Texaco Refining and Marketing Inc
108 Cutting Boulevard
Richmond CA 94804

August 4, 1994

compare well log MW-8 with MW-5 or 4,6 steep gradient
MW-8 should be sampled in Feb + Aug
NOV for not implementing RAP (by 2/94)

ENV - STUDIES, SURVEYS, & REPORTS
930 Springtown Blvd., Livermore, California

Ms. Eva Chu
Alameda County Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94612

Dear Ms. Chu:

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 north-northwest (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 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 Petryna at (510) 236-9139.

Best Regards,

Per K. Petryna 8/17/94
System is up + now running 3 day test.
will shut down tomorrow + submit analyses to BAAQMD for approval to operate system on continual basis.
Just doing vapor extraction at this time

Rebecca Digerness
Groundwater Monitoring Coordinator

Karen E. Petryna
Engineer
Texaco Environmental Services

RBD:hs
C:\QMR\930S\QMR.LET

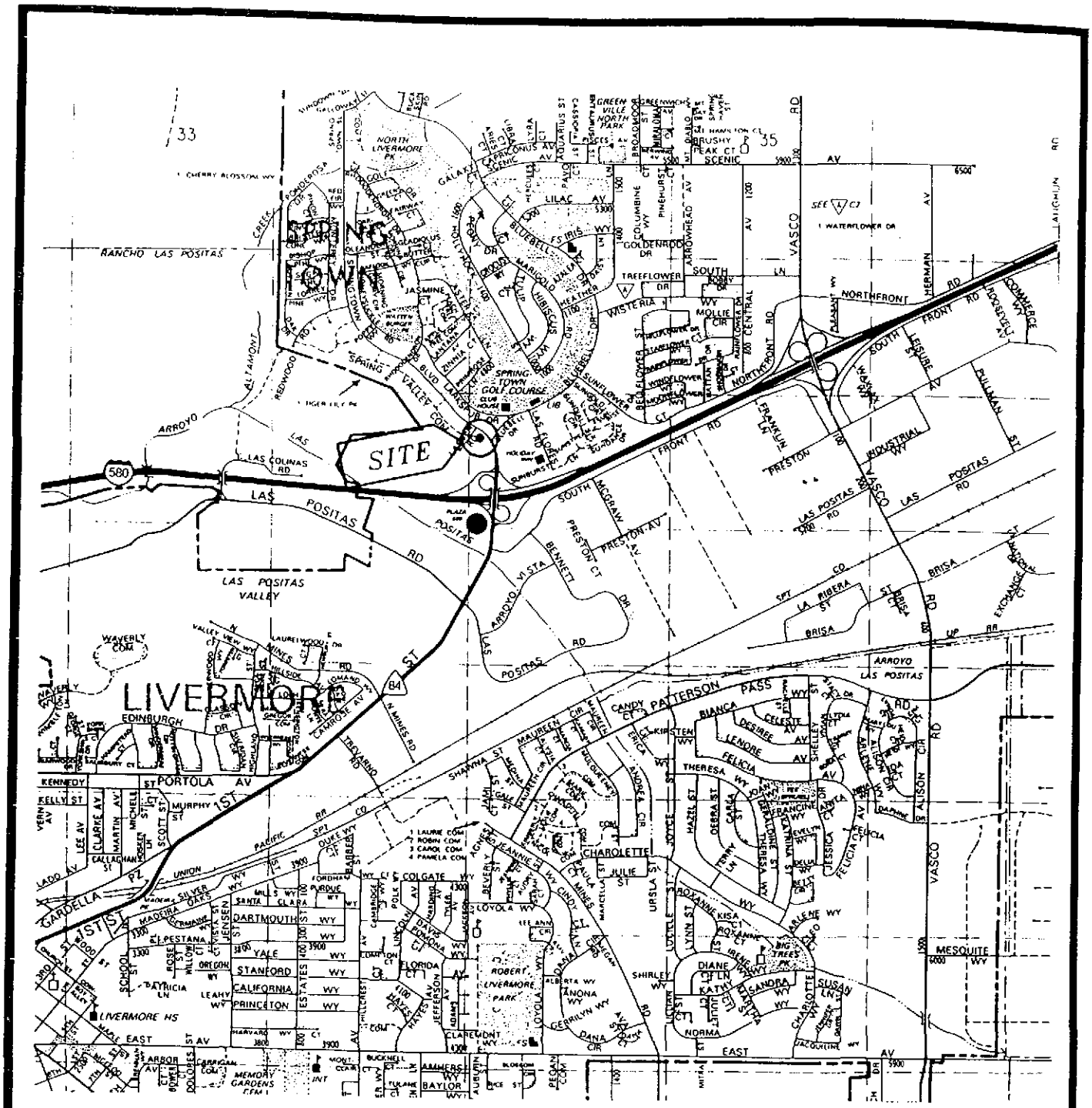
Enclosures

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

PR: KEP

ALAMEDA COUNTY HEALTH
94 AUG 15 PM 3:33

GROUNDWATER MONITORING AND SAMPLING
Second Quarter, 1994
at
Former Texaco Station
930 Springtown Boulevard
Livermore, California



SOURCE:

1993 THE THOMAS GUIDE
ALAMEDA COUNTY, PAGE 51 (C3)

TEXACO

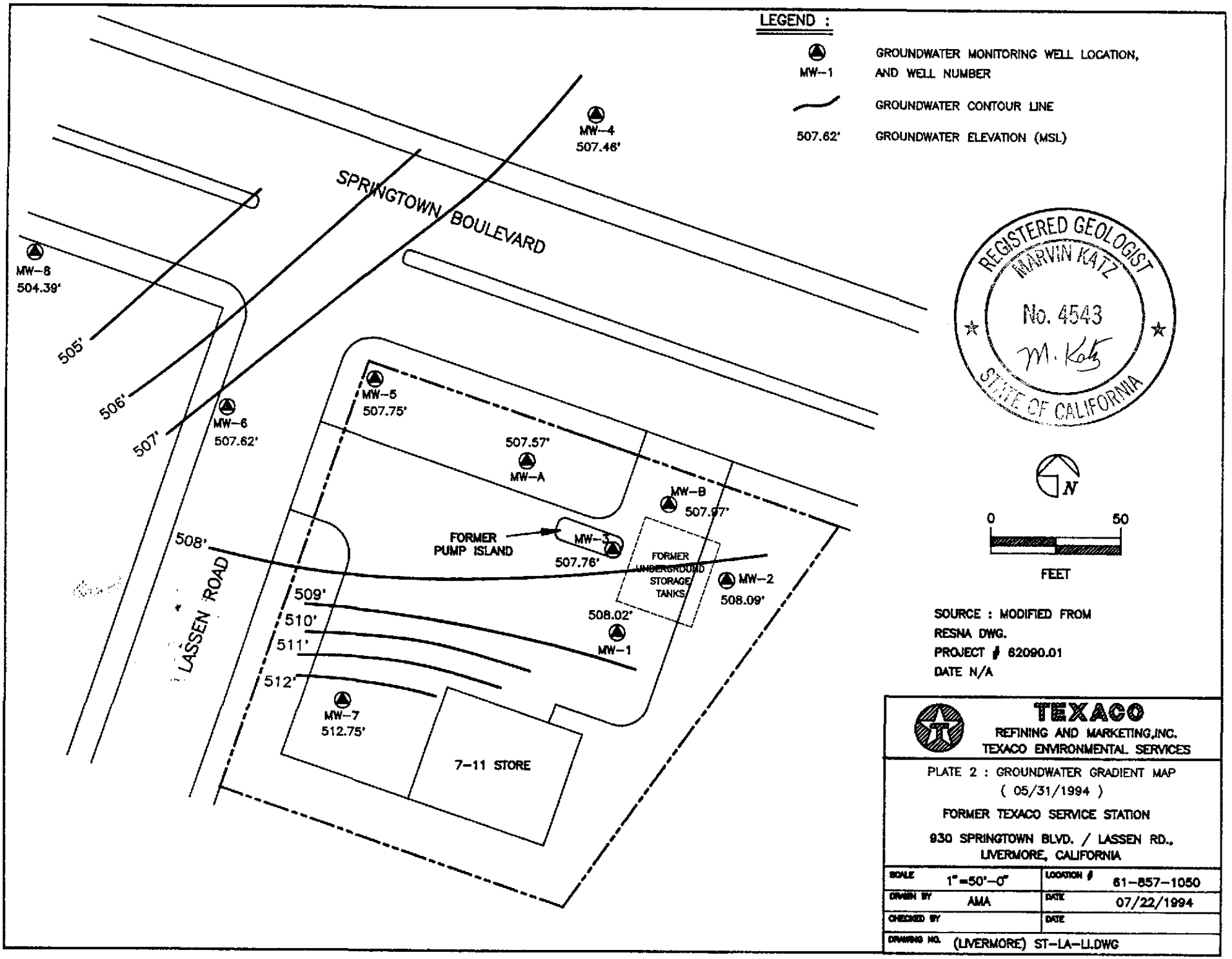
REFINING AND MARKETING, INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 1

SITE VICINITY MAP

FORMER TEXACO SERVICE STATION

930 SPRINGTOWN BLVD. / LASSEN RD.,
LIVERMORE, CALIFORNIA



SOURCE : MODIFIED FROM RESNA DWG.
PROJECT # 62090.01
DATE N/A

TEXACO
REFINING AND MARKETING,INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 2 : GROUNDWATER GRADIENT MAP
(05/31/1994)

FORMER TEXACO SERVICE STATION

930 SPRINGTOWN BLVD. / LASSEN RD.,
LIVERMORE, CALIFORNIA

SCALE	1"=50'-0"	LOCATION #	61-857-1050
DRAWN BY	AMA	DATE	07/22/1994
CHECKED BY		DATE	
DRAWING NO.	(LIVERMORE) ST-LA-LI.DWG		

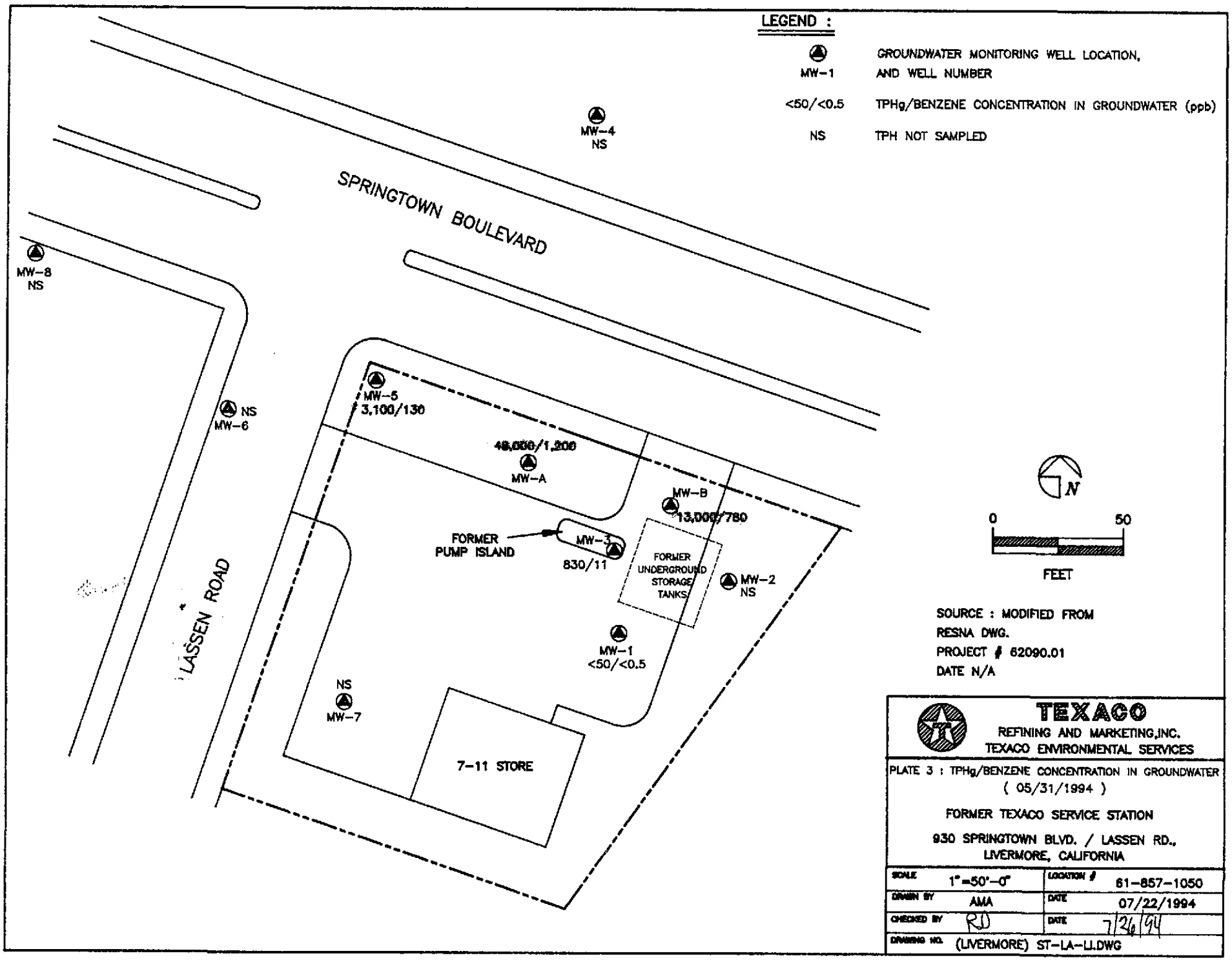

LEGEND :
GROUNDWATER MONITORING WELL LOCATION, AND WELL NUMBER
MW-1
<50/<0.5
TPHg/BENZENE CONCENTRATION IN GROUNDWATER (ppb)
NS
TPH NOT SAMPLED
SPRINGTOWN BOULEVARD
LASSEN ROAD
MW-4
NS
MW-8
NS
NS
MW-6
MW-5
3,100/130
MW-A
MW-B
13,000/780
FORMER
PUMP ISLAND
MW-3
830/11
FORMER
UNDERGROUND
STORAGE
TANKS
MW-2
NS
MW-1
<50/<0.5
NS
MW-7
7-11 STORE
N
0
50
FEET
SOURCE : MODIFIED FROM
RESNA DWG.
PROJECT # 62090.01
DATE N/A
TEXACO
REFINING AND MARKETING,INC.
TEXACO ENVIRONMENTAL SERVICES
PLATE 3 : TPHg/BENZENE CONCENTRATION IN GROUNDWATER
(05/31/1994)
FORMER TEXACO SERVICE STATION
930 SPRINGTOWN BLVD. / LASSEN RD.,
LIVERMORE, CALIFORNIA
SCALE 1"=50'-0"
LOCATION # 61-857-1050
DRAWN BY AMA
DATE 07/22/1994
CHECKED BY RJ
DATE 7/26/94
DRAWING NO. (LIVERMORE) ST-LA-LI.DWG

Table 1
Groundwater Elevation Data
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Elevation of Wellhead (feet, MSL)	Depth to Water (feet, TOC)	Elevation of Groundwater (feet, MSL)	Floating Product
MW-A					
	1/10/91	519.85			
	1/2/92		13.61	506.24	---
	4/2/92		12.44	507.41	---
	7/21/92		13.35	506.50	---
	10/9/92		12.92	506.93	SD
	1/11/93		11.78	508.07	SD
	5/5/93		11.39	508.46	SD
	8/9/93		12.80	507.05	SD
	10/14/93		13.48	506.37	SD
	1/24/94		12.74	507.11	SD
	5/31/94		12.28	507.57	---
MW-B					
	1/10/91	518.16			
	1/2/92		11.27	506.89	---
	4/2/92		10.18	507.98	---
	7/21/92		11.27	506.89	---
	10/9/92		11.64	506.52	SD
	1/11/93		9.65	508.51	SD
	5/5/93		9.28	508.88	SD
	8/9/93		11.02	507.14	SD
	10/14/93		11.34	506.82	SD
	1/24/94		10.54	507.62	SD
	5/31/94		10.19	507.97	---
MW-1					
	1/10/91	520.76			
	1/2/92		14.11	506.65	---
	4/2/92		12.98	507.78	---
	7/21/92		13.92	506.84	---
	10/9/92		14.25	506.51	---
	1/11/93		12.30	508.46	---
	5/5/93		11.88	508.88	---
	8/9/93		13.63	507.13	---
	10/14/93		13.91	506.85	---
	1/24/93		13.12	507.64	---
	5/31/94		12.74	508.02	---

Table 1
Groundwater Elevation Data
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Elevation of Wellhead (feet, MSL)	Depth to Water (feet, TOC)	Elevation of Groundwater (feet, MSL)	Floating Product
MW-2					
	1/10/91	518.46			
	1/2/92		11.96	506.50	---
	4/2/92		10.89	507.57	---
	7/21/92		11.55	506.91	---
	10/9/92		Not Monitored		
	1/11/93		Not Monitored		
	5/5/93		Not Monitored		
	8/9/93		Not Monitored		
	10/14/93		Not Monitored		
	1/24/94		Not Monitored		
	5/31/94		10.37	508.09	---
MW-3					
	1/10/91	519.30			
	1/2/92		12.87	506.43	---
	4/2/92		11.97	507.33	---
	7/21/92		12.60	506.70	---
	10/9/92		12.93	506.37	---
	1/11/93		11.16	508.14	---
	5/5/93		10.72	508.58	---
	8/9/93		12.34	506.96	---
	10/14/93		12.71	506.59	---
	1/24/94		12.03	507.27	---
	5/31/94		11.54	507.76	---
MW-4					
	1/10/91	518.75			
	1/2/92		12.22	506.53	---
	4/2/92		11.03	507.72	---
	7/21/92		12.36	506.39	---
	10/9/92		12.40	506.35	---
	1/11/93		10.72	508.03	---
	5/5/93		10.21	508.54	---
	8/9/93		12.25	506.50	---
	10/14/93		12.58	506.17	---
	1/24/94		11.72	507.03	---
	5/31/94		11.29	507.46	---

Table 1
Groundwater Elevation Data
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Elevation of Wellhead (feet, MSL)	Depth to Water (feet, TOC)	Elevation of Groundwater (feet, MSL)	Floating Product
MW-5					
	1/10/91	520.50			
	1/2/92		14.56	505.94	---
	4/2/92		13.58	506.92	---
	7/21/92		13.77	506.73	---
	10/9/92		14.09	506.41	---
	1/11/93		12.24	508.26	---
	5/5/93		11.90	508.60	---
	8/9/93		13.35	507.15	---
	10/14/93		13.89	506.61	---
	1/24/94		13.32	507.18	---
	5/31/94		12.75	507.75	---
MW-6					
	1/10/91	522.26			
	1/2/92		16.64	505.62	---
	4/2/91		15.61	506.65	---
	7/21/92		15.53	506.73	---
	10/9/92		15.69	506.57	---
	1/11/93		Not Monitored		
	5/5/93		Not Monitored		
	8/9/93		14.50	507.76	---
	10/14/93		Not Monitored		
	1/24/94		15.09	507.17	---
	5/31/94		14.64	507.62	---
MW-7					
	1/10/91	522.17			
	1/2/92		11.17	511.00	---
	4/2/92		10.34	511.83	---
	7/21/92		9.02	513.15	---
	10/9/92		Not Monitored		
	1/11/93		Not Monitored		
	5/5/93		Not Monitored		
	8/9/93		Not Monitored		
	10/14/93		Not Monitored		
	1/24/94		Not Monitored		
	5/31/94		9.42	512.75	---

Table 1
Groundwater Elevation Data
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Elevation of Wellhead (feet, MSL)	Depth to Water (feet, TOC)	Elevation of Groundwater (feet, MSL)	Floating Product
MW-8					
	1/10/91	524.04			
	1/2/92		18.42	505.62	---
	4/2/92		17.39	506.65	---
	7/21/92		14.02	510.02	---
	10/9/92		Not Monitored		
	1/11/93		Not Monitored		
	5/5/93		Not Monitored		
	8/9/93		Not Monitored		
	10/14/93		Not Monitored		
	1/24/94		Not Monitored		
	5/31/94		19.65	504.39	---
MSL	Mean Sea Level				
TOC	Top of Casing				
---	None Present.				
SD	Sheen detected in purge water.				

Table 2
Groundwater Analytical Data
930 Springtown Boulevard, Livermore, CA

Well Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
MW-A						
	1/2/92	SP	SP	SP	SP	SP
	4/2/92	27,000	1,200	570	1,700	2,300
	7/21/92	57,000	1,500	1,800	2,700	7,100
	10/9/92	56,000	2,900	2,600	4,600	12,000
	1/11/93	NS	NS	NS	NS	NS
	5/5/93	NS	NS	NS	NS	NS
	8/9/93	NS	NS	NS	NS	NS
	10/14/93	NS	NS	NS	NS	NS
	1/24/94	1,400,000	6,900	2,100	15,000	38,000
	5/31/94	48,000	1,200	900	1,900	4,200
MW-B						
	1/2/92	SP	SP	SP	SP	SP
	4/2/92	1,900	ND	39	24	35
	7/21/92	16,000	180	1,600	270	1,100
	10/9/92	38,000	490	8,300	1,400	5,100
	1/11/93	NS	NS	NS	NS	NS
	5/5/93	NS	NS	NS	NS	NS
	8/9/93	NS	NS	NS	NS	NS
	10/14/93	NS	NS	NS	NS	NS
	1/24/94	23,000	110	1,700	600	1,900
	5/31/94	13,000	780	310	370	1,400
MW-1						
	1/2/92	16	6	ND	ND	ND
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	<50	3.2	<0.5	<0.5	<0.5
	10/9/92	<50	8.5	<0.5	<0.5	<0.5
	1/11/93	<50	<0.5	<0.5	<0.5	<0.5
	5/5/93	<50	<0.5	<0.5	<0.5	<0.5
	8/9/93	<50	<0.5	<0.5	<0.5	<0.5
	10/14/93	440	16	2.9	2.9	11
	5/31/94	<50	<0.5	<0.5	<0.5	<0.5
MW-2						
	1/2/92	ND	ND	ND	ND	ND
	4/2/91	ND	ND	ND	ND	ND
	7/21/92	NS	NS	NS	NS	NS
	10/9/92	NS	NS	NS	NS	NS
	1/11/93	NS	NS	NS	NS	NS
	5/5/93	NS	NS	NS	NS	NS
	8/9/93	NS	NS	NS	NS	NS
	10/14/93	NS	NS	NS	NS	NS
	1/24/94	NS	NS	NS	NS	NS
	5/31/94	NS	NS	NS	NS	NS

Table 2
Groundwater Analytical Data
930 Springtown Boulevard, Livermore, CA

Well Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
MW-3						
	1/2/92	340	0.4	ND	ND	ND
	4/2/92	160	5	ND	0.3	0.5
	7/21/92	260	1.7	<0.5	<0.5	<0.5
	10/9/92	88	<0.5	<0.5	<0.5	<0.5
	1/11/93	130	<0.5	<0.5	<0.5	<0.5
	5/5/93	340	1.8	<0.5	1.3	<0.5
	8/9/93	610	18	<0.5	2.4	0.9
	10/14/93	<50	<0.5	<0.5	<0.5	<0.5
	1/24/94	320	3.5	<0.5	<0.5	<0.5
	5/31/94	830	11	12	5.0	1.2
MW-4						
	1/2/92	ND	ND	ND	ND	ND
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	<50	<0.5	<0.5	<0.5	<0.5
	10/9/92	<50	<0.5	<0.5	<0.5	<0.5
	1/11/93	<50	<0.5	<0.5	<0.5	<0.5
	5/5/93	<50	<0.5	<0.5	<0.5	<0.5
	8/9/93	<50	<0.5	<0.5	<0.5	<0.5
	10/14/93	<50	<0.5	<0.5	<0.5	<0.5
	1/24/94	<50	<0.5	<0.5	<0.5	<0.5
	5/31/94	NS	NS	NS	NS	NS
MW-5						
	1/2/92	1,800	74	41	84	94
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	1,000	69	16	40	31
	10/9/92	3,400	890	51	110	110
	1/11/93	15,000	460	110	900	370
	5/5/93	4,500	160	19	280	110
	8/9/93	2,300	180	19	130	80
	10/14/93	2,200	160	27	90	64
	1/24/94	2,600	69	11	65	25
	5/31/94	3,100	130	64	140	120
MW-6						
	1/2/92	23	ND	0.3	0.6	3
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	<50	<0.5	<0.5	<0.5	<0.5
	10/9/92	<50	<0.5	<0.5	<0.5	<0.5
	1/11/93	NS	NS	NS	NS	NS
	5/5/93	NS	NS	NS	NS	NS
	8/9/93	<50	<0.5	<0.5	<0.5	<0.5
	10/14/93	NS	NS	NS	NS	NS
	1/24/94	<50	<0.5	<0.5	<0.5	<0.5
	5/31/94	NS	NS	NS	NS	NS

Table 2
Groundwater Analytical Data
930 Springtown Boulevard, Livermore, CA

Well Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
MW-7						
	1/2/92	NS	NS	NS	NS	NS
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	NS	NS	NS	NS	NS
	10/9/92	NS	NS	NS	NS	NS
	1/11/93	NS	NS	NS	NS	NS
	5/5/93	NS	NS	NS	NS	NS
	8/9/93	NS	NS	NS	NS	NS
	10/14/93	NS	NS	NS	NS	NS
	1/24/94	NS	NS	NS	NS	NS
	5/31/94	NS	NS	NS	NS	NS
MW-8						
	1/2/92	12,000	32	980	200	760
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	NS	NS	NS	NS	NS
	10/9/93	NS	NS	NS	NS	NS
	1/11/93	NS	NS	NS	NS	NS
	5/5/93	NS	NS	NS	NS	NS
	8/9/93	NS	NS	NS	NS	NS
	10/14/93	NS	NS	NS	NS	NS
	1/24/94	NS	NS	NS	NS	NS
	5/31/94	NS	NS	NS	NS	NS

NS	Not Sampled
ND	None Detected
SP	Separate-phase petroleum hydrocarbons
TPHg	Total petroleum hydrocarbons as gasoline analyzed by EPA method 5030/602.
BTEX	Analyzed by EPA method 5030/602.
<	Less than the detection limit for the specified method of analysis.
---	Not applicable

B C Analytical

ANALYTICAL REPORT

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

LOG NO: G94-06-021

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: FKEP1012L

REPORT OF ANALYTICAL RESULTS

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020) Date Analyzed	Dilution Factor Times 1	TPH-g ug/L	Benzene ug/L	Toluene ug/L	Ethyl-Benzene ug/L	Total Xylenes Isomers ug/L
RDL			1	50	0.5	0.5	0.5	0.5
1*MW-1	05/31/94	06/09/94	1	<50	<0.5	<0.5	<0.5	<0.5
2*MW-3	05/31/94	06/09/94	1	830	11	12	5.0	1.2
3*MW-5	05/31/94	06/09/94	1	3100	130	64	140	120
4*MW-A	05/31/94	06/09/94	20	48000	1200	900	1900	4200
5*MW-B	05/31/94	06/10/94	20	13000	780	310	370	1400
6*Trip	05/31/94	06/10/94	1	<50	<0.5	<0.5	<0.5	<0.5

618571050, KAREN PETRYNA
930 SPRINGTOWN RD., LIVERMORE

James C. Hein, Laboratory Director

BCA

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
)406021*1	MW-1	GAS.BTX.TESNC	06.09.94	8015M.TX	536-21	94063	7961
)406021*2	MW-3	GAS.BTX.TESNC	06.09.94	8015M.TX	536-21	94063	7961
)406021*3	MW-5	GAS.BTX.TESNC	06.09.94	8015M.TX	536-21	94063	7961
)406021*4	MW-A	GAS.BTX.TESNC	06.09.94	8015M.TX	536-21	94063	7961
)406021*5	MW-B	GAS.BTX.TESNC	06.10.94	8015M.TX	536-21	94063	7961
)406021*6	Trip	GAS.BTX.TESNC	06.10.94	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: $LC/LT \times 100$
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: $\frac{\lvert LC1 - LC2\rvert \times 100}{(LC1 + LC2) \div 2}$ $\frac{\lvert R1 - R2\rvert \times 100}{(R1 + R2) \div 2}$ $\frac{\lvert S1 - S2\rvert \times 100}{(S1 + S2) \div 2}$
S1, S2 Recovery	The percentage of analyte recovered. The percent recovery calculation is: S1 Recovery: $\frac{(S1 - R1) \times 100}{(True - R1)}$ S2 Recovery: $\frac{(S2 - R1) \times 100}{(True - R1)}$
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 G9406021

DATE REPORTED : 06/15/94

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 G9406021

DATE REPORTED : 06/15/94

ADDITIONAL LCS PRECISION (DUPLICATES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	LC1 RESULT	LC2 RESULT	UNIT	RELATIVE % DIFF
1. 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 G9406021

)ATE REPORTED : 06/15/94

MATRIX QC PRECISION (DUPLICATE SPIKES)
BATCH QC REPORT

'ARAMETER	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 G9406021

)ATE REPORTED : 06/15/94

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

'ARAMETER	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 G9406021

)ATE REPORTED : 06/15/94

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

'ARAMETER	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 : 13:54:27 15 JUN 1994 - P. 1 :

)ETERM	SUBDET	REPORTED	TRUE	%RECOVERY	FLAG
)406021*1 ;AS.BTX.TESNC	|a,a,a-TFTol.R	56.6	50.0	113	
)406021*2 ;AS.BTX.TESNC	|a,a,a-TFTol.R	59.8	50.0	120	
)406021*3 ;AS.BTX.TESNC	|a,a,a-TFTol.R	42.7	50.0	85	
)406021*4 ;AS.BTX.TESNC	|a,a,a-TFTol.R	56.4	50.0	113	
)406021*5 ;AS.BTX.TESNC	|a,a,a-TFTol.R	57.2	50.0	114	
406021*6 AS.BTX.TESNC	|a,a,a-TFTol.R	56.7	50.0	113	

: SURROGATE SUMMARY :
: BC ANALYTICAL : GLEN LAB : 13:54:27 15 JUN 1994 - P. 1 :

)ETERM	SUBDET	REPORTED	TRUE	%RECOVERY	FLAG
)406021*1					
;AS.BTX.TESNC	|a,a,a-TFTol.R	56.6	50.0	113	
406021*2					
.AS.BTX.TESNC	|a,a,a-TFTol.R	59.8	50.0	120	
406021*3					
;AS.BTX.TESNC	|a,a,a-TFTol.R	42.7	50.0	85	
406021*4					
;AS.BTX.TESNC	|a,a,a-TFTol.R	56.4	50.0	113	
406021*5					
.AS.BTX.TESNC	|a,a,a-TFTol.R	57.2	50.0	114	
406021*6					
AS.BTX.TESNC	|a,a,a-TFTol.R	56.7	50.0	113	

BLAINE TECH SERVICES INC

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY: 940531-V-1

CLIENT: Texaco Environmental Services

SITE: Location # 618 571 050
930 Springtown Rd.
Livermore, CA

CONDUCT ANALYSIS TO DETECT: TPH GAS BTEX

C = COMPOSITE ALL CONTAINERS

LAB: BC Analytical | DHS #

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

☐ EPA ☐ RWQCB REGION ______
☐ LIA
☐ OTHER

G94-06-021

SPECIAL INSTRUCTIONS: FREP 1012

Report & Invoice to:
Texaco Environmental Services
108 Cutting Blvd.
Richmond, CA 94804
ATTN: Rebecca Digerness
(510) 236-3541

SAMPLE I.D.	DATE	TIME	MATRIX (S = SOIL, W = H2O)	CONTAINERS TOTAL		TPH GAS BTEX		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	5-31-95	1235	W	3	VOAS	✓	-1		Routine		
MW-3	↓	1410	W	3		✓	-2		↓		
MW-5	↓	1318	W	3		✓	-3		↓		
MW-A	↓	1405	W	3		✓	-4		↓		
MW-B	↓	1345	W	3		✓	-5		↓		
TB	↓	0800	W	2		✓	-6		↓		

SAMPLING COMPLETED: DATE 5-31-94 TIME 1425

SAMPLING PERFORMED BY: F.A. VanDenBroeck

RESULTS NEEDED NO LATER THAN:

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
F.A. VanDenBroeck	6-1-94	1220	Bill Ryan	6-1-94	1220
Bill Ryan	6-1-94	3:25	Maurie Aquino	6-1-94	1530

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

WELL GAUGING DATA

618 571 050

Project # 940531-U-1 Date 5-31-94 Client TEXACO

Site 930 Springtown Livermore

Well I.D.	Well Size (in.)	Sheen/ Odor	Depth to Immiscible Liquid (feet)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to Water (feet)	Depth to Well Bottom (feet)	Survey Point: TOB or TOC
MW-A	2	odor				12.28	14.76	TOC
MW-B	2	odor				10.19	21.34	
MW-1	4	/				12.74	25.47	
MW-2	4	/				10.37	22.66	
MW-3	4	/				11.54	24.36	
MW-4	2	/				11.29	25.18	
MW-5	2	/				12.75	27.76	
MW-6	2	/				14.64	24.52	
MW-7	4	/				9.47	23.83	
MW-8	4	/				19.65	24.20	✓

TEXACO WELL MONITORING DATA SHEET

Project #: 9405314-4	~~Client:~~ Loc # 618871050
Sampler: [illegible]	Date Sampled: 5-31-94
Well I.D.: MW-A	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 16.76 After	Depth to Water: Before 12.28 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to: (PVC) Grade Other --	

1 Case Volume		Specified Volumes		gallons
.71	x	3	=	2.15

Purging: Bailer ~~BTS Dedicated~~ 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:
1350	65.4	7.8	2000	~~7200~~	.25	Sheen odor
1352	64.2	7.4	2000	7200	.75	
1355	64.6	7.2	2000	2200	1.5	
1357	64.2	7.2	2000	7200	2.25	

Did Well Dewater? If yes, gals. Gallons Actually Evacuated: 2.25

Sampling Time: 1405

Sample I.D.: MW-A Laboratory: BC Analytical

Analyzed for: TPH GAS 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 #: 940531-4-1	~~Client:~~ Loc # 618-571-050
Sampler: [illegible]	Date Sampled: 5-31-94
Well I.D.: MW-B	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 21.34 After	Depth to Water: Before 10.19 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to: (PVC) Grade	Other --

1.78	x	3	=	5.35
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ~~—~~ BTS Dedicated
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:
1328	65.0	7.6	2300	4200	.25	odor
1331	64.0	7.6	2200	7200	2.0	"
1334	63.8	7.6	2200	7200	4.0	"
1336	64.0	7.6	2200	7200	5.5	clear/gray

Did Well Dewater? If yes, gals. Gallons Actually Evacuated: 5.5

Sampling Time: 1345

Sample I.D.: MW-B Laboratory: BC Analytical

Analyzed for: TPH GAS, 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-V-1	~~Client~~: Cox 6185710S0
Sampler:	Date Sampled: 5-31-94
Well I.D.: MW-1	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 25.47 After	Depth to Water: Before 12.74 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to: (PVC)	Grade Other --

8.27	x	3	=	24.82
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ~~BTS Dedicated~~ 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:
1208	65.2	7.6	3000	<200	.25	
1215	64.0	7.0	3200	>200	8.5	
1222	63.6	7.0	3200	>200	17.0	
1230	63.6	7.0	3200	>200	25.0	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 25.0

Sampling Time: 1235

Sample I.D.: MW-1 Laboratory: BC Analytical

Analyzed for: Gas 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-V-1	~~Client:~~ Loc # 618571050
Sampler: Fred	Date Sampled: 5-31-91
Well I.D.: MW-3	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 24.36 After	Depth to Water: Before 11.54 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to: (PVC) Grade	Other --

8.33	x	3	=	24.99
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ~~BIS DEDICATED~~
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:
1138	65.0	7.0	1400	<200	.50	
1147	64.4	7.2	1400	>200	8.5	Dewatered
					~~17.0~~	
					~~25.0~~	
1409	66.0	7.2	2200	>200		DTW 12.30

Did Well Dewater? Yes If yes, gals. 8.5 Gallons Actually Evacuated: ~~25.0~~

Sampling Time: 1410

Sample I.D.: MW-3 Laboratory: Blc Analytical

Analyzed for: TPH GAS, BTEX

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

Analyzed for:

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

Wellhead Maintenance Performed: REPLACED LOCK

TEXACO WELL MONITORING DATA SHEET

Project #: 940531-V-1	~~Client~~: Loc # 618571-050
Sampler: Fred	Date Sampled: 5-31-94
Well I.D.: MW-5	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 21.76 After	Depth to Water: Before 12.75 After
Depth to Free Product:	Thickness of Free Product (inches):
Measurements referenced to: PVC Grade Other --	

2.40	x	3	=	7.20
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ✓ BTS Dedicated
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:
1300	66.0	7.6	2200	<200	.25	
1305	65.6	7.4	2200	>200	2.5	
1308	65.6	7.4	2200	>200	5.0	
1312	65.6	7.4	2200	>200	7.5	

Did Well Dewater? If yes, gals. Gallons Actually Evacuated: 7.5

Sampling Time: 1318

Sample I.D.: MW-5 Laboratory: BC Analytical

Analyzed for:

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 # 930 Springtown R
6185710SO

street number	street name	city	state
930	Springtown	Livermore	CA

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-A	2.25		
MW B	5.5		
MW-1	25		
MW-3	8.5		
MW 5	7.5		

added equip. rinse water /

any other adjustments /

TOTAL GALS. RECOVERED 48.75

loaded onto BTS vehicle # 6

BTS event # 940531-V

time 1425 date 5/31/94

signature

* *

REC'D AT BTS

time 1430 date 5/31/94

unloaded by signature