QUARTERLY STATUS REPORT NO. 1
FORMER TEXACO SERVICE STATION
3940 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA
APRIL 17, 1991

GROUNDWATER TECHNOLOGY, INC. CONCORD, CALIFORNIA



FAX: (415) 685-9148

QUARTERLY STATUS REPORT NO. 1 FORMER TEXACO SERVICE STATION 3940 CASTRO VALLEY BOULEVARD **CASTRO VALLEY, CALIFORNIA APRIL 17, 1991**

Prepared for:

Mr. R. R. Zielinski Texaco Environmental Services 108 Cutting Boulevard Richmond, CA 91608

Prepared by:

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QUARTERLY STATUS REPORT NO. 1 FORMER TEXACO SERVICE STATION 3940 CASTRO VALLEY BOULEVARD CASTRO VALLEY, CALIFORNIA APRIL 17, 1991

INTRODUCTION

This report presents the results of environmental-monitoring performed at the former Texaco Service Station located at 3940 Castro Valley Boulevard, Castro Valley, California (Site) from January 1 through March 31, 1991. Groundwater monitoring was conducted on January 9 and 23, February 22, and March 20, 1991, to determine the water-table elevation and the thickness of any separate-phase petroleum hydrocarbons. Groundwater samples collected on January 9 and February 22, 1991, were analyzed for the presence of dissolved gasoline-hydrocarbon concentrations.

WORK PERFORMED

GROUNDWATER MONITORING

Groundwater monitoring was performed at the Site on January 9 and 23, February 22 and March 20, 1991. The depth-to-water and depth-to-separate-phase hydrocarbons were measured to the nearest 0.01-foot from the top of the well casing. The measurements were made using a probe capable of distinguishing between water and separate-phase petroleum hydrocarbons.

The depth-to-water on March 20, 1991, ranged from 21.96-feet below grade in monitoring well MW-3 to 23.95-feet below grade in monitoring well MW-1. No separate-phase hydrocarbons were detected in any of the wells during this reporting period. The average groundwater elevation at the Site increased from 167.94-feet to 168.52-feet above mean sea level between December 11, 1990, and March 20, 1991.



The groundwater-elevation data collected on February 22, 1991, were used to prepare a potentiometric surface map (Figure 1) and to determine the hydraulic gradient. Based on Figure 1, the hydraulic gradient was calculated to be approximately 0.01 foot/foot with a flow-direction to the west. The groundwater-monitoring data are presented in Appendix A.

GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

Groundwater samples were collected at the site on January 9 and February 22, 1991. Prior to sampling, each monitoring well was purged, using an acrylic baller, until pH, conductivity and temperature of the purge water had stabilized. The purge water was transferred into labeled 55-gallon drums to be stored on site until it could be disposed of at a proper facility. The purged wells were then allowed to recover to at least 80 percent of their initial water levels before sampling with a Teflon sampler. Rinsate blanks containing a sample of the distilled-water rinsate from the cleaned surface sampler were collected prior to the sampling of each monitoring well as part of the Quality Assurance/Quality Control (QA/QC) Program. The groundwater samples were carefully decanted into acidified 40-milliliter glass vials with Teflon septum caps applied in such a way that no air was trapped inside. The vials were immediately labeled and placed on ice for delivery to a State of California-certified laboratory, accompanied at all times by a Chain-of-Custody Manifest. All groundwater samples, plus two randomly chosen rinsate blanks (RBMW-1 collected on January 9, 1991, and RBMW-3 collected on February 22, 1991), were analyzed for the presence of benzene, toluene, ethylbenzene and xylenes (BTEX) and for Total Petroleum Hydrocarbons-as-Gasoline (TPH-G) using U. S. Environmental Protection Agency (EPA) Methods 5030, 8020, and modified Method 8015.

Table 1 summarizes the analytical results for the groundwater samples collected on January 9 and February 22, 1991. Dissolved gasoline hydrocarbons were detected in the samples collected from monitoring wells MW-1 and MW-4 on January 9, 1991, and in the sample collected from monitoring well MW-4 on February 22, 1991. The highest concentration of TPH-G (120 parts per billion [ppb]) was detected in the sample collected from monitoring well MW-4. Concentrations of TPH-G and BTEX were at or below the Method Detection Limits (MDL) in the samples collected from monitoring wells MW-3 and MW-5. A historical review of TPH-G and BTEX concentrations detected to date in the groundwater samples collected from the site wells is presented in Appendix C.



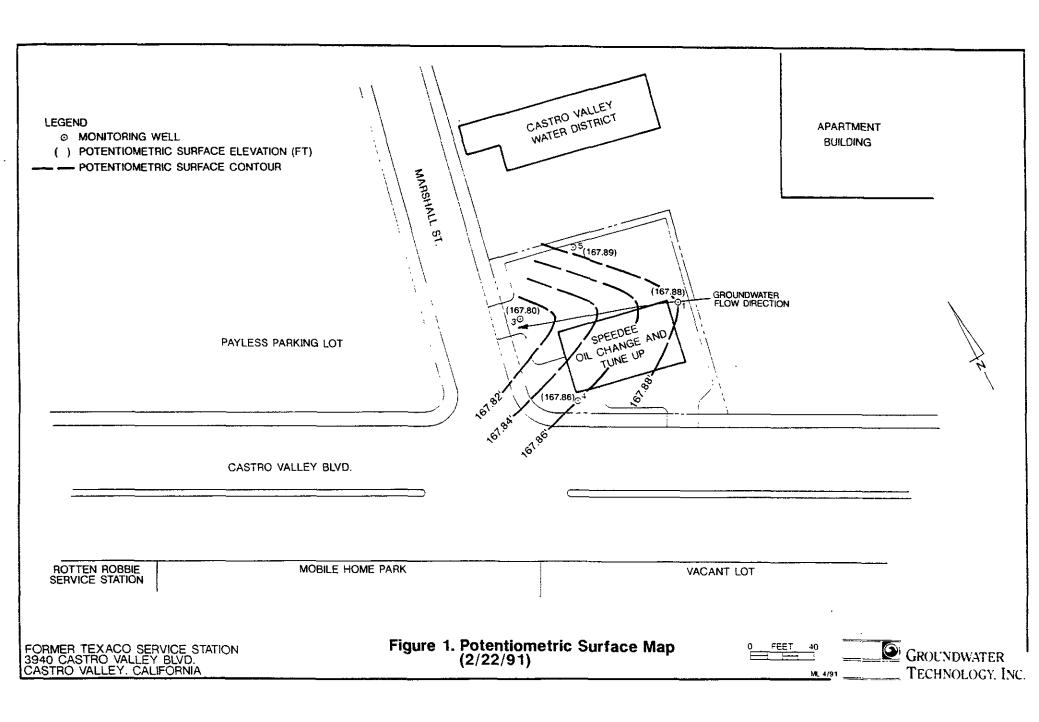


TABLE 1 - DISSOLVED GASOLINE HYDROCARBON CONCENTRATIONS

January through February 1991

DATE	CONSTITUENTS	MW-1	MW-3	MW-4	MW-5
	Benzene	0.7	<mdl< td=""><td>6</td><td><mdl< td=""></mdl<></td></mdl<>	6	<mdl< td=""></mdl<>
	Toluene	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
01/09/91	Ethylbenzene	<mdl< td=""><td><mdl< td=""><td>3_</td><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>3_</td><td><mdl< td=""></mdl<></td></mdl<>	3_	<mdl< td=""></mdl<>
01/09/91	Xylenes	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	TPH-G	33	<mdl< td=""><td>120</td><td><mdl< td=""></mdl<></td></mdl<>	120	<mdl< td=""></mdl<>
	Benzene	<mdl< td=""><td><mdl< td=""><td>11</td><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>11</td><td><mdl< td=""></mdl<></td></mdl<>	11	<mdl< td=""></mdl<>
	Toluene	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
02/22/91	Ethylbenzene	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	Xylenes	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	TPH-G	<mdl< td=""><td><mdl< td=""><td>120</td><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>120</td><td><mdl< td=""></mdl<></td></mdl<>	120	<mdl< td=""></mdl<>

Concentrations shown in parts per billion MW = Monitoring Well

MDL = Method Detection Limits
TPH-G = Total Petroleum Hydrocarbons-as-Gasoline



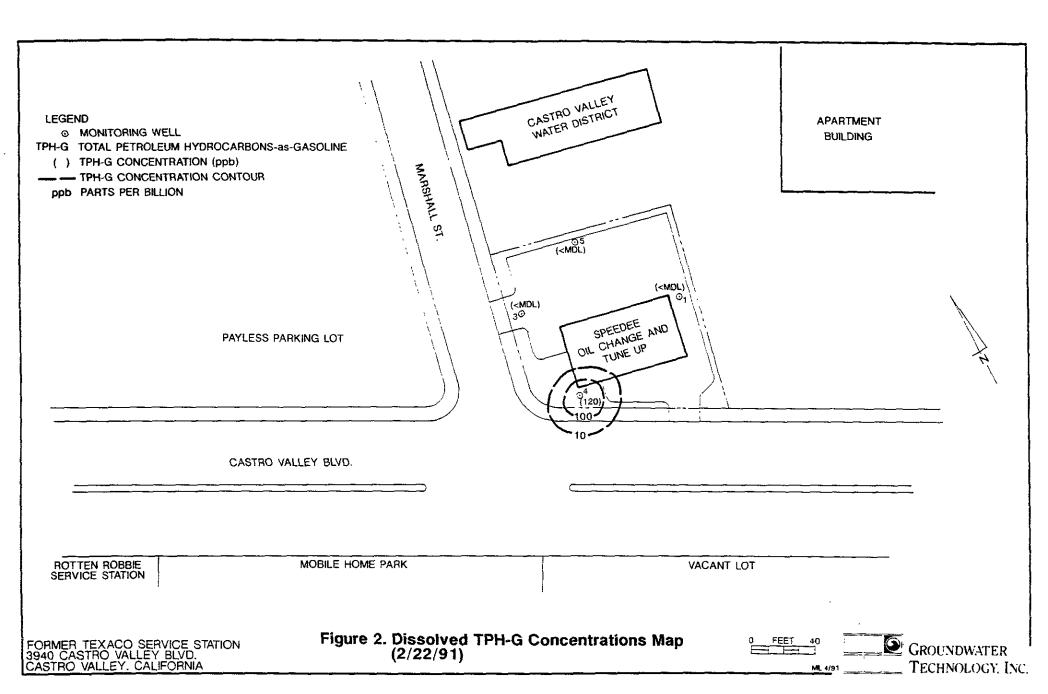
Figures 2 and 3 show the distribution of dissolved-TPH-G and dissolved-benzene concentrations detected in the groundwater samples collected on February 22, 1991. Based on Figures 2 and 3, the highest concentrations of dissolved-gasoline hydrocarbons are confined primarily to the vicinity of monitoring well MW-4.

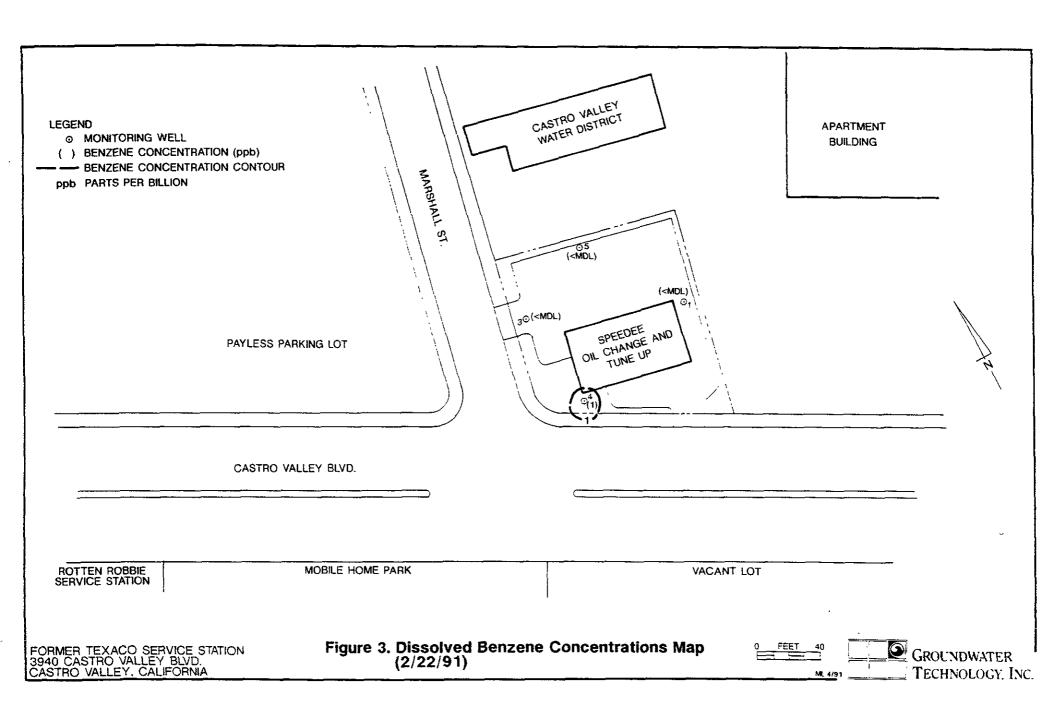
SUMMARY

Between December 11, 1990, and March 20, 1991, average groundwater elevations increased 0.58-foot in monitoring wells MW-1, MW-3, MW-4 and MW-5. A Potentiometric Surface Map constructed using monitoring data collected on February 22, 1991, indicates a hydraulic gradient of approximately 0.01 foot/foot with a flow direction to the west.

The highest concentrations of benzene (6 ppb) and TPH-as-gasoline (120 ppb) were detected in the sample collected from MW-4 on January 9, 1991. Concentrations of BTEX and TPH-G were at or below the MDL in the samples collected from monitoring wells MW-3 and MW-5 in January and February 1991.







APPENDIX A GROUNDWATER MONITORING DATA



GROUNDWATER MONITORING DATA

		MW-1	MW-2	MW-3	MW-4	MW-5	TEX-MW
	ELEV.	192.46	}	190.48	191.63	191.55	
DATE	})	Ì			
11/19/87	WTD	-	-	-	-	-	20.90
	GWE	-	-	- }	-	-	-
12/30/87	DTW	21.92	22.3	22.60			NM
	GWE	170.54	-	167.88	-	-	100
06/07/88	DTW	23.35	23.83	20.90	-		21.51
	GWE	169.11	-	169.58	-	_	-
12/13/88	DTW	23.17	23.69	20.92	- 1		NM
	GWE	169.29	-	169.56	-	-	
08/29/89	DTW	23.70	WELL	21.48	-		WELL
	GWE	168.76	ABANDONED	169.00	-	-	ABANDONED
02/27/90	DTW	23.25	-	21.58		-	***
!	GWE	169.21	-	168.90	-	***	
04/12/90	DTW	23.65	_	21.70	22.84	22.74	_
	GWE	168.81	-	168.78	168.79	168.81	-
06/11/90	WTO	23.74	-	21.79	21.82	22.83	
	GWE	168.72	-	168.69	169.81	168.72	<u>-</u>
07/18/90	DTW	23.90	_	21.96	23.09	23.01	<u> </u>
	GWE	168.56	-	168.52	168.54	168.54	
08/22/90	DTW	24.07	 	22.1	23.24	23.15	-
	GWE	168.39	-	168.38	168.39	168.40	<u>-</u>
09/27/90	DTW	24.21	_	22.24	23.38	23.29	
ı -	GWE	168.25	-	168.24	168.25	168.26	_

Data presented in feet.

MW = Monitoring Well

TEX-MW = Exsisting monitoring well

DTW = Depth to Water

GWE = Groundwater Elevation

GROUNDWATER MONITORING DATA (continued)

		MW-1	MW-3	MW-4	MW-5
	ELEV.	192.46	190.48	191.63	191.55
DATE					
10/10/90	DTW	24.25	22.28	24.43	22.33
	GWE	168.21	168.20	167.2	169.22
11/15/90	DTW	24.45	22.50	23.64	23.54
	GWE	168.01	167.98	167.99	168.01
12/11/90	DTW	22.54	24.54	23.69	23.59
	GWE	169.92	165.94	167.94	167.96
01/09/91	DTW	24.68	22.71	23.84	23.75
! 	GWE	167.78	167.77	167.79	167.8
01/23/91	DTW	24.61	22.65	23.79	23.69
•	GWE	167.85	167.83	167.84	167.86
02/22/91	DTW	24.58	22.68	23.77	23.66
	GWE	167.88	167.80	167.86	167.89
03/20/91	DTW	23.95	21.96	23.11	23.01
	GWE	168.51	168.52	168.52	168.54

Data presented in feet.

MW = Monitoring Well

DTW = Depth to Water

GWE = Groundwater Elevation

APPENDIX B





Cilent Number: 203-199-4080.
Project ID: 3940 Casto Valley Blvd.
Work Order Number: C1-01-133

Northwest Region 4080 Pike Lane Concord, CA 94520 (415) 685-7852 (800) 544-3422 from inside California

(800) 423-7143 from outside California

January 11, 1991

Pete Fuller Groundwater Technology, Inc. 4080-D Pike Lane Concord, CA 94520

Enclosed please find the analytical results report prepared by GTEL for samples received on 01/09/91, under chain of custody number 72-12258.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Emma P. Popek

Laboratory Director

mana F

Client Number: 203-199-4080.
Project ID: 3940 Casto Valley Blvd.
Work Order Number: C1-01-133

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		01	02	03	04	
Client Identification		MW5	MW3	MW4	RBW1	
Date Sampled		01/09/91	01/09/91	01/09/91	01/09/91	
Date Analyzed		01/10/91	01/10/91	01/10/91	01/10/91	
Analyte	Detection Limit, ug/L					
Benzene	0.3	< 0.3	< 0.3	6	< 0.3	
Toluene	0.3	< 0.3	< 0.3	< 0.3	< 0.3	
Ethylbenzene	0.3	< 0.3	< 0.3	3	< 0.3	
Xylene, total	0.6	< 0.6	< 0.6	< 0.6	< 0.6	
BTEX, total				9		
TPH as Gasoline	1	< 1	< 1	120	< 1	
Detection Limit Multiplier		11	1	1	1	

Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revi-



Client Number: 203-199-4080.
Project ID: 3940 Casto Valley Blvd.
Work Order Number: C1-01-133

Table 1 (Continued)

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		05			
Client Identification		MW1			
Date Sampled		01/09/91			
Date Analyzed		01/10/91			
Analyte	Detection Limit, ug/L				
Benzene	0.3	0.7			
Toluene	0.3	< 0.3			
Ethylbenzene	0.3	< 0.3			
Xylene, total	0.6	< 0.6			
BTEX, total		0.7			
TPH as Gasoline	1	33			
Detection Limit Multiplier		1			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



	GTEL 4080- Pike Lane Concord, CA 94520	800-544-3422 (In CA)	CHAIN-OF-CUSTODY RECORD 72- 12258	CUSTODY RECORD
	ENVIRONMENTAL 415-685-7852	800-423-7143 (Outside CA)	ANALYSIS REQUEST (10	1125
	I attest that the proper field sampling procedures were used during the collection	Preserved	20 C S S S S S S S S S S S S S S S S S S	Received by: Received by: Received by Laboratory: A point of the po
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Client Number: 203-199-4080. Project ID: Castro Valley Work Order Number: C1-02-479

Northwest Region

4080 Pike Lane Concord, CA 94520 (415) 685-7852 (800) 544-3422 from inside California (800) 423-7143 from outside California

February 28, 1991

Pete Fuller Groundwater Technology, Inc. 4057 Port Chicago Hwy. Concord, CA 94520

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/22/91, under chain of custody number 72-16481.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

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Emma P. Popek

Laboratory Director

Client Number: 203-199-4080.
Project ID: Castro Valley
Work Order Number: C1-02-479

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		01	02	03	04	
Client Identification		MW 5	MW 1	RB-MW3	MW 3	
Date Sampled		02/22/91	02/22/91	02/22/91	02/22/91	
Date Analyzed		02/26/91	02/26/91	02/26/91	02/26/91	
Analyte	Detection Limit, ug/L	Concentration, ug/L				
Benzene	0.3	< 0.3	< 0.3	< 0.3	< 0.3	
Toluene	0.3	< 0.3	< 0.3	<0.3	< 0.3	
Ethylbenzene	0.3	< 0.3	< 0.3	<0.3	< 0.3	
Xylene, total	0.6	<0.6	<0.6	<0.6	<0.6	
BTEX, total		•				
TPH as Gasoline	10	<10	<10	<10	<10	
Detection Limit Multiplier		1	1	1	1	

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



Client Number: 203-199-4080. Project ID: Castro Valley Work Order Number: C1-02-479

Table 1 (Continued)

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		05			
Client Identification		MW 4			
Date Sampled		02/22/91			
Date Analyzed		02/26/91			
Analyte	Detection Limit, ug/L		Concentrati	on, ug/L	
Benzene	0.3	1			
Toluene	0.3	< 0.3			
Ethylbenzene	0.3	< 0.3			
Xylene, total	0.6	<0.6	<u> </u>		
BTEX, total		1			
TPH as Gasoline	10	120			
Detection Limit Multiplier		1			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



		CHAIN-OF-	CUSTODY REC	ORD 70 40404	0417
	0-544-3422 (In CA) 0-423-7143 (Outside CA)		SIS REQUEST	12- 15481	CUSTODY RECORD
Project Manager: Phone #			ANALYSIS R	EQUEST	→
Project Manager: Pete Fuller FAX #:		BTEX 602 C 8020 with MTBE C BTEX/TPH Gas 602/8015 C 8020/8015 A TBEC TPH as C Gas C Diesel C Jet Fuel Product I.D. by GC (SIMDIS) C Total Oil & Grease: 413.1 C 413.2 C 503A C	503E 🗆		
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only) 医	HNO3 H2SO4 H2SO4 NONE OTHER TIME	BTEX 602	Total Petroleum Hydrocarbons: 418.1 EPA 601 ☐ 8010 ☐ DCA only EPA 602 ☐ 8020 ☐ PCBs only EPA 610 ☐ 8310 ☐ EPA 624 ☐ 8240 ☐ NBS +15	EPTOX: Metals © Pesticides © TCLP Metals © VOA © Semi VO EPA Priority Pollutant Metals © CAM Metals © STLC © TTLC COrrosivity © Flashpoint © R	Received by: Received by: Received by Laboratory:
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APPENDIX C



HISTORICAL REVIEW OF DISSOLVED GASOLINE HYDROCARBON CONCENTRATIONS

WELL	SAMPLE	BENZENE	TOLUENE		XYLENES	TPH-G
I.D.	DATE			BENZENE		
MW-1	12/30/87	15	12	3	190	2100
	06/07/88	12	<pql< td=""><td><pql< td=""><td>17</td><td>290</td></pql<></td></pql<>	<pql< td=""><td>17</td><td>290</td></pql<>	17	290
	12/13/88	3	<pql< td=""><td><pql< td=""><td><pql< td=""><td>370</td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td>370</td></pql<></td></pql<>	<pql< td=""><td>370</td></pql<>	370
	08/29/89	6	<pql< td=""><td><pql< td=""><td><pql< td=""><td>160</td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td>160</td></pql<></td></pql<>	<pql< td=""><td>160</td></pql<>	160
ļ	03/07/90	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""></pql<></td></pql<>	<pql< td=""></pql<>
[04/16/90	Not Sample	d			
<u> </u>	06/11/90	14	1	1	2	39
	08/22/90	0.3	<mdl< td=""><td><mdl< td=""><td> <mdl td="" <=""><td>130</td></mdl></td></mdl<></td></mdl<>	<mdl< td=""><td> <mdl td="" <=""><td>130</td></mdl></td></mdl<>	<mdl td="" <=""><td>130</td></mdl>	130
ļ	09/12/90	7	<mdl< td=""><td>2</td><td>3</td><td>92</td></mdl<>	2	3	92
į	10/10/90	2	<mdl< td=""><td>0.6</td><td>1.00</td><td>40</td></mdl<>	0.6	1.00	40
	11/15/90	0.8	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td>18</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td>18</td></mdl<></td></mdl<>	<mdl< td=""><td>18</td></mdl<>	18
Ì	12/11/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
ļ	01/09/91	0.7	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td>33</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td>33</td></mdl<></td></mdl<>	<mdl< td=""><td>33</td></mdl<>	33
	02/22/91	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>

{	08/29/89	Well abandon	ed.			
1	12/13/88	640	23	120	110	4000
1	06/07/88	220	<pql< th=""><th>32</th><th>46</th><th>1200</th></pql<>	32	46	1200
MW-2	12/30/87	220	16	3	150	2400

Concentrations shown in parts per billion.

TPH-G = Total Petroleum Hydrocarbons-as-Gasoline

MW = Monitoring Well

PQL = Practical Quantitation Levels

MDL = Method Detection Limit



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HISTORICAL REVIEW OF DISSOLVED GASOLINE HYDROCARBON CONCENTRATIONS (continued)

WELL	SAMPLE	BENZENE	TOLUENE	ETHYL-	XYLENES	TPH-G		
I.D.	DATE	_		BENZENE				
MW-3	12/30/87	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>		
[06/07/88	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""></pql<></td></pql<>	<pql< td=""></pql<>		
	12/13/88	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""></pql<></td></pql<>	<pql< td=""></pql<>		
]	08/29/89	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""></pql<></td></pql<>	<pql< td=""></pql<>		
1	03/07/90	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""></pql<></td></pql<>	<pql< td=""></pql<>		
{	04/16/90	Not Sampled						
	06/11/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>		
1	08/22/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td> <mdl td="" <=""><td><mdl< td=""></mdl<></td></mdl></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td> <mdl td="" <=""><td><mdl< td=""></mdl<></td></mdl></td></mdl<></td></mdl<>	<mdl< td=""><td> <mdl td="" <=""><td><mdl< td=""></mdl<></td></mdl></td></mdl<>	<mdl td="" <=""><td><mdl< td=""></mdl<></td></mdl>	<mdl< td=""></mdl<>		
<u> </u>	09/12/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>		
į .	10/10/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>		
	11/15/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>		
	12/11/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>		
{	01/09/91	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td> <mdl td="" <=""><td><mdl< td=""></mdl<></td></mdl></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td> <mdl td="" <=""><td><mdl< td=""></mdl<></td></mdl></td></mdl<></td></mdl<>	<mdl< td=""><td> <mdl td="" <=""><td><mdl< td=""></mdl<></td></mdl></td></mdl<>	<mdl td="" <=""><td><mdl< td=""></mdl<></td></mdl>	<mdl< td=""></mdl<>		
	02/22/91	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>		

MW-4	04/16/90	97	1	11	120	1500
	06/11/90	18	<mdl< td=""><td><mdl< td=""><td>0.7</td><td>110</td></mdl<></td></mdl<>	<mdl< td=""><td>0.7</td><td>110</td></mdl<>	0.7	110
	08/22/90	4	<mdl< td=""><td><mdl< td=""><td>1</td><td>50</td></mdl<></td></mdl<>	<mdl< td=""><td>1</td><td>50</td></mdl<>	1	50
	09/12/90	6	<mdl< td=""><td>0.5</td><td>1</td><td>49</td></mdl<>	0.5	1	49
	10/10/90	4	<mdl< td=""><td><mdl :<="" td=""><td><mdl< td=""><td>77</td></mdl<></td></mdl></td></mdl<>	<mdl :<="" td=""><td><mdl< td=""><td>77</td></mdl<></td></mdl>	<mdl< td=""><td>77</td></mdl<>	77
	11/15/90	2	<mdl td="" <=""><td>0.4</td><td><mdl< td=""><td>49</td></mdl<></td></mdl>	0.4	<mdl< td=""><td>49</td></mdl<>	49
	12/11/90	6	<mdl< td=""><td>1</td><td><mdl< td=""><td>79</td></mdl<></td></mdl<>	1	<mdl< td=""><td>79</td></mdl<>	79
	01/09/91	6	<mdl< td=""><td>3</td><td><mdl< td=""><td>120</td></mdl<></td></mdl<>	3	<mdl< td=""><td>120</td></mdl<>	120
	02/22/91	1	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td>120</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td>120</td></mdl<></td></mdl<>	<mdl< td=""><td>120</td></mdl<>	120

Concentrations shown in parts per billion.

TPH-G = Total Petroleum Hydrocarbons-as-Gasoline

MW = Monitoring Well

PQL = Practical Quantitation Levels
MDL = Method Detection Limit

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HISTORICAL REVIEW OF DISSOLVED GASOLINE HYDROCARBON CONCENTRATIONS (continued)

WELL	SAMPLE	BENZENE	TOLUENE	ETHYL-	XYLENES	TPH-G
I.D.	DATE			BENZENE		
MW-5	04/16/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	06/11/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	08/22/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	09/12/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	10/10/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	11/15/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	12/11/90	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	01/09/91	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>
	02/22/91	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""></mdl<></td></mdl<>	<mdl< td=""></mdl<>

Concentrations shown in parts per billion.

TPH-G = Total Petroleum Hydrocarbons-as-Gasoline

MW = Monitoring Well

MDL = Method Detection Limit

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