27, 1994

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

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, THIRD QUARTER 1994

Dear Ms. Foutch:

This quarterly report presents the results of joint fluid-level monitoring and ground water sampling with Kaprealian Engineering Inc. (KEI). On July 8, 1994, fluid-levels were measured in nine monitoring/recovery wells and ground water samples were collected from seven monitoring/recovery wells 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 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. Fluids recovered during sampling activities were stored onsite in labeled, Department of Transportation approved drums prior to transport for offsite recycling. This report was prepared in compliance with the requirements of the Alameda County Flood Control and Water Conservation District.

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 Analysis
- Appendix: Field Procedures, Laboratory Reports and Chain of Custody Records

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

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

Sincerely,

ALTON GEOSCIENCE

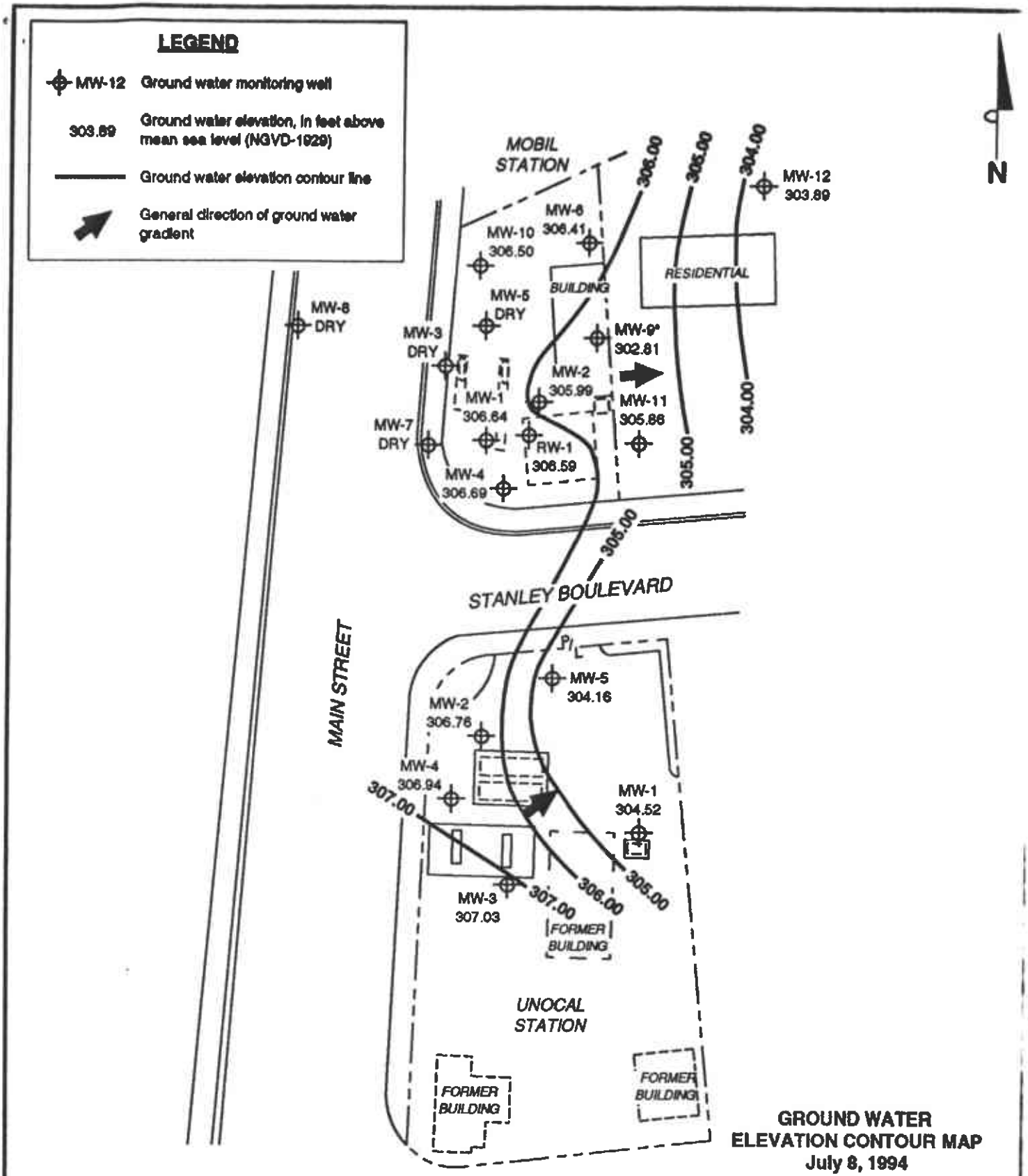
Ron A. Scheele
Geologist

Allan G. Campbell, RG
Supervising Associate

Attachments
M:\projects\Mobil\04h6jr4.qfm

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

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.



NOTES:
Contours are interpretive based on fluid level measurements collected July 8, 1994.
Contour interval = 1.0 foot.
* = anomalous data; monitoring well not used in contouring.

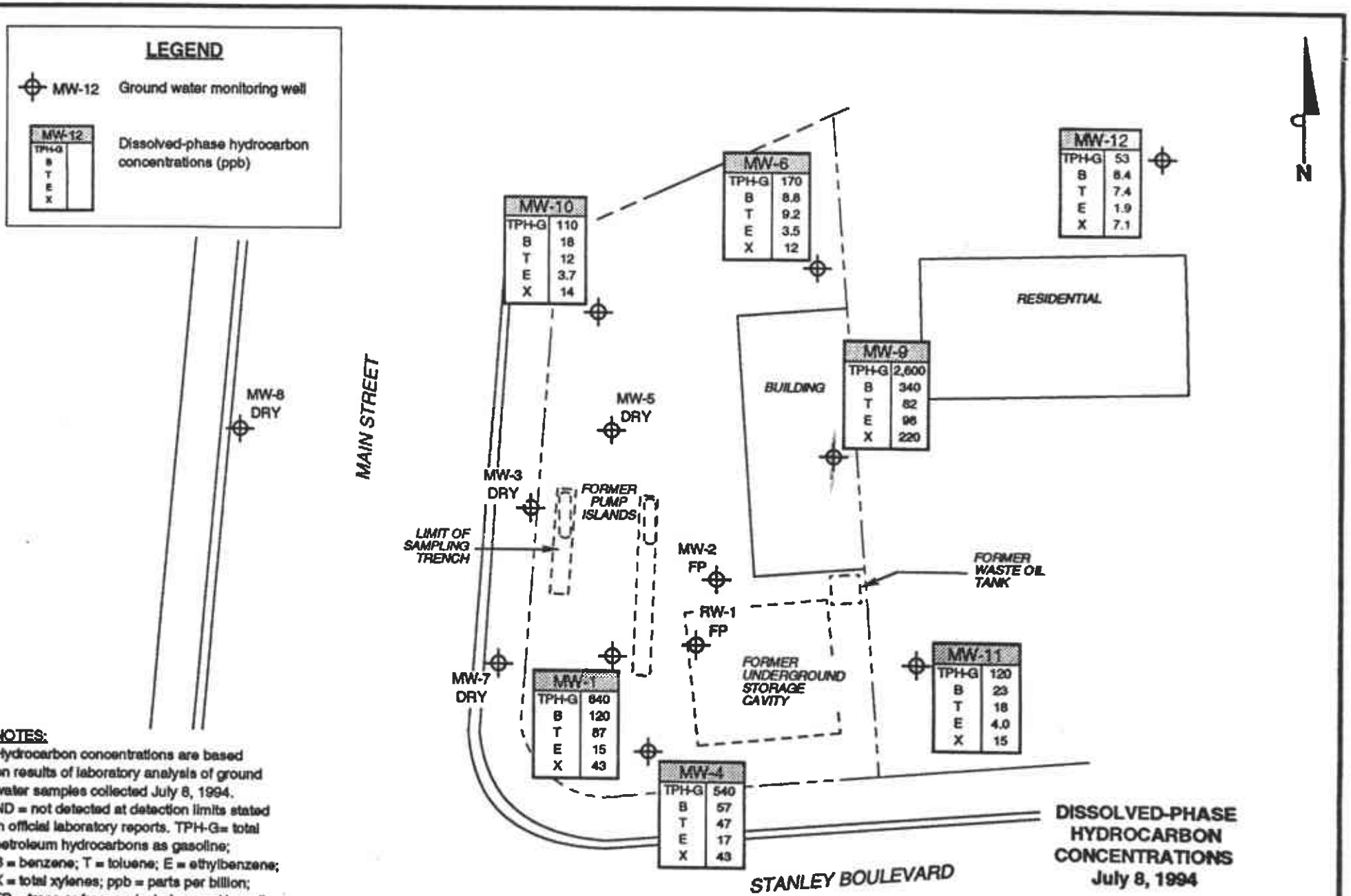
ALTON GEOSCIENCE
Livermore, California

GROUND WATER ELEVATION CONTOUR MAP
July 8, 1994

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

FIGURE 1

30-0065/Site Plan 7-25-94



NOTES:
Hydrocarbon concentrations are based on results of laboratory analysis of ground water samples collected July 8, 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;
FP = trace or free product observed in well.

ALTON GEOSCIENCE
Livermore, California

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS
July 8, 1994

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

FIGURE 2

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	—
	10/18/90		0.00	43.18	304.85	5,000	ND<1000	700	360	170	480	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	34.88	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<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	—	—	—
	07/08/94		0.00	41.39	306.64	640	—	120	87	15	43	—	—	—
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	—	—	—	—	—	—	—	—	—

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 (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	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—	—
	07/08/94		—	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

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	01/08/92		0.00	38.65	309.42	3,400	—	600	880	220	1,100	9.2	ND<50	—
(con't)	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	—	—	—
	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	—	—	—
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	—	—	—	—	—	—	—	—	—	—

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	04/25/94		0.00	34.23	313.74	—	—	—	—	—	—	—	—	—
(con't)	07/08/94		—	Dry	—	—	—	—	—	—	—	—	—	—
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
	01/08/92		0.00	39.18	309.05	370	—	81	3.9	4.5	2.9	5.4	ND<50	—
	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	—	—	—
	07/08/94		0.00	41.82	306.41	170	—	8.8	9.2	3.5	12	—	—	—
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	—	—	—	—	—	—	—	—	—	—

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 (con't)	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<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	—	—	—	—	—	—	—	—	—	—
	07/08/94		—	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	—	—

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-9	07/31/92		0.00	47.36	301.17	93	—	1,800	1,900	620	940	—	—	—
(con't)	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	—	—	—
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	—	—	—
	07/08/94		0.00	41.45	306.50	110	—	18	12	3.7	14	—	—	—
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	—	—	—
	07/08/94		0.00	41.70	305.86	120	—	23	18	4.0	15	—	—	—

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-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	—	—	—
	07/08/94		0.00	43.26	303.89	53	—	8.4	7.4	1.9	7.1	—	—	—
VMW-1	11/30/93	348.05	—	Dry	—	—	—	—	—	—	—	—	—	—
	01/27/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	04/25/94		—	Dry	—	—	—	—	—	—	—	—	—	—
	07/08/94		—	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	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—	—

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-4	04/25/94		—	31.41	316.54	—	—	—	—	—	—	—	—	—
(con't)	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	—	—	—	—	—	—	—	—	—
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<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
	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	—	—	—	—	—	—	—	—	—
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	—	—	—

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#	05/14/93		0.00	37.49	312.34	—	—	—	—	—	—	—	—	—
(con't)	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	—	—	—
	07/08/94		0.00	42.75	306.76	—	—	—	—	—	—	—	—	—
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	—	—	—
	07/08/94		0.00	44.01	307.03	—	—	—	—	—	—	—	—	—
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	—	—	—
	07/08/94		0.00	43.2	306.94	—	—	—	—	—	—	—	—	—

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-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	—	—	—	—	—	—	—	—	—

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) 921-9200, FAX (916) 921-0100

JUL 19 1994

Alton Geoscience	Client Project ID:	Mobil 04-H6J[illegible]	Sampled: Jul 8, 199
30-A Lindbergh Ave.	Sample Matrix:	Water	Received: Jul 12, 199
Livermore, CA 94550	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Jul 18, 199
Attention: Ron Scheele	First Sample #:	4G55001	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4G55001 MW-12	Sample I.D. 4G55002 MW-11	Sample I.D. 4G55003 MW-6	Sample I.D. 4G55004 MW-10	Sample I.D. 4G55005 MW-1	Sample I.D. 4G55006 MW-9
Purgeable Hydrocarbons	50	53	120	170	110	640	2,600
Benzene	0.50	8.4	23	8.8	18	120	340
Toluene	0.50	7.4	18	9.2	12	87	82
Ethyl Benzene	0.50	1.9	4.0	3.5	3.7	15	96
Total Xylenes	0.50	7.1	15	12	14	43	220
Chromatogram Pattern:		Gas	Gas	Gas	Gas	Gas	Gas

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	5.0	10
Date Analyzed:	7/13/94	7/13/94	7/14/94	7/13/94	7/13/94	7/13/94
Instrument Identification:	GCHP-3	GCHP-3	GCHP-20	GCHP-3	GCHP-3	GCHP-17
Surrogate Recovery, %: (QC Limits = 70-130%)	123	130	123	124	136	103

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

SEQUOIA ANALYTICAL

Andrea Pulcher
Project Manager

4G55001.AAA <1>

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: Ron Scheele

Client Project ID: Mobil 04-H6J
Matrix: Liquid

QC Sample Group: 4G55001-2, 4-5

Reported: Jul 18, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	G4G47003	G4G47003	G4G47003	G4G47003
Date Prepared:	N/A	N/A	N/A	N/A
Date Analyzed:	7/13/94	7/13/94	7/13/94	7/13/94
Instrument I.D.#:	GCHP-03	GCHP-03	GCHP-03	GCHP-03
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	100	110	103
Matrix Spike Duplicate % Recovery:	110	110	110	107
Relative % Difference:	9.5	9.5	0.0	3.8

LCS Batch#: NOT APPLICABLE

Date Prepared:
Date Analyzed:
Instrument I.D.#:

LCS % Recovery:

% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Andrea Fulcher
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

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: Ron Scheele

Client Project ID: Mobil 04-H6J
Matrix: Liquid
QC Sample Group: 4G55006

Reported: Jul 18, 199-

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	G4G47004	G4G47004	G4G47004	G4G47004
Date Prepared:	N/A	N/A	N/A	N/A
Date Analyzed:	7/13/94	7/13/94	7/13/94	7/13/94
Instrument I.D.#:	GCHP-03	GCHP-03	GCHP-03	GCHP-03
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	100	98	97
Matrix Spike Duplicate % Recovery:	100	100	98	97
Relative % Difference:	0.0	0.0	0.0	0.0

LCS Batch#: NOT APPLICABLE
Date Prepared:
Date Analyzed:
Instrument I.D.#:
LCS % Recovery:

% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Andrea Fulcher
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

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: Ron Scheele

Client Project ID: Mobil 04-H6J
Matrix: Liquid

QC Sample Group: 4G55003, 07

Reported: Jul 18, 199

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	G4G47003	G4G47003	G4G47003	G4G47003
Date Prepared:	N/A	N/A	N/A	N/A
Date Analyzed:	7/14/94	7/14/94	7/14/94	7/14/94
Instrument I.D.#:	GCHP-03	GCHP-03	GCHP-03	GCHP-03
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	98	99	100	103
Matrix Spike Duplicate % Recovery:	95	95	99	97
Relative % Difference:	3.1	4.1	1.0	6.0

LCS Batch#: NOT APPLICABLE

Date Prepared:
Date Analyzed:
Instrument I.D.#:

LCS % Recovery:

% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Andrea Fulcher
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 Geoscience	Site SS #: 04-HGJ	Phase of Work:
Address: 30A Lindbergh Ave.	Mobil Site Address: 1024 Main St. Pleasanton CA	☐ A. Emrg. Response
City: Livermore State: CA Zip Code: 94550	Mobil Engineer: Cherine Fouteh	☐ B. Site Assessment
Telephone: (510) 606-9150 FAX #:	Consultant Project #: 30-0065	☐ C. Remediation
Project Contact: Ron Scheele Sampled by: Bill Bassett	Sequoia's Work Order Release #:	☒ D. Monitoring
		☐ E. OGC/Claims

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

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-12	7/8/94	water	2	01 A-B	T				9407550
2. MW-11				02					
3. MW-6				03					
4. MW-10				04					
5. MW-1				05					
6. MW-9				06					
7. MW-4				07					
8.									
9.									
10.									

Analyses Requested

1:30

Relinquished By: Bill Bassett	Date: 7/12/94	Time: 10:10 AM	Received By: Cherine Fouteh	Date: 7-12-94	Time: 10:10
Relinquished By: Cherine Fouteh	Date: 7-12-94	Time: 1:30	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: Phil	Date: 7-12-94	Time: 1330

Method of Shipment _____