



Texaco Refining
and Marketing Inc

108 Curtin Boulevard
Richmond CA 94804

August 4, 1994

*received
8-17-94
OFF*

ENV - STUDIES, SURVEYS & REPORTS
2225 Telegraph Ave., Oakland, California

Mr. Thomas Peacock
Alameda County Environmental Health Department
80 Swan Way, Room 200
Oakland, CA 94621

Dear Mr. Peacock:

This letter presents the results of groundwater monitoring and sampling conducted by ~~Blaine Tech Services~~, Inc. on **May 31, 1994**, at the site referenced above (see Plate 1, Site Vicinity Map). Based on groundwater level measurements, the areal hydraulic gradient was estimated to be south (see Plate 2, Groundwater Gradient Map). The gradient map has been reviewed by a registered professional. TPHg and benzene concentrations are shown on Plate 3. Tables 1 and 2 list historical groundwater monitoring data and analytical results, respectively.

The groundwater treatment system on site ran continuously throughout the reporting period.

The certified analytical report, chain-of-custody, field data sheets, and bill of lading are in the Appendix. Blaine Tech Services' Field Procedures and Protocols Summary may be found in Texaco's first quarter, 1994 monitoring report.

If you have any questions or comments regarding this site, please call the Texaco Environmental Services' site Project Coordinator, Ms. Karen E. Petryna at (510) 236-9139.

Best Regards,

Rebecca B. Digerness
Groundwater Monitoring Coordinator

Karen E. Petryna
Engineer
Texaco Environmental Services

RBD:hs
C:\QMR\2225T\QMR.LET

Enclosures

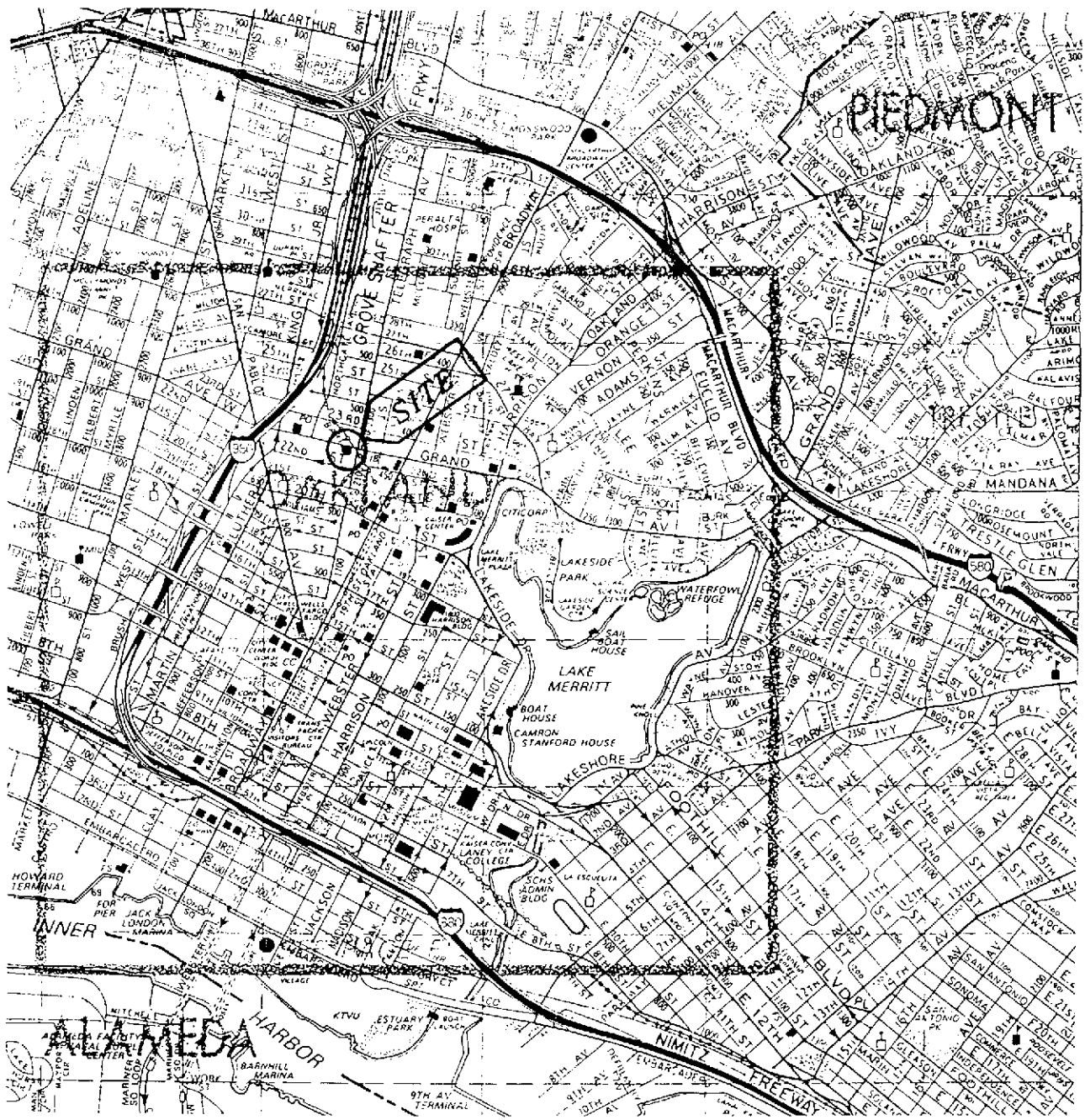
CC: Mr. Richard Hiatt
CRWQCB - San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Mr. Michael Faber
Exxon Company, USA
2300 Clayton Road, Suite 1250
Concord, CA 94524-2032

RAOFile-UCPFile (w/enclosures) RACoughlin-RRZielinski (w/o enclosures)

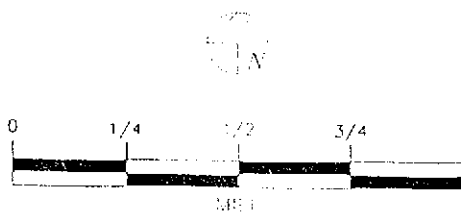
PR: KEP

**Groundwater Monitoring and Sampling
Second Quarter, 1994
at the
Former Texaco Station
2225 Telegraph Avenue
Oakland, CA**



SOURCE:

1993 THE THOMAS GUIDE
ALAMEDA COUNTY, PAGE 9 (B3)



TEXACO

REFINING AND MARKETING, INC.
TEXACO ENVIRONMENTAL SERVICES

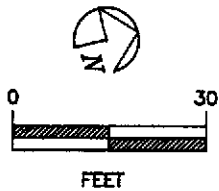
PLATE 1

SITE VICINITY MAP

FORMER TEXACO SERVICE STATION

2225 TELEGRAPH AVE. / GRAND AVE.

OAKLAND, CALIFORNIA



GROUNDWATER CONTOUR LINE
 2.01' GROUNDWATER ELEVATION (ABOVE MSL)
 NM WELL NOT MONITORED

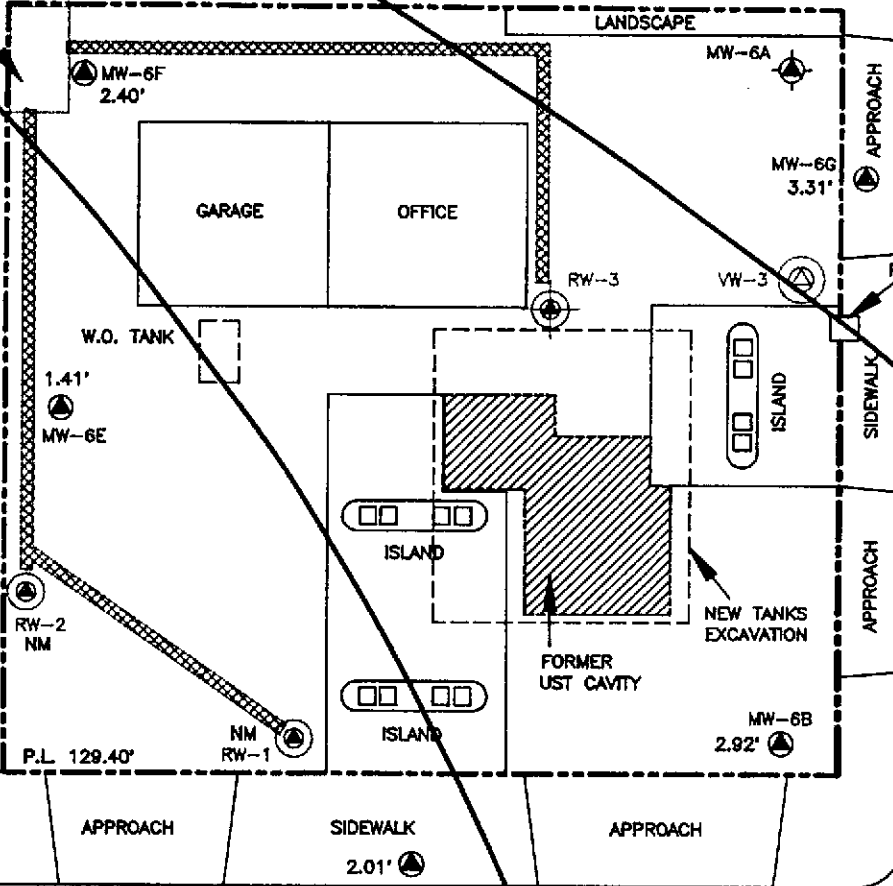
CHURCH

APPROXIMATE
 GROUNDWATER
 GRADIENT

LEGEND :

- GROUNDWATER MONITORING WELL LOCATION AND WELL NUMBER
- MW-6B
- ABANDONED MONITORING WELL LOCATION AND WELL NUMBER
- MW-6A
- GROUNDWATER RECOVERY/VAPOR EXTRACTION WELL LOCATION AND WELL NUMBER
- RW-1
- ABANDONED GROUNDWATER RECOVERY/VAPOR EXTRACTION WELL LOCATION AND WELL NUMBER
- RW-3
- VAPOR EXTRACTION WELL LOCATION AND WELL NUMBER
- VW-3
- TEXACO REMEDIATION SYSTEM TRENCH WITH 2" PVC VAPOR EXTRACTION LINE

TREATMENT COMPOUND

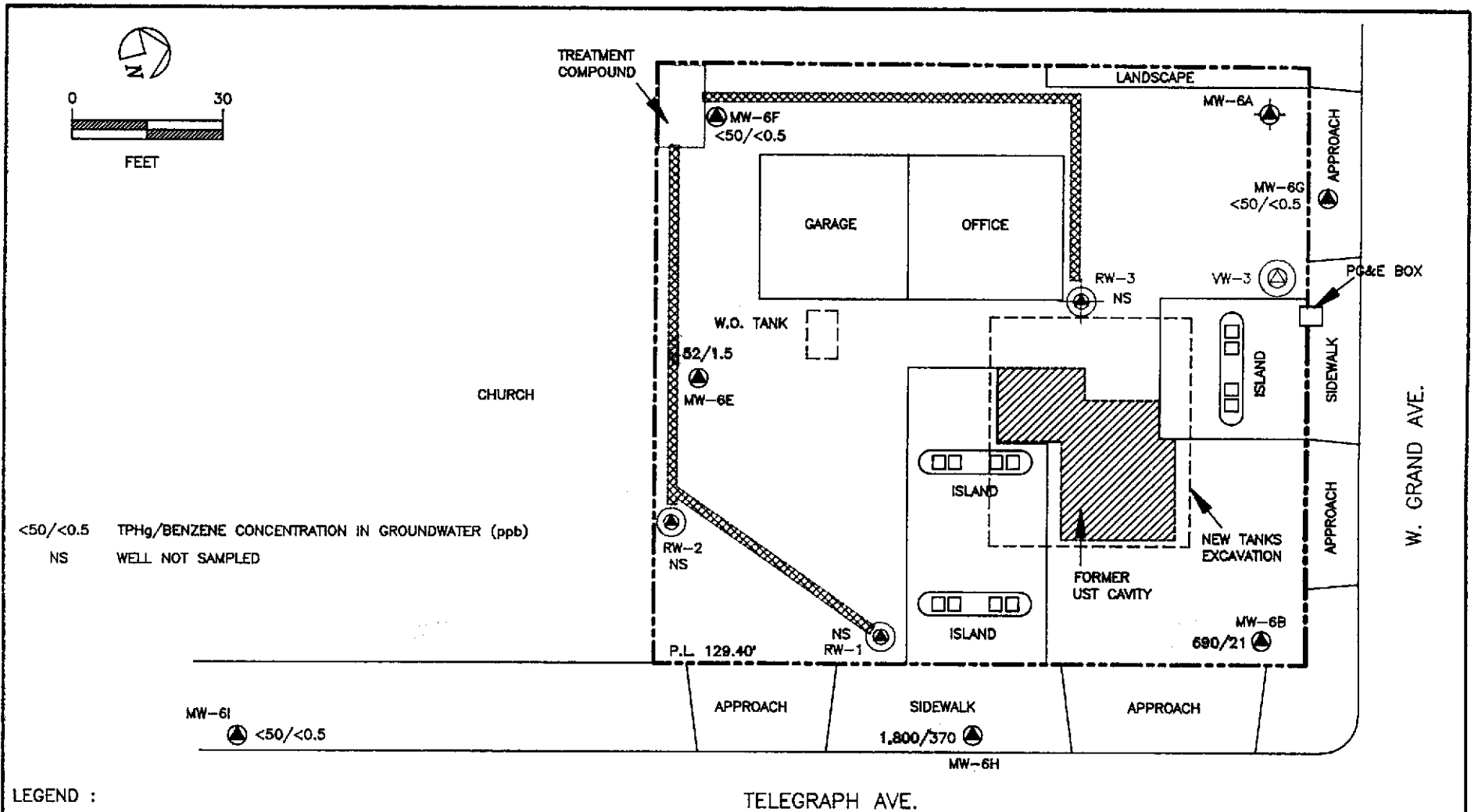


TELEGRAPH AVE.







W. GRAND AVE.

- SOURCE : MODIFIED FROM:
1. HLA SITE PLAN DWG.
 2. FRED FRIEDLER AND ASSOCIATES DWG.
 3. RESNA DWG

TEXACO REFINING AND MARKETING, INC. TEXACO ENVIRONMENTAL SERVICES	
PLATE 2 : GROUNDWATER GRADIENT MAP (05/31/1994)	
FORMER TEXACO SERVICE STATION 2225 TELEGRAPH AVE. / GRAND AVE., OAKLAND, CALIFORNIA	
SCALE	1" = 30'-0"
LOCATION #	62-488-0185
DRAWN BY	AMA
DATE	07/13/1994
CHECKED BY	RD
DATE	7/15/94
DRAWING NO. (OAKLAND) TE-GR-OK.DWG	



LEGEND :

-  GROUNDWATER MONITORING WELL LOCATION AND WELL NUMBER
- MW-6B
-  ABANDONED MONITORING WELL LOCATION AND WELL NUMBER
- MW-6A
-  GROUNDWATER RECOVERY/VAPOR EXTRACTION WELL LOCATION AND WELL NUMBER
- RW-1
-  ABANDONED GROUNDWATER RECOVERY/VAPOR EXTRACTION WELL LOCATION AND WELL NUMBER
- RW-3
-  VAPOR EXTRACTION WELL LOCATION AND WELL NUMBER
- VW-3
-  TEXACO REMEDIATION SYSTEM TRENCH WITH 2" PVC VAPOR EXTRACTION LINE

- SOURCE : MODIFIED FROM:
1. HLA SITE PLAN DWG.
 2. FRED FIEDLER AND ASSOCIATES DWG.
 3. RESNA DWG


	
TEXACO REFINING AND MARKETING, INC. TEXACO ENVIRONMENTAL SERVICES	
PLATE 3 : TPHg/BENZENE CONCENTRATION IN GROUNDWATER (05/31/1994)	
FORMER TEXACO SERVICE STATION 2225 TELEGRAPH AVE. / GRAND AVE., OAKLAND, CALIFORNIA	
SCALE	1" = 30'-0"
LOCATION #	62-488-0195
DRAWN BY	AMA
DATE	07/13/1994
CHECKED BY	RJD
DATE	7/15/94
DRAWING NO. (OAKLAND) TE-GR-OK-DWG	

Table 1
Groundwater Elevation Data
2225 Telegraph Avenue, Oakland, CA

Well Number	Date Gauged	Elevation of Wellhead (feet)		Depth to Water (feet, TOC)	Elevation of Groundwater (feet)
MW-6A	12/30/91				Well Destroyed
MW-6B	12/15/88	98.81	*		
	2/25/92			11.81	87.00
	3/25/92			11.58	87.23
	6/16/92	15.34	**	12.54	2.80
	9/8/92			12.87	2.47
	11/5/92			12.70	2.64
	12/14/92			12.19	3.15
	1/28/93			11.39	3.95
	2/11/93			11.70	3.64
	3/9/93			11.70	3.64
	4/14/93			11.87	3.47
	5/11/93			12.22	3.12
	6/17/93			12.46	2.88
	7/26/93			12.72	2.58
	8/10/93			12.82	2.52
	9/21/93			13.08	2.26
	10/27/93			13.18	2.16
	11/23/93			13.07	2.27
	12/17/93			NA	NA
	2/16/94			12.07	3.27
	5/31/94			12.42	2.92
RW-3 (formerly MW-6C)	11/5/91				Well Destroyed

Table 1
Groundwater Elevation Data
2225 Telegraph Avenue, Oakland, CA

Well Number	Date Gauged	Elevation of Wellhead (feet)		Depth to Water (feet, TOC)	Elevation of Groundwater (feet)
RW-2 (formerly MW-6D)					
	10/16/90	98.11	*		
	2/25/92			16.27	81.84
	3/25/92				Not Monitored
	6/16/92	14.61	**	12.86	1.75
	9/8/92				Not Monitored
	11/5/92				Not Monitored
	12/14/92				Not Monitored
	1/28/93				Not Monitored
	2/11/93				Not Monitored
	3/9/93				Not Monitored
	4/14/93				Not Monitored
	5/11/93				Not Monitored
	6/17/93				Not Monitored
	8/10/93				Not Monitored
	9/21/93				Not Monitored
	10/27/93				Not Monitored
	11/23/93				Not Monitored
	12/17/93				Not Monitored
	2/16/94				Not Monitored
	5/31/94				Not Monitored
MW-6E					
	12/15/88	98.99	*		
	2/25/92			13.16	85.83
	3/25/92			12.15	86.84
	6/16/92	15.23	**	13.54	1.69
	9/8/92			14.78	0.45
	11/5/92				Not Monitored
	12/14/92				Not Monitored
	1/28/93			11.62	3.61
	2/11/93			12.85	2.38
	3/9/93			12.83	2.40
	4/14/93				Not Monitored
	5/11/93			13.59	1.64
	6/17/93			13.74	1.49
	7/26/93			14.01	1.22
	8/10/93			14.13	1.10
	9/21/93			14.20	1.03
	10/27/93			14.34	0.89
	11/23/93			13.97	1.26
	12/17/93			13.08	2.15
	2/16/94			13.34	1.89
	5/31/94			13.82	1.41

Table 1
Groundwater Elevation Data
2225 Telegraph Avenue, Oakland, CA

Well Number	Date Gauged	Elevation of Wellhead (feet)		Depth to Water (feet, TOC)	Elevation of Groundwater (feet)
MW-6F	12/15/88	99.91	*		
	2/25/92			12.68	87.23
	3/25/92			11.93	87.98
	6/16/92	16.46	**	14.34	2.12
	9/8/92			14.75	1.71
	11/5/92			14.35	2.11
	12/14/92			12.90	3.56
	1/28/93			11.60	4.86
	2/11/93			12.25	4.21
	3/9/93			12.50	3.96
	4/14/93			12.71	3.75
	5/11/93			13.63	2.83
	6/17/93			14.02	2.44
	7/26/93				Not Monitored
	8/10/93				Not Monitored
	9/21/93			14.80	1.66
	10/27/93			14.85	1.61
	11/23/93			Not Monitored - Inaccessible	
	12/17/93			13.86	2.60
	2/16/94			13.08	3.38
5/31/94			14.06	2.40	
MW-6G	12/15/88	99.16	*		
	2/25/92			10.32	88.84
	3/25/92			9.93	89.23
	6/16/92	14.71	**	11.88	2.83
	9/8/92			12.20	2.51
	11/5/92			12.02	2.69
	12/14/92			10.95	3.76
	1/28/93			9.56	5.15
	2/11/93			10.04	4.67
	3/9/93			10.10	4.61
	4/14/93			10.43	4.28
	5/11/93			11.05	3.66
	6/17/93			11.49	3.22
	7/26/93			11.98	2.73
	8/10/93			12.17	2.54
	9/21/93			12.42	2.29
	10/27/93			13.47	1.24
	11/23/93			12.48	2.23
	12/17/93			11.19	3.52
	2/16/94			10.62	4.09
5/31/94			11.40	3.31	

Table 1
Groundwater Elevation Data
2225 Telegraph Avenue, Oakland, CA

Well Number	Date Gauged	Elevation of Wellhead (feet)		Depth to Water (feet, TOC)	Elevation of Groundwater (feet)
MW-6H					
	12/15/88	97.93	*		
	2/25/92			12.17	85.76
	3/25/92			11.65	86.28
	6/16/92	14.47	**	12.12	2.35
	9/8/92			12.30	2.17
	11/5/92			12.05	2.42
	12/14/92			11.65	2.82
	1/28/93			11.57	2.90
	2/11/93			12.22	2.25
	3/9/93			12.02	2.45
	4/14/93			12.02	2.45
	5/11/93			12.35	2.12
	6/17/93			12.22	2.25
	7/26/93			12.32	2.15
	8/10/93			12.30	2.17
	9/21/93			12.79	1.68
	10/27/93			13.93	0.54
	11/23/93			12.46	2.01
	12/17/93			12.08	2.39
	5/31/94			12.46	2.01
MW-6I					
	12/15/88	97.60	*		
	2/25/92			12.45	85.15
	3/25/92			12.12	85.48
	6/16/92	14.14	**	12.75	1.39
	9/8/92			12.84	1.30
	11/5/92			12.75	1.39
	12/14/92			12.40	1.74
	1/28/93			12.20	1.94
	2/11/93			12.40	1.74
	3/9/93			12.45	1.69
	4/14/93			12.43	1.71
	5/11/93			12.73	1.41
	6/17/93			12.78	1.36
	7/26/93			12.92	1.22
	8/10/93			12.97	1.17
	9/21/93			13.02	1.12
	10/27/93			13.10	1.04
	11/23/93			13.02	1.12
	12/17/93			12.65	1.49
	2/16/94			12.66	1.48
	5/31/94			12.90	1.24

Table 1
Groundwater Elevation Data
2225 Telegraph Avenue, Oakland, CA

Well Number	Date Gauged	Elevation of Wellhead (feet)		Depth to Water (feet, TOC)	Elevation of Groundwater (feet)
RW-1					
	10/16/90	97.89	*		
	2/25/92			14.40	83.49
	3/25/92			NA	NA
	6/16/92	14.42	**	12.37	2.05
	9/8/92			Not Monitored	
	11/5/92			Not Monitored	
	12/14/92			Not Monitored	
	1/18/93			Not Monitored	
	2/11/93			Not Monitored	
	3/9/93			Not Monitored	
	4/14/93			Not Monitored	
	5/11/93			Not Monitored	
	6/17/93			Not Monitored	
	7/26/93			Not Monitored	
	8/10/93			Not Monitored	
	9/21/93			Not Monitored	
	10/27/93			Not Monitored	
	11/23/93			Not Monitored	
	12/17/93			Not Monitored	
	2/16/94			Not Monitored	
	5/31/94			Not Monitored	
* = Based on assigned benchmark with elevation arbitrarily set at 100 feet.					
** = Elevation relative to mean sea level (MSL).					
NA = Not Available					

Table 2
Groundwater Analytical Data
2225 Telegraph Avenue, Oakland, CA

Well Number	Date Sampled	TPH as gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
MW-6A						
	3/25/92		Well Damaged			
	5/2/92		Well Destroyed			
MW-6B						
	3/25/92	190	31	8.6	84	8.6
	6/16/92	1,700	44	1.7	7.2	230
	9/8/92	2,900	35	8.3	110	330
	11/5/92	1,400	29	<0.5	75	190
	2/11/93	210	1.2	<0.5	2.8	4.3
	5/11/93	570	54	2.4	37	36
	8/10/93	1,300	48	2.4	28	44
	10/27/93	1,300	23	1.7	25	250
	2/16/94	300	16	<0.5	3.5	2.4
	5/31/94	690	21	3.9	11	36
RW-3 (formerly MW-6C)						
	11/5/91		Well Destroyed			
RW-2 (formerly MW-6D)						
	3/25/92	NA	NA	NA	NA	NA
	6/16/92	28,000	2,900	1,000	120	2,700
	9/8/92		Not Sampled			
	11/5/92		Not Sampled			
	5/11/93		Not Sampled			
	8/10/93		Not Sampled			
	10/27/93		Not Sampled			
	2/16/94		Not Sampled			
	5/31/94		Not Sampled			
MW-6E						
	3/25/92	830	41	1	3.8	16
	6/16/92	3,400	300	23	68	510
	9/8/92	480	27	<0.5	3.6	21
	11/5/92		Not Sampled			
	2/11/93	270	15	<0.5	<0.5	8.7
	5/11/93	<50	2.3	<0.5	1.4	3.2
	8/10/93	1,700	130	2.7	23	140
	10/27/93	100	6	<0.5	<0.5	<0.5
	2/16/94	640	45	<0.5	12	15
	5/31/94	52	1.5	0.97	<0.5	<0.5

Table 2
Groundwater Analytical Data
2225 Telegraph Avenue, Oakland, CA

Well Number	Date Sampled	TPH as gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
MW-6F						
	3/25/92	ND	ND	<0.5	<0.5	<0.5
	6/16/92	ND	ND	<0.5	<0.5	<0.5
	9/8/92	<50	<0.5	<0.5	<0.5	<0.5
	11/5/92	<50	<0.5	<0.5	<0.5	<0.5
	2/11/93	<50	<0.5	<0.5	<0.5	<0.5
	5/11/93	<50	<0.5	<0.5	<0.5	<0.5
	8/10/93	Not Sampled				
	10/27/93	<50	<0.5	<0.5	<0.5	<0.5
	2/16/94	<50	<0.5	<0.5	<0.5	<0.5
	5/31/94	<50	<0.5	<0.5	<0.5	<0.5
MW-6G						
	3/25/92	ND	ND	<0.5	<0.5	<0.5
	6/16/92	ND	ND	<0.5	<0.5	<0.5
	9/8/92	<50	<0.5	<0.5	<0.5	<0.5
	11/5/92	<50	<0.5	<0.5	<0.5	<0.5
	2/11/93	<50	<0.5	<0.5	<0.5	<0.5
	5/11/93	<50	<0.5	<0.5	<0.5	<0.5
	8/10/93	<50	<0.5	<0.5	<0.5	<0.5
	10/27/93	<50	<0.5	<0.5	<0.5	<0.5
	2/16/94	<50	<0.5	<0.5	<0.5	<0.5
	5/31/94	<50	<0.5	<0.5	<0.5	<0.5
MW-6H						
	3/25/92	920	170	52	25	54
	6/16/92	460	31	11	6.8	16
	9/8/92	780	69	23	17	18
	11/5/92	3,400	500	260	85	160
	2/11/93	2,500	410	170	28	130
	5/11/93	4,200	490	270	80	210
	8/10/93	650	83	22	14	29
	10/27/93	1,600	130	90	29	130
	2/16/94	<50	<0.5	<0.5	<0.5	2.9
	5/31/94	1,800	370	220	65	210
MW-6I						
	3/25/92	ND	ND	<0.5	<0.5	<0.5
	6/16/92	ND	ND	<0.5	<0.5	<0.5
	9/8/92	<50	<0.5	<0.5	<0.5	<0.5
	11/5/92	<50	<0.5	<0.5	<0.5	<0.5
	2/11/93	<50	<0.5	<0.5	<0.5	<0.5
	5/11/93	<50	<0.5	<0.5	<0.5	<0.5
	8/10/93	<50	<0.5	<0.5	<0.5	<0.5
	10/27/93	<50	<0.5	<0.5	<0.5	1.1
	2/16/94	<50	<0.5	<0.5	<0.5	<0.5
	5/31/94	<50	<0.5	<0.5	<0.5	<0.5

Table 2
Groundwater Analytical Data
2225 Telegraph Avenue, Oakland, CA

Well Number	Date Sampled	TPH as gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
RW-1						
	6/16/92	6,200	620	1,400	240	1,400
	9/8/92		Not Sampled			
	11/5/92		Not Sampled			
	2/11/93		Not Sampled			
	2/16/94		Not Sampled			
	5/31/94		Not Sampled			
ppb	parts per billion					
TPHg	Total petroleum hydrocarbons as gasoline.					
<	Less than the detection limit for the specified method of analysis.					
NA	Not Analyzed					
ND	Not detectable at or above method detection limit.					

801 Western Avenue
 Glendale, CA 91201
 818/247-5737
 Fax: 818/247-9797

LOG NO: G94-06-020

Received: 01 JUN 94

Mailed: JUN 15 1994

Ms. Rebecca Digerness
 Texaco Environmental Services
 108 Cutting Boulevard
 Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: AL;Partial Pymt
 Project: FKEP1015L

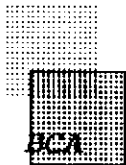
REPORT OF ANALYTICAL RESULTS

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020)	Date Analyzed Date	Dilution Factor Times 1	TPH-g ug/L	Benzene ug/L	Toluene ug/L	E' hyl- Benzene ug/L	Total Xylenes Isomers ug/L
RDL				1	50	0.5	0.5	0.5	0.5
1*MW-6B	05/31/94	06/09/94	06/09/94	1	690	21	3.9	11	36
2*MW-6E	05/31/94	06/09/94	06/09/94	1	52	1.5	0.97	<0.5	<0.5
3*MW-6F	05/31/94	06/09/94	06/09/94	1	<50	<0.5	<0.5	<0.5	<0.5
4*MW-6G	05/31/94	06/09/94	06/09/94	1	<50	<0.5	<0.5	<0.5	<0.5
5*MW-6H	05/31/94	06/10/94	06/10/94	10	1800	370	220	65	210
6*MW-6I	05/31/94	06/09/94	06/09/94	1	<50	<0.5	<0.5	<0.5	<0.5
7*EB	05/31/94	06/09/94	06/09/94	1	<50	<0.5	<0.5	<0.5	<0.5
8*TB	05/31/94	06/09/94	06/09/94	1	<50	<0.5	<0.5	<0.5	<0.5

624880195, KAREN PETRYNA
 2225 TELEGRAPH AVE., OAKLAND

James C. Hein
 James C. Hein, Laboratory Director



SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE.....	METHOD.....	EQUIP.	BATCH..	ID.NO
			ANALYZED				
9406020*1	MW-6B	GAS.BTX.TESNC	06.09.94	8015M.TX		94063	7961
9406020*2	MW-6E	GAS.BTX.TESNC	06.09.94	8015M.TX		94063	7961
9406020*3	MW-6F	GAS.BTX.TESNC	06.09.94	8015M.TX	536-21	94063	7961
9406020*4	MW-6G	GAS.BTX.TESNC	06.09.94	8015M.TX	536-21	94063	7961
9406020*5	MW-6H	GAS.BTX.TESNC	06.10.94	8015M.TX	536-21	94063	7961
9406020*6	MW-6I	GAS.BTX.TESNC	06.09.94	8015M.TX	536-21	94063	7961
9406020*7	EB	GAS.BTX.TESNC	06.09.94	8015M.TX	536-21	94063	7961
9406020*8	TB	GAS.BTX.TESNC	06.09.94	8015M.TX	536-21	94063	7961

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.
ID.NO = BC Analytical employee identification number of analyst.

ORDER QC REPORT: Definitions and Terms



Accuracy	The ability of a procedure to determine the "true" concentration of an analyte.
Precision	The reproducibility of a procedure demonstrated by the agreement between analyses performed on either duplicates of the same sample or a pair of duplicate spikes.
Batch	A group of twenty samples or less, of similar matrix type, prepped together or analyzed together if no sample preparation is required, under the same conditions and with the same reagents. The batch must include a method blank, LCS and matrix QC.
Laboratory Control Standard (LCS)	A blank that is spiked with a known amount of analyte and subjected to the same procedures as the samples. The LCS indicates the accuracy of the analytical method. It also serves to double-check the calibration because it is prepared from a different source than the standard used to calibrate the instrument.
Matrix QC	Quality control performed on actual client samples. The matrix spike is a client's sample spiked with a known amount of analyte. For most analyses, the laboratory performs matrix spikes in duplicate (duplicate spikes).
Method Blank	A sample that contains no analyte. For water analysis, organic-free or deionized water is used. For solids analysis, analyte-free solvent is used. The method blank serves to measure contamination associated with laboratory storage, preparation or instrumentation.
Batch Number	Numeric designation for a batch of samples and the associated QC. The batch number sequence is unique for each determination.
LC Result	Laboratory result of an LCS analysis.
LT Result	Expected result, or true value, of the LCS analysis.
Percent Recovery	The percentage of analyte recovered. For LCS, the percent recovery calculation is: $\frac{LC}{LT} \times 100$
LC1, LC2 Result	Result of analyzing two separately prepared LCSs; used to determine precision.
R1, R2 Result	Result of analyzing replicate aliquots of a sample, with R1 indicating the first analysis of the sample and R2 its corresponding duplicate; used to determine precision.
S1, S2 Result	Result of the analysis of replicate spiked aliquots, with S1 indicating one spike of the sample and S2 the second spike; used to determine precision and accuracy.
Relative Percent Difference (RPD)	Calculated using one of the following: $\frac{ LC1 - LC2 \times 100}{(LC1 + LC2) \div 2} \quad \frac{ R1 - R2 \times 100}{(R1 + R2) \div 2} \quad \frac{ S1 - S2 \times 100}{(S1 + S2) \div 2}$
S1, S2 Recovery	The percentage of analyte recovered. The percent recovery calculation is: S1 Recovery: $\frac{(S1 - R1)}{(True - R1)} \times 100$ S2 Recovery: $\frac{(S2 - R1)}{(True - R1)} \times 100$
True Value	The theoretical, or expected, result of a spike sample analysis.
NC Flag	Indicates that the spike recovery was not calculated due to high sample concentration relative to the amount of spike added.
Q Flag	Indicates that the quality control measurement is outside the specified control limits.
Blank Result	Laboratory result of analysis of the method blank.
Reporting Detection Limit (RDL)	BCA-assigned limit based on; but not the same as, method detection limits (MDLs) determined using EPA guidelines. Sample RDLs may differ from the blank RDL if the samples were diluted.

BC ANALYTICAL

ORDER QC REPORT FOR G9406020

DATE REPORTED : 06/15/94

Page 1

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
. TPH-gas/BTEX (CADHS/80 C406953*1						
Date Analyzed	06.09.94	94063	06/09/94	06/09/94	Date	N/A
Benzene	06.09.94	94063	22.0	24.3	ug/L	90
Toluene	06.09.94	94063	93.6	90.0	ug/L	104
Ethylbenzene	06.09.94	94063	17.8	17.9	ug/L	99
Total Xylene Isomers	06.09.94	94063	110	110	ug/L	100
TPH-gas	06.09.94	94063	897	1000	ug/L	90
. TPH-gas/BTEX (CADHS/80 C406954*1						
Date Analyzed	06.10.94	94063	06/10/94	06/10/94	Date	N/A
Benzene	06.10.94	94063	25.5	24.3	ug/L	105
Toluene	06.10.94	94063	98.3	90.0	ug/L	109
Ethylbenzene	06.10.94	94063	18.3	17.9	ug/L	102
Total Xylene Isomers	06.10.94	94063	113	110	ug/L	103
TPH-gas	06.10.94	94063	991	1000	ug/L	99

BC ANALYTICAL

ORDER QC REPORT FOR G9406020

DATE REPORTED : 06/15/94

Page 1

ADDITIONAL LCS PRECISION (DUPLICATES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	LC1 RESULT	LC2 RESULT	UNIT	RELATIVE % DIFF
TPH-gas/BTEX (CADHS/80)							
Date Analyzed		06.09.94	94063	06/09/94	06/10/94	Date	N/A
Benzene		06.09.94	94063	22.0	25.5	ug/L	15
Toluene		06.09.94	94063	93.6	98.3	ug/L	5
Ethylbenzene		06.09.94	94063	17.8	18.3	ug/L	3
Total Xylene Isomers		06.09.94	94063	110	113	ug/L	3
TPH-gas		06.09.94	94063	897	991	ug/L	10

BC ANALYTICAL

ORDER QC REPORT FOR G9406020

DATE REPORTED : 06/15/94

Page 1

MATRIX QC PRECISION (DUPLICATE SPIKES)
 BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
. TPH-gas/BTEX (CADHS/80 9406020*2)							
Date Analyzed		06.09.94	94063	06/09/94	06/09/94	Date	N/A
Benzene		06.09.94	94063	22.1	24.6	ug/L	11
Toluene		06.09.94	94063	92.8	100	ug/L	7
Ethylbenzene		06.09.94	94063	17.5	18.1	ug/L	3
Total Xylene Isomers		06.09.94	94063	104	111	ug/L	6
TPH-gas		06.09.94	94063	935	988	ug/L	5

BC ANALYTICAL

ORDER QC REPORT FOR G9406020

DATE REPORTED : 06/15/94

Page 1

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT
TPH-gas/BTEX (CADHS/80 9406020*2)							
Benzene		06.09.94	94063	85	95	25.8	ug/L
Toluene		06.09.94	94063	102	110	91.0	ug/L
Ethylbenzene		06.09.94	94063	98	101	17.9	ug/L
Total Xylene Isomers		06.09.94	94063	94	101	110	ug/L
TPH-gas		06.09.94	94063	88	94	1050	ug/L

BC ANALYTICAL

ORDER QC REPORT FOR G9406020

DATE REPORTED : 06/15/94

Page 1

METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
TPH-gas/BTEX (CADHS/80 B406674*1)						
Date Analyzed	06.09.94	94063	06/09/94	NA	Date	8015M.TX
Benzene	06.09.94	94063	0	0.5	ug/L	8015M.TX
Toluene	06.09.94	94063	0	0.5	ug/L	8015M.TX
Ethylbenzene	06.09.94	94063	0	0.5	ug/L	8015M.TX
Total Xylene Isomers	06.09.94	94063	0	0.5	ug/L	8015M.TX
TPH-gas	06.09.94	94063	0	50	ug/L	8015M.TX

: SURROGATE SUMMARY :

: BC ANALYTICAL : GLEN LAB : 13:55:20 15 JUN 1994 - P. 1 :
=====

DETERM	SUBDET	REPORTED	TRUE	%RECOVERY	FLAG
0406020*1 GAS.BTX.TESNC	a,a,a-TFTol.R	37.0	50.0		74
0406020*2 GAS.BTX.TESNC	a,a,a-TFTol.R	55.8	50.0		112
0406020*3 GAS.BTX.TESNC	a,a,a-TFTol.R	57.0	50.0		114
0406020*4 GAS.BTX.TESNC	a,a,a-TFTol.R	57.5	50.0		115
0406020*5 GAS.BTX.TESNC	a,a,a-TFTol.R	44.3	50.0		89
0406020*6 GAS.BTX.TESNC	a,a,a-TFTol.R	52.1	50.0		104
0406020*7 GAS.BTX.TESNC	a,a,a-TFTol.R	52.2	50.0		104
0406020*8 GAS.BTX.TESNC	a,a,a-TFTol.R	51.4	50.0		103

SURROGATE SUMMARY :

BC ANALYTICAL : GLEN LAB : 13:55:34 15 JUN 1994 - P. 1 :

ETERM	SUBDET	REPORTED	TRUE	%RECOVERY	FLAG
406020*2*R1 AS.BTX.TESNC	a,a,a-TFTol.R	55.8	50.0		112
406020*2*S1 AS.BTX.TESNC	a,a,a-TFTol.R	48.5	50.0		97
406020*2*S2 AS.BTX.TESNC	a,a,a-TFTol.R	54.2	50.0		108
406020*2*T AS.BTX.TESNC	a,a,a-TFTol.R	55.8	50.0		112

CONDUCT ANALYSIS TO DETECT

LAB BC Analytical DHS # _____

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

EPA RWQCB REGION _____

LIA

OTHER

A94-06-020

IN OF CUSTODY
 9405 31 Za

NT
 Texaco Environmental Services

Location # 624 880 195

2225 Telegraph Due
 Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH-GAS, BTEX

SAMPLE I.D.	DATE	TIME	MATRIX		CONTAINERS		C	TPH-GAS	BTEX							ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #	
			S = SOIL	W = H2O	TOTAL	40 ml vol														
6B	5/31/94	1635	W		3			X												
6E	"	1610	"		3			X												
6F	"	1550	"		3			X												
6G	"	1525	"		3			X												
6H	"	1655	"		3			X												
6I	"	1500	"		3			X												
		1515	"		3			X												
			"		2			X												

1111111111
 87369278

DATE COMPLETED: 5/31/94 TIME: 1705

SAMPLING PERFORMED BY: Brett Bleau

RESULTS NEEDED NO LATER THAN:

RELEASED BY <u>Brett Bleau</u>	DATE <u>6-1-94</u>	TIME <u>120</u>	RECEIVED BY <u>Bill Lyons</u>	DATE <u>6-1-94</u>	TIME <u>120</u>
RELEASED BY <u>Bill Lyons</u>	DATE <u>6-1-94</u>	TIME <u>325</u>	RECEIVED BY <u>Mario Alvarez</u>	DATE <u>6-1-94</u>	TIME <u>1530</u>
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPMENT VIA _____ DATE SENT _____ TIME SENT _____ COOLER # _____

TEXACO WELL MONITORING DATA SHEET

Project #: 940531-Z	Facility #: 624 880 195
Sampler: 88	Date Sampled: 5/31/94
Well I.D.: mw-6B	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before 18.06 After	Depth to Water: Before 12.42 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to: PVC	Grade Other --

.70	x	3	=	2.10
1 Case Volume		Specified Volumes		gallons

Purging: Bailer <input checked="" type="checkbox"/> Middleburg Electric Submersible Suction Pump Type of Installed Pump _____	Sampling: Bailer <input checked="" type="checkbox"/> Middleburg Electric Submersible Suction Pump Installed Pump
---	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1628	65.4	7.3	1100	7200	1	odor
1629	64.8	7.3	1100	7200	2	"
1630	65.7	7.3	1100	7200	3	"

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 3

Sampling Time: 1635

Sample I.D.: mw-6B Laboratory: BCA

Analyzed for: TPH-G, BTEX

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Wellhead Condition: SECURE? (Yes) No If No explain:

Wellhead Maintenance Performed:

TEXACO WELL MONITORING DATA SHEET

Project #: 940531-Z1	Facility # 624 880 195
Sampler: BD	Date Sampled: 5/31/94
Well I.D.: mw-6E	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before 19.59 After	Depth to Water: Before 13.82 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to:	PVC Grade Other --

<u>3.8</u>	\times	<u>3</u>	$=$	<u>11.4</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer Middleburg Electric Submersible Suction Pump Type of Installed Pump _____	Sampling: Bailer Middleburg Electric Submersible Suction Pump Installed Pump _____
---	--

TIME	TEMP. (F)	PH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1602	64.8	7.6	520	24.6	4	
1603	65.4	7.7	530	18.5	8	
1604	65.4	7.7	520	15.3	12	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 12

Sampling Time: 1610

Sample I.D.: mw-6E Laboratory: BCA

Analyzed for: TPH, G, BTEX

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Wellhead Condition: SECURE? Yes No If No explain:

Wellhead Maintenance Performed:

TEXACO WELL MONITORING DATA SHEET

Project #: 40531-Z	Facility # 624 880 195
Sampler: BB	Date Sampled: 5/31/94
Well I.D.: mw-6F	Well Diameter: (circle one) 2 3 4 6
Total Well Depth: Before 19.70 After	Depth to Water: Before 14.06 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to:	PVC Grade Other --

37	X	3	=	10.1
1 Case Volume		Specified Volumes		gallons

Purging: Bailer
 Middleburg
 Electric Submersible
 Suction Pump
 Type of Installed Pump _____

Sampling: Bailer
 Middleburg
 Electric Submersible
 Suction Pump
 Installed Pump _____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1538	67.4	7.6	580	12.6	4	
1539	67.6	7.7	570	11.3	8	
1540	66.3	7.7	560	9.8	11	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: "

Sampling Time: 1550

Sample I.D.: mw-6F Laboratory: BCA

Analyzed for: TPH-G, BTEX

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Wellhead Condition: SECURE? **Yes** No If No explain:

Wellhead Maintenance Performed:

TEXACO WELL MONITORING DATA SHEET

Project #: 940531-2,	Facility # 624 880 195
Sampler: 60	Date Sampled: 5/31/94
Well I.D.: MW-66	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before 19.76 After	Depth to Water: Before 11.40 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to: <u>PVC</u> Grade Other --	

<u>5.4</u>	\times	<u>3</u>	$=$	<u>16.2</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer Middleburg Electric Submersible Suction Pump Type of Installed Pump	Sampling: Bailer Middleburg Electric Submersible Suction Pump Installed Pump
---	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1515	67.1	7.5	1100	23.2	6	
1516	67.3	7.5	1100	16.4	12	
1517	67.7	7.5	1200	10.2	17	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 17

Sampling Time: 1525

Sample I.D.: MW-66 Laboratory: BCA

Analyzed for: TPH-G, BTEX

Duplicate I.D.: Cleaning Blank I.D.: EB @ 1505

Analyzed for: TPH-G, BTEX

Wellhead Condition: SECURE? Yes No If No explain:

Wellhead Maintenance Performed: new cap & lock

TEXACO WELL MONITORING DATA SHEET

Project #: 940531-Z	Facility #: 624 880 195
Sampler: BB	Date Sampled: 5/31/74
Well I.D.: mw-6H	Well Diameter: (circle one) 2 3 4 6
Total Well Depth: Before 19.76 After	Depth to Water: Before 12.46 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to:	PVC Grade Other --

4.7	x	3	=	14.1
1 Case Volume		Specified Volumes		gallons

Purging: Bailer
Middleburg
Electric Submersible
Suction Pump
Type of Installed Pump _____

Sampling: Bailer ✓
Middleburg
Electric Submersible
Suction Pump
Installed Pump

TIME	TEMP. (F)	PH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1641	67.8	7.4	1100	34.6	5	Strong gas odor
1642	68.3	7.4	900	32.3	10	"
1643	68.2	7.4	890	44.8	15	"

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 15

Sampling Time: 1655

Sample I.D.: mw-6H Laboratory: BCA

Analyzed for: TPH-G, BTEX

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Wellhead Condition: SECURE? **Yes** No If No explain:

Wellhead Maintenance Performed:

TEXACO WELL MONITORING DATA SHEET

Project #: 940531-21	Facility #: 624 880 195
Sampler: 3D	Date Sampled: 5/31/94
Well I.D.: mw-6I	Well Diameter: (circle one) 2 3 4 6
Total Well Depth: Before 19.50 After	Depth to Water: Before 12.90 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to:	<input checked="" type="radio"/> PVC <input type="radio"/> Grade <input type="radio"/> Other --

9.3	x	3	=	12.9
1 Case Volume		Specified Volumes		gallons

Purging: Bailer
 Middleburg
 Electric Submersible
 Suction Pump
 Type of Installed Pump

Sampling: Bailer
 Middleburg
 Electric Submersible
 Suction Pump
 Installed Pump

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1452	68.9	7.4	1600	14.3	5	
1453	68.4	7.6	850	13.9	10	
1454	67.2	7.4	950	21.3	13	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 13.

Sampling Time: 1500

Sample I.D.: mw-6I Laboratory: BCA

Analyzed for: TPA-G, BTEX

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Wellhead Condition: SECURE? Yes No If No explain:

Wellhead Maintenance Performed:

TEXACO TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING**

FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT TEXACO FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGEWATER WHICH HAS BEEN RECOVERED FROM GROUNDWATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED TO THE DESTINATION DESIGNATED BY TEXACO ENVIRONMENTAL SERVICES (TES).

The contractor performing this work is BLAINE TECH SERVICES, INC., 985 Timothy Drive, San Jose, CA 95133 (phone [408] 995-5535). Blaine Tech Services, Inc. is authorized by TEXACO ENVIRONMENTAL SERVICES to recover, collect, apportion into loads, and haul the Non-Hazardous Well Purgewater that is drawn from wells at the TEXACO facility indicated below and to deliver that purgewater to an appropriate destination designated by TEXACO ENVIRONMENTAL SERVICES in either Redwood City, California or in Richmond, California. Transport routing of the Non-Hazardous Well Purgewater may be direct from one Texaco facility to the designated destination point; from one Texaco facility to the designated destination point via another Texaco facility; from a Texaco facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of Texaco Environmental Services (TES).

This Source Record **BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Texaco facility described below:

TEXACO # 624 880 175
 street number 2225 street name Telegraph Ave city Oakland state CA

WELL I.D.	GALS.	WELL I.D.	GALS.
<u>mw-6B</u>	<u>3</u>	_____	_____
<u>mw-6E</u>	<u>12</u>	_____	_____
<u>mw-6F</u>	<u>11</u>	_____	_____
<u>mw-6G</u>	<u>17</u>	_____	_____
<u>mw-6H</u>	<u>15</u>	_____	_____
<u>mw-6I</u>	<u>13</u>	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
added equip.	_____	any other	_____
rinse water	<u>10</u>	adjustments	_____

TOTAL GALS. RECOVERED 81 loaded onto BTS vehicle # 14

BTS event # 940531-22 time 1705 date 5/31/94
 signature [Signature]

REC'D AT BTS time 1820 date 5/31/94

unloaded by signature [Signature]