

MAR 2 9 2002

March 13, 2002 G-R #180106

TO:

Mr. David B. De Witt

Phillips 66 Company

2000 Crow Canyon Place, Suite 400 San Ramon, California 94583

CC:

Mr. Douglas Lee

Gettler-Ryan Inc.

Dublin, California 94568

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

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

Former Tosco (Unocal)

Service Station #7004 15599 Hesperian Blvd. San Leandro, California

RO#371

Sas

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	March 7, 2002	Groundwater Monitoring and Sampling Report First Semi-Annual - Event of January 28, 2002

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 *March 26*, 2002, this report will be distributed to the following:

cc: Ms. Susan Hugo, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94502
 Mr. Michael Bakaldin, City of San Leandro Fire Department, 835 East 14th Street, San Leandro, CA 94577

Enclosure

trans/7004-DBD



GETTLER-RYAN INC.

March 7, 2002 G-R Job #180106

Mr. David B. De Witt Phillips 66 Company 2000 Crow Canyon Place, Suite 400 San Ramon, California 94583



RE:

First Semi-Annual Event of January 28, 2002

Groundwater Monitoring & Sampling Report Former Tosco (Unocal) Service Station #7004

15599 Hesperian Boulevard San Leandro, 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 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. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Project Coordinator

Hagop Kevork P.E. No. C55734

Figure 1:

Potentiometric Map

Figure 2:

Concentration Map

Table 1:

Groundwater Monitoring Data and Analytical Results

Table 2:

Dissolved Oxygen Concentrations

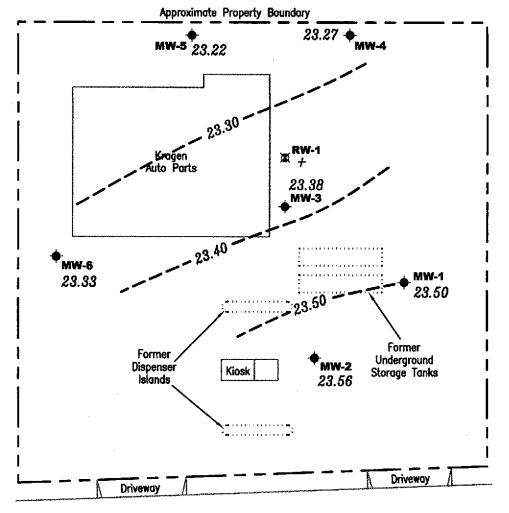
Table 3:

Groundwater Analytical Results - Oxygenate Compounds Standard Operating Procedure - Groundwater Sampling

Attachments:

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports



EXPLANATION

Groundwater monitoring well

■ Aquifer testing well

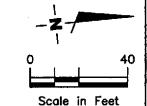
99.99 Groundwater elevation in feet referenced to Mean Sea Level

Groundwater elevation contour, dashed where inferred.

+ TOC not available

5

Approximate groundwater flow direction at a gradient of 0.002 to 0.003 Ft./Ft.



HESPERIAN BOULEVARD

Source: Figure modified from drawing provided by MPDS Services Inc..



REVIEWED BY

POTENTIOMETRIC MAP

Former Tosco (Unocal) Service Station #7004 15599 Hesperian Boulevard San Leandro, California

DATE REVISED DATE
January 28, 2002

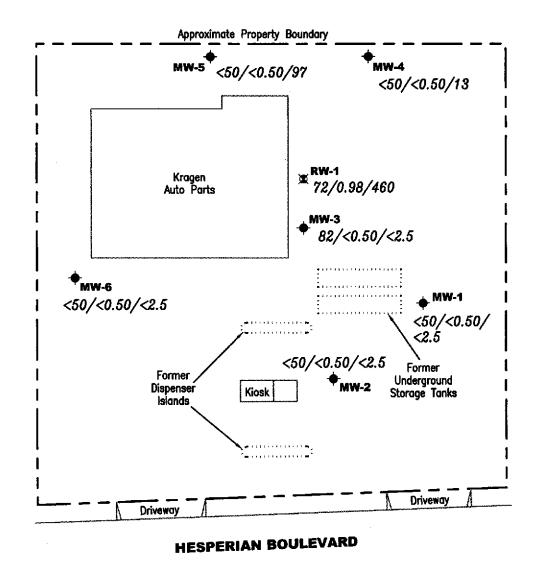
FILE NAME: P:\Enviro\TOSCO\7004\Q02~7004.dwg | Layout Tob: Pot1

PROJECT NUMBER

180106

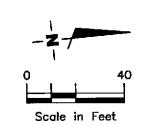
FIGURE

A



EXPLANATION

- Groundwater monitoring well
- Aquifer testing well
- A/B/C Total Petroleum Hydrocarbons (TPH) as Gasoline/Benzene/ MTBE concentrations in ppb



Source: Figure modified from drawing provided by MPDS Services Inc..



REVIEWED BY

(925) 551-7555

CONCENTRATION MAP Former Tosco (Unocal) Service Station #7004 15599 Hesperian Boulevard San Leandro, California REVISED DATE

DATE

January 28, 2002

FILE NAME: P:\Enviro\TOSCO\7004\Q02-7004.dwg | Layout Tab: Con1

PROJECT NUMBER

180106

FIGURE

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(ft. bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-1	05/04/91		10.0-25.0		ND	ND	ND	ND	ND	
	07/23/91				ND	ND	ND	ND	ND	
	10/14/91				ND	ND	ND	ND	ND	
	01/14/92				ND	ND	ND	ND	ND	
	04/14/92				76¹	ND	ND	ND	ND	
	07/09/92				70¹	ND	ND	ND	ND	130
	10/28/92				SAMPLED SEMI					
	01/21/93				ND	ND	ND	ND	ND	42
36.89	04/20/93	14.89		22.00						56
	07/22/93	14.34		22.55	ND	ND	ND	ND	ND	77
36.39	10/06/93	14.87		21.52	·					
	01/11/94	15.14		21.25	ND	ND	ND	ND	ND	
	04/06/94	14.19		22.20						
	07/08/94	14.66		21.73	ND	ND	ND	ND	ND	
	10/06/94	16.71		19.68						
	01/05/95	14.68		21.71	ND	ND	ND	ND	ND	
	04/05/95	11.76		24.63						
	07/14/95	12.93		23.46	ND	0.65	2.2	ND	2.3	
	10/12/95	14.29		22.10						
	01/08/96	14.18		22.21	ND	ND	ND	ND	ND	
	07/08/96	12.74		23.65	ND	ND	ND	ND	ND	ND
	01/03/97	12.89		23.50	87¹	ND	ND	ND	ND	ND
	07/02/97	13.66		22.73	ND	ND	ND	ND	ND	ND
	01/15/98	13.08		23.31	ND	ND	ND	ND	ND	ND
	07/08/98	11.25		25.14	ND	ND	ND	ND	ND	ND
	01/11/99	13.68		22.71	51 ⁹	ND	ND	ND	ND	4.8
	07/07/99	12.15		24.24	ND	ND	ND	ND	ND	ND
	01/04/00	13.95		22.44	ND .	ND	ND	ND	ND	ND
	07/15/00	13.46		22.93	ND	ND	0.86	ND	ND	ND
	01/19/01	12.96		23.43	ND	ND	ND	ND	ND	ND
	07/31/01	14.36		22.03	ND	ND	ND	ND	ND	ND
	01/28/02	12.89		23.50	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	Х	MTBE
TOC*		(ft.)	(ft. bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-2	05/04/91		10.0.25.0		N IVO	MD	ND	ND	275	
141 44 - 2	03/04/91		10.0-25.0		ND ND	ND ND	ND ND	ND ND	ND ND	
	10/14/91				ND ND	ND ND	ND ND	ND ND	ND ND	
	01/14/92				ND ND	ND ND	ND ND	ND ND	ND ND	
	04/14/92				45 ¹	ND	ND ND	ND ND	ND ND	
	07/09/92	 		 	ND	ND ND	ND	ND ND	ND ND	 49
	10/28/92				SAMPLED SEMI-					
	01/21/93				ND	ND	ND	 ND	ND	 17
37.35	04/20/93	15.20		22.15			'			80
31.33	07/22/93	14.75		22.60	62 ¹	ND	ND	ND	 ND	42
37.07	10/06/93	15.49		21.58						4 2
37.07	01/11/94	15.77		21.30	120¹	nd	ND	ND	 ND	
	04/06/94	14.83		22.24						
	04/00/94	15.28		21.79	 140¹	 ND	ND	ND	 ND	
	10/06/94	16.32		20.75		ND 				
	01/05/95	15.30		20.73	310 ¹	nd	ND	ND	ND	
	04/05/95	13.30		24.95		ND 		ND	ND	
	04/03/93	13.55		23.52	86 ¹	ND	ND	ND	ND	
	10/12/95	14.88		22.19						
	01/08/96	14.81		22.26	911	ND	ND	ND	ND	
	07/08/96	13.37		23.70	100¹	ND	ND	ND	ND	ND
	01/03/97	13.14		23.93	160¹	ND	ND	ND	ND	ND
	07/02/97	14.26		22.81	91 ¹	ND	ND	ND	ND	ND
	01/15/98	13.31		23.76	ND	ND	ND	ND	ND	ND
	07/08/98	11.57		25.50	ND	ND	ND	ND	ND	ND
	01/11/99	14.26		22.81	ND	ND	ND	ND	ND	9.8
	07/07/99	12.24		24.83	ND	ND	ND	ND	ND	9.4
	01/04/00	14.14		22.93	ND	ND	0.518	ND	ND	9.07
	07/15/00	13.75		23.32	ND	ND	0.51	ND	ND	6.0
	01/19/01	13.37		23.70	ND	ND	ND	ND	ND	6.84
	07/31/01	14.96		22.11	ND	ND	ND	ND	ND	ND
	01/28/02	13.51		23.56	<50	<0.50	<0.50	< 0.50	< 0.50	<2.5

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	Т	E	X	MTBE		
TOC*		(ft.)	(ft. bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)		
MW-3	05/04/91		10.0-25.0		34,000	6,100	32	1,200	6,100			
	07/23/91				17,000	5,500	26	1,800	2,800			
	10/14/91				25,000	6,300	78	2,000	1,400			
	01/14/92				13,000	6,600	19	2,600	1,800			
	04/14/92				16,000	3,400	19	1,400	1,300			
	07/09/92				13,000	3,200	12	1,900	1,100			
	10/28/92				15,000	4,400	15	2,400	800			
	01/21/93				12,000	2,800	11	1,600	590			
37.22	04/20/93	15.13		22.09	18,000	3,700	11	2,300	1,300	410		
	07/22/93	13.52		23.70	16,000	4,500	17	3,600	1,900	440		
36.79	10/06/93	15.41		21.38	24,000	4,100	ND	3,600	2,000	ND		
	01/11/94	15.66		21.13	19,000	3,300	31	3,300	890			
	04/06/94	14.72		22.07	24,000	3,100	ND	3,300	820			
	07/08/94	15.20		21.59	18,000	2,200	25	2,500	860			
	10/06/94	16.23		20.56	20,000	2,100	26	3,000	900			
	01/05/95	15.12		21.67	20,000	2,100	ND	3,200	3,800			
	04/05/95	12.03				24.76	18,000	2,100	ND	3,700	690	
	07/14/95	13.46		23.33	21,000	1,600	ND	3,900	1,500			
	10/12/95	14.81		21.98	17,000	1,000	ND	3,600	1,000	3		
	01/08/96	14.70		22.09	14,000	760	ND	3,100	380	4		
	07/08/96	13. 2 9		23.50	16,000	470	45	4,400	1,000	340		
	01/03/97	13.09		23.70	14,000	160	ND	2,100	120	620		
	07/02/97	13.96		22.83	23,000	110	ND	3,600	1,600	1,200		
	01/15/98	13.26		23.53	12,000	33	ND^5	2,800	120	1,100		
	07/08/98	11.64		25.15	20,000	76	ND ⁵	4,100	1,400	750		
	01/11/99	1 4 .1 7		22.62	23,000 ^{t0}	ND ⁵	ND ⁵	4,100	460	920		
	07/07/99	13.18		23.61	15,000 ¹¹	35	ND^5	3,400	470	1,700		
	01/04/00	14.27		22.52	15,500	ND ⁵	ND^5	3,330	191	827		
	07/15/00	13.91		22.88	15,00012	ND ⁵	ND ⁵	3,400	420	3,300		
	08/25/00	14.24		22.55						1,920 ¹³		

Table 1
Groundwater Monitoring Data and Analytical Results

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WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(ft. bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(pph)
MW-3	01/19/01	13.42	10.0-25.0	23.37	$11,100^{14}$	38.4	ND ⁵	1,760	38.8	ND ⁵
(cont)	07/31/01	14.90		21.89	13,00014	ND ⁵	ND ⁵	1,600	63	ND^5
	01/28/02	13.41		23.38	82	<0.50	<0.50	10	<0.50	<2.5
MW-4	07/23/91		10.0-26.0		ND	ND	ND	ND	ND	·
	10/14/91				ND	ND	ND	ND	ND	
	01/14/92				ND	ND	ND	· ND	ND	
	04/14/92				ND	ND	ND	ND	ND	
	07/09/92				ND	ND	ND	ND	ND	
	10/28/92				SAMPLED SEMI-	-ANNUALLY				••
	01/21/93				ND	ND	ND	ND	ND	
35.81	04/20/93	13.84		21.97						65
	07/22/93	13.52		22.29	ND	ND	ND	ND	ND	54
35.44	10/06/93	14.17		21.27						
	01/11/94	14.42		21.02	ND	ND	ND	ND	ND	
	04/06/94	13.44		22.00	**					
	07/08/94	13.96		21.48	ND	ND	ND	ND	ND	
	10/06/94	15.00		20.44						
	01/05/95	13.83		21.61	ND .	ND	ND	ND	ND	
	04/05/95	11.05		24.39						
	07/14/95	12.23		23.21	ND	ND	ND	ND	ND	
•	10/12/95	13.59		21.85						 ,
	01/08/96	13.43		22.01	ND	ND	ND	ND	ND	4
	07/08/96	12.04		23.40	ND	ND	ND	ND	ND	ND
	01/03/97	12.38		23.06	801	ND	ND	ND	ND	ND
	07/02/97	13.00		22.44	ND	ND	ND	ND	ND	25
	01/15/98	12.50		22.94	ND	ND	ND	ND	ND	ND
	07/08/98	10.53		24.91	ND	ND	ND	ND	ND	25
	01/11/99	12.95		22.49	ND	ND	ND	ND	ND	23
	07/07/99	11.76		23.68	ND	ND	ND	ND	ND	15
	01/04/00	13.17		22.27	ND	ND	ND	ND	ND	13.2

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	Т	E	X	MTBE
FOC*		(ft.)	(ft. bgs)	(msl)	(pph)	(ppb)	(ppb)	(ppb)	(ppb)	(ррБ)
MW-4	07/15/00	13.04	10.0-26.0	22.40	ND	ND	ND	ND	ND	11
	07/15/00	13.04	10.0-26.0	22.79	ND ND	ND ND	ND	ND ND	ND ND	9.97
cont)	07/31/01	13.69		21.75	ND ND	ND ND	ND ND	ND ND	ND	6.0
	07/31/01	13.09 12.17		21.73 23.27	<50	<0.50	<0.50	<0.50	<0.50	13
	01/20/02	12.17		25.27	<30	<0.50	<0.50	<0.50	<0.50	13
MW-5	07/23/91		10.0-26.0		260	1.2	0.39	10	0.71	
	10/14/91				140	0.72	ND	1.3	0.89	
	01/14/92				60 ¹	ND	ND	ND	ND	
	04/14/92	·			86 ¹	ND	ND	ND	ND	
	07/09/92				ND	ND	ND	ND	ND	71
	10/28/92				ND	ND	ND	ND	ND	45
	01/21/93				100 ¹	ND	ND	ND	ND	160
7.01	04/20/93	14.87		22.14	991	ND	ND	ND	ND	120
	07/22/93	14.82		22.19	59 ²	ND	ND	2.6	ND	42
6.81	10/06/93	15.61		21.20	150	1.1	ND	3.1	0.85	57
	01/11/94	15.84		20.97	160	ND	0.79	0.54	ND	
	04/06/94	14.90		21.91	260	1.4	ND	0.88	ND	
	07/08/94	15.38		21.43	200	ND	ND	ND	ND	
	10/06/94	16.42		20.39	350	1.3	ND	ND	ND	
	01/05/95	15.20		21.61	85	ND	ND	ND	ND	
	04/05/95	11.72		25.09	ND	ND	ND	ND	ND	
	07/14/95	13.69		23.12	180	1.3	ND	7.9	ND	
	10/12/95	15.02		21.79	310	ND	ND	31	1.2	3
	01/08/96	14.85		21.96	ND	0.55	ND	ND	0.58	4
	07/08/96	13.52		23.29	140	2.1	1.4	5.6	0.51	110
•	07/12/96	14.50		22.31						
	01/03/97	12.85		23.96	12,000	150	ND	2,100	120	660
	07/02/97	13.79		23.02	ND	ND	ND	ND	ND	72
	01/15/98	13.03		23.78	69 ⁶	ND	ND	ND	ND	7
	07/08/98	12.05		24.76	ND	0.74	ND	ND	ND	95
• •	01/11/99	14.41		22.40	ND	1.0	ND	ND	ND	170

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(ft. bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-5	07/07/99	12.38	10.0-26.0	24.43	130	0.64	ND	ND	ND	330
(cont)	01/04/00	14.33		22.48	ND	ND	ND	ND	ND	183
	07/15/00	13.88		22.93	ND	0.68	ND	ND	ND	350
	01/19/01	13.41		23.40	ND	ND	ND	ND	ND	195
	07/31/01	15.12		21.69	ND	ND	ND	ND	ND	190
	01/28/02	13.59		23.22	<50	<0.50	<0.50	<0.50	<0.50	97
MW-6	07/23/91		10.0-26.0		ND	ND	ND	ND	ND	
	10/14/91				ND	ND	ND	ND	ND	
	01/14/92				ND	ND	ND	ND	ND	
	04/14/92				ND	ND	ND	ND	ND	
	07/09/92				ND	ND	ND	ND	ND	
	10/28/92				SAMPLED SEMI	-ANNUALLY				
	01/21/93				ND	ND	ND	ND	ND	
37.55	04/20/93	15.27		22.28						ND
- 1122	07/22/93	15.20		22.35	ND	ND	ND	ND	ND	ND
37.13	10/06/93	15.75		21.38						
	01/11/94	16.02		21.11	ND	ND	ND	ND	ND	
	04/06/94	15.07		22.06						
	07/08/94	15.55		21.58	ND	ND	ND	ND	ND	
	10/06/94	16.58		20.55						
	01/05/95	15.42		21.71	ND	ND	ND	ND	ND	
	04/05/95	12.14		24.99	+=					
	07/14/95	13.87		23.26	ND	ND	ND	ND	ND	
	10/12/95	15.17		21.96						
	01/08/96	15.05		22.08	ND	ND	ND	ND	ND	
	07/08/96	13.71		23.42	ND	ND	ND	ND	ND	ND
	01/03/97	13.12		24.01	97 ¹	ND	ND	ND	ND	ND
	07/02/97	14.57		22.56	ND	ND	ND	ND	ND	ND
•	01/15/98	13.30		23.83	ND	ND	ND	ND	ND	ND
	07/08/98	12.33		24.80	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(ft. bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-6	01/11/99	14.60	10.0-26.0	22.53	ND	ND	ND	ND	ND	ND
(cont)	07/07/99	13.23		23.90	ND	ND	ND	ND	ND	ND
` ,	01/04/00	14.41		22.72	ND	ND	ND	ND	ND	ND
	07/15/00	14.05		23.08	ND	ND	ND	ND	ND	ND
	01/19/01	13.58		23.55	ND	ND	ND	ND	ND	ND
	07/31/01	15.24		21.89	ND	ND	ND	ND	ND	ND
	01/28/02	13.80		23.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5
RW-1	07/08/98	11.72	12.5-27.5		80 ⁸	1.7	ND	ND	ND	1,300
K 77 - 1	01/11/99	14.05	12.5-27.5		ND ⁵	3.0	ND ⁵	ND ⁵	ND^5	1,200
	07/07/99	13.05			ND	ND	ND	ND	ND	590
	01/04/00	14.26			ND	ND	ND	ND	ND	270
	07/15/00	13.77			ND	0.55	ND	ND	ND	460
	01/19/01	13.29			ND	ND	ND	ND	ND	338
	07/31/01	14.72			ND ⁵	ND ⁵	ND ⁵	ND^5	ND ⁵	1,900
	01/28/02	13.21			72 ¹⁵	0.98	<0.50	<0.50	<0.50	460
Trip Blank										
TB-LB	01/15/98	·			ND	ND	ND	ND	ND	ND
	07/08/98				ND	ND	ND	ND	ND	ND
	01/11/99				ND	ND	ND	ND	ND	ND
	07/07/99				ND	ND	ND	ND	ND	ND
	01/04/00				ND	ND	ND	ND	ND	ND
	07/15/00				ND	ND	ND	ND	ND	ND
	01/19/01				ND	ND	ND	ND	ND	ND
	07/31/01				ND .	ND	ND	ND	ND	ND
	01/28/02				<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5

Table 1

Groundwater Monitoring Data and Analytical Results

Former Tosco (Unocal) Service Station #7004 15599 Hesperian Boulevard San Leandro, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 15, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing

TPH-G = Total Petroleum Hydrocarbons as Gasoline

(ppb) = Parts per billion

DTW = Depth to Water

B = Benzene

ND = Not Detected

(ft.) = Feet

T = Toluene

-- = Not Measured/Not Analyzed/Not Available

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

- * TOC elevations are relative to mean sea level (msl), based on the City of San Leandro Benchmark (Elevation = 36.04 feet msl). Prior to October 6, 1993, the DTW measurements were taken from the top of well covers.
- ♦ ORC installed.
- ♦♦ ORC removed from well.
- Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
- 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.
- Detection limit raised. Refer to analytical reports.
- 6 Laboratory report indicates unidentified hydrocarbons C6-C8.
- Laboratory narrative: MTBE was not reported due to the presence of a chlorinated hydrocarbon pattern.
- 8 Laboratory report indicates discrete peaks and unidentified hydrocarbons <C7.</p>
- 9 Laboratory report indicates discrete peaks.
- Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.
- Laboratory report indicates gasoline and unidentified hydrocarbons < C6.
- Laboratory report indicates gasoline C6-C12.
- 13 MTBE by EPA Method 8260.
- Laboratory report indicates weathered gasoline C6-C12.
- Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.

Table 2

Dissolved Oxygen Concentrations

Former Tosco (Unocal) Service Station #7004 15599 Hesperian Boulevard San Leandro, California

WELLID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-5	07/02/97	3.82	3.97
	01/03/97	4.35	4.27
	07/12/96	3.44	3.67
	01/15/98	4.19	4.38
	07/08/98	4.67	4.60

EXPLANATIONS:

Dissolved oxygen concentrations prior to January 15, 1998, were compiled from reports prepared by MPDS Services, Inc. (mg/L) = milligrams per liter

Table 3

Groundwater Analytical Results - Oxygenate Compounds

Former Tosco (Unocal) Service Station #7004 15599 Hesperian Boulevard San Leandro, California

WELL ID	DATE	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-3	08/25/00	ND^1	1,920	ND ¹	ND¹	ND^1	ND¹	ND^1

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 = 1,2-Dibromoethane

(ppb) = Parts per billion

ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

¹ Dectection limit raised. Refer to analytical reports.

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 Phillips 66 Company, the purge water and decontamination water generated during sampling activities is transported to Phillips 66 - San Francisco Refinery, located in Rodeo, California.

Leasoro		Sam	pler:	+15		
MU-1 2 23.87 12.89	Hydro Thick Volu Fact	ocarbon (kness: zme 2" = 0 cor (VF)	in. (product/w ate 3" = 0.38 0	12" = 5.80	(gal.) = 0.66
Disposable Bailer Bailer Stack Suction Grundfos Other:	-	Samplin g Equipmen	Baile	er ssure Bailer		
1021 1040 te:	ipm.	Water Color: Sediment Descr	iption:		Odor: 20	(gal.)
Volume pH (gal.)			nperature •C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
2 7-16 9 7:10 5.5 7.09	. 6	28	7.5 17.4 7.4			
AST CONTAINED		RATORY INFORM	MATION LABO	RATORY	ANAL	YSES
3 × VDA VIAL	Y	НСС)	три (1872)	MIDE
	23.87 th. 12.89 th. 10.98 x Disposable Bailer Bailer Stack Suction Grundfos Other: 10.21 10.40 te: 10.21 10.40 te: 27.10 27.10 27.10 27.10 27.10	in. Hydro Thick 23.87 fr. Vol. Vol. Pace 12.89 fr. 12.89 fr. 10.98 x VF 19. Disposable Bailer Stack Suction Grundfos Other: 1021 /040 te:	Thickness: 12.89 Volume 2° =	Well Condition: 1	Well Condition: Amount Bail Amount Bail	Well Condition: Amount Bailed (product/water): Amount Bailed

ddress: 45	199 Aesp Lemore	erini Buo	Job#:/ Date: Sampler:	180106 1-28-02 FB		
Well ID	mw2	Well Condition	ı:	OK		
Vell Diameter	in_	Hydrocarbon Thickness:	ϕ_{in}	Amount Bailed	7	(gal_)
otal Depth Depth to Water	24.06 _m 13.51 _m	Volume Factor (VF)	2° = 0.17 6° =	3" = 0.38 1.50 12	4" = 2" = 5.80	0.66
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10.55 x	VF 117-1179	X 3 (case volume)	Estimated Purge	Volume: 5	S (gal.)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	_	B	isposable Bailer ailer ressure Bailer irab Sample		
Starting Time: Sampling Time: Purging Flow Ra Did well de-wate	. 22	Water C	Conditions:		Odor: No	(Oal)
Time	Volume pH (gal.)	Conductivity µmhos/cm	Temperature •C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1049 1052 1050	2 4 7.12 5.5 4.10		18.5 18.6			
		_	INFORMÁTION RV. TYPE LA	BORATORY	ANALY	'SES
MW-2	3 × VDA VIAL	REFRIG. PRESE			PHG STEX	MTOE
///w	2 1- VOIT VINEE			/	*	
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		. 1		18010)6	
ent/ cility #	x0 #700	9	Job#:		-02	
المركزية: Idress	99 Hesperi	AN BLYD	Date:	FB		
ty: <u>Stru</u>	99 Hesperi Leavero		Sample	r: <u>1_5</u>	<u></u>	
				OK		·
Well ID	mw's	Well Condit	tion: ——			
ell Diameter	2 in.	Hydrocarbo		Amount	Bailed (water):	(cal.)
	24.38	Thickness:	2° = 0.17			" = 0.66
tal Depth	13.4/ 4	Volume Factor (VF)	_	6" = 1.50	12" = 5.80	
epth to Water	-	vr 117-18	X 3 (case vo	lume) = Estimate	d Purge Volume: _	5.5 1001
Pur ge quipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Sampling Equipment:	Disposable Bailer Pressure E Grab Sam	Bailer ple	
		24	har Condition	: Cla	004	
Sampling Time: Purging Flow Ra	1445 1445	Wate	ment Descripti	C 1000y	Odor:	<i>'</i>
Sampling Time: Purging Flow Ra	1445 1445	Wate	ment Descriptions; Time:	ion: v	_ Odor:	losi
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Sampling Time: Purging Flow Ra Did well de-wat	1445 ate:	Conductiving prohos/cm	r Color: ment Descript s; Time: ity Tempe	ion: V	Odor:	(gai
Sampling Time: Purging Flow Ra Did well de-wat Time	1445 1455 1445 1445 1445 1445 1445 1445 1445 1455	Conductivi umhos/cm	r Color: ment Descriptions; Time: ity Temper 1	clopy ion: v rature D. (m)	Odor:	(gal
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ddress: 1559 Hesperial BLV) Well ID Well Condition: Well Diameter otal Depth epth to Water Disposable Bailer Stack Suction Grundfos Other: Sampling Time: Starting Time: Did well de-water? Time Volume (gal) Purge Quipment: Starting Time: 1202 Weather Conditions: Wester Color: Color: Wester Color: Color: Wester Color: Color: Wester Color: Color: Color: Wester Color: Co			FIELD DAT	A OI ILL	•			
ity: SAN LEANUND Well ID Well Diameter Volume Purge Biller Stack Suction Grundfos Other: Sampling Stack Suction Grundfos Other: Starting Time: Volume Volume Volume Vo	lient/ acility # <u>/o</u>	sco #7004		Job#:		80106 1-38:0	・・・・ フ	
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epth to Water 2.17 t. Factor (VF) 6" = 1.50 12" = 5.80	eli Diameter				<u>in (</u>	<u> </u>	1	
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Stack Suction Grundfos Other: Starting Time: Starting Time: Starting Time: V202 Weather Conditions: Water Color: Water Color: Water Color: Volume: Other: Other: Volume: Other:	Purge				Dist	oosable Bai	lec	
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Time Volume pH Conductivity Temperature D.O. ORP Alkalinity (ppm) 1206 2 7.29 636 17.9 1210 4 7.27 634 18.0 1216 6.5 7.21 634 18.0 SAMPLE ID (1) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES MU-4 3 x VDA VIAL Y HEL Seg TPHG 8TEx /MTOE	-	: [224]	Water Sedim	Color:	<u> </u>	AR	Odor: A	
Time Volume (gal.) pH Container C (mg/L) (mV) (ppm) 1206 2 7.29 6.36 17.9 120 4 7.27 6.34 18.0 1216 6.5 7.21 6.34 18.0	Did well de-wa	ter?	1f yes;	Time:		volum	e;	
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE: LABORATORY ANALYSES MWY 3 K VDA VIAL Y HCL Seg TPHG BTEK /MTOE	Time							
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LABORATORY INFORMATION SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES MU-4 3 x VDA VIAL Y HEL Seg TPHG BTEX /MTOE	1210	7 7.2		$-\frac{18}{19}$	<u>.0</u>			·
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SAMPLE ID (17) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES MU-4 3 x VDA VIAL Y HCL Seg TPHG BTEX MTDE	· · · · · ·				·			•
MULY 3 X VDA VIAL Y HEL Seg TPHG BTEX MTDE						•		
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COMMENTS:					<u> </u>		 	
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3/37-Reidet.f

ity: <u>SAU</u>	9 Hesperi Leandro	NN BLUD	Job#: - Date: - Sampler: -	180106 1-28-02 FB	
ity: SAU	Leavaro		•	FB	
ity: SAU	Leavaro		Sampler: .		
Well ID				OK.	
•	mw.5	Well Condition	1:		. 1
/ell Diameter -	in	Hydrocarbon Thickness:		Amount Bailed (product/water):	
otal Depth	25.80 h	Volume Factor (VF)	2" = 0.17 6"	3" = 0.38 = 1.50 12	4" = 0.66 " = 5.80
epth to Water	13,59				
Pouree C	12.21 x v	Sa	empling	Disposable Bailer	Volume: (gal.)
Purge Equipment:,	Bailer	Ec	quipment:	Bailer	- → ·
	Stack Suction			Pressure Bailer	
	Grundfos		Oth	Grab Sample	
	Other:	- . `			
Starting Time: Sampling Time: Purging Flow Rate	1239	Water C	nt Description	:	odor: NO (gal.)
Did well de-water	1/7 /N	If yes;	Time:	Volume:	
Time Vo	olume pH	Conductivity umhos/cm	Temperati	D.O. (mg/L)	ORP Alkalinity (mV) (ppm)
1243 1247 1251	7.36 7.35 6 7.28	639	17.9 18.0 18.2		
		<u> </u>	<u> </u>		
		LABORATORY	/ INFORMATION	ON LABORATORY	ANALYSES
	(#) - CONTAINER			Seq	TPHG BTEX /MTOE
SAMPLE ID	S x VDA VIAL	Y H	<u> </u>	7	
mw.5	> v vou viar	l	1		
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Depth to Water 13.	Ord Well in Hyd Thir 80 m 51 x vf 117 able Bailer	Il Condition: drocarbon ckness: clume 2 actor (VF) 2	in. 2° = 0.17 6° = 1 (case volume) = oling oment: Other:	sposable Bailer essure Bailer rab Sample	Volume:	(osl.)
rell Diameter otal Depth repth to Water Purge Equipment: Stack Suction Grundfo Other: Starting Time: Sampling Time: Purging Flow Rate: Did well de-water? Time Volume (gal.)	in Hyden Thing Volume 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	drocarbon ckness: clume 2 actor (VF) Z	in. 2° = 0.17 6° = 1 (case volume) = oling ment: Di Ba Pr G Other:	Amount Bailed (product/water): 3° = 0.38 .50 12 Estimated Purge sposable Bailer essure Bailer rab Sample	Yolume:	0.66 2 (gal.)
Purge Dispose Baller Stack Suction Grundfo Other: Starting Time: Purging Flow Rate: Did well de-water? Time Volume (gal.)	Thire 80 to 17 to 18 to	ckness: clume 2 actor (VF) 2 _ 1.95 _ x 3 Samp Equip Weather Co	(case volume) = oling ment: Ba Pr G Other:	(product/water): 3" = 0.38 .50 12 Estimated Purge sposable Bailer eller essure Bailer rab Sample	Yolume:	0.66 2 (gal.)
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Time Volume (gal.) 1128 2 1132 4	NO		escription: _ ne:	Volume:		.lgal.\
1132 4		onductivity mhos/cm	Temperature •C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
		665 663 661	18.6 18.6			
		ORATORY INF	FORMATION	BORATORY	ANAL	YSE S
	ONTAINER REFRIG.	Her.	56		TPHGIBTE	MTDE
COMMENTS:						

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ent/ 7050	co #7004		Job#: -	180106	· · · · · · · · · · · · · · · · · · ·	
1.559	19 Hesperim L'emuoro	W BLUD	Date: -	1-28-06	<u> </u>	
dress: 7007	1.000.1000		Sampler: .	<u>F3</u>		
y: 2 5 Am	<u>Lenun a</u>					
				OK		
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ell Diameter	<u> </u>	Hydrocarbon		Amount Bailed		(<u>, leq)</u>
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tal Depth	13.21 1	Factor (VF)	6"	1.50	2" = 5.80	
epth to Water	10,01 #		. /		5	/
	11.40 xv	F [. 50 = [7.	X 3 (case volum	ne) = Estimated Purge	Volume: 21	<u>(Jal.)</u>
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40.,	Stack Suction			Pressure Bailer Grab Sample		
	Grundios		Oth	Glap Samble		
	Other:	-				
	1707		ditions'	Cloudy		
Starting Time:	1323		ner Conditions:	10 m	Odor:NZ	<u> </u>
Sampling Time:	1359		COID1			
Purging Flow Rat	te:		nent Description ; Time:	Volume	ı:	<u>lesi</u>
Did well de-wate	er?	_ If yes	; little			
Time	Volume pH (gal.)	Conductivity pmhos/cm	y Temperat -C	ture D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
· 		(18	- 11.7			
1331 _	$\frac{17}{720}$	- 618 1 (112	- 17.8			
1339	34 10	610	- 1745	<u> </u>		-
	7791				•	
1348	51 7.21					
1348	51 7.4 ————————————————————————————————————					
1348	5/ 7·4		BY INFORMAT	10N		
1348	5/ 7-21	LABORATO	RY INFORMAT	ION LABORATORY	ANAL	
SAMPLE ID	(#) - CONTAINER	LABORATO	RY INFORMAT	ION LABORATORY	ANAL'	
1348	(#) - CONTAINER 3 × VDA VIAL	LABORATO	RY INFORMAT	CABONATOIII		
SAMPLE ID		LABORATO	RY INFORMAT	CABONATOIII		
SAMPLE ID		LABORATO	RY INFORMAT	CABONATOIII		
SAMPLE ID		LABORATO	RY INFORMAT	CABONATOIII		

Ņ.			GLC	BAL I	D# T0	60010	1451										U	nall	<u>7-0</u>	7-1	<u>_us</u> 1	roay-kecor
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11 February, 2002

Deanna L. Harding Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568 GENERAL COMPANY

RE: Tosco

Sequoia Report: W201424

Enclosed are the results of analyses for samples received by the laboratory on 28-Jan-02 18:00. If you have any questions concerning this report, please feel free to contact me.

" CRAS

Charlie Westwater Project Manager

CA ELAP Certificate #1271



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7004

Project Manager: Deanna L. Harding

Reported: 11-Feb-02 08:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W201424-01	Water	28-Jan-02 00:00	28-Jan-02 18:00
MW-1	W201424-02	Water	28-Jan-02 10:40	28-Jan-02 18:00
MW-2	W201424-03	Water	28-Jan-02 10:59	28-Jan-02 18:00
MW-3	W201424-04	Water	28-Jan-02 14:45	28-Jan-02 18:00
MW-4	W201424-05	Water	28-Jan-02 12:24	28-Jan-02 18:00
MW-5	W201424-06	Water	28-Jan-02 13:00	28-Jan-02 18:00
MW-6	W201424-07	Water	28-Jan-02 11:45	28-Jan-02 18:00
RW-1	W201424-08	Water	28-Jan-02 13:59	28-Jan-02 18:00





Gettler Ryan, Inc. - Dublin

Project: Tosco

Project Number: Tosco # 7004 Project Manager: Deanna L. Harding

Reported: 11-Feb-02 08:01

6747 Sierra Court Suite J Dublin CA, 94568

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

			J + + +	***************************************					
Analyte	R Result	leporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (W201424-01) Water Sample	d: 28-Jan-02 00:00	Received	l: 28-Jan-	02 18:00					
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2A30002	30-Jan-02	30-Jan-02	EPA 8015M/8021	
Benzene	ND	0.50	**	11	11	II		n	
Toluene	ND	0.50		**	11	и	"	Ħ	
Ethylbenzene	ND	0.50	н	R	**	н	•	Ħ	
Xylenes (total)	ND	0.50	я	**	ti	**	**	Ħ	
Methyl tert-butyl ether (MTBE)	ND	2.5	н	n	n	"	15	u	Q-28
Surrogate: a,a,a-Trifluorotoluene		102 %	70-1	30	"	n	tt	"	
MW-1 (W201424-02) Water Sampled	l: 28-Jan-02 10:40	Received	: 28-Jan-0	02 18:00					
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/i	1	2A30002	31-Jan-02	31-Jan-02	EPA 8015M/8021	
Benzene	ND	0.50	n	Ħ	п	**	u	H	
Toluene	ND	0.50	H	Ħ	n	17	,	II .	
Ethylbenzene	ND	0.50	н	n	п	it.	"	ш	
Xylenes (total)	ND	0.50	п	н	Ħ	n	11	U	
Methyl tert-butyl ether (MTBE)	ND	2.5	н	ш	n	ıı	11	ır	Q-28a
Surrogate: a,a,a-Trifluorotoluene	··· = -	102 %	70-1	30	н	#	"	"	
MW-2 (W201424-03) Water Sampled	: 28-Jan-02 10:59	Received	: 28-Jan-(02 18:00					
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2A30002	31-Jan-02	31-Jan-02	EPA 8015M/8021	
Benzene	ND	0.50		Ш	*	n	н		
Toluene	ND	0.50	#	п	H	u	н	Ħ	
Ethylbenzene	ND	0.50	*	ti	**	*1	**	n	
Xylenes (total)	ND	0.50	**	11	"	Ħ	**	Ħ	
Methyl tert-butyl ether (MTBE)	ND	2.5	11			п		Ħ	Q-28a
Surrogate: a,a,a-Trifluorotoluene		100 %	70-1	30	"	"	u	n .	



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7004 Project Manager: Deanna L. Harding

Reported: 11-Feb-02 08:01

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W201424-04) Water Sampled	: 28-Jan-02 14:45	Received	: 28-Jan-0	2 18:00					
Purgeable Hydrocarbons (C6-C12)	82	50	ug/l	1	2A30002	31-Jan-02	31-Jan-02	EPA 8015M/8021	
Benzene	ND	0.50	п	*	**	11	"	Ŧŧ	
Toluene	ND	0.50	Ħ	π	P	Ħ	•	91	
Ethylbenzene	10	0.50	"	Ħ	H	Ħ	"	**	
Xylenes (total)	ND	0.50	tt	"	H	н	•	**	
Methyl tert-butyl ether (MTBE)	ND	2.5	n	17	Ħ	71	•	t Ŧ	Q-28a
Surrogate: a,a,a-Trifluorotoluene		96 %	70-1.	30	"	#	,,	"	
MW-4 (W201424-05) Water Sampled:	28-Jan-02 12:24	Received	: 28-Jan-0:	2 18:00					
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2A30002	31-Jan-02	31-Jan-02	EPA 8015M/8021	
Benzene	ND	0.50	**	n	11	. "	π	11	
Toluene	ND	0.50	11	н	H	**	11	11	
Ethylbenzene	ND	0.50	m	II .	н	19	11	44	
Xylenes (total)	ND	0.50	**	Ц	It	11	11	11	
Methyl tert-butyl ether (MTBE)	13	2.5		н	tr	**	,,	11	Q-28b,QR-04
Surrogate: a,a,a-Trifluorotoluene		109 %	70-13	30	и	R	Ħ	"	
MW-5 (W201424-06) Water Sampled:	28-Jan-02 13:00	Received	: 28-Jan-0	2 18:00					
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2A30002	31-Jan-02	31-Jan-02	EPA 8015M/8021	•
Benzene	ND	0.50	**	11	11	п		п	
Toluene	ND	0.50		**	II	п	**	н	
Ethylbenzene	ND	0.50	70	n	п	Ħ	,,	н	
Xylenes (total)	ND	0.50	**	**	11	н	*1	n	
Methyl tert-butyl ether (MTBE)	97	2.5	91	**	1 1	н	ŧı	H	Q-28a
Surrogate: a,a,a-Trifluorotoluene		105 %	70-13	30	"	"	"	,,	



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Project: Tosco

Project Number: Tosco # 7004 Project Manager: Deanna L. Harding Reported: 11-Feb-02 08:01

Dublin CA, 94568

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (W201424-07) Water Sampled:	28-Jan-02 11:45	Received	: 28-Jan	-02 18:00					
Purgeable Hydrocarbons (C6-C12)	ND	50	uջ/l	1	2A30002	31-Jan-02	31-Jan-02	EPA 8015M/8021	
Benzene	ND	0.50	ч	**	п	Ħ	n	••	
Toluene	ND	0.50	11	n	u	H		11	
Ethylbenzene	ND	0.50	**		u	ŧī	**	••	
Xylenes (total)	ND	0.50	*1	**	u	**	11	Π	
Methyl tert-butyl ether (MTBE)	ND	2.5	"	**	и	67	11	**	Q-28a
Surrogate: a,a,a-Trifluorotoluene		100 %	70-	-130	"	u	"	rr	
RW-1 (W201424-08) Water Sampled:	28-Jan-02 13:59	Received:	28-Jan-	02 18:00				·	
Purgeable Hydrocarbons (C6-C12)	72	50	ug/l	I	2A30002	31-Jan-02	31-Jan-02	EPA 8015M/8021	HC-12
Benzene	0.98	0.50	#	Ħ	н	п	tt	n	
Toluene	ND	0.50	"	н	н	Ħ	"	11	
Ethylbenzene	ND	0.50	**	n	n		11	11	
Xylenes (total)	ND	0.50	n	н	н		Ħ	11	
Methyl tert-butyl ether (MTBE)	460	2.5		Ħ	R	**	Ħ	п	Q-28a
Surrogate: a,a,a-Trifluorotoluene		107 %	70-	130	"	"	"	,,	

Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7004 Project Manager: Deanna L. Harding

Reported: 11-Feb-02 08:01

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2A30002 - EPA 5030B P/T										
Blank (2A30002-BLK1)				Prepared	& Analyze	ed: 30-Jan	-02			
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	·						
Benzene	ND	0.50	11							
Toluene	ND	0.50	**							
Ethylbenzene	ND	0.50	**							
Xylenes (total)	ND	0.50	#							
Methyl tert-butyl ether (MTBE)	ND	2.5	n							
Surrogate: a,a,a-Trifluorotoluene	33.6		n	30.0		112	70-130			
Blank (2A30002-BLK2)				Prepared	& Analyze	ed: 31-Jan	-02			
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l							
Benzene	ND	0.50	ц							
Toluene	ND	0.50	11							
Ethylbenzene	ND	0.50	11						÷	
Xylenes (total)	ND	0.50	**							
Methyl tert-butyl ether (MTBE)	ND	2.5								
Surrogate: a,a,a-Trifluorotoluene	32.3		m m	30.0		108	70-130			
LCS (2A30002-BS1)			_	Prepared .	& Analyze	ed: 30-Jan	-02			
Benzene	18.6	0.50	ug/I	20.0		93	70-130			
Toluene	19.3	0.50	11	20.0		96	70-130			
Ethylbenzene	20.3	0.50		20.0		102	70-130			
Xylenes (total)	60.4	0.50	II	60.0		101	70-130			
Surrogate: a,a,a-Trifluorotoluene	29.6	*	"	30.0		99	70-130		·	
LCS (2A30002-BS2)				Prepared a	& Analyze	ed: 31-Jan	-02			
Benzene	19.2	0.50	ug/l	20.0		96	70-130			
Toluene	20.0	0.50	10	20.0		100	70-130			
Ethylbenzene	20.7	0.50	11	20.0		104	70-130			
Xylenes (total)	61.6	0.50	H	60.0		103	70-130			
Surrogate: a,a,a-Trifluorotoluene	31.5		"	30.0		105	70-130			

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

Project: Tosco

Project Number: Tosco # 7004 Project Manager: Deanna L. Harding Reported: 11-Feb-02 08:01

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2A30002 - EPA 5030B P/T										
Matrix Spike (2A30002-MS1)	So	urce: W2014	24-07	Prepared	& Analyza	ed: 05-Feb	-02			
Benzene	18.6	0.50	ug/l	20.0	ND	93	70-130			
Toluene	18.9	0.50	**	20.0	ND	94	70-130			
Ethylbenzene	19.1	0.50	"	20.0	ND	96	70-130			
Xylenes (total)	60.0	0.50	**	60.0	ND	100	70-130			
Surrogate: a,a,a-Trifluorotoluene	30.4		н	30.0		101	70-130			
Matrix Spike Dup (2A30002-MSD1)	So	urce: W2014	24-07	Prepared:	05-Feb-02	2 Analyze	d: 06-Feb-	02		
Benzene	18.9	0.50	ug/l	20.0	ND	94	70-130	2	20	
Гоішене	19.0	0.50	н	20.0	ND	95	70-130	0.5	20	
Ethylbenzene	20.2	0.50	п	20.0	ND	101	70-130	6	20	
Xylenes (total)	59.3	0.50	Ш	60.0	ND	99	70-130	1	20	
Surrogate: a,a,a-Trifluorotoluene	31.7		. "	30.0		106	70-130			



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

Project: Tosco

Project Number: Tosco # 7004 Project Manager: Deanna L. Harding

Reported: 11-Feb-02 08:01

Notes and Definitions

HC-12	Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
Q-28	The opening calibration verification standard was outside acceptance criteria by -2.5%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
Q-28a	The opening calibration verification standard was outside acceptance criteria by -6%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
Q-28b	The opening calibration verification standard was outside acceptance criteria by 29%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
QR-04	Primary and confirmation results varied by greater than 40% RPD. The results may still be useful for their intended purpose.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference