



Texaco Refining
and Marketing Inc

10 Universal City Plaza
Universal City, CA 91608

November 11, 1993

ENV - SERVICE STATIONS

Quarterly Status Report
1127 Lincoln Avenue
Alameda, California

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

Dear Ms. Shin:

Enclosed is a copy of the Quarterly Groundwater Monitoring Letter Report dated October 29, 1993, for the former Texaco service station at the above site.

A soil vapor extraction system is now operating on the site. Due to equipment associated with this system, wells MW-1, MW-2, and MW-5 are not currently accessible for groundwater sampling. Please contact me at (818) 505-2476 if you have any questions or wish to discuss the report further.

Very truly yours,

Bob Robles
Environmental Protection Coordinator
TEXACO ENVIRONMENTAL SERVICES

RR:rr
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cc: Mr. Leo Pagano
Mr. Richard Hiett, CRWQCB
RRZielinski

PR: _____

90 NOV 22 PM 2:28

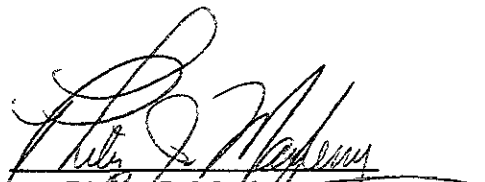
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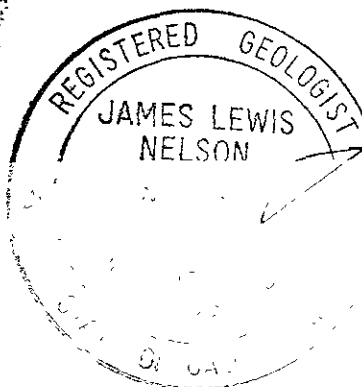
3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
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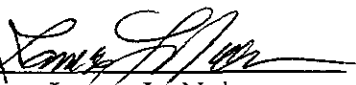
LETTER REPORT
QUARTERLY GROUNDWATER MONITORING
Third Quarter 1993
at
Former Texaco Station
1127 Lincoln Avenue
Alameda, California

62074.01


Robin A. Adair *MR*
Geologic Technician


Philip J. Mayberry
Project Geologist




James L. Nelson
Certified Engineering
Geologist No. 1463

October 29, 1993

3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
FAX: (408) 264-2435

October 29, 1993
62074.01

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

Subject: Groundwater Monitoring, Third Quarter 1993, Former Texaco Station, 1127
Lincoln Avenue, Alameda, California.

Mr. Robles:

At the request of Texaco Environmental Services (TES), RESNA Industries Inc. (RESNA) has prepared this letter report which summarizes the results of quarterly groundwater monitoring and sampling at the former Texaco Service Station located at 1127 Lincoln Avenue in Alameda, California (Plate 1, Site Vicinity Map) for the third quarter 1993 (July through September 1993). Monthly groundwater monitoring was conducted on July 26, August 31, and September 27, 1993, and quarterly sampling was performed on September 27 and 28, 1993. 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 4 monitoring wells (MW-3, MW-6, MW-7, and MW-8) associated with this site. Wells MW-1, MW-2, and MW-5 were not sampled because they are presently connected to the vapor extraction system at the site. Well MW-4 was inaccessible because a car was parked over the well. Wells VW-1 through VW-5 were not monitored at the request of TES. RESNA's groundwater sampling protocol and well purge data sheets are included in Appendix A.

GROUNDWATER MONITORING

Groundwater elevations (September 27, 1993) at the site have decreased an average of 1.84 feet from the elevations reported last quarter (May 6, 1993). The groundwater gradient map shows the groundwater beneath the site to be flowing towards the 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.

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) method 5030 and TPH LUFT with method 602. Copies of the laboratory analyses reports and the chain of custody documentation manifest for the groundwater samples are included in Appendix B.

GROUNDWATER ANALYTICAL RESULTS

Concentrations of TPHg in groundwater samples collected ranged from less than the method detection limit (MDL) of 50 parts per billion (ppb) to 8,000 ppb (MW-8). Dissolved benzene concentrations in groundwater samples collected ranged from less than the MDL of 0.5 ppb to 1,700 ppb (MW-8). TPHg and benzene concentrations are shown on Plate 3, TPHg/Benzene Concentrations in Groundwater. 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.

PURGE WATER RECYCLING

On October 6, 1993, approximately 80 gallons of purge water generated during pumping and sampling of the 4 monitoring wells were transported to Gibson Environmental in Redwood City, California for recycling. The Non-Hazardous Waste Data Form is included in Appendix C.

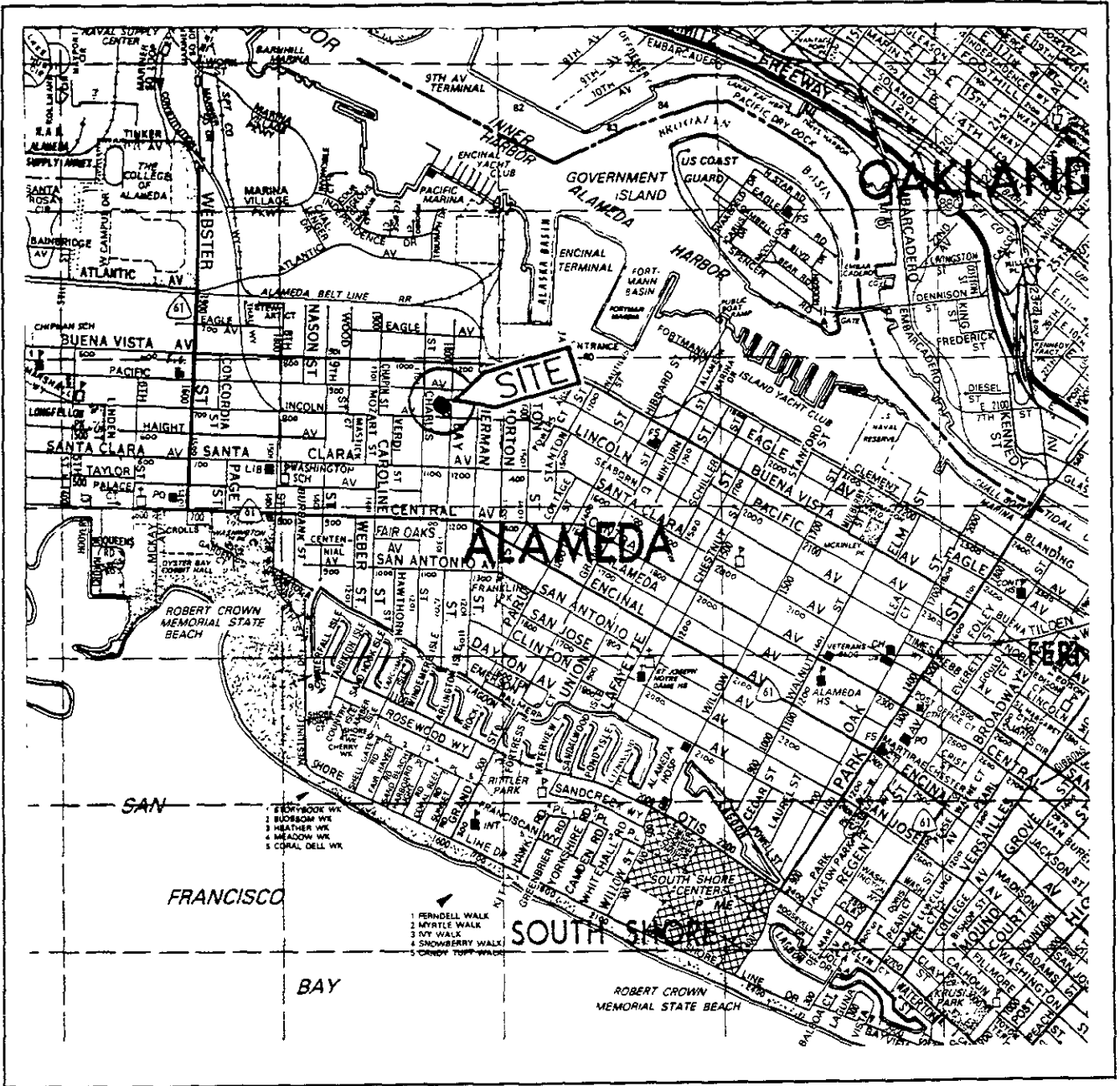
If you have any questions or comments regarding this report, please call (408) 264-7723.

Attachments:

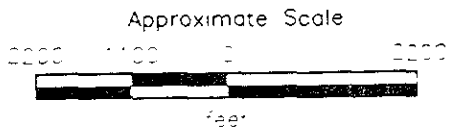
- Plate 1: Site Vicinity Map
- Plate 2; Groundwater Gradient Map
- Plate 3: TPHg/Benzene Concentrations in Groundwater

- 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
- Appendix C: Non-Hazardous Waste Data Form



Source: The Thomas Bros. Guide
 Home and Contra Costa Counties
 Alameda, California
 Photo: Sep 1988



RESNA
 Working to Restore Nature

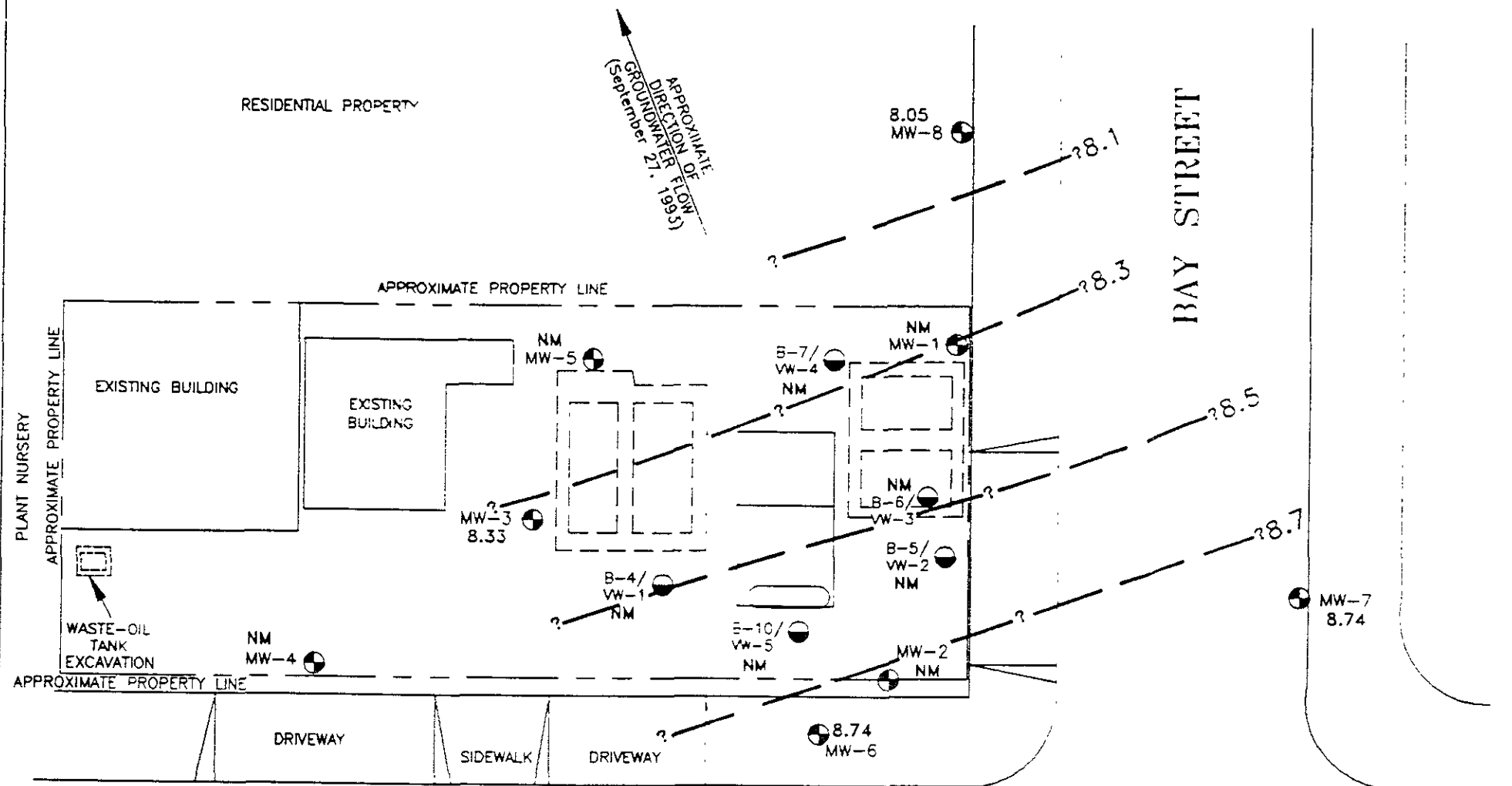
SITE VICINITY MAP
 Former Texaco Station
 1127 Lincoln Avenue
 Alameda, California

PLATE

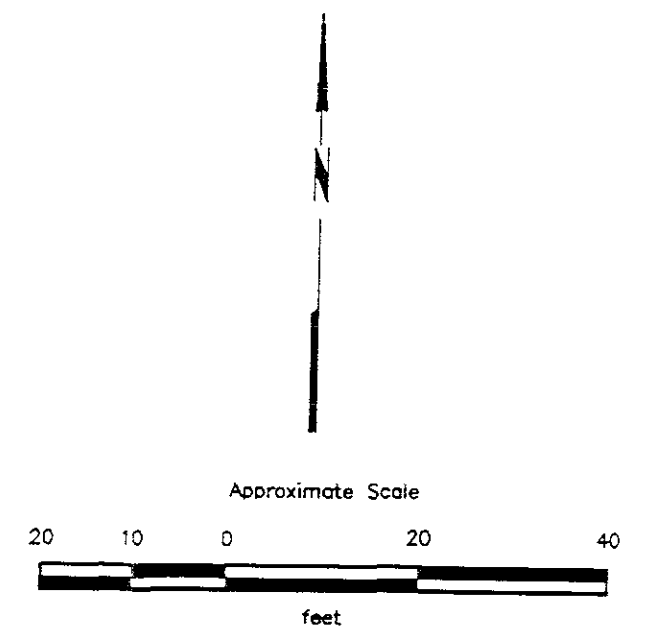
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PROJECT

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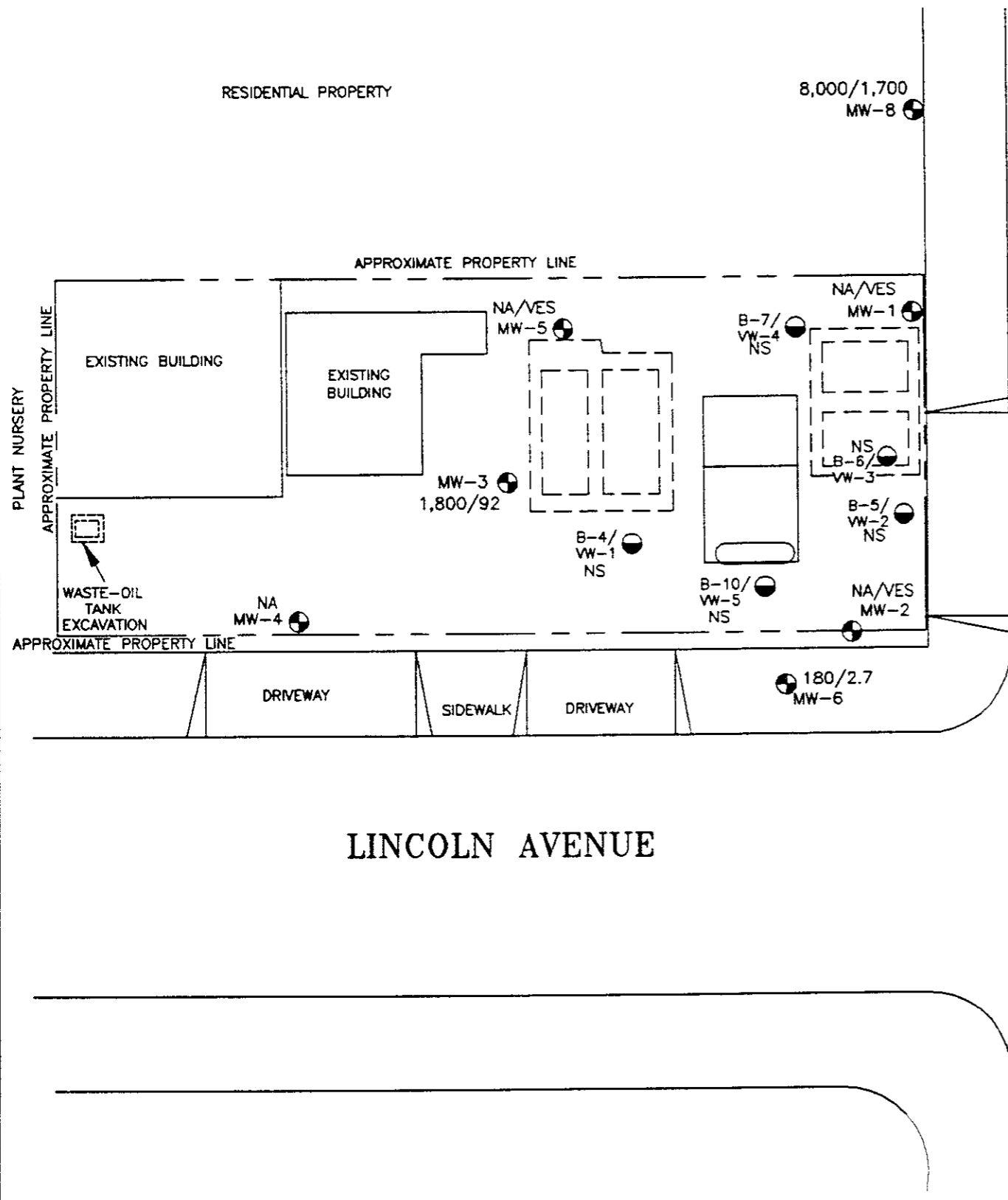


- EXPLANATION**
- 8.7-- = Line of equal elevation of groundwater in feet above mean sea level (MSL)
 - 8.74 = Elevation of groundwater in feet above MSL, September 27, 1993
 - MW-8 = Groundwater monitoring well (RESNA, March 1991 and June 1992)
 - B-10/VW-5 = Vapor well
 - NM = Not measured



Source: Surveyed by Ron Archer, Civil Engineer, Inc. March 1991





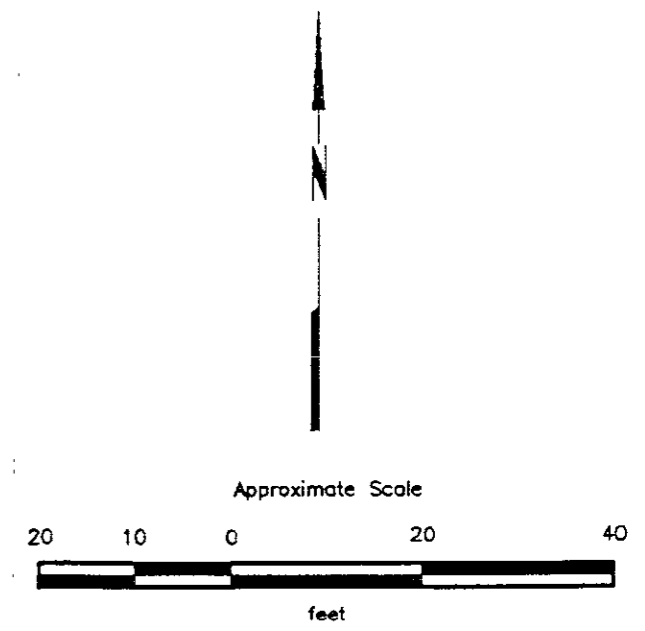
BAY STREET

EXPLANATION

- 8,000/1,700 = Concentration of TPHg/Benzene in groundwater in parts per billion, September 28, 1993
- MW-8 = Groundwater monitoring well (RESNA, March 1991 and June 1992)
- B-10/
VW-5 = Vapor well
- NS = Not sampled
- NA = Not accessible
- VES = Connected to vapor extraction system

MW-7
<50/<0.5

LINCOLN AVENUE



Source: Surveyed by Ron Archer, Civil Engineer, Inc
March 1993



TPHg/BENZENE CONCENTRATIONS IN GROUNDWATER
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California

PLATE

3

Third Quarter 1993 Quarterly Report
1127 Lincoln Avenue, Alameda, California

October 29, 1993
62074.01

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 1 of 6)

<u>Well</u>	<u>Date</u>	<u>Elevation of Wellhead</u>	<u>Depth to-Water</u>	<u>Elevation of Groundwater</u>	<u>Floating Product/ Sheen</u>	
<u>MW-1</u>	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	
	11/17/92		9.10	7.39	NONE	
	01/26/93		5.63	10.86	NONE	
	02/04/93		6.02	10.47	NONE	
	03/09/93		5.92	10.57	NONE	
	05/06/93		6.76	9.73	NONE	
	06/15/93		6.81	9.68	NONE	
	07/26/93		Inaccessible - VES			
	08/31/93		Inaccessible - VES			
09/27/93	Inaccessible - VES					
<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	
	11/17/92		9.40	7.74	NONE	
	01/26/93		6.29	10.85	NONE	
	02/04/93		6.60	10.54	NONE	
	03/09/93		6.36	10.78	NONE	
	05/06/93		6.37	10.77	NONE	
	06/15/93		7.04	10.10	NONE	
	07/26/93		Inaccessible - VES			
	08/31/93		Inaccessible - VES			
09/27/93	Inaccessible - VES					
<u>MW-3</u>	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	

Third Quarter 1993 Quarterly Report
1127 Lincoln Avenue, Alameda, California

October 29, 1993
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TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 2 of 6)

<u>Well</u>	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
<u>MW-3 Cont'd</u>	02/19/92	16.91	6.69	10.22	NONE
	06/25/92		7.78	9.13	NONE
	09/16/92		9.24	7.67	NONE
	11/17/92		9.50	7.41	NONE
	01/26/93		5.82	11.09	NONE
	02/04/93		6.01	10.90	NONE
	03/09/93		5.88	11.03	NONE
	05/06/93		6.38	10.53	NONE
	06/15/93	Inaccessible			
	07/26/93		7.22	9.69	NONE
	08/31/93		7.87	9.04	NONE
	09/27/93		8.58	8.33	NONE
<u>MW-4</u>	06/25/92	17.18	7.92	9.26	NONE
	09/16/92		9.40	7.78	NONE
	11/17/92		9.63	7.55	NONE
	01/26/93		5.91	11.27	NONE
	02/04/93		6.14	11.04	NONE
	03/09/93		5.81	11.37	NONE
	05/06/93		6.49	10.69	NONE
	06/15/93		6.34	10.84	NONE
	07/26/93		7.29	9.89	NONE
	08/31/93		8.02	9.16	NONE
	09/27/93	Inaccessible - Car On Well			
<u>MW-5</u>	06/25/92	16.37	7.35	9.02	NONE
	09/16/92		8.85	7.52	NONE
	11/17/92		9.03	7.34	NONE
	01/26/93	Not Monitored			
	02/04/93	Inaccessible			
	03/09/93		5.45	10.92	NONE
	05/06/93		6.00	10.37	NONE
	06/15/93		7.81	8.56	NONE
	07/26/93	Inaccessible - VES			
	08/31/93	Inaccessible - VES			
	09/27/93	Inaccessible - VES			

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1127 Lincoln Avenue, Alameda, California

October 29, 1993
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TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 3 of 6)

<u>Well</u>	<u>Date</u>	<u>Elevation of Wellhead</u>	<u>Depth to-Water</u>	<u>Elevation of Groundwater</u>	<u>Floating Product/ Sheen</u>
<u>MW-6</u>	06/25/92	17.12	7.86	9.26	NONE
	09/16/92		9.12	8.00	NONE
	11/17/92		9.40	7.72	NONE
	01/26/93		6.63	10.49	NONE
	02/04/93		6.48	10.64	NONE
	03/09/93		6.68	10.44	NONE
	05/06/93		6.93	10.19	NONE
	06/15/93		7.00	10.12	NONE
	07/26/93		7.25	9.87	NONE
	08/31/93		7.83	9.29	NONE
09/27/93	8.38	8.74	NONE		
<u>MW-7</u>	06/25/92	16.71	7.61	9.10	NONE
	09/16/92		8.78	7.93	NONE
	11/17/92		Inaccessible		
	01/26/93		6.53	10.18	NONE
	02/04/93		6.40	10.31	NONE
	03/09/93		6.52	10.19	NONE
	05/06/93		Inaccessible		
	06/15/93		6.69	10.02	NONE
	07/26/93		Inaccessible		
	08/31/93		Inaccessible		
09/27/93	7.97	8.74	NONE		
<u>MW-8</u>	06/25/92	15.91	7.20	8.71	NONE
	09/16/92		8.60	7.31	NONE
	11/17/92		8.85	7.06	NONE
	01/26/93		5.30	10.61	NONE
	02/04/93		5.62	10.29	NONE
	03/09/93		5.56	10.35	NONE
	05/06/93		5.99	9.92	NONE
	06/15/93		6.32	9.59	NONE
	07/26/93		6.75	9.16	NONE
	08/31/93		7.35	8.56	NONE
09/27/93	7.86	8.05	NONE		

Third Quarter 1993 Quarterly Report
1127 Lincoln Avenue, Alameda, California

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TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 4 of 6)

<u>Well</u>	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
<u>VW-1</u>	03/22/91	16.83	DRY	DRY	NONE
	04/04/91		6.89	9.92	NONE
	08/13/91		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 MONITORED		
	11/17/92		NOT MONITORED		
	01/26/93		NOT MONITORED		
	02/04/93		NOT MONITORED		
	03/09/93		NOT MONITORED		
	05/06/93		NOT MONITORED		
	06/15/93		NOT MONITORED		
	07/26/93		NOT MONITORED		
	08/31/93		NOT MONITORED		
	09/27/93		NOT MONITORED		
<u>VW-2</u>	03/22/91	17.00	7.59	9.41	NONE
	04/04/91		7.04	9.96	NONE
	08/13/91		DRY	DRY	NONE
	11/14/91		DRY	DRY	NONE
	02/19/92		6.94	10.06	NONE
	06/25/92		8.10	8.90	NONE
	09/16/92		NOT MONITORED		
	11/17/92		NOT MONITORED		
	01/26/93		NOT MONITORED		
	02/04/93		NOT MONITORED		
	03/09/93		NOT MONITORED		
	05/06/93		NOT MONITORED		
	06/15/93		NOT MONITORED		
	07/26/93		NOT MONITORED		
	08/31/93		NOT MONITORED		
	09/27/93		NOT MONITORED		
<u>VW-3</u>	03/22/91	16.94	7.71	9.23	NONE
	04/04/91		6.92	10.02	NONE
	08/13/91		8.45	8.49	NONE
	11/14/91		DRY	DRY	NONE

See notes on page 6 of 6

Third Quarter 1993 Quarterly Report
1127 Lincoln Avenue, Alameda, California

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TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 5 of 6)

<u>Well</u>	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
<u>VW-3 Cont'd</u>					
	02/19/92		7.40	9.54	NONE
	06/25/92		7.16	9.78	NONE
	09/16/92	NOT MONITORED			
	11/17/92	NOT MONITORED			
	01/26/93	NOT MONITORED			
	02/04/93	NOT MONITORED			
	03/09/93	NOT MONITORED			
	05/06/93	NOT MONITORED			
	06/15/93	NOT MONITORED			
	07/26/93	NOT MONITORED			
	08/31/93	NOT MONITORED			
	09/27/93	NOT MONITORED			
<u>VW-4</u>					
	03/22/91	16.81	7.66	9.15	SHEEN
	04/04/91	INACCESSIBLE			
	08/13/91		8.40	8.41	NONE
	11/14/91		DRY	DRY	NONE
	02/19/92		5.76	11.05	NONE
	06/25/92		7.23	9.58	NONE
	09/16/92	NOT MONITORED			
	11/17/92	NOT MONITORED			
	01/26/93	NOT MONITORED			
	02/04/93	NOT MONITORED			
	03/09/93	NOT MONITORED			
	05/06/93	NOT MONITORED			
	06/15/93	NOT MONITORED			
	07/26/93	NOT MONITORED			
	08/31/93	NOT MONITORED			
	09/27/93	NOT MONITORED			
<u>VW-5</u>					
	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 MONITORED			
	11/17/92	NOT MONITORED			

See notes on page 6 of 6

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TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 6 of 6)

<u>Well</u>	<u>Date</u>	<u>Elevation of Wellhead</u>	<u>Depth to-Water</u>	<u>Elevation of Groundwater</u>	<u>Floating Product/ Sheen</u>
<u>VW-5 Cont'd</u>	01/26/93		NOT MONITORED		
	02/04/93		NOT MONITORED		
	03/09/93		NOT MONITORED		
	05/06/93		NOT MONITORED		
	06/15/93		NOT MONITORED		
	07/26/93		NOT MONITORED		
	08/31/93		NOT MONITORED		
	09/27/93		NOT MONITORED		

All measurements in feet.
Elevations above mean sea level.
Depth to water measured in feet below top of casing.
VES : Vapor Extraction System

Third Quarter 1993 Quarterly Report
1127 Lincoln Avenue, Alameda, California

October 29, 1993
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TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 1 of 3)

Well Number Date	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPHd*	VOCs & Semi-VOCs	Dissolved Oxygen	Ethylene Glycol
<u>MW-1</u>									
03/22/91	4,500	1,300	670	180	770	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
11/17/92	730	250	22	12	27	NA	NA	NA	NA
02/04/93	120	22	3.1	3.3	10	NA	NA	NA	NA
05/06/93	710	320	3.1	4.2	20	NA	NA	NA	NA
09/28/93	Not Accessible - Connected to Vapor Extraction System								
<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
11/17/92	840	94	<0.5	93	14	NA	NA	NA	NA
02/04/93	430	45	0.5	20	30	NA	NA	NA	NA
05/06/93	2,000	460	2.4	160	66	NA	NA	NA	NA
09/28/93	Not Accessible - Connected to Vapor Extraction System								
<u>MW-3</u>									
03/22/91	2,500	390	27	240	780	770	ND	NA	NA
08/13/91	1,300	180	3.8	79	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	690	10	450	780	NA	NA	NA	NA
11/17/92	1,200	160	2.1	83	160	NA	NA	NA	NA
02/04/93	2,900	180	13	210	350	NA	NA	NA	NA
05/06/93	2,700	270	6.2	300	720	NA	NA	NA	NA
09/28/93	1,800	92	1.7	99	240	NA	NA	NA	NA
<u>MW-4</u>									
06/25/92	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
09/17/92	98	0.6	<0.5	1.2	7.7	NA	NA	NA	NA
11/17/92	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA

Third Quarter 1993 Quarterly Report
1127 Lincoln Avenue, Alameda, California

October 29, 1993
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TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 2 of 3)

Well Number Date	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPHd*	VOCs & Semi-VOCs	Dissolved Oxygen	Ethylene Glycol
<u>MW-4 cont</u>									
02/04/93	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
05/06/93	<50	1.6	<0.5	1.0	2.1	NA	NA	NA	NA
09/28/93			Not Accessible - Auto on Well						
<u>MW-5</u>									
06/25/92	18,000	310	1,200	750	2,400	NA	NA	NA	NA
09/17/92	24,000	700	2,200	900	2,400	NA	NA	NA	NA
11/17/92	14,000	1,000	1,500	730	1,900	NA	NA	NA	NA
02/04/93				NOT SAMPLED					
05/06/93	6,200	460	980	300	1,200	NA	NA	NA	NA
09/28/93			Not Accessible - Connected to Vapor Extraction System						
<u>MW-6</u>									
06/25/92	990	10	240	55	310	NA	NA	NA	NA
09/17/92	1,200	26	4.7	6.5	140	NA	NA	NA	NA
11/17/92	670	10	3.5	28	94	NA	NA	NA	NA
02/04/93	2,300	19	5.4	27	220	NA	NA	NA	NA
05/06/93	540	44	0.9	7.0	6.7	NA	NA	NA	NA
09/28/93	180	2.7	0.73	6.3	13	NA	NA	NA	NA
<u>MW-7</u>									
06/25/92	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
09/16/92	<50	1.3	<0.5	<0.5	0.9	NA	NA	NA	NA
11/17/92				Not Sampled					
02/04/93	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
05/06/93				Not Sampled					
09/28/93	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
<u>MW-8</u>									
06/25/92	11,000	1,100	29	150	190	NA	NA	NA	NA
09/16/92	14,000	3,500	47	25	85	NA	NA	NA	NA
11/17/92	4,700	1,700	12	8.0	22	NA	NA	NA	NA
02/04/93	540	150	3.7	5.2	10	NA	NA	NA	NA
05/06/93	22,000	9,400	46	390	520	NA	NA	NA	NA
09/28/93	8,000	1,700	22	30	75	NA	NA	NA	NA
MCLs	---	10	---	680	1,750	---	---	---	---
DWAL	---	---	100	---	---	---	---	---	---

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 3 of 3)

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
*	:	Anamatrix 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).
Dissolved Oxygen	:	Measured in parts per million (ppm).
Ethylene Glycol	:	Measured in ppm.

APPENDIX A

**GROUNDWATER SAMPLING PROTOCOL
AND WELL PURGE DATA SHEETS**

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, or Solonist Water Level Indicator; these instruments are 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 or Teflon® 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. All Teflon® bailers are triple washed with Alconox® and triple rinsed with distilled water prior to use.

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 or Teflon® 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.

WELL PURGE DATA SHEET

Project Name: Texaco--1127 Lincoln AvenueJob No. 62074.01Date: 09/28/93Page 1 of 1Well No. MW-3Time Started 16:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
16:00	Start purging MW-3			
16:00	0	72.8	7.63	970
16:08	7.5	70.7	7.74	950
16:15	15.0	69.7	7.83	860
16:33	22.5	71.3	7.79	930
16:40	30.0	70.4	7.81	900
16:41	Stop purging MW-3			

Notes:

NM = Not Measured
Well Diameter (inches) : 4
Depth to Bottom (feet) : 19.70
Depth to Water - initial (feet) : 8.58
Depth to Water - final (feet) : 8.58
% recovery : 100
Time Sampled : 17:30
Gallons per Well Casing Volume : 7.29
Gallons Purged : 30.0
Well Casing Volume Purged : 4.12
Approximate Pumping Rate (gpm) : 1

WELL PURGE DATA SHEET

Project Name: Texaco--1127 Lincoln Avenue

Job No. 62074.01

Date: 09/28/93

Page 1 of 1

Well No. MW-6

Time Started 15:22

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
15:00	Start purging MW-6			
15:00	0	74.2	7.77	1060
15:04	2	72.8	7.78	1040
15:08	4	71.6	7.78	1000
15:22	6	72.6	7.86	1040
15:26	8	71.0	7.87	990
15:27	Stop purging MW-6			

Notes:

NM = Not Measured
 Well Diameter (inches) : 2
 Depth to Bottom (feet) : 20.00
 Depth to Water - initial (feet) : 8.38
 Depth to Water - final (feet) : 8.38
 % recovery : 100
 Time Sampled : 17:00
 Gallons per Well Casing Volume : 1.89
 Gallons Purged : 8.0
 Well Casing Volume Purged : 4.23
 Approximate Pumping Rate (gpm) : $\frac{1}{2}$

WELL PURGE DATA SHEET

Project Name: Texaco--1127 Lincoln AvenueJob No. 62074.01Date: 09/28/93Page 1 of 1Well No. MW-7Time started 14:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
14:00	Start purging MW-7			
14:00	0	72.1	7.84	1050
14:04	2.1	71.4	7.85	1020
14:08	4.2	70.2	7.88	1010
14:22	6.3	70.8	7.98	990
14:26	8.4	69.4	7.97	970
14:27	Stop purging MW-7			
Notes:				
NM = Not Measured				
Well Diameter (inches) : 2				
Depth to Bottom (feet) : 20.10				
Depth to Water - initial (feet) : 7.97				
Depth to Water - final (feet) : 7.97				
% recovery : 100				
Time Sampled : 15:45				
Gallons per Well Casing Volume : 1.98				
Gallons Purged : 8.4				
Well Casing Volume Purged : 4.25				
Approximate Pumping Rate (gpm) : $\frac{1}{2}$				

WELL PURGE DATA SHEET

Project Name: Texaco--1127 Lincoln Avenue

Job No. 62074.01

Date: 09/28/93

Page 1 of 1

Well No. MW-8

Time Started 13:00

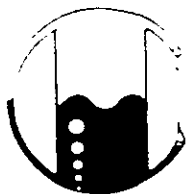
TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
13:00	Start purging MW-8			
13:00	0	71.5	7.61	1560
13:08	8	69.5	7.64	1540
13:16	16	69.0	7.77	1500
13:29	24	67.6	7.72	1540
13:37	32	67.4	7.71	1510
13:38	Stop purging MW-8			

Notes:

NM = Not Measured
 Well Diameter (inches) : 4
 Depth to Bottom (feet) : 19.80
 Depth to Water - initial (feet) : 7.86
 Depth to Water - final (feet) : 7.87
 % recovery : 99
 Time Sampled : 14:45
 Gallons per Well Casing Volume : 7.79
 Gallons Purged : 32
 Well Casing Volume Purged : 4.10
 Approximate Pumping Rate (gpm) : 1

APPENDIX B

**LABORATORY ANALYSIS REPORTS AND
CHAIN OF CUSTODY DOCUMENTATION**



MOBILE CHEM LABS INC.

5011 Blum Road, Suite 1 • Martinez, CA 94553
Phone (510) 372-3700 • Fax (510) 372-6955

62074.01\1342\013026

RESNA Industries
3315 Alamen Expressway, #34
San Jose, CA 95118
Attn: Phillip Mayberry
Project Manager

Date Sampled: 09-28-93
Date Received: 10-01-93
Date Analyzed: 10-11-93

Sample Number

103006

Sample Description

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

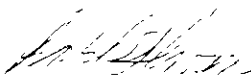
ANALYSIS

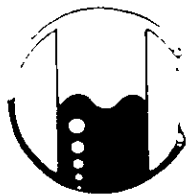
	Detection Limit ----- ppb	Sample Results ----- ppb
Total Petroleum Hydrocarbons as Gasoline	50	1,800
Benzene	0.5	92
Toluene	0.5	1.7
Xylenes	0.5	240
Ethylbenzene	0.5	99

QA/QC: Spike Recovery is 77%
Duplicate Deviation is 6.9%

Note: Analysis was performed using EPA methods 5030 and TPH
LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

MOBILE CHEM LABS


Ronald G. Evans
Lab Director



MOBILE CHEM LABS INC.

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62074.01\1342\013026

RESNA Industries
3315 Alamen Expressway, #34
San Jose, CA 95118
Attn: Phillip Mayberry
Project Manager

Date Sampled: 09-28-93
Date Received: 10-01-93
Date Analyzed: 10-11-93

Sample Number

103005

Sample Description

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

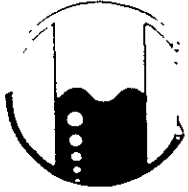
ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	180
Benzene	0.5	2.7
Toluene	0.5	0.73
Xylenes	0.5	13
Ethylbenzene	0.5	6.3

Note: Analysis was performed using EPA methods 5030 and TPH
LUFT with method 602 used for BTX distinction.
(ppb) = ($\mu\text{g/L}$)

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Ronald G. Evans
Lab Director



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62074.01\1342\013026

RESNA Industries
3315 Alamden Expressway, #34
San Jose, CA 95118
Attn: Phillip Mayberry
Project Manager

Date Sampled: 09-28-93
Date Received: 10-01-93
Date Analyzed: 10-11-93

Sample Number

103004

Sample Description

Project # 62074.01
Texaco - Alameda
1127 Lincoln
MW-7 WATER

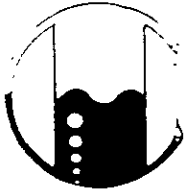
ANALYSIS

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

Note: Analysis was performed using EPA methods 5030 and TPH
LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

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RESNA Industries
3315 Alamden Expressway, #34
San Jose, CA 95118
Attn: Phillip Mayberry
Project Manager

Date Sampled: 09-28-93
Date Received: 10-01-93
Date Analyzed: 10-11-93

Sample Number

103003

Sample Description

Project # 62074.01
Texaco - Alameda
1127 Lincoln
MW-8 WATER

ANALYSIS

	Detection Limit ----- ppb	Sample Results ----- ppb
Total Petroleum Hydrocarbons as Gasoline	50	8,000
Benzene	0.5	1,700
Toluene	0.5	22
Xylenes	0.5	75
Ethylbenzene	0.5	30

Note: Analysis was performed using EPA methods 5030 and TPH
LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

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Ronald G. Evans
Lab Director



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5011 Blum Road, Suite 1 • Martinez, CA 94553
Phone (510) 372-3700 • Fax (510) 372-6955

62074.01\1342\013026

RESNA Industries
3315 Alamden Expressway, #34
San Jose, CA 95118
Attn: Phillip Mayberry
Project Manager

Date Sampled: 09-28-93
Date Received: 10-01-93
Date Analyzed: 10-11-93

Sample Number

103002

Sample Description

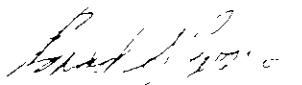
Project # 62074.01
Texaco - Alameda
1127 Lincoln
Rin Blk-MW8 WATER

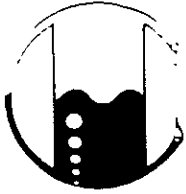
ANALYSIS

	<u>Detection Limit</u>	<u>Sample Results</u>
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	<50
Benzene	0.5	<0.5
Toluene	0.5	<0.5
Xylenes	0.5	<0.5
Ethylbenzene	0.5	<0.5

Note: Analysis was performed using EPA methods 5030 and TPH
LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

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Ronald G. Evans
Lab Director



MOBILE CHEM LABS INC.

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Phone (510) 372-3700 • Fax (510) 372-6955

62074.01\1342\013026

RESNA Industries
3315 Alampen Expressway, #34
San Jose, CA 95118
Attn: Phillip Mayberry
Project Manager

Date Sampled: 09-28-93
Date Received: 10-01-93
Date Analyzed: 10-11-93

Sample Number

103001

Sample Description


Project # 62074.01
Texaco - Alameda
1127 Lincoln
Trip Blank WATER

ANALYSIS

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

Note: Analysis was performed using EPA methods 5030 and TPH
LUFT with method 602 used for BTX distinction.
(ppb) = ($\mu\text{g/L}$)

MOBILE CHEM LABS


Ronald G. Evans
Lab Director



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

PROJECT NO		PROJECT NAME/SITE							ANALYSIS REQUESTED										PO #
6207401		Tetaco 1127 Lincoln, Alameda, CA.							<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (602/8020)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPHs (8015)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPHs (8015)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TOC 418 1/5/20</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">601/801C</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">624/8240</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">625/8270</div> </div>										
SAMPLERS (SIGN)		SAMPLERS (PRINT)																	
Robert A. Adams		Robin A. Adams																	
SAMPLE IDENTIFICATION	DATE	TIME	COMP	GRAB	PRES USED	ICED	NO CONTAINERS	SAMPLE TYPE											REMARKS
TAP Blank	9/28/93	2:40			HCL	Y	2												NOTE:
Run BLK - MW 8		2:45					2												All Samples are from the 28th Note - Bottles
MW 8		2:45					2												
MW 7		3:45					2	1750											
MW-6		5:00					2												
MW-3		5:30					2												
MW-4							2												
RELINQUISHED BY		DATE	TIME	RECEIVED BY			LABORATORY					PLEASE SEND RESULTS TO							
Robert A. Adams		9/28/93	7:30 AM				Mobile Chem Labs					Phil Mayberry Resna. San Jose							
RELINQUISHED BY		DATE	TIME	RECEIVED BY			REQUISTED TURNAROUND TIME												
							NORMAL												
RELINQUISHED BY		DATE	TIME	RECEIVED BY			RECEIPT CONDITION					PROJECT MANAGER							
		6-1-93	11:16	DAVE LEVINE			ON Ice not back soil												

APPENDIX C
NON-HAZARDOUS WASTE DATA FORM