



ENVIRONMENTAL
PROTECTION

97 JUL 18 PM 2:53

STW 1683

July 15, 1997

~~Ms. Susan Hugo~~
Alameda County Health Services
1131 Harbor Bay Parkway
Alameda, California 94502-6700

Alton Project No. 41-0123

Cars Pews & Car
RE: FORMER MOBIL STATION 99-105
- 6301 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

Dear Ms. Hugo:

Please find enclosed the Second Quarter 1997 Progress Report for the subject location prepared for Mobil Oil Corporation by Alton Geoscience. The contents of this report include:

Quarterly Progress Report Summary Sheet

- Exhibit 1: Sampling Schedule
- Exhibit 2: Groundwater Levels and Chemical Analysis Table
- Exhibit 3: Figures 1 through 3 (Vicinity Map, Groundwater Elevation Contour Map, Dissolved-Phase Benzene Concentrations)
- Exhibit 4: Benzene vs. Groundwater Elevation Graphs
- Exhibit 5: Well Purging and Groundwater Sampling Protocol
- Exhibit 6: Monitoring Well Sampling Forms
- Exhibit 7: Analytical Laboratory Data Sheets
- Exhibit 8: Waste Disposal Manifest

If you have any questions regarding this report, please call Ms. Cherine Foutch, Mobil Engineer, at (510) 625-1173, or Mr. Thomas Seeliger, Alton Geoscience Geologist, at (510) 606-9150.

Sincerely,

ALTON GEOSCIENCE

Thomas E. Seeliger
Project Geologist

cc: Ms. Cherine Foutch, Mobil Oil Corporation
Mr. Kevin Graves, California Regional Water Quality Control Board, San Francisco Bay Region

MA...99-105.4QMS

ALTON GEOSCIENCE

Quarterly Progress Report Summary Report
Second Quarter 1997

Former Mobil Statio 99-105
6301 San Pablo Avenue
Oakland, California

LOP: Alameda County Health Services

Number of water zones:	1	This Page	1
FIELD ACTIVITY:		Date Sampled:	22-Apr-97
Number of ground water wells on-site:	4	Ground Water Wells monitored:	4
Number of ground water wells off-site:	0	Ground Water Wells sampled:	4
Phase of Investigation: Vadose Zone:	N/A	Ground Water Wells with Free Product:	0
		Ground Water Phase:	Monitor & Sample
SITE HYDROGEOLOGY:			
Approximate depth to ground water below ground surface:			9.5 feet
Approximate elevation of potentiometric surface above Mean Sea Level:			23.5 feet
Average Increase/Decrease in ground water elevations since last sampling episode:			2.50 foot decrease
Approximate flow direction and hydraulic gradient:			Northwest at 0.02 ft/ft
GROUND WATER CONTAMINATION (BENZENE MCL=1.0 ppb):			
Wells containing free product:	0	Range in Thickness of Free Product:	NA
Number of wells with concentrations below MCL:	1	Volume of Free Product Recovered This Period:	NA
Number of wells with concentrations at or above MCL:	3	Volumes of Free Product Recovered To Date:	NA
Nature of contamination:	Gasoline and diesel	Range in Concentrations:	Benzene: ND to 950 ppb TPH-G: ND to 8,800 ppb TPH-D: ND to 4,500 ppb
ADDITIONAL INFORMATION:			
EPA method 8260 did <u>not</u> confirm the presence of MTBE.			
Purged groundwater was transported to the McKittrick Waste Treatment Facility for disposal.			

Prepared by: Cheri Sullivan for

Jacob Madden
Staff Geologist

Alton Project No: 41-0123

Approved by: Matthew W. Katen
California RG# 5167

Matthew W. Katen, RG
Associate

Submittal date: 7/10/97



EXHIBIT 1
SAMPLING SCHEDULE

MONITORING WELL SAMPLING SCHEDULE 1997
Former Mobil Station 99-105

Well Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
MW-1	X	X	X	X
MW-2	X	X	X	X
MW-3	X	X	X	X
MW-4	X	X	X	X

NOTES: X = well scheduled for sampling

EXHIBIT 2

GROUNDWATER LEVELS AND CHEMICAL ANALYSIS TABLE

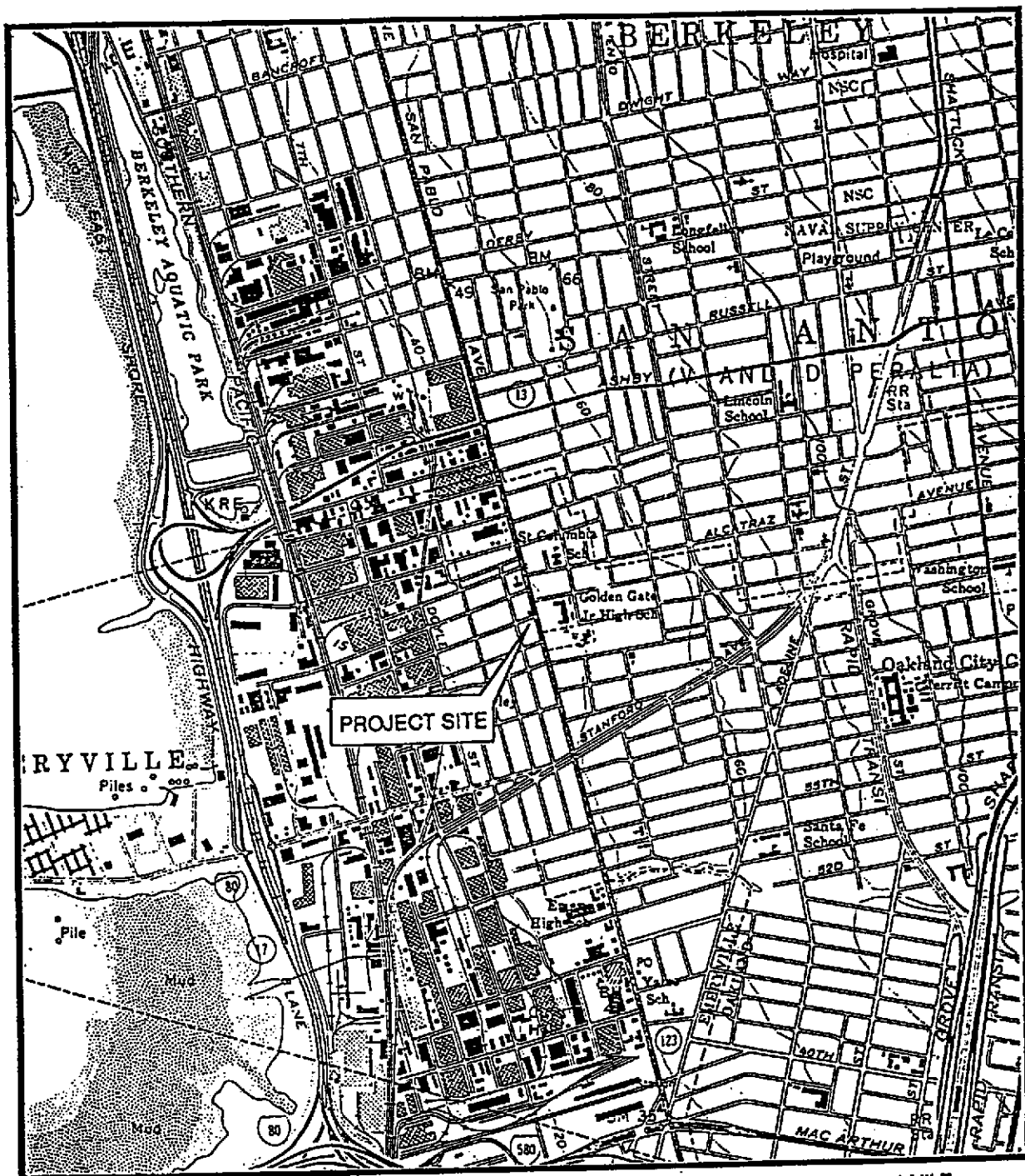
Groundwater Levels and Chemical Analysis

Former Mobil Station 99-105

Well ID	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8020 (ppb)	MTBE 8240 or 8260 (ppb)	TOG (ppb)	Lead (ppb)
TW-1	1/4/96	—	6.00	—	0.00	ND	700	ND	ND	ND	ND	—	—	—	—
WW-1	1/4/96	—	3.00	—	0.00	ND	—	ND	ND	ND	ND	—	—	ND	—
MW-1	3/14/96	32.79	4.50	28.29	0.00	610	450	0.75	0.54	1.5	59	—	—	—	ND
	5/21/96		5.64	27.15	0.00	ND	ND	ND	ND	ND	ND	—	—	—	—
	8/13/96		9.76	23.03	0.00	ND	ND	ND	ND	ND	ND	—	—	—	—
	11/8/96		10.24	22.55	0.00	ND	ND	ND	0.92	ND	2.1	ND	—	—	—
	1/31/97		3.83	28.96	0.00	ND	ND	ND	0.85	ND	ND	2.6	ND	—	—
4/22/97		9.14	23.65	0.00	ND	ND	ND	ND	ND	ND	ND	—	—	—	
MW-2	3/14/96	32.80	4.51	28.29	0.00	560	250	2.0	0.96	4.3	11	—	—	—	ND
	5/21/96		5.65	27.15	0.00	730	560	5.1	1.4	6.7	5.9	—	—	—	—
	8/13/96		10.14	22.66	0.00	490	380*	25	3.5	7.2	13	—	—	—	—
	11/8/96		10.70	22.10	0.00	520	160***	80	2.7	14	66	6.1	—	—	—
	1/31/97		3.84	28.96	0.00	74	130*	ND	ND	ND	ND	ND	—	—	—
4/22/97		9.61	23.19	0.00	260	430	2.7	ND	2.5	ND	ND	—	—	—	
MW-3	3/14/96	32.80	9.55	23.25	0.00	4,200	1,200	220	30	140	520	—	—	ND	ND
	5/21/96		10.16	22.64	0.00	8,500	2,800	710	110	440	1,700	—	—	—	—
	8/13/96		11.18	21.62	0.00	5,000	2,300**	430	ND	200	360	—	—	—	—
	11/8/96		11.51	21.29	0.00	8,400	2,900*	890	82	790	1,700	73	ND	—	—
	1/31/97		7.90	24.90	0.00	-16,000	7,500*	660	85	960	1,800	ND	—	—	—
4/22/97		10.64	22.16	0.00	8,000	2,700	340	33	400	490	200	ND	—	—	
MW-4	3/14/96	31.50	4.92	26.58	0.00	12,000	3,500	2,200	140	880	2,000	—	—	—	ND
	5/21/96		8.60	22.90	0.00	11,000	4,200	1,700	ND	930	470	—	—	—	—
	8/13/96		10.02	21.50	0.02	—	—	—	—	—	—	—	—	—	—
	11/8/96		10.28	21.33	0.15	—	—	—	—	—	—	—	—	—	—
	1/31/97		7.88	23.62	0.00	23,000	8,200*	980	68	1,100	1,400	ND	—	—	—
4/22/97		7.40	24.10	0.00	8,800	4,500	950	ND	610	130	ND	—	—	—	

NOTES: ppb = parts per billion
 TPH-G = total petroleum hydrocarbons as gasoline
 TPH-D = total petroleum hydrocarbons as diesel
 TOG = total oil and grease
 — = not measured/not analyzed
 ND = not detected at or above method detection limit

* = diesel and unidentified hydrocarbons <C15
 ** = diesel and unidentified hydrocarbons <C15>C25
 *** = diesel and unidentified hydrocarbons <C20
 MTBE = methyl-tert butyl ether



1 MILE 3/4 1/2 1/4 0 1 MILE

SCALE 1:24,000



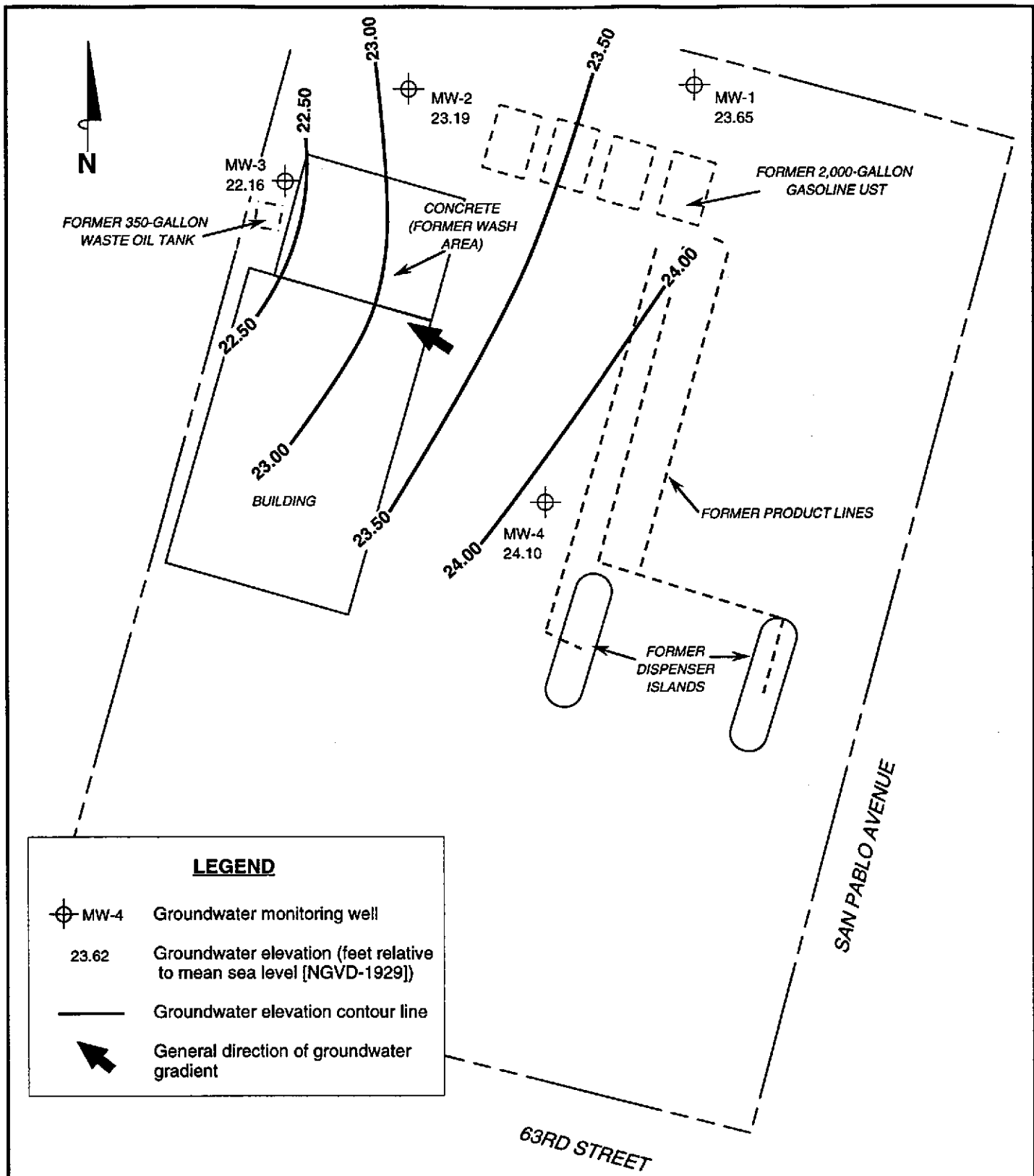
Source: U.S.G.S. Map
Oakland West Quadrangle
California
7.5 Minute Series

VICINITY MAP




Former Mobil Station 99-105
6301 San Pablo Avenue
Oakland, California

FIGURE 1





LEGEND

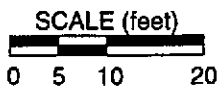
 MW-4 Groundwater monitoring well
 23.62 Groundwater elevation (feet relative to mean sea level [NGVD-1929])
 Groundwater elevation contour line
 General direction of groundwater gradient

NOTES:
 Contour lines are interpretive based on fluid level measurements collected April 22, 1997. Contour interval = 0.50 feet.

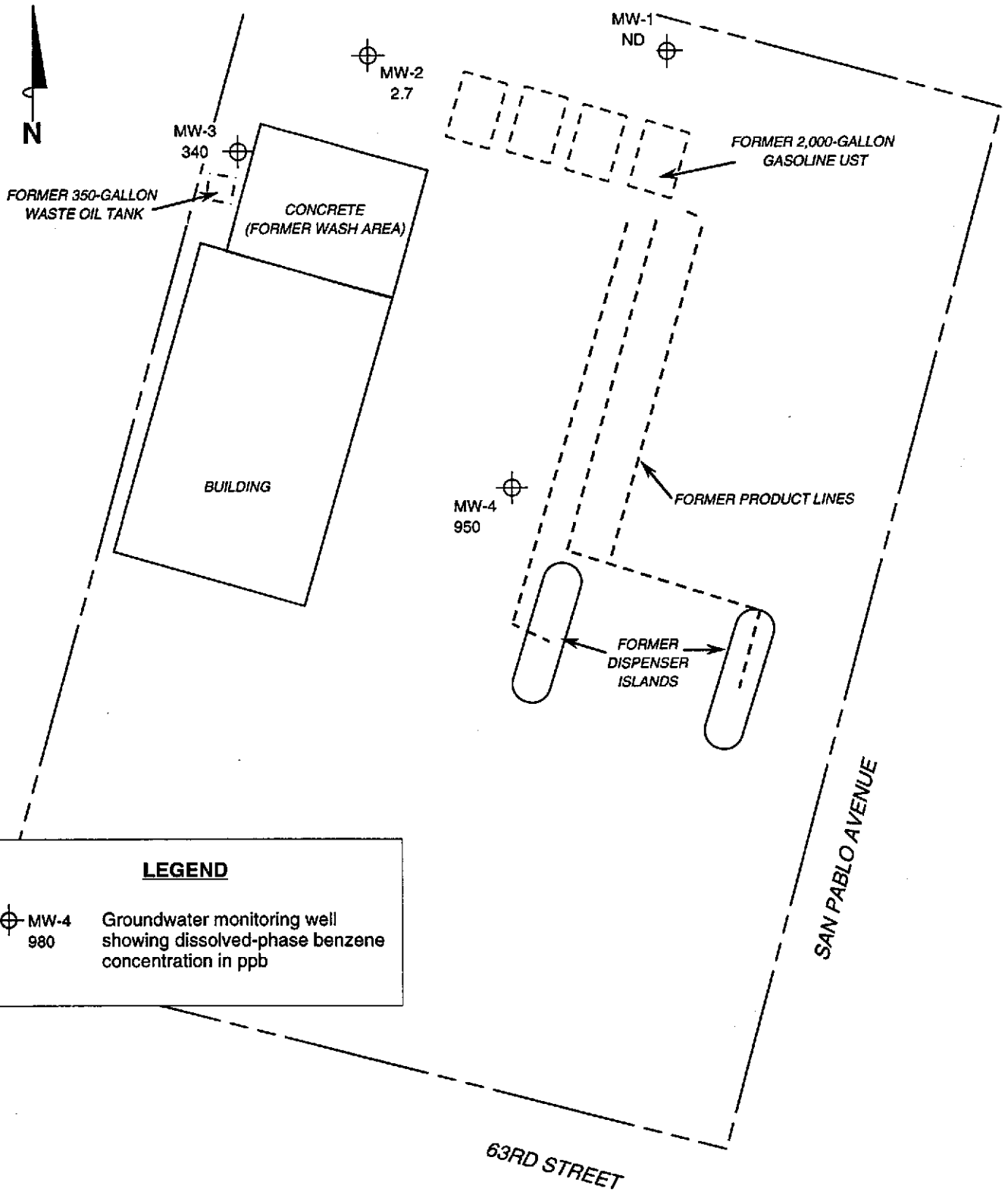
**GROUNDWATER ELEVATION
 CONTOUR MAP
 April 22, 1997**

Former Mobil Station 99-105
 6301 San Pablo Avenue
 Oakland, California


FIGURE 2



Source: ALISTO Engineering



LEGEND

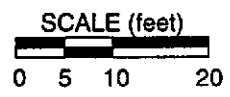

 MW-4 980 Groundwater monitoring well showing dissolved-phase benzene concentration in ppb

NOTES:
 Results are based on analysis of groundwater samples collected April 22, 1997. ppb = parts per billion; ND = not detected at or above method detection limit.

**DISSOLVED-PHASE BENZENE CONCENTRATIONS
 April 22, 1997**

Former Mobil Station 99-105
 6301 San Pablo Avenue
 Oakland, California

FIGURE 3

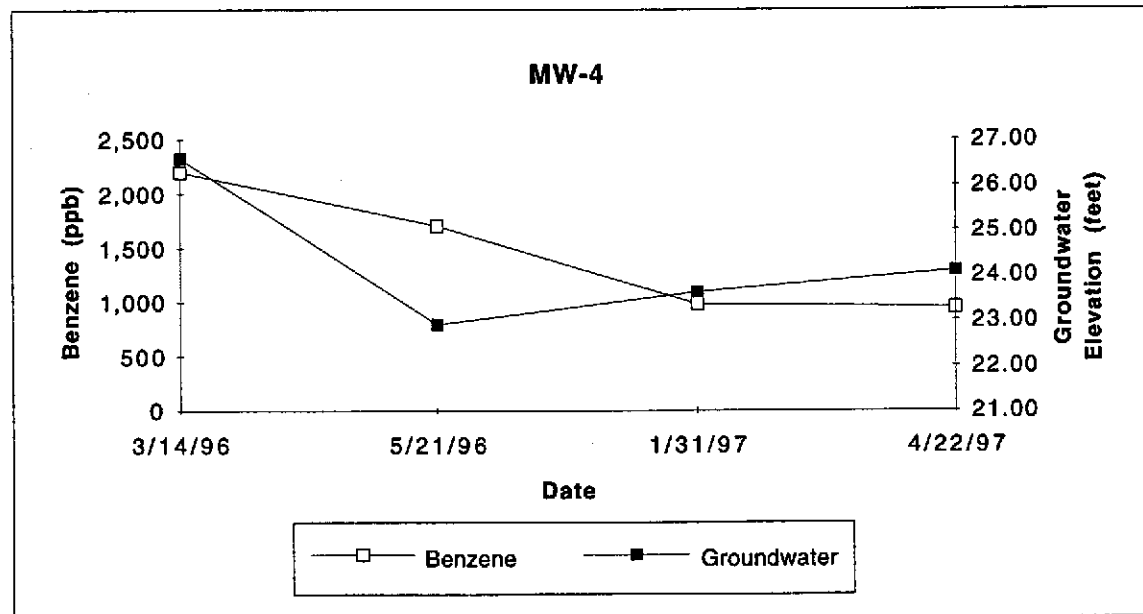
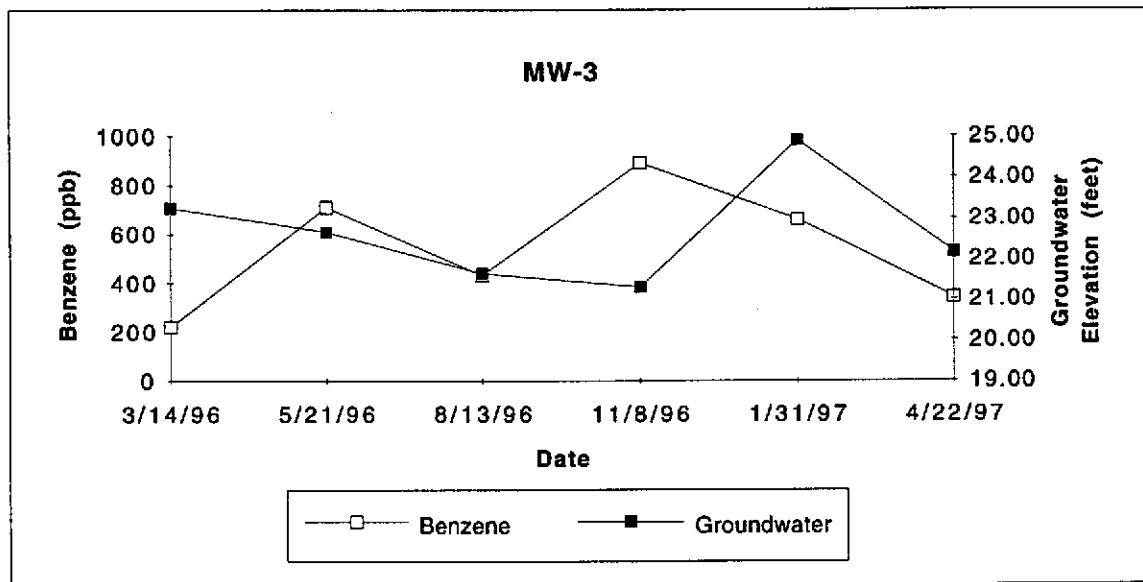
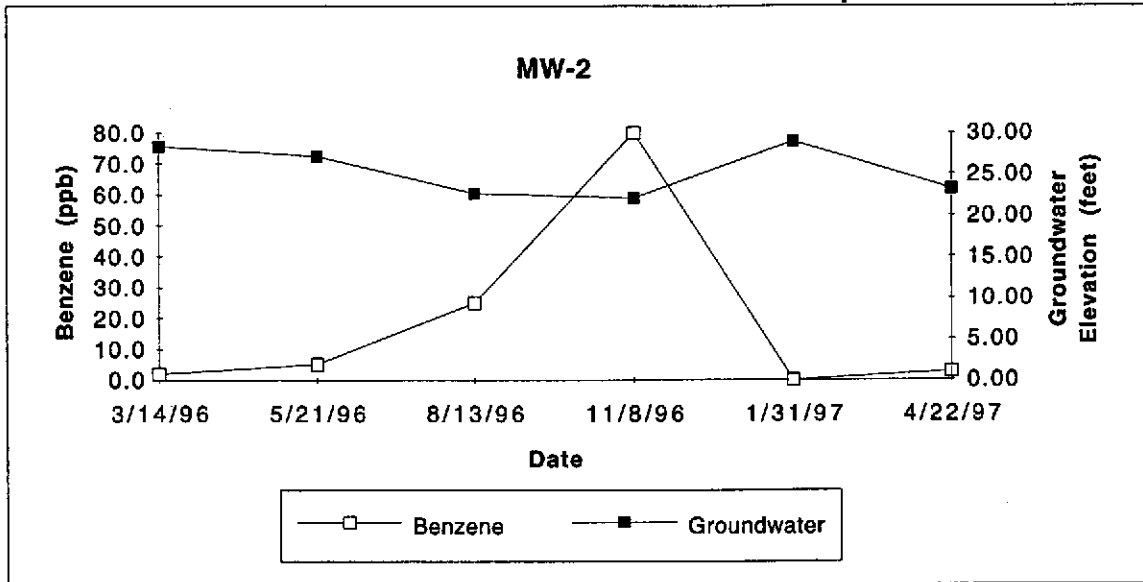
**ALTON
 GEOSCIENCE**
 Livermore, California

Source: ALISTO Engineering

EXHIBIT 4

BENZENE VS. GROUNDWATER ELEVATION GRAPHS

Benzene vs. Groundwater Elevation Graphs



NOTE: ND values are plotted as zero.

EXHIBIT 5

WELL PURGING AND GROUNDWATER SAMPLING PROTOCOL

WELL PURGING AND GROUNDWATER SAMPLING PROTOCOL

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 to the nearest 0.01 foot 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.

GROUNDWATER SAMPLING

Currently, 'pre-purge' and 'non-purge' methods of sampling both comply with regulatory standards.

NON-PURGE METHOD:

Alton Geoscience utilizes the 'non-purge' method of sampling for all qualifying groundwater monitoring wells. Groundwater 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.

The following criteria necessary for a well to qualify for 'non-purge' sampling are taken from a letter issued by San Francisco Bay Regional Water Quality Control Board on January 31, 1997:

1. The non-purging approach shall be used only for monitoring wells where groundwater has been impacted by petroleum hydrocarbons, BTEX, and MTBE.
2. Non-purge sampling shall be utilized for unconfined aquifers only.
3. The monitoring well shall be properly permitted, constructed (in this case, screened across the water table), and developed.
4. The well is presently in use for groundwater or soil vapor extraction.
5. The well does not contain free product.
6. For new wells or wells brought into monitoring for the first time, the first round of groundwater sampling performed at a site shall be with both non-purged and purged samples. The purging and sampling method used shall be documented. This shall include the rate of purge and sampling

details. For these wells we require measurements of dissolved oxygen, specific conductance, pH, and temperature whether purged or not purged. Also, if biodegradation is being tracked at the well, our requirements do not preclude the measurement of other parameters.

7. Existing wells which have already been routinely purged in previous sampling events immediate to being switched to a non-purging mode do not require an initial duplicate non-purged and purged sample.
8. Monitoring data frequency shall be as required by the appropriate regulatory oversight agency.
9. Should site closure be requested where the non-purged approach has been used, the final confirmation sampling event shall include both non-purged and purged samples from each well or as agreed upon with the appropriate regulatory oversight agency.

PURGE METHOD:

Groundwater monitoring wells that do not qualify for the 'non-purge' method are purged and sampled in accordance with standard regulatory protocol. Typically, monitoring wells that contain no liquid-phase hydrocarbons are purged of groundwater 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.

Groundwater 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.

EXHIBIT 6

MONITORING WELL SAMPLING FORMS

Alton Geoscience, Northern California Operations

GROUND WATER SAMPLING FIELD NOTES

Site: 99-105 Project No.: 41-0123 Sampled By: JM Date: 4-22-97

Well No. Mw-1 Purge Method: No Purge
 Total Depth (feet) _____ Depth to Product (feet): _____
 Depth to Water (feet): 9.14 Product Recovered (gallons): _____
 Water Column (feet): _____ Casing Diameter (Inches): _____
 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				1.08	68.1	7.42
Total Purged				Time Sampled		12:25

Comments: _____
Turbidity = _____

Well No. Mw-2 Purge Method: No Purge
 Total Depth (feet) _____ Depth to Product (feet): _____
 Depth to Water (feet): 9.61 Product Recovered (gallons): _____
 Water Column (feet): _____ Casing Diameter (Inches): _____
 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				.97	66.5	7.28
Total Purged				Time Sampled		12:30

Comments: _____
Turbidity = _____

Well No. Mw-3 Purge Method: No Purge
 Total Depth (feet) _____ Depth to Product (feet): _____
 Depth to Water (feet): 10.64 Product Recovered (gallons): _____
 Water Column (feet): _____ Casing Diameter (Inches): _____
 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				< 86	67.2	7.11
Total Purged				Time Sampled		12:45

Comments: _____
Turbidity = _____

Well No. Mw-4 Purge Method: Sub
 Total Depth (feet) 20.00 Depth to Product (feet): 0
 Depth to Water (feet): 7.40 Product Recovered (gallons): 0
 Water Column (feet): 12.60 Casing Diameter (Inches): 4
 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): 81.3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
			10	1.08	68.2	7.28
			20	.97	69.1	7.14
			30	.95	68.7	7.10
Total Purged			80	Time Sampled		13:00

Comments: Thick Sheen
Turbidity = _____

Well No. _____ Purge Method: _____
 Total Depth (feet) _____ Depth to Product (feet): _____
 Depth to Water (feet): _____ Product Recovered (gallons): _____
 Water Column (feet): _____ Casing Diameter (Inches): _____
 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
Total Purged				Time Sampled		

Comments: _____
Turbidity = _____

Well No. _____ Purge Method: _____
 Total Depth (feet) _____ Depth to Product (feet): _____
 Depth to Water (feet): _____ Product Recovered (gallons): _____
 Water Column (feet): _____ Casing Diameter (Inches): _____
 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
Total Purged				Time Sampled		

Comments: _____
Turbidity = _____

EXHIBIT 7

ANALYTICAL LABORATORY DATA SHEETS



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Tom Seeliger

Client Project ID: Mobil #99-105
Sample Matrix: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 704-1306

Sampled: Apr 22, 1997
Received: Apr 23, 1997
Reported: Apr 30, 1997

QC Batch Number: GC042597 GC042597 GC042597 GC042597

802004A 802004A 802004A 802004A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 704-1306 MW-1	Sample I.D. 704-1307 MW-2	Sample I.D. 704-1308 MW-3	Sample I.D. 704-1309 MW-4
Purgeable Hydrocarbons	50	N.D.	260	8,000	8,800
Benzene	0.50	N.D.	2.7	340	950
Toluene	0.50	N.D.	N.D.	33	N.D.
Ethyl Benzene	0.50	N.D.	2.5	400	610
Total Xylenes	0.50	N.D.	N.D.	490	130
MTBE:	2.5	N.D.	N.D.	200	N.D.
Chromatogram Pattern:		--	Gasoline & Unidentified Hydrocarbons >C8	Gasoline	Gasoline

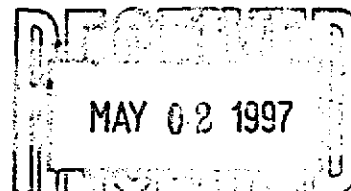
Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	20	100
Date Analyzed:	4/25/97	4/25/97	4/25/97	4/25/97
Instrument Identification:	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	102	94	115	97

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

Jim Bava
Project Manager





Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Tom Seeliger	Client Project ID: Mobil #99-105 Sample Descript: Water, MW-3 Analysis Method: EPA 8260 Lab Number: 704-1308	Sampled: Apr 22, 1997 Received: Apr 23, 1997 Analyzed: Apr 25, 1997 Reported: Apr 30, 1997
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QC Batch Number: MS043097MTBES2A

Instrument ID: GC/MS-2

VOLATILE ORGANICS by GC/MS

Analyte	Detection Limit µg/L	Sample Results µg/L
MTBE.....	10	N.D.

SEQUOIA ANALYTICAL, #1271


 Jim Bava
 Project Manager



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

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FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Tom Seeliger

Client Project ID: Mobil #99-105
Sample Matrix: Water
Analysis Method: EPA 3510/8015 Mod.
First Sample #: 704-1306

Sampled: Apr 22, 1997
Received: Apr 23, 1997
Reported: Apr 30, 1997

QC Batch Number: SP042597 8015EXA SP042597 8015EXA SP042597 8015EXA SP042597 8015EXA

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 704-1306 MW-1	Sample I.D. 704-1307 MW-2	Sample I.D. 704-1308 MW-3	Sample I.D. 704-1309 MW-4
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Extractable Hydrocarbons	50	N.D.	430	2,700	4,500
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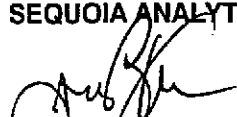
Chromatogram Pattern: .. Diesel & Unidentified Hydrocarbons <C15 Diesel & Unidentified Hydrocarbons <C15 Diesel & Unidentified Hydrocarbons <C15

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0
Date Extracted:	4/25/97	4/25/97	4/25/97	4/25/97
Date Analyzed:	4/28/97	4/28/97	4/28/97	4/28/97
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B

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

SEQUOIA ANALYTICAL, #1271


Jim Bava
Project Manager



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

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FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Tom Seeliger

Client Project ID: Mobil #99-105
Matrix: Liquid

QC Sample Group: 7041306-309

Reported: Apr 30, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	Diesel
QC Batch#:	GC042597 802004A	GC042597 802004A	GC042597 802004A	GC042597 802004A	MS043097 MTBES2A	SP042597 8015EXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8260	EPA 8015
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3510
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill	I. Dalvand	D. Sharma
MS/MSD #:	7041223	7041223	7041223	7041223	-	BLK042597
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	-	82 µg/L
Prepared Date:	4/25/97	4/25/97	4/25/97	4/25/97	-	4/25/97
Analyzed Date:	4/25/97	4/25/97	4/25/97	4/25/97	-	4/28/97
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	-	HP-3B
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	-	300 µg/L
Result:	18	19	18	56	-	240
MS % Recovery:	90	95	90	93	-	80
Dup. Result:	18	18	18	54	-	260
MSD % Recov.:	90	90	90	90	-	87
RPD:	0.0	5.4	0.0	3.6	-	8.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25	0-50

LCS #:	4LCS042597	4LCS042597	4LCS042597	4LCS042597	LCS042997	LCS042597
Prepared Date:	4/25/97	4/25/97	4/25/97	4/25/97	4/29/97	4/25/97
Analyzed Date:	4/25/97	4/25/97	4/25/97	4/25/97	4/29/97	4/28/97
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	GC/MS-2	HP-3B
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	50 µg/L	300 µg/L
LCS Result:	18	19	18	56	46	250
LCS % Recov.:	90	95	90	93	92	83

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130	60-140	60-140
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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, #1271

Jim Bava
Jim Bava
Project Manager

EXHIBIT 8

WASTE DISPOSAL MANIFEST

Monitoring Well Purge Water Transport Form

Generator Information

Name: Mobil Oil Corporation Attn: Steve Pao
 Address: 3700 West 190th Street, TPT-2
 City, State, Zip: Torrance, CA 90509-2929 Phone: (310) 212-1877
 Description of Water: Monitoring well purge water
 The generator certifies that this water mutt Mark Fritz
 as described is non-hazardous. Katen for Mobil: Mutt Katen 4-25-97
(Date)

Site Information

	Date Generated	Mobil Site No.	Amount Generated	Sampler's Initials		Date Generated	Mobil Site No.	Amount Generated	Sampler's Initials	
1	3-11-97	10-HFB	20	CC	16					
2	3-13-97	04-FCH	50	JM	17					
3	3-18-97	10-HMG	18	JM	18					
4	3-24-97	99-AB1	~ 20	CC	19					
5	4/10/97	04-FUK	~ 150	CC	20					
6	4/11/97	99-MTE	~ 105	CC	21					
7	4/14/97	04-FUW	75	CC	22					
8	4/15/97	04-JIX	80	CC	23					
9	4/22/97	10-G9R	128	CC	24					
10	4/22/97	99-105	30	JM	25					
11					26					
12					27					
13					28					
14					29					
15					30					
Total:							676			

Transporter Information

Name: Clearwater Environmental Management
 Address: P.O. Box 7420
 City, State, Zip: Fremont, CA 94555 Phone: (800) 499-3676
 Truck ID No.: 110-111
STEVEN R STONE Steven R Stone 4/25/97
(Date)

Receiving Facility

Name: McKittrick Waste Treatment Site
 Address: 56533 Highway 58 West
 City, State, Zip: McKittrick, CA 93251 Phone: (805) 762-7607
 Approval No.: 1296-1367-PS
DATA MAY 1997 4-28-97
(Date)

MAY 06 1997

NONHAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	2. Page 1 of 1	3. Document Number NH- No 43371	
GENERATOR	4. Generator's Name and Mailing Address Mobil Oil 3700 W. 190th Street TPT2 Torrance, CA 90509-2929 Generator's Phone 310-212-1877		Profile # 1296-1367-PS		
	5. Transporter Company Name Clearwater Environmental Management Inc		6. US EPA ID Number CAR000007013	7. Transporter Phone 510-797 8511	
	8. Designated Facility Name and Site Address McKittick Waste Treatment Site 56533 Hwy 58, West McKittick, CA 93251 CAD980636831		9. US EPA ID Number	10. Facility's Phone 805 762 7366	
	11. Waste Shipping Name and Description a. NON HAZARDOUS WASTE LIQUID b.		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol G
15. Special Handling Instructions and Additional Information WEAR Protective Gear Emergency contact 510-797 8511 ATTN Kirk Hayward		Handling Codes for Wastes Listed Above 11a. 11b.			
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to state or federal regulations for reporting proper disposal of Hazardous Waste.					
TRANSPORTER	Printed/Typed Name Matt Katen for mobil oil		Signature Matt Katen Month Day Year 4 27 97		
	Printed/Typed Name STEVEN R. STONE		Signature Steven R Stone Month Day Year 04/25/97		
18. Discrepancy Indication Space					
FACILITY	Printed/Typed Name MUTIS TON PK7		Signature Kathy May Month Day Year 4 28 97		
	19. Facility Owner or Operator Certification of receipt of waste materials covered by this manifest.		Signature Kathy May Month Day Year 4 28 97		