Mobil Oil Corporation

3225 GALLOWS ROAD
FAIRFAX, VIRGINIA 22037-0001

September 21, 1992

Ms. Jenifer Eberly
Alameda County Environmental Health Dept.
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

1108

FORMER MOBIL STATION 04-E6A
100 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA 94610

Dear Ms. Eberly:

Enclosed for your information and review is the Quarterly Groundwater Monitoring and Sampling Report, prepared by Alisto Engineering Group.

As indicated from the lab analysis, MW-3 remains non-detect for BTEX, TPH-D, and TPH-G. MW-2 generally remains the same with low levels of BTEX and TPH-G. MW-1 continues to demonstrate elevated levels of BTEX, TPH-G, and TPH-D.

As you are aware, this is the last quarterly report that will be submitted by Mobil Oil Corporation. Project management has been turned over to BP Oil in accordance with the terms and conditions of the sales agreement. All future correspondence should be directed to:

BP Oil Company
Northwest Division
Atten: Scott Hooton
Southcenter Place Building
16400 Southcenter Parkway, Suite 301
Tukwila, WA 98188

5243 P. DeSantis
206-394-5244 S. Lovealf
5246 P. DeSantis

Furthermore, in an effort to monitor BP's progress at our former station, we would appreciate receiving copies of all future correspondence sent by your office to BP.

Should you have any further questions, please call me at 1-800-227-0707 extension 5316.

Environmental Awareness

Sincerely,

Michele A. Fear

Michele A. Fear
Environmental Monitoring
Analyst

enclosure:

cc: Mr. Donald Dalke - RWQCB- San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

S. Hooton - BP Oil- Northwest Division- Southcenter Pl Bldg-
16400 Southcenter Pkwy, Suite 301; Tukwila, WA 98188

D. J. Hill - Mobil Environmental Field Supervisor
J. G. Schoepf - Mobil Environmental Monitoring Supervisor

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

Prepared for

Former Mobil Station 04-E6A
100 MacArthur Boulevard
Oakland, California

Project No. 10-052

Prepared by

Alisto Engineering Group
1000 Burnett Avenue, Suite 420
Concord, California

August 29, 1992

Brady Nagle
Project Manager

Al Sevilla
Principal

REGISTERED PROFESSIONAL ENGINEER
ALFREDO SANCHEZ SEVILLA
No. 20392
Date 8/31/96
CIVIL
STATE OF CALIFORNIA

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

Former Mobil Station 04-E6A
100 MacArthur Boulevard
Oakland, California

Project No. 10-052

August 29, 1992

INTRODUCTION

This report presents the results and findings of the July 22 and August 14, 1992 quarterly groundwater monitoring and sampling conducted by Alisto Engineering Group at Former Mobil Station 04-E6A, located at 100 MacArthur Boulevard, Oakland, California. A site vicinity map is shown in Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the guidelines and procedures of the Regional Water Quality Control Board, San Francisco Bay Region, and the Alameda County Health Agency.

Prior to purging and sampling, the ground water level in each well was measured from a permanent mark on the top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to ground water and the top of casing elevation data were used to calculate the ground water elevation within each well in reference to mean sea level. The survey data and ground water elevation measurements collected to date are presented in Table 1.

Prior to sample collection, each well was purged of three casing volumes, while recording field readings of pH, temperature, and electrical conductivity. Ground water samples for laboratory analysis were collected by lowering a bottom-fill, disposable bailer to just below the water level in the well. The samples were carefully transferred from the bailer into the appropriate clean glass containers. The water sampling field survey forms are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The results of the monitoring and laboratory analyses of the groundwater samples for this and previous quarters are summarized in Table 1. The potentiometric groundwater elevations and gradient direction as interpreted from the results of this quarterly monitoring event are depicted in Figure 2. A map showing the concentration of petroleum hydrocarbon

constituents detected in groundwater samples is presented as Figure 3. Laboratory reports and the chain of custody record are presented in Appendix B.

SUMMARY OF FINDINGS

The findings from the July 22 and August 14, 1992 ground water sampling events are summarized below:

- Free product or sheen was not detected in any of the three monitoring wells.
- Groundwater elevation data collected on July 22, 1992 indicate a gradient of 0.07 ft./ft. in a general west-southwest direction onsite. This is generally consistent with groundwater elevation data collected on August 14, 1992.
- Dissolved-phase total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethylbenzene, and total xylenes (BTEX) constituents were detected in samples collected from Monitoring Wells MW-1 and MW-2. TPH-G and benzene were detected at concentrations of up to 4,000 parts per billion (ppb), and 330 ppb, respectively.
- Analysis of the groundwater sample collected from Monitoring Well MW-1 revealed the presence of 1,700 dissolved-phase total petroleum hydrocarbons as diesel (TPH-D), but no detectable concentrations of halogenated volatile organic compounds (HVOCs) or total oil and grease (TOG) above reported detection limits.
- Dissolved-phase TPH-G, BTEX constituents, TPH-D, TOG, and HVOCs were not detected above reported detection limits in the groundwater sample collected from Monitoring Wells MW-3.

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
FORMER MOBIL OIL STATION 04-E6A
100 MacArthur Boulevard, Oakland, California

ALISTO PROJECT NO. 10-052

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a)	DEPTH TO WATER	GROUNDWATER ELEVATION (b)	TPH-G (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	1,2-DCA (ppb)	TOG (ppb)	LAB
MW-1	11/04/89	90.20	13.21	76.99	ND<500	ND<50	3.4	0.8	ND<0.3	ND<0.3	0.9	ND<5000	SAL
MW-1	11/11/89	90.20	13.32	76.88	---	---	---	---	---	---	---	---	---
MW-1	04/03/90	90.20	12.46	77.74	820	---	64	1.9	23	34	---	---	ANA
MW-1	07/30/90	90.20	12.92	77.28	190	ND<50	11	ND<5.0	ND<5.0	ND<5.0	ND	ND<5000	ANA
MW-1	11/20/90	90.20	14.08	76.12	50	79	2.4	ND<0.3	ND<0.3	ND<0.3	4.0	ND<5000	SAL
MW-1	03/01/91	90.20	13.61	76.59	ND<100	ND<1000	0.9	ND<0.3	ND<0.3	0.3	ND	14000	SAL
MW-1	08/19/91	90.20	15.74	74.46	370	ND<50	35	0.73	6.4	5.6	1.4	ND<5000	SEQ
MW-1	11/13/91	90.20	14.08	76.12	60	ND<50	0.68	ND<0.3	ND<0.3	ND<0.3	1.0	ND<5000	SEQ
MW-1	02/24/92	90.20	12.52	77.68	140	100	3.9	0.66	1.2	3.8	1.7	ND<5000	SEQ
MW-1	05/19/92	90.20	11.80	78.40	4200	910	440	21	250	37	ND	ND<5000	SEQ
MW-1	08/17/92	90.20	12.01	78.19	4000	560	350	14	150	17	ND	ND<5000	SEQ
MW-1	07/22/92	90.20	12.42	77.78	4000	---	ND<5.0	19	210	61	---	---	ANA
MW-1	08/14/92	90.20	12.75	77.45	2400	1700	330	20	150	47	ND<2.5	ND<5000	SEQ
MW-2	11/04/89	87.91	15.84	72.07	ND<500	---	6.5	ND<0.3	ND<0.3	ND<0.3	---	---	SAL
MW-2	11/11/89	87.91	14.75	73.16	---	---	---	---	---	---	---	---	---
MW-2	04/03/90	87.91	15.25	72.66	ND<500	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-2	07/30/90	87.91	15.59	72.32	61	---	6.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-2	11/20/90	87.91	17.81	70.10	ND<50	---	0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SAL
MW-2	03/01/91	87.91	17.11	70.80	ND<100	---	0.4	ND<0.3	ND<0.3	ND<0.3	4.0	---	SAL
MW-2	08/19/91	87.91	17.97	69.94	ND<30	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SEQ
MW-2	11/13/91	87.91	16.76	71.15	38	---	0.32	ND<0.3	ND<0.3	ND<0.3	---	---	SEQ
MW-2	02/24/92	87.91	15.07	72.84	ND<50	---	ND<0.50	ND<0.50	ND<0.50	0.58	16	---	SEQ
MW-2	05/19/92	87.91	14.70	73.21	ND<50	---	0.55	ND<0.50	ND<0.50	ND<0.50	---	---	SEQ
MW-2	07/22/92	87.91	15.60	72.31	90	---	1.3	0.6	0.9	1.9	---	---	ANA
MW-2	08/14/92	87.91	15.88	72.03	---	---	---	---	---	---	---	---	---
MW-3	11/04/89	87.02	15.40	71.62	ND<500	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SAL
MW-3	11/11/89	87.02	14.10	72.92	---	---	---	---	---	---	---	---	---
MW-3	04/03/90	87.02	13.90	73.12	ND<100	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-3	07/30/90	87.02	13.77	73.25	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	ANA
MW-3	11/20/90	87.02	14.67	72.35	ND<50	---	0.3	0.8	0.4	1.5	---	---	SAL
MW-3	03/01/91	87.02	15.22	71.80	ND<100	---	0.4	ND<0.3	ND<0.3	ND<0.3	ND	---	SAL
MW-3	08/19/91	87.02	13.15	73.87	ND<30	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SEQ
MW-3	11/13/91	87.02	15.66	71.36	ND<30	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	SEQ
MW-3	02/24/92	87.02	15.01	72.01	ND<50	---	0.65	1.4	0.66	4.4	ND	---	SEQ
MW-3	05/19/92	87.02	15.52	71.50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	---	SEQ
MW-3	07/22/92	87.02	15.63	71.39	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.50	ND<5000	ANA
MW-3	08/14/92	87.02	13.57	73.45	---	---	---	---	---	---	---	---	---

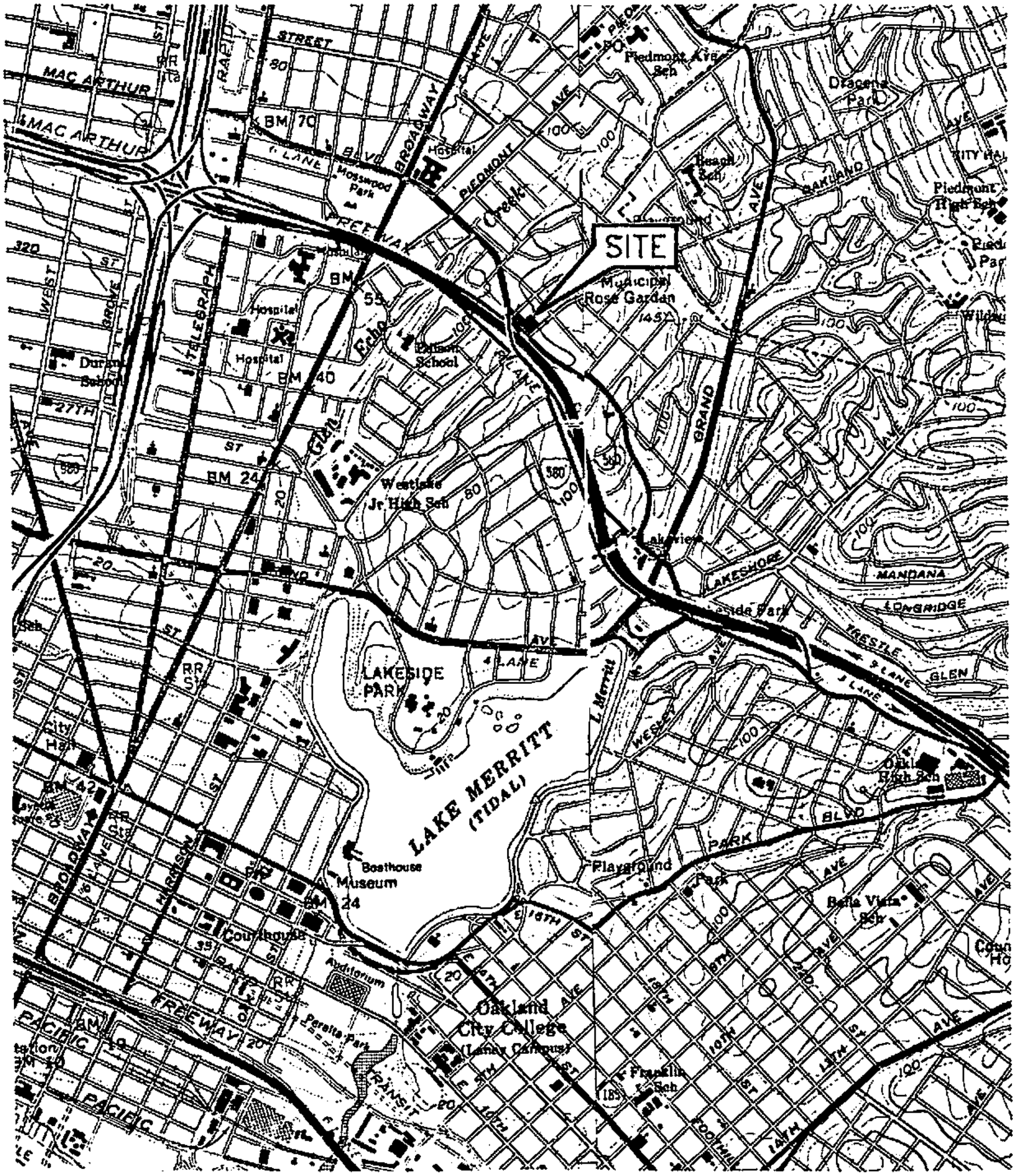
ABBREVIATIONS:

TPH-G	Total Petroleum Hydrocarbons as Gasoline
TPH-D	Total Petroleum Hydrocarbons as Diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Xylenes
1,2-DCA	1,2-Dichloroethane
TOG	Total oil and grease
ND	Not detected above reported detection limits
SAL	Superior Analytical Laboratory
SEQ	Sequoia Analytical Laboratory
ANA	Anametrix, Inc.
(ppb)	Parts per Billion
---	Not analyzed / not available

NOTES:

(a) Top of casing elevations surveyed to the nearest 0.01 foot above Mean Sea Level.

(b) Groundwater elevations in feet above Mean Sea Level.



N

0 1000 2000

SCALE IN FEET

SOURCE:
USGS MAP, OAKLAND EAST AND WEST QUADRANGLES, CALIFORNIA, 7.5 MINUTE SERIES, 1959, PHOTOREVISED 1980.

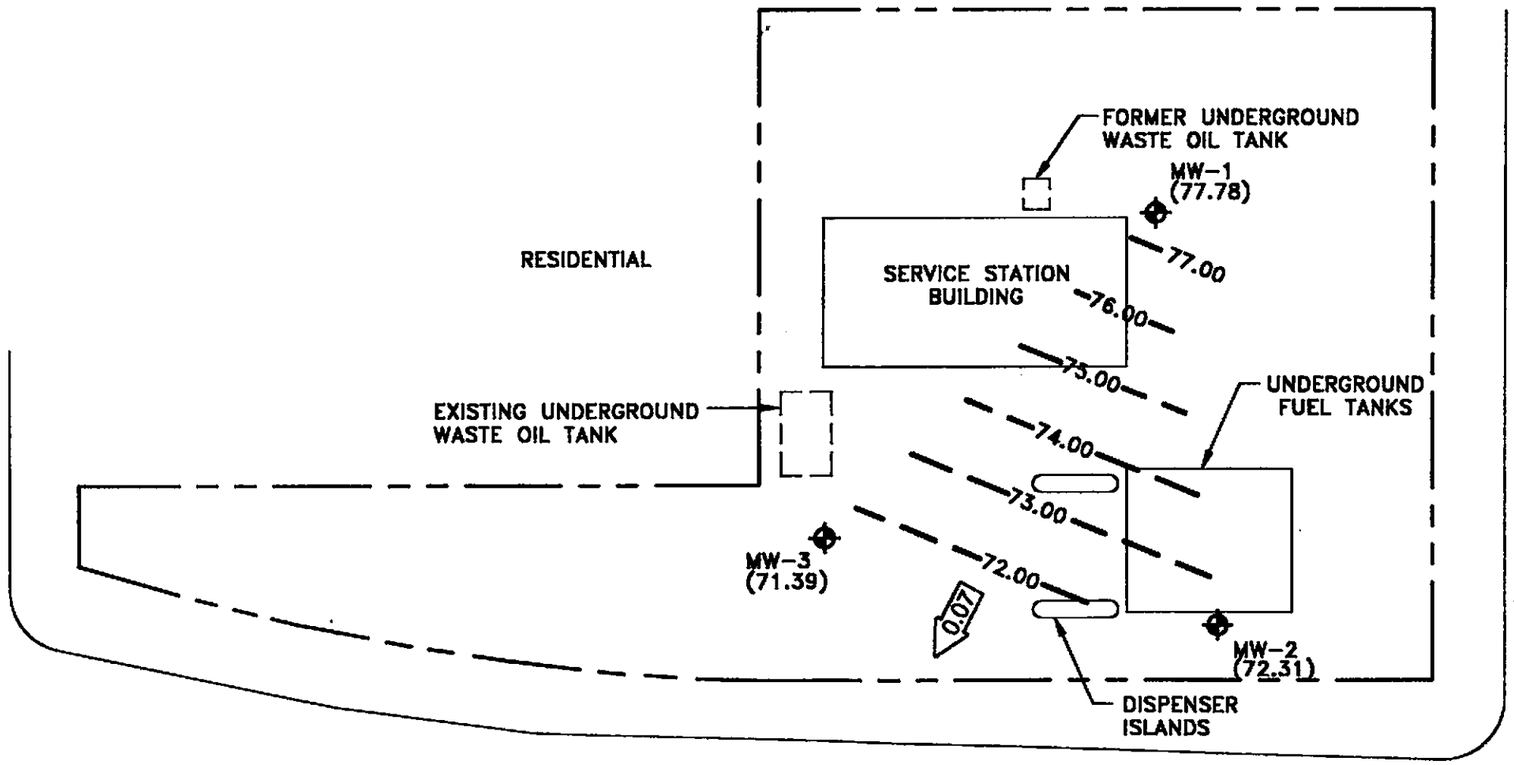
FIGURE 1

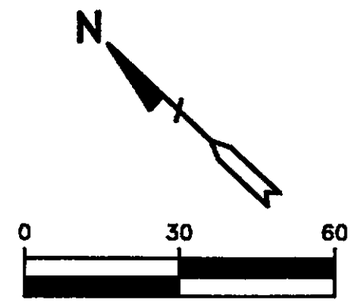
SITE VICINITY MAP

MOBIL SERVICE STATION NO. 04-E6A
100 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-052

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA





LEGEND:

- ⌖ GROUNDWATER MONITORING WELL
- (77.78) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 77.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL – 1.00 FOOT)
- 0.07 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

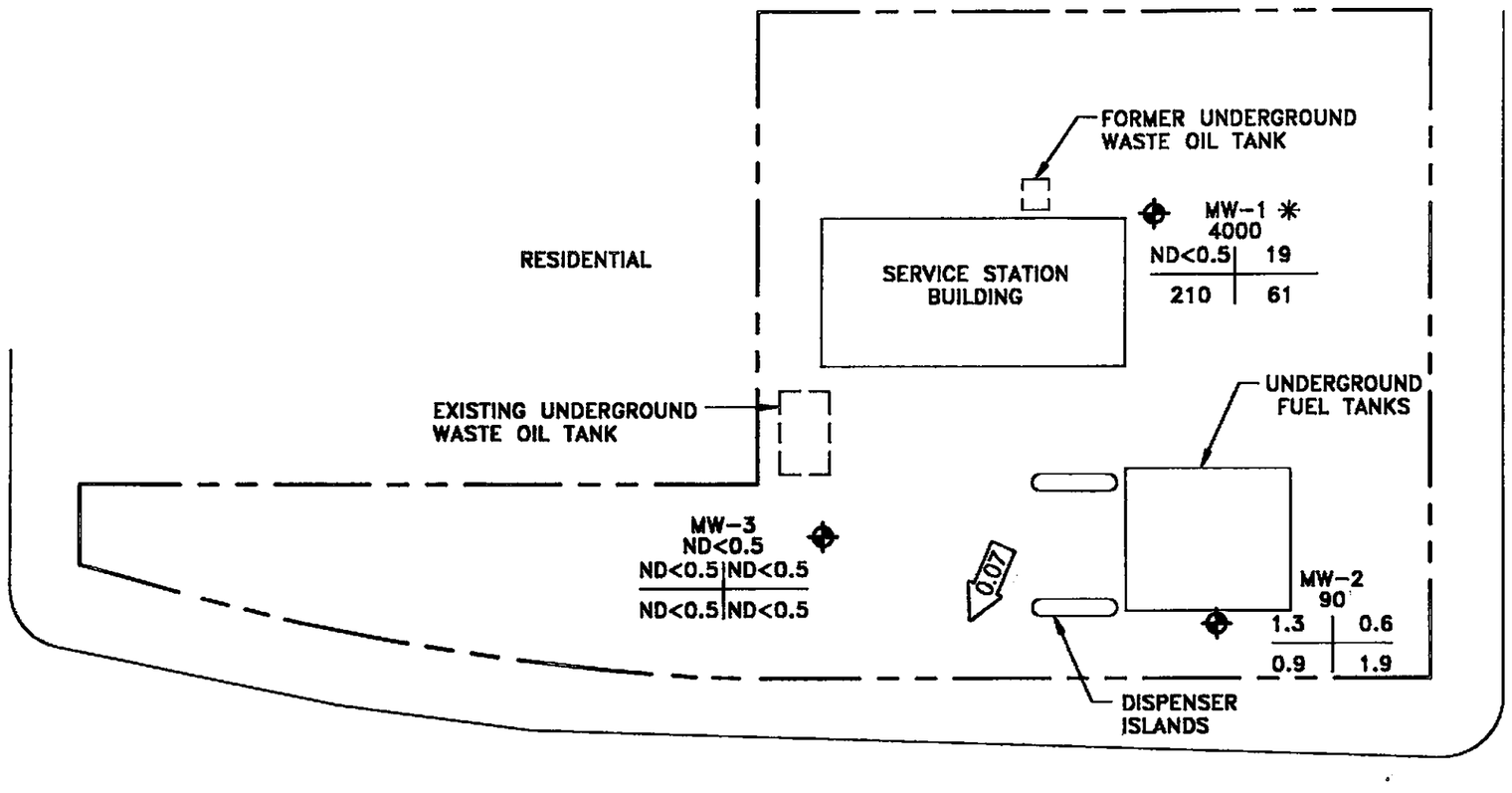
FIGURE 2

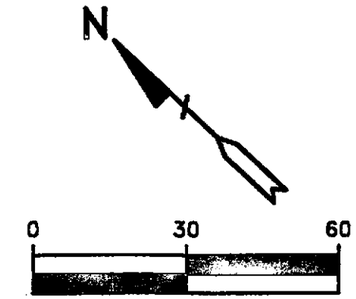
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP (JULY 22, 1992)

FORMER MOBIL SERVICE STATION 04–E6A
100 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO. 10–052

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA





LEGEND:

⊕	GROUNDWATER MONITORING WELL
TPH–G / B | T / E | X	CONCENTRATION OF CONSTITUENTS IN PARTS PER BILLION (PPB)
TPH–G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
0.07	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT
*	A GROUNDWATER SAMPLE COLLECTED ON AUGUST 14, 1992 FROM MW–1 CONTAINED 330 ppb BENZENE

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER (JULY 22, 1992)

FORMER MOBIL SERVICE STATION 04–E6A
100 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO. 10–052

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

10052D1F.DWG 8-11-92 JRR 1=30

APPENDIX A

WATER SAMPLING FORMS

Birch Technical Services

Field Report / Data Sheet

10-E6A

X Groundwater Sampling O Groundwater Monitoring O Well Development O Drill Support O Stockpile Sampling

116 Liberty st
Santa Cruz, Ca 95060
(408) 459-0718

Firm: ALISTO

Project Number: 10-052

Date: 7/22/92

Field Technician: Dan Birch

Station #: MW-1 ~~10-E6A~~

Day: M Tu (W) Th F

Address: 100 McArthur Blvd OAKLAND

Weather: Hot

Milage: 40 mi

Equipment List:

- O _____ ( )
- O _____ ( )
- X Water Guage (1/2)day
- X Parameter Kit(1)day
- X Disposable Bailers (3)
- X Plug(s)(1)(~~2~~ in) 4"
- X Honda Pump (/)day
- X Poly Tubing (99 ft)
- X Dolphin Lock(s) (3)
- X Nitrile Gloves (___ pair)

Travel Time: 2 hrs
Time at Site: 3 hrs
Total Time: 5 hrs

DTWorder	Well ID	Diam	Lock	Exp Cap	Total Depth (feet)	1st Depth to Water (feet)	2nd Depth to Water (feet)	Depth to Product (feet)	Product Thickness	Comments
3	MW-1	4	OK	OK	~~12.42~~	12.42'	12.42			Replaced lock
2	MW-2	4"	OK	OK	~~15.60~~	15.60	15.60			Replaced Lock
1	MW-3	4"	No	No	~~15.65~~	15.63'	15.63			Replace Cap & Lock

Notes: 11:00 ARRIVE, open wells, let breathe then measure DTW. Sample as shown on C-O-C and G.W Sampling forms. Leave site at 2:00.

Page ___ of ___ Inv#: _____

Birch Technical Services

116 Liberty Street
Santa Cruz, Ca 95060
(408) 459-0718

GROUND-WATER SAMPLING FORM

Well Number: MW-1

Project Number: 10-052
Station Number: ~~466.1~~ ~~10~~ E6A
Date: 7/22/92 04

Well Type: X Monitor OExtraction O_____

Sampled by: DAN BIRCH

WELL PURGING

PURGE VOLUME

Casing Diameter (inches) / Volume Factors:

O 2"	O3"	X 4"	O4.5"	O6"	O____
0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 32.4 Initial Water Level: 12.42

Total Volume Purged: 40g Time Elapsed: 17

PURGE METHOD:
X Honda Pump
X Disposable PolyTubing(33 ft)
ODisposable PVC Bailer(s)(____)
OOther_____

Calculated Purge Volume: 19.98

32.4 (Total Depth) - 12.42' (Water Level) = ~~165~~ x .65 (Well Vol. Fac.) = 12.9 x 3 (#of vol. to Purge) = 39 (gallons) (Calculated Purge Volume)

Subjective Analysis Prior to Purging

SHEEN OYes X No | Depth of Product _____(ft) | Emulsion OYes X No

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1145
Solution pH 4.00 4 at 79.2 °C
Solution pH 10.00 10 at 79.2 °C
Solution pH 7.00 7 at 79.2 °C
Water Level Meter#: 10337

SAMPLING METHOD

X PVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1212

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
1	1153	72.4	6.34	1.73
5	1155	70.8	6.32	1.23
10	1157	70.2	6.30	1.06
17	1200	70.4	6.16	0.98
30	1204	69.8	6.19	1.09
35	1207	69.8	6.23	1.09
40	1210	69.9	6.24	1.08

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

116 Liberty Street
Santa Cruz, Ca 95060
(408) 459-0718

GROUND-WATER SAMPLING FORM

Well Number: MW-2

Project Number: 10-052
Station Number: MD6/104-E6A
Date: 7/22/92

Well Type: XMonitor OExtraction O_____

Sampled by: DAN BIRCH

WELL PURGING

PURGE VOLUME

Casing Diameter (inches) / Volume Factors:

O 2"	O3"	X4"	O4.5"	O6"	O____
0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 32.36
Initial Water Level: 32.36
Total Volume Purged: 33
Time Elapsed: 17

PURGE METHOD:
XHonda Pump
XDisposable PolyTubing(33 ft)
ODisposable PVC Bailer(s)(____)
OOther_____

Calculated Purge Volume:

32.36 (Total Depth) - 15.60 (Water Level) = 16.76 x .65 (Well Vol. Fac.) = 10.9 x 3 (#of vol. to Purge) = 33 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo
Depth of Product _____(ft)
Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1145
Solution pH 4.00 4 at 71.2 °C
Solution pH 10.00 10 at 71.2 °C
Solution pH 7.00 7 at 71.2 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr) 1245

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
2	1220	72.9	6.14	5.15
12.5	1223	73.0	6.75	1.78
25	1227	72.9	6.38	1.46
33	1237	72.9	6.37	1.47

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

116 Liberty Street
Santa Cruz, Ca 95060
(408) 459-0718

GROUND-WATER SAMPLING FORM

Well Number: MW-3

Project Number: 10-052
Station Number: MW6.104-E6A
Date: 7/22/97

Well Type: XMonitor OExtraction O_____

Sampled by: DAN BIRD

WELL PURGING

PURGE VOLUME

Casing Diameter (inches) / Volume Factors:

O 2"	O3"	X4"	O4.5"	O6"	O____
0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 32.05 Initial Water Level:_____

Total Volume Purged: 32 Time Elapsed: 16M

PURGE METHOD:
XHonda Pump
ODisposable PolyTubing(33 ft)
ODisposable PVC Bailer(s)(____)
OOther_____

Calculated Purge Volume:

32.05 - 15.63 = 16.42 x 0.65 = 10.7 x 3 = 32 (gallons)

Total Depth | Water Level | Well Vol. Fac. | #of vol. to Purge | Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo | Depth of Product _____(ft) | Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1145
Solution pH 4.00 4 at 79.2 °C
Solution pH 10.00 10 at 79.2 °C
Solution pH 7.00 7 at 79.2 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1335

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
5	1315	70.2	6.71	1.00
12.5	1319	~~71~~ 71.4	6.51	0.91
20	1323	72.8	6.48	1.01
27.5	1327	72.6	6.42	0.97
32	1331	72.5	6.44	0.99

	Analysis Required	No. of	Container Type	Preservatives
X	EPA 601	3	VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
X	TPH- Diesel	1	Amber Liter	
X	TOG 5520 BF	1	Amber Liter	~~H_2NO_3~~
				H_2SO_4

Birch Technical Services

Field Report / Data Sheet

X Groundwater Sampling O Groundwater Monitoring O Well Development O Drill Support O Stockpile Sampling

116 Liberty st
Santa Cruz, Ca 95060
(408) 459-0718

Firm: ALISTO
Project Number: 10-052
Date: 8/14/92
Field Technician: Dan Birch
Station #: MW-6A
Address: 100 MacArthur Blvd Oakland
Day: M Tu W Th F
Weather: Clear
Milage: 50 mi

Equipment List:

- X Water Guage (1) day
- X Parameter Kit (1) day
- X Disposable Bailers (1)
- O Plug(s) (___) (___ in)
- X Honda Pump (1) day
- X Poly Tubing (1 ft)
- O Dolphin Lock(s) (___)
- X Nitrile Gloves (1 pair)
- O _____ (___)
- O _____ (___)

Travel Time: 2 hrs
Time at Site: 1 hrs
Total Time: 3 hrs

DTWorder	Well ID	Diam	Lock	Exp Cap	Total Depth (feet)	1st Depth to Water (feet)	2nd Depth to Water (feet)	Depth to Product (feet)	Product Thickness	Comments
	MW-1	4	ok	ok	32.4	12.75	12.75			
	MW-2	4	ok	ok	32.6	15.88	15.88			
	MW-3	4	ok	ok	32.05	13.57	13.57			Surface oil staining on and near well box from upslope waste oil tank.

Notes: Arrive at site and open wells. Measure DTW's and start purging MW-1. After easy purge sample MW-1 for TPH-GBTEX, TOG, TPHDiesel and EPA 601. Leave site toward lab. Arrive at SEQUOIA and transfer C-O-C at 3:35. Travel to office until 4:45.

Page ___ of ___ Inv#: _____

Birch Technical Services

116 Liberty Street
Santa Cruz, Ca 95060
(408) 459-0718

GROUND-WATER SAMPLING FORM

Well Number: MW-1

Project Number: 10-052
Station Number: Mah.1 10 E6A
Date: 8/12/92

Well Type: X Monitor OExtraction O_____

Sampled by: Dan Birch

WELL PURGING

PURGE VOLUME

Casing Diameter (inches) / Volume Factors:

O 2"	O3"	X 4"	O4.5"	O6"	O____
0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 32.4

Initial Water Level: 12.75

Total Volume Purged: 40g

Time Elapsed: _____

PURGE METHOD:
X Honda Pump
X Disposable PolyTubing(35 ft)
O Disposable PVC Bailer(s)(____)
O Other_____

Calculated Purge Volume:

32.4 (Total Depth) - 12.75 (Water Level) = 19.65 x .65 (Well Vol. Fac.) = 12.8 x 3 (#of vol. to Purge) = 38.3 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes X No | Depth of Product _____(ft) | Emulsion OYes X No

COMMENTS: Good production

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300
Solution pH 4.00 4 at 72.1 °C
Solution pH 10.00 10 at 72.1 °C
Solution pH 7.00 7 at 72.1 °C
Water Level Meter#: 10337

SAMPLING METHOD

X PVC Disposable Bailer
O Teflon Bailer
O Other:_____

Time Sampled (24 hr): 1400

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
10	1347	73.1	6.31	1.07
20	1351	69.7	6.32	1.06
30	1355	69.8	6.30	1.01
40	1357	69.7	6.30	1.02

	Analysis Required	No. of	Container Type	Preservatives
X	EPA 601	3	VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
X	TPH- Diesel	1	Amber Liter	
X	TOG 5520 BF	1	Amber Liter	~~H_2NO_3~~ H_2SO_4

APPENDIX B

LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS

ANAMETRIX INC
Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

REPORT

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207289
Date Received : 07/23/92
Project ID : 10-052
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9207289- 1	MW-1
9207289- 2	MW-2
9207289- 3	MW-3

This report consists of 15 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Larry Kerr for

Sarah Schoen, Ph.D.
Laboratory Director

08-07-92
Date

ANAMETRIX REPORT DESCRIPTION
GC

Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Anametrix ID number.

Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method, if the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "*", and the total number of surrogates outside the limits will be listed in the column labelled "Total Out".

Matrix Spike Recovery Form (MSR)

MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

Qualifiers

Anametrix uses several data qualifiers (Q) in it's report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207289
Date Received : 07/23/92
Project ID : 10-052
Purchase Order: N/A
Department : GC
Sub-Department: VOA

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9207289- 3	MW-3	WATER	07/22/92	601

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207289
Date Received : 07/23/92
Project ID : 10-052
Purchase Order: N/A
Department : GC
Sub-Department: VOA

QA/QC SUMMARY :

- No QA/QC problems encountered for this sample.

Corinne Khan 7/31/92
Department Supervisor Date

Kamel G. Kamel 7131192
Chemist Date

DESCRIPTIONS FOR SPECIFIC COMPOUNDS ANALYZED
EPA METHOD 601/8010

CAS #	COMPOUND NAME	ABBREVIATED NAME
74-87-3	Chloromethane	Chloromethane
74-83-9	Bromomethane	Bromoethane
75-71-8	Dichlorodifluoromethane	Freon 12
75-01-4	Vinyl Chloride	Vinyl Chloride
75-00-3	Chloroethane	Chloroethane
75-09-2	Methylene Chloride	Methylene Chlor
75-69-4	Trichlrofluoromethane	Freon 11
75-35-4	1,1-Dichloroethene	1,1-DCE
75-34-3	1,1-Dichloroethane	1,1-DCA
156-59-2	Cis-1,2-Dichloroethene	Cis-1,2-DCE
156-60-5	Trans-1,2-Dichloroethene	Trans-1,2-DCE
67-66-3	Chloroform	Chloroform
76-13-1	Trichlorotrifluoroethane	Freon 113
107-06-2	1,2-Dichloroethane	1,2-DCA
71-55-6	1,1,1-Trichloroethane	1,1,1-TCA
56-23-5	Carbon Tetrachloride	Carbon Tet
75-27-4	Bromodichloromethane	BromodichloroMe
78-87-5	1,2-Dichloropropane	1,2-DCPA
10061-02-6	Trans-1,3-Dichloropropene	Trans-1,3-DCPE
79-01-6	Trichloroethene	TCE
124-48-1	Dibromochloromethane	DibromochloroMe
79-00-5	1,1,2-Trichloroethane	1,1,2-TCA
10061-01-5	Cis-1,3-Dichloropropene	Cis-1,3-DCPE
110-75-8	2-Chloroethylvinylether	Chloroethylvinl
75-25-2	Bromoform	Bromoform
127-18-4	Tetrachloroethene	PCE
79-34-5	1,1,2,2-Tetrachloroethane	PCA
108-90-7	Chlorobenzene	Chlorobenzene
95-50-1	1,2-Dichlorobenzene	1,2-DCB
541-73-1	1,3-Dichlorobenzene	1,3-DCB
106-46-7	1,4-Dichlorobenzene	1,4-DCB
352-33-0	p-Chlorofluorobenzene	Chlorofluoroben

mh/3426 - 10MH

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 601
ANAMETRIX, INC. (408)432-8192

Project ID : 10-052
Sample ID : MW-3
Matrix : WATER
Date Sampled : 7/22/92
Date Analyzed : 7/30/92
Instrument ID : HP14

Anametrix ID : 9207289-03
Analyst : KK
Supervisor : CP
Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	1.0	ND	U
156-60-5	Trans-1,2-DCE	.50	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	ND	U
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	1.0	ND	U
10061-01-5	Cis-1,3-DCPE	.50	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	1.0	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID	: 10-052	Anametrix ID	: 14B0730H01
Sample ID	: VBLANK	Analyst	: KL
Matrix	: WATER	Supervisor	: CP
Date Sampled	: 0/ 0/ 0		
Date Analyzed	: 7/30/92	Dilution Factor	: 1.0
Instrument ID	: HP14	Conc. Units	: ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	1.0	ND	U
156-60-5	Trans-1,2-DCE	.50	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	ND	U
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	1.0	ND	U
10061-01-5	Cis-1,3-DCPE	.50	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	1.0	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 601
ANAMETRIX, INC. (408)432-8192

Project ID : 10-052
Matrix : LIQUID

Anametrix ID : 9207289
Analyst : KK
Supervisor : CP

	SAMPLE ID	SU1	SU2	SU3
1	VBLANK	102		
2	MW-3	104		
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

	QC LIMITS
SU1 = CHLOROFLUOROBEN	(51-136)

* Values outside of Anametrix QC limits

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207289
Date Received : 07/23/92
Project ID : 10-052
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9207289- 3	MW-3	WATER	07/22/92	TPHd
9207289- 1	MW-1	WATER	07/22/92	TPHg/BTEX
9207289- 2	MW-2	WATER	07/22/92	TPHg/BTEX
9207289- 3	MW-3	WATER	07/22/92	TPHg/BTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207289
Date Received : 07/23/92
Project ID : 10-052
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Department Supervisor — Date 7/6/92

Chemist — Date 8/6/92

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9207289
Matrix : WATER
Date Sampled : 07/22/92

Project Number : 10-052
Date Released : 08/06/92

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# MW-1 -01	Sample I.D.# MW-2 -02	Sample I.D.# MW-3 -03	Sample I.D.# BG0402E3 BLANK
Benzene	0.5	ND	1.3	ND	ND
Toluene	0.5	19	0.6	ND	ND
Ethylbenzene	0.5	210	0.9	ND	ND
Total Xylenes	0.5	61	1.9	ND	ND
TPH as Gasoline	50	4000	90	ND	ND
% Surrogate Recovery		97%	73%	74%	99%
Instrument I.D.		HP21	HP21	HP21	HP21
Date Analyzed		08/04/92	08/04/92	08/04/92	08/04/92
RLMF		10	1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 8/6/92 Date

Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9207289
Matrix : WATER
Date Sampled : 07/22/92
Date Extracted: 07/30/92

Project Number : 10-052
Date Released : 08/06/92
Instrument I.D.: HP23

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9207289-03	MW-3	08/05/92	50	ND
DWBL073092	METHOD BLANK	08/05/92	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50 ug/L.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3510.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Linda Shor 8/6/92
Analyst Date

Supervisor Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207289
Date Received : 07/23/92
Project ID : 10-052
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9207289- 3	MW-3	WATER	07/22/92	5520BF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207289
Date Received : 07/23/92
Project ID : 10-052
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for sample.

Carol C. Bratt 8.5.92
Department Supervisor Date

J R Patel 08-04-92
Chemist Date

ANALYSIS DATA SHEET - TOTAL OIL AND GREASE
ANAMETRIX, INC. (408) 432-8192

Project #	: 10-052	Anametrix I.D.	: 9207289
Matrix	: WATER	Analyst	: APR
Date sampled	: 07/22/92	Supervisor	: CeB
Date ext. TOG	: 07/30/92	Date released	: 08/04/92
Date anl. TOG	: 07/30/92		

Workorder #	Sample I.D.	Reporting Limit (mg/L)	Amount Found (mg/L)
9207289-03	MW-3	5	ND
GWBL073092	METHOD BLANK	5	ND

ND - Not detected at or above the practical quantitation limit for the method.
TOG - Total Oil & Grease is determined by Standard Method 5520BF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

TOTAL OIL AND GREASE LAB CONTROL SAMPLE REPORT
STANDARD METHOD 5520BF
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : WATER
Date sampled : N/A
Date extracted : 07/30/92
Date analyzed : 07/30/92

Anametrix I.D. : LCSW0730
Analyst : AP.
Supervisor : CB
Date Released : 08/04/92

COMPOUND	SPIKE AMT. (mg/L)	LCS (mg/L)	%REC LCS	LCSD (mg/L)	%REC LCSD	%RPD	%REC LIMITS
Motor Oil	50	49	98%	49	98%	0%	47-99%

* Quality control limits established by Anametrix, Inc.

ANAMETRIX INC
Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

9207289 (18) 10/25 (15) 17:40 JA

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
10-052	Mobil 04-E6A

Send Report Attention of:	Report Due	Verbal Due
BRADY NAGLE	8/6/92	8/6/92

	Sample Number	Date	Time	Comp	Matrix	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH/BTEX	TDG 5520BF	TPH-Diesel	EPA 601	Condition of Samples	Initial
(1)	MW-1	7/22/92	1212		W		3	VOA's	X					
(2)	MW-2	"	1245		"		3	VOA's	X					
(3)	MW-3	"	1335		"		8	VOAs Ambers	X	X	X	X		

Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by:(Signature)	Date/Time	Received by Lab:	Date/Time
Dan [illegible]	7/23/92 1717	[illegible] Aguilar	7/23/92 1710

Remarks: Please fax a copy of this C-O-C to Brady @ 5107984099

COMPANY: ALISTO ENGINEERING
ADDRESS:
PHONE : 5107984070 FAX : 5107984099

SEQUOIA ANALYTICAL

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

Alisto Engineering	Client Project ID:	Mobil 04-E6A/10-052	Sampled:	Aug 14, 1992
1000 Burnett Ct., Ste 420	Sample Matrix:	Water	Received:	Aug 14, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Aug 24, 1992
Attention: Brady Nagle	First Sample #:	208-2503		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 208-2503 MW-1	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.
Purgeable Hydrocarbons	50	2,400					
Benzene	0.50	330					
Toluene	0.50	20					
Ethyl Benzene	0.50	150					
Total Xylenes	0.50	47					
Chromatogram Pattern:		Gasoline + C4-C6					

Quality Control Data

Report Limit Multiplication Factor:	10
Date Analyzed:	8/21/92
Instrument Identification:	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	112

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

SEQUOIA ANALYTICAL

Christine Middleton
for Maile A. Springer
Project Manager

SEQUOIA ANALYTICAL

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

Alisto Engineering	Client Project ID:	Mobil 04-E6A/10-052	Sampled:	Aug 14, 1992
1000 Burnett Ct., Ste 420	Sample Matrix:	Water	Received:	Aug 14, 1992
Concord, CA 94520	Analysis Method:	EPA 3510/3520/8015	Reported:	Aug 24, 1992
Attention: Brady Nagle	First Sample #:	208-2503		

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 208-2503 MW-1	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.
Extractable Hydrocarbons	50	1,700					
Chromatogram Pattern:		Diesel + Non-Diesel Mix < C12					

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	8/17/92
Date Analyzed:	8/18/92
Instrument Identification:	GCHP-5

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

SEQUOIA ANALYTICAL

Christine Madden

Maile A. Springer
Project Manager

SEQUOIA ANALYTICAL

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

Alisto Engineering	Client Project ID:	Mobil 04-E6A/10-052	Sampled:	Aug 14, 1992
1000 Burnett Ct., Ste 420	Sample Descript:	Water, MW-1	Received:	Aug 14, 1992
Concord, CA 94520	Analysis Method:	EPA 601	Analyzed:	Aug 19, 1992
Attention: Brady Nagle	Lab Number:	208-2503	Reported:	Aug 24, 1992

PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	2.5	N.D.
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Christine Middleton

Maile A. Springer
Project Manager

SEQUOIA ANALYTICAL

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Alisto Engineering	Client Project ID:	Mobil 04-E6A/10-052	Sampled:	Aug 14, 1992
1000 Burnett Ct., Ste 420	Matrix Descript:	Water	Received:	Aug 14, 1992
Concord, CA 94520	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted:	Aug 18, 1992
Attention: Brady Nagle	First Sample #:	208-2503	Analyzed:	Aug 18, 1992
			Reported:	Aug 24, 1992

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L
208-2503	MW-1	N.D.

Detection Limits:	**5.0**

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

SEQUOIA ANALYTICAL

Christine Middleton
Maile A. Springer
Project Manager

SEQUOIA ANALYTICAL

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Alisto Engineering
1000 Burnett Ct., Ste 420
Concord, CA 94520
Attention: Brady Nagle

Client Project ID: Mobil 04-E6A/10-052

QC Sample Group: 208-2503

Reported: Aug 24, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
Analyst:	M.Nipp	M.Nipp	M.Nipp	M.Nipp	C.Lee
Reporting Units:	µg/L	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Aug 21, 1992	Aug 21, 1992	Aug 21, 1992	Aug 21, 1992	Aug 18, 1992
QC Sample #:	GBLK082192	GBLK082192	GBLK082192	GBLK082192	DBLK081792
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30	300
Conc. Matrix Spike:	11	11	11	33	210
Matrix Spike % Recovery:	110	110	110	110	70
Conc. Matrix Spike Dup.:	11	11	11	32	260
Matrix Spike Duplicate % Recovery:	110	110	110	107	87
Relative % Difference:	0.0	0.0	0.0	3.1	21

SEQUOIA ANALYTICAL

Christine Middleton

Maile A. Springer
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

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Alisto Engineering
1000 Burnett Ct., Ste 420
Concord, CA 94520
Attention: Brady Nagle

Client Project ID: Mobil 04-E6A/10-052

QC Sample Group: 208-2503

Reported: Aug 24, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene	Oil & Grease
Method:	EPA 8010	EPA 8010	EPA 8010	SM5520B&F
Analyst:	M.Laikhtman	M.Laikhtman	M.Laikhtman	M.Shkidt
Reporting Units:	µg/L	µg/L	µg/L	mg/L
Date Analyzed:	Aug 19, 1992	Aug 19, 1992	Aug 19, 1992	Aug 18, 1992
QC Sample #:	VBLK081992	VBLK081992	VBLK081992	BLK081892
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	25	25	25	30
Conc. Matrix Spike:	24	20	24	25
Matrix Spike % Recovery:	96	80	96	83
Conc. Matrix Spike Dup.:	21	19	23	25
Matrix Spike Duplicate % Recovery:	84	76	92	83
Relative % Difference:	7.3	5.1	4.3	0.0

SEQUOIA ANALYTICAL

Christine Middleton

Maile A. Springer
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

Mobil Chain of Custody

SEQUOIA ANALYTICAL

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

Consulting Firm Name: ALISTO ENGINEERING		Site SS #: 04-E6A	Phase of Work:
Address: 1000 Burnett Ct. Ste. 420		Mobil Site Address: 100 Macarthur Blvd	☐ A. Emrg. Response
City: Concord	State: CA	Zip Code: 94520	Mobil Engineer: ☐ B. Site Assessment
Telephone: 510 798 1077	FAX #: 798 4059	Consultant Project #: 10-052	☐ C. Remediation
Project Contact: BRADY	Sampled by: DAN B.	Sequoia's Work Order Release #:	☐ D. Monitoring
			☐ E. OGC/Claims

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

Analyses Requested

	Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2	EPA 601	TO6552D DF			Comments
1.	MW-1	8/14/92 1400	W	8	2082503	X	X			X	X			
2.														
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By: [signature]	Date: 8/14/92	Time: 1535	Received By: [signature]	Date: 8/14/92	Time: 1535

Method of Shipment _____

COPY

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