

July 6, 1993

Mr. Ted Klink City of Pleasanton Fire Department P.O. Box 320 Pleasanton, California 94566-0802

30-0065-10

Subject:

Quarterly Ground Water Monitoring and Sampling Report

Former Mobil Station 04-H6J

1024 Main Street Pleasanton, California

Dear Mr. Klink:

The enclosed report presents the results of quarterly ground water monitoring and sampling performed April 5, 1993, by Alton Geoscience at former Mobil Station 04-H6J, 1024 Main Street, Pleasanton, California.

Please call if you have questions or comments regarding this report.

Sincerely,

ALTON GEOSCIENCE

Eric R. Schaper

Project Hydrogeologist

cc:

Ms. Cherine Foutch - Mobil Oil Corporation

Mr. Lester Feldman - RWQCB - San Francisco Bay Region

Mr. Barton and Mrs. Bonnie Yates - Property Owner

Mr. Joe Ramia - Adjacent Property Owner

m:\...\mobil\04-h6j\q2.93

QUARTERLY PROGRESS REPORT, APRIL THROUGH JUNE 1993

June 1, 1993

FORMER MOBIL STATION 04-H6J 1024 Main Street Pleasanton, California

Alton Project No. 30-0065

Prepared For:

MOBIL OIL CORPORATION 2063 Main Street, #501 Oakley, California 94561

By:

Eric R. Schaper

Project Hydrogeologist

Will. I she

William T. Hunt, RG, CEG Vice President, Operations

ALTON GEOSCIENCE 5870 Stoneridge Drive, Suite 6 Pleasanton, California 94588



June 1, 1993

Mobil Oil Corporation 2063 Main Street, #501 Oakley, California 94561

30-0065-10

ATTN: MS. CHERINE FOUTCH

SITE: FORMER MOBIL STATION 04-H6J

1024 Main Street

Pleasanton, California

RE: QUARTERLY PROGRESS REPORT, APRIL THROUGH JUNE 1993

Dear Ms. Foutch:

This quarterly progress report presents the results of fluid-level monitoring and ground water sampling for former Mobil Station 04-H6J, located at 1024 Main Street in Pleasanton, California (Figure 1). The work at this site is performed in accordance with the Alameda County Flood Control and Water Conservation District and the Regional Water Quality Control Board, San Francisco Bay Region requirements.

This report is presented in the following sections:

1.0: Site Description
2.0: Fluid-Level Monitoring
3.0: Ground Water Sampling
4.0: Fluid Disposal

5.0: Findings and Conclusions

6.0: List of Attachments

Rev: 05/29/93

1.0 SITE DESCRIPTION

The site is former Mobil Station 04-H6J which is presently a fenced vacant lot. Currently, 9 onsite and 1 offsite ground water monitoring wells are present at the site (Figure 2).

2.0 FLUID-LEVEL MONITORING

Fluid-level monitoring is performed quarterly from monitoring wells located onsite. See Table 1 for fluid-level monitoring data collected from April 12, 1990 through April 5, 1993. See Figure 3 for the ground water elevation contour map developed from the April 5, 1993, fluid-level monitoring data. Refer to Appendix A for a description of fluid-level monitoring procedures.

3.0 GROUND WATER SAMPLING

On April 5, 1993, ground water samples were collected at the site from wells which did not contain free product in accordance with standard regulatory protocol (Appendix A). Ground water samples were submitted to a state-certified laboratory and analyzed for total petroleum hydrocarbons as gasoline (TPH-G) using EPA Methods 5030 and 8015 and benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Methods 5030 and 8020. The results of ground water sample analyses are listed in Table 1 and are shown in Figure 4. Refer to Appendix B for a description of the analytical methods, and copies of the official Laboratory Reports and Chain of Custody Records.

4.0 FLUID DISPOSAL

Fluids recovered during ground water sampling activities are stored onsite in Department of Transportation (DOT)-approved drums, then transported by vacuum truck to a Mobil-approved disposal/recycling facility.

5.0 FINDINGS AND CONCLUSIONS

- The average depth to ground water at the site is 34.6 feet below grade. The local ground water gradient varies from northwest to southeast and on April 5, 1993, was approximately 0.14 foot per foot to the east-southeast. The ground water gradient appears to be locally affected by fluid discharge into the Arroyo Valle by sand and gravel pit operations to the east of the site. The ground water depth and gradient during this reporting period are consistent with previous results.
- A sheen of free product was present in onsite Monitoring Well MW-2.

2

Dissolved-phase TPH-G and BTEX concentrations were detected in Monitoring Wells MW-1, MW-4, MW-6, and MW-9 (a maximum TPH-G concentration of 7,900 parts per billion [ppb] in MW-9). Compared to previous results, dissolved-phase hydrocarbon concentrations remained relatively unchanged in Monitoring Well MW-6, increased in MW-9 and MW-1, and decreased in MW-4. The lateral extent of dissolved-phase hydrocarbons are not characterized.

6.0 LIST OF ATTACHMENTS

Site Vicinity Map Figure 1:

Site Plan Figure 2:

Ground Water Elevation Contour Map, April 5, 1993 Figure 3:

Dissolved-Phase Hydrocarbon Concentrations, April 5, 1993 Figure 4:

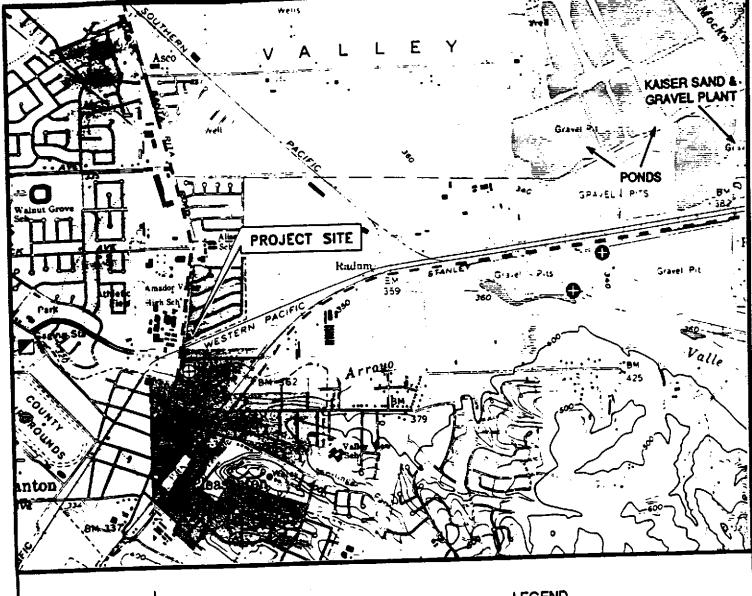
Summary of Ground Water Sampling and Analyses Table 1:

General Field Procedures Appendix A:

Official Laboratory Reports and Chain of Custody Records Appendix B:

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 and conclusions 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.

3







Source: U.S.G.S. Map Dublin/Livermore Quadrangles California 7.5 Minute Series



ALTON GEOSCIENCE
Pleasanton, California



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

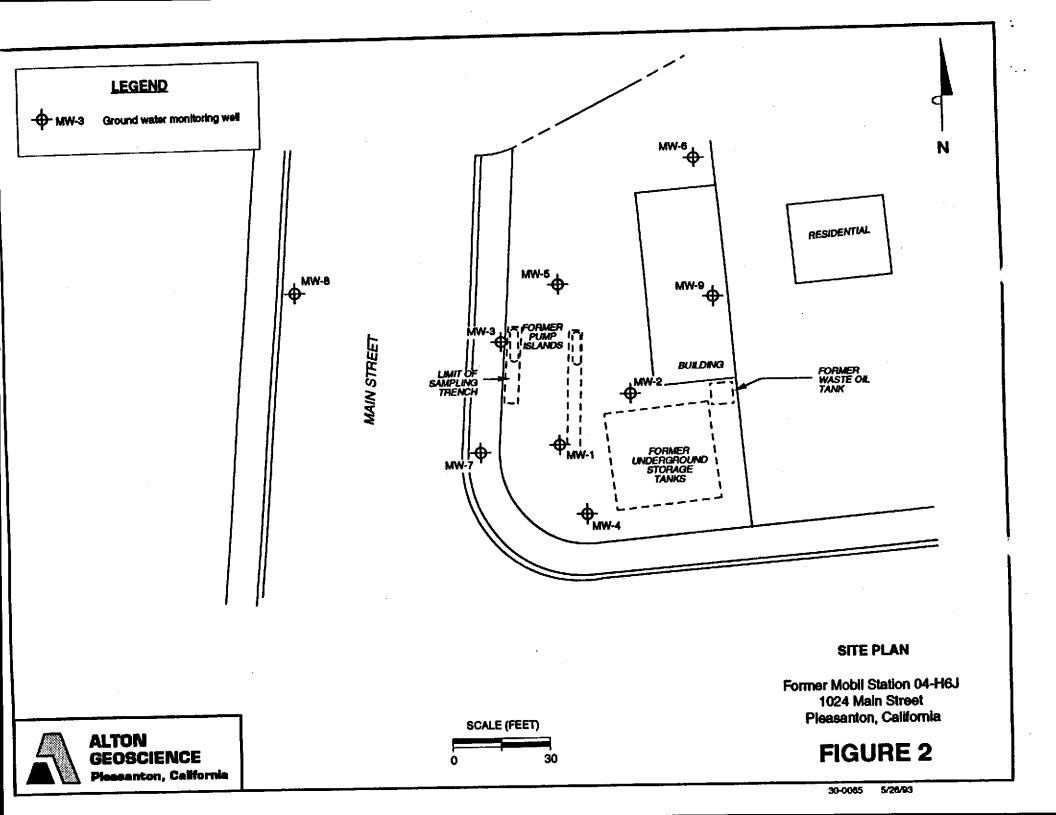


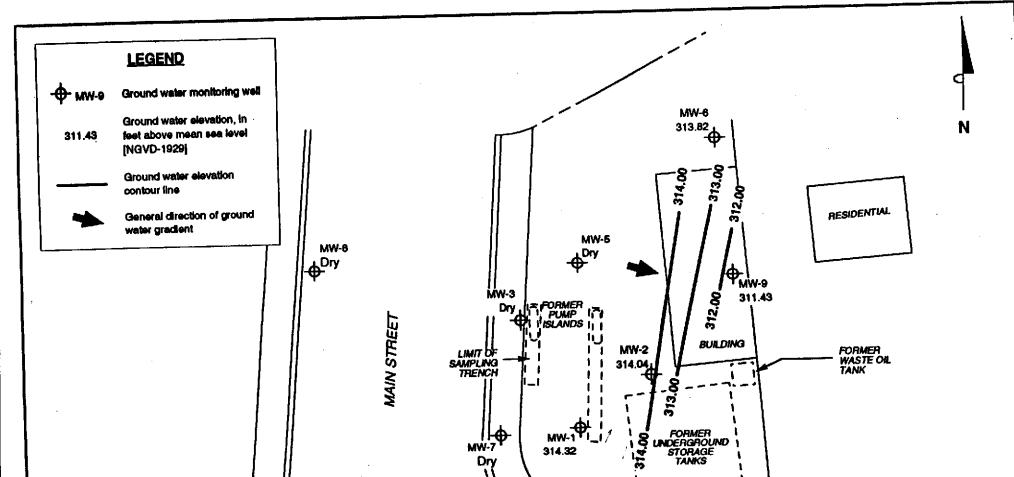
Former Mobil Station 04-H6J 1024 Main Street Pleasanton, California

FIGURE 1

Project No. 31-0065

Quadrangle location





NOTES:

Contour lines are interpretive based on fluid level measurements collected April 5, 1993. Contour interval = 1.0 foot.

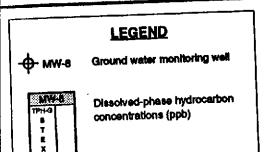




GROUND WATER
ELEVATION CONTOUR MAP
April 5, 1993

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

FIGURE 3



Dry

NOTES:

Hydrocarbon concentrations are based on results of leboratory analysis of ground water samples collected April 5, 1993. ND = not detected at detection limits stated In official Laboratory Reports. TPH-G= total petroleum hydrocerbons as gasoline; B = benzene; T = toluene; E = ethythenzene; X = total xylenes; ppb = perte per billion.



ALTON GEOSCIENCE Pleasanton, California

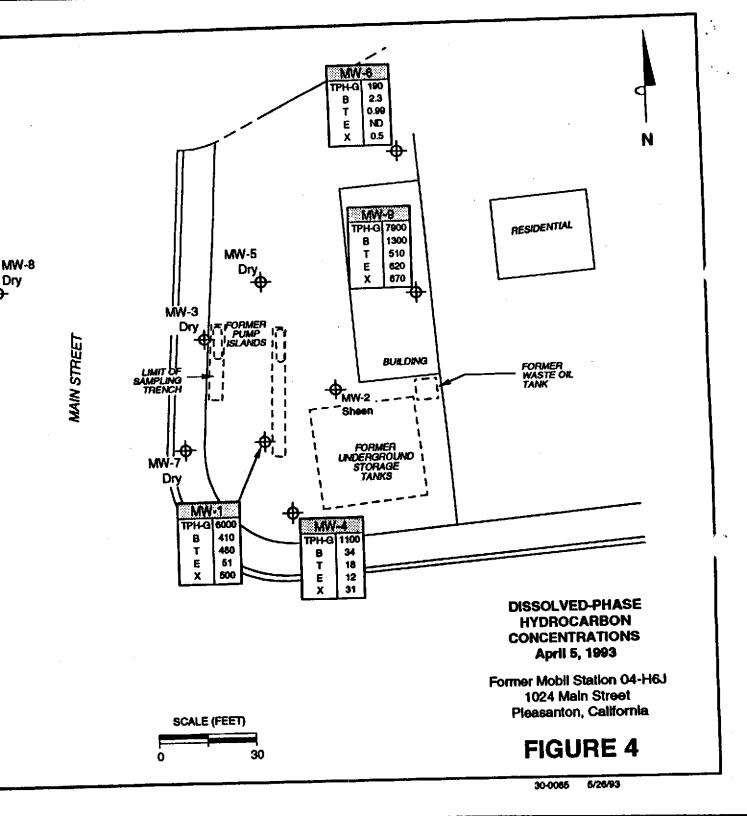


Table 1 Summary of Ground Water Sampling and Analyses

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

	Date of Sampling	Casing Elevation (feet)	Free Product (feet)	Depth to Water (feet)	Ground Water Elevation (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Leed (ppb)	SAL
	04/12/90 10/18/90 06/06/91 01/06/92 04/30/92 07/31/92 10/27/92 01/22/93 04/06/93	348.03	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	43.57 43.18 38.65 38.68 39.93 43.05 42.86 34.88 33.71	304.46 304.85 309.38 309.35 308.10 304.98 305.17 313.15 314.32	2,600 2,400 1,300 ND<50 2,700 2,800 6,000	ND<1000	73 700 310 270 150 ND<0.5 320 190 410	13 360 340 370 120 ND<0.5 310 340 460	3 170 110 18 12 ND<0.5 84 87 51	180 480 340 340 160 ND<0.5 310 320 500	45 54 ND-25 14 4.3 — — —	ND<10 ND<50 ND<10	ND<5.0	SAL SAL SEQ SEQ SEQ SEQ SEQ SEQ
MW-2	04/12/90 10/18/90 08/08/91 01/08/92 04/30/92 07/31/92 10/27/92 01/22/93	348,45	0.00 0.00 0.00 0.02 0.00 0.15 Sheen Sheen	44.14 43.18 39.19 39.40 40.50 43.64 43.53 35.55 34.41	304.31 305.27 309.26 309.07 307.95 304.93 304.92 312.90 314.04	64,000 83,000 160,000 — 71,000 — — —	10,000	5,500 6,800 16,000 — 9,200 — —	7,600 9,100 25,000 — 19,000 — — ——————————————————————————————	1,900 2,400 4,300 — 3,700 — — —	11,000 19,000 — 15,000 — — —	460 330 — 420 — —	-	330	SAL SEQ SEQ —
MW-3	04/12/90 10/18/90 08/06/91 01/08/92 04/30/92 07/31/92 01/22/93 04/05/93		0.00 0.00 0.00 0.00	23.18 14.28 Dry 32.36 Dry Dry Dry 27.30 Dry	324.79 333.69 — 315.61 — — — 320.67	2,100 110 — 680 — — — 2,600	-	240	56 3 26 300	31 1 8.5 170	170 5 72 440 	117 2 - 5.7 - - - -	ND<10	-	SAL SEQ SEQ

NOTES: ppb = parts per billion (μφ/l)

TPH-G = total petroleum hydrocarbone as gasoline TPH-D = total petroleum hydrocarbone as diesel

ND = not detected at detection limits stated in official laboratory reports

- not measured/not analyzed/not applicable

1,2-DCE - 1,2-Dichloroethane

reported by laboratory as non-gasoline mixture

-- well inaccessible

SAL = Superior Analytical Laboratories

SEQ - Sequoia Analytical

Casing and ground water elevations are in feet above mean sea level (NGVD-1929).

Table 1 **Summary of Ground Water Sampling and Analyses**

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

Well ID	Date of Sampling	Casing Elevation (feet)	Free Product (feet)	Depth to Water (feet)	Ground Water Elevation (feet)	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)	Lab
MW-5	10/18/90 08/06/91 01/08/92 04/30/92 07/31/92 10/27/92 01/22/93 04/05/93 10/18/90 08/08/91 01/22/93 04/30/92 01/22/93 04/05/93	348.07 347.97 348.23	0.00 0.00 0.00 0.00 0.00 0.00 0.00	43.16 38.65 38.65 39.88 43.07 42.78 34.76 33.61 *** 34.25 34.22 Dry Dry Dry Dry Dry Dry Dry Ty Dry Ty Dry Ty Ty Ty Ty Ty Ty Ty Ty Ty Ty Ty Ty Ty	304.91 309.42 309.42 308.19 305.00 305.29 313.31 314.46 ———————————————————————————————————	9,600 8,600 3,400 7,200 3,800 9,000 12,000 1,100 —————————————————————————————	2,000 ND<1000	180 320 600 650 320 440 540 34 	500 420 880 1,200 340 760 1,200 18 	200 220 220 210 120 190 320 12 ——————————————————————————————————	1,200 650 1,100 1,200 360 900 1,900 31 ——————————————————————————————————	9 ND<25 9.2 ND<50 — — — — — — — — — — — — — — — — — — —		 ND<5.0 	SAL SEQ SEQ SEQ SEQ SEQ SEQ SEQ SEQ SEQ
	01/08/92 04/30/92 07/31/92 10/27/92 01/22/93 04/05/93		0.00 0.00 0.00 0.00 0.00 0.00	40.46 43.61 43.68 35.66 34.41	307.77 304.62 304.55 312.57 313.82	810 9,400 850 250 190	-	180 1,600 27 12 2.3	8.4 1,500 ND<0.5 2.4 0.9	6.8 370 6 1.4 9 ND<0.5	3.3 1,100 10 1.9 0.5	7.0 — — — —	= = = = = = = = = = = = = = = = = = = =	= = =	SEQ SEQ SEQ SEQ

NOTES: ppb = parts per billion (µg/l)

TPH-G = total petroleum hydrocarbons as gasoline

TPH-D = total petroleum hydrocarbons as diesel

ND = not detected at detection limits stated in official laboratory reports
not measured/not analyzed/not applicable

1,2-DCE = 1,2-Dichloroethane

reported by laboratory as non-gasoline mixture

well inaccessible

Superior Analytical Laboratories SAL =

Sequoia Analytical SEQ -Casing and ground water elevations are in feet above mean sea level (NGVD-1929).

Table 1 Summary of Ground Water Sampling and Analyses

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

Well ID	Date of Sampling	Casing Elevation (feet)	Free Product (feet)	Depth to Water (feet)	Ground Water Elevation (feet)	TPH-G (ppb)	TPH-O (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	1,2-DCE (ppb)	Organic Lead (ppb)	Total Lead (ppb)	Lab
MW-7	10/18/90 08/06/91 01/08/92 04/30/92 07/31/92 10/27/92 01/22/93 04/05/93 10/18/90 08/08/91 01/08/92 07/31/92 10/27/92 01/22/93 04/05/93	(feet) 347.90 348.90	0.00 0.00 0.00 0.00 0.00	9.26 Dry 23.79 Dry Dry Dry Dry Dry Dry 11.30 Dry Dry 12.04 Dry Dry Dry Dry 43.54 42.83 47.36	338.64 	ND<50	ND<1000	0.3 7.8 3 ND<0.6 3,000 1,000 1,800 2,400	0.5 — 1.7 — — — 5 — ND<0.6 — 740 120 1,900	ND<0.3	0.8 0.55 62 1.3 2,500 350 940 1,100	ND<0.5			SAL SEQ SAL SEQ SEQ SEQ SEQ SEQ SEQ
	10/27/92 01/22/93 04/05/93	· }	0.00	48.32 39.11 37.1	300.21 309.42 311.43	5,600 7,900	_	1,200	200 510	510 620	350 870			_	SEQ

NOTES: ppb = parts per billion (µg/l)

TPH-G = total petroleum hydrocarbons as gasoline TPH-D = total petroleum hydrocarbons as diesel

ND = not detected at detection limits stated in official laboratory reports

--- not measured/not analyzed/not applicable

1,2-DCE = 1,2-Dichloroethane

* - reported by laboratory as non-gasoline mixture

-- well inaccessible

SAL - Superior Analytical Laboratories

SEQ - Sequoia Analytical

Casing and ground water elevations are in feet above mean sea level (NGVD-1929).

APPENDIX A GENERAL FIELD PROCEDURES

Rev: 05/27/93

APPENDIX A

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.

APPENDIX B OFFICIAL LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS

Rev: 05/27/93

APR 14 1993

Alton Geoscience 5870 Stoneridge Drive, Suite 6

Pteasanton, CA 94588
Attention: Eric Schaper

Client Project ID: Sample Matrbc

Analysis Method:

First Sample #:

Mobil #04-148/#300065

Water EPA 5030/8015/8020

304-0233

Sampled: Apr 5, 1993 Received: Apr 6, 1993 Reported: Apr 12, 1993

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 304-0233 TBLB	Sample 1.D. 304-0234 MW-1	Sample 1.D. 304-0235 MW-4	Sample i.D. 304-0236 MW-6	Sample I.D. 304-0237 MW-9
Purgeable drocarbons	50	N.D.	6,000	1,100	190	7,900
Benzene	0.5	N.D.	410	34	2.3	1,300
Toluene	0.5	N.D.	460	18	0.99	510
Ethyl Benzene	0.5	N.D.	51	12	N.D.	620
Total Xylenes	0.5	N.D.	500	31	0.50	670
	ittem:	••	Gasoline	Gasoline	Gasoline	Gasoline
uality Control D	oata		· · ·		1.0	10
enort Limit Multi	plication Factor	1.0	10	1.0	1.0	
	-	4/8/93	4/8/93	4/8/93	4/9/93	4/8/93
Ethyl Benzene 0.5		HP-2	HP-2	HP-2	HP-4	HP-2
		105	118	89	103	116

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Scott A Chieffo Project Manager 304023::ALT <1>



(510) 686-9600 • FAX (510) 686-9689

Alton Geoscience

5870 Stoneridge Drive, Suite 6

Pleasanton, CA 94588 Attention: Eric Schaper Client Project ID:

Mobil #04 1/#300065

Water Matrbo

QC Sample Group 3040233-237

Reported: Apr 12, 1993

APR 14 1993

QUALITY CONTROL DATA REPORT

			Ethyl-		
ANALYTE	Benzene	Toluene	Benzene	Xylenes	· · · · · · · · · · · · · · · · · · ·
	201 K-0140				
	E51 0010	EPA 8020	EPA 8020	EPA 8020	•
Method:	EPA 8020	J.F.	J.F.	J.F.	
Analyst:	J.F.	20	20	80	
Conc. Spiked:	20	μο/L	μg/L	μg/L	
Units:	h8\r	PW ~	<i></i> -		
LCS Batch#:	1LCS040893	1LCS040893	1LCS040893	1LCS040893	. •
<u>_</u>	4 10 100	4/8/93	4/8/93	4/8/93	
Date Prepared:	4/8/93	4/8/93	4/8/93	4/8/93	
Date Analyzed:	4/8/93	4/6/23 HP-2	HP-2	HP-2	
Instrument I.D.#:	HP-2	111.2			
LCS %	,			444	
Recovery:	120	122	112	116	
Control Limits:	70-130%	70-130%	70-130%	70-130%	
MS/MSD				00.40000	
Batch #:	3040223	3040223	3040223	3040223	
S.s. Samanadi	4/8/93	4/8/93	4/8/93	4/8/93	
Date Prepared:	• •	4/8/93	4/8/93	4/8/93	
Date Analyzed:	4/8/93 HP-2	HP-2	HP-2	HP-2	
Instrument i.D.#:	FH**&	·			
Matrix Spike				440	
% Recovery:	115	110	110	112	
Matrix Spike					
Duplicate %				440	
Recovery:	115	110	105	110	•
Relative %				4=	v.
***	0.0	0.0	4.7	1.5	
Difference:	0.0	0.0	4.7	1.5	

SEQUOIA ANALYTICAL

ciect 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 LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

Mobil Chain of Custody



8	2		
\$	Consulting Firm Name: Alla Good France Ste SS #: Co-1-HG	Phase of Work:	
4	Consulting Firm Name: 11100 CC CCCCCCCCCCCCCCCCCCCCCCCCCCCCC	ICI A Emm Racon	onse
は	Address: 5870 Slove idac Or STE - Mobil Site Address: 10.79		nent
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ı	Telephone: 734-8134		
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- 1	Project Contact: ES Sampled by: 5. 5 Sequoia's Work Order Rele		

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