Mobil Oil Corporation

2063 MAIN ST., SUITE 501
OAKLEY, CALIFORNIA 94561

August 28, 1995

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

Re: Former Mobil location 04-H6J, 1024 Main St., Pleasanton, CA

Dear Mr. Seery:

Enclosed is a copy of the Vapor Extraction System Progress Report for the above referenced location. This report summarizes the operation of the system during the months of April, 1995, through June, 1995.

Should you have any questions, please call me at (510) 625-1173.

Sincerely,

Cherine Foutch
Project Engineer

Enclosure

cc: Kevin Graves, RWQCB
Ron Scheele (w/o enclosure)

ALTON GEOSCIENCE
THE RESULTS TEAM

ENVIRONMENTAL

95 AUG 29 PM 2:48

August 16, 1995

Mobil Oil Corporation
2063 Main Street, Suite 501
Oakely, California

30-0065

ATTN: MS. CHERINE FOUTCH

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

RE: VAPOR EXTRACTION SYSTEM PROGRESS REPORT
SECOND QUARTER 1995

Dear Ms. Foutch:

This quarterly report presents the results from the vapor extraction system (VES) operations from April through June, 1995, at former Mobil Oil Station 04-H6J, located at 1024 Main Street in Pleasanton, California (Figure 1).

The vapor extraction system at the site recovers hydrocarbons from nine vapor extraction wells and from an air stripper unit used in the site's groundwater treatment process. Influent and effluent samples were collected in tedlar sample bags and submitted to a state-certified laboratory for analysis. As per the Bay Area Air Quality Management District (BAAQMD) Authority to Operate permit #14053 requirements, total emissions were calculated based on the benzene analytical results, and precursor organic compound (POC) destruction efficiencies were calculated based on the total petroleum hydrocarbons as gasoline (TPH-G) results. Refer to Table 1 for a summary of vapor extraction system operating parameters, influent and effluent analytical results, and calculated POC destruction efficiencies. Appendix A contains copies of the official laboratory reports and chain of custody documentation and Appendix B provides emission rate and destruction efficiency calculation examples.

Based on the laboratory analytical results of the samples collected on April 4, April 26, May 12, and June 8, 1995, and the emissions abatement device's temperature recorder:

- Maximum benzene mass emission rates ranged from 0.0015 to 0.0024 lbs/day; well below the 0.79 lbs/day benzene emission limit set by the BAAQMD.
- POC destruction efficiencies were calculated to be 99.3% or greater.
- The operating temperature of the emissions abatement device did fall below 600° F during the quarter.
- Operation of the vapor extraction system was in compliance with the site's BAAQMD Authority to Operate Permit during the entire quarter.

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

Vapor Extraction System Progress Report, Second Quarter 1995
Former Mobil 04-H6J
August 16, 1995

ATTACHMENTS

- Figure 1: Site Plan
- Table 1: Results of Vapor Extraction System Monitoring
- Appendix A: Official Laboratory Results and Chain of Custody Records
- Appendix B: Mass Rate and Destruction Efficiency Sample Calculations

This report was prepared in compliance with the requirements of the Bay Area Air Quality Management District.

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

Sincerely,

ALTON GEOSCIENCE

Ron A. Scheele
Project Geologist

Matthew W. Katen, RG
Senior Geologist

cc: Mr. Kevin Graves, California Regional Water Quality Control Board
Mr. Scott Seery, Alameda County Environmental Health Department

m:\...\04-H6J\04H6Jr14.ves

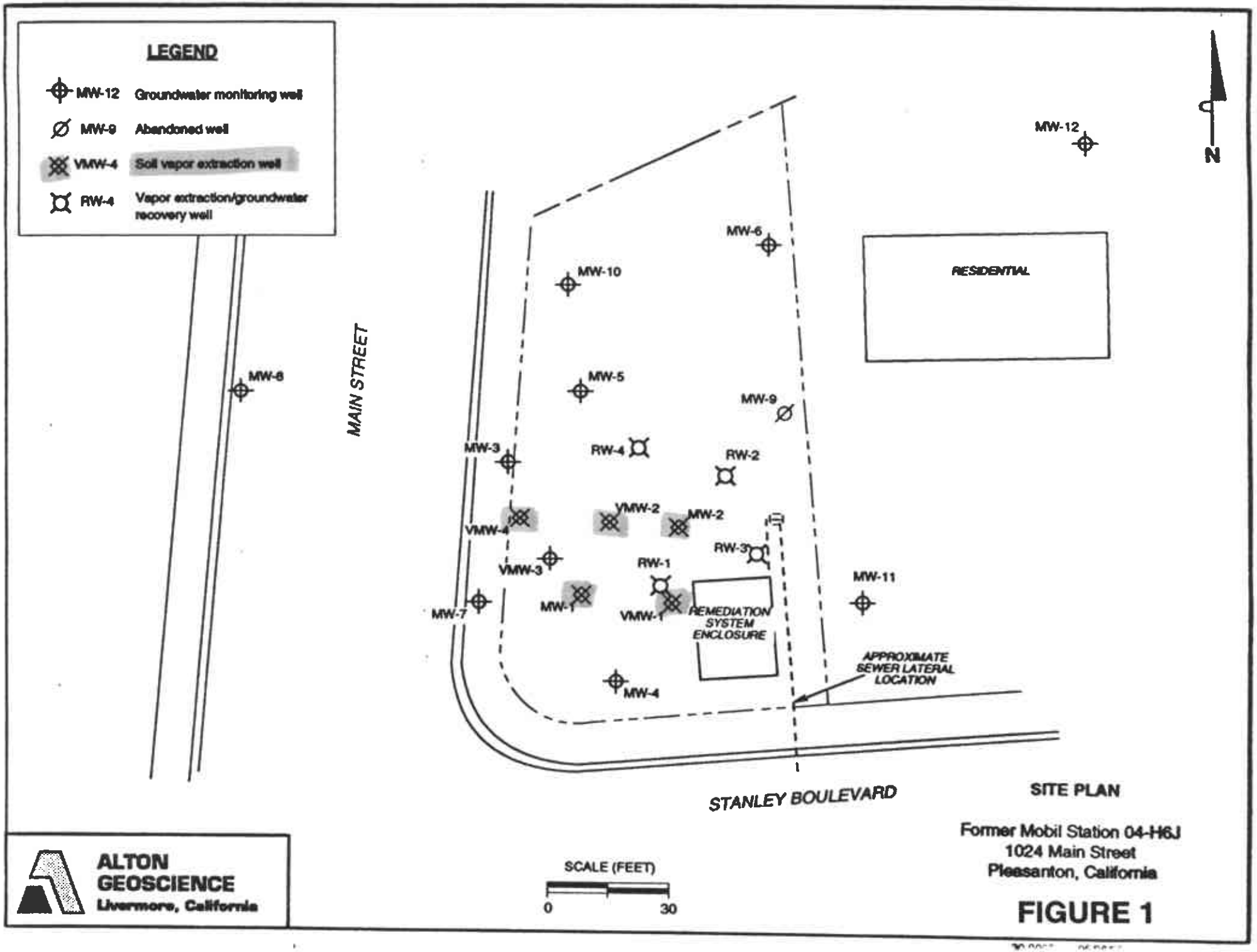
LEGEND
MW-12 Groundwater monitoring well
MW-9 Abandoned well
VMW-4 Soil vapor extraction well
RW-4 Vapor extraction/groundwater recovery well
N
MW-12
MW-6
MW-10
RESIDENTIAL
MW-5
MW-9
MW-3
RW-4
RW-2
VMW-2
MW-2
VMW-4
RW-3
VMW-3
RW-1
MW-11
MW-7
MW-1
VMW-1
REMEDIATION SYSTEM ENCLOSURE
APPROXIMATE SEWER LATERAL LOCATION
MW-4
MW-8
MAIN STREET
STANLEY BOULEVARD
SCALE (FEET)
0
30
ALTON GEOSCIENCE
Livermore, California
SITE PLAN
Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California
FIGURE 1

Table 1

Results of Vapor Extraction System Monitoring

Former Mobil Station # 04-H6J

Date	Operation Time			INFLUENT						EFFLUENT						RECOVERY DATA		
	Hour Meter Reading (hours)	Operating Time (hours)	Up-Time Per Period (%)	Total Flow Rate (cfm)	Vacuum Reading at Well Header (in. H2O)	Inlet Temp. (F)	Total Well TPH-G Conc. (ppmv)	Influent TPH-G Conc. Total Well + Air Stripper (ppmv)		Effluent TPH-G Conc. (ppmv)		Effluent Benzene Conc. (ppmv)	Mass Emission TPH-G (lbs/day)	Mass Emission Benzene (lbs/day)	Outlet Temp. (deg F)	HC Recovery Per Period (gallons)	Cummulative HC Recovery (gallons)	Destruction Efficiency TPH-G (%)
(m/d/yy)								Field	Lab	Field	Lab	Lab						
4/4/95	11	0	0%	175	57	600	10,480	10,480	11,000	0	<1.2	0.030	0.0809	0.0008	609	0	0	100.0
4/12/95	202	191	99%	324	96	601	5,100	5,100		0					850	986	986	
4/22/95	440	238	99%	314	96	599	2,400	2,400		0					764	756	1,742	
4/26/95	535	95	99%	334	96	597	1,890	1,890	390	0	2.8	<0.016	0.3602	0.0015	710	175	1,917	99.3
5/5/95	601	66	31%	402	95	601	1,800	750		0					885	85	2,002	
5/12/95	768	167	99%	359	100	601	960	460	350	0	<2.3	<0.031	0.3180	0.0016	742	102	2,104	>99.3
5/19/95	936	168	100%	314	100	601	1,010	310		0					701	58	2,162	
5/25/95	1080	144	100%	530	100	600	840	210		0					675	42	2,204	
6/1/95	1248	168	100%	535	97	598	870	270		0					683	57	2,261	
6/8/95	1415	167	99%	530	100	599	700	150	280	0	<1.2	<0.016	0.2450	0.0024	658	50	2,311	>99.6
6/16/95	1607	192	100%	545	100	600	400	190		0					648	47	2,357	
6/23/95	1664	57	34%	540	98	601	520	180		0					647	15	2,372	
6/28/95	1695	31	26%	545	94	600	820	350		0					641	12	2,384	
7/7/95	1907	212	98%	545	90	601	320	140		0					635	75	2,459	
Total to Date =		1898	83%	= Average % Operation														

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

p:\mobil\04h6j\vesoâm.xls

APPENDIX A

OFFICIAL LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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: Apr 4, 1995
30-A Lindbergh Ave.	Sample Matrix:	Air	Received: Apr 5, 1995
Livermore, CA 94550	Analysis Method:	EPA 5030/8015/8020	Reported: Apr 13, 1995
Attention: Ron Scheele	First Sample #:	504-0176	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 504-0176 Effluent	Sample I.D. 504-0177 Influent
Purgeable Hydrocarbons	5.0	N.D.	49,000
Benzene	0.050	0.095	710
Toluene	0.050	0.19	700
Ethyl Benzene	0.050	0.052	24
Total Xylenes	0.050	0.21	67
Chromatogram Pattern:		--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1,000
Date Analyzed:	4/6/95	4/6/95
Instrument Identification:	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	80	79

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

Kevin Van Slambrook
Project Manager

5040176.ALT <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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: Apr 4, 1995
30-A Lindbergh Ave.	Sample Matrix:	Air	Received: Apr 5, 1995
Livermore, CA 94550	Analysis Method:	EPA 5030/8015/8020	Reported: May 9, 1995
Attention: Ron Scheele	First Sample #:	504-0176	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit PPMV	Sample I.D. 504-0176 Effluent	Sample I.D. 504-0177 Influent
Purgeable Hydrocarbons	1.2	N.D.	11,000
Benzene	0.016	0.030	220
Toluene	0.013	0.050	190
Ethyl Benzene	0.012	N.D.	5.5
Total Xylenes	0.012	0.048	15
Chromatogram Pattern:		--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1,000
Date Analyzed:	4/6/95	4/6/95
Instrument Identification:	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	80	79

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

Kevin Van Slambrook
Project Manager

5040176.ALT <2>

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: Ron Scheele

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

QC Sample Group: 5040176-77

Reported: Apr 13, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon
MS/MSD Batch#:	5031622	5031622	5031622	5031622
Date Prepared:	4/6/95	4/6/95	4/6/95	4/6/95
Date Analyzed:	4/6/95	4/6/95	4/6/95	4/6/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	90	93	93	97
Matrix Spike Duplicate % Recovery:	80	85	85	90
Relative % Difference:	12	9.0	9.0	7.5
LCS Batch#:	3LCS040695	3LCS040695	3LCS040695	3LCS040695
Date Prepared:	4/6/95	4/6/95	4/6/95	4/6/95
Date Analyzed:	4/6/95	4/6/95	4/6/95	4/6/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	87	91	91	94
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
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

☐ 680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600 FAX (415) 364-9233
☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
☒ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Mobil Oil Consulting Firm: ALTON GEOSCIENCE
Address: 30A LINBERGH AVE
City: LIVERMORE State: CA Zip: 94550
Tel: 510/606-9150 Fax.: 510/606-9260

Station No./Site Address: 04-H6J PLEASANTON
Project Contact: RON SCHEELE
Mobil Oil Engineer: CHERINE FOUTCH
Sampler(s) (signature):

Sample I.D.	Matrix	Date Sampled	Time	Preservation	Number of Containers	Type of Containers	BTEX - EPA 602/8020	BTEX - TPH6 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		
EFFLUENT	AIR	4/4/95	1400	—	1	TEDLAR		X		5040176												
INFLUENT	AIR	4/4/95	1405	—	1	TEDLAR		X		5040177												

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: 4/5/95 10:11
Relinquished by: for LEE SIMMONS Date/Time: 4/5/95 12:50
Relinquished by: Date/Time:

Relinquished by: Date/Time: 4/5/95 10:11
Relinquished by: Date/Time:
Relinquished in Lab by: Received Date/Time: 4/5/95

Turnaround Time: (check one):
Normal X Same day ____
1 day ____ 2 day ____
5 day ____

Sample Integrity
Intact ____ On Ice ____

Remarks

Sequoia Analytical

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

Alton Geoscience	Client Project ID:	Mobil 04-H6J	Sampled: Apr 26, 1995
30-A Lindbergh Ave.	Sample Matrix:	Air	Received: Apr 27, 1995
Livermore, CA 94550	Analysis Method:	EPA 5030/8015/8020	Reported: May 8, 1995
Attention: Ron Scheele	First Sample #:	504-1527	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 504-1527 I-1	Sample I.D. 504-1528 I-2	Sample I.D. 504-1529 I-3	Sample I.D. 504-1530 E-1
Purgeable Hydrocarbons	5.0	6,200	67	1,700	12
Benzene	0.050	46	5.5	11	N.D.
Toluene	0.050	460	6.8	140	0.17
Ethyl Benzene	0.050	32	0.91	14	0.067
Total Xylenes	0.050	130	4.0	54	0.39
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	100	1.0	25	1.0
Date Analyzed:	4/28/95	4/28/95	4/28/95	4/28/95
Instrument Identification:	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	133	112	135	94

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

Kevin Van Slambrook
Project Manager

RECEIVED
MAY 18 1995

5041527.ALT <1>

Sequoia Analytical

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

Alton Geoscience	Client Project ID:	Mobil 04-H6J	Sampled: Apr 26, 1995
30-A Lindbergh Ave.	Sample Matrix:	Air	Received: Apr 27, 1995
Livermore, CA 94550	Analysis Method:	EPA 5030/8015/8020	Reported: May 9, 1995
Attention: Ron Scheele	First Sample #:	504-1527	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit PPMV	Sample I.D. 504-1527 I-1	Sample I.D. 504-1528 I-2	Sample I.D. 504-1529 I-3	Sample I.D. 504-1530 E-1
Purgeable Hydrocarbons	1.2	1,400	16	390	2.8
Benzene	0.016	14	1.7	3.4	N.D.
Toluene	0.013	120	1.8	37	0.045
Ethyl Benzene	0.012	7.4	0.21	3.2	0.015
Total Xylenes	0.012	30	0.92	12	0.090
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	100	1.0	25	1.0
Date Analyzed:	4/28/95	4/28/95	4/28/95	4/28/95
Instrument Identification:	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	133	112	135	94

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

Kevin Van Slambrook
Project Manager

5041527.ALT <2>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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: 5041527-30

Reported: May 8, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Creusere	M. Creusere	M. Creusere	M. Creusere
MS/MSD Batch#:	5041456	5041456	5041456	5041456
Date Prepared:	4/28/95	4/28/95	4/28/95	4/28/95
Date Analyzed:	4/28/95	4/28/95	4/28/95	4/28/95
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:	105	110	105	110
Matrix Spike Duplicate % Recovery:	105	110	110	108
Relative % Difference:	0.0	0.0	4.7	1.8
LCS Batch#:	2LCS042895	2LCS042895	2LCS042895	2LCS042895
Date Prepared:	4/28/95	4/28/95	4/28/95	4/28/95
Date Analyzed:	4/28/95	4/28/95	4/28/95	4/28/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	98	102	103	104
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
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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☐ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Mobil Oil Consulting Firm: ALTON GEOSCIENCE	Station No./Site Address: 04-HGJ, PLEASANTON
Address: 30A LINDBERGH AVE	Project Contact: RON SCHEELE
City: LIVERMORE State: CA Zip: 94550	Mobil Oil Engineer: CHERINE FOUTCH
Tel: 510/606-9150 Fax.: 510/606-9160	Sampler(s) (signature): Mark Fu

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	
I-1 [illegible]	AIR	4/27/95	1115	—	1	Tedlar		X												5041527	
I-2 STRIPPER	AIR	4/27/95	1610	—	1	Tedlar		X												5041528	
I-3 TOWER	AIR	4/27/95	1610	—	1	Tedlar		X												5041529	
E-1 EFFLUENT	AIR	4/27/95	1600	—	1	Tedlar		X												5041530	

CODING (check one)

- Code 1 ☐ Emergency Response
- Code 2 ☐ Site Assessment
- Code 3 ☐ Remediation (Plan Dev/pmt.)
- 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: 4/27/95 0945	Relinquished by:	Date/Time: 4-27 9:15
Relinquished by:	Date/Time: 4-27 10:15	Relinquished by:	Date/Time:
Relinquished by:	Date/Time:	Relinquished in Lab by:	Date/Time: 4/27/95 1021
Remarks: 4-27-95 1340		4-27-95 1541	

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

Sample Integrity: Intact ___ On Ice ___

4-27-95 16:30

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	Client Project ID:	04-H6J Pleasanton	Sampled: May 12, 1995
30-A Lindberg Ave.	Sample Descript.:	Air, E-1	Received: May 12, 1995
Livermore, CA 94550	Analysis Method:	EPA 8015 Mod./8020	Analyzed: May 12, 1995
Attention: Ron Scheele	Lab Number:	9505851 -01	Reported: May 16, 1995

QC Batch Number: GC051295BTEX17A

Instrument ID: GCHP17

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION (EPA 8015/8020)

Analyte	Detection Limit ppmv	Sample Result ppmv	Detection Limit ug/L	Sample Result ug/L
TPPH as Gas	2.3	N.D.	10	N.D.
Benzene	0.031	N.D.	0.10	N.D.
Toluene	0.027	0.045	0.10	0.17
Ethyl Benzene	0.023	N.D.	0.10	N.D.
Xylenes (Total)	0.023	0.030	0.10	0.13

Chromatogram Pattern:

Surrogates	Control Limits %		% Recovery
Trichlorotoluene	70	130	85

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Vytas Ankaitis
Project Manager

Please Note:

A molecular weight of 105 was used to calculate ppmv TPPH as Gas.

Sequoia Analytical

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404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience	Client Project ID:	04-H6J Pleasanton	Sampled: May 12, 1995
30-A Lindberg Ave.	Sample Descript.:	Air, I-1	Received: May 12, 1995
Livermore, CA 94550	Analysis Method:	EPA 8015 Mod./8020	Analyzed: May 12, 1995
Attention: Ron Scheele	Lab Number:	9505851-02	Reported: May 16, 1995

QC Batch Number: GC051295BTEX02A

Instrument ID: GCHP02

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION (EPA 8015/8020)

Analyte	Detection Limit ppmv	Sample Result ppmv	Detection Limit ug/L	Sample Result ug/L
TPPH as Gas	120	1,200	500	5,200
Benzene	1.6	23	5.0	74
Toluene	1.3	150	5.0	550
Ethyl Benzene	1.2	15	5.0	63
Xylenes (Total)	1.2	62	5.0	270

Chromatogram Pattern: Gas + < C8

Surrogates	Control Limits %		% Recovery
Trichlorotoluene	70	130	134 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Vytas Ankaitis
Project Manager

Please Note:

A molecular weight of 105 was used to calculate ppmv TPPH as Gas.

Sequoia Analytical

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Alton Geoscience	Client Project ID:	04-H6J Pleasanton	Sampled: May 12, 1995
30-A Lindberg Ave.	Sample Descript.:	Air, I-2	Received: May 12, 1995
Livermore, CA 94550	Analysis Method:	EPA 8015 Mod./8020	Analyzed: May 12, 1995
Attention: Ron Scheele	Lab Number:	9505851-03	Reported: May 16, 1995

QC Batch Number: GC051295BTEX17A

Instrument ID: GCHP17

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION (EPA 8015/8020)

Analyte	Detection Limit ppmv	Sample Result ppmv	Detection Limit ug/L	Sample Result ug/L
TPPH as Gas	2.3	5.1	10	22
Benzene	0.031	N.D.	0.10	N.D.
Toluene	0.027	0.29	0.10	1.1
Ethyl Benzene	0.023	0.062	0.10	0.27
Xylenes (Total)	0.023	0.35	0.10	1.5

Chromatogram Pattern: Gas

Surrogates	Control Limits %		% Recovery
Trichlorotoluene	70	130	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Vytas Ankaitis
Project Manager

Please Note:

A molecular weight of 105 was used to calculate ppmv TPPH as Gas.

Sequoia Analytical

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Alton Geoscience	Client Project ID:	04-H6J Pleasanton	Sampled: May 12, 1995
30-A Lindberg Ave.	Sample Descript.:	Air, I-3	Received: May 12, 1995
Livermore, CA 94550	Analysis Method:	EPA 8015 Mod./8020	Analyzed: May 12, 1995
Attention: Ron Scheele	Lab Number:	9505851-04	Reported: May 16, 1995

QC Batch Number: GC051295BTEX03A

Instrument ID: GCHP03

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION (EPA 8015/8020)

Analyte	Detection Limit ppmv	Sample Result ppmv	Detection Limit ug/L	Sample Result ug/L
TPPH as Gas	47	350	200	1,500
Benzene	0.63	9.1	2.0	29
Toluene	0.53	26	2.0	97
Ethyl Benzene	0.46	1.7	2.0	7.5
Xylenes (Total)	0.46	5.8	2.0	25

Chromatogram Pattern: Gas + < C8

Surrogates	Control Limits %		% Recovery
Trichlorotoluene	70	130	117

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Vytas Ankaitis
Project Manager

Please Note:

A molecular weight of 105 was used to calculate ppmv TPPH as Gas.

Sequoia Analytical

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Alton Geoscience	Client Project ID:	04-H6J Pleasanton	
30-A Lindbergh Ave.	Matrix:	Liquid	
Livermore, CA 94550			
Attention: Ron Scheele	Work Order #:	9505851 -01, 03	Reported: May 16, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC051295BTEX17A	GC051295BTEX17A	GC051295BTEX17A	GC051295BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950558206	950558206	950558206	950558206
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/12/95	5/12/95	5/12/95	5/12/95
Analyzed Date:	5/12/95	5/12/95	5/12/95	5/12/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.4	8.6	8.4	25
MS % Recovery:	84	86	84	83
Dup. Result:	9.5	9.6	9.5	29
MSD % Recov.:	95	96	95	97
RPD:	12	11	12	15
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vytas Ankaitis
Project Manager

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

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

Sequoia Analytical

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

Client Project ID: 04-H6J Pleasanton
Matrix: Liquid
Work Order #: 9505851-02

Reported: May 16, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC051295BTEX02A	GC051295BTEX02A	GC051295BTEX02A	GC051295BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950558204	950558204	950558204	950558204
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/12/95	5/12/95	5/12/95	5/12/95
Analyzed Date:	5/12/95	5/12/95	5/12/95	5/12/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	9.7	9.5	9.3	28
MSD % Recov.:	97	95	93	93
RPD:	3.0	5.1	7.3	10
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vytas Ankaitis
Project Manager

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

Client Project ID: 04-H6J Pleasanton
Matrix: Liquid
Work Order #: 9505851-04

Reported: May 16, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC051295BTEX03A	GC051295BTEX03A	GC051295BTEX03A	GC051295BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950558202	950558202	950558202	950558202
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/12/95	5/12/95	5/12/95	5/12/95
Analyzed Date:	5/12/95	5/12/95	5/12/95	5/12/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.8	9.8	9.8	29
MS % Recovery:	98	98	98	97
Dup. Result:	9.9	10	9.9	30
MSD % Recov.:	99	100	99	100
RPD:	1.0	2.0	1.0	3.4
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vytas Ankaitis
Project Manager

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☐ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Mobil Oil Consulting Firm: ALTON GEOSCIENCE
Address: 30A LINDBERGH AVE
City: LIVERMORE State: CA Zip: 94550
Tel: 510/606-9150 Fax.: 510/606-9260

Station No./Site Address: 04-HGJ PLEASANTON
Project Contact: RON SCHEELE
Mobil Oil Engineer: CHERYL FOUTCH
Sampler(s) (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		
E-1	AIR	5/12/95	1100	—	1	Tedlar		X														
I-1	"	"	1140	—	1	Tedlar		X														
I-2	"	"	1400	—	1	Tedlar		X														
I-3	"	"	1100	—	1	Tedlar		X														

CODING (check one)
9505851
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: 5/12/95 1320
Relinquished by: Date/Time:
Relinquished by: Date/Time:
Relinquished by: Date/Time:
Relinquished in Lab by: Date/Time: 5/12/95 1320
Remarks:

Turnaround Time: (check one):
Normal X Same day ____
1 day ____ 2 day ____
5 day ____

Sample Integrity:
Intact ____ On Ice ____

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

Client Project ID: Mobil 04-H6J
Sample Matrix: Air
Analysis Method: EPA 5030/8015/8020
First Sample #: 506-0577

Sampled: Jun 8, 1995
Received: Jun 9, 1995
Reported: Jun 16, 1995

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 506-0577 I-1	Sample I.D. 506-0578 I-2	Sample I.D. 506-0579 I-3	Sample I.D. 506-0580 E-1
Purgeable Hydrocarbons	5.0	5,000	29	1,200	N.D.
Benzene	0.050	32	0.42	16	N.D.
Toluene	0.050	320	1.6	90	0.13
Ethyl Benzene	0.050	60	0.048	200	N.D.
Total Xylenes	0.050	330	3.3	100	0.22
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	50	1.0	20	1.0
Date Analyzed:	6/10/95	6/10/95	6/9/95	6/9/95
Instrument Identification:	HP-2	HP-2	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	130	99	110	81

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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5060577.ALT <1>

Sequoia Analytical

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

Client Project ID: Mobil 04-H6J
Sample Matrix: Air
Analysis Method: EPA 5030/8015/8020
First Sample #: 506-0577

Sampled: Jun 8, 1995
Received: Jun 9, 1995
Reported: Jun 16, 1995

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit PPMV	Sample I.D. 506-0577 I-1	Sample I.D. 506-0578 I-2	Sample I.D. 506-0579 I-3	Sample I.D. 506-0580 E-1
Purgeable Hydrocarbons	1.2	1,200	6.7	280	N.D.
Benzene	0.016	10	0.13	5.0	N.D.
Toluene	0.013	85	0.42	24	0.035
Ethyl Benzene	0.012	14	0.11	46	N.D.
Total Xylenes	0.012	76	0.76	23	0.051
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	50	1.0	20	1.0
Date Analyzed:	6/10/95	6/10/95	6/9/95	6/9/95
Instrument Identification:	HP-2	HP-2	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	130	99	110	81

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

5060577.ALT <2>

Sequoia Analytical

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

Client Project ID: Mobil 04-H6J
Matrix: Liquid

QC Sample Group: 5060577-80

Reported: Jun 16, 1995

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#:	5060445	5060445	5060445	5060445
Date Prepared:	6/10/95	6/10/95	6/10/95	6/10/95
Date Analyzed:	6/10/95	6/10/95	6/10/95	6/10/95
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:	115	115	120	120
Matrix Spike Duplicate % Recovery:	115	115	120	118
Relative % Difference:	0.0	0.0	0.0	1.7
LCS Batch#:	1LCS061095	1LCS061095	1LCS061095	1LCS061095
Date Prepared:	6/10/95	6/10/95	6/10/95	6/10/95
Date Analyzed:	6/10/95	6/10/95	6/10/95	6/10/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	112	112	117	116
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Please Note:
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Sequoia Analytical

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

Client Project ID: Mobil 04-H6J
Matrix: Liquid

QC Sample Group: 5060577-80

Reported: Jun 16, 1995

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#:	5060381	5060381	5060381	5060381
Date Prepared:	6/9/95	6/9/95	6/9/95	6/9/95
Date Analyzed:	6/9/95	6/9/95	6/9/95	6/9/95
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:	105	110	110	110
Matrix Spike Duplicate % Recovery:	105	110	110	110
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:	2LCS060995	2LCS060995	2LCS060995	2LCS060995
Date Prepared:	6/9/95	6/9/95	6/9/95	6/9/95
Date Analyzed:	6/9/95	6/9/95	6/9/95	6/9/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	98	105	109	109
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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☒ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Mobil Oil Consulting Firm: Alton Geoscience
Address: 304 Lindbergh Ave
City: Livermore State: CA Zip: 94550
Tel: 606 9150 Fax.: 606 9260

Station No./Site Address: 0466 1042 Main St. Pleasanton
Project Contact: Ron Scheele
Mobil Oil Engineer: Cherine Fowtch
Sampler(s) (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	
I-1	Air	6/8	4:45	/	1	bag		X											5060577		
I-2																			5060578		
I-3																			5060579		
E-1																			5060580		

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: 6-9-95 19:10
Relinquished by: Date/Time: 6-9-95 19:40
Relinquished by: Date/Time:
Remarks:

Relinquished by: Date/Time: 6-9-95 19:10
Relinquished by: Date/Time:
Relinquished in Lab by: Date/Time: 6-9-95 1940

Turnaround Time: (check one):
Normal X Same day ____
1 day ____ 2 day ____
5 day ____

Sample Integrity:
Intact ____ On Ice ____

APPENDIX B

MASS RATE AND DESTRUCTION EFFICIENCY SAMPLE CALCULATIONS

MASS RATE AND DESTRUCTION EFFICIENCY SAMPLE CALCULATIONS

Mass Rate:

Mass Rate Formula:

Mass rate(lbs/day) = flow rate(scfm) x concentration(ppmv)/10^6 x vapor density(lbs/scf)

or

TPH-G mass rate(lbs/day) = flow rate(scfm) x conc.(ppmv) x 0.00038518*

Benzene mass rate(lbs/day) = flow rate(scfm) x conc.(ppmv) x 0.00028613**

* constant assumes molecular weight of TPH-G = 105

** constant assumes molecular weight of benzene = 78

Influent Example:

Influent TPH-G Concentration from June 8, 1995: 280 ppmv
Inlet Flowrate (total flowrate): 530 scfm

Mass rate TPH-G = 280 ppmv x 530 scfm x 0.00038518 = **57.2 lb/day TPH-G**

Effluent Example:

Effluent TPH-G Concentration from June 8, 1995: <1.2 ppmv
Effluent Benzene Concentration from June 8, 1995: <0.016 ppmv
Total Flowrate: 530 scfm

Mass rate TPH-G = <1.2 ppmv x 530 scfm x 0.00038518 = **<0.25 lb/day TPH-G**

Mass rate Benzene = <0.016 ppmv x 530 scfm x 0.00028613 = **<0.0024 lb/day Benzene**

Destruction Efficiency:

Destruction Efficiency Formula:

Destruction Efficiency = [1 - (effluent TPH-G mass rate/influent TPH-G mass rate)] x 100

= [1-(<0.25 lb/day/57.2 lb/day)] x 100) = **>99.6%**