

Texaco Refining and Marketing Inc.

10 Universal Ort, Plaza Universal City Ox 91608

January 25, 1993

Ms. Juliet Shin Alameda County Department Of Environmental Protection 80 Swan Way, Room 200 Oakland, CA 94621

SUBJECT: QUARTERLY GROUNDWATER MONITORING LETTER REPORT

Site: 1127 Lincoln Avenue Alameda, California

Dear Ms. Shin:

Enclosed is a copy of the Quarterly Groundwater Monitoring Report dated January 4, 1993, for the above subject site. The report notes that the rinsate blank had detectable levels of benzene, toluene, and xylene. The report further indicates, that disposable samplers are used. Because of this inconsistency, the information provided in this report may be invalid and all data given may be information that is inconsistent with existing conditions.

If you have any questions or wish to discuss these reports, please call me at (818) 505 2476.

Very truly yours, Texaco Refining And Marketing Inc

R Robles
Bob Robles

RR:rr

pr_

Enclosure

cc: Mr.Leo Pagan 1127 Lincoln Avenue Alameda, California

> Mr. Lester Feldman California Regional Water Quality Control Board San Francisco Bay Region 2201 Webster Street, Suite 500 Oakland, California 94612

RRZielinski-Richmond



3315 Almaden Expressway, Suite 34 San Jose, CA 95118 Phone: (408) 264-7723

Fax: (408) 264-2345

LETTER REPORT QUARTERLY GROUNDWATER MONITORING Third Quarter 1992

at
Former Texaco Station
1127 Lincoln Avenue
Alameda, California

62074.01



3315 Almaden Expressway, Suite 34 San Jose, CA 95118 Phone: (408) 264-7723

Fax: (408) 264-2345

January 4, 1993 1208RROB 62074.01

Mr. Robert Robles Texaco Environmental Services 10 Universal City Plaza, 7th Floor Universal City, California 91608

Subject:

Results of Groundwater Monitoring and Sampling for the Third Quarter 1992 at Former Texaco Station located at 1127 Lincoln Avenue in Alameda,

California.

Mr. Robles:

At the request of Texaco Environmental Services (TES), RESNA Industries Inc. (RESNA) has prepared this letter which summarizes the results of quarterly groundwater monitoring at the former Texaco Service Station located at 1127 Lincoln Avenue in Alameda, California (Plate 1, Site Vicinity Map) for the third quarter 1992 (July through September 1992). On September 16 and 17, 1992, quarterly groundwater monitoring and sampling was conducted to evaluate groundwater elevations, gradient and flow direction, the presence and thickness of any petroleum hydrocarbon sheen or floating product, and the distribution of dissolved hydrocarbons in the 8 monitoring wells (MW-1 through MW-8) sampled at this site. RESNA's groundwater sampling protocol is included in Appendix A. Groundwater monitoring data and results of laboratory analyses with Chain of Custody documentation are included in Appendix B.

WORK_PERFORMED

GROUNDWATER MONITORING

Groundwater elevations at the site have decreased an average of about 1.3 feet from the elevations reported the previous quarter. The groundwater gradient map shows the groundwater beneath the site to be flowing towards the north-northwest with a hydraulic gradient of approximately 0.01 (Plate 2, Groundwater Gradient Map). Historical and recent monitoring data are summarized in Table 1, Cumulative Groundwater Monitoring Data.



January 4, 1993 62074.01

GROUNDWATER SAMPLING

Groundwater samples were submitted to Mobile Chem Laboratories (California Hazardous Materials Testing Laboratory Certification No. 1223) in Martinez, California under Chain of Custody protocol. The samples were analyzed for the gasoline constituents benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total petroleum hydrocarbons as gasoline (TPHg) using modified Environmental Protection Agency (EPA) Methods 5030/602. The Chain of Custody Record and Laboratory Analysis reports are included in Appendix B.

GROUNDWATER ANALYTICAL RESULTS

Concentrations of TPHg in groundwater samples ranged from less than 50 parts per billion (ppb) to 24,000 ppb (MW-5). Dissolved benzene concentrations ranged from 0.6 ppb to 3,500 ppb (MW-8). TPHg and benzene concentrations are shown on Plate 3, TPHg/Benzene Concentrations in Groundwater. The rinsate blank had detectable concentrations of benzene (0.7 ppb), toluene (1.3 ppb), and total xylenes (2.8 ppb). Neither floating product nor hydrocarbon sheen was observed in the wells. Historical and recent analytical data are summarized in Table 2, Cumulative Results of Laboratory Analyses of Groundwater Samples. Copies of the laboratory analyses reports and the Chain of Custody manifest for the groundwater samples are included in Appendix B.

PURGE WATER DISPOSAL

Purge water generated during purging and sampling of the 8 monitoring wells is being temporarily stored onsite in Department of Transportation (DOT) approved 55 gallon drums. Purge water is subsequently pumped into a water trailer and transported to Gibson Environmental in Redwood City, California for disposal.



January 4, 1993 62074.01

If you have any questions of comments regarding this report, please call (800) 926-0815 or (408) 264-7723.

ERED

Sincerely, RESNA Industries Inc.

earne Buckthal

Jeanne Buckthal
Geologic Technician

NELSON
No. 1463
CERTIFIED
ENGINEERING

JAMES LEWIS

CERTIFIED ENGINEERING GEOLOGIST OF CALIFORNIA

GEOLOGIS)

James L. Nelson Certified Engineering

Geologist No. 1463

Enclosures: Plate 1,

Plate 1, Site Vicinity Map

Plate 2, Groundwater Gradient Map

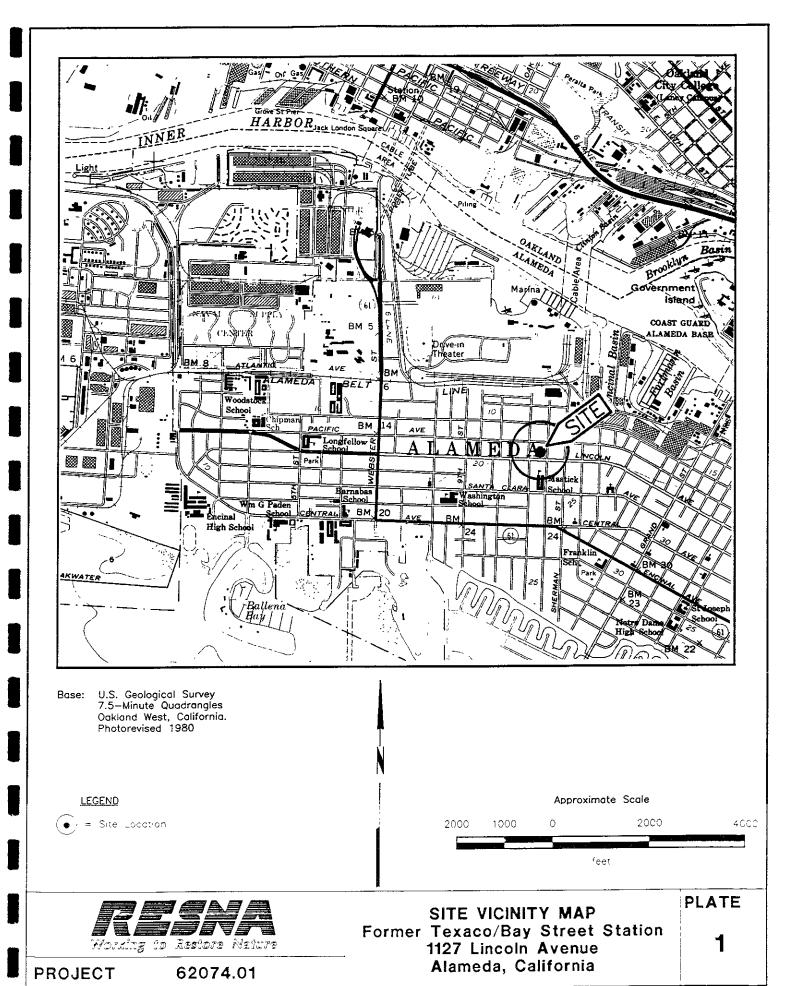
Plate 3, TPHg/Benzene Concentrations in Groundwater

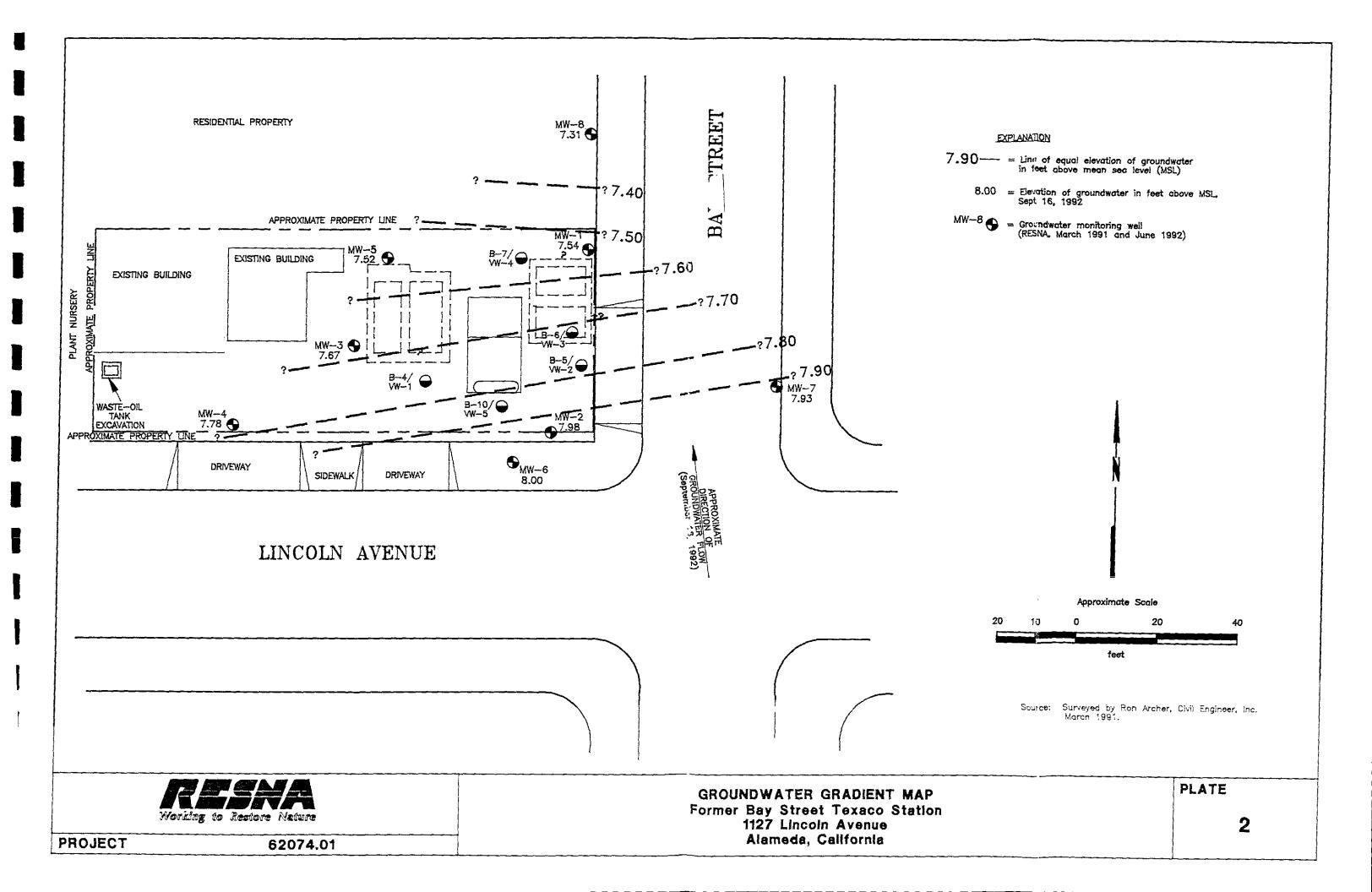
Table 1, Cumulative Groundwater Monitoring Data

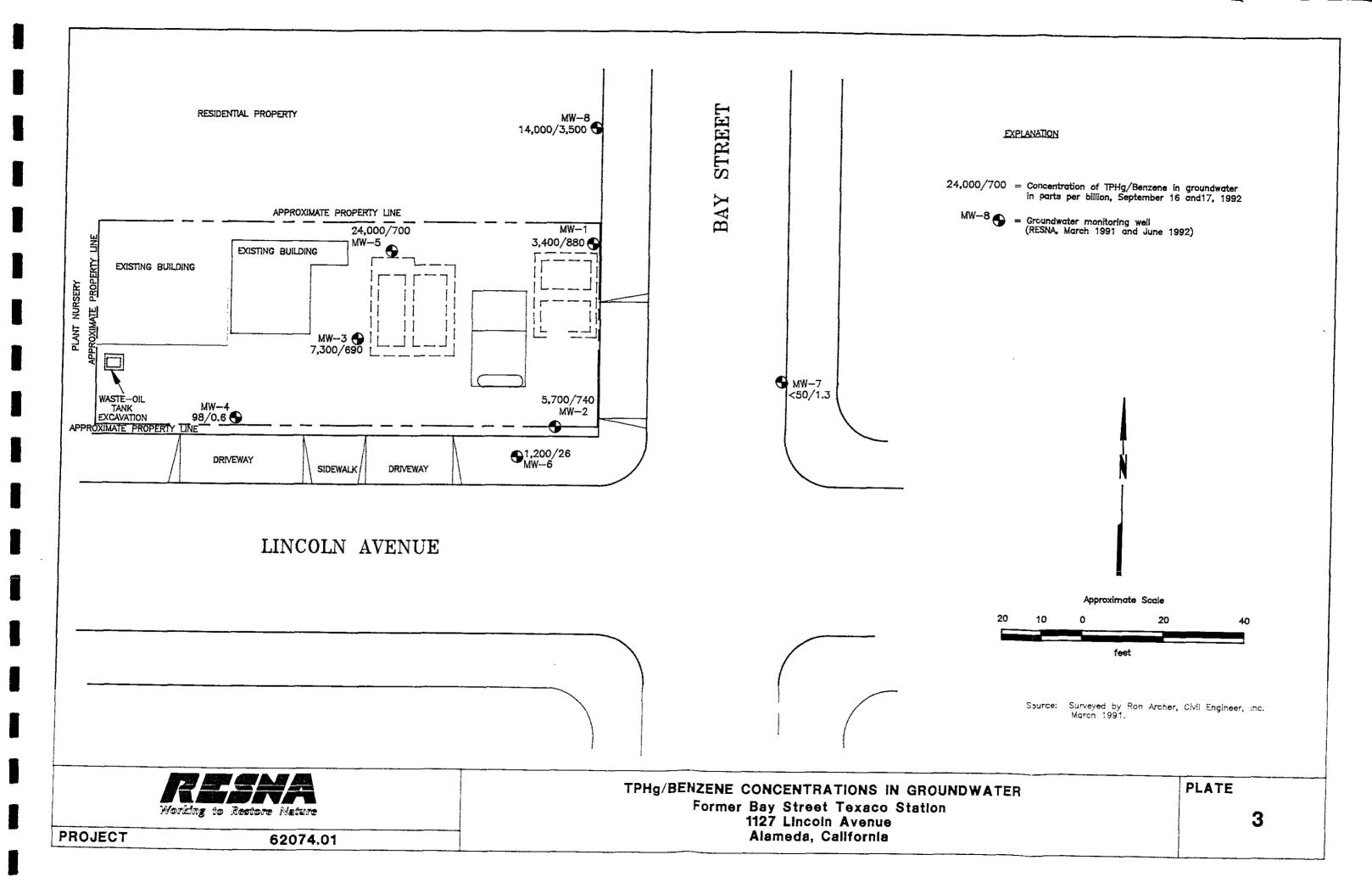
Table 2, Cumulative Results of Laboratory Analyses of Groundwater

Samples

Appendix A, Groundwater Sampling Protocol and Well Purge Data Sheets Appendix B, Laboratory Analysis Reports and Chain of Custody Documentation









January 4, 1993 62074.01

TABLE 1 CUMULATIVE GROUNDWATER MONITORING DATA Former Bay Street Texaco Station Alameda, California Page 1 of 3

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
MW-1				
03/22/91	16.49	7.23	9.26	NONE
04/04/91		6.68	9.81	NONE
08/13/91		8.59	7.90	NONE
11/14/91		9.38	7.11	NONE
02/19/92		6.34	10.15	NONE
06/25/92		7.60	8.89	NONE
09/16/92		8.95	7.54	NONE
<u>MW-2</u>				
03/22/91	17.14	7.60	9.54	NONE
04/04/91		7.07	10.07	NONE
08/13/91		8.85	8.29	NONE
11/14/91		9.60	7.54	NONE
02/19/92		6.96	10.18	NONE
06/25/92		7.95	9.19	NONE
09/16/92		9.16	7.98	NONE
<u>MW-3</u>			2.40	NONE
03/22/91	16.91	7.43	9.48	NONE
04/04/91		6.80	10.11	NONE
08/13/91		8.88	8.03	NONE
11/14/91		9.68	7.23	NONE
02/19/92		6.69	10.22	NONE
06/25/92		7.78	9.13	NONE
09/16/92		9.24	7.67	NONE ~
MW-4	1540	700	9.26	NONE
06/25/92	17.18	7.92	9.26 7.78	NONE
09/16/92		9.40	7.76	HONE
<u>MW-5</u>				
06/25/92	16.37	7.35	9.02	NONE
09/16/92		8.85	7.52	NONE
<u>MW-6</u>				
06/25/92	17.12	7.86	9.26	NONE
09/16/92		9 12	8.00	NONE
<u>MW-7</u>	17.71	7 61	9 10	NONE
06/25/92	16 71	8.78	7 93	NONE
09/16/92		8./8	/ 73	110.12

See notes on page 3 of 3



January 4, 1993 62074.01

TABLE 1 CUMULATIVE GROUNDWATER MONITORING DATA Former Bay Street Texaco Station Alameda, California

Page 2 of 3

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
MW-8				
06/25/92	15.91	7.20	8.71	NONE
09/16/92		8.60	7.31	NONE
<u>VW-1</u>				
03/22/91	16.83	DRY	DRY	NONE
14/04/91		6.89	9.92	NONE
8/13/91		DRY	DRY	NONE
11/14/91		DRY	DRY	NONE
02/19/92		DRY	DRY	NONE
06/25/92		7.36	9.47	NONE
09/16/92		Not Measured		
<u>vw-2</u>				
03/22/91	17.00	7.59	9.41	NONE
14/04/91		7.04	9.96	NONE
08/13/91		DRY	DRY	NONE
1/14/91		DRY	DRY	NONE
2/19/92		6.94	10.06	NONE
06/25/92		8.10	8.90	NONE
9/16/92		Not Measured		
<u>vw-3</u>				
3/22/91	16.94	7.71	9.23	NONE
14/04/91		6.92	10.02	NONE
08/13/91		8.45	8.49	NONE -
11/14/91		DRY	DRY	NONE
02/19/92		7.40	9.54	NONE
06/25/92		7.16	9 .7 8	NONE
09/16/92		Not Measured		
<u>VW-4</u>			0.15	Cold Mangary II.
03/22/91	16.81	7.66	9.15	SHEEN
04/04/91		INACCESSIBLE		37.5.5.5
8/13/91		8.40	8.41	NONE
1/14/91		DRY	DRY	NONE
2/19/92		5.76	11.05	NONE
06/25/92		7.23	9.58	NONE
09/16/92		Not Measured		

See notes on page 3 of 3.



January 4, 1993 62074.01

TABLE 1 CUMULATIVE GROUNDWATER MONITORING DATA

Former Bay Street Texaco Station Alameda, California Page 3 of 3

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
	·			-
03/22/91	17.20	7.67	9.53	SHEEN
04/04/91		INACCESSIBLE		
08/13/91		DRY	DRY	NONE
11/14/91		DRY	DRY	NONE
02/19/92		7.04	10.16	NONE
06/25/92		8.09	9.11	NONE
09/16/92		Not Measured		

All measurements in feet.

Elevations above mean sea level.

Depth to water measured in feet below top of casing.



January 4, 1993 62074.01

TABLE 2 CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES Former Bay Street Texaco Station

Alameda, California Page 1 of 2

Well Number Date	TPHg	В	Т	Е	X	TPHd*	VOCs & Semi-VOCs	DO	EG
MW-1								_	
03/22/91	4,500	1,300	670	180	<i>7</i> 70	1,100	ND	NA	NA
08/13/91	850	260	51	13	48	NA	NA.	NA	NA
11/14/91	<30	< 0.30	< 0.30	< 0.30	< 0.30	NA	NA	NA	NA.
02/19/92	440	14	14	2.1	9.9	NA	NA.	4.0	<10
06/25/92	4,000	680	110	73	140	NA.	NA	NA	NA
09/16/92	3,400	880	28	41	53	NA	NA	NA	NA
<u>MW-2</u>									
03/22/91	1,100	100	20	63	220	140	ND	NA	NA
08/13/91	1,100	270	4.7	16	49	NA	NA	NA	NA
11/14/91	870	56	8.9	21	46	NA	NA.	NA	NA
02/19/92	2,100	57	5.6	9.1	75	NA	NA	3.2	NA
06/25/92	4,700	590	24	290	160	NA	NA	NA	NA
09/16/92	5,700	740	8	370	77	NA	NA	NA	NA
MW-3									
03/22/91	2,500	390	27	240	<i>7</i> 80	<i>77</i> 0	ND	NA.	NA
08/13/91	1,300	180	3.8	<i>7</i> 9	200	NA	NA	NA	NA
11/14/91	870	89	9	30	82	NA	NA	NA	NA
02/19/92	990	< 0.5	< 0.5	2.0	72	NA	NA	3.4	NA
06/25/92	4,900	350	11	330	570	NA	NA	NA	NA
09/17/92	7,300	<i>6</i> 90	10	450	780	NA	NA	NA	NA
<u>MW-4</u>				_					
06/25/92	<50	<0.5	< 0.5	<0.5	<0.5	<u>NA</u>	NA.	NA.	NA.
09/17/92	98	0.6	<0.5	1.2	7.7	NA	NA	NA	NA
<u>MW-5</u>							NT.	274). Na
06/25/92	18,000	310	1,200	750	2,400	NA	NA	NA	NA.
09/17/92	24,000	<i>7</i> 00	2,200	900	2,400	NA	NA	NA	NA
<u>MW-6</u>							***	NA	374
06/25/92	990	10	240	55	310	NA NA	NA NA	NA NA	NA NA
09/17/92	1,200	26	4.7	6.5	140	NA	NA	INA.	INA
<u>MW-7</u>									
06/25/92	< 50	< 0.5	< 0.5	< 0.5	< 0.5	NA	NA	NA	NA
09/16/92	< 50	13	< 0.5	< 0.5	09	NA	NA	NA	NA

See notes on page 2 of 2.



January 4, 1993 62074.01

TABLE 2 CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES Former Bay Street Texaco Station

Alameda, California

Page 2 of 2

Well Number Date	ТРНд	В	Ť	E	х	TPHd*	VOCs & Semi-VOCs	DO	EG
MW-8	11.000	1 100	20	150	100	274	NIA	BTA	N/A
06/25/92 09/16/92	11,000 14,000	1,100 3,500	29 47	150 25	190 85	NA NA	NA NA	NA NA	NA NA
MCLs		1.0	_	680	1,750	_	_		
DWAL	_	_	100	_	_			_	

Results in parts per billion (ppb)

TPHg : Total petroleum hydrocarbons as gasoline (analyzed by EPA Method 5030).

TPHd : Total petroleum hydrocarbons as diesel (analyzed by EPA Method 3510).

BTEX: Measured by EPA Method 602/(624).

B: benzene, T: toluene, E: ethylbenzene, X: total xylene isomers.

— : Not Applicable

MCLs : Adopted Maximum Contaminant Levels in Drinking Water, DHS (October 1990)

DWAL : Recommended Drinking Water Action Levels, DHS (October 1990)

ND : Below laboratory detection limit.

NA : Not Analyzed

Anametrix states: "The concentrations reported as diesel for samples W-9-MW1, W-9-MW2, and W-9-MW3 are

primarily due to the presence of a lighter petroleum product, possibly gasoline."

VOCs : Volatile organic compounds (analyzed by EPA Method 624/8240).
Semi-VOCs : Semi-volatile organic compounds (analyzed by EPA Method 8270).

DO: Dissolved oxygen in parts per million (ppm).

EG: Ethylene glycol in ppm.

APPENDIX A

GROUNDWATER SAMPLING PROTOCOL AND WELL PURGE DATA SHEETS



January 4, 1993 62074.01

GROUNDWATER SAMPLING PROTOCOL

The static water level and floating product level, if present, in each well that contained water was measured with an ORS Interphase Probe Model No. 1068018; this instrument is accurate to the nearest 0.01 foot. These groundwater depths were subtracted from wellhead elevations, including corrections for product thickness, when necessary, for gradient evaluation by multiplying product thickness (PT) by a correction factor 0.8 and subtracting from the DTW (Adjusted DTW = DTW - [PT x 0.8]).

Water samples collected for subjective evaluation were collected by gently lowering approximately half the length of a new disposable bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples were checked for measurable floating hydrocarbon product.

Before water samples were collected from the groundwater monitoring wells, the wells were purged until stabilization of the temperature, pH, and conductivity were obtained. Approximately four well casing volumes were purged before those characteristics stabilized. The quantity of water purged from each well was calculated as follows:

1 well casing volume = $\pi r^2 h(7.48)$ where:

r = radius of the well casing in feet.

h = column of water in the well in feet (depth to bottom - depth to water).

7.48 = conversion constant from cubic feet to gallons

Gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

After purging, each well was allowed to recharge to at least 80% of the initial water level. Water samples were collected with a new disposable bailer, and carefully poured into 40-milliliter (ml) glass vials, which were filled so as to produce a positive meniscus. Each vial was preserved with hydrochloric acid, sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace which would allow volatilization to occur. The samples were promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.



Project Name: <u>Texaco--1127 Lincoln Avenue</u> Job No. <u>62074.01</u>

Date: _9/16/92 Page _1 of _1

Well No. MW-1 Time Started 12:30

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рН	CONDUCT. (micromho)	TURBIDITY (NTU)
12:30	Start pu	rging MW-1			
12:30	0	70.2	7.84	5.3	NM
12:37	6.8	69.2	7.78	5.1	NM
12:44	13.6	68.3	7.71	5.1	NM
12:57	20.4	69.7	7.77	5.1	NM
1:04	27.2	68.8	7.71	5.0	NM
1:04	Stop pu	rging MW-1			

Notes:

NM = Not Measured

Well Diameter (inches): 4

Depth to Bottom (feet): 19.25

Depth to Water - initial (feet): 8.95

Depth to Water - final (feet): 8.95

% recovery : 100

Time Sampled: 2:15

Gallons per Well Casing Volume: 6.73

Gallons Purged: 27.2

Well Casing Volume Purged: 4.04



Project Name: <u>Texaco--1127 Lincoln Avenue</u> Job No. <u>62074.01</u>

Date: 9/16/92 Page 1 of 1

Well No. MW-2 Time Started 1:30

TIME (hr)	GALLONS (cum.)	TEMP.	рН	CONDUCT. (micromho)	TURBIDITY (NTU)
1:30	Start pu	rging MW-2			
1:30	0	71.5	7.77	5.5	nm
1:37	6.7	70.9	7.70	5.5	NM
1:44	13.4	70.5	7.65	5.4	NM
1:57	20.1	71.1	7.67	4.9	NM
2:04	26.8	70.4	7.65	4.7	NM
2:04	Stop pu	rging MW-2			

Notes:

NM = Not Measured

Well Diameter (inches): 4

Depth to Bottom (feet): 19.30

Depth to Water - initial (feet): 9.16

Depth to Water - final (feet): 9.16

% recovery : 100

Time Sampled: 3:15

Gallons per Well Casing Volume: 6.62

Gallons Purged: 26.8

Well Casing Volume Purged: 4.05



Project Name: Texaco--1127 Lincoln Avenue Job No. 62074.01

Date: 9/17/92 Page 1 of 1

Well No. MW-3 Time Started 11:15

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рĦ	CONDUCT. (micromho)	TURBIDITY (NTU)
11:15	Start pu	rging MW-3			
11:15	0	65.6	7.60	5.8	NM
11:22	6.8	66.6	7.52	6.4	NM
11:29	13.6	67.2	7.48	6.5	NM
11:42	20.4	66.1	7.58	6.3	NM
11:49	27.2	66.7	7.56	6.3	NM
11:49	Stop pu	rging MW-3			-

Notes:

NM = Not Measured

Well Diameter (inches): 4

Depth to Bottom (feet): 19.55

Depth to Water - initial (feet) (9/16/92): 9.24

Depth to Water - final (feet): 9.24

% recovery : 100

Time Sampled: 1:15

Gallons per Well Casing Volume: 6.73

Gallons Purged: 27.2

Well Casing Volume Purged: 4.04



Project Name: Texaco--1127 Lincoln Avenue Job No. 62074.01

Date: 9/17/92 Page 1 of 1

Well No. MW-4

Time Started 12:15

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рH	CONDUCT. (micromho)	TURBIDITY (NTU)
12:15	Start pu	rging MW-4			
12:15	0	67.1	7.62	4.7	NM
12:22	7.1	67.8	7.58	5.0	NM
12:29	14.2	68.5	7.56	5.1	NM
12:42	21.3	68.1	7.56	5.0	NM
12:49	28.4	68.6	7.56	5.0	NM
12:49	Stop pu	rging MW-4			

Notes:

NM = Not Measured

Well Diameter (inches): 4

Depth to Bottom (feet): 20.15

Depth to Water - initial (feet): 9.40

Depth to Water - final (feet): 9.41

% recovery : 99

Time Sampled: 1:45

Gallons per Well Casing Volume: 7.02

Gallons Purged: 28.4

Well Casing Volume Purged: 4.05



Project Name: Texaco--1127 Lincoln Avenue Job No. 62074.01

Date: 9/17/92 Page 1 of 1

Well No. MW-5 Time Started 10:15

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рН	CONDUCT. (micromho)	TURBIDITY (NTU)
10:15	Start pu	rging MW-5			
10:15	0	65.0	7.82	7.1	NM
10:22	7.2	65.6	7.72	7.2	NM
10:29	14.4	65.9	7.65	7.4	NM
10:38	21.6	65.1	7.58	7.4	NM
10:45	28.8	65.7	7.55	7.4	NM
10:45	Stop pu	rging MW-5		*	

Notes:

NM = Not Measured

Well Diameter (inches): 4

Depth to Bottom (feet): 19.80

Depth to Water - initial (feet) (9/16/92): 8.85

Depth to Water - final (feet): 8.85

% recovery : 100

Time Sampled: 12:00

Gallons per Well Casing Volume: 7.15

Gallons Purged: 28.8

Well Casing Volume Purged: 4.03



Project Name: Texaco--1127 Lincoln Avenue Job No. 62074.01

Date: 9/17/92 Page <u>1</u> of <u>1</u>

Well No. <u>MW-6</u> Time Started <u>9:30</u>

TIME (hr)	GALLONS (cum.)	TEMP.	рн	CONDUCT. (micromho)	TURBIDITY (NTU)
9:30	Start pu	rging MW-6			
9:30	0	69.4	7.59	5.9	NM
9:32	2	69.6	7.52	6.0	NM
9:34	4	69.4	7.52	6.0	NM
9:40	6	69.1	7.58	6.0	NM
9:42	8	69.5	7.53	6.0	NM
9:42	stop pu	rging MW-6	*************************************		

Notes:

NM = Not Measured

Well Diameter (inches) : 2

Depth to Bottom (feet): 19.85

Depth to Water - initial (feet) (9/16/92): 9.12

Depth to Water - final (feet): 9.12

% recovery : 100

Time Sampled: 11:00

Gallons per Well Casing Volume: 1.75

Gallons Purged: 8

Well Casing Volume Purged: 4.57



Project Name: Texaco--1127 Lincoln Avenue Job No. 62074.01

Date: 9/16/92 Page 1 of 1

Well No. MW-7

Time Started _11:30

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рĦ	CONDUCT. (micromho)	TURBIDITY (NTU)
11:30	Start pu	rging MW-7			
11:30	0	73.2	7.98	5.5	NM
11:34	2	71.9	7.97	5.5	NM
11:38	4	71.0	7.97	5.1	NM
11:42	6	72.2	7.84	4.9	nm
11:46	8	70.7	7.83	4.7	NM
11:46	Stop pu	rging MW-7			

Notes:

NM = Not Measured

Well Diameter (inches) : 2

Depth to Bottom (feet): 20.00

Depth to Water - initial (feet): 8.78

Depth to Water - final (feet): 8.77

% recovery : 100

Time Sampled: 1:15

Gallons per Well Casing Volume: 1.83

and the second of the

Gallons Purged : 8

Well Casing Volume Purged: 4.37



Project Name: <u>Texaco--1127 Lincoln Avenue</u> Job No. <u>62074.01</u>

Page <u>1</u> of <u>1</u> Date: 9/16/92

Well No. MW-8

Time Started 10:30

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pН	CONDUCT. (micromho)	TURBIDIT (NTU)
10:30	Start pu	rging MW-8			
10:30	0	70.6	7.87	5.9	NM
10:37	7.3	69.3	7.81	5.8	NM
10:44	14.6	68.8	7.74	5.9	NM
10:57	21.9	69.5	7.73	5.9	NM
11:05	29.2	68.8	7.68	5.8	NM
11:05	Stop pu	rging MW-8			

Notes:

NM = Not Measured

Well Diameter (inches): 4

Depth to Bottom (feet): 19.70

Depth to Water - initial (feet): 8.60

Depth to Water - final (feet): 8.60

% recovery : 100

Time Sampled: 12:10

Gallons per Well Casing Volume: 7.25

Gallons Purged: 29.2

Well Casing Volume Purged: 4.03

APPENDIX B

LABORATORY ANALYSIS REPORTS AND CHAIN OF CUSTODY DOCUMENTATION



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

RESNA DAN JOY F

(382

62074.01\1718\012128

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 09-16-92 Date Received: 09-21-92 Date Analyzed: 09-29-92

Sample Number

092396

Sample Description

Project # 62074.01 Texaco - Alameda 1127 Lincoln Avenue WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	<50
Benzene	0.5	0.7
Toluene	0.5	1.3
Xylenes	0.5	2.8
Ethylbenzene	0.5	<0.5

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH

LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

62074.01\1718\012128

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry Project Manager Date Sampled: 09-16-92 Date Received: 09-21-92 Date Analyzed: 09-29-92

Sample Number

092397

Sample Description
-----Project # 62074.01
Texaco - Alameda
1127 Lincoln Avenue

.12/ Lincoin Avenue W-8 WATER

ANALYSIS

	Detection Limit	Sample Results
	Limit 	ppb
Total Petroleum Hydrocarbons as Gasoline	50	14,000
Benzene	0.5	3,500
Toluene	0.5	47
Xylenes	0.5	85
Ethylbenzene	0.5	25

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH

LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

62074.01\1718\012128

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry Project Manager Date Sampled: 09-16-92 Date Received: 09-21-92 Date Analyzed: 09-29-92

Sample Number

092398

Sample Description
-----Project # 62074.01
Texaco - Alameda
1127 Lincoln Avenue
MW-7 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	<50
Benzene	0.5	1.3
Toluene	0.5	<0.5
Xylenes	0.5	0.9
Ethylbenzene	0.5	<0.5

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

62074.01\1718\012128

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 09-16-92 Date Received: 09-21-92

Date Analyzed: 09-29-92

Sample Number

092399

Sample Description

Project # 62074.01 Texaco - Alameda 1127 Lincoln Avenue

WATER

ANALYSIS

	Detection Limit ppb 50 0.5 0.5	Sample Results
		ppb
Total Petroleum Hydrocarbons as Gasoline	50	3,400
Benzene	0.5	880
Toluene	0.5	28
Xylenes	0.5	53
Ethylbenzene	0.5	41

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

62074.01\1718\012128

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 09-16-92

Date Received: 09-21-92

Date Analyzed: 09-29-92

Sample Number

092400

Sample Description

Project # 62074.01 Texaco - Alameda 1127 Lincoln Avenue

MW-2WATER

ANALYSIS

	Detection Limit ppb 50 0.5 0.5 0.5	Sample Results
		ppb
Total Petroleum Hydrocarbons as Gasoline	50	5,700
Benzene	0.5	740
Toluene	0.5	8.0
Xylenes	0.5	77
Ethylbenzene	0.5	370

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

62074.01\1718\012128

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry Project Manager Date Sampled: 09-17-92 Date Received: 09-21-92 Date Analyzed: 09-29-92

Sample Number

092401

Sample Description

Project # 62074.01 Texaco - Alameda 1127 Lincoln Avenue MW-6 WATER

ANALYSIS

	Detection Limit ppb	Sample Results ppb
Total Petroleum Hydrocarbons as Gasoline	50	1,200
Benzene	0.5	26
Toluene	0.5	4.7
Xylenes	0.5	140
Ethylbenzene	0.5	6.5

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

62074.01\1718\012128

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 09-17-92 Date Received: 09-21-92

Date Analyzed: 09-29-92

Sample Number

092402

Sample Description

Project # 62074.01 Texaco - Alameda 1127 Lincoln Avenue WATER MW-5

ANALYSIS

	Detection Limit ppb	Sample Results ppb
Total Petroleum Hydrocarbons as Gasoline	50	24,000
Benzene	0.5	700
Toluene	0.5	2,200
Xylenes	0.5	2,400
Ethylbenzene	0.5	900

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

62074.01\1718\012128

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 09-17-92 Date Received: 09-21-92

Date Analyzed: 09-29-92

Sample Number

092403

Sample Description

Project # 62074.01 Texaco - Alameda 1127 Lincoln Avenue MW-3 WATER

ANALYSIS

	Detection Limit ppb 50 0.5 0.5 0.5	Sample Results
		ppb
Total Petroleum Hydrocarbons as Gasoline	50	7,300
Benzene	0.5	690
Toluene	0.5	10
Xylenes	0.5	780
Ethylbenzene	0.5	450

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH

LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

62074.01\1718\012128

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Date Sampled: 09-17-92 Date Received: 09-21-92

Project Manager

Date Analyzed: 09-29-92

Sample Number _____

092404

Sample Description

Project # 62074.01 Texaco - Alameda 1127 Lincoln Avenue MW-4WATER

ANALYSIS

	Detection Limit ppb 50 0.5 0.5	Sample Results
		ppb
Total Petroleum Hydrocarbons as Gasoline	50	98
Benzene	0.5	0.6
Toluene	0.5	<0.5
Xylenes	0.5	7.7
Ethylbenzene	0.5	1.2

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

PROJECT NO	PROJECT N				 ,									Al	NALY	SIS I	REQL	JEST	ED				P	O. #		
6804401	115.4 M	incoln A	ic. Ala	necl	٦, (1A.		яS				/	7	/	7	7	7	7	7	/	1	7/	77			
SAMPLERS		IGN)	n Robin		Δ	1	·	CONTAINE	TYPE						\$/						/	/,				- {
Fiber G OV	W.	/ (PHIN)	1) 750bir					NO.	E	/		/8/	8	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		80	\&\ &\	/ /	/ /	/ /	/ /	/ /				- {
SAMPLE IDENTI	FICATION	DAT	E TIME	COMP	GRAB	PRES USED	GED	Š.	SAMPLE .	Vá				(000/			\angle	_	\angle	_			REMARI	(S	_
PBI		9-16-9	12:00			HOL	1	3		X	\geq	1	_	-	-	 	<u> </u>	_	 	 				·		_
				-		,	1	_				-	-	-	-	-	┼-	_	-	 	-				 	\dashv
Alwi &			17.10	╂	 	 	++-	3	H	₩	쉱	 	╁╌	+	 	-	\vdash	-	-	-	-					
1 NW 7			2.15	+-	 		11	3		X	X	 	1	1	 	1										
AW ?		1	3:15			1	7	3	NO.	X	X															
				-	}	ļ	 	<u> </u>				 	_		-	-	-	-	╂-	-	-	 -		·—		
MW 6		9-17-6		<u> </u>	<u> </u>	HCL	1	3		X		} _	-		-	┨—	—	-	 	-	-	 -	<u></u>			
1/w - 5			1,21.00		-	-		3	\vdash	X	X	+	-		 	}	-	-	╂-	+	┤-	├				
AN 3			1:45		-	1	4	3	$\left \cdot \right $	K	*	}	+-	-	+-	-	+-	-	┼	-	╁╌	-				
70(0)			1/33	+-	 		-	ľ				\	1			1	+									
				_		ļ	_	-	 	_	_	-	- -			↓_	 	 	-	-	┼-	-	<u> </u>			
RELINQUISHED BY		DATE	TIME	RECE	EIVED	BY.		<u> </u>	L L	ABOF	TATC	L YBC K	L.	2	l.s	<u>.l</u>	ــــــــــــــــــــــــــــــــــــــ	1	PLEASE SEND RESULTS TO RODIN ACOUR RESMA, Fremont, CA.							
Rolina ada	۷ ا	9-1892	7-00Am	<u> </u>					۱ ⁽ °	100	110	, C	ICI	1/ F.	CLD_	3			l ~	De	// I // I	V V	ar Fr	m M	tan	
RELINQUISHED BY		DATE 9/21/92	11ME 10:55 au	DAR & LOVING							. <u>.</u>	<u>-</u>					,			Th	7	$\frac{m}{m}$	λybo		.,,	
RELINQUISHED BY		DATE	TIME	RECE	EIVEC	ВУ			R			ED TU		AROU	T DNI	IME			Phil Mayberry Resni, San Fase, CA.							
RECINQUISHED BY		DATE	TIME	RECI	RECEIVED BY LABORATOR					ECEI	PT C	COND	DITIC	N				.,	Į.	PROJECT MANAGER				.— <u>-</u>		