August 5, 1999 G-R #:180075

415/893-1515

TO:

Mr. David B. De Witt

Tosco Marketing Company

2000 Crow Canyon Place, Suite 400

San Ramon, California 94583

CC: Mr. David Vossler

Gettler-Ryan Inc.

Novato, California

FROM:

Deanna L. Harding

Project Coordinator

Gettler-Ryan Inc.

6747 Sierra Court, Suite J

Dublin, California 94568

RE:

Tosco (Unocal) SS #7376

4191 First Street

Pleasanton, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	August 3, 1999	Groundwater Monitoring and Sampling Report Second Quarter 1999 - June 7, 1999

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 August 19, 1999, this report will be distributed to the following:

Enclosure

Mr. Scott Seery

Alameda County Health Care Services 1131 Harbor Bay Parkway, Suite 250

Alameda, California 94502

agency/7376dbd.qmt

August 3, 1999 G-R Job #180075

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

RE:

Second Quarter 1999 Groundwater Monitoring & Sampling Report

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On June 7, 1999, field personnel monitored and sampled eight wells (MW-1, MW-2B and MW-3 through MW-8) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were present in one well (MW-5). Static water level data and groundwater elevations are summarized in Table 1. Product Thickness/Removal Data is summarized in Table 2. 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 3, and a Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely.

Project Coordinator

Senior Geologist, R.G. No. 5577

No. 5577

FOF CALIFO

Potentiometric Map -March 23, 1999 Figure 1: Figure 2:

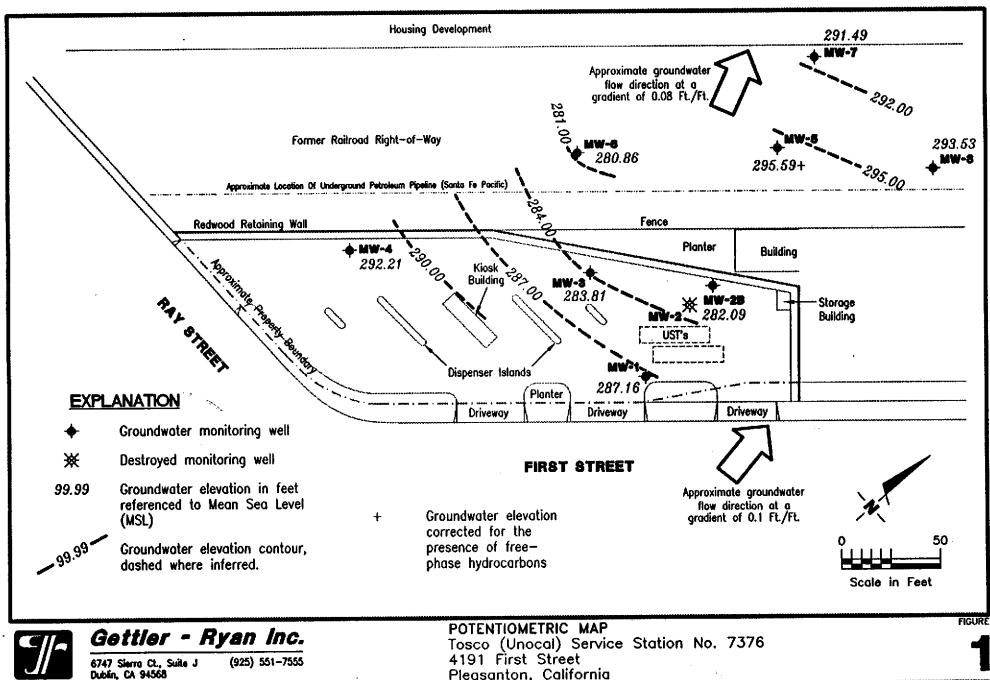
Concentration Map - March 15, 1999

Groundwater Monitoring Data and Analytical Results Table 1: Product Thickness/Removal Data Table 2:

Groundwater Analytical Results - Oxygenate Compounds Table 3: Standard Operating Procedure - Groundwater Sampling Attachments:

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports 7376.qml



JOB NUMBER 180075

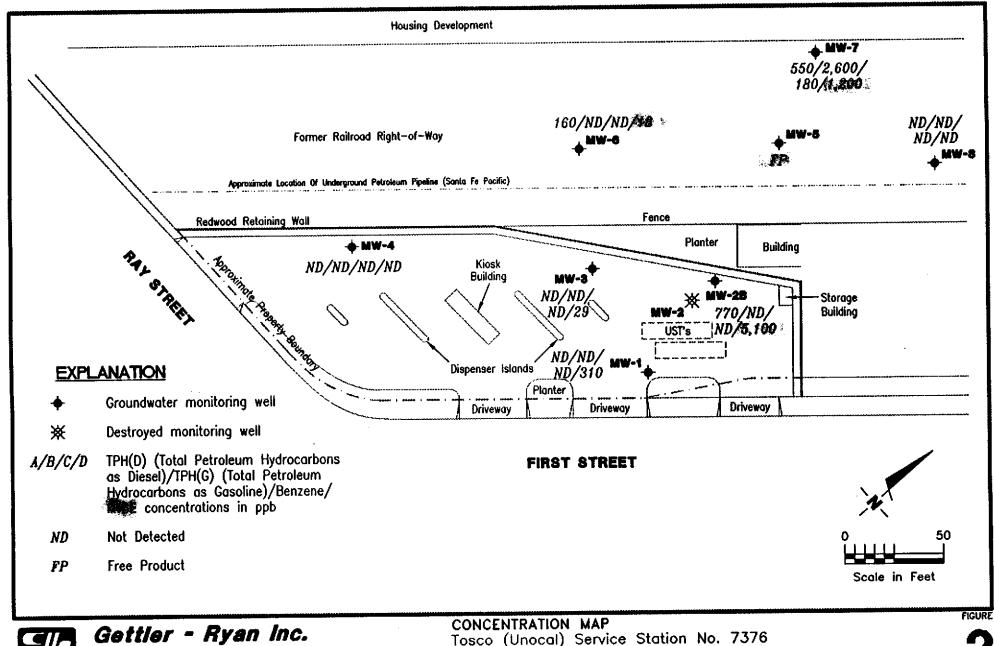
REVIEWED BY

4191 First Street

Pleasanton, California

DATE June 7, 1999 REVISED DATE

Figure 19 19 19 19 19



JOB NUMBER

6747 Sierra Ct., Suite J Dublin, CA 94568

(925) 551-7555

Tosco (Unocal) Service Station No. 7376 4191 First Street Pleasanton, California REVISED DATE

REVIEWED BY 180075

June 7, 1999

Table 1
Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, California												
Well ID/	Date	DTW	GWE	Product Thickness	TPH(D)	TPH(G)	В	T (mb)	E (nah)	X (ppb)	MTBE	
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(PPO)	(ppb)	
MW-1	12/08/87 ¹		- -		$2,100^2$	50 ³	58	8	ND	10		
366.99	12/07/94	81.04	285.95	0.00		ND	ND	ND	ND	ND		
	03/01/95	80.09	286.90	0.00	120	ND	ND	1.1	ND	1.3		
	06/01/95	77.53	289.46	0.00	54 ⁵	130	1.0	2.9	0.79	4.5		
	09/06/95	79.00	287.99	0.00	690	ND	ND	ND	ND	ND	6	
	12/12/95	77.55	289.44	0.00	190 ⁵	ND	ND	ND	ND	ND	**	
	03/01/96	75.09	291.90	0.00	56	ND	ND	ND	ND	ND	370	
	06/15/96	75.07	291.92	0.00	ND	ND	ND	ND	ND	ND	270	
	09/18/96	7 9.90	287.09	0.00	130 ⁵	ND	ND	ND	ND	ND	590	
	12/21/96	78.96	288.03	0.00	ND	ND	ND	ND	ND	ND	150	
	03/07/97	71.49	295.50	0.00	ND	ND	ND	ND	ND	ND	220	
	06/27/97	80.05	286.94	0.00	ND	ND	ND	ND	ND	ND	17	
	09/29/97	80.04	286.95	0.00	ND	ND	ND	ND	ND	ND	24	
	12/15/97	80.07	286.92	0.00	ND	ND	ND	ND	ND	ND	25	
	03/16/98	71.00	295.99	0.00	ND	ND	ND	0.52	ND	0.71	190	
366.98	06/26/98	79.29	287.69	0.00	ND	59 ¹³	0.90	ND	ND	ND	570	
	08/18/98	79.93	287.05	0.00								
	09/22/98	79.99	286.99	0.00	240^{20}	ND	ND	ND	ND	ND	170	
	12/15/98	80.02	286.96	0.00	ND	ND	ND	ND	ND	ND	63	
	12/23/98	80.02	286.96	0.00								
	03/15/99	78.95	288.03	0.00	67 ²⁴	ND^{11}	${ m ND}^{11}$	ND^{11}	ND ¹¹	ND^{11}	520	
	03/23/99	78.69	288.29	0.00								
	06/07/99	79.82	287.16	0.00	ND	ND	ND	ND	ND	ND	310	
MW-2	12/08/87				620²	1,800 ³	910	800	260	1,200	· 	
171 77 -4	12/03/87	DAMAGED										
	02/07/95	DESTROYED							•-			
MW-2B	00.001.05	00.00	204.27	0.00	220	NID	MD	MD	MD	ND		
365.05	03/01/95	80.80	284.25	0.00	320	ND	ND	ND	ND ND			
	06/01/95	75.69	289.36	0.00	280	350	19	5.8	ND ND	7.7	6	
	09/06/95	77.54	287.51	0.00	ND 050 ⁴	ND	90	ND	ND	ND 57	7	
	12/12/95	75.96	289.09	0.00	850 ⁴	1,200	630	ND	15	3/		

Table 1
Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

					Pleasanton	, California					
Well ID/	Date	DTW	GWE	Product Thickness	TPH(D)	TPH(G)	В	T	E	X	МТВЕ
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW AD	02/01/06	72 27	291.78	0.00	870 ⁴	1,000	620	ND	ND	5.3	4,300
MW-2B	03/01/96	73.27				910	350	ND	ND	ND	3,700
(cont)	06/15/96	73.21	291.84	0.00	420 600		95	ND	ND ND	ND	5,700
	09/18/96	81.08	283.97	0.00		1,200 330 ⁸					
	12/21/96	77.35	287.70	0.00	470 870 ⁴		57 38	ND	ND ND	ND	2,900
	03/07/97	69.67	295.38	Sheen	680⁴	190	28	0.64		1.5	4,300
	06/27/97	82.40	282.65	0.00		98 ND	3.4	1.0	0.53	ND ND	3,100
	09/29/97	82.72	282.33	0.00 0.00	430 490	ND 54 ⁹	ND ND	ND ND	ND ND	ND ND	3,000 4,100
	12/15/97	82.57	282.48		4,000 ¹⁰	ND ¹¹	ND 17	ND^{11}	ND ¹¹	ND ¹¹	4,100
065.05	03/16/98	69.13	295.92	Sheen	790 ¹⁴	ND	ND	ND	ND	ND	4,400 4,000
365.05	06/26/98	77.78	287.27	0.00							
	08/18/98	83.99	281.06	0.00	930 ²⁰	 ND ¹¹	ND ¹¹	ND ¹¹	ND ¹¹		 4 600
	09/22/98	83.89	281.16	0.00						21	4,600
	12/15/98	82.84	282.21	0.00	600	ND	ND	ND	ND	ND	5,100
	12/23/98	82.55	282.50	0.00	390 ²⁵	 ND ¹¹	ND ¹¹	ND ¹¹	ND ¹¹	ND ¹¹	4,300/4,800 ²⁷
	03/15/99	77.31	287.74	0.00							
	03/23/99	77.06	287.99	0.00	770 ²⁵	ND ¹¹	ND ¹¹	ND ¹¹	ND ¹¹	. ND ¹¹	
	06/07/99	82.96	282.09	0.00	770	ND	ND	ND	Nυ	. ND	5,100
MW-3	12/08/87				$2,300^{2}$	24,000 ³	2,600	1,300	160	660	
367.01	12/07/94	85.54	281.47	0.00		ND	ND	ND	ND	ND	
	03/01/95	83.20	283.81	0.00	140 ⁴	ND	ND	1.1	ND	1.1	
	06/01/95	77.60	289.41	0.00	140 ⁵	62	7.8	0.90	ND	1.6	
	09/06/95	79.28	287.73	0.00	880 ⁵	4,100	380	490	130	710	6
	12/12/95	77.73	289.28	0.00	$3,100^4$	19,000	600	380	2,100	5,300	7
	03/01/96	75.18	291.83	0.00	1,500 ⁵	3,400	950	3.2	1,900	290	59
	06/15/96	75.13	291.88	0.00	400 ⁴	780	190	8.8	3.8	4.0	630
	09/18/96	82.84	284.17	0.00	170	2,800	340	12	11	110	2,500
	12/21/96	79.29	287.72	0.00	64 ⁴	51	1.3	ND	ND	0.53	20
	03/07/97	71.58	295.43	0.00	570 ⁴	1,400	53	14	29	68	220
	06/27/97	83.27	283.74	0.00	ND	ND	ND	ND	ND	ND	27
	09/29/97	83.33	283.68	0.00	ND	ND	ND	ND	ND	ND	11
	12/15/97	83.35	283.66	0.00	ND	ND	ND	ND	ND	ND	19
	12/15/97 03/16/98	83.35 71.07	283.66 295.94	0.00 0.00	ND 670 ¹⁰	ND 130 ¹²	ND 6.5	ND 1.9	ND 1.5 ND ¹¹	NĐ 1.6	19 210

Table 1
Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376 4191 First Street

Well ID/ TOC*	Date	DTW		Product	化氯化化甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基						
Contraction to the Contraction of the Contraction o			GWE	Thickness	TPH(D)	TPH(G)	В	T	E	X	MTBE
		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
	20/10/00	83.29	283.74	0.00							
	08/18/98	83.33	283.74	0.00	95 ²⁰	ND	ND	ND	ND	ND	24
	09/22/98		283.74	0.00	ND	ND	ND	ND	ND	ND .	18
	12/15/98	83.29	283.74	0.00			**				
	12/23/98	83.28 79.19	287.84	0.00	$3,500^{26}$	26,000	3,100	270	2,200	3,100	1,300
	03/15/99		288.11	0.00	5,500						
	03/23/99	78.92		0.00	ND	ND	ND	ND	0.63	ND	29
U	06/07/99	83.22	283.81	0.00	ND	112	112	•,-	7,		
MW-4											
	09/18/96	73.67	295.36	0.00	200	160	14	ND	ND	1.6	ND
	12/21/96	77.69	291.34	0.00	ND	ND	ND	ND	ND	ND	ND
(03/07/97	68.04	300.99	0.00	ND	ND	1.9	0.99	ND	1.5	ND
	06/27/97	79.06	289.97	0.00	ND	ND	ND	ND	ND	ND	ND
	09/29/97	85.83	283.20	0.00	ND	ND	ND	ND	ND	ND	ND
	12/15/97	87.26	281.77	0.00	ND	ND	ND	ND	ND	ND	ND
	03/16/98	75.09	293.94	0.00	ND	ND	ND	0.69	ND	0.82	ND
	06/26/98	73.81	295.00	0.00	630 ¹⁶	10013	62	ND	ND	ND	ND
	08/18/98	78.75	290.06	0.00							
	09/22/98	83.95	284.86	0.00	74 ²⁰	ND	ND	ND	ND	ND	2.8
	12/15/98	85.41	283.40	0.00	ND	ND	ND	ND	ND	ND	ND
	12/23/98	84.95	283.86	0.00							
	03/15/99	78.47	290.34	0.00	ND	ND	ND	ND	ND	ND	ND
	03/23/99	77.37	291.44	0.00							
	06/07/99	76.60	292.21	0.00	ND	ND	ND	ND	ND	ND	ND
MW-5											
	09/18/96	64.20	299.03	0.00	4,700 ⁵	36,000	6,700	410	730	6,500	4,100
	12/21/96	61.77	301.46	Sheen	4,700 ⁴	25,000	3,200	300	780	3,600	2,600
		56.30	306.93	Sheen	$2,100^4$	14,000	1,300	120	410	1,200	1,700
	03/07/97	50.30 68.88	295.03**	0.90		ED DUE TO TH					
	06/27/97 09/29/97	69.47	293.03**	0.35		ED DUE TO TH					

Table 1 Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

				Product	Pleasanton,	Camonna					
Well ID/	Date	DTW	GWE	Thickness	TPH(D)	TPH(G)	В	T	E	X	MTBE
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-5	12/15/97	64.92	298.53**	0.30	NOT SAMPLE	D DUE TO TH	E PRESENCE	OF FREE PRO	ODUCT		
(cont)	03/16/98	49.63	313.67**	0.09	NOT SAMPLE		E PRESENCE	OF FREE PRO	DDUCT		
363.21	06/26/98	64.13	299.08	Sheen	230,000 ¹⁷	49018	6.3	2.8	4.2	5.1	10
	08/18/98	70.40	292.81**	0.005							
	09/22/98	69.10	294.16**	0.06	NOT SAMPLE	D DUE TO TH	E PRESENCE	OF FREE PRO	ODUCT		
	12/15/98	68.84	294.50**	0.17	NOT SAMPLE	D DUE TO TH	E PRESENCE	OF FREE PRO	ODUCT		
	12/23/98	68.42	295.18**	0.50							·
	03/15/99	63.81	299.59**	0.25							
	03/23/99	63.59	299.72**	0.13							
	06/07/99	68.25	295.59**	TW?	4,700,000 ²⁶	210,000	6,700	3,700	5,000	20,000	11,000/4,000 ²
MW-6										•	
363.12	09/18/96	79.07	284.05	0.00	ND	160	5.4	ND	ND	ND	ND
303.12	12/21/96	75.40	287.72	0.00	ND	300 ⁸	96	1.3	ND	1.7	21
	03/07/97	67.61	295.51	0.00	190 ⁴	1,800 ⁸	920	18	ND	31	290
		80,45	282.67	0.00	73 ⁵	ND	0.73	ND	ND	38	38
	06/27/97 09/29/97	86.02	277.10	0.00	ND	62 ⁹	ND	ND	ND	ND	43
	12/15/97	84.03	279.09	0.00	ND	78 ⁹	ND	ND	ND	ND	39
	03/16/98	67.15	295.97	0.00	10010	210^{12}	36	2.5	ND	3.0	64
363.13	06/26/98	75.71	287.42	0.00	180 ¹⁴	530	300	8.3	2.8	8.7	81
JUJ.15	08/18/98	74.86	288.27	0.00							
	09/22/98	UNABLE TO I									
	12/15/98	UNABLE TO L									
	12/23/98	80.80	282.33	0.00		120 ²³	1.1	ND	ND	0.78	25
	01/23/99	80.68	282.45	0.00	ND			•==			
	03/15/99	75.29	287.84	0.00	71 ²⁴	62^{22}	1.4	ND	ND	ND	23
	03/23/99	75.03	288.10	0.00		- -	**				
	06/07/99	82.27	280.86	0.00	160 ²⁸	ND	ND	ND	ND	ND	18
MW-7											
355.97	06/26/98										
))	08/18/98	68.75	287.22	0.00	1,400 ²⁰	4,000	1,900	48	160	ND^{11}	1,700
		66.35		0.00	780 ²⁰	3,200	1,100	ND	22	ND	1,500
	09/22/98	00.33	209.02	0.00	700	3,200	1,100	112			2,500

Table 1
Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376 4191 First Street

Well ID/	Date	DTW	GWE	Product Thickness	TPH(D)	TPH(G)	В	Т	E	X	MTBE
TOC*		(ft.)	(msl)	(fi.)	(ppb)	(ppb)	(ppb)	(ppb)	(ррв)	(ppb)	(ppb)
MW-7	12/15/98	65.03	290.94	0.00	350 ²¹	1,900 ²²	180	2.7	2.9	3.8	1,400
(cont)	12/23/98	64.82	291.15	0.00						~-	
(cont)	03/15/99	60.44	295.53	0.00	460^{26}	2,700	1,100	ND ¹¹	30	16	1,400/970 ²⁷
	03/23/99	60.43	295.54	0.00							
	06/07/99	64.48	291.49	0.00	550 ²⁵	2,600 ²⁹	180	21	ND	13	1,200
MW-8											
362.37	06/26/98	63.00	299.37	0.00	80 ¹⁹	ND	6.0	ND	ND	ND	150
	08/18/98	73.38	288.99	0.00							
	09/22/98	70.89	291.48	0.00	120^{20}	ND	ND	ND	ND	ND	9.5
	12/15/98	70.29	292.08	0.00	ND	ND	ND	ND	ND	ND	3.0
	12/23/98	70.03	292.34	0.00							•-
	03/15/99	UNABLE TO LO	CATE								
361.83	03/23/99	64.86	296.97	00,0	60 ²⁴	ND	ND	0.77	ND	0.96	190
	06/07/99	68.30	293.53	0.00	ND	ND	ND	ND	ND	ND	ND
Trip Blank		·,									
TB-LB	03/16/98			••		ND	ND	ND	ND	ND	ND
	06/26/98					ND	ND	ND	ИD	ND	ND
	08/18/98					ND	ND	ND	ND	ND	ND
	09/22/98	**				ND	ND	ND	ND	ND	ND
	12/15/98					ND	ND	ND	ND	ND	ND
	12/23/98					ND	ND	ND	ND	ND	ND
	03/15/99					ND	ND	ND	ND	ND	ND
	03/23/99					ND	ND	ND	ND	ND	ND
	06/07/99		-			ND	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376 4191 First Street Pleasanton, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 16, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing

B = Benzene

ppb = Parts per billion

DTW = Depth to Water

T = Toluene

ND = Not Detected

(ft.) = Feet

E = Ethylbenzene

-- = Not Measured/Not Analyzed

GWE = Groundwater Elevation

X = Xvlenes

msl = Relative to mean sea level

MTBE = Methyl tertiary butyl ether

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

- TOC elevations have been surveyed relative to mean sea level (msl) per City of Pleasanton Benchmark VI, a brass disk on the north curb of Ray Street, approximately 200 feet northwest of the centerline of First Street (Elevation = 367.17 feet msl). On March 22, 1999, MW-8 was re-surveyed, the Benchmark was a cut "+" on a concrete transformer pad on the north side of the property to the northwest (Elevation = 353.92 feet, msl).
- Groundwater elevation corrected for the presence of free product; correction factor = $[(TOC-DTW)+(Product\ Thickness\ x\ 0.75)].$
- 1,2-Dichloroethene (1,2-DCE) was detected at a concentration of 18 ppb.
- 2 Reported as Total Extractable Hydrocarbons (TEH).
- 3 Reported as Total Petroleum Hydrocarbons (TPH).
- Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture. 4
- 5 Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
- Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well. 6
- Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well. 7
- 8 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 9 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- Laboratory report indicates diesel and unidentified hydrocarbons > C16.
- 11 Detection limit raised. Refer to analytical results.
- 12 Laboratory report indicates gasoline and unidentified hydrocarbons < C7.
- 13 Laboratory report indicates discrete peaks.
- Laboratory report indicates diesel and unidentified hydrocarbons > C20.
- 15 Laboratory report indicates discrete peaks and unidentified hydrocarbons < C7.
- Laboratory report indicates diesel and unidentified hydrocarbons < C15.
- 17 Laboratory report indicates diesel and unidentified hydrocarbons < C15 and > C20.
- Laboratory report indicates gasoline and unidentified hydrocarbons > C8.
- 19 Laboratory report indicates unidentified hydrocarbons > C16.
- 20 Laboratory report indicates unidentified hydrocarbons C9-C24.
- 21 Laboratory report indicates diesel and unidentified hydrocarbons < C12.
- 22 Laboratory report indicates unidentified hydrocarbons C6-C12.
- 23 Laboratory report indicates unidentified hydrocarbons C6-C9.

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376 4191 First Street Pleasanton, California

Laboratory report indicates unidentified hydrocarbons > C14.

Laboratory report indicates unidentified hydrocarbons > C10.

²⁶ Laboratory report indicates unidentified hydrocarbons > C9.

MTBE by EPA Method 8260.

²⁸ Laboratory report indicates unidentified hydrocarbons > C15.

²⁹ Laboratory report indicates gasoline and unidentified hydrocarbons > C6.

Table 2

Product Thickness/Removal Data

Tosco (Unocal) Service Station #7376 4191 First Street

Pleasanton, California

			Product	Amount Bailed
Well ID	Date	DTW	Thickness	(Product + Water)
		(ft.)	(ft.)	gallons
MW-5	03/07/97	56.30	Sheen	
	06/27/97	68.88	0.90	
	09/29/97	69.47	0.35	
	12/15/97	64.92	0.30	
	03/16/98	49.63	0.09	0.25
	06/26/98	63.00	Sheen	
	08/18/98	70.40	0.005	
	09/22/98	69 .10	0.06	
	12/15/98	68.84	0.17	
	12/23/98	68.42	0.50	
	03/15/99	63.81	0.25	0.13
	03/23/99	63.59	0.13	0.00
	06/07/99	68.25	0.82	10.66

EXPLANATIONS:

Product thickness/removal data prior to March 16, 1998, were compiled from reports prepared by MPDS Services, Inc.

DTW = Depth to water

(ft.) = Feet

-- = Not Measured/Not Available

Table 3
Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, California

				.,			
Well ID	Date	Ethanol (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)
MW-2B	03/15/99	ND	3,800	4,800	13	ND	ND
MW-5	06/07/99	ND²	ND^2	4,0001	ND^2	ND^2	ND ²
MW-7	03/15/99	ND	610	970	4.3	ND	ND

EXPLANATIONS:

ANALYTICAL METHOD:

TBA = Tertiary Butyl Alcohol

MTBE = Methyl Tertiary Butyl Ether

DIPE = Di-isopropyl Ether

ETBE = Ethyl Tertiary Butyl Ether

TAME = Tertiary Amyl Methyl Ether

ppb = Parts per billion

-- = Not Analyzed

ND = Not Detected

EPA Method 8260 for Oxygenate Compounds

Laboratory results indicate sample contains high concentration of Hexane.

Detection limit raised. Refer to analytical results.

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 a MMC flexi-dip 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, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured 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.

lient/ Tose acility# 737			Job)#:	180079		
Address: 4/9/	First st.		Dat	:e: <u>_</u> &	17/99		
City: <u>Plea</u>			Sar	mpler:	Varte	<u>. </u>	
Well ID	MW-1	We	ell Condition:	o k	د		
Well Diameter	2 _{in,}	Thi	drocarbon ickness:	(feet)	Amount B	ailed ten:	(Gallons)
Fotal Depth	86,43 tt	v	olume 2" = actor (VF)	0.17		3 4	* = 0.66
Depth to Water	79.82 h		<u>} = [_/ ∪</u> x 3 (ca	se volume) =	Estimated P	urge Volume:	33 7 -[gal.)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Samplin Equipme	g ent: Di Ba Pr Gr	sposable Baller essure Baller ab Sample ther:	ailer er	
_	12:03		Weather Condi				
			Sediment Desc		_		
	r? <u>r</u>		If yes; Time:				
	olume pH (gal.) 1-67	μπ 	nductivity Ter nhos/cmx/00 5.X/	59.9_	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
12:07	3. j. 4 s		7.71 6	9.7 3.8			
		LABO	RATORY INFORI	MATION		,	
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	/ LABO	RATORY	ANAL	
MN-	3 VOA	Y	HCI	SEQUOI	<u> </u>	TPH(G)/btex/r	ntbe
MW-1	1 Amber	ιι	NONE	· • •		TPH-D	<u> </u>
				<u> </u>			

Client/ 73 Facility# 73	5se0 276		le	ob#:	18007	_	
							· · · · · · · · · · · · · · · · · · ·
_	91 First st.			ate:	6/7/99		
City: <i>P</i> / ₆	essanton		S	ampler:	<u>varth</u>	3	
Well ID	MW-28	w	ell Condition:		<u>e</u>	· · · · · · · · · · · · · · · · · · ·	
Well Diameter	<u> </u>		ydrocarbon nickness:	الله الله	Amount i	Bailed	(Gallons)
Total Depth	85.25	ft.	Volume 2°	= 0.17	3" = 0.3	18 4	1° = 0.66
Depth to Water	82.96	ts. [Factor (VF)	6*	= 1.50	12" = 5.80	
	2.29	x vf 0.1	7=0.39 x310	case volume	ı) ≃ Estimated F	urge Volume:	1.17 1021
Purge	Disposable Baile	_					
Equipment:	Bailer		Sampli Equipm		Oisposable B	ailer	
	Stack				Bailer	·	
	Suction Grundfos				Pressure Bail Grab Sample		
	Other:				Other:		
						<u>-</u>	
Starting Time:	1:08		Weather Cond	ditions:	_cleer_		
Sampling Time:	1115	<u>.</u>	Water Color:		<u></u>	Odor: Mil	<u></u>
Purging Flow R	ate:	gpm.	Sediment Des	cription:			·
Did well de-war	ter?		If yes; Time:	:	Volur	ne:	igal.)
Time	Volume pH	Co	nductivity Te		D.O.	ORP	Alkalinity
1711	(gal.)_ O_)	<i>μ</i> ι	nhos/cmX/00	68.2	(mg/L)	(mV)	(ppm)
1:15	1		5 - 57	68.6	· 		
1:19	كنا_		.48	68.9			
					<u></u>		
	·						
			RATORY INFOR			•	
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE		BORATORY	ANAL	
MN-2B	3 Vo.A	Y	HC HC	SEQUO	DIA	TPH(G)/btex/n	ntbe
MW-2B	1 Amber	(I	NONE			TPH-D	
		 	 	-			
			1	<u> </u>		<u></u>	
COMMENTS:							
							

Client/ Tos Facility# 73			Jo	b#: _	18007	<u> </u>	
	I First st.		Da	ite: _	617/99)	
City: Ple	•			mpler: _	varthe		
Well ID	Mw-3	_ w	ell Condition:	ව	Ķ		
Well Diameter	<u>i</u>		drocarbon	D	Amount E	2 D	
Total Depth	94.11		volume 2"		2" = 0.3		(Gallons) 1° = 0.66
Depth to Water	83.22 t	1 7	factor (VF)	6" =	1.50	12" = 5.80	- 0.00
	10.89	(VF <u>0.17</u>	= 1.81 × 3 (c	ase volume)	= Estimated P	urge Volume: _	5. 57 [gal.]
Purge Equipment:	Disposable Baile Bailer Stack Suction Grundfos Other:		Samplin Equipm	ent: E	isposable B ailer ressure Bail irab Sample other:	er	
Starting Time:	1:46		Weather Cond	itions: _	elen	-	
	2.14		Water Color: _	cle	<u> </u>	Odor: <u>~</u>	J
Purging Flow Rat	te: <i>i</i>	qpm.	Sediment Desc	cription: _			
Did well de-wate	er? <u>rê</u>		If yes; Time:		Volur	ne:	(gal.
	Volume pH (gal.) 2 2 3.61 2 3.99	μr <u> </u>	<u> 44 </u>	mperature •F 70.1 59.4	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
SAMPLE ID	(#) - CONTAINER	REFRIG.	RATORY INFORI PRESERV. TYPE		RATORY	ANAL	YSES
MW-3	3 VOA	Y	HCI	SEQUOI	A	TPH(G)/btex/π	ntbe
MW-3	1 Amber	(t	NONE			TPH-D	
COMMENTS: _							

client/ 70s acility# 73	76	<u></u>			180079 5/7/99		· · · · · · · · · · · · · · · · · · ·
Address: <u>4/9</u> City: <u> </u>	First st.				. 11		
Well ID	nw-4	We	II Condition:	OK			
Well Diameter	2 _{in}		drocarbon	<i>b</i>	Amount B	7	(Gallons)
Fotal Depth Depth to Water	93.01 tt	· V	ckness:	= 0.17	(product/wai 3" = 0.38 .50	4	' = 0.66
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	-	_ = <u>2-7</u> 9 x 3 (d Samplii Equipm	ng Jent: Di Ba Pro Gr	sposable Bailer essure Bailer ab Sample	ailer :	<u>(gal.)</u>
Purging Flow Ra	10:30 11:05 ate:1 er?0		Weather Cond Water Color: Sediment Des If yes; Time	ιΩ cription:	<u>. </u>	Odor: <u></u>	
	Volume pH (gal.) → 66	Con μπ	·	emperature •F 68.0	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
10:47	6 7.4 2.5 7.45	-		68.5			
SAMPLE ID	(#) - CONTAINER	LABOI	RATORY INFOF		PRATORY	ANAL	YSES
MW- 4	3 VOA	Υ	HCI	SEQUOIA	4	TPH(G)/btex/n	ntbe
MW- 4	1 Amber	(t	NONE	-1		TPH-D	
COMMENTS:							9/97-fleidat.

	يسهد		1 11	TO DAIL OUE				
Address: 449 First st. Date: 67799 City: Pleasarton Sampler: Vector Well ID MW.5 Well Condition: Ot Thickness: O. 8 Cited (product/water): 12 Ot (reall) Well Diameter Total Depth 72.52 t. Volume 2*= 0.17 3*= 0.38 4*= 0.66 Depth to Water Disposable Bailer Equipment: Stack Suction Grundfos Other: Disposable Bailer Equipment: Stack Suction Grundfos Other: Disposable Bailer Fressure Bailer Grab Sampling Conductives Grab Sample Other: Disposable Bailer Fressure Bailer Grab Sample Other: Disposable Bailer Fressure Bailer Grab Sampling Time: 410 Water Color: Conductive Grab Sample Other: Disposable Bailer Grab Sample Other: Disposable	Client/ /2 Facility# 73	76		Job	#: <u>_</u> /	8007	<u> </u>	·
Well ID Well Diameter Well Diameter Total Depth Depth to Water Disposable Bailer Equipment: Bailer Stack Suction Grundfos Other: Starting Time: Starting Time: Sampling Time: Starting Time: Startin				Dat	e: _ <i></i>	17/99		
Well Diameter Total Depth Thickness: O, S Theell (product/water): /2 & y (gallor factor) /2 & y /2 & y								
Total Depth Depth to Water Total Depth Total Depth Total Depth to Water Total Dep	Well ID	_MW-5	. We	ell Condition:	OL			
Total Depth	Well Diameter	Zin	<u>.</u> Hy	drocarbon	82 (feet)	Amount E		
Purge Equipment: Bailer Stack Suction Grundfos Other: Starting Time: Stampling Time: Purging Flow Rate: Did well de-water? Time Volume (gal.) 3.153 Volume (gal.) 3.153 Volume LABORATORY INFORMATION SAMPLE ID LABORATORY INFORMATION SAMPLE ID LABORATORY INFORMATION SEQUIDA PLANT SEQUIDA TPHIG/btex/mtbe MALYSES MIN-5 1 Auchor LABORATORY INFORMATION SEQUIDA TPHIG/btex/mtbe TPHIG/btex/mtbe		15.75	· v	/olume 2" =	0.17	3* = 0.3	8 4	'
Sampling Time:	_	Bailer Stack Suction Grundfos			nt: Dis Ba Pre Gr	iler essure Bail ab Sample	er	
Purging Flow Rate:								
Time Volume pH Conductivity Temperature D.O. ORP Alkalini (gal.) pumhos/cmx//00 F (mg/L) (mV) (ppm 3.53 2 6.9/ 3.98 65.2 V,00 2.5 6.83 3.92 69.5 LABORATORY INFORMATION SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE / LABORATORY ANALYSES MW-5 3 VOA Y HC SEQUOIA TPH(G)/btex/mtbe MW-5 1 Auchor " NONE - TPH-D	Sampling Time:	4:10		Water Color: _	cher		Odor: 4	
Time Volume pH Conductivity Temperature D.O. ORP Alkalini 3 · V = (gal.)								
1 1 1 1 1 1 1 1 1 1	Did well de-wat	ter?		If yes; Time:		Volur	ne:	[gal.
LABORATORY INFORMATION SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE / LABORATORY ANALYSES MW-5 3 VOA Y HCI SEQUOIA TPH(G)/btex/mtbe MW-5 1 Auber " NONE " TPH-D	3.45	(gal.) 1 204	/ ^{μπ}	nhos/cmx/00 413 3.98	579			Alkalinity (ppm)
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE / LABORATORY ANALYSES MW-5 3 VOA Y HC SEQUOIA TPH(G)/btex/mtbe MW-5 Auchor U NONE - TPH-D	4,00	2.5 683		<u>;.97 6</u>	9.5			
MW-5 Amber " NONE " TPH-D	SAMPLE ID	(#) - CONTAINER		•		RATORY	ANAL	YSES
MW-5 Amber " NONE - TPH-D	MN- 5	- y	Y		'i -		TPH(G)/btex/r	ntbe
COMMENTS: * Sticky dark brown.	MW- 5		, (t	NONE	-		TPH-D	
COMMENTS: * Sticky dark brown.			-					
	COMMENTS:	* sticky d	ark	brown.				

Facility # 7376 Address: 491 First 4: Date: 6/7/99 City: Plea conton Well ID MW- 6 Well Condition: Ot. Well Diameter Total Depth Depth to Water Purge Purge Purge Purge Purge Sampling Equipment: Stack Suction Grundfos Other: Starting Time: 12.735 Weather Conditions: Well Condition: Depth to Water Amount Bailed Thickness: P (feet) (product/water): D (Gallon) Factor (VF) Sampling Equipment: Sampling Equipment: Disposable Bailer Stack Suction Grundfos Other: Starting Time: 12.735 Weather Conditions: Weather Conditions: Sampling Flow Rate: Sampling Flow Rate: Purging Flow Rate: Qum. Sediment Description: If yes; Time: Volume: 12.74 Volume: 12.75 Volume: 12.75 Volume: 12.75 Volume: Casa Amount Bailed Thickness: P (feet) (product/water): Disposable Bailer Bailer Bailer Pressure Bailer Bailer Other: Odor: Disposable Bailer Stack Sampling Flow Rate: Other: Volume: Volume: Casa Time Volume: Disposable Bailer Disposable Bailer Sampling Disposable Bailer Bailer Sampling Disposable Bailer Bailer Pressure Bailer Sampling Disposable Bailer Bailer Stack Sampling Disposable Bailer Bailer Stack Sampling Disposable Bailer Bailer Bailer Sampling Disposable Bailer Bailer Bailer Sampling Disposable Bailer	Sampling Sampler Sampling	
Well ID Well ID Well Diameter Total Depth Depth to Water Purge Equipment: Bailer Stack Suction Grundfos Other: Starting Time: Did well de-water? Did well de-water? Did well de-water? Time Volume pH Conductivity ph	Well ID Well ID Well ID Well Diameter Total Depth Depth to Water Depth to Water Purge Equipment: Bailer Stack Suction Grundfos Other: Starting Time: Diameter Time Volume Purge Purging Flow Rate: Sampling Time: 12/35 Weather Conditions: Weather Conditions: Weather Conditions: Weather Conditions: Water Purge Starting Time: Purging Flow Rate: Sampling Time: Purging Flow Rate: Sediment Description: Sediment Description: Sediment Description: Sediment Description: Sediment Description: Siff Sampling Time: Volume Purging Flow Rate: Sediment Description: Siff Sampling Time: Volume Purging Flow Rate: Sediment Description: Siff Sediment Description:	= 0.66
Well ID Well Diameter Total Depth Depth to Water Depth to Water Disposable Bailer Stack Suction Grundfos Other: Starting Time: 12:56 Weather Conditions: Weather Conditions: Weather Conditions: Water Color: Disposable Bailer Stack Suction Grundfos Other: Total Depth Bailer Stack Suction Grundfos Other: Starting Time: 12:56 Weather Conditions: Water Color: Did well Conditions: Did well Conditions: Water Color: Did well Conditions: Did well Conditions: Water Color: Did well Conditions: Water Color: Did well Conditions: Disposable Bailer Baile	Well ID Well Diameter Total Depth Depth to Water Purge Equipment: Bailer Stack Suction Grundfos Other: Starting Time: Starting Time: Purging Flow Rate: Sampling Time: Starting Time: Purging Flow Rate: Sampling Time: Purging Flow Rate: Sampling Time: Purging Flow Rate: Sampling Time: Purging Flow Rate: Starting Time: Purging Flow Rate: Starting Time: Purging Flow Rate: Starting Time: Purging Flow Rate: Sediment Description: Starting Time: Sediment Description: Starting Time: Purging Flow Rate: Sediment Description: Starting Time: Sediment Description: Starting Time: Purging Flow Rate: Sediment Description: Starting Time: Starting Time	= 0.66
Well Diameter Total Depth Depth to Water Purge Equipment: Bailer Stack Suction Grundfos Other: Starting Time: 12/35 Weather Conditions: Purging Flow Rate: Sampling Time: 12/35 Weather Conditions: Water Color: Water Color: Water Color: Water Conductivity with yes; Time: Volume Factor (VF) Sampling Equipment: Stark Suction Grundfos Other: Starting Time: 12/35 Weather Conditions: Water Color: Water	Well Diameter Total Depth BLST ft. Wolume Purge Equipment: Bailer Stack Suction Grundfos Other: Starting Time: Diameter Time Volume Purge Starting Time: Diameter Time Volume Purge Starting Time: Diameter Time Volume Purging Flow Rate: Sediment Description: Time Volume Purging Flow Sediment Description: Time Volume Sediment Description: Time Volume Purging Flow Sediment Description: Time Volume Sigal: Time Volume PH Conductivity Temperature D.O. ORP (gal.) (my) Signification Time Volume PH Conductivity Temperature D.O. ORP (mgL) (mV) Signification Time Volume Diameter Time Volume PH Conductivity Temperature D.O. ORP (mgL) (mV) Signification Time Volume Diameter Time Volume Volume PH Conductivity Temperature D.O. ORP (mgL) (mV)	= 0.66
Thickness:	Total Depth Depth to Water Thickness:	= 0.66
Total Depth St. 87 In.	Total Depth Depth to Water Starting Time: 12/35 Water Color: Water Color: Starting Time: 12/35 Water Color: Water Color: Starting Time: 12/35 Water Color: Starting Time: 12/35 Water Color: Starting Time: 12/35 Water Color: Starting Time: Volume: Starting Time: Starting	= 0.66
Depth to Water Color Colo	Purge Equipment: Bailer Stack Suction Grundfos Other: Starting Time: Purging Flow Rate: Disposable Bailer Starting Time: Disposable Bailer Starting Time: Disposable Bailer Starting Time: Disposable Bailer Equipment: Disposable Bailer Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: Other: Other: Did well de-water? Did we	3 3 _{(gal}
Purge Equipment: Bailer Stack Suction Grundfos Other: Starting Time: Purging Flow Rate: Did well de-water? Time Volume PH Conductivity Pixe (gal.) Pixe Conductivity Pixe Conductivity Pixe Conductivity Pixe Pixe Conductivity Pixe Pixe Pixe Pixe Pixe Pixe Pixe Pixe	Purge Equipment: Bailer Stack Suction Grundfos Other: Starting Time: Sampling Equipment: Starting Time: Starting Time: Starting Time: Sampling Equipment: Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Other: Sampling Time: Starting Time: Sampling Equipment: Bailer Sampling Time: Starting Time: Sampling Time: Sampling Time: Sampling Time: Sampling Time: Starting Time: Sampling Time: Sampl	33 _{lgal}
Sampling Time: 12.56 Water Color: 12.56 Purging Flow Rate: 90m. Sediment Description: 51H Did well de-water? 10 If yes; Time: Volume: 92 Volu	Sampling Time: 12:56 Water Color: pm Odor: nE Purging Flow Rate: gpm. Sediment Description: Siff Did well de-water? ph If yes; Time: Volume: Time Volume ph Conductivity Temperature D.O. ORP (gal.) γ.40 1 7.60 5.57 68.2 (mg/L) (mV) 12:46 7 7.48 5.52 61.6 61.6 61.6 61.6	
Purging Flow Rate:	Purging Flow Rate: qqm. Sediment Description: Sift Did well de-water? r0 If yes; Time: Volume: Time Volume pH Conductivity Temperature D.O. ORP 12:40 1 7.60 5.57 68.2 (mg/L) (mV) 12:46 7 7.48 5.57 67.6 67.6 67.6	
Did well de-water?	Did well de-water? PO If yes; Time: Volume: Time Volume pH Conductivity Temperature D.O. ORP 12:40 1 7.60 5.57 68.2 (mg/L) (mV) 12:46 2 7.48 5.52 61.6	
Time Volume pH Conductivity Temperature D.O. ORP Alkalinity (gal.) 760 S.S.F 68.2 (mg/L) (mV) (ppm) 12.40 1 760 S.S.F 68.2 12.52 L. 7.48 S.S.Z 61.6 12.52 L. 7.42 S. 8 LABORATORY INFORMATION SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE // LABORATORY ANALYSES MW-G 3 VO.A Y HC1 SEQUOIA TPH(G)/btex/mtbe MW-G 1 Au. ber (* NONE ** TPH-D	Time Volume pH Conductivity Temperature D.O. ORP (gal.) μπhοs/cmχ/οο 5.57 (my/L) (mV)	
12.40 1 7.60 5.57 68.2 (mg/L) (mV) (ppm) 12.40 7.48 5.52 67.6 12.52 1.1 7.42 5.42 5.8 12.52 1.1 7.42 5.48 68.8 LABORATORY INFORMATION SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES MW - G 3 VOA Y HC1 SEQUOIA TPH(G)/btex/mtbe MW - G 1 Auber 1 WONE 1 TPH-D	12:40 (gal.) 7.60 µmhos/cmx/00 °F (mg/L) (mV) 12:46 7 7.48 5.57 67.6	(qa
LABORATORY INFORMATION SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE / LABORATORY ANALYSES MW-G 3 VOA Y HCI SEQUOIA TPH(G)/btex/mtbe MW-G I Amber U NONE - TPH-D		Alkalinit (ppm)
LABORATORY INFORMATION SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE / LABORATORY ANALYSES MW_G 3 VOA Y HC1 SEQUOIA TPH(G)/btex/mtbe MW_G 1 Auber U NONE - TPH-D	12:53 L: 7.+2 5.48 68.8	
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE / LABORATORY ANALYSES MW_G 3 VOA Y HC1 SEQUOIA TPH(G)/btex/mtbe MW_G 1 Auber U NONE - TPH-D		
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE / LABORATORY ANALYSES MW_G 3 VOA Y HC1 SEQUOIA TPH(G)/btex/mtbe MW_G 1 Auber U NONE - TPH-D		
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE / LABORATORY ANALYSES MW_G 3 VOA Y HC1 SEQUOIA TPH(G)/btex/mtbe MW_G 1 Acuber U NONE - TPH-D		 -
MW-6 3 VOA Y HCI SEQUOIA TPHIGI/btex/mtbe MW-6 I Amber " NONE " TPH-D		FS
MW-6 I Amber " NONE " TPH-D		
COMMENTS:		, d
COMMENTS:		
COMMENTS:		
	COMMENTS:	

Client/ 76 Facility# 73	500 76		<u></u>	Job#: _	18007	<u> </u>	
	al First st.			Date: _	6/7/99		
City: <u>Pla</u>				Sampler: _			
Well ID	Mw-7	_ w	ell Condition	: <u>O</u> E			
Well Diameter	2		ydrocarbon	67	Amount E	4.—	
Total Depth	76.90	ь Г	hickness: Volume	,	ti (product/wa		(Gallons)
Depth to Water	111.18		Factor (VF)	2" = 0.17 6" =	3° = 0.3 1.50	8 12" = 5.80	i" = 0.66
Purge Equipment:	Disposable Bailer Stack Suction Grundfos Other:	er	San	E F	= Estimated P Disposable B Dailer Pressure Bail Grab Sample Other:	ailer er	(gal.)
	2;4/ 3:05 ate:/	anm	Water Cold	onditions: _ or:6 Description: _	<u></u>	Odor: mel	
-	er?			me:			
Time 2:43 2:45 2:48	Volume pH (gal.) 7.5	<u>β</u>	nductivity mhos/cmX/00 557 7.47 5,42	Temperature F F 69.3 69.9	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
			3190				
SAMPLE ID	(#) - CONTAINER	LABO REFRIG.	RATORY INF		DRATORY	ANALY	/SES
MN-7	3 VoA	Y	HCI	SEQUOI	Α	TPH(G)/btex/m	ntbe
MW- +	1 Amber	ζί	NONE	-		TPH-D	
COMMENTS:		,					

Client/ 70. Facility# 73	sc0 76	·	J	ob#: _	18007	ح.	
	I First st.		D	ate:	6/7/99	7	
City: Ple				_	vartk		
Well ID	nw-8	_ w	ell Condition:	_ OK			
Well Diameter	2 i	<u>.</u> Hy	/drocarbon	.	Amount	Bailed ,	
Total Depth	86.40) (product/w		(Gailons
Depth to Water	68-30	- I)	Volume 2 Factor (VF)		3" = 0.3 1.50	38 4 12" = 5.80	= 0.66
Purge Equipment:	13.10) Disposable Baile Bailer		<u>}-3.08</u> x 3 (Sampli Equipn	ing	= Estimated F	<u> </u>	7. 2 > _(gal.)
	Stack Suction Grundfos Other:	·		B P	ailer ressure Bail irab Sample Ither:	ler	
Starting Time:	11120		Weather Con	ditions:	ch in		
Sampling Time:			Water Color:	_			
Purging Flow Rat	te:	gpm.	Sediment De:				
Did well de-wate	r? <u>rw</u>		If yes; Time	:	Volur	me:	{qal
	olume pH (gaj.) 7.63	μ	nductivity To nhos/cmX/00	emperature	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:29	9.7 7.4	6	.57	69.4 69.1		-	
				· · · · · · · · · · · · · · · · · · ·			
SAMPLE ID	(#) - CONTAINER	LABOI REFRIG.	RATORY INFOR		RATORY	ANALY	'SES
MN-#8	3 VoA	Y	HCI	SEQUOI	4	TPH(G)/btex/m	the
MW- 8	1 Amber	(c	NONE			TPH-D	
COMMENTS: _		· · · · · · · · · · · · · · · · · · ·					

TOS Tinoco Markati 2000 Corro Car San Roman, Co	ng Company on PL, Su, 400	Co	r. Presiltant Presiltant Address	Project Name -	ddrese <u>9</u> 1 Number. <u>Gettl</u> 7 <u>Sier</u> 1 (Name).	OSCO 191 FI 1800: er-Ryan ra Courr Deanna 510-551-	Inc. Sul	G-R te I	Inc.)(lin, (A 9456	E Sam	oratory oratory oples Ca ootlon D	Name _ Release llected ote	Number	ola A	Dav 25) Inalyt	10 L	365 855 - 000	9 H(;;;;;;
Sample Number	Lob Sample Number	Number of Containers	Metric Sell A Ar Woter C = Chorase	Type (6) Sorth	Discrete	Somple Preservation	load (Yes or No)	BIE WATE	(8015) (8020)				olyses	To Be	Performa (C) 0928	Comp	4			DO NOT BI
TB-LB		4	₩ ~	C	1076	401	4	IX	-	 	 - -	079		130	00	Ó				Remarks
MW-ZB		7			1220	7	-	X	X	1		0'79'7		-						
NN-3		4	٦.	4	214	<u> </u>	17	X	X			079		+	- -	┪				
MW-4		4		4-		7	-	X	X			079	(1	-						
NW-5		6		4	19)A	4	1-	X	X			CSO	1	-		- 	 			
NW-6		7	-		4100	લ	4	X	X		906		I V	-	 _	- 	 			
NW-7		/ -	~	7	1232p	٠-٠	4	X	X		9060	1002			·X					
HW-8		7	<u>-</u>		3°25	_ r	4	X	X		906	2002	177	4	-	ļ				
702		7			112 A	2	4	X	X			0304		↓	 					
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Relinquiebed By (Stor	ature)		Organiz G-R		Dote	/Time 5; oc	X Beesl	ved By	(Signatu	1200		rganizatio	N)	Date	/Time S					
elingulahed By (Stgr	pture)		Organiza	Uon	Daja	199 /1]m• 08=x				ere		- R-1		619	7/99	494	Turn			raie Cholae)
			<u>G-r</u>	- IMC	6/1	3/99		91	(Signatur	1/2		gonizatio Seg		Date	Time				24 Hre. 18 Hre.	
(Sign	a(ure)		Organiza			11me 8/99	144		Laborato	W	_ '	Sea	j	6/8	1/99	- 1			ю на. Браую	



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 San Carlos, CA 94070-4111 (650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 (650) 232-9600 FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342 FAX (650) 232-9612

Gettler-Ryan - Dublin 6747 Sierra Court, Suite J

Dublin, CA 94568

Attention: Deanna Harding

Client Project ID:

First Sample #:

Sample Matrix: Analysis Method:

Tosco SS#7376, Pleasanton Water

EPA 5030/8015 Mod./8020

906-0796

Sampled: Received: Reported:

Jun 7, 1999 Jun 7, 1999 Jun 24, 1999

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

_	Analyte	Reporting Limit μg/L	Sample I.D. 906-0796 TB-LB	Sample 1.D. 906-0797 MW-1	Sample I.D. 906-0798 MW-2B	Sample I.D. 906-0799 MW-3	Sample I.D. 906-0800 MW-4	Sample I.D. 906-0801 MW-5
	Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	N.D.	210,000
	Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	6,700
	Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	3,700
:	Ethyl Benzene	0.50	N.D.	N.D.	N.D.	0.63	N.D.	5,000
	Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	20,000
	мтве	2.5	N.D.	310	5,100	29	N.D.	11,000
	Chromatogram Pa	ttern:						Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	5.0	1.0	1.0	2,000
Date Analyzed:	6/16/99	6/15/99	6/15/99	6/15/99	6/15/99	6/15/99
Instrument Identification:	HP-2	HP-4	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	104	108	91	94	86	90

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard. Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

ษณ์lianne Fegley **Project Manager**



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 San Carlos, CA 94070-4111 (650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 (650) 232-9600 FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342 FAX (650) 232-9612

Gettler-Ryan - Dublin 6747 Sierra Court, Suite J Dublin, CA 94568 Client Project ID: Sample Matrix: Analysis Method: Tosco SS#7376, Pleasanton Water

Sampled: Received: Reported: Jun 7, 1999 Jun 7, 1999 Jun 24, 1999

Attention: Deanna Harding

First Sample #:

EPA 5030/8015 Mod./8020

906-0802

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

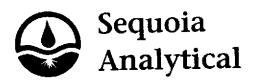
	Analyte	Reporting Limit μg/L	Sample I.D. 906-0802 MW-6	Sample I.D. 906-0803 MW-7	Sample I.D. 906-0804 MW-8		
	urgeable drocarbons	50	N.D.	2,600	N.D.		
I	Benzene	0.50	N.D.	180	N.D.		
	Toluene	0.50	N.D.	21	N.D.		
Eth	ıyl Benzene	0.50	N.D.	N.D.	N.D.		
То	tal Xylenes	0.50	N.D.	13	N.D.		
	MTBE	2.5	18	1,200	N.D.		
Chro	omatogram Pa	ttern:		Gasoline & Unidentified Hydrocarbons < C6			
Qual	lity Control D	ata					<u>. </u>
Repo	ort Limit Multip	lication Factor:	1.0	1.0	1.0		
Date	Analyzed:		6/15/99	6/16/99	6/15/99		
Instr	ument Identific	cation:	HP-4	HP-5	HP-4		
	ogate Recovei Limits = 70-13		98	90	91		

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 San Carlos, CA 94070-4111 (650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 (650) 232-9600 FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342 FAX (650) 232-9612

Gettler-Ryan - Dublin 6747 Sierra Court, Suite J Dublin, CA 94568 Client Project ID: Sample Matrix: Tosco SS#7376, Pleasanton Water

Sampled: Received: Jun 7, 1999 Jun 7, 1999

Attention: Deanna Harding

Analysis Method: First Sample #:

EPA 3510/8015 Mod. 906-0797

Reported:

Jun 24, 1999

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit μg/L	Sample 1.D. 906-0797 MW-1	Sample I.D. 906-0798 MW-2B	Sample I.D. 906-0799 MW-3	Sample I.D. 906-0800 MW-4	Sample I.D. 906-0801 MW-5	Sample I.D. 906-0802 MW-6
Extractable Hydrocarbons	50	N.D.	770	N.D.	N.D.	4,700,000	160
Chromatogram Pa	ttern:		Unidentified Hydrocarbons >C10			Unidentified Hydrocarbons > C9	Unidentified Hydrocarbons >C15

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	2,000	1.0
Date Extracted:	6/14/99	6/14/99	6/14/99	6/14/99	6/14/99	6/14/99
Date Analyzed:	6/15/99	6/15/99	6/15/99	6/15/99	6/16/99	6/15/99
Instrument Identification:	HP-3A	НР-ЗА	HP-3A	HP-3A	HP-3A	HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard.

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Selvenie Skyly

Julianne Fegley Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 San Carlos, CA 94070-4111

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(650) 364-9600

FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342 FAX (650) 232-9612

Gettler-Ryan - Dublin 6747 Sierra Court, Suite J Dublin, CA 94568 Attention: Deanna Harding Client Project ID: Sample Matrix: Tosco SS#7376, Pleasanton

Water

Anaiysis Method: EPA 3510/8015 Mod. First Sample #: 906-0803

Sampled: Jun 7, 1999 Received: Jun 7, 1999 Reported: Jun 24, 1999

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit μg/L	Sample I.D. 906-0803 MW-7	Sample I.D. 906-0804 MW-8	
Extractable Hydrocarbons	50	550	N.D.	
Chromatogram Pa	ttern:	Unidentified Hydrocarbons >C10		

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	
Date Extracted:	6/14/99	6/14/99	
Date Analyzed:	6/15/99	6/15/99	
Instrument Identification:	HP-3A	НР-ЗА	

Extractable Hydrocarbons are quantitated against a fresh diesel standard. Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAĻ, #1271

Wilianne Fegley Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 San Carlos, CA 94070-4111

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(650) 364-9600

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Gettler-Ryan - Dublin 6747 Sierra Court, Suite J Dublin, CA 94568

Attention: Deanna Harding

Client Project ID: Sample Descript: Analysis Method:

Lab Number:

Tosco SS#7376, Pleasanton Water, MW-5 EPA 8260 906-0801 Sampled: Jun 7, 1999 Received: Jun 7, 1999 Analyzed: Jun 21, 1999 Reported: Jun 24, 1999

OXYGENATED COMPOUNDS (EPA 8260)

Analyte	Detection Limit µg/L		Sample Results µg/L
Ethanolt-Butanol	25,000 5,000		N.D. N.D.
Methyl t-Butyl Ether (MTBE)	100	*******************************	. 4000*
Di-Isopropyl Ether (DIPE)	100	***************************************	N.D.
Ethyl t-Butyl Ether (ETBE)	100	*******************************	N.D.
t-Amyl Methyl Ether (TAME)	100	***************************************	N.D.

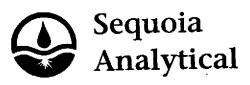
Surrogates	Cor	ntrol Limit %	% Recovery
Dibromofluoromethane	50	150	87
1,2-Dichloroethane-d4		150	80

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley Project Manager Please Note:

* Sample contains high concentration of Hexane.



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 San Carlos, CA 94070-4111

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(650) 364-9600

FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342 FAX (650) 232-9612

Gettler-Ryan - Dublin 6747 Sierra Court, Suite J

Dublin, CA 94568

Attention: Deanna Harding

Client Project ID: Tosco SS#7376, Pleasanton

Matrix: Liquid

QC Sample Group: 9060796-804

Reported:

Jun 24, 1999

QUALITY CONTROL DATA REPORT

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ANALYTE	Benzene	Toluene	Ethyl	Xylenes	
			Benzene		
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	
			····		
MS/MSD		•			
Batch#:	9060860	9060860	9060860	9060860	
Date Prepared:	6/15/99	6/15/99	6/15/99	6/15/99	
Date Analyzed:	6/15/99	6/15/99	6/15/99	6/15/99	
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	
Conc. Spiked:	20 μg/L	20 µg/L	20 μg/L	60 μg/L	
Matrix Caika					
Matrix Spike	100	85	85	100	
% Recovery:	100	85	65	100	
Matrix Spike					
Duplicate %					
Recovery:	105	90	90	103	
Relative %					
Difference:	4.9	5.7	5.7	3.3	
LCS Batch#:	4LCS061599	4LCS061599	4LCS061599	4LCS061599	
Date Prepared:	6/15/99	6/15/99	6/15/99	6/15/99	
Date Analyzed:	6/15/99	6/15/99	6/15/99	6/15/99	
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	
LCS %					
Recovery:	105	90	90	105	
				<u> </u>	<u> </u>
% Recovery			70.400	70.120	
Control Limits:	70-130	70-130	70-130	70-130	

SEQUOIA ANALYTICAL, #1271

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Suranne Fegley Project Manager Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.



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Gettler-Ryan - Dublin 6747 Sierra Court, Suite J

Dublin, CA 94568

Attention: Deanna Harding

Client Project ID: Tosco SS#7376, Pleasanton

Matrix: Liquid

QC Sample Group: 9060796-804

Reported:

Jun 24, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl	Xylenes	
ANALITE	Detivetie	IOIGOIG	Benzene	Ayleries	•
			Delizerie		
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	
MS/MSD					
Batch#:	9060783	9060783	9060783	9060783	
Date Prepared:	6/16/99	6/16/99	6/16/99	6/16/99	
Date Analyzed:	6/16/99	6/16/99	6/16/99	6/16/99	
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	
Conc. Spiked:	20 μg/L	20 μg/L	20 μg/L	60 μg/L	
Matrix Spike					
% Recovery:	85	75	85	85	
/5 (1055 toly)	•				
Matrix Spike					
Duplicate %					
Recovery:	95	85	85	95	
Relative %					
Difference:	11	13	0.0	11	
LCS Batch#:	2LCS061699	2LCS061699	2LCS061699	2LCS061699	
Date Prepared:	6/16/99	6/16/99	6/16/99	6/16/99	
Date Analyzed:	6/16/99	6/16/99	6/16/99	6/16/99	
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	
LCS %					
Recovery:	100	90	90	.1 02	
•		-			
% Recovery			70. 405		
Control Limits:	70-130	70-130	70-130	70-130	

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley **Project Manager**

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Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 San Carlos, CA 94070-4111 (650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 (650) 232-9600 FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342 FAX (650) 232-9612

Gettler-Ryan - Dublin 6747 Sierra Court, Suite J

Dublin, CA 94568

Attention: Deanna Harding

Tosco SS#7376, Pleasanton Client Project ID:

Matrix: Liquid

QC Sample Group: 9060796-804

Reported:

Jun 24, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl	Xylenes	Diesel	MTBE
			Benzene			
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M.	EPA 8260
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	K. Grubb	N. Nelson
MS/MSD					•	
Batch#:	9060876	9060876	9060876	9060876	BLK061499	9060856
Date Prepared:	6/16/99	6/16/99	6/16/99	6/16/99	6/14/99	6/18/99
Date Analyzed:	6/16/99	6/16/99	6/16/99	6/16/99	6/15/99	6/18/99
nstrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3B	GC/MS-2
Conc. Spiked:	20 μg/L	20 μg/L	20 μg/L	60 μg/L	500 μg/L	50 μg/L
Matrix Spike						
% Recovery:	95	95	95	98	80	92
Matrix Spike						
Duplicate %						
Recovery:	95	95	95	97	88	98
Relative %						
Difference:	0.0	0.0	0.0	1.7	9.5	6.3
LCS Batch#:	5LCS061699	5LCS061699	5LCS061699	5LCS061699	LCS061499	LCS062199
Date Prepared:	6/16/99	6/16/99	6/16/99	6/16/99	6/14/99	6/21/99
Date Analyzed:	6/16/99	6/16/99	6/16/99	6/16/99	6/15/99	6/21/99
nstrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-38	GC/MS-2
LCS %						
Recovery:	100	100	95	98	78	110
% Recovery		·	· · · · · · · · · · · · · · · · · · ·	<u> </u>		
Control Limits:	70-130	70-130	70-130	70-130	60-140	70-130

SEQUOIA ANALYTICAL, #1271

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Jálianne Fegley **Project Manager** Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.