



Texaco Refining  
and Marketing Inc  
October 9, 1995

106 Cutting Boulevard  
Richmond, CA 94804

*Rec'd  
Oct 13, 1995*

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

Ms. Eva Chu  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway, Fl. 2  
Alameda, CA 94502-6577

Dear Ms. Chu:

This letter presents the results of groundwater monitoring and sampling conducted by Blaine Tech Services, Inc. on August 21, 1995, 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-northeast (see Plate 2, Groundwater Gradient Map) at 0.07 ft. per ft. 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. As requested by Alameda County Department of Environmental Health, monitoring wells MW-2, MW-4, MW-6, and MW-8 are sampled semi-annually in February and August; monitoring wells MW-1, MW-3, MW-5, MW-A, and MW-B are sampled quarterly; and monitoring wells MW-A, MW-B, and MW-1 through MW-8 are gauged quarterly.

The certified analytical report, chain-of-custody, field data sheets, bill of lading, and quarterly summary report are in the Appendix. Texaco Environmental Services' Standard Operating Procedures may be found in Texaco's fourth 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,

Rebecca Digerness  
Environmental Assistant

Karen E. Petryna  
Engineer  
Texaco Environmental Services

RBD:hs  
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Enclosures

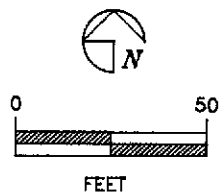
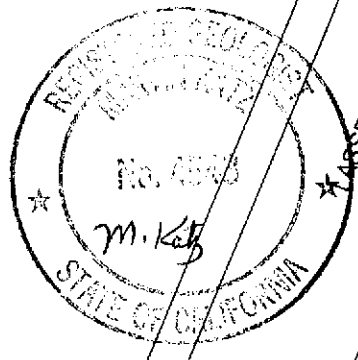
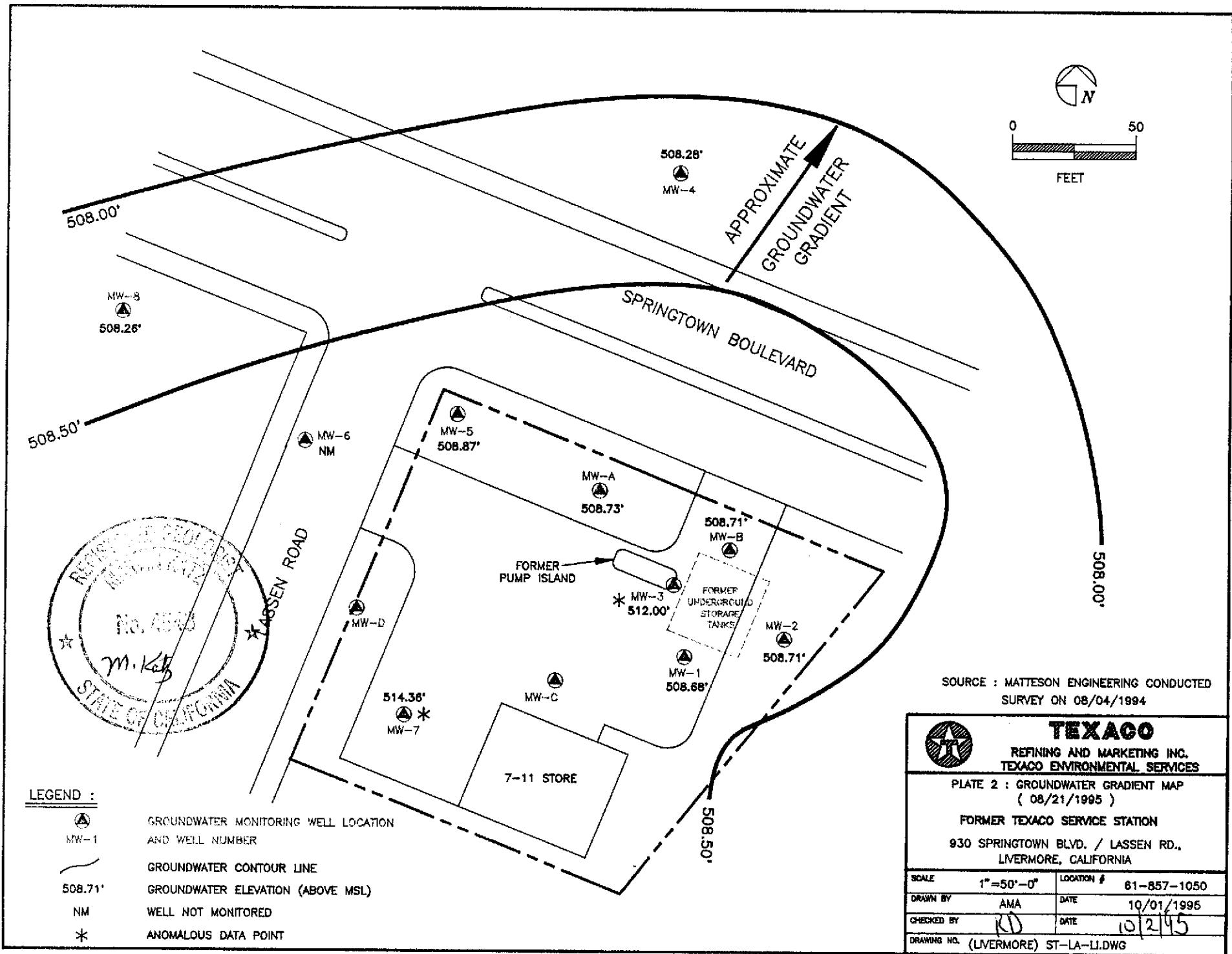
cc: Timothy Ross  
Kaprelian Engineering, Inc.  
2401 Stanwell Dr., Suite 400  
Concord, CA 94520

Mr. Robert Vasquez  
The Southland Corporation  
3146 Gold Drive, Suite 300  
Rancho Cordova, CA 95670

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

pr: KEP

**GROUNDWATER MONITORING AND SAMPLING**  
**Third Quarter, 1995**  
**at the**  
**Former Texaco Service Station**  
**930 Springtown Boulevard**  
**Livermore, California**



APPROXIMATE  
GROUNDWATER  
GRADIENT

SPRINGTOWN BOULEVARD

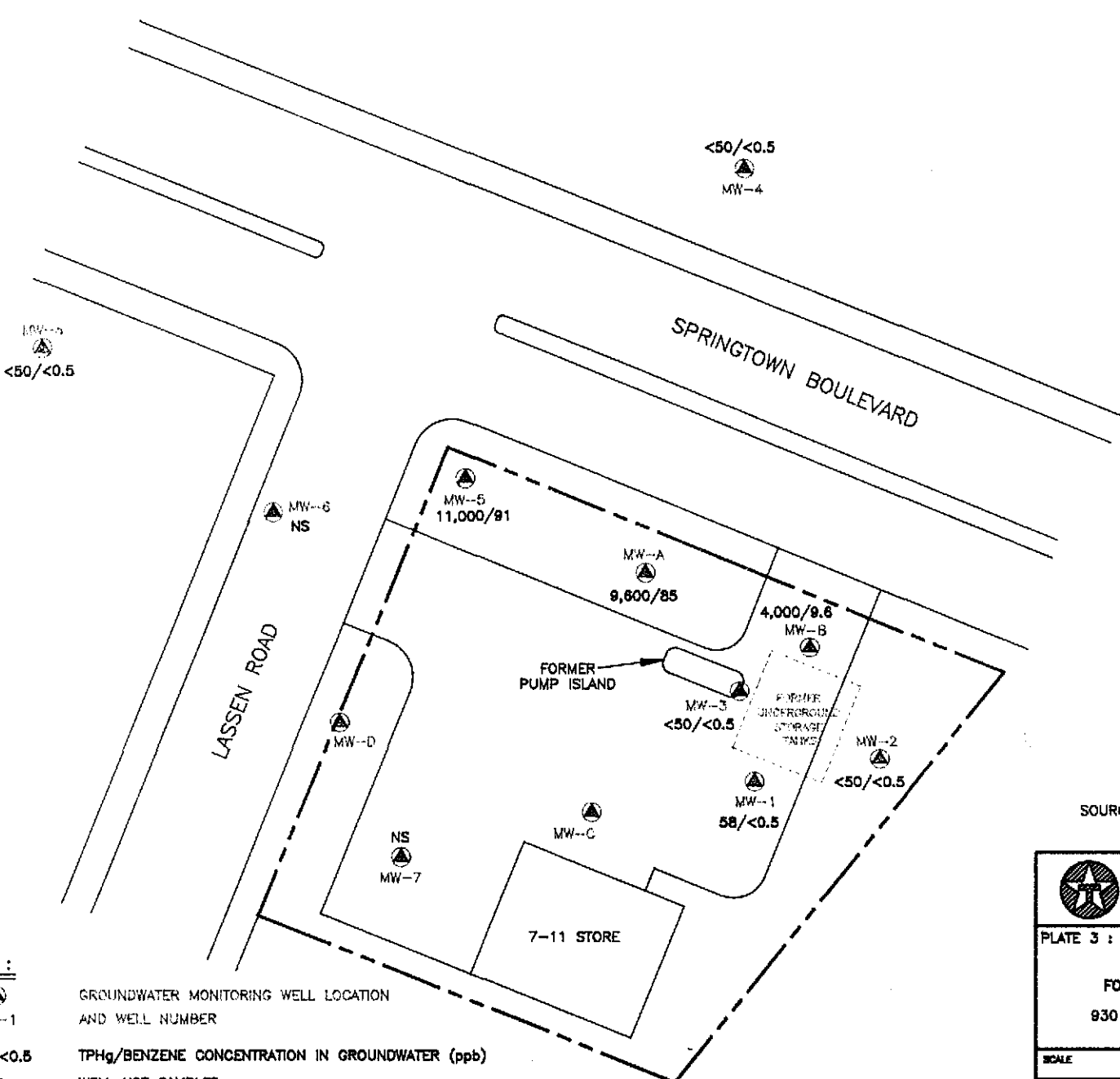
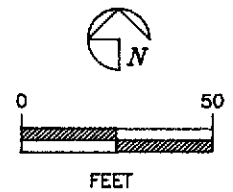
LASSEN ROAD

FORMER PUMP ISLAND


FORMER UNDERGROUND STORAGE TANKS

7-11 STORE

SOURCE : MATTESON ENGINEERING CONDUCTED SURVEY ON 08/04/1994



**LEGEND :**

-  MW--1 GROUNDWATER MONITORING WELL LOCATION AND WELL NUMBER
- $<50/<0.5$  TPHg/BENZENE CONCENTRATION IN GROUNDWATER (ppb)
- NS WELL NOT SAMPLED

SOURCE : MATTESON ENGINEERING CONDUCTED SURVEY ON 08/04/1994


	
<b>TEXACO</b> REFINING AND MARKETING INC. TEXACO ENVIRONMENTAL SERVICES	
PLATE 3 : TPHg/BENZENE CONCENTRATION IN GROUND ( 08/21/1995 )	
FORMER TEXACO SERVICE STATION	
930 SPRINGTOWN BLVD. / LASSEN RD., LIVERMORE, CALIFORNIA	
SCALE	1"=50'-0"
LOCATION #	61-857-1050
DRAWN BY	AMA
DATE	10/01/1995
CHECKED BY	RJD
DATE	10/2/95
DRAWING NO. (LIVERMORE) ST-LA-LI.DWG	

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

Well Number	Date Gauged	Top of Casing Elevation (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	---
	8/31/94	520.10 *	13.20	506.90	SD
	11/2/94		13.15	506.95	SD
	2/20/95		11.71	508.39	---
	5/9/95		12.37	507.73	---
	8/21/95		11.37	508.73	---
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	---
	8/31/94	518.05 *	10.98	507.07	SD
	11/2/94		10.90	507.15	SD
	2/20/95		9.47	508.58	---
	5/9/95		10.58	507.47	---
	8/21/95		9.34	508.71	---

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

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Elevation of Groundwater (feet, MSL)	Floating Product
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	---
	8/31/94	520.61 *	13.68	506.93	---
	11/2/94		13.48	507.13	---
	2/20/95		12.02	508.59	---
	5/9/95		12.83	507.78	---
	8/21/95		11.93	508.68	---
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	---
	8/31/94	518.29 *	11.16	507.13	---
	11/2/94		11.07	507.22	---
	2/20/95		9.66	508.63	---
	5/9/95		10.14	508.15	---
	8/21/95		9.58	508.71	---

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

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Elevation of Groundwater (feet, MSL)	Floating Product
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	---
	8/31/94	519.60 *	12.60	507.00	---
	11/2/94		12.16	507.44	---
	2/20/95		11.05	508.55	---
	5/9/95		11.97	507.63	---
	8/21/95		7.60	512.00	---
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	---
	8/31/94	518.79 *	12.00	506.79	---
	11/2/94		11.96	506.83	---
	2/20/95		10.42	508.37	---
	5/9/95		11.22	507.57	---
	8/21/95		10.51	508.28	---

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

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Elevation of Groundwater (feet, MSL)	Floating Product
MW-5		520.50			
	1/10/91				
	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	---
	8/31/94	521.19 *	14.34	506.85	---
	11/2/94		14.22	506.97	---
	2/20/95		12.78	508.41	SD
5/9/95		13.41	507.78	---	
8/21/95		12.32	508.87	---	
MW-6		522.26			
	1/10/91				
	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	---
	8/31/94	522.18 *	15.32	506.86	---
	11/2/94		15.32	506.86	---
	2/20/95		14.07	508.11	---
5/9/95		14.30	507.88	---	
8/21/95		Well Inaccessible			



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

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Elevation of Groundwater (feet, MSL)	Floating Product
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	---
	8/31/94	522.19 *	6.84	515.35	---
	11/2/94		6.48	515.71	---
	2/20/95		7.71	514.48	---
	5/9/95		7.65	514.54	---
	8/21/95		7.83	514.36	---
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	---
	8/31/94	524.03 *	17.40	506.63	---
	11/2/94		17.38	506.65	---
	2/20/95		15.99	508.04	---
	5/9/95		16.54	507.49	---
	8/21/95		15.77	508.26	---
*Wells resurveyed on 8/4/94					
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)	MTBE (ppb)
MW-A							
	1/2/92	SP	SP	SP	SP	SP	NA
	4/2/92	27,000	1,200	570	1,700	2,300	NA
	7/21/92	57,000	1,500	1,800	2,700	7,100	NA
	10/9/92	56,000	2,900	2,600	4,600	12,000	NA
	1/11/93	NS	NS	NS	NS	NS	NA
	5/5/93	NS	NS	NS	NS	NS	NA
	8/9/93	NS	NS	NS	NS	NS	NA
	10/14/93	NS	NS	NS	NS	NS	NA
	1/24/94	1,400,000	6,900	2,100	15,000	38,000	NA
	5/31/94	48,000	1,200	900	1,900	4,200	NA
	8/31/94	24,000	140	120	830	1,500	NA
	11/2/94	15,000	230	360	1,100	1,800	NA
	2/20/95	12,000	290	330	570	1,300	NA
	5/9/95	1,200	6.1	5.9	12	15	NA
	8/21/95	9,600	85	140	250	860	160
MW-B							
	1/2/92	SP	SP	SP	SP	SP	NA
	4/2/92	1,900	ND	39	24	35	NA
	7/21/92	16,000	180	1,600	270	1,100	NA
	10/9/92	38,000	490	8,300	1,400	5,100	NA
	1/11/93	NS	NS	NS	NS	NS	NA
	5/5/93	NS	NS	NS	NS	NS	NA
	8/9/93	NS	NS	NS	NS	NS	NA
	10/14/93	NS	NS	NS	NS	NS	NA
	1/24/94	23,000	110	1,700	600	1,900	NA
	5/31/94	13,000	780	310	370	1,400	NA
	8/31/94	35,000	160	2,800	1,000	4,500	NA
	11/2/94	2,500	170	3,200	1,100	4,700	NA
	2/20/95	10,000	46	1,400	330	1,200	NA
	5/9/95	4,100	9.1	47	26	30	NA
	8/21/95	4,000	9.6	110	120	270	98

Start of VE  
→

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)	MTBE (ppb)
MW-1							
	1/2/92	16	6	ND	ND	ND	NA
	4/2/92	ND	ND	ND	ND	ND	NA
	7/21/92	<50	3.2	<0.5	<0.5	<0.5	NA
	10/9/92	<50	8.5	<0.5	<0.5	<0.5	NA
	1/11/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/5/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	8/9/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	10/14/93	440	16	2.9	2.9	11	NA
	5/31/94	<50	<0.5	<0.5	<0.5	<0.5	NA
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5	NA
	11/2/94	<50	<0.5	<0.5	<0.5	<0.5	NA
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/9/95	450	22	25	23	100	NA
	8/21/95	58	<0.5	1.5	1.8	4.5	<10
MW-2							
	1/2/92	ND	ND	ND	ND	ND	NA
	4/2/91	ND	ND	ND	ND	ND	NA
	7/21/92	NS	NS	NS	NS	NS	NA
	10/9/92	NS	NS	NS	NS	NS	NA
	1/11/93	NS	NS	NS	NS	NS	NA
	5/5/93	NS	NS	NS	NS	NS	NA
	8/9/93	NS	NS	NS	NS	NS	NA
	10/14/93	NS	NS	NS	NS	NS	NA
	1/24/94	NS	NS	NS	NS	NS	NA
	5/31/94	NS	NS	NS	NS	NS	NA
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5	NA
	11/2/94	NS	NS	NS	NS	NS	NA
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/9/95	NS	NS	NS	NS	NS	NA
	8/21/95	<50	<0.5	<0.5	<0.5	<0.5	<10

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)	MTBE (ppb)
MW-3							
	1/2/92	340	0.4	ND	ND	ND	NA
	4/2/92	160	5	ND	0.3	0.5	NA
	7/21/92	260	1.7	<0.5	<0.5	<0.5	NA
	10/9/92	88	<0.5	<0.5	<0.5	<0.5	NA
	1/11/93	130	<0.5	<0.5	<0.5	<0.5	NA
	5/5/93	340	1.8	<0.5	1.3	<0.5	NA
	8/9/93	610	18	<0.5	2.4	0.9	NA
	10/14/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/24/94	320	3.5	<0.5	<0.5	<0.5	NA
	5/31/94	830	11	12	5.0	1.2	NA
	8/31/94	660	2	<0.5	1	<0.5	NA
	11/2/94	1,500	260	36	34	76	NA
	2/20/95	410	1.2	1.9	1.4	2.2	NA
	5/9/95	730	23	43	21	95	NA
	8/21/95	<50	<0.5	<0.5	<0.5	<0.5	<10
MW-4							
	1/2/92	ND	ND	ND	ND	ND	NA
	4/2/92	ND	ND	ND	ND	ND	NA
	7/21/92	<50	<0.5	<0.5	<0.5	<0.5	NA
	10/9/92	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/11/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/5/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	8/9/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	10/14/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/24/94	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/31/94	NS	NS	NS	NS	NS	NA
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5	NA
	11/2/94	NS	NS	NS	NS	NS	NA
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/9/95	NS	NS	NS	NS	NS	NA
	8/21/95	<50	<0.5	<0.5	<0.5	<0.5	<10

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)	MTBE (ppb)
MW-5	1/2/92	1,800	74	41	84	94	NA
	4/2/92	ND	ND	ND	ND	ND	NA
	7/21/92	1,000	69	16	40	31	NA
	10/9/92	3,400	890	51	110	110	NA
	1/11/93	15,000	460	110	900	370	NA
	5/5/93	4,500	160	19	280	110	NA
	8/9/93	2,300	180	19	130	80	NA
	10/14/93	2,200	160	27	90	64	NA
	1/24/94	2,600	69	11	65	25	NA
	5/31/94	3,100	130	64	140	120	NA
	8/31/94	600	20	2.9	14	7.1	NA
	11/2/94	2,300	68	18	52	54	NA
	2/20/95	12,000	130	<30	240	138	NA
	5/9/95	2,500	57	60	54	37	NA
	8/21/95	11,000	91	28	140	120	<100
MW-6	1/2/92	23	ND	0.3	0.6	3	NA
	4/2/92	ND	ND	ND	ND	ND	NA
	7/21/92	<50	<0.5	<0.5	<0.5	<0.5	NA
	10/9/92	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/11/93	NS	NS	NS	NS	NS	NA
	5/5/93	NS	NS	NS	NS	NS	NA
	8/9/93	<50	<0.5	<0.5	<0.5	<0.5	NA
	10/14/93	NS	NS	NS	NS	NS	NA
	1/24/94	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/31/94	NS	NS	NS	NS	NS	NA
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5	NA
	11/2/94	NS	NS	NS	NS	NS	NA
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/9/95	NS	NS	NS	NS	NS	NA
	8/21/95	NS	NS	NS	NS	NS	NA

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

*Dropped*

Well Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MTBE (ppb)
MW-7							
	1/2/92	NS	NS	NS	NS	NS	NA
	4/2/92	ND	ND	ND	ND	ND	NA
	7/21/92 - 8/21/95	NS	NS	NS	NS	NS	NA
MW-8							
	1/2/92	12,000	32	980	200	760	NA
	4/2/92	ND	ND	ND	ND	ND	NA
	7/21/92	NS	NS	NS	NS	NS	NA
	10/9/93	NS	NS	NS	NS	NS	NA
	1/11/93	NS	NS	NS	NS	NS	NA
	5/5/93	NS	NS	NS	NS	NS	NA
	8/9/93	NS	NS	NS	NS	NS	NA
	10/14/93	NS	NS	NS	NS	NS	NA
	1/24/94	NS	NS	NS	NS	NS	NA
	5/31/94	NS	NS	NS	NS	NS	NA
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5	NA
	11/2/94	NS	NS	NS	NS	NS	NA
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/9/95	NS	NS	NS	NS	NS	NA
	8/21/95	<50	<0.5	<0.5	0.67	0.62	<10
MTBE = Methyl-tert-butylether							
NA = Not Analyzed							
NS = Not Sampled							
ND = None Detected							
SP = Separate-phase petroleum hydrocarbons							
TPHg = Total petroleum hydrocarbons as gasoline							
< = Less than the detection limit for the specified method of analysis							

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

LOG NO: G95-08-417

Received: 23 AUG 95

Mailed: **AUG 31 1995**

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

Purchase Order: 94-1446346+4370

Requisition: 618571050  
 Project: FKEP1012L

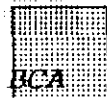
CC: Mr. Timothy Ross

REPORT OF ANALYTICAL RESULTS

Page 1

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020)	Dilution Factor Times	TPH-g	Benzene	Toluene	Ethyl-Benzene	Methyl-tert-butylether	Total Xylenes Isomers	Carbon Range
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	.
RDL			1	50	0.5	0.5	0.5	10	0.5	
1*MW A	08/21/95	08/28/95	1	9600	85	140	250	160	860	C6-C12
2*MW B	08/21/95	08/25/95	1	4000	9.6	110	120	98	270	C6-C12
3*MW 1	08/21/95	08/25/95	1	58	<0.5	1.5	1.8	<10	4.5	C6-C12
4*MW 2	08/21/95	08/25/95	1	<50	<0.5	<0.5	<0.5	<10	<0.5	C6-C12
5*MW 3	08/21/95	08/25/95	1	<50	<0.5	<0.5	<0.5	<10	<0.5	C6-C12
6*MW 4	08/21/95	08/25/95	1	<50	<0.5	<0.5	<0.5	<10	<0.5	C6-C12
7*MW 5	08/21/95	08/28/95	10	11000	91	28	140	<100	120	C6-C12
8*MW B	08/21/95	08/26/95	1	<50	<0.5	<0.5	0.67	<10	0.62	C6-C12



801 Western Avenue  
 Glendale, CA 91201  
 818/247-5737  
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LOG NO: G95-08-417

Received: 23 AUG 95

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

Purchase Order: 94-1446346+4370

Requisition: 618571050  
 Project: FKEP1012L

CC: Mr. Timothy Ross

REPORT OF ANALYTICAL RESULTS

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020)	Date Analyzed Date	Dilution Factor Times	TPH-g ug/L	Benzene ug/L	Toluene ug/L	Ethyl-Benzene ug/L	Methyl-tert-butylether ug/L	Total Xylenes Isomers ug/L	Carbon Range
RDL				1	50	0.5	0.5	0.5	10	0.5	
9*EB	08/21/95	08/26/95		1	<50	<0.5	<0.5	<0.5	<10	<0.5	C6-C12
10*TB	08/21/95	08/24/95		1	<50	<0.5	<0.5	<0.5	<10	<0.5	C6-C12

Karen Petryna  
 930 Springtown Blvd., Livermore  
 Alameda County

*Jane Freemyer*  
 Jane Freemyer, Program Manager

The analytical results within this report relate only to the specific compounds and samples investigated and may not necessarily reflect other apparently similar material from the same or a similar location.

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: ORDER PLACED FOR CLIENT: Texaco Environmental Services 9508417 :  
: BC ANALYTICAL : GLEN LAB : 09:43:35 31 AUG 1995 - P. 1 :  
=====

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE.....	METHOD.....	EQUIP.	BATCH..	ID.NO
			ANALYZED				
9508417*1	MW A	GAS.BTX.TESNC	08.28.95	8015M.TX	536-23	955102	8501
9508417*2	MW B	GAS.BTX.TESNC	08.25.95	8015M.TX	536-32	95812	8501
9508417*3	MW 1	GAS.BTX.TESNC	08.25.95	8015M.TX	536-32	95812	8501
9508417*4	MW 2	GAS.BTX.TESNC	08.25.95	8015M.TX	536-32	95812	8501
9508417*5	MW 3	GAS.BTX.TESNC	08.25.95	8015M.TX	536-32	95812	8501
9508417*6	MW 4	GAS.BTX.TESNC	08.25.95	8015M.TX	536-32	95812	8501
9508417*7	MW 5	GAS.BTX.TESNC	08.28.95	8015M.TX	536-23	955102	8501
9508417*8	MW 8	GAS.BTX.TESNC	08.26.95	8015M	536-21	95254	8501
9508417*9	EB	GAS.BTX.TESNC	08.26.95	8015M	536-21	95254	8501
9508417*10	TB	GAS.BTX.TESNC	08.24.95	8015M.TX	536-21	95250	8501

\*\*\*

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

## BC ANALYTICAL

## ORDER QC REPORT FOR G9508417

DATE REPORTED : 08/31/95

Page 1

LABORATORY CONTROL STANDARDS  
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
1. TPH/BTEX	C5082807*1					
Date Analyzed	08.29.95	955102	08/29/95	08/29/95	Date	N/A
Benzene	08.29.95	955102	15.7	15.2	ug/L	103
Toluene	08.29.95	955102	87.7	97.4	ug/L	90
Ethylbenzene	08.29.95	955102	17.9	20.4	ug/L	88
Total Xylene Isomers	08.29.95	955102	116	119	ug/L	97
TPH (Gasoline Range)	08.29.95	955102	1033	1100	ug/L	94
a,a,a-Trifluorotoluene Rep.	08.29.95	955102	57.3	50.0	ug/L	115
a,a,a-Trifluorotoluene Th.	08.29.95	955102	50.0	50.0	ug/L	100
2. TPH/BTEX	C5082723*1					
Date Analyzed	08.25.95	95812	08/25/95	08/25/95	Date	N/A
Benzene	08.25.95	95812	14.6	15.2	ug/L	96
Toluene	08.25.95	95812	81.6	97.4	ug/L	84
Ethylbenzene	08.25.95	95812	17.3	20.4	ug/L	85
Total Xylene Isomers	08.25.95	95812	106	119	ug/L	89
TPH (Gasoline Range)	08.25.95	95812	1070	1100	ug/L	97
a,a,a-Trifluorotoluene Rep.	08.25.95	95812	64.5	50.0	ug/L	129 Q
a,a,a-Trifluorotoluene Th.	08.25.95	95812	50.0	50.0	ug/L	100
3. TPH	C5082506*1					
Date Analyzed	08.26.95	95254	08/26/95	08/26/95	Date	N/A
Benzene	08.26.95	95254	14.8	15.2	ug/L	97
Toluene	08.26.95	95254	88.9	97.4	ug/L	91
Ethylbenzene	08.26.95	95254	17.6	20.4	ug/L	86
Total Xylene Isomers	08.26.95	95254	100	119	ug/L	84
TPH (Gasoline Range)	08.26.95	95254	1004	1100	ug/L	91
a,a,a-Trifluorotoluene Rep.	08.26.95	95254	59.3	50.0	ug/L	119 Q
a,a,a-Trifluorotoluene Th.	08.26.95	95254	50.0	50.0	ug/L	100
4. TPH	C5082371*1					
Date Analyzed	08.24.95	95250	08/24/95	08/24/95	Date	N/A
Benzene	08.24.95	95250	15.4	15.2	ug/L	101
Toluene	08.24.95	95250	91.9	97.4	ug/L	94
Ethylbenzene	08.24.95	95250	17.6	20.4	ug/L	86
Total Xylene Isomers	08.24.95	95250	99.3	119	ug/L	83
TPH (Gasoline Range)	08.24.95	95250	1020	1100	ug/L	93
a,a,a-Trifluorotoluene Rep.	08.24.95	95250	48.9	50.0	ug/L	98
a,a,a-Trifluorotoluene Th.	08.24.95	95250	50.0	50.0	ug/L	100

## BC ANALYTICAL

## ORDER QC REPORT FOR G9508417

DATE REPORTED : 08/31/95

Page 1

MATRIX QC PRECISION (DUPLICATE SPIKES)  
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
1. TPH/BTEX 9508400*7							
Date Analyzed		08.28.95	955102	08/28/95	08/28/95	Date	N/A
Benzene		08.28.95	955102	15.9	13.2	ug/L	19
Toluene		08.28.95	955102	74.4	74.8	ug/L	1
Ethylbenzene		08.28.95	955102	17.4	17.4	ug/L	0
Total Xylene Isomers		08.28.95	955102	97.2	97.4	ug/L	0
TPH (Gasoline Range)		08.28.95	955102	826	872	ug/L	5
a,a,a-Trifluorotoluene Rep.		08.28.95	955102	54.1	52.9	ug/L	2
a,a,a-Trifluorotoluene Th.		08.28.95	955102	50.0	50.0	ug/L	0
2. TPH/BTEX 9508312*5							
Date Analyzed		08.25.95	95812	08/25/95	08/25/95	Date	N/A
Benzene		08.25.95	95812	19.8	18.9	ug/L	5
Toluene		08.25.95	95812	80.0	76.5	ug/L	4
Ethylbenzene		08.25.95	95812	23.3	22.5	ug/L	3
Total Xylene Isomers		08.25.95	95812	139	134	ug/L	4
TPH (Gasoline Range)		08.25.95	95812	1130	1150	ug/L	2
a,a,a-Trifluorotoluene Rep.		08.25.95	95812	69.3	66.2	ug/L	5
a,a,a-Trifluorotoluene Th.		08.25.95	95812	50.0	50.0	ug/L	0
3. TPH 9508416*7							
Date Analyzed		08.26.95	95254	08/26/95	08/26/95	Date	N/A
Benzene		08.26.95	95254	14.6	14.3	ug/L	2
Toluene		08.26.95	95254	89.6	88.3	ug/L	1
Ethylbenzene		08.26.95	95254	17.2	17.0	ug/L	1
Total Xylene Isomers		08.26.95	95254	98.1	96.2	ug/L	2
TPH (Gasoline Range)		08.26.95	95254	1004	1031	ug/L	3
a,a,a-Trifluorotoluene Rep.		08.26.95	95254	48.1	67.0	ug/L	33
a,a,a-Trifluorotoluene Th.		08.26.95	95254	50.0	50.0	ug/L	0
4. TPH 9508375*4							
Date Analyzed		08.24.95	95250	08/24/95	08/24/95	Date	N/A
Benzene		08.24.95	95250	15.0	13.9	ug/L	8
Toluene		08.24.95	95250	91.7	81.0	ug/L	12
Ethylbenzene		08.24.95	95250	17.5	16.2	ug/L	8
Total Xylene Isomers		08.24.95	95250	98.0	90.3	ug/L	8
TPH (Gasoline Range)		08.24.95	95250	1020	1000	ug/L	2
a,a,a-Trifluorotoluene Rep.		08.24.95	95250	67.3	69.8	ug/L	4
a,a,a-Trifluorotoluene Th.		08.24.95	95250	50.0	50.0	ug/L	0

## BC ANALYTICAL

## ORDER QC REPORT FOR G9508417

DATE REPORTED : 08/31/95

Page 1

MATRIX QC ACCURACY (SPIKES)  
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT
1. TPH	9508400*7						
Benzene		08.28.95	955102	101	83	15.7	ug/L
Toluene		08.28.95	955102	76	77	97.4	ug/L
Ethylbenzene		08.28.95	955102	85	85	20.4	ug/L
Total Xylene Isomers		08.28.95	955102	82	82	119	ug/L
TPH (Gasoline Range)		08.28.95	955102	75	79	1100	ug/L
a,a,a-Trifluorotoluene Rep.		08.28.95	955102	108	106	50.0	ug/L
a,a,a-Trifluorotoluene Th.		08.28.95	955102	100	100	50.0	ug/L
2. TPH	9508312*5						
Benzene		08.25.95	95812	94	88	20.7	ug/L
Toluene		08.25.95	95812	82	79	97.4	ug/L
Ethylbenzene		08.25.95	95812	84	80	26.5	ug/L
Total Xylene Isomers		08.25.95	95812	88	84	153	ug/L
TPH (Gasoline Range)		08.25.95	95812	91	93	1230	ug/L
a,a,a-Trifluorotoluene Rep.		08.25.95	95812	139 Q	132 Q	50.0	ug/L Q
a,a,a-Trifluorotoluene Th.		08.25.95	95812	100	100	50.0	ug/L
3. TPH	9508416*7						
Benzene		08.26.95	95254	96	94	15.2	ug/L
Toluene		08.26.95	95254	92	91	97.4	ug/L
Ethylbenzene		08.26.95	95254	84	83	20.4	ug/L
Total Xylene Isomers		08.26.95	95254	82	81	119	ug/L
TPH (Gasoline Range)		08.26.95	95254	91	94	1100	ug/L
a,a,a-Trifluorotoluene Rep.		08.26.95	95254	96	134 Q	50.0	ug/L Q
a,a,a-Trifluorotoluene Th.		08.26.95	95254	100	100	50.0	ug/L
4. TPH	9508375*4						
Benzene		08.24.95	95250	95	87	15.8	ug/L
Toluene		08.24.95	95250	92	81	99.4	ug/L
Ethylbenzene		08.24.95	95250	84	77	20.8	ug/L
Total Xylene Isomers		08.24.95	95250	81	74	121	ug/L
TPH (Gasoline Range)		08.24.95	95250	93	91	1100	ug/L
a,a,a-Trifluorotoluene Rep.		08.24.95	95250	135	140	50.0	ug/L
a,a,a-Trifluorotoluene Th.		08.24.95	95250	100	100	50.0	ug/L

BC ANALYTICAL

ORDER QC REPORT FOR G9508417

DATE REPORTED : 08/31/95

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
1. TPH/BTEX	B5081600*1					
Date Analyzed	08.28.95	955102	08/28/95	NA	Date	8015M
Benzene	08.28.95	955102	0	0.3	ug/L	8015M
Toluene	08.28.95	955102	0	0.3	ug/L	8015M
Ethylbenzene	08.28.95	955102	0	0.3	ug/L	8015M
Total Xylene Isomers	08.28.95	955102	0	0.6	ug/L	8015M
TPH (Gasoline Range)	08.28.95	955102	0	100	ug/L	8015M
a,a,a-Trifluorotoluene Rep.	08.28.95	955102	52.2	0.5	ug/L	8015M
a,a,a-Trifluorotoluene Th.	08.28.95	955102	50.0	NA	ug/L	8015M
2. TPH/BTEX	B5081540*1					
Date Analyzed	08.25.95	95812	08/25/95	NA	Date	8015M
Benzene	08.25.95	95812	0	0.3	ug/L	8015M
Toluene	08.25.95	95812	0	0.3	ug/L	8015M
Ethylbenzene	08.25.95	95812	0	0.3	ug/L	8015M
Total Xylene Isomers	08.25.95	95812	0	0.6	ug/L	8015M
TPH (Gasoline Range)	08.25.95	95812	0	100	ug/L	8015M
a,a,a-Trifluorotoluene Rep.	08.25.95	95812	68.2 Q	0.5	ug/L	8015M
a,a,a-Trifluorotoluene Th.	08.25.95	95812	50.0	NA	ug/L	8015M
3. TPH	B5081428*1					
Date Analyzed	08.26.95	95254	08/26/95	NA	Date	8015M
Benzene	08.26.95	95254	0.0	0.3	ug/L	8015M
Toluene	08.26.95	95254	0.067	0.3	ug/L	8015M
Ethylbenzene	08.26.95	95254	0.054	0.3	ug/L	8015M
Methyl-tert-butylether	08.26.95	95254	0.0	10	ug/L	8015M
Total Xylene Isomers	08.26.95	95254	0.22	0.6	ug/L	8015M
TPH (Gasoline Range)	08.26.95	95254	0.0	100	ug/L	8015M
a,a,a-Trifluorotoluene Rep.	08.26.95	95254	52.8	0.5	ug/L	8015M
a,a,a-Trifluorotoluene Th.	08.26.95	95254	50.0	NA	ug/L	8015M
4. TPH	B5081352*1					
Date Analyzed	08.24.95	95250	08/24/95	NA	Date	8015M.TX
Benzene	08.24.95	95250	0	0.5	ug/L	8015M.TX
Toluene	08.24.95	95250	0.090	0.5	ug/L	8015M.TX
Ethylbenzene	08.24.95	95250	0	0.5	ug/L	8015M.TX
Methyl-tert-butylether	08.24.95	95250	0	NA	ug/L	8015M.TX
Total Xylene Isomers	08.24.95	95250	0.12	0.5	ug/L	8015M.TX
TPH (Gasoline Range)	08.24.95	95250	0	50	ug/L	8015M.TX
a,a,a-Trifluorotoluene Rep.	08.24.95	95250	55.6	NA	ug/L	8015M.TX
a,a,a-Trifluorotoluene Th.	08.24.95	95250	50.0	NA	ug/L	8015M.TX

: SURROGATE RECOVERIES :  
 : BC ANALYTICAL : GLEN LAB : 09:44:35 31 AUG 1995 - P. 1 :  
 =====

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9508417*1							
8015M.TXa	a,a,a-Trifluorotoluene	Re955102	08/28/95	246	250	98	
9508417*2							
8015M.TXa	a,a,a-Trifluorotoluene	Re95812	08/25/95	56.5	50.0	113	
9508417*3							
8015M.TXa	a,a,a-Trifluorotoluene	Re95812	08/25/95	66.2	50.0	132	
9508417*4							
8015M.TXa	a,a,a-Trifluorotoluene	Re95812	08/25/95	69.1	50.0	138	
9508417*5							
8015M.TXa	a,a,a-Trifluorotoluene	Re95812	08/25/95	70.3	50.0	141	
9508417*6							
8015M.TXa	a,a,a-Trifluorotoluene	Re95812	08/25/95	67.3	50.0	135	
9508417*7							
8015M.TXa	a,a,a-Trifluorotoluene	Re955102	08/28/95	512	500	102	
9508417*8							
8015M	a,a,a-Trifluorotoluene	Re95254	08/26/95	52.0	50.0	104	
9508417*9							
8015M	a,a,a-Trifluorotoluene	Re95254	08/26/95	53.2	50.0	106	
9508417*10							
8015M.TXa	a,a,a-Trifluorotoluene	Re95250	08/24/95	47.3	50.0	95	

: SURROGATE RECOVERIES :  
 : BC ANALYTICAL : GLEN LAB : 09:44:41 31 AUG 1995 - P. 1 :  
 =====

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9508312*5*R1							
8015M	a,a,a-Trifluorotoluene	Re95812	08/25/95	61.9	50.0	124	
9508312*5*S1							
8015M	a,a,a-Trifluorotoluene	Re95812	08/25/95	69.3	50.0	139	Q
9508312*5*S2							
8015M	a,a,a-Trifluorotoluene	Re95812	08/25/95	66.2	50.0	132	Q
9508312*5*T							
8015M	a,a,a-Trifluorotoluene	Re95812	08/25/95	50.0	50.0	100	
9508375*4*R1							
8015M.TXa	a,a,a-Trifluorotoluene	Re95250	08/24/95	53.4	50.0	107	
9508375*4*S1							
8015M.TXa	a,a,a-Trifluorotoluene	Re95250	08/24/95	67.3	50.0	135	
9508375*4*S2							
8015M.TXa	a,a,a-Trifluorotoluene	Re95250	08/24/95	69.8	50.0	140	
9508375*4*T							
8015M.TXa	a,a,a-Trifluorotoluene	Re95250	08/24/95	50.0	50.0	100	
9508400*7*R1							
8015M	a,a,a-Trifluorotoluene	Re955102	08/28/95	54.2	50.0	108	
9508400*7*S1							
8015M	a,a,a-Trifluorotoluene	Re955102	08/28/95	54.1	50.0	108	
9508400*7*S2							
8015M	a,a,a-Trifluorotoluene	Re955102	08/28/95	52.9	50.0	106	
9508400*7*T							
8015M	a,a,a-Trifluorotoluene	Re955102	08/28/95	50.0	50.0	100	
9508416*7*R1							
8015M	a,a,a-Trifluorotoluene	Re95254	08/26/95	59.4	50.0	119	
9508416*7*S1							
8015M	a,a,a-Trifluorotoluene	Re95254	08/26/95	48.1	50.0	96	

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9508416*7*S2							
8015M	a,a,a-Trifluorotoluene	Re95254	08/26/95	67.0	50.0	134	Q
9508416*7*T							
8015M	a,a,a-Trifluorotoluene	Re95254	08/26/95	50.0	50.0	100	
B5081352*1*MB							
8015M.TXa	a,a,a-Trifluorotoluene	Re95250	08/24/95	55.6	50.0	111	
B5081428*1*MB							
8015M	a,a,a-Trifluorotoluene	Re95254	08/26/95	52.8	50.0	106	
B5081540*1*MB							
8015M	a,a,a-Trifluorotoluene	Re95812	08/25/95	68.2	50.0	136	
B5081600*1*MB							
8015M	a,a,a-Trifluorotoluene	Re955102	08/28/95	52.2	50.0	104	
C5082371*1*LC							
8015M.TXa	a,a,a-Trifluorotoluene	Re95250	08/24/95	48.9	50.0	98	
C5082371*1*LT							
8015M.TXa	a,a,a-Trifluorotoluene	Re95250	08/24/95	50.0	50.0	100	
C5082506*1*LC							
8015M	a,a,a-Trifluorotoluene	Re95254	08/26/95	59.3	50.0	119	Q
C5082506*1*LT							
8015M	a,a,a-Trifluorotoluene	Re95254	08/26/95	50.0	50.0	100	
C5082723*1*LC							
8015M	a,a,a-Trifluorotoluene	Re95812	08/25/95	64.5	50.0	129	Q
C5082723*1*LT							
8015M	a,a,a-Trifluorotoluene	Re95812	08/25/95	50.0	50.0	100	
C5082807*1*LC							
8015M	a,a,a-Trifluorotoluene	Re955102	08/29/95	57.3	50.0	115	
C5082807*1*LT							
8015M	a,a,a-Trifluorotoluene	Re955102	08/29/95	50.0	50.0	100	



07000717

Chain-of-Custody

**Toxaco Environmental Services**

108 Cutting Boulevard  
 Richmond, California 94804  
 Phone: (510) 238-3541  
 FAX: (510) 237-7821

Forward Results to the Attention of Rebecca Digness  
 Toxaco Project Corodinator Karen Petryna

Site Name: Texaco Loc.# 618571050  
 Site Address: 930 Springtown Blvd. Livermore, CA  
 Contractor Project Number: 950821-A1  
 Contractor Name: Blaine Tech Services, Inc.  
 Address: 985 Timothy Dr., San Jose, CA 95133  
 Project Contact: Don Weitz  
 Phone/FAX: (408) 995-5535 / (408) 293-8773

Laboratory: B C Analytical

Turn Around Time: normal (10 day)

Samplers (PRINT NAME): RANDY WAGNER, INC

Sampler Signature: Randy Wagner

Date Samples Collected: 8-21-95

ANALYSIS

Cooler temp: 60°C  
 sample cond: good

618571050  
 Alameda  
 KEP  
 FKEP1012L  
 Comments  
 CC. Tim Ross

Sample Number	Lab Sample Number	Date/Time Collected	No. of Containers	Type of Containers	Sample Matrix	Preservative	TPH gas/BTEX / MTSE	TPH Diesel	O&G/TRPH (418.1)	TPH Ex. (C8-C36+)	VOCs 8240/824	P. Halocarbons 8010/60	P. Aromatics 8020/602	Organic Lead	
nw A		8-21 / 1015	3	VGA	W	HCl	XX								-1
nw B		8-21 / 1150	3	VGA	W	HCl	XX								-2
nw 1		8-21 / 1045	3	VGA	W	HCl	XX								-3
nw 2		8-21 / 1020	3	VGA	W	HCl	XX								-4
nw 3		8-21 / 1115	3	VGA	W	HCl	XX								-5
nw 4		8-21 / 925	3	VGA	W	HCl	XX								-6
nw 5		8-21 / 1240	3	VGA	W	HCl	XX								-7
nw 8		8-21 / 980	3	VGA	W	HCl	XX								-8
EB		8-21 / 930	3	VGA	W	HCl	XX								-9
TIS			2	VGA	W	HCl	XX								-10

Relinquished by: Randy Wagner Date: 8-23-95 Time: 1400  
 (Signature)  
 Relinquished by: Bill Ross Date: 8-23-95 Time: 4:00  
 (Signature)  
 Relinquished by: Kimberly Eng Date: 8/23/95 Time: 5:30  
 (Signature)

Received by: Bill Ross Date: 8-23-95 Time: 7:00  
 (Signature)  
 Received by: Kimberly Eng Date: 8/23/95 Time: 4:10  
 (Signature)  
 Lab Comments:

## Well Gauging Data

Project Name: TEXACO  
 Project Number: 950821-A1

Date: 8-21-95  
 Recorded By: RL

Well ID	TOC Elev.	DTB (ft. TOC)	Well Dia. (in.)	DTP (ft.)	DTW (ft.)	PT (ft.)	Comments
MWA		16.50	2		11.37		
MWB		21.40	2		9.34		
MW1		25.53	4		11.93		
MW2		22.50	4		9.58		
MW3		24.65	4		7.60		
MW4		25.03	4		10.51		
MW5		28.12	2		12.32		
MW6		INACCESSIBLE DUE TO				AUTO	
MW7		23.71	4		7.83		
MW8		24.25	4		15.77		

TOC = Top of casing  
 DTB = Depth to bottom in feet below TOC  
 DTP = Depth to product in feet below TOC  
 DTW = Depth to water in feet below TOC  
 PT = Product thickness in feet

# Groundwater Sampling Form

Project Name TEXACO  
 Project Number 950821-A1  
 Recorded By RW

Well No. MWA  
 Well Type  Monitor  Extraction  Other  
 Sampled by RW Date 8-21-95

## WELL PURGING

**PURGE VOLUME**  
 Well casing diameter  
 2-inch  4-inch  Other  
 Well Total Depth (TD, ft. below TOC) 16.50  
 Depth to Water (WL, ft. below TOC) 11.57  
 Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other \_\_\_\_\_

**PURGE METHOD**  
 Bailor - Type DISP  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

**PUMP INTAKE**  
 Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) \_\_\_\_\_  
 Other \_\_\_\_\_

**PURGE VOLUME CALCULATION**  

$$\frac{5.13}{\text{Water Column Length}} \times \frac{1.17}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$
 MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)  
 2 = 0.17 | 3 = 0.38 | 4 = 0.65 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

Pumping Rate \_\_\_\_\_ gpm  
 \_\_\_\_\_ gals  
**CALCULATED PURGE VOLUME**  
 \_\_\_\_\_ gals  
**ACTUAL PURGE VOLUME**

**GROUNDWATER PARAMETER MEASUREMENT** Meter Type MYDOL L

Time/Gallons	pH	Cond. (uomhcs/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
1200 11.0	7.4	940	63.2		7200	
1204 12.0	7.6	900	60.8		7200	
1207 13.0	7.6	910	61.0		7200	
/						
/						
/						
/						
/						

Comments during well purge \_\_\_\_\_  
 Well Pumped dry: YES  NO  Purge water storage/disposal  Drummed onsite  Other TRUCK

## WELL SAMPLING

**SAMPLING METHOD** Date/Time Sampled 8-21, 1215  
 Bailor - Type  DISP Sample port  Other

**GROUNDWATER SAMPLE PARAMETER MEASUREMENTS** Meter Type \_\_\_\_\_

Date/Time/% Recharge	pH	Cond. (uomhcs/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
/ /						

**SAMPLING PROGRAM**

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
<u>MWA</u>	<u>3</u> <u>40 mL</u> <u>VOA</u>	<u>TPH</u> <u>ISTEX</u> <u>MTBE</u>	<u>HCl</u>	<u>BC</u>	

**QUALITY CONTROL SAMPLES**

Duplicate Samples		Blank Samples	
Original Sample No.	Duplicate Sample No.	Type	Sample No.
		Trip	
		Rinsale	
		Transfer	
		Other:	

# Groundwater Sampling Form

Project Name TEXACO  
 Project Number 950821-A1  
 Recorded By PV

Well No. MW B  
 Well Type  Monitor  Extraction  Other  
 Sampled by PV Date 8-21-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other  
 Well Total Depth (TD, ft. below TOC) 21.40  
 Depth to Water (WL, ft. below TOC) 9.34  
 Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other \_\_\_\_\_

### PURGE METHOD

Bailor - Type DISP  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) \_\_\_\_\_  
 Other \_\_\_\_\_

### PURGE VOLUME CALCULATION

$$\frac{12.06}{\text{Water Column Length}} \times \frac{.17}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)  
 2 = 0.17 | 3 = 0.38 | 4 = 0.65 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

6.2 gals  
 CALCULATED PURGE VOLUME

6.5 gals  
 ACTUAL PURGE VOLUME

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type M420AL

Time/Gallons	pH	Cond. (uomhes/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
1127 / 1 2.0	7.2	1600	63.6		75.	
1133 / 1 4.0	7.4	1700	61.4		76.	
1138 / 1 6.5	7.3	1750	62.0		75.	
/						
/						
/						
/						
/						

Comments during well purge \_\_\_\_\_  
 Well Pumped dry: YES  NO  Purge water storage/disposal  Drummed onsite  Other TRUCK

## WELL SAMPLING

### SAMPLING METHOD

Date/Time Sampled 8-21 / 1150

Bailor - Type  DISP Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type \_\_\_\_\_

Date/Time/% Recharge	pH	Cond. (uomhes/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
/ /						

### SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
<u>MW B</u>	<u>3 40ML</u>	<u>TPHG</u>	<u>HEI</u>	<u>BC</u>	
	<u>VOA</u>	<u>DTEX</u>			
		<u>ATBE</u>			

### QUALITY CONTROL SAMPLES

Duplicate Samples	
Original Sample No.	Duplicate Sample No.

Blank Samples	
Type	Sample No.
Trip	
Rinse	
Transfer	
Other:	

# Groundwater Sampling Form

Project Name TEXACO  
 Project Number 950821-A1  
 Recorded By IRV

Well No. nw1  
 Well Type  Monitor  Extraction  Other  
 Sampled by RV Date 8-21-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other  
 Well Total Depth (TD, ft. below TOC) 25.53  
 Depth to Water (WL, ft. below TOC) 11.13  
 Depth to free phase hydrocarbons (FP, ft. below TOC)

Number of well volumes to be purged  
 3  10  Other

### PURGE VOLUME CALCULATION

$$\frac{15.6}{\text{Water Column Length}} \times \frac{.66}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft.)  
 2 = 0.173 | 3 = 0.38 | 4 = 0.65 | 4.5 = 0.83 | 5 = 1.02 | 5 = 1.5 | 8 = 2.5

### PURGE METHOD

Bailor - Type  
 Pump - Type ELEC-SUB  
 Other

### PUMP INTAKE

Near top Depth (ft)  
 Near Bottom Depth (ft)  
 Other  
 Pumping Rate 8 gpm

26.9 gals  
**CALCULATED PURGE VOLUME**  
27.0 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
1033 19.0	7.0	2100	63.0		7200	
1034 118.0	6.9	2100	60.4		7200	
1036 127.0	6.9	2100	60.8		188.	
/						
/						
/						
/						
/						

Comments during well purge  
 Well Pumped dry: YES  NO  Purge water storage/disposal  Drummed onsite  Other TEXACO

## WELL SAMPLING

SAMPLING METHOD: Date/Time Sampled 8-21 1045  
 Bailor - Type  STEEL Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
/ /						

### SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
MW1	3 40 mL	TPHG BTEX VOA MTBE	HCl	BC	

### QUALITY CONTROL SAMPLES

Duplicate Samples	
Original Sample No.	Duplicate Sample No.

Blank Samples	
Type	Sample No.
Trip	
Rinse	
Transfer	
Other:	

# Groundwater Sampling Form

Project Name TEXACO  
 Project Number 450821-41  
 Recorded By PV

Well No. MW2  
 Well Type  Monitor  Extraction  Other  
 Sampled by PV Date 8-21-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other \_\_\_\_\_  
 Well Total Depth (TD, ft. below TOC) 22.50  
 Depth to Water (WL, ft. below TOC) 9.58  
 Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other \_\_\_\_\_

### PURGE METHOD

Bailor - Type \_\_\_\_\_  
 Pump - Type ELEC SUB  
 Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) \_\_\_\_\_  
 Other \_\_\_\_\_

Pumping Rate 8 gpm

### PURGE VOLUME CALCULATION

$$\frac{12.92}{\text{Water Column Length}} \times \frac{1.66}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. in inches) = Gallons/linear ft.  
 2 = 0.173 | 3 = 0.38 | 4 = 0.65 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

25.6 gals  
**CALCULATED PURGE VOLUME**  
27.0 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type MYRON C

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
1003 1 9.0	7.1	1600	60.6		7200	
1004 1 18.0	7.2	1600	60.0		7200	
1006 1 27.0	7.2	1600	59.6		7200	
/						
/						
/						
/						
/						

Comments during well purge \_\_\_\_\_

Well Pumped dry: YES (NO)  Purge water storage/disposal  Drummed onsite  Other TRUCK

## WELL SAMPLING

SAMPLING METHOD: Date/Time Sampled 8-21 1 1020

Bailor - Type  STEEL Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
/ /						

### SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
<u>MW2</u>	<u>3</u> <u>40 mL</u> <u>VOA</u>	<u>TPH</u> <u>BTEX</u> <u>MTBE</u>	<u>HCl</u>	<u>BC</u>	

### QUALITY CONTROL SAMPLES

Duplicate Samples	
Original Sample No.	Duplicate Sample No.

Blank Samples	
Type	Sample No.
Trip	
Rinsete	
Transfer	
Other:	

# Groundwater Sampling Form

Project Name TEXACO  
 Project Number 950821-A1  
 Recorded By PV

Well No. MW3  
 Well Type  Monitor  Extraction  Other  
 Sampled by PV Date 8-21-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other  
 Well Total Depth (TD, ft. below TOC) 27.65  
 Depth to Water (WL, ft. below TOC) 7.60  
 Depth to free phase hydrocarbons (FP, ft. below TOC)

Number of well volumes to be purged  
 3  10  Other

### PURGE VOLUME CALCULATION

$$\frac{17.05}{\text{Water Column Length}} \times \frac{.66}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft.)  
 2 = 0.173 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

### PURGE METHOD

Bailor - Type  
 Pump - Type EVEL SUIT  
 Other

### PUMP INTAKE

Near top Depth (ft.)  
 Near Bottom Depth (ft.)  
 Other

Pumping Rate 8 gpm

33.7 calcs  
**CALCULATED PURGE VOLUME**

36.0 calcs  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type MYRON L

Time/Gallons	pH	Cond. (uomhos/cm)	Temp (deg C / deg F)	Turbidity (NTU)	Color/Odor
<del>105X</del> 1 12.0	6.9	1800	65.8	7200	
1000 1 24.0	7.0	1800	66.4	192.	
1102 1 36.0	7.0	1800	66.4	190.	
1					
1					
1					
1					
1					

Comments during well purge

Well Pumped dry: YES  NO  Purge water storage/disposal  Drummed onsite  Other TRUCK

## WELL SAMPLING

SAMPLING METHOD Date/Time Sampled 8-21 1115

Bailor - Type  STEEL Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp (deg C / deg F)	Turbidity (NTU)	Color/Odor
1 1					

### SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
<u>MW3</u>	<u>3 40 ML VOA</u>	<u>TPAG BTEX MTBE</u>	<u>HCl</u>	<u>BL</u>	

### QUALITY CONTROL SAMPLES

Duplicate Samples	
Original Sample No.	Duplicate Sample No.

Blank Samples	
Type	Sample No.
Trip	
Rinsate	
Transfer	
Other:	

# Groundwater Sampling Form

Project Name TEXACO  
 Project Number 950821-A1  
 Recorded By PV

Well No. MW84  
 Well Type  Monitor  Extraction  Other  
 Sampled by AN Date 8-21-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other  
 Well Total Depth (TD, ft. below TOC) 25.03  
 Depth to Water (WL, ft. below TOC) 10.51  
 Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other

### PURGE METHOD

Bailor - Type \_\_\_\_\_  
 Pump - Type ELEC. SUB  
 Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) \_\_\_\_\_  
 Other \_\_\_\_\_  
 Pumping Rate \_\_\_\_\_ gpm

### PURGE VOLUME CALCULATION

$$\frac{14.52}{\text{Water Column Length}} \times \frac{1.66}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. inches) = Gallons/linear ft.  
 2 = 0.173 | 3 = 0.38 | 4 = 0.65 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

28.7 gals  
**CALCULATED PURGE VOLUME**  
30.0 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type MURON C

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
9:12 1 10.0	7.3	1200	63.0		164	
9:14 1 20.0	7.1	1100	62.4		200	
9:16 1 30.0	7.1	1100	62.6		200	
/						
/						
/						
/						
/						

Comments during well purge \_\_\_\_\_

Well Pumped dry: YES  NO  Purge water storage/disposal  Drummed onsite  Other TRUCK

## WELL SAMPLING

### SAMPLING METHOD

Date/Time Sampled 8-21-1995

Bailor - Type  ~~STEEL~~ STEEL Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type \_\_\_\_\_

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
/ /						

### SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
<u>MW8</u>	<u>3</u> <u>40 ML</u>	<u>TPHG</u> <u>BTEX</u>	<u>HCl</u>	<u>BC</u>	
	<u>VOA</u>	<u>MTSE</u>			

### QUALITY CONTROL SAMPLES

#### Duplicate Samples

Original Sample No.	Duplicate Sample No.

#### Blank Samples

Type	Sample No.
Trip	
Rinse	<u>FB@ 930</u>
Transfer	
Other:	



# Groundwater Sampling Form

Project Name TEXACO Well No. MW5  
 Project Number 950821-A1 Well Type  Monitor  Extraction  Other  
 Recorded By RW Sampled by RW Date 8-21-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other \_\_\_\_\_  
 Well Total Depth (TD, ft. below TOC) 28.12  
 Depth to Water (WL, ft. below TOC) 12.32  
 Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other \_\_\_\_\_

### PURGE METHOD

Bailor - Type DISP  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) \_\_\_\_\_  
 Other \_\_\_\_\_  
 Pumping Rate \_\_\_\_\_ gpm

### PURGE VOLUME CALCULATION

$$\frac{15.8}{\text{Water Column Length}} \times \frac{.17}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft.)  
 2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.63 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

8.0 gals  
**CALCULATED PURGE VOLUME**  
8.0 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type MYRON L

Time/Gallons	pH	Cond. (uomhcs/cm)	Temp	<input checked="" type="checkbox"/> deg C <input type="checkbox"/> deg F	Turbidity (NTU)	Color/Odor
1221 1 30	7.2	1000	61.4		7200	
1228 1 60	7.2	1100	60.0		7200	
1230 1 80	7.3	1200	60.2		7200	
1						
1						
1						
1						
1						

Comments during well purge \_\_\_\_\_  
 Well Pumped dry: YES  NO  Purge water storage/disposal  Drummed onsite  Other TRUCK

## WELL SAMPLING

SAMPLING METHOD Date/Time Sampled 8-21, 1240  
 Bailor - Type  DISP Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type \_\_\_\_\_

Date/Time/% Recharge	pH	Cond. (uomhcs/cm)	Temp	<input type="checkbox"/> deg C <input type="checkbox"/> deg F	Turbidity (NTU)	Color/Odor
1 1						

### SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
<u>MW5</u>	<u>3</u> <u>40ML</u>	<u>TDHG</u> <u>BTEX</u> <u>MTBE</u>	<u>HCl</u>	<u>BL</u>	
	<u>VOA</u>				

### QUALITY CONTROL SAMPLES

#### Duplicate Samples

Original Sample No.	Duplicate Sample No.

#### Blank Samples

Type	Sample No.
Trip	
Rinsate	
Transfer	
Other	

# Groundwater Sampling Form

Project Name TEXACO  
 Project Number 950821-A1  
 Recorded By R

Well No. MW6  
 Well Type  Monitor  Extraction  Other  
 Date 8-21-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other \_\_\_\_\_  
 Well Total Depth (TD, ft. below TOC) \_\_\_\_\_  
 Depth to Water (WL, ft. below TOC) \_\_\_\_\_  
 Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other \_\_\_\_\_

### PURGE METHOD

Bailor - Type \_\_\_\_\_  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) \_\_\_\_\_  
 Other \_\_\_\_\_

Pumping Rate \_\_\_\_\_ gpm

### PURGE VOLUME CALCULATION

\_\_\_\_\_ X \_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_

Water Column Length      Multiplier      No. Vols

MULTIPLIER (Casing Dia. inches) = Gallons/linear ft.  
 2 = 0.1713 | 3 = 0.38 | 4 = 0.65 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

\_\_\_\_\_ gals  
**CALCULATED PURGE VOLUME**  
 \_\_\_\_\_ gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C		Turbidity (NTU)	Color/Odor
				deg C	deg F		
<b>CHECKED @ ARRIVAL &amp; DEPARTURE @ 1405</b>							
<b>SAME YELLOW TRUCK PARKED. INACCESSIBLE DUE TO</b>							
<b>PARKED. AUTO PARKED ON TOP OF</b>							
<b>WELL</b>							

Comments during well purge \_\_\_\_\_

Well Pumped dry: YES NO      Purge water storage/disposal  Drummed onsite  Other \_\_\_\_\_

## WELL SAMPLING

### SAMPLING METHOD

Date/Time Sampled \_\_\_\_\_ / \_\_\_\_\_

Bailor - Type  \_\_\_\_\_ Sample port  \_\_\_\_\_ Other  \_\_\_\_\_

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp	deg C deg F	Turbidity (NTU)	Color/Odor

### SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments

### QUALITY CONTROL SAMPLES

#### Duplicate Samples

Original Sample No.	Duplicate Sample No.

#### Blank Samples

Type	Sample No.

# Groundwater Sampling Form

Project Name TEXAS  
 Project Number 950821-A1  
 Recorded By PV

Well No. MW8  
 Well Type  Monitor  Extraction  Other  
 Sampled by PV Date 8-21-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other  
 Well Total Depth (TD, ft. below TOC) 24.28  
 Depth to Water (WL, ft. below TOC) 15.77  
 Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other \_\_\_\_\_

### PURGE METHOD

Bailor - Type \_\_\_\_\_  
 Pump - Type ELEC. SUB  
 Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) \_\_\_\_\_  
 Other \_\_\_\_\_  
 Pumping Rate 8 gpm

### PURGE VOLUME CALCULATION

$$\frac{8.51}{\text{Water Column Length}} \times \frac{1.66}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft.)  
 2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.518 = 2.6

16.8 gals  
**CALCULATED PURGE VOLUME**  
18.0 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type M420N C

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
940 1 6.0	7.2	1100	60.6		7200	
941 1 12.0	7.0	1100	58.2		138	
942 1 18.0	7.0	1100	58.0		107	
1						
1						
1						
1						
1						

Comments during well purge \_\_\_\_\_

Well Pumped dry: YES  NO  Purge water storage/disposal  Drummed onsite  Other TRUCK

## WELL SAMPLING

SAMPLING METHOD \_\_\_\_\_ Date/Time Sampled 8-21 1950

Bailor - Type  STEEL Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type \_\_\_\_\_

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
1						

### SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
<u>MW8</u>	<u>3</u>	<u>TPH</u>	<u>HCl</u>	<u>BC</u>	
	<u>40 mL</u>	<u>BTX</u>			
	<u>VOA</u>	<u>MRE</u>			

### QUALITY CONTROL SAMPLES

Duplicate Samples	
Original Sample No.	Duplicate Sample No.

Blank Samples	
Type	Sample No.
Trip	
Rinsate	
Transfer	
Other:	