OCT 2 4 2001



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IT Corporation

1921 Ringwood Avenue San Jose, CA 95131-1721 Tel. 408.453.7300 Fax. 408.437.9526

A Member of The IT Group

October 17, 2001 Project 311-058.1A

Mr. Chuck Headlee Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, California 94612

Re: 76 Service Station 5760

Quarterly Summary Report

Third Quarter 2001

Dear Mr. Headlee:

As directed by Mr. David DeWitt of Phillips 66 Company, formerly Tosco Marketing Company, IT Corporation (IT) is forwarding the quarterly summary report for the following location:

Service Station

Location

5760

376 Lewelling Boulevard, San Lorenzo

If you have questions or comments, please do not hesitate to contact our office at (408) 453-7300.

Sincerely,

IT Corporation

Timothy L. Ripp Project Geologist

Enclosure

cc: Mr. David DeWitt, Phillips 66 Company

Ms. Amy Leech, Alameda County Environmental Health Care Services

Quarterly Summary Report Third Quarter 2001

76 Service Station 5760 376 Lewelling Boulevard San Lorenzo, California

City/County ID #: None

County: Alameda

BACKGROUND

The underground storage tanks were removed and replaced in November 1987. Currently, there are nine monitoring wells on site. Groundwater monitoring and sampling began in February 1988, and have been performed semiannually since February 1996.

Groundwater extraction and soil vapor extraction systems were installed in August and September 1995. In response to a diminishing mass removal rate, the remedial system was shut down in February 1997.

The underground product piping was replaced in June 1998.

RECENT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities were performed in September 2001.

NEXT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities performed in September 2001 will be reported in November 2001.

CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.

Dissolved groundwater delineated? Yes.

Free product delineated? Yes.

Amount of groundwater contaminant recovered to date? Approximately 115 pounds.

Soil remediation in progress? No.

Start? October 1995.

Completion date? February 1997.

Dissolved/free product remediation in progress? No.

Start? October 1995.

Completion? February 1997.

CONSULTANT: IT Corporation.



October 15, 2001 G-R #180109

NOV 0 1 2001

TO:

Mr. David B. De Witt

Tosco Marketing Company

2000 Crow Canyon Place, Suite 400

San Ramon, California 94583

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568 CC:

Mr. Tim Ripp

IT Corporation

1921 Ringwood Avenue San Jose, California 95131

RE:

Tosco (Unocal) Service Station

#5760

376 Lewelling Boulevard San Lorenzo, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1 .	October 4, 2001	Groundwater Monitoring and Sampling Report Second Semi-Annual - Event of September 4, 2001

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by *October 29*, *2001*, this report will be distributed to the following:

cc: Mr. Amir K. Gholami, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94501

Enclosure

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October 4, 2001 G-R Job #180109

Mr. David B. De Witt Tosco Marketing Company 2000 Crow Canyon Place, Suite 400 San Ramon, California 94583

RE: Second Semi-Annual Event of September 4, 2001

Groundwater Monitoring & Sampling Report

Tosco (Unocal) Service Station #5760

376 Lewelling Boulevard San Lorenzo, California

Dear Mr. De Witt:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. Dissolved Oxygen Concentrations are summarized in Table 3. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Tables 1 and 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

No. 7211

Sincerely,

- FOR Deanna L. Harding

Project Coordinator

David W. Herzog

Senior Geologist, R.G. No. 7211

Figure 1:

Potentiometric Map

Figure 2:

Concentration Map

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Table 1:

Groundwater Monitoring Data and Analytical Results

Table 2:

Groundwater Analytical Results - Oxygenate Compounds

Table 3:

Dissolved Oxygen Concentrations

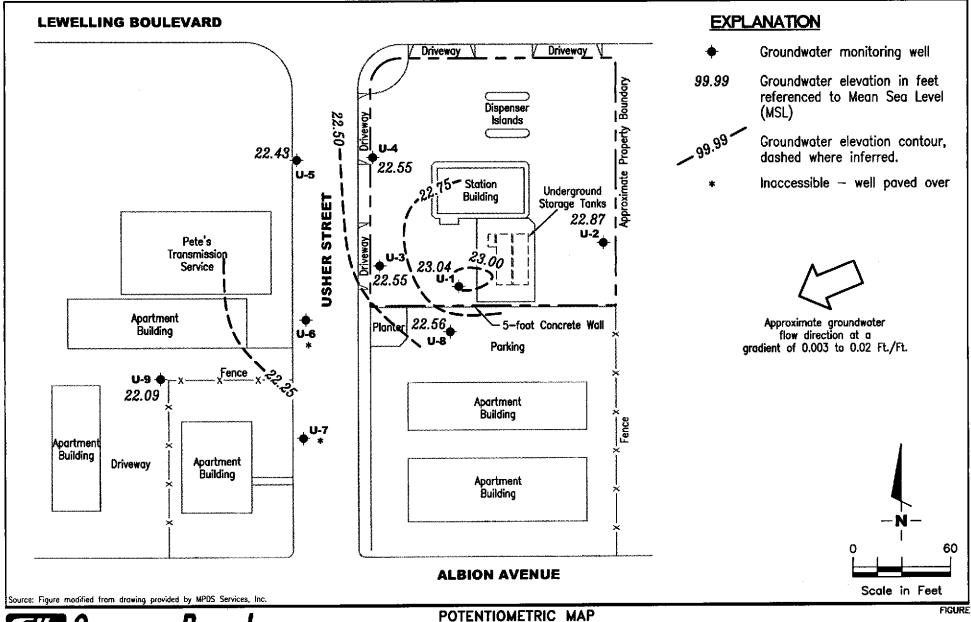
Attachments:

Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

5760.qml



DATE

6747 Sierra Ct., Suite J (925) 551-7555 Dublin, CA 94568

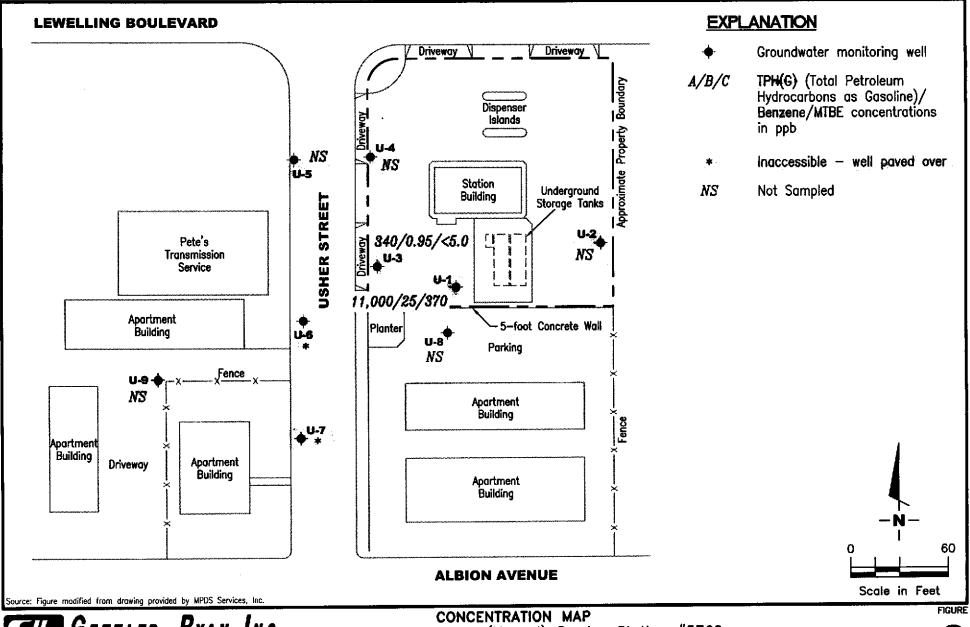
REVIEWED BY

Tosco (Unocal) Service Station #5760 376 Lewelling Boulevard San Lorenzo, California

REVISED DATE September 4, 2001

180109 FILE NAME: P:\Enviro\Tosco\5760\Q01-5760.DWG | Leyout Tab: Pot3

PROJECT NUMBER



6747 Sierra Ct., Suite J (925) 551-7555 Dublin, CA 94568

Tosco (Unocal) Service Station #5760 376 Lewelling Boulevard San Lorenzo, California

REVISED DATE

PROJECT NUMBER REVIEWED BY 180109

DATE September 4, 2001

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5760

				ONUT.	Product	TPH-G	В	T	E	x	MTBE
WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	Thickness (ft.)	(ppb)	(pph)	1 (ppb)	(ppb)	A (ppb)	(pph)
100		Ue)	(Jenga)	(msy	<u> </u>	(PP0)	VPY	VPF-	U F. Z		
U-1	02/09/88		10.5-30.5			93,000	3,600	11,000	'	20,000	
	03/20/90					36,000	2,100	5,500	1,900	9,300	
	06/05/90					46,000	2,300	5,500	2,500	11,000	
	08/24/90					27,000	1,200	1,800	1,400	5,500	
	12/05/90					NOT SAMPLE	D DUE TO THE	PRESENCE OF	FREE PRODUC	CT CT	
	03/04/91					NOT SAMPLE	D DUE TO THE	PRESENCE OF	FREE PRODU	CT	
	06/03/91					NOT SAMPLE	D DUE TO THE	PRESENCE OF	FREE PRODU	CT	
	09/19/91								FREE PRODU		
	12/04/91								FREE PRODU		
	03/05/92								FREE PRODU		
	04/07/92								ALLED IN WE		
	08/06/92								FREE PRODU		
	11/20/92					NOT SAMPLE			FREE PRODU		
	02/12/93					70,000	2,200	8,400	3,100	18,000	
40.51	06/04/93	16.72		23.79	0.00	35,000	1,300	5,700	900	9,200	••
	09/09/93	17.77		22.74	0.00	67,000	2,900	18,000	6,200	32,000	
40.20	12/02/93	18.36		21.84	< 0.01				FREE PRODU		
	03/09/94	17.20		23.00	0.00	45,000	930	4,100	2,000	11,000	
	06/09/94	17.42		22.78	0.00	59,000	5,200	1,300	5,200	15,000	
	09/07/94	18.17		22.03	0.00	41,000	1,600	6,200	3,100	16,000	
	12/05/94	16.67		23.53	0.00	1,300	55	20	16	330	
	03/09/95	15.82		24.38	0.00	49,000	860	3,200	1,900	10,000	1,500
	06/13/95	14.70		25.50	0.00	53,000	1,400	5,000	2,500	14,000	2,800
40.01**	09/12/95	16.77		23.24	0.00	43,000	910	2,700	1,700	9,600	1,400
40.20	12/14/95	INACCESSIB	LE - WELL CO	NNECTED '	TO REMEDIAT	ION SYSTEM W	HICH WAS NO	T RUNNING			
	03/20/96	INACCESSIB	LE - WELL CO	NNECTED '	TO REMEDIAT	ION SYSTEM W	HICH WAS NO	T RUNNING			
	03/22/96					13,000	200	590	640	4,000	790
	09/24/96	INACCESSIB	LE - WELL CO	NNECTED '	TO REMEDIAT	ION SYSTEM W	HICH WAS NO	T RUNNING			
	03/27/97	15.29		24.91	0.00	1,300	8.0	ND	ND	400	ND
	09/23/97	17.20		23.00	0.00	2,000	15	ND	ND ₃	530	ND
	03/10/98	12.68		27.52	0.00	$2,200^6$	19	4.8	ND ⁷	980	38

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	e r	CHUR	Product	TODAY C		.			4 A C C C C C C C C C C
WELL ID/ TOC*	DATE	DTW	S.I.	GWE	Thickness	TPH-G	В	T	E	X	MTBE
100		(ft.)	(ft.bgs)	(msl)	(ft.)	(ppb)	(pph)	(pph)	(ppb)	(ppb)	(ppb)
U -1	09/04/98	16.84	10.5-30.5	23.36	0.00	5,300 ⁸	53	ND ⁷	410	620	ND ⁷
(cont)	03/04/99	13.04		27.16	0.00	1,500	19	ND ⁷	56	110	310
	09/13/99	17.14		23.06	0.00	5,850 ⁸	32.7	ND ⁷	520	925	ND^7
	03/21/00	14.36		25.84	0.00	4,8208	17.4	7.74	297	1,370	ND^7
	09/18/00	16.72		23.48	0.00	647 ⁹	6.44	ND ⁷	22.3	6.86	22.2
	10/13/00	16.85		23.35	0.00						/29 ¹⁰
	03/16/01	15.84		24.36	0.00	4,95011	1.73	1.77	429	536	613
	09/04/01	17.16		23.04	0.00	11,0009	25	<10	1,100	1,800	370
U-2	08/23/90		15.0-30.0			ND	ND	ND	ND	ND	
	12/05/90					ND	ND	ND	ND	ND	
	03/04/91					ND	ND	0.9	ND	2.6	
	06/03/91					ND	ND	ND	ND	ND	
	09/19/91					ND	ND	ND	ND	ND	
	12/04/91					ND	ND	ND	ND	ND	
	03/05/92					ND	ND	0.36	ND	ND	
	04/07/92					ND	ND	ND	ND	ND	
	08/06/92					ND	ND	ND	ND	ND	
	11/20/92					ND	ND	ND	ND	ND	
	02/12/93					ND	ND	ND	ND	ND	
11.62	06/04/93	17.59		24.03	0.00	ND	ND	ND	ND	ND	
	09/09/93	18.68		22.94	0.00	ND	ND	ND	ND	ND	
41.26	12/02/93	19.23		22.03	0.00	ND	ND	ND	ND	ND	
	03/09/94	18.05		23.21	0.00	62	1.1	5.4	1,1	9.7	
	04/13/94	18.18		23.08	0.00	ND	ND	ND	ND	ND	
	06/09/94	18.26		23.00	0.00	ND	ND .	ND	ND	ND	
	09/07/94	19.28		21.98	0.00	ND	ND	0.63	ND	0.61	
	12/05/94	18.82		22.44	0.00	ND	ND	ND	ND	ND	
	03/09/95	16.96		24.30	0.00	ND	ND	ND	ND	ND	ND
	06/13/95	16.71		24.55	0.00	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results

					Product						
WELL ID/	DATE	DTW	S.I.	GWE	Thickness	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(ft.bgs)	(msl)	(ft.)	(ррв)	(ppb)	(ppb)	(ppb)	(pph)	(pph)
U-2	09/12/95	17.80	15.0-30.0	23.46	0.00	ND	ND	ND	ND	ND	ND
(cont)	12/14/95	18.18		23.08	0.00	ND	ND	ND	ND	ND	ND
	03/20/96	15.02		26.24	0.00						
	09/24/96	17.90		23.36	0.00						
	03/27/97	16.45		24.81	0.00	ND	ND	ND	ND	ND	ND
	09/23/97	18.40		22.86	0.00	-+					
	03/10/98	13.79		27,47	0.00	ND	ND	ND	ND	ND	ND
	09/04/98	17.98		23.28	0.00						
	03/04/99	14.96		26.30	0.00	ND	ND	ND	ND	ND	ND
	09/13/99	18.25		23.01	0.00		••				
	03/21/00	15.54		25.72	0.00	ND	ND	ND	ND	ND	ND
	09/18/00	17.55		23.71	0.00						
	03/16/01	17.06		24.20	0.00						
	09/04/01	18.39		22.87	0,00		••	••			
							4.400	13.000	2 000	17,000	
U-3	08/23/90		15.0-25.0			110,000	4,400	13,000	2,800	9,800	
	12/05/90					69,000	1,900	3,500	1,600	9,800 7,500	
	01/18/91					51,000	1,700	3,100	1,500 2,900	17,000	
	03/04/91					84,000	1,400	000,01	4,600	24,000	
	06/03/91					130,000	5,800	19,000	2,800	15,000	
	09/19/91			'		61,000	3,300	9,700	1,900	11,000	
	12/04/91					75,000	2,500	6,100 15,000	5,400	26,000	
	03/05/92					160,000	5,300			28,000	
	04/07/92					97,000	6,100	16,000 13,000	5,400 5,000	23,000	
	08/06/92					140,000	5,100	4,700	1,900	10,000	
	11/20/92					50,000	3,200	9,400	3,700	18,000	
	02/12/93					80,000	3,700	9,400 8,700	4,300	20,000	
19.64	06/04/93	15.48		24.16	0.00	92,000	2,900		6,500	31,000	
	09/09/93	17.04		22.60	0.00	110,000	2,800	10,000		26,000	
39.26	12/02/93	17.55		21.71	0.00	110,000	3,200	7,700	5,600	20,000	

Table 1
Groundwater Monitoring Data and Analytical Results

				(Ag tudisinton moner moner)			Joseph R. Franco - Etter - Prince	egandadkenska Tomboo	1, 10, 21		
WELL ID/	DATE	DTW	S.I.	GWE	Product Thickness	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(ft.hgs)	(msl)	(fi.)	(pph)	(pph)	(ppb)	(pph)	(ppb)	(pph)
		-									1000
U-3	03/09/94	16.35	15.0-25.0	22.91	0.00	120,000	4,500	8,300	5,600	28,000	
(cont)	06/09/94	16.60		22.66	0.00	120,0004	3,300	6,100	5,200	26,000	
	09/07/94	17.61		21.65	0.00	100,000	2,400	4,900	4,200	21,000	
	12/05/94	17.08		22.18	0.00	140,000	3,100	5,100	4,900	21,000	
	03/09/95	15.20		24.06	0.00	100,000	2,300	3,300	4,800	21,000	54,000
	06/13/95	15.11		24.15	0.00	64,000	1,700	1,500	3,800	18,000	900
9.26**	09/12/95	16.11		23.15	0.00	69,000	1,700	820	4,000	19,000	29,000
	12/14/95	INACCESSIB	LE - WELL CO	NNECTED T	O REMEDIATIO	N SYSTEM WE	IICH WAS NOT				
	03/20/96				O REMEDIATIO						
	03/22/96	~~				15,000	150	490	480	3,100	400
	09/24/96	INACCESSIB	LE - WELL CO	NNECTED T	O REMEDIATIO	N SYSTEM WE	IICH WAS NOT	RUNNING			
	03/27/97	14.77		24.49	0.00	110	ND	ND	ND	0.62	9.6
	09/23/97	16.74		22.52	0.00	ND	ND	NĐ	ND	ND	ND
	03/10/98	12,18		27.08	0.00	ND	ND	ND	ND	3.1	ND
	09/04/98	16.46		22.80	0.00	ND	ND	ND	1.2	2.3	ND
	03/04/99	13.48		25.78	0.00	ND	ND	ND	ND	ND	ND
	09/13/99	16.71		22.55	0.00	ND	ND	1.77	ND	1.06	9.08
	03/21/00	13.87		25.39	0.00	18,700 ⁸	ND ⁷	ND^7	1,290	4,770	ND^7
	09/18/00	16.12		23.14	0.00	ND	ND	ND	ND	ND	ND
	03/16/01	15.35		23.91	0.00	2,310 ¹²	ND	ND	184	618	ND
	09/04/01	16.71		22.55	0.00	340°	0.95	< 0.50	8.1	18	<5.0
						·					
J -4	08/23/90		15.0-28.0			ND	ND	1.0	ND	1.8	
	12/05/90					ND	ND	ND	ND	ND	
	01/18/91					ND	ND	ND	ND	ND	
	03/04/91					ND	ND	ND	ND	ND	
	06/03/91					ND	ND	ND	ND	ND	
	09/19/91					ND	ND	ND	ND	ND	
	12/04/91					ND	ND	ND	ND	ND	
	03/05/92					ND	ND	ND	ND	ND	

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5760

WELL ID/	DATE	DTW	S.I.	GWE	Product Thickness	TPH-G	В	Т	E	X	MTBE
FOC*		(ft.)	(fLbgs)	(msl)	(ft.)	(pph)	(ppb)	(pph)	(pph)	(pph)	(pph)
U-4	04/07/92		15.0-28.0			ND	ND	ND	ND	ND	
(cont)	08/06/92					ND	ND	ND	ND	ND	
	11/20/92					ND	ND	2.5	NĐ	ND	
	02/12/93					ND	ND	ND	ND	ND	
40.53	06/04/93	16.73		23.80	0.00	ND	ND	ND	ND	ND	
	09/09/93	16.89		23.64	0.00	ND	ND	ND	ND	ND	
40,25	12/02/93	18.46		21,79	0.00	ND	ND	ND	ND	2.6	
	03/09/94	17.30		22.95	0.00	ND	1.4	4.7	1.1	1.8	
	04/13/94	17.44		22.81	0.00	ND	ND	ND	ND	ND	
	06/09/94	17.53		22.72	0.00	ND	ND	ND	ND	ND	
10.28	09/07/94	18.52		21.76	0.00	ND	ND	1.1	ND	0.1	
	12/05/94	18.08		22.20	0.00	ND	ND	ND	ND	ND	
	03/09/95	16.16		24.12	0.00	ND	ND	ND	ND	ND	ND
10.25	06/13/95	15.95		24.30	0.00	ND	ND	ND	ND	ND	2.7
	09/12/95	17.10		23.15	0.00	ND	ND	ND	ND	ND	ND
	12/14/95	17.43		22.82	0.00	ND	ND	ND	ND	ND	1.3
	03/20/96	14.93		25.32	0.00						
	09/24/96	17.19		23.06	0.00						
	03/27/97	15.66		24.59	0.00	ND	ND	ND	ND	ND	ND
	09/23/97	17.69		22.56	0.00						
	03/10/98	12.99		27.26	0.00	ND	ND	ND	ND	ND	ND
	09/04/98	17.28		22.97	0.00						
	03/04/99	14.17		26.08	0.00	ND	ND	ND	ND	ND	ND
	09/13/99	17.55		22.70	0.00						
	03/21/00	14.74		25.51	0.00	ND	ND	ND	ND	ND	ND
	09/18/00	16.88		23.37	0.00						
	03/16/01	16.32		23.93	0.00					-+	
	09/04/01	17.70		22.55	0.00						

Table 1
Groundwater Monitoring Data and Analytical Results

					O 201	•					
WELL ID/	DATE	DTW			Product						
TOC*	DATE	(ft.)	S.I.	GWE	Thickness	TPH-G	В	T	E	X	MTBE
		(J.5)	(ft.bgs)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(pph)	(ppb)	(pph)
U-5	04/07/92		15.0-30.0			ND	ND	ND	ND	ND	
	08/06/92		1010 0010			ND	ND	ND	ND ND	ND	
	11/20/92					ND	ND	ND ND	ND ND	ND ND	
	02/12/93					ND	ND	ND	ND ND	ND ND	
39.61	06/04/93	16.05		23.56	0.00	ND	ND	ND	ND ND	ND ND	
	09/09/93	16.90		22.71	0.00	ND	ND	ND	ND ND	ND ND	••
39.31	12/02/93	17.66		21.65	0.00	ND	ND	ND	ND	ND	
	03/09/94	16.45		22.86	0.00	71	1.7	6.3	1.5	10	
	04/13/94	16.64		22.67	0.00	ND	ND	ND	ND	ND	
	06/09/94	16.70		22.61	0.00	ND	ND	ND	ND	ND	
	09/07/94	17.73		21.58	0.00	ND	ND	0.73	ND	0.84	
	12/05/94	17.23		22.08	0.00	ND	ND	ND	ND	NĐ	
	03/09/95	15.35		23.96	0.00	ND	ND	ND	ND	ND	ND
	06/13/95	15.16		24.15	0.00	ND	ND	ND	ND	ND	0.87
	09/12/95	16.30		23.01	0.00	ND	ND	ND	ND	ND	ND
	12/14/95	16.56		22.75	0.00	ND	ND	ND	ND	ND	ND
	03/20/96	14.07		25.24	0.00						
	09/24/96	16.55		22.76	0.00						
	03/27/97	14.85		24.46	0.00	ND	ND	ND	ND	ND	ND
	09/23/97	16.90		22.41	0.00	SAMPLED ANN	UALLY				
	03/10/98	12.21		27.10	0.00	ND	ND	ND	ND	ND	ND
	09/04/98	16.57		22.74	0.00	*-					
	03/04/99	13.42		25.89	0.00	ND	ND	0.67	ND	ND	ND
	09/13/99	17.02		22.29	0.00						
	03/21/00	13.93		25.38	0.00	ND	ND	ND	ND	ND	ND
	09/18/00	16.17		23.14	0.00						
	03/16/01	15.51		23.80	0.00	ND	ND	ND	ND	ND	ND
	09/04/01	16.88		22.43	0.00						

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	Product Thickness (ft.)	TPH-G (pph)	B (ppb)	T (pph)	Ë (ppb)	X (pph)	MTBE (pph)
U-6	04/07/92		13.0-28.0			6,600	90	ND	820	1,200	
	08/06/92					9,200	160	ND	360	150	
	11/20/92	INACCESSIB	LE								
•	02/12/93				**	2,600	27	ND	120	51	
37.94	06/04/93	14.45		23.49	0.00	13,000	100	38	450	320	
	09/09/93	15.56		22.38	0.00	6,300 ³	29	ND	120	34	
37.68	12/02/93	16.08		21.60	0.00	2,100	12	1.6	21	-1.1	
,	03/09/94	14.90		22.78	0.00	2,200	11	8.2	24	16	
	06/09/94	15.18		22.50	0.00	2,600 ⁴	16	ND	29	ND	
•	09/07/94	16.20		21.48	0.00	16,004	ND	ND	ND	ND	
	12/05/94	15.60		22.08	0.00	450 ⁵	ND	ND	ND	ND	
	03/09/95	13.74		23.94	0.00	2,500	29	ND	70	120	320
	06/13/95	13.73		23.95	0.00	1,300	ND	ND	20	46	5,400
	09/12/95	14.85		22.83	0.00	ND	ND	ND	ND	ND	6.600
	12/14/95	14.89		22.79	0.00	760	ND	ND	7.0	8.4	1,100
	03/20/96	12.41		25.27	0.00	52	1.1	0.98	ND	0.75	1,200
	09/24/96	15.06		22.62	. 0.00	ND	ND	ND	ND	ND	750
	03/27/97	13.48		24.20	0.00	ND	ND	ND	ND	ND	150
	09/23/97	15.36		22.32	0.00	66	0.81	ND	ND	ND	150
	03/10/98	10.90		26.78	0.00	ND	ND	ND	ND	ND	18
	09/04/98	14.85		22.83	0.00	ND	ND	ND	ND	ND	ND
	03/04/99	12.10		25.58	0.00	ND	ND	ND	ND	ND	6.5
	09/13/99	INACCESSIB	LE - PAVED O	VER							
	03/21/00	INACCESSIB	LE - PAVED O	VER		•-					
	09/18/00	INACCESSIB	LE - PAVED O	VER							
	03/16/01	INACCESSIB	LE - PAVED O	VER							
	09/04/01	INACCESSII	BLE - PAVED (OVER							

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5760

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (fl.bgs)	GWE (msl)	Product Thickness (ft.)	TPH-G (pph)	B (pph)	T (ppb)	E (ppb)	X (pph)	MTBE (ppb)
U-7	04/07/92		15.0-35.0			, ND	ND	ND	ND	ND	
· .	08/06/92		1.12(7-2)212(7			ND	ND	ND	ND	ND ND	
	11/20/92					ND	ND	ND	ND	ND	
	02/12/93			 	 	ND	ND	ND	ND	ND	
37.49	06/04/93	14.17		23.32	0.00	ND	ND	ND	ND	ND	
	09/09/93	15.23		22.26	0.00	ND	ND	ND	ND	ND	<u></u> .
37.11	12/02/93	15.61		21.50	0.00	ND	ND	ND	ND	ND	
	03/09/94	14.45		22.66	0.00	ND	1.4	4.4	0.96	7.5	
	04/13/94	14.63		22.48	0.00	ND	ND	ND	ND	ND	
	06/09/94	14.70		22.41	0.00	ND	ND	ND	ND	ND	
	09/07/94	15.72		21.39	0.00	ND	ND	ND	ND	ND	
	12/05/94	15.10		22.01	0.00	ND	ND	ND	ND	ND	
	03/09/95	13.16		23.75	0.00	ND	ND	ND	ND.	ND	ND
	06/13/95	13.33		23.78	0.00	ND	ND	ND	ND.	ND	3.5
	09/12/95	14.40		22.71	0.00	ND	ND	ND	ND	ND	ND
	12/14/95	14.39		22.72	0.00	ND	ND	ND	ND	ND	1.4
	03/20/96	11.96		25.15	0.00				**		
	09/24/96	14.59		22.52	0.00						
	03/27/97	13.08		24.03	0.00	ND	ND	ND	ND	ND	ND
	09/23/97	14.90		22.21	0.00						
	03/10/98	10.46		26.65	0.00	ND	ND	ND	ND	ND	ND
	09/04/98	14.42		22.69	0.00						
	03/04/99	11.64		25.47	0.00	ND	ND	ND	ND	ND	6.6
	09/13/99		LE - PAVED O								
	03/21/00	INACCESSIBI									
	09/18/00	INACCESSIBI								*	
	03/16/01	INACCESSIBI									
	09/04/01	INACCESSIB									

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	Product Thickness	TPH-G	В	Т	E	X	МТВЕ
TOC*		(ft.)	(ft.bgs)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(pph)	(ppb)
U-8	04/07/92		15.0-30.0			ND	ND	ND	ND	ND	
	08/06/92					ND	ND	ND	ND	ND	
	02/12/93	**				ND	ND	ND	ND	ND	
38.94	06/04/93	15.26		23.68	0.00	ND	ND	ND	ND	ND	
	09/09/93	16.38		22.56	0.00	ND	ND	ND	ND	ND	
38.57	12/02/93	16.80		21.77	0.00	ND	ND	ND	ND	ND	
	03/09/94	15.62		22.95	0.00	ND	1.2	3.7	0.79	6.1	
	04/13/94	15.80		22.77	0.00	ND	ND	0.78	ND	0.98	
	06/09/94	15.86		22.71	0.00	ND	ND	ND	ND	ND	
	09/07/94	16.87		21.70	0.00	ND	ND	ND	ND	ND	
	12/05/94	16.32		22.25	0.00	ND	ND	ND	ND	ND	
	03/09/95	14.56		24.01	0.00	ND	ND	ND	ND	ND	ND
	06/13/95	14.40		24.17	0.00	ND	ND	ND	ND	ND	ND
	09/12/95	15.50		23.07	0.00	ND	ND	ND	ND	ND	ND
	12/14/95	15.67		22.90	0.00	ND	ND	ND	ND	ND	ND
	03/20/96	13.25		25.32	0.00						
	09/24/96	15.75		22.82	0.00						
	03/27/97	14.18		24.39	0.00	ND	ND	ND	ND	ND	ND
	09/23/97	16.05		22.52	0.00	SAMPLED ANN	NUALLY				
	03/10/98	11.63		26.94	0.00	ND	ND	ND	ND	ND	ND
	09/04/98	15.81		22.76	0.00						
	03/04/99	12.81		25.76	0.00	ND	ND	ND	ND	ND	ND
	09/13/99	16.37		22.20	0.00				••		
	03/21/00	13.25		25.32	0.00	ND	ND	ND	ND	ND	ND
	09/18/00	15.31		23.26	0.00						
	03/16/01	14.71		23.86	0.00	ND	ND	ND	ND	ND	ND
	09/04/01	16.01		22.56	0.00						

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	Dire	B. (1941)			Product						
TOC*	DATE	DTW	S.I.	GWE	Thickness	TPH-G	В	Т	E	X	MTBE
		(ft.)	(fl.bgs)	(msl)	(ft.)	(pph)	(pph)	(pph)	(pph)	(pph)	(ppb)
U-9											
37.88	06/04/93	14.67	13.0-28.0	23.21	0.00	$2,100^2$	ND	ND	ND	· ND	
	09/09/93	15.79		22.09	0.00	$1,200^2$	ND	ND	ND	ND	
37.31	12/02/93	15.93		21.38	0.00	ND	ND	ND	ND	ND	
	03/09/94	14.74		22.57	0.00	5,700 ⁴	ND	ND	ND	ND	
	04/13/94	14.96		22.35	0.00	ND	ND	ND	ND	ND	
	06/09/94	15.05		22.26	0.00	$2,900^{5}$	ND	ND	ND	ND	
	09/07/94	16.06		21.25	0.00	2,700 ⁵	ND	NĐ	ND	ND	
	12/05/94	15.43		21.88	0.00	3,700 ⁵	ND	ND	ND	ND	
	03/09/95	13.50		23.81	0.00	$2,500^5$	ND	ND	ND	ND	5,800
	06/13/95	13.63		23.68	0.00	ND	ND	ND	ND	ND	1,200
	09/12/95	14.73		22.58	0.00	ND	ND	ND	ND	ND	1,600
	12/14/95	14.67		22.64	0.00	ND	ND	ND	ND	ND	4,400
	03/20/96	12.27		25.04	0.00	ND	ND	ND	ND	ND	480
	09/24/96	14.92		22.39	0.00	ND	ND	ND	ND	ND	ND
	03/27/97	13.36		23.95	0.00	ND	ND	ND	ND	ND	42
	09/23/97	15.28		22.03	0.00	ND	ND	ND	ND	ND	ND
	03/10/98	10.86		26.45	0.00	ND	ND	ND	ND	3.1	ND
	09/04/98	15.03		22.28	0.00	ND	ND	ND	ND	ND	ND
	03/04/99	11.95		25.36	0.00	ND	ND	ND	ND	ND	ND
	09/13/99	15.61		21.70	0.00	ND	ND	1.67	ND	1.01	7.85
	03/21/00	12.38		24.93	0.00	ND	ND	ND	ND	ND	ND
	09/18/00	14.87		22.44	0.00	ND	ND	1.42	ND	1.06	ND
	03/16/01	13.85		23.46	0.00	ND	ND	ND	ND	ND	ND
	09/04/01	15.22		22.09	0.00	SAMPLED AN	NUALLY				

Table 1 Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.L	GWE	Product Thickness	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(ft.hgs)	(msl)	(ft.)	(ppb)	(pph)	(pph)	(pph)	(pph)	(pph)
Trip Blank											
TB-LB	03/10/98					ND	ND	ND	ND	ND	ND
	09/04/98					ND	ND	ND	ND	ND	ND
	03/04/99					ND	ND	ND	ND	ND	ND
	09/13/99					ND	ND	ND	ND	ND	ND
	03/21/00					ND	NĐ	ND	ND	ND	ND
	09/18/00					ND	ND	ND	ND	ND	ND
	10/13/00					ND	ND	ND	ND	ND	ND
	03/16/01					ND	ND	ND	ND	ND	ND
	09/04/01	**			••	<50	< 0.50	< 0.50	<0.50	< 0.50	<5.0

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5760 376 Lewelling Boulevard San Lorenzo, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 10, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing

TPH-G = Total Petroleum Hydrocarbons as Gasoline

ND = Not Detected

DTW = Depth to Water

B = Benzene

-- = Not Measured/Not Analyzed

(ft.) = Feet

T = Toluene

S.I. = Screen Interval

E = Ethylbenzene

(ft.bgs) = Feet Below Ground Surface

X = Xylenes

GWE = Groundwater Elevation

MTBE = Methyl tertiary butyl ether

(msl) = Mean sea level

(ppb) = Parts per billion

- ** The PVC well casing was shortened in September 1995.
- Ethylbenzene and Xylenes were combined prior to March 1990.
- The concentration reported as gasoline is primarily due to the presence of a discrete hydrocarbon peak not indicative of standard gasoline.
- The concentration reported as gasoline is primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.
- Laboratory report indicates the hydrocarbons detected appeared to be gasoline and non-gasoline mixture.
- Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- Laboratory report indicates gasoline and unidentified hydrocarbons >C8.
- Detection limit raised. Refer to analytical reports.
- 8 Laboratory report indicates gasoline C6-C12.
- 9 Laboratory report indicates weathered gasoline C6-C12.
- MTBE by EPA Method 8260.
- Laboratory report indicates gas range and late peaks.
- Laboratory report indicates gas pattern.

^{*} TOC elevations have been surveyed relative to msl. Prior to December 2, 1993, the DTW measurements were taken from the top of well covers.

Table 2

Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #5760 376 Lewelling Boulevard San Lorenzo, California

WELLID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (pph)	TAME (ppb)	1,2-DCA (pph)	EDB (pph)
U-1	10/13/00	ND	ND	29	ND	ND	ND	ND	ND

EXPLANATIONS:

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = Ethylene dibromide

(ppb) = Parts per billion

ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Table 3 Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #5760 376 Lewelling Boulevard San Lorenzo, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
U-1	03/27/97	2.41	2.35
U-2	03/27/97	4.36	4.49
U-3	03/27/97	3.18	3.32
U-4	03/27/97	3.32	3.26
U-5	03/27/97	3.74	3.77
U-6	03/20/96 09/20/96	3.85 3.73	3.89 3.81
	03/27/97 09/23/97 03/10/98	4.43 	4.36 4.14 3.95
U-7	03/27/97	3.29	3.38
U-8	03/27/97	3.04	3.11
U-9	03/20/96 09/20/96	4.02 3.85	4.00 3.98
	03/27/97 09/23/97	3.65	3.57 3.80
	03/10/98		3.62

EXPLANATIONS:

Dissolved oxygen concentrations prior to March 10, 1998, were compiled from reports prepared by MPDS Services, Inc.

(mg/L) = Milligrams per liter

-- = Not Measured

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

		LIELD DA	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
lient/ acility #	sco# 5760		Job#:	180109 914/01	<u> </u>	<u> </u>
ddross. 376	Lewelling	Biva.	Date:	914/0		
50	n Lorenzo,	Ca.	Sampler	Varther		
ity:						
Well ID	<u>u-1</u>	Well Condi	tion: _O			
Vell Diameter	3_ <u>in</u> _	Hydrocarbo Thickness:		in. (product/weter	1:	<u>Igal.)</u>
Total Depth	23.17 m	Volume Factor (VF)	2" = 0.17	3° = 0.38 6° = 1.50	4" = 1 12" = 5.80	0.66
Depth to Water	17.16 4					· _
	6.01 xv	1038 -2.2	X 3 (case vol	ume} = Estimated Pur(ge Volume:	
Purge	Disposable Bailer Bailer	•	Sampli ng Equipme nt:	Disposable Bail	er	•
Equipment:	Stack	•		Bailer Pressure Bailer	•	
	Suction Grundfos	•	0	Grab Sample ther:		
	Other:	<u> </u>			*********************************	-
-	1645		ther Conditions	: <u>clear</u>	,	17
Starting Time: Sampling Time:	1705	_	er Color:	char	Odor: 7/ 2~	Ja >
Purging Flow Ra	te:		ment Descripti		•	
Did well de-wat	er?	If ye	s; Time:	VOIGIII		
Time	Volume pH (gal.)	Conductiv	a 🗲	(m g/L)	ORP (mV)	Alkalinity (ppm)
1647	z <u>7.44</u>	83	71.9]		·
1649	4.5 7.32	- 376	<u> </u>	§ .——		
1652 -	7 <u>7.30</u>	2	<u> </u>			
				•		
		LABORATO	RY INFORMA	TION	ANAL'	vere
SAMPLE ID	(#) - CONTAINER	REFRIG. PF	ESERV. TYPE	SEQUOLA	TPHGIBTER	
U-1	3 x VDA VIAL	7	HLL	32400	11 49 015	
						
					_1	
		<u> </u>				
COMMENTS:						

acility #	sco# 5760	8103	Job# Date	a le	1009 101		
Address: <u>376</u>	Lewelling	<u>ls (VOI).</u>	 	·	artker		
City: <u>Sa</u>	n Lorenzo	, Ca.	Sam	pler:	WC/ K-		
Well ID	<u>u-2</u>	Well C	Condition: _	ok		 -	
Well Diameter			carbon		Amount Bai		(Jeo)
Total Depth	29.89 n	Thick	ileodi	 0.17	3" = 0.38		- 0.66
	18.39		or (VF)	6" = 14	50 ·	12" = 5.80	
Depth to Water		L					•
	x	VF	X 3 (cas	e volume) =	Estimated Pu	rge Volume:	(gal_)
Purge	Disposable Bailer	•	Samplin g	Dis	posable Ba	iler	•
Equipment:	Bailer Stack		Equipmer	Bai	ler		
	Suction				ssure Baile ab Sample	ır.	
	Grundfos Other:					-	
	Other:	 					
Starting Time:	·		Weather Condit				
Sampling Time:	-·		Water Color:			Odor:	
- ·	te:o	an. /	Sediment Desc	ription:			(cal.)
Did well de-wate	or7	/	If yes; Time:		Volum	1e:	
Time	Volume pH (gal.)		uctivity Ten	mperature	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					<u> </u>		
					·/	<u> </u>	·
		/		/-			
		Z					
			4 T O DV 11/5 O DI	MATION			
SAMPLE ID	(#) - CONTAINER	LABOR REFRIG.	ATORY INFOR	LAB	DRATORY	ANA	YSES
SAMILLIO	× VDA VIAL	4	Het		UOIA	TPHG BTE	K MTOE
							
						+	
	<u> </u>	<u> </u>				<u> </u>	
COMMENTS:	Monitor on	ly					
		/					

ient/				•			
Citicy "	co# 5760	. <u>.</u>	_ Job#:	<u>180</u>	109		
ddress: <u>376</u>	Lewelling	BIVA.	_ Date:	<u> </u>	146.		
ty: San	Lorenzo	<u>, Ca.</u>	Sampl	er: <u>Va</u>	CI KST		·
Well ID	<u>u_3</u>	Well Co	ndition: —	ok_		· · · · · · · · · · · · · · · · · · ·	
/ell Diameter		Hydroc Thickn			nount Baile roduct/weter)	<u> </u>	
otal Depth	24.81 4	Volum Factor	_	17 6" = 1.50	3" = 0.38 1	2" = 5.80	0.66
epth to Water	16.71 4	<u> </u>				9	·5
Fur gé	8.10 x Disposable Bailer		Sampling Equipment		osable Baile		((gml.)
Equipment:	Bailer Stack Suction Grundfos		Liguipinoni	Baile Pres	or Sure Bailer o Sample		
Starting Time: Sampling Time: Purging Flow Rate			Veather Condition Vater Color: — Sediment Descri	iption:	<u>·</u>	Odor:	
T Diffe	olume pH	Condu µmhs	sctivity Tem os/em	perature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1613	3 7.5			1.4 1.3 _		· · ·	
1616 -	G 9.5 7.4			0.0		<u> </u>	
		LABOR REFRIG.	ATORY INFORM	VIÁTION (* LABO	CRATORY		LYS ES
	(#) - CONTAINER	T	Her	SEC	UOIA	TPHG BTE	K /MTOE
SAMPLE ID	3 x Una VIAL			1			
SAMPLE ID U-3	3 x VDA VIAL						
	3 x VDA VIAL				·		
	3 x VDA VIAL				·		

lient/	sco# 5760		Job#:	190109		
Adress: 376	n Lorenza	Blvd.	Date: Sampler	9/4/01 Vartker		
Well ID	<u>u-4</u>	Well Condition	on:	K		
Well Diameter	3in.	Hydrocarbon Thickness: _		Amount Baile		<u>(pal.)</u>
Total Depth	27.86 n	Volume Factor (VF)	2" = 0.17	3" = 0.38 6" = 1.50	4" = 12" = 5,80	0.66
Depth to Water	x v		Y 3 (case vol	ume) = Estimated Purg	e Volume:	. <u>(gal.)</u>
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	s	Sampli ng Equipment:	Disposable Bailer Bailer Pressure Bailer Grab Sample ther:	er	
Starting Time:			er Conditions	:	Odor:	
Sampling Time:			ent Descripti			
Purging Flow Ra	ate:op	m. Seami	Time:	Volum	e:	(<u>Jeel.)</u>
Did well de-wat	ter?	_ if yes;				
Time	Volume pH (gal.)	Conductivity µmhos/cm	Temper	pture D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
	=					
		LABORATOR	Y INFORMA		ANAL	YSE S
SAMPLE ID	(#) - CONTAINER		ERV. TYPE	SEQUELA	TPHG BTE	
	-X-VOA VIAL		26			
<u> </u>						
						<u></u>
		<u> </u>	-			
COMMENTS:	Monitor da	4	<u> </u>			
		<u>/</u>				
						B/07-G-lies

. 27/	Lewelling Lorenzo,	BIVA.	_ Date _ Sam	: <u>914)</u> pler: <u>Va</u>	rtker		
ty:	Lorgiss						
Well ID	u-5	Well Co	ondition: -	ok		4	
ell Diameter		Hydroc Thickn			nount Bailed	<u> 4</u>	(Jed.)
tal Depth	28.47	Volum	-	0.17 6" = 1.50	3" = 0.38	2" = 5.80	0.66
epth to Water	16.88 +	<u> </u>	· . ·			Makaman	
	x v	F =		se voluma) = E	stimated Purge	, voidine:	
Purge quipment:	Disposable Bailer Bailer		Samplin: Equipme		osable Bail e er	r	•
doibitieris:	Stack			Pres	sure Bailer		
	Suction			_	b Sample		
	Grundfos Other:	- .		Other:			
Time!		\	Weather Cond	itions:		0-1	
Starting Time:			Water Color:			Odor:	
Sampling Time:	ie:o		Sediment Des		<u></u>		tost
			If yes; Time:		Volume	"	
Did well de-wate			•		D.O.	ORP	Alkalinit
Time	Volume pH (gal.)	Cond µmh	uctivity T	F.	(mg/L)	(mV)	(bbm)
			<u> </u>	/			
/-							
	-						
			2	·			
		LABOF	ATORY INFO	RMATION		A 21 A	LYS ES
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. T	PE: LAB	ORATORY	TPHG BTE	
3,,,,,	X VOA VIAL	Ψ	HCC	SEG	UDIA	TPHGIBTE	K I'M IOE
			<u></u>				
							
-		1	<u> </u>	L			
	Monitoron	1					

ity: <u>- స</u> ం	LOT G			- 			rtker	<u> </u>	
Well ID	<u>u-6</u>	<u>-</u>	Well (Condition:			1 ove		
Vell Diameter	<u>-</u>	in_		carbon ness:			mount Baile	ed :	
otal Depth		ti.	Volu. Facto	me or (VF)	2" = 0.17	6" = 1.50	3" = 0.38) 1	4" = 2" = 5.80	0.66
Depth to Water		_ 	/F	×	3 (case vol	ume) = E	stimated Purg	e Volume:	(pal.)
Pur ge Equipme nt:	Disposable Bailer Stack Suction Grundfos Other:		_		npli ng ipme nt: O	Baik Pres Grai	osable Baile or ssure Bailer b Sample		
Starting Time: Sampling Time: Purging Flow Ra		or	-	Weather (Water Col Sediment	ior: Descripti	on:	<u>: </u>	Odor:	
Did well de-wat	Volume (gal.)	рН	 Cond <i>p</i> rol	octivity	Temper		D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
			LABOI	ATORY I	NFORMA	TION			LYS ES
SAMPLE ID	(#) - CON		REFRIG.	PRESER	V. TYPE:	LABO	CRATORY	TENG BTE	<u> </u>
<u> </u>	× ∨0 4	VIAL	Y	НС					
									

ity:Sar	Lewelling Lorenzo	<u>Ca</u>	Sampler	· Var	tker		
Well ID	u-7	Well Condition	on: <u> </u>	aved	200	34	
/ell Diameter		Hydrocarbor Thickness:			unt Baile luct/water):		(০৯১)
otal Depth		Volume Factor (VF)	2" = 0.17	3° = 1.50	' = 0.38 1	4" = 2" = 5.80	0.66
epth to Water	t t		X 3 (case vol				
Pur ge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Sempli ng Equipment: O	Bailer Pressu	able Baile re Bailer Sample		
Starting Time: Sampling Time:		Water	er Conditions Color:	on:		Odor:	
	te:		; Time:		Volum€	»:	(gal.)
	Volume pH (gal.)	Conductivit µmhos/cm	y Temper		D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
			RY INFORMA		TORY	ANA	LYSES
SAMPLE ID	(#) - CONTAINER		ICC.	- SEQU		TPHG BTE	* MTOE
				<u> </u>			

y: San	Lovelling Lorenze	Ca	Sampler:	101 artker		
Well ID	<u>u-8</u>	Well Condition:	*			<u> </u>
ell Diameter		Hydrocarbon Thickness:	•	Amount Bailed (product/water):		<u>Loel)</u>
tal Depth	29.83 n	Volume Factor (VF)	2" = 0.17	3" = 0.38 50 · 12	4" = 2" = 5,80	0.66
pth to Water	16.01 m	F =	X 3 (case volume) =	Estimated Purge	Volume:	(gal.)
Pur ge quipment:	Disposable Bailer Bailer Stack		Ba	: posable Baile iler :ssure Bailer	r	
	Suction Grundfos Other:	_	Gr	ab Sample	,	
Starting Time:		_	Conditions:			
Sampling Time:		_	olor:		U001;	
	e:op	m. Sedimer	nt Description: _			(nal.
	r?		Time:	Volume	:	
	Volume pH (gal.)	Conductivity	Temperature	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>`</u>		- /			<u> </u>	
	/			/		
<i>/</i> _						
/ -					 _	
			INFORMATION		<u> </u>	
	(#) - CONTAINER	REFRIG. PRESE	RV. TYPE LA	BORATORY		YSES
SAMPLE ID	X VDA VIAL	Y H	- S6	<u> </u>	TPHE BTE	* MTOE
<u> </u>	- VDI 4					
						
			,	·		

ddiess: 376	co# 5760 Lewelling Lorenzo	BIVA.	Date	: <u>180</u> : <u>914</u> pl er: <u>Va</u>	109 101 rtker		
Well ID	<u>u-9</u> <u>2</u> in	Hydro	ondition: -		mount Baile		toel.)
otal Depth	15.22 m	Volum		0.17 6" = 1.50	3" = 0.38	12" = 5.80	0.66
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	vf •	Sampling Equipme	nt: Disp Baik Pres Grai	osable Bail		(pal.)
	te:		Weather Condi Water Color: _ Sediment Desc If yes; Time:	ription:		e: ORP	Alkalinity
Time	Volume pH (gal.)		uctivity Te	¢ 	(mg/L)	(mV)	(bbw)
				7701			
	(#) - CONTAINER	LABOF REFRIG.	RATORY INFO	PE: LABI	DRATORY		LLYSES
SAMPLE ID	X VDA VIAL	7	Нес	SEC	UOLA	TPHG BT	EX MISE
	Monitar ente	<u> </u>					



			Focili	ty Numbe		UNOCAL SS							Contact (Name) MR. DAVID DEWITT (Phone) (925) 277-238					~ 			
	•			y Address		376 Lewel 180109.	_	_RT&q	Sa	n Lor	enzo.	_L/I	aborotor,		(Phone) Sed	uoia	Anal	vtica	al		
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Touce Marketing C 2003 Grow Ceryon	Company Pl. Su. 400					Court. S			uhlli	L_LIA	Somples Collected by (Name) 122						(CC)	the Tashjian			
San Rarrat, Caller	mia \$4563	P	roject Co	intact (N	ame) _D	eanna L.	<u>Hardi</u>	ng				- °	Collection Date 914/0/ Signature Vartt Out					<			
				(Pl	hone) <u>51</u> (0-551-755	<u>5_(Fox</u>	Humber) <u>510-</u>	<u>-221-</u>	7888		ignalure		ny_	0 400		<u>~</u>			
			8					<u>. </u>			 	•	Analyse	• To B	Perfor	med			 -		DO NOT BILL
409009		Ç	Air Charcoal	و پا		Ę		H H			8	20	•	. g.			ŀ	ļ	ļ		TB-LB ANALYSIS
· • •	Sample Number	Containera	11	Grab Composite Discrete	,	vatio	9	X wintbe (8020)		١.	8 5	Aromatica	하	Organica	ا ا			İ			
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Sample Number	8	Number	× × × × × × × × × × × × × × × × × × ×	į.	-E-1	Sample Preservation	load (Yos	TPH G=+ 8TEX (8)	TPH Disest (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgedble (8020)	Puryedble Organica (8240)	Extractobia (8270)	Metals Cd.Cr.Pb.Zn.Ni (KCAP or AA)						Remarke
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RECEIVED

1551 Industrial Road San Carlos, CA 94070 (650) 232-9600 FAX (650) 232-9612 www.sequoialabs.com

17 September, 2001

Deanna Harding Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568 GETTLER-KTAIN INC.

RE: Tosco(1)

Sequoia Report: L109009

Enclosed are the results of analyses for samples received by the laboratory on 09/04/01 18:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Soforya K. Palt

Latonya Pelt Project Manager

CA ELAP Certificate #2360



1551 Industrial Road San Carlos CA 94070 (650) 232-9600 FAX (650) 232-9612 www.sequoialabs.com

Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Unocal SS#5760, San Lorenzo, CA

Reported:

Project Manager: Deanna Harding

09/17/01 07:47

ANALYTICAL REPORT FOR SAMPLES

Sample 1D	Laboratory ID	Matrix	Date Sampled	Date Received		
TB-LB	L109009-01	Water	09/04/01 00:00	09/04/01 18:05		
U-1	L109009-02	Water	09/04/01 17:05	09/04/01 18:05		
U-3	L109009-03	Water	09/04/01 16:30	09/04/01 18:05		



Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Unocal SS#5760, San Lorenzo, CA

Project Manager: Deanna Harding

Reported: 09/17/01 07:47

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (L109009-01) Water Samp	oled: 09/04/01 00:00	Received: (9/04/01	18:05					
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1090041	09/13/01	09/13/01	DHS LUFT	
Benzene	ND	0.50	17	**	W	H	VI	я	
Toluene	ND	0.50	n	*	T	**	11	**	
Ethylbenzene	ND	0.50	н	31	4+	**	H	н	
Xylenes (total)	ND	0.50	# †	н	D	11	\$T	Ħ	
Methyl tert-butyl ether	ND _	5.0	77	tı	u	H	n	u	
Surrogate: a,a,a-Trifluorotoluene		89.1 %	70-	130	*	"	34	er	
U-1 (L109009-02) Water Sampled	l: 09/04/01 17:05 Re	eceived: 09/0	04/01 18:	05					
Purgeable Hydrocarbons as Gasoli	ne 11000	1000	ug/l	20	1090038	09/12/01	09/12/01	DHS LUFT	P-02
Benzene	25	10	**	H	u	•	11	79	
Toluene	ND	10	m		*	W.	ħ	**	
Ethylbenzene	1100	10	11	*	19	н	"	h	
Xylenes (total)	1800	10	H	11	н	**	*		
Methyl tert-butyl ether	370	100	h	п		п		**	
Surrogate: a,a,a-Trifluorotoluene		82.4 %	70	-130	"	"	"	"	
U-3 (L109009-03) Water Sampled	d: 09/04/01 16:30 R	eceived: 09/	04/01 18:	05					
Purgeable Hydrocarbons as Gasoli	ne 340	50	ug/l	ı	1090041	09/13/01	09/13/01	DHS LUFT	P-02
Benzene	0.95	0.50	H	н	11	4	**	Ħ	
Toluene	ND	0.50	H	n	**	h	H	11	
Ethylbenzene	8.1	0.50	H	. "	h	н	**	n	
Xylenes (total)	18	0.50	Ħ	n	н	٠	n	*1*	
Methyl tert-butyl ether	ND	5.0	91	11	#	*	"	*	
Surrogate: a,a,a-Trifluorotoluene		89.1 %	70	-130	"	,,	Ħ	*	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J

Dublin CA, 94568

Project: Tosco(1)

Project Number: Unocal SS#5760, San Lorenzo, CA

Spike

Source

%REC

Project Manager: Deanna Harding

Reported:

RPD

09/17/01 07:47

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B - Quality Control Sequoia Analytical - San Carlos

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1090038 - EPA 5030B (P/T)							·			
Blank (1090038-BLK1)	Prepared & Analyzed: 09/12/01									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l							
Benzene	ND	0.50	II							
Toluene	ND	0.50	N							
Ethylbenzene	ND	0.50	н							
(ylenes (total)	ND	0.50	**							
Methyl tert-butyl ether	ND	5.0	11							
Surrogate: a,a,a-Trifluorotoluene	9.53		"	10.0		95.3	70-130			
LCS (1090038-BS1)				Prepared	& Analyz	ed: 09/12/				
Benzene	7.88	0.50	ug/l	10.0		78.8	70-130			
Foluene	7.80	0.50	H	10.0		78.0	70-130			
Ethylbenzene	8.05	0.50		10.0		80.5	70-130			
Xylenes (total)	24.3	0.50	**	30.0		81.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	11.1		"	10.0		111	70-130			
LCS (1090038-BS2)		Prepared & Analyzed: 09/12/01								
Purgeable Hydrocarbons as Gasoline	250	50	ug/l	250		100	70-130			
Surrogate: a,a,a-Trifluorotoluene	12.4		n	10.0		124	70-130		·	
Matrix Spike (1090038-MS1)	Sour	Source: L109001-08			Prepared & Analyzed: 09/12/01					
Purgeable Hydrocarbons as Gasoline	247	50	ug/l	250	ND	98.8	60-140			
Surrogate: a,a,a-Trifluorotoluene	11.0		н	10.0		110	70-130		· · · ·	
Matrix Spike Dup (1090038-MSD1)	Source: L109001-08			Prepared	& Analy:	zed: 09/12	/01			
Purgeable Hydrocarbons as Gasoline	258	50	ug/l	250	ND	103	60-140	4.36	25	
Surrogate: a,a,a-Trifluorotoluene	10.8		"	10.0		108	70-130			



Gettler-Ryan/Geostrategies(1)

Dublin CA, 94568

6747 Sierra Court, Suite J

Project: Tosco(1)

Project Number: Unocal SS#5760, San Lorenzo, CA Project Manager: Deanna Harding

Reported: 09/17/01 07:47

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B - Quality Control Sequoia Analytical - San Carlos

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1090041 - EPA 5030B (P/T)					- "			_		
Blank (1090041-BLK1)	Prepared & Analyzed: 09/13/01									
Purgeable Hydrocarbons as Gasoline	ND	50	սք/I							
Benzene	ND	0.50	n							
Toluene	ND	0.50	п							
Ethylbenzene	ND	0.50	ħ							
Xylenes (total)	ND	0.50	**							
Methyl tert-butyl ether	ND	5.0	"							
Surrogate: a.a.a-Trifluorotoluene	8.64		**	10.0		86.4	70-130			
LCS (1090041-BS1)				Prepared	& Analyz	ed: 09/13/	01			
Benzene	8.22	0,50	ug/l	10.0		82.2	70-130			
Toluene	8.22	0.50	19	10.0		82.2	70-130			
Ethylbenzene	8.43	0.50	b	10.0		84.3	70-130			
Xylenes (total)	26.0	0.50	R	30.0		86.7	70-130			
Surrogate: a.a.a-Trifluorotoluene	10.7		ħ	10.0		107	70-130			
LCS (1090041-BS2)				Prepared	& Analyz	zed: 09/13/	01			
Purgeable Hydrocarbons as Gasoline	264	50	սք/1	250		106	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.7		"	10.0		107	70-130	,		
Matrix Spike (1090041-MS1)	Source: L109012-02			Prepared	& Analyz	zed: 09/13/	/01			
Benzene	9.61	0.50	սք/I	10.0	ND	96.1	60-140			
Toluene	9.59	0.50	"	10.0	ND	95.9	60-140			
Ethylbenzene	10.1	0.50	li	10.0	ND	101	60-140			
Xylenes (total)	30.6	0.50	n	30.0	ND	102	60-140			
Surrogate: a,a,a-Trifluorotoluene	10.4		Ħ	10.0		104	70-130			
Matrix Spike Dup (1090041-MSD1)	Source: L109012-02			Prepared	& Analy:	zed: 09/13				
Benzene	10.3	0.50	นย/ไ	10.0	ND	103	60-140	6.93	25	
Toluene	10.3	0.50	**	10.0	ND	103	6 0-140	7.14	25	
Ethylbenzene	10.6	0.50	н	10.0	ND	106	60-140	4.83	25	
Xylenes (total)	32.4	0.50	π	30.0	ND	108	60-140	5.71	25	
Surrogate: a,a,a-Trifluorotoluene	11.0		"	10.0		110	70-130			



1551 Industrial Road San Carlos CA 94070 (650) 232-9600 FAX (650) 232-9612 www.sequoialabs.com

Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Unocal SS#5760, San Lorenzo, CA

Project Manager: Deanna Harding

Reported: 09/17/01 07:47

Notes and Definitions

P-02 Chromatogram Pattern: Weathered Gasoline C6-C12

DET Analyte DETECTED

Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

ND

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference