

R 251

2000 Crow Canyon Place Suite 400 San Ramon, CA 94583

Phone: (925) 277-2305 Fax: (925) 277-2361

Environmental Department

August 28, 2003

Re: Tosco (Unocal) Service Station #3538 411 West MacAurthur Blvd. Oakland, California Alameda County

SEP 0 3 2003

Environmental Health

"I declare under penalty of perjury, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached proposal or report is true and correct"

David B. DeWitt Site Manager ConocoPhillips

August 12, 2003 G-R #180064

TO:

Mr. David B. De Witt

ConocoPhillips

76 Broadway Avenue

Sacramento, California 95818

CC:

Mr. David Vossler

Gettler-Ryan Inc.

Petaluma, California

FROM:

Deanna L. Harding

Project Coordinator

Gettler-Ryan Inc.

6747 Sierra Court, Suite J

Dublin, California 94568

RE:

Tosco (Unocal) Service Station

#3538

411 West MacArthur Boulevard

Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	August 5, 2003	Groundwater Monitoring and Sampling Report Second Semi-Annual - Event of July 10, 2003

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 27, 2003, this report will be distributed to the following:

Mr. Scott Seary, Alameda County Health Care Services, 1131 Harbor Bay Pkwy., Alameda, CA 94502 cc:

Enclosure

trans/3538-DBD



August 5, 2003 G-R Job #180064

Mr. David B. De Witt ConocoPhillips 76 Broadway Avenue Sacramento, California 95818

RE: Second Semi-Annual Event of July 10, 2003

Groundwater Monitoring & Sampling Report Tosco (Unocal) Service Station #3538 411 West MacArthur Boulevard Oakland, California Fivironmental Health

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. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical report are also attached.

Sincerely,

Deanna L. Harding

Project Coordinator

Robert C. Mallory

Registered Geologist No. 7285

Figure 1:

Potentiometric Map

Figure 2:

Concentration Map

Table 1:

Groundwater Monitoring Data and Analytical Results

Table 2:

Groundwater Analytical Results

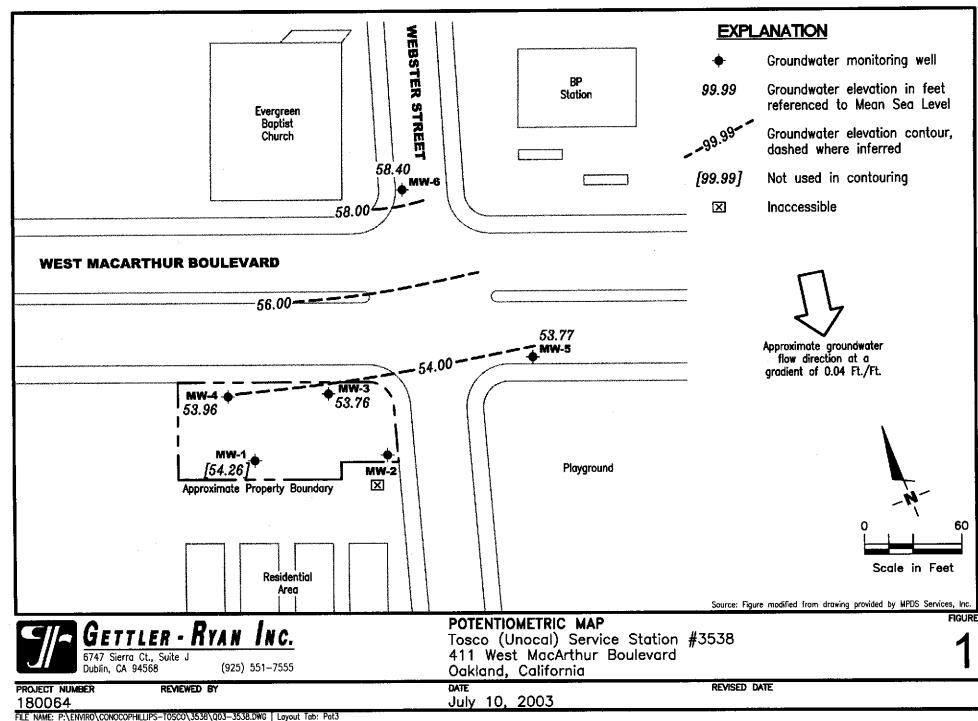
Table 3:

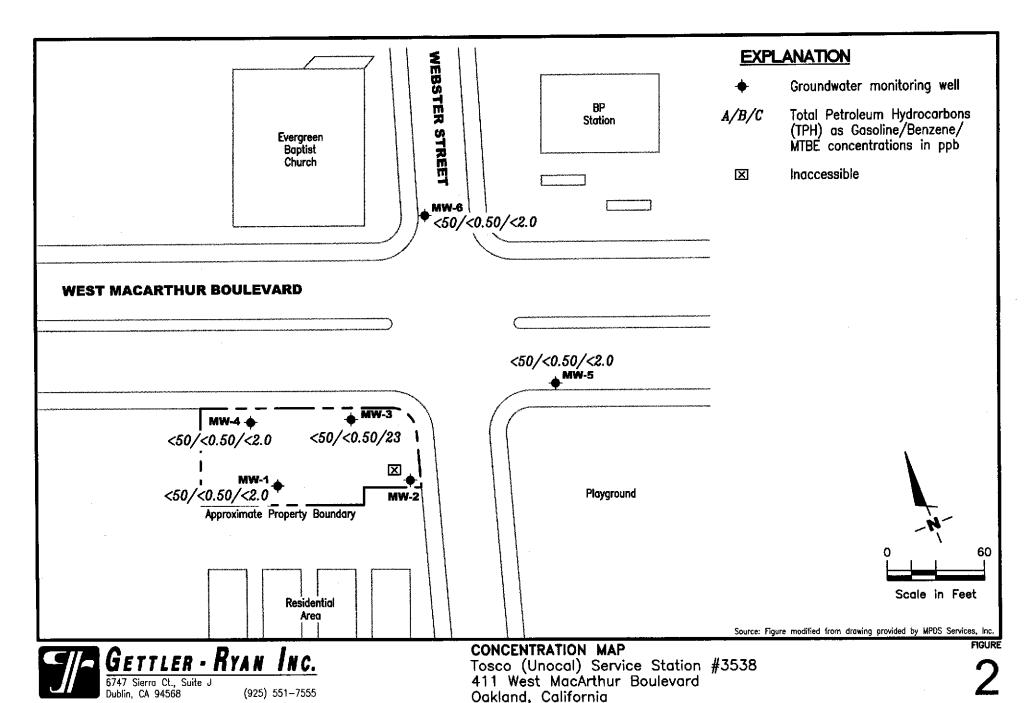
Groundwater Analytical Results - Oxygenate Compounds Standard Operating Procedure - Groundwater Sampling

Attachments:

Field Data Sheets Chain of Custody Document and Laboratory Analytical Reports

3538.qml





180064

PROJECT NUMBER

DATE

July 10, 2003

REVISED DATE

REVISE

REVIEWED BY

Table 1
Groundwater Monitoring Data and Analytical Results

		730.0 <u>2022/202</u> mm	and the second s	GWE	TPH-G	В	T	E	X	MTBE
WELL ID/	DATE	DTW	S.I.	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
TOC* <i>(ft.)</i>		(fl.)	(ft. bgs)	(III SV)	(<u>V</u> /2//	20000000000000000000000000000000000000				
			60000		ND	ND	0.61	ND	ND	
MW-I	09/15/89		5.0-29.0		ND	1.5.	2.3	ND	4.3	
	01/23/90				ND	ND	ND	ND	ND	
	04/19/90				ND	ND	ND	ND	ND	
	07/17/90				ND	ND	ND	ND	ND	••
	10/16/90				ND	ND	ND	ND	ND	
	01/15/91				ND	ND	ND	ИD	ND	
	04/12/91				ND	ND	ND	ND	ND	
	07/15/91				ND ND	ND	ND	ND	ND	
	07/14/92					ANNUALLY				
72.43	04/13/93	17.70		54.73		2.2	2.1	1.1	6.2	
	07/14/93	18.49		53.94	ND					
72.10	10/14/93	18.32		53.78			er			
	01/12/94	18.18		53.92						
	04/11/94	17.80		54.30		ND.	ND	ND	ND	
	07/07/94	18.28		53.82	ND	ND				
	10/05/94	18.55		53.55						
	01/09/95	17.90		54.20						
	04/17/95	17.22		54.88					ND	
	07/19/95	18.03		54.07	ND	ND	ND	ND		
	10/26/95	18.67		53.43						
	01/16/95	17.20		54.90						**
	04/15/96	17.40		54.70			₩ W			 ND
	07/11/96	18.03		54.07	ND	ND	ND	ND	ND	ND
	01/17/97	16.54		55.56			**		••	**
	07/21/97	18.16		53.94	ND	ND	ND	ND	ND	ND
	01/14/98	16.05		56.05						
	07/06/985	16.46		55.64	ND	ND	ND	ND	ND	ND
	01/13/99	17.37		54.73						
72.12	08/31/99	17.00		55.12	ND	ND	ИD	ND	ND	ND
	01/21/00	17.04		55.08						
	07/10/00 ⁵	18.10		54.02	ND	ND	ND	ND	ND	ND
	01/04/01	17.95		54.17					**	
	07/16/01	18.03		54.09	ND	ND	ND	ND	ND	ND
	01/28/02	17.31		54.81	SAMPLED	ANNUALLY				*-

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	трн-С	В	Т	Ė	X	МТВЕ
TOC*(fi.)		(n.)	(ft. hgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
TVV VIV		V.								
MW-1	07/12/02	18.15	5.0-29.0	53.97	<50	< 0.50	< 0.50	< 0.50	<0.50	<2.5
	01/14/03	17.66	2.	54.46	SAMPLED A	NNUALLY				
(cont)	07/10/03	17.86		54.26	<50	<0.50	<0.50	<0.50	<0.50	<2.0
5651/ 5	09/15/89		3.5-28.5		290	ND	12	ND	ND	
MW-2	01/23/90		5.5 20.5		400	73	36	10	40	
	04/19/90				3,900	550	5.1	91	390	
	04/19/90				490	76	0.59	11	46	
	10/16/90				1,400	430	2.0	48	240	
	01/15/91				680	170	0.7	19	81	
	04/12/91				2,200	160	4.3	23	62	
	07/15/91				2,200	770	12	72	370	
	10/15/91				140	44	0.56	1.5	12	
	01/15/92				220	37	0.52	1.1	7	
	04/14/92				150	6.2	ND	ND	1.4	
	07/14/92				130	3.7	ND	ND	ND	
	10/12/92				370	3.4	0.56	ND	11	
	01/08/93				510 ¹	ND	ND	ND	ND	
71.63	04/13/93	17.86		53.77	410 ²	42	7.7	6.4	28	200
71303	07/14/93	18.38		53.25	1101	6.5	ND	ND	1.1	250
71.38	10/14/93	18.20		53.18	2301	5.3	ND	ND	2.1	
71.30	01/12/94	18.08		53.30	300	7.8	3.8	1.8	10	* ~
	04/09/94	17.97		53,41	120	10	0.88	1.1	4.9	
	04/11/94	17.88		53.50				·		
	07/07/94	17.81	•	53.57	110 ¹	4.4	ND	ND	ND	
	10/05/94	18.33		53.05	720 ¹	20	ND	ND	3.1	
	01/09/95	17.40		53.98	ND	ND	ND	ND	ND	
	04/17/95	17.50		53.88	93	5.6	0.62	1.7	5.5	
	07/19/95	18.01		53.37	77	32	0.58	1.7	4 .1	
	10/26/95	18.21		53.17	54 ²	13	ND	ND	0.72	220
	01/16/96 ³	16.58		54.80	120	23	ND	ND	0.99	
	04/15/96	17.61		53.77	340	21	ND	2.2	3.7	45
	07/11/96	17.98		53.40	540	34	ND	4,3	12	150

Table 1
Groundwater Monitoring Data and Analytical Results

					· · · · · · · · · · · · · · · · · · ·	ar and the second	under de son de la marche de la company	E	X	MTBE
WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	T (ppb)	(ppb)	(ppb)	(ppb)
TOC*(ft.)		(ft.)	(ft. bgs)	(msl)	(ppb)	(ррь)	(рро)	(рро)		
						<i>(</i> 2	2.4	9.4	26	260
MW-2	01/17/97	17.08	3.5-28.5	54.30	320	63	ND	1.3	1;6	180
(cont)	07/21/97	18.06		53.32	160	13	ND ND	ND	0.98	100
(Olan)	01/14/98	16.52		54.86	66	6.3	ND	ND	ND	11
	07/06/98	16.87		54.51	ND	2.3	, ND ND	0.52	0.98	120
	01/13/99	17.88		53.50	53 10	24	ND	0.63	ND	21
71.34	08/31/99	18.45		52.89	86 ¹⁰	14	ND ND	ND	ND	10.1
7	01/21/00	17.73		53.61	ND	1.94	ND ND	ND	ND	46.6
	07/10/00	18.14		53.20	ND	ND		ND	ND	ND
	01/04/01	18.02		53.32	ND	0.925	ND	ND	ND	ND
	07/16/01	18.02		53.32	ND	ND	ND	< 0.50	< 0.50	<2.5
	01/28/02	17.57		53.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/12/02	18.05		53.29	<50	<0.50	< 0.50		<0.50	<2.0
	01/14/03	17.44		53.90	<50	< 0.50	< 0.50	< 0.50		
	07/10/03	INACCESSIBI	E - VEHICLE	PARKED OVE	CR WELL	-	-	-	L .	
					32	ND	ND	ND	ND	
MW-3	09/15/89		5.0-29.0			110	1.2	4.4	11	*-
	01/23/90				450	600	27	54	220	
	04/19/90				3,100		48	130	250	
	07/17/90				4,000	270	1.4	2.5	82	
	10/1 6/9 0			* =	740	210		120	270	
	01/15/91				3,200	460	1.5	34	110	
	04/12/91				880	170	1.1	490	1,900	
	07/15/91				9,200	1,300	230	150	390	
	10/15/91				3,100	390	34	310	750	
	01/15/92			 .	3,000	590	14		2,000	
	04/14/92				14,000	660	48	560		
	07/14/92				21,000	890	200	1,200	4,300	**
	10/12/92				3,200	160	10	230	540	
	01/08/93				1,100 ²	48	0.99	0.9	93	1.400
72.06	04/13/93	17.96		54.10	$12,000^2$	290	38	760	2,300	1,400
	07/14/93	18.54		53.52	6,300	190	ND	430	1,000	860
71.86	10/14/93	18.45		53.41	2,500	52	ND	110	250	
	01/12/94	18.34		53.52	3,800	78	ND	180	390	

Table 1
Groundwater Monitoring Data and Analytical Results

The same	DATE	DTW	S.I.	GWE	TPH-G	В	T	£	X	MTBE
WELL ID/	1.1 (1.4)	(ft.)	(fl. bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(pph)
TOC*(ft.)		<u> </u>	(II- ugs)	300 to (000 year)		9.1				
2	04(00/04	18.19	5,0-29.0	53.67	008,1	22	ND	140	280	
MW-3	04/09/94		3,0-29.0	53.74			 .			
(cont)	04/11/94	18.12		53.65	110!	4.5	ND	ND	ND	
	07/07/94	18.21		53.28	ND	ND	ND	ND	ND	
	10/05/94	18.58		54.17	ND	0.68	ND	ND	ND	
	01/09/95	17.69		54.18	3,700	80	10	270	510	
	04/17/95	17.68		53.66	15,000	330	27	990	2,400	
	07/19/95	18.20		53.54	14,000	420	180	750	1,600	4,800
	10/26/95	18.32		53.91	920	38	ND	30	57	
	01/16/963	17.95		54.08	9,700	240	ND	570	860	3,200
	04/15/96	17.78		53.67	13,000	69	5.5	430	900	740
	07/11/96	18.19		54.63	4,400	25	ND	270	580	1,600
	01/17/97	17.23		53.57	9,000	36	ND	450	800	950
	07/21/97	18.29			7,100	40	ND ⁴	380	360	930
	01/14/98	16.71		55.15 54.83	6,800 ⁶	39	ND ⁴	320	360	370
	07/06/98	17.03		54.85 53.86	1,800	9.4	ND ⁴	58	36	180
	01/13/99 ⁷	18.00 ⁸		23.00						
71,40	08/31/99			53.82	ND	ND	ND.	ND	ND	21.4
	01/21/00	17.58		53.35	ND ND	ND	ND	ND	ND	162
	07/10/00	18.05		53.58	ND 					18011
	08/25/00	17.82		53.24	ND	ND	ND	ND	ND	193
	01/04/01	18.16		53.42	ND	ND	ND	ND	ND	660
	07/16/01	17.98		53.56	<50	< 0.50	< 0.50	< 0.50	<0.50	34
	01/28/02	17.84		53.56	< 50	<0.50	<0.50	<0.50	<0.50	11/19 ¹¹
	07/12/02	17.87			< 50	<0.50	<0.50	<0.50	<0.50	. 12
	01/14/03	17.28		54,12 53.76	< 50	<0.50	<0.50	<0.50	<0.50	23
	07/10/03	17.64		55.70	<50	<0.50	~0.50	~0.50	×0,50	23
MW-4	09/15/89		5.0-29.0		ND	ND	ND	ND	ND	
	01/23/90				ND	ND	0.4	ND	ND	
	04/19/90				ND	ND	0.48	ND	ND	
	07/17/90				ND	ND	ND	ND	ND	
	10/16/90				ND	ND	ND	ND	ND	·
	01/15/91				ND	ND	ND		ND	

Table 1
Groundwater Monitoring Data and Analytical Results

			the princetor said that	GWE	TPH-G	В	I	E	X	MTBE
WELL ID/	DATE	DTW	S.I.	(msl)	(ppb)	(ppb)	(ррь)	(ррь)	(ppb)	(ppb)
TOC*(ft.)		(ft.)	(ft. bgs)	(msv)	(labor				 _	
			60.200		ND	ND	ND	ND	ND	
MW-4	04/12/91		5.0-29.0		ND	ND	ND	ND	ND	
(cont)	07/15/91				ND	1.3	2.5	ND	0.1	
	07/14/92			 54.31	SAMPLED A					
71.98	04/13/93	1 7. 67		54.31	ND	ND	ND	ND	ND	
	07/14/93	18.31		53.67						
71.64	10/14/93	18.08		53.56						
	01/12/94	17.97		53.67						
	04/11/94	17.70		53.94		ND	ND	ND	ND	
	07/07/94	17.80		53.84	ND					
	10/05/94	18.28		53.36						
	01/09/95	17.38		54.26	•-					
	04/17/95	17.21		54.43		ANNUALLY	 ND	ND	ND	
	07/19/95	17.82		53.82	ND	ND	ND			
	10/26/95	18.17		53.47						
	01/16/96	16.45		55.19		 , .				<u></u>
	04/15/96	17.35		54.29					 ND	ND
	07/11/96	17.81		53.83	ND	ND	ND	ND	ND	
	01/17/97	16.73		54.91						
	07/21/97	17.91		53.73	ND	ND	ND	ND	ND	ND
	01/14/98	16.18		55.46						
	07/06/98	16.49		55.15	ND	ND	ND	ND	ND	ND
	01/13/99	17.29		54.35						
71,54	08/31/99	_9					~=			
71.54	01/21/00	17.51		54.03						
	07/10/00	17.93		53.61	ND	ND	ND	ND	ND	ND
	01/04/01	18.10		53.44						
		17.76		53.78	ND	ND	ND	ND	ND	ND
	07/16/01	17.76		54.34		ANNUALLY				
	01/28/02			53.73	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
1	07/12/02	17.81		54.24		ANNUALLY				
	01/14/03	17.30		53.96	< 50	<0.50	<0.50	< 0.50	< 0.50	<2.0
	07/10/03	17.58		22.70	~511	*11,00	.0100	·		

Table 1
Groundwater Monitoring Data and Analytical Results

20020 8 - 140 1	DATE	DTW	S.I.	GWE	TPH-G	B	Ť	E	X	MTBE
WELL ID/	UAID	(fs)	(ft. bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
TOC*(ft.)		U · y	Un ugo							
	11/20/02		13.0-30.0		ND	ND	ND	ND	ND	
MW-5	11/30/92		15.0-50.0		ND	ND	ND	ND	ND	
	01/08/93	 17.49		54.02	ND	ND	ND	ND	ND	
71.51	04/13/93	18.02		53.49	ND	ND	0.57	ND	ND	
	07/14/93	17.82		53.41	ND	ND	ND	ND	ND	
71.23	10/14/93			53.49	ND	ND	0.84	ND	1.6	
	01/12/94	17.74		53.67	SAMPLED A	ANNUALLY				
	04/11/94	17.56		53.73	ND	ND	ND	ND	ND	
	07/07/94	17.50		53.25						
	10/05/94	17.98		54.10						
	01/09/95	17.13		54.18						
	04/17/95	17.05		53.64	ND	ND	ND	ND	ND	
	07/19/95	17.59		53.13						
	10/26/95	18.10								
	01/16/96	17.11		54.12		 				
	04/15/96	17.22		54.01	 ND	ND	ND	ND	ND	ND
	07/11/96	17.59		53.64		ANNUALLY				
	01/17/97	16.75		54.48			ND	ND	ND	ND
	07/21/97	17.59		53.64	ND	ND				
	01/14/98	16.16		55.07			 ND	ND	ND	ND
	07/06/98	16.52		54.71	ND	ND	ND			
	01/13/99	17.62		53.61			**	 NID	NID.	ND
71.16	08/31/99	17.76		53.40	ND	ND	ND	ND	ND	
	01/21/00	16.83		54.33						
	07/10/00	17.46		53.70	ND	ND	ИD	ND	ND	ИД
	01/04/01	17.51		53.65		**		-		
	07/16/01	17.32		53.84	ND	ND	ND	ND	ND	ND
	01/28/02	17.12		54.04		ANNUALLY				
	07/12/02	17.12		54.04	< 50	< 0.50	< 0.50	<0.50	< 0.50	<2.5
	01/14/03	16.67		54.49	SAMPLED	ANNUALLY				
	07/10/03	17.39		53.77	<50	< 0.50	<0.50	< 0.50	< 0.50	<2.0

Table 1
Groundwater Monitoring Data and Analytical Results

13 Per 1 - 1757	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	X	МТВЕ
WELL ID/ TOC*(/t/)	DAIE	(0.)	(ft. bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(pph)
10000	eredes () yethoot et met eredeside	and the second s			<u>-</u>			ND	ND	
MW-6	11/30/92		13.0-30.0		ND	ND	ND	ND	ND	
111 11-11	01/08/93				ND	ND	ND	ND	ND	
71.70	04/13/93	11.94		59.85	ND	ND	ND	ND	ND	
71.79	07/14/93	17.20		54.59	ND	0.99	2.4	ND	1.9	
71 44	10/14/93	17.21		54.23	ND	ND	0.64	ND	ND	
71.44	01/12/94	17.44		54.00	ND	ND	1.2	ND	2.9	
	04/11/94	13.66		57.78	SAMPLED A	NNUALLY				
	07/07/94	14.05		57,39	ND	ND	ND	ND	ЙD	
	10/05/94	14.16		57.28	, 					
	01/09/95	13.73		5 7 .71		·				
	04/17/95	11.30		60.14	**					
	07/19/95	12.32		59.12	ND	ND:	ND	ND	NĐ	
	10/26/95	17.88		53.56						**
	01/16/96	16.38		55.06						
	04/15/96	14.00		57.44						•
	07/11/96	13.58		57.86	ND	ND	ND	ND	ND	ND
	01/17/97	15.42		56.02						
	07/21/97	13.78		57.66	ND	ND	ND	ND	ND	ND
	01/14/98	13.65		57.79						
	07/06/98	13.90		57.54	ND	ND	ND	ND	ND	ND
	01/13/99	14.93		56.51					·	
71.37	08/31/99	15.81		55.56	ND	ND	ND	ND	ND	ND
11.31	01/21/00	16.13		55.24	SAMPLED	ANNUALLY				
	07/10/00	16.95		54,42	ND	ND	ND	ND	ND	ND
	01/04/01	17.09		54.28				 .		
	07/16/01	16.83		54,54	ND	ND	ND	ND	ND	ND
	01/28/02	14.58		56.79		ANNUALLY		•=		
	07/12/02	16.76		54.61	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
	01/14/03	16.25		55.12		ANNUALLY				
	07/10/03	12.97		58.40	<50	< 0.50	<0.50	<0.50	< 0.50	<2.0

Table 4
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #3538

WELL ID/ TOC* <i>(fl.)</i>	DATE	DTW (fs)	S.I. (ft. bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
Trip Blank						ND	ND	ND	ND	ND
FB-LB	01/14/98				ND	ND	ND ND	ND	ND	ND
	07/06/98				ND	ND	ND	ND	ND	ND
	01/13/99				ND	ND			2.3	39
	08/31/99				ND	ND	1.5	ND		ND
	01/21/00				ND	ND	ND	ND	ND	
	07/10/00				ND	ND	ND	ND	ND	ND
	01/04/01				ND	ND	ND	ND	ND	ND
					ND	ND	ND	ND	ND	ND
	07/16/01				<50	<0.50	< 0.50	< 0.50	< 0.50	<2.5
	01/28/02				<50	< 0.50	<0.50	< 0.50	< 0.50	<2.5
QΛ	07/12/02							< 0.50	< 0.50	<2.0
	01/14/03				<50	<0.50	<0.50			<2.0
	07/10/03				<50	<0.50	< 0.50	<0.50	<0.50	~2.0

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #3538 411 West MacArthur Boulevard Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 14, 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

(ft.) = Feet

B = Benzene

ND = Not Detected

DTW = Depth to Water

T = Toluene

-- = Not Measured/Not Analyzed

S.I. = Screen Interval

E = Ethylbenzene

OA = Quality Assurance/Trip Blank

(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 msl, per the City of Oakland Benchmark #9NW10. (Elevation = 75.50 feet msl). Prior to October 14, 1994, the DTW measurements were taken from the top of well covers. On September 15, 1999, TOC elevations were resurveyed City of Oakland Benchmark being a square brass pin in the concrete gutter at the southwest corner of Webster & MacArthur. The stationing data is with reference to the back of sidewalk on MacArthur in front of the site. Benchmark (Elevation = 71.055 feet, msl)
- Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- ² Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and a non-gasoline mixture.
- Laboratory report indicates the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb.
- Detection limit raised. Refer to analytical reports.
- ⁵ All EPA Method 8010 constituents were ND.
- 6 Laboratory report indicates gasoline and unidentified hydrocarbons <C7.</p>
- 7 TOC measurement may have been altered due to damaged casing.
- 8 Well was obstructed by a solid at 0.5 feet.
- ⁹ Well was obstructed by a solid (concrete or soil) at 10.4 feet.
- Laboratory report indicates gasoline C6-C12.
- MTBE by EPA Method 8260.

Table 2

Groundwater Analytical Results

Tosco (Unocal) Service Station #3538

411 West MacArthur Boulevard Oakland, California

WELL ID	DATE	TPH-D (ppb)	TOG (ppb)	Tetrachloroethene ¹ <i>(ppb)</i>
MW-1	09/15/89	ND	ND	2.7
.,.,,	01/23/90	ND	1.5	2.1
	04/19/90	ND	ND	2.2
	07/17/90	ND	ND	1.7
	10/16/90	ND	ND	2.0
	01/15/91	ND	ND	2.1
	04/12/91	ND	ND	2.0
	07/15/91	ND	ND	1.8
	07/14/92	••		1.4
	07/14/93	<u></u>		0.95
	07/07/94			0.83
	07/19/95	-		0.52
	07/11/96 ²	-	***	0.73
	07/11/90 07/21/97 ³	 		0.70
	08/31/99		25	ND
	08/31/99 07/16/01 ⁴			ND
	07/12/02 ⁵	 	••	<0.60
	07/12/02 07/10/03 ⁶		-	<0.50

EXPLANATIONS:

Groundwater laboratory analytical results prior to August 31, 2001, were compiled from reports prepared by MPDS Services, Inc.

TPH-D = Total Petroleum Hydrocarbons as Diesel

TOG = Total Oil and Grease

(ppb) = Parts per billion

ND'= Not Detected

- -- = Not Analyzed
- All other EPA Method 8010 constituents were ND.
- ² Chloroform was detected at a concentration of 0.96 ppb.
- Chloroform was detected at a concentration of 1.0 ppb.
- All EPA Method 8021B constituents were ND with a raised detection limit, except Chloroform was detected at a concentration of 45 ppb and Bromodichloromethane at 1.7 ppb.
- All EPA Method 8021B constituents were ND, except for Freon 113 was detected at 11 ppb and 1,1-Dichloroethene (1,1-DCA) was detected at 1.8 ppb.
- 6 All EPA Method 8021B constituents were ND, except for Freon 113 was detected at 7.7 ppb and 1,1-DCA was detected at 0.89 ppb.

Table 3

Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #3538

411 West MacArthur Boulevard

Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (pph)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-3	08/25/00 07/12/02	 <500	ND ¹ <20	180 19	ND ¹ <2.0	ND' <2.0	ND ¹ <2.0	ND ¹ <2.0	ND ¹ <2.0

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 Detection 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, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

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 disposable 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 and is labeled as QA. 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 ConocoPhillips Company, the purge water and decontamination water generated during sampling activities is transported to ConocoPhillips - San Francisco Refinery, located in Rodeo, California.

<u> </u>	ConocoPhillips	s #353 8		Job Number:	18 <u>0064</u>		_
Site Address: 4	11 West Maca		d.	Event Date:	7/10/03		_(inclusi
City:	Dakland, CA			Sampler:	Varthes	<u>. </u>	-
Well ID	MW- f	Date '	Monitored:	7/10/03	Well Condition	on: OK	
Well Diameter	2 in:						
_			Volume	3/4*= 0.02	1"= 0.04 2"= 0 5"= 1.02 6"= 1		
Total Depth	23,30 .ft.		Factor (VF	F) 4*= 0.66	5"= 1.02 6"= 1	.50 12 - 0.60	J
Depth to Water _	17.86 ft. 5.44 xV	(F Q.) >-	-= 0.92	x3 (case volume) = £	stimated Purge Volu	ıme: <u>3</u> gal.	
-	_ /	-			Time Started:	(2	2400 hrs)
Purge Equipment:		Samp	ling Equipment	t:	Time Bailed:		2400 hrs)
Disposable Bailer		Dispo	sable Bailer			<u> </u>	ft_]
Stainless Steel Bailer		Press	ure Bailer		Depth to Water:_		"
Stack Pump			ete Bailer		Hydrocarbon Thi Visual Confirmat		 "
Suction Pump		Other	":		VISUAL COMMITTIES	1010 C C C C C C C C C C C C C C C C C C	
Grundfos						bant Sock (circle one	
Other:						om Skimmer:	
					Amt Removed fr Product Transfer	om Well:	gal
					1105551.1161.015		
Sample Time/Date Purging Flow Rate Did well de-water Time (2400 hr.)	e: gpm.	Sedimer	Water Color nt Description Conductivity (u mhos/cm)	n: <u>\$</u> \$	gal. D.O. (mg/L)	ORP (mV)	_
6959 1005 1012	3	7.36 7.38	604	65.8 65.7			- - - -
1005	3		GOY ORATORY INI	65. 8 65. 7 65. 7		ANAL VSES	- - - - - -
1005 1012	2 3 (#) CONTAINER	REFRIG.	ORATORY INI	65.8 65.7 FORMATION E LABORATOR		ANALYSES	- - - - - -
1005	3 x voa vial	REFRIG. YES	ORATORY INI PRESERV. TYPI HCL	65. 8 65. 7 FORMATION E LABORATOR SEQUOIA	TPH-G(8015)/B	TEX/MTBE(8021)	-
1005 1012		REFRIG.	ORATORY INI	65.8 65.7 FORMATION E LABORATOR		TEX/MTBE(8021)	
1005 1012	3 x voa vial	REFRIG. YES	ORATORY INI PRESERV. TYPI HCL	65. 8 65. 7 FORMATION E LABORATOR SEQUOIA	TPH-G(8015)/B	TEX/MTBE(8021)	
100 S 101 Z	3 x voa vial	REFRIG. YES	ORATORY INI PRESERV. TYPI HCL	65. 8 65. 7 FORMATION E LABORATOR SEQUOIA	TPH-G(8015)/B	TEX/MTBE(8021)	
SAMPLE ID	3 x voa vial	REFRIG. YES	ORATORY INI PRESERV. TYPI HCL	65. 8 65. 7 FORMATION E LABORATOR SEQUOIA	TPH-G(8015)/B	TEX/MTBE(8021)	

Client/Facility #: _U	onocoPhillip	5 #3538		Job Number:	180064	
Site Address: 4	11 West Mac	arthur Bl	vd.	Event Date:	7/10/03	(inclusi
City:	Dakland, CA			Sampler:	Varthes	
					.4	
Well ID	MW- 2	Date	e Monitored: _		Well Condition: الله	Inaccessibl
Well Diameter	2 in:		Volume	3/4*= 0.02	1"= 0.04 2"= 0.17	3"= 0.38
Total Depth	, ft.		Factor (V	F) 4"= 0.66	5"= 1.02 6"= 1.50	12"= 5.80
Depth to Water _	ft.	VF	=	x3 (case volume) ≃ E	stimated Purge Volume: _	gal.
_ 		•			Time Started:	
Purge Equipment:	·		npling Equipmen	t:	Time Bailed:	(2400 hrs)
Disposable Bailer Stainless Steel Bailer		'-	oosable Bailer		Depth to Product: Depth to Water:	
Stack Pump		•	ssure Bailer crete Bailer		Hydrocarbon Thickness	
Suction Pump			er:		Visual Confirmation/De	
Grundfos		/			Skimmer / Absorbant S	ock (circle one)
Other:		•			Amt Removed from Ski	mmer: gal
					Amt Removed from We Product Transferred to:	
					Product Transferred to.	
Start Time (purge):		Weat	her Conditions	:		· · · · · · · · · · · · · · · · · · ·
Sample Time/Date			Water Color	;/	Odor; _	
Purging Flow Rate	/	Sedim	ent Descriptjør			
Did well de-water	?	If yes, Tin	ne:	_ Volume:	gal	
Time	Volume		Conductivity	Temperature	D.O.	ORP
(2400 ptr.)	(gal.)	pН	(µ/mhos/cm)	(C/F)	(mg/L)	(mV)
/_	 _		<u>/</u>		/ <u></u> -	·
						<u></u>
					. <u></u> -	·
/					. _	
/						
		<u></u>		/		····
SAMPLE ID	(#) CONTAINER	LA REFRIG.	BORATORY IN		/ ANALY	'SES
MW-	x voa vial	YES	HCL	SEQUOIA	TPH-G(8015)/BTEX/M	
		YES	HCL	SEQUOIA	HVOC'S(8010 list)8021	
	x voa vial		· · · · · · · · · · · · · · · · · · ·			
	X Aoa Alai					
	X YOS YISI					
	x voa vial					
COMMENTS:	* Park	-d 0	ver.	See Die		
		ed 8	ver.	See pie		ell.



lient/Facility #:	ConocoPhillips	#3330	Job Number:	180064	
Site Address:	411 West Macar	thur Blvd.	Event Date:	7/10/03	(inclus
City:	Oakland, CA		Sampler:	Varthes	
Vell ID	м w - 3	Date Monitored:	7/10/03	Well Condition:	ok
Vell Diameter	2 in.			·	
otal Depth	27.15 .ft.	Volume	3/4"= 0.02 /F) 4"= 0.66	1"= 0.04 2"= 0.17 5"= 1.02 6"= 1.50	3"= 0.38 12"= 5.80
Depth to Water		Factor (\	VF) 4-0.00	3 - 1.02	12 0.00
Deptit to water		0.17 = 1.61	_ x3 (case volume) = I	Estimated Purge Volume:	gal.
	-	Complian Facilities	-4.	Time Started:	
Purge Equipment:		Sampling Equipmen	ntc:	Time Bailed:	
Disposable Bailer		Disposable Bailer		Depth to Product: Depth to Water:	'\` f
Stainless Steel Baile	·	Pressure Bailer		Hydrocarbon Thickne	ess: £ ft
Stack Pump Suction Pump		Discrete Bailer Other:		Visual Confirmation/E	
Grundfos				Skimmer / Absorbant	
Other:					Skimmer: gal
				Amt Removed from V Product Transferred t	
				· .	
Start Time (purg Sample Time/D Purging Flow R	ate: // 30 /7/o ate: gpm.	Sediment Descriptio	or: <u>6 n n -</u> n: <u>\$7.14</u>	atte	
Sample Time/D	ate: // 30 /7/0 ate: gpm.	103 Water Cold	or: <u>6 n n :</u> n: <u>\$7.14</u>	Odor: Gal. D.O. (mg/L)	ORP (mV)
Sample Time/D Purging Flow R Did well de-wate (2400 hr.) /// /// /// /// /// /// /// /// ///	ate: // 30 /7/0 ate:	Water Cold Sediment Description f yes, Time: pH Conductivity (umhos/cm) 7.7\ 72 \rightarrow 7.6\ 7.7\ 7.7\ 7.7\ 7.7\ 7.7\ 7.7\ 7.7\	volume: Temperature (CF) 69.8 70.2	gal. D.O. (mg/L)	ORP (mV)
Sample Time/D Purging Flow R Did well de-wat Time (2400 hr.) /// 7 /// 7	ate: // 30 /7/o ate:	Water Cold Sediment Description f yes, Time: pH Conductivity (u mhos/cm) 7.7 72 7 - 56 7/9 - 56 7/9 - LABORATORY IN REFRIG. PRESERV. TYI	Volume: Temperature (QE) 69.3 69.8 70.2 NFORMATION PE LABORATOR	gal. D.O. (mg/L)	ORP (mV)
Sample Time/D Purging Flow R Did well de-wate (2400 hr.) /// /// /// /// /// /// /// /// ///	ate: // 30 /7/o ate:	Water Cold Sediment Description f yes, Time: pH Conductivity (u mhos/cm) 7.7 72 7 F.60 7/9 F.60 7/9 F.60 7/9 F.60 PRESERV. TYI YES HCL	Temperature (QE) 69.3 69.8 70.2 NFORMATION PE LABORATOR SEQUOIA	gal. D.O. (mg/L) Y ANA TPH-G(8015)/BTEX	ORP (mV)
Sample Time/D Purging Flow R Did well de-wat Time (2400 hr.) /// 7 /// 7	ate: // 30 /7/o ate:	Water Cold Sediment Description f yes, Time: pH Conductivity (u mhos/cm) 7.7 72 7 - 56 7/9 - 56 7/9 - LABORATORY IN REFRIG. PRESERV. TYI	Volume: Temperature (QE) 69.3 69.8 70.2 NFORMATION PE LABORATOR	gal. D.O. (mg/L)	ORP (mV)
Sample Time/D Purging Flow R Did well de-wat Time (2400 hr.) /// 7 /// 7	ate: // 30 /7/o ate:	Water Cold Sediment Description f yes, Time: pH Conductivity (u mhos/cm) 7.7 72 7 F.60 7/9 F.60 7/9 F.60 7/9 F.60 PRESERV. TYI YES HCL	Temperature (QE) 69.3 69.8 70.2 NFORMATION PE LABORATOR SEQUOIA	gal. D.O. (mg/L) Y ANA TPH-G(8015)/BTEX	ORP (mV)
Sample Time/D Purging Flow R Did well de-wat Time (2400 hr.) /// 7 /// 7	ate: // 30 /7/o ate:	Water Cold Sediment Description f yes, Time: pH Conductivity (u mhos/cm) 7.7 72 7 F.60 7/9 F.60 7/9 F.60 7/9 F.60 PRESERV. TYI YES HCL	Temperature (QE) 69.3 69.8 70.2 NFORMATION PE LABORATOR SEQUOIA	gal. D.O. (mg/L) Y ANA TPH-G(8015)/BTEX	ORP (mV)
Sample Time/D Purging Flow R Did well de-wate (2400 hr.) /// /// /// SAMPLE ID MW- 3	ate: // 30 /7/o ate:	Water Cold Sediment Description f yes, Time: pH Conductivity (u mhos/cm) 7.7 72 7 F.60 7/9 F.60 7/9 F.60 7/9 F.60 PRESERV. TYI YES HCL	Temperature (QE) 69.3 69.8 70.2 NFORMATION PE LABORATOR SEQUOIA	gal. D.O. (mg/L) Y ANA TPH-G(8015)/BTEX	ORP (mV)

Client/Facility #: C	ConocoPhillip	s #3538		Job Number:	180064	
Site Address: 4	11 West Mac	arthur Blv	d.	Event Date:	7/10/03	(inclusi
City:	Dakland, CA			Sampler:	Varther	
Vell ID	мw- <i>4</i>	Date	Monitored:	7/10/03	Well Condition:	ore
Vell Diameter	2 in.				<u> </u>	
otal Depth	24.80 ft.		Volume	3/4"= 0.02		3°= 0.38 2°= 5.80
Depth to Water			Factor (VF) 4"= 0.66	5"= 1.02 6"= 1.50 1	2 - 3.80
peptiti to vvater	17,58 ft. 7,22 x	VF 2.13	-= 1.22	x3 (case volume) = E	stimated Purge Volume:	3. 5 gal.
					Time Started:	(2400 hrs)
urge Equipment:	,	•	ling Equipment		Time Bailed:	(2400 hrs)
Pisposable Bailer		•	sable Bailer		Depth to Product: Depth to Water:	ft
Stainless Steel Bailer		•	ure Bailer		Hydrocarbon Thickness:	_ -P #
Stack Pump Suction Pump		Other	ete Bailer		Visual Confirmation/Desc	
Grundfos					Skimmer / Absorbant So	ck (circle one)
Other:					Amt Removed from Skim	
					Amt Removed from Well Product Transferred to:	
Start Time (purge):	1030	Weath	er Conditions:	clea		
Sample Time/Date		160/07	Water Color:		Odor:	Ţ
Purging Flow Rate			nt Description:			
Did well de-water			:	Volume:	gal.	
Time	Volume		Conductivity	Temperature	D.O	ORP
(2400 hr.)	(gal.)	pН	(u mhos/cm)	(c/F)	(mg/L)	(mV)
1022	Ĩ	753	729	66.7		
1036		7.40	724	66.3		
1042	3.5	7.37	735	66.3		
	- <u> </u>					
· · · · · · · · · · · · · · · · · · ·			ORATORY INF		ANALYS	re l
SAMPLE ID	(#) CONTAINER		PRESERV. TYPE		Y ANALYS TPH-G(8015)/BTEX/MTI	
MW- 4	3 x voa vial	YES	HCL	SEQUOIA	HVOC'S(8010 Jiet)80215	·
<u> </u>	x voa vial	YES	HCL	35USOIA 1	TO STOO TO BECOME	
COMMENTS		<u> </u>		<u> </u>	<u> </u>	
COMMENTS:						
				 		



Vell ID Vell Diameter Total Depth Depth to Water Vurge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Dther: Start Time (purge):	MW-5 2 in: 32.12 ft. 17.39 ft. 12.77 xV	Date Date Date Sam Disp Pres Disc Other	e Monitored: Volume Factor (VF	3/4"= 0.02 3/4"= 0.66 x3 (case volume) = E	Well Condition: 1*= 0.04	3"= 0.38 12"= 5.80 6.) hrs) ft ft ft
Well ID Well Diameter Total Depth Depth to Water	MW-5 2 in: 35.10 ft. 17.39 ft. 12.71 xv	Sam Disp Pres Disc Oth	Volume Factor (VF = Z J G Inpling Equipment posable Baller ssure Bailer crete Bailer er:	3/4"= 0.02 3/4"= 0.66 x3 (case volume) = E	Well Condition: 1*= 0.04	3"= 0.38 12"= 5.80 6.) hrs) ft ft ft gal
Vell Diameter Total Depth Depth to Water Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Other: Start Time (purge):	2 in: 35.10 ft. 17.39 ft. 12.71 xV	Sam Disp Pres Disc Oth	Volume Factor (VF = Z.1 6 Inpling Equipment: Dosable Baller Sisure Baller Drete Baller er:	3/4"= 0.02) 4"= 0.66 x3 (case volume) = E	1"= 0.04 2"= 0.17 5"= 1.02 6"= 1.50 Estimated Purge Volume: Time Started: Time Bailed: Depth to Product: Depth to Water: Hydrocarbon Thickne Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred t	3"= 0.38 12"= 5.80 6.) hrs) ft ft ft gal
Cotal Depth Depth to Water Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Other: Start Time (purge):	35.10 ,ft. 17.39 ft. 12.71 xV	Sam Disp Pres Disc Oth	Volume Factor (VF = Z.1 6 Inpling Equipment: Dosable Baller Sisure Baller Drete Baller er:	3/4"= 0.02) 4"= 0.66 x3 (case volume) = E	stimated Purge Volume: Time Started: Time Balled: Depth to Product: Depth to Water: Hydrocarbon Thickne Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred t	12"= 5.80 6. S gal. (2400 (2400 ess: Description: Sock (circle one) Skimmer: Vell:) hrs) ft ft ft gal
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Other: Start Time (purge):	17.39 ft. 12.71 ×V	Sam Disp Pres Disc Oth	Factor (VF = Z 1 6 Inpling Equipment posable Baller ssure Baller crete Baller er:) 4"= 0.66 x3 (case volume) = E	stimated Purge Volume: Time Started: Time Balled: Depth to Product: Depth to Water: Hydrocarbon Thickne Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred t	12"= 5.80 6. S gal. (2400 (2400 ess: Description: Sock (circle one) Skimmer: Vell:) hrs) ft ft ft gal
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Other: Start Time (purge):	17.39 ft. 12.71 ×V	Sam Disp Pres Disc Oth	= Z.16 Inpling Equipment posable Baller ssure Baller crete Baller er:	x3 (case volume) = E	Time Started: Time Started: Time Bailed: Depth to Product: Depth to Water: Hydrocarbon Thickne Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred t	(2400 (2400 ess:) hrs) ft ft ft gal
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Other: Start Time (purge):	0830	Sam Disp Pres Disc Oth	npling Equipment posable Baller ssure Bailer crete Bailer er:		Time Started:Time Bailed:Depth to Product:Hydrocarbon Thickne Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred t	(2400 (2400 ess:) hrs) ft ft ft gal
durge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Other:	883D	Sam Disp Pres Disc Oth	npling Equipment posable Baller ssure Bailer crete Bailer er:		Time Started:Time Bailed:Depth to Product:Hydrocarbon Thickne Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred t	(2400 (2400 ess:) hrs) ft ft ft gal
Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Other:		Disp Pres Disc Oth	posable Baller ssure Baller crete Baller er:		Depth to Product: Depth to Water: Hydrocarbon Thickne Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred t	Sock (circle one)	ft ft ft
Stainless Steel Bailer Stack Pump Suction Pump Grundfos Other: Start Time (purge):		Pres Disc Oth	ssure Bailer crete Bailer er:	clear	Depth to Water: Hydrocarbon Thickne Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred to	ess:	ft ft gal
Stack Pump Suction Pump Grundfos Other: Start Time (purge):		Disc Oth	crete Bailer er:	clear	Hydrocarbon Thicknet Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred to	ess: A Description: Sock (circle one) Skimmer: Vell:	
Suction Pump Grundfos Other: Start Time (purge):		Oth	er:	clear	Visual Confirmation/D Skimmer / Absorbant Amt Removed from S Amt Removed from V Product Transferred to	Sock (circle one) Skimmer:	
Other:Start Time (purge):				clear	Amt Removed from S Amt Removed from V Product Transferred t	Skimmer: Vell:	
Other:Start Time (purge):		Weat	her Conditions:	clear	Amt Removed from S Amt Removed from V Product Transferred t	Skimmer: Vell:	
Start Time (purge):		Weat	her Conditions:	clear	Amt Removed from V Product Transferred t	Vell:	
		Weat	her Conditions:	clear		to:	
		Weat	her Conditions:	clear			
Time (2400 hr.) 6837 6837 0837	Volume (gal.) Z 4 6.5	PH 7.62 7.50 7.46	Conductivity (u mhos/cm) 909 901	Temperature (CD) 67. チ 63・チ	D.O. (mg/L)	ORP (mV)	
SAMPLE ID	(#) CONTAINER	LA REFRIG.	BORATORY INF		·	LYSES	
MW- 5	3 x voa vial	YES	HCL	SEQUOIA	TPH-G(8015)/BTEX/		\dashv
	<u>⊭⊶oa-vial</u>	→ YES	-HCI	SECUCIA	─────────────────────────────────────	72 T B	\dashv
COMMENTS: _							
							

Client/Facility #:	ConocoPhillip)S #3036		Job Number:	180064			_
Site Address:	411 West Mac	arthur Blv	d.	Event Date:	7/10/2	3		_(inclus
City:	Oakland, CA			Sampler:	Varte		,	-
Well ID	MW-6_	Date	Monitored:	7/10/03	_ Well C	ondition:	ok.	
Nell Diameter	2 in.		Makama	245-002	1*= 0.04	2"= 0.17	3"= 0.38	٦
Total Depth	30.04 ft.		Volume Factor (Vi	3/4"= 0.02 7) 4"= 0.66	1 = 0.04 5*≃ 1.02	6'= 1.50	12"= 5.80	
Depth to Water	12.97 ft.		<u> </u>	•	· · · · · ·		-	
	17.07,	NF 0.13	= 2.90	x3 (case volume) =	Estimated Pur	rge Volume:	gal.	
					Time Star	ted:	(2	2400 hrs)
urge Equipment:	•	Samp	ling Equipment	• _ •	Time Bail			2400 hrs)
Disposable Bailer		•	sable Bailer		Depth to			ft
Stainless Steel Baile	<u></u>	Press	ure Bailer		Depth to	Water:	42	f
Stack Pump -		Discre	ete Bailer		Hydrocan Visual Co	bon Thickne	escrintian:	 п
Suction Pump		Other	<u> </u>		- Visual CC	лішевство		
Grundfos							Sock (circle one	
Other:						oved from S oved from V		gal
						ransferred t		gal
								
Purging Flow Ra	ete: / gpm.	Sedimer If yes, Time	Water Color of Description Conductivity (umhos/cm) 634 627 627		gal D.(mg	٥.	ORP (mV)	- - -
Purging Flow Ra Did well de-wate Time (2400 hr.) 0918 012/	volume (gal.)	Sedimer If yes, Time pH 7.70 7.54 3.50	Conductivity (u mhos/cm) 634 627 627	Volume: Temperature (CD) 67. Z 67. 8 68. 0	gal			- - - -
Purging Flow Ra Did well de-wate Time (2400 hr.) 918 912/ 9124	volume (gal.)	Sedimer If yes, Time pH 7.70 7.54	Conductivity (u mhos/cm)	Volume: Temperature (CD) 67.2 67.8 68.0	gal	D. VIL)	(mV)	- - - - - - -
Purging Flow Ra Did well de-wate Time (2400 hr.) 0918 0924	volume (gal.) (#) CONTAINER 3 x voa vial	Sedimer If yes, Time pH 7.70 7.54	Conductivity (umhos/cm) 634 627 627 CORATORY INF	Volume: Temperature (CD) 67.2 67.8 68.00 ORMATION LABORATOR SEQUOIA	gal D.0 (mg	ANAI	(mV) -YSES -YSES	- - - - -
(2400 hr.) 0918 0921 0924 SAMPLE ID	volume (gal.) Grant (#) CONTAINER	Sedimer If yes, Time pH 7.70 7.54	Conductivity (umhos/cm) 634 627 627 625 DRATORY INF	Volume: Temperature (CD) 67.2 67.8 68.0	gal D.0 (mg	D. VIL)	(mV) -YSES -YSES	

Gettler-Ryan Inc., Chain-of-Custody

Tosco Corp./ Philips 66 Co 2000 Crow Canyon Suita 400 San Roman, CA 9	Place	Facili	ity Num ity Addi ul ID it Conta	411 WEST T06001014	72 B. DEWI	1 1	D., GAN		CA 0064,50			c	Consultor	Coffecti	5747 (925	LER-RY SIERR) 551-	AR, INC. A CT., S	UITE J	(1	CA 8	4568 51-789	(ARDING
SAMPLE 10	Number of Containers Matrix	S - Soa A - Ar W - Water C - Charcool	Somple Preservation	Date/Time (2400 Hrs)	TPH-CAS/BIDX/MIRE DPA 8015/80218	TPH-0ESEL DA 8015	TPH-OFESE, w/Siles gel EPA 6015	TPH-CAS EPA 8015	TPH-CAS/BREX/ATBC EPA 6260	DAYORIATES EPA 8250	METHANOL EPA 8015	101'AL OIL & GREKSE 101'AL OIL & GREKSE	אבוועג כג, סי, פי, זיי, אה						-			
QA		ນ	HC1	7/10/03	TX			·					<u> </u>	307		<u>§~</u> ()(_		
NW-1	6	٧	7	4 1020	X								_		X		b S					rudul-5
MW-3	3	7	,	- 113C													53		 		<u>.</u>	
HW-4	3.	-2.	-E	4 1050					_			?- <u>.</u>				*	얼					-
MW-5	3.	u	~	7 0820		ļ			<u> </u>	<u> </u>				-	-		$\frac{5}{5}$		 -		-	-
Mw.6	3		1	0935	火	ļ			<u> </u>						_		06		 			
					_	ļ			 	<u> </u>				 		 	 	-	-	·		<u> </u>
	<u>,,,</u>					-		- :	 -	_	<u> </u>	<u> </u>				-	<u> </u>		 			OXYGENATES 8286
		 	ļ			} -		-	 -	-	 	-	<u> </u>	 	 							1 - MTBE 2 - TBA
							- .	 		_		-	╁╶╴	\vdash	 	 						3 - TAME 4 - DIPE
· · · · · · · · · · · · · · · · · · ·				<u> </u>		┼			-	-				-	 							5 - ETBE 5 - 1,2-0CA 7 - EDB
	<u> </u>		<u> </u>			-			-	-	-	1		1	1		 					8 - ETHANOL
Relinquished By (3)th	Zep	حد	6	-R 7/10	/Img// /03 /Ima	-	SC.	by (Sky	-ers		49	enization	n (%	Re/Time	1	loed 1	r/N		Turn A	2 4 7	14 Hm. 18 Hm. 12 Hm. 1 Doyn	rcie Cholce)
PANISON TAX	noture)		Org	portizotion Cota	/Time > [**];	Re		oz Jab	or those	By (Sign	paluro)			te/Time lo	19-37				(- As (O Baye Contract	



28 July, 2003

Deanna L. Harding Gettler-Ryan Dublin 6747 Sierra Court, Ste. J Dublin, CA 94568

RE: TOSCO 3538, Oakland, CA

Work Order: S307308

SHITIZHAR LAR HAC

Enclosed are the results of analyses for samples received by the laboratory on 07/10/03 19:32. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew

QA Manager / Client Services Representative

CA ELAP Certificate #1624





Project: TOSCO 3538, Oakland, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S307308 Reported: 07/28/03 12:29

ANALYTICAL REPORT FOR SAMPLES

Sample 1D	Laboratory 1D	Matrix	Date Sampled	Date Received
QA	\$307308-01	Water	07/10/03 00:00	07/10/03 19:32
MW-1	S3073 0 8-02	Water	07/10/03 10:20	07/10/03 19:32
MW-3	\$307308-03	Water	07/10/03 11:30	07/10/03 19:32
MW-4	\$307308-04	Water	07/10/03 10:50	07/10/03 19:32
MW-5	\$307308-05	Water	07/10/03 08:50	07/10/03 19:32
MW-6	\$307308-06	Water	07/10/03 09:35	07/10/03 19:32





Project: TOSCO 3538, Oakland, CA

Project Number: N/A

S307308 Reported: 07/28/03 12:29

Dublin CA, 94568

Project Manager: Deanna L. Harding

Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
QA (S307308-01) Water	Sampled: 07/10/03 00:00	Received: 07/1	0/03 19:3	32					
Purgeable Hydrocarbons	ND	50	ug/I	1	3070325	07/24/03	07/24/03	EPA 8015/8021	
Benzene	ND	0.50	•	,,	11	**	11	11	
Toluene	ND	0.50	"	**	₽1	17	p	н	
Ethylbenzene	ND	0.50	†1	U	\$ T	n	N	rı	
Xylenes (total)	ND	0.50	п	71	ft .	II	ħ	H	
Methyl tert-butyl ether	ND	2.0	•	и	11	<u> </u>	н	н	
Surrogate: a,a,a-Trifluorote	oluene	95 %	60-	140	"	,,	p	n	
MW-1 (S307308-02) Wate	r Sampled: 07/10/03 10:2	0 Received: (7/10/03	19:32					HT-RS
Purgeable Hydrocarbons	ND	50	ug/l	1	3070289	07/25/03	07/25/03	EPA 8015/8021	
Benzene	ND	0.50	н	11				н	
Toluene	ND	0.50	Ħ	11	fr.	n	И	п	
Ethylbenzene	ND	0.50	**	11	n	**	Ħ	Ħ	
Xylenes (total)	ND	0.50	7*	Ħ	**	יו	h	H	
Methyl tert-butyl ether	ND	2.0	•	H	17	**	17	н	
Surrogate: a,a,a-Trifluorot	oluene	82 %	60	-140	,,	#	"	O	
MW-3 (S307308-03) Wate	er Sampled: 07/10/03 11:3	30 Received:	07/10/03	19:32					
Purgeable Hydrocarbons	ND	50	ug/l	1	3070325	07/24/03	07/24/03	EPA 8015/8021	
Benzene	ND	0.50	**	Ħ	**	11	41	.,	
Toluene	ND	0.50	10	R	m	p	**	**	
Ethylbenzene	ND	0.50		**	**	н	**	**	
Aylenes (total)	ND	0.50	PT	*1	**		11	**	
Methyl tert-butyl ether	23	2.0	\$1	91	11	ét	11	T'	
Surrogate: a,a,a-Trifluoro	toluene	100 %	60	-140	,,	"	#	rr	





Project: TOSCO 3538, Oakland, CA

S307308 Reported:

Dublin CA, 94568

Project Number: N/A

Project Manager: Deanna L. Harding

07/28/03 12:29

Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B Sequoia Analytical - Sacramento

	Seq	BUIA ATIA	1,10001	Saci a					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-4 (S307308-04) Water	Sampled: 07/10/03 10:50	Received: 0	7/10/03 1	19:32					
Purgeable Hydrocarbons	ND	50	սք/l	1	3070325	07/24/03	07/24/03	EPA 8015/8021	
Benzene	ND	0.50	н		41	н	91	•	
Toluene	ND	0.50	**	π	II .	н	н	"	
Ethylbenzene	ND	0.50	**	***	97	11	"	**	
Xylenes (total)	ND	0.50	11	н	**	**	H	**	
Methyl tert-butyl ether	ND	2.0	**	n	n	**	11		
Surrogate: a,a,a-Trifluorotoli	uene	97 %	60	-140	"	,,	"	je.	
MW-5 (S307308-05) Water		Received: 0	7/10/03	19:32			·		
Purgeable Hydrocarbons	ND	50	ug/l	1	3070325	07/24/03	07/24/03	EPA 8015/8021	
Benzene	ND	0.50	er H	1 1	11	11	**	**	
Toluene	ND	0.50	17	17	H	n		**	
Ethylbenzene	ND	0.50	H	Ħ	,,	į.	, 11	11	
Xylenes (total)	ND	0.50	10	31	**	*	H	II	
Methyl tert-butyl ether	ND ND	2.0	**	71	41	H			
Surrogate: a,a,a-Trifluorotoi		102 %	60	1-140	41	,,	#	и	
MW-6 (S307308-06) Water			07/10/03	19:32		<u> </u>			
Purgeable Hydrocarbons	ND	50	ug/l	. 1	3070325	07/24/03	07/24/03	EPA 8015/8021	
Benzene	ND	0.50	,	n	н	19	Ħ	h	
Toluene	ND	0.50	•	H	••	þ	**	14	
Ethylbenzene	ND	0.50	**	**	*1	ti	11	P)	
Xylenes (total)	ND	0.50	H	**	*11	**	41	**	
Methyl tert-butyl ether	ND	2.0		11	p	π	ti .	**	
1.2001.3.102.1.041.31.01.05							,,	,,	

60-140

101 %

Surrogate: a,a,a-Trifluorotoluene





Project: TOSCO 3538, Oakland, CA Project Number: N/A S307308 Reported:

Dublin CA, 94568

Project Manager: Deanna L. Harding

07/28/03 12:29

Volatile Organic Compounds 8010B list by EPA Method 8260B

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-1 (S307308-02) Water	Sampled: 07/10/03 10:20	Received: 0'	7/10/03 1	9:32					
Freon 113	7.7	1.0	ug/l	ţ	3070259	07/24/03	07/24/03	EPA 8260B	
Bromodichloromethane	ND	0.50	*	71	31	9+	**	ļi	
Bromoform	ND	0.50	n	••	п	••	**	· п	
Bromomethane	ND	1.0	4+	ű	. 0	*1	**	μ	
Carbon tetrachioride	ND	0.50	11	11	H	स	91	и	
Chlorobenzene	ND	0.50	li .	Ħ	n	31	11	н	
Chloroethane	ND	0.50	н	H	**	81	**	н	
Chloroform	ND	0.50	н		P	17	**	н	
Chloromethane	ND	0.50	**	41	T	**	17	н	
^{to h} eromochloromethane	ND	0.50	**	**	**	11	71	М	
omoethane (EDB)	ND	0.50	**	**	"	n	11		
orobenzene	ND	0.50	91	11	**	н	n	н	
alorobenzene	ND	0.50		u	"	п	11	tı	
1,4-Dichlorobenzene	ND	0.50	n	ti.	11	**	11	Ħ	
Dichlorodifluoromethane	ND	0.50	31		h	H	11	**	
1,1-Dichloroethane	ND	0.50	ŧ	b	п	••	н	bt	
1,2-Dichloroethane	ND	0.50	#	t.	H	**	H	er	
1,1-Dichloroethene	0.89	0.50	**	•	"	٠.	H	P	
cis-1,2-Dichloroethene	ND	0.50	11	**	**	11	h	**	
trans-1,2-Dichloroethene	ND	0.50		•	n	**	**	**	
1,2-Dichloropropane	ND	0.50	**	п	*	14	••	n	
cis-1,3-Dichloropropene	ND	0.50	**	H	• •		10	#1	
trans-1,3-Dichloropropene	ND	0.50	**	н	17	**		ч	
Methylene chloride	ND	5.0	11		h	11	n	#	
1,1,2,2-Tetrachloroethane	ND	1.0	11	71	11	μ	91	¥	
Tetrachloroethene	ND	0.50	ti	ħ	II.	n	Ţ!	m	
1,1,1-Trichloroethane	ND	0.50	н	*1	u	n	#1	**	
1,1,2-Trichloroethane	ND	0.50		1)	p.	Ħ	#1	n	
Trichloroethene	ND	0.50	41	10	rı	II	71	11	
Trichlorofluoromethane	ND	0.50	*1	11	•	н	#1	n	
Vinyl chloride	ND	0.50	41	ı,	**	**	**	71	
Surrogate: 1,2-DCA-d4	·	86 %	70-	-130	, r	н	ţr.	н	
Surrogate: Toluene-d8		98 %		-130	*	**	#	"	
Surrogate: 4-BFB		99 %		-130	н	n	•	tr	





Dublin CA, 94568

Project: TOSCO 3538, Oakland, CA

S307308 Reported:

Project Number: N/A

Project Manager: Deanna L. Harding

07/28/03 12:29

Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B - Quality Contr Sequoia Analytical - Sacramento

 -		Reporting		Spike	Source	e/nrc	%REC Limits	RPD	RPD Limit	Notes
Analyte	Result	Limit	Units	Level	Result	%REC	Links	NI D	Presistar.	.12990
Batch 3070289 - EPA 5030B (P/T)									·	
Blank (3070289-BLK1)		·		Prepared	& Analyz	ed: 07/23/	03	<u> </u>		
Purgeable Hydrocarbons	ND	50	ភគ/)							
Benzene	ND	0.50	41							
Toluene	ND	0.50	н							
Ethylbenzene	ND	0.50	**							
Xylenes (total)	ND	0.50	•						٠	
Methyl tert-butyl ether	ND	2.0	11							_
Surrogate: a,a,a-Trifluorotoluene	8.08		n	10.0		81	60-140			
Blank (3070289-BLK2)				Prepared	& Analyz	ed: 07/24/	03			
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	11							
Toluene	ND	0.50	н							
Ethylbenzene	ND	0.50	tı							
Xylenes (total)	ND	0.50	**							
Methyl tert-butyl ether	ND	2.0	11							
Surrogate: a,a,a-Trifluorotoluene	8.09		,,	10.0		81	60-140			
Blank (3070289-BLK3)				Prepared	& Analyz	ed: 07/25	/03			
Purgeable Hydrocarbons	ND	50	սջ/]			•			•	
Benzene	ND	0.50	n							
Toluene	ND	0.50	•							
Ethylbenzene	ND	0.50	81							
Xylenes (total)	ND	0.50	11							
Methyl tert-butyl ether	ND	2.0	н							
Surrogate: a,a,a-Trifluorotoluene	8.49		n	10.0		85	60-140			
Laboratory Control Sample (3070289-BS1)					& Analy:					
Benzene	9.44	0.50	ug/l	10.0		94	70-130			
Toluene	9.52	0.50		10.0		95	70-130			
Ethylbenzene	9.29	0.50	"	10.0		93	70-130			
Xylenes (total)	27.1	0.50	•1	30.0		90	70-130			
Methyl tert-butyl ether	30.8	2.0	•	10.0		108	70-130			
Surrogate: a,a,a-Trifluorotoluene	8.45		11	10.0		84	60-140			





Project: TOSCO 3538, Oakland, CA

S307308

Project Number: N/A

Project Manager: Deanna L. Harding

Reported: 07/28/03 12:29

Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B - Quality Contr Sequoia Analytical - Sacramento

Alus-	Banda	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Result		Units	Devel	Result	ANTEC	Limit			
Batch 3070289 - EPA 5030B (P/T)	···		<u> </u>	· 			<u></u>			
aboratory Control Sample (3070289-BS2)				Prepared	& Analyz	ed: 07/24/	03			
Веплене	8.49	0.50	ug/l	10.0		85	70-130			
oluene	8.79	0.50	rı	10.0		88	70-130			
Ethylbenzene	8.53	0.50	**	10.0		85	70-130			
(ylenes (total)	25.2	0.50	**	30.0		84	70-130			
Methyl tert-butyl ether	9.87	2.0		10.0		99	70-130			
Surrogate: a,a,a-Trifluorosoluene	8.45		"	10.0		84	60-140			
Laboratory Control Sample (3070289-BS3)				Prepared	& Analyz	ed: 07/25/	03			
Benzene	9.57	0.50	น g /l	10.0		96	70-130			
Toluene	9.57	0.50	n	10.0		96	70-130			
Ethylbenzene	9.30	0.50	**	10.0		93	70-130			
Xylenes (total)	27.2	0.50	11	30.0		91	70-130			
Methyl tert-butyl ether	10.2	2.0	н	10.0		102	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.53		H	10.0		95	60-140			
Matrix Spike (3070289-MS1)	Source: S	307303-05		Prepared:	07/24/03	Analyzed	1: 07/25/03			
Benzene	9.24	0.50	ug/l	10.0	ND	92	60-140			
Toluene	9.43	0.50	U	10.0	ND	94	60-140			
Ethylbenzene	9.10	0.50	**	10.0	ND	91	60-140			
Xylenes (total)	26.5	0.50	**	30.0	ND	88	60-140			
Methyl tert-butyl ether	11.7	2.0	**	10.0	ND	117	60-140			
Surrogate: a,a,a-Trifluorotoluene	8.48		"	10.0		85	60-140			
Matrix Spike Dup (3070289-MSD1)	Source: S	307303-05		Prepared	07/24/03	Analyze	d: 07/25/03			
Benzene	9.59	0.50	ug/l	10.0	ND	96	60-140	4	25	
Toluene	9.51	0.50	41	10.0	ND	95	60-140	0.8	25	
Ethylbenzene	9.13	0.50	**	10.0	ND	91	60-140	0.3	25	
Xylenes (total)	26.6	0.50	**	30.0	ND	89	60-140	0.4	25	
Methyl tert-butyl ether	12.7	2.0	11	10.0	ND	127	60-140	8	25	
Surrogate: a,a,a-Trifluorotoluene	7.63		n	10.0		76	60-140		<u> </u>	-





Project: TOSCO 3538, Oakland, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S307308 Reported: 07/28/03 12:29

Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B - Quality Contr Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch 3070325 - EPA 5030B (P/T)									<u> </u>		
Blank (3070325-BLK1)	Prepared & Analyzed: 07/24/03										
Purgeable Hydrocarbons	ND	50	ug/l								
Benzene	ND	0.50	*								
Toluene	ND	0.50	91								
Ethylbenzene	ND	0.50	11								
Xylenes (total)	ND	0.50	h								
Methyl tert-butyl ether	ND	2.0	H								
Surrogate: a,a,a-Trifluorotoluene	9.04		n	10.0	_	90	60-140				
Laboratory Control Sample (3070325-BS1)	Sample (3070325-BS1)					Prepared: 07/24/03 Analyzed: 07/25/03					
Benzene	9.00	0.50	ug/l	10.0		90	70-130				
Toluene	10.1	0.50	þi	10.0		101	70-130				
Ethylbenzene	10.4	0.50	**	10.0		104	70-130				
Xylenes (total)	30.4	0.50	**	30.0		101	70-130				
Methyl tert-butyl ether	9.09	2.0	U	10.0		91	70-130				
Surrogate: a,a,a-Trifluorotoluene	9.45		"	10.0	<u>. </u>	94	60-140				





Dublin CA, 94568

Analyte

Project: TOSCO 3538, Oakland, CA

Spike

Level

Source

Result

Project Number: N/A

Reporting

Limit

Result

Project Manager: Deanna L. Harding

\$307308 Reported: 07/28/03 12:29

RPD

Limit

Notes

%REC

Limits

%REC

RPD

Volatile Organic Compounds 8010B list by EPA Method 8260B - Quality Control

Sequoia Analytical - Sacramento

Units

Blank (3070259-BLK1)		Prepared & Analyzed: 07/24/03									
Freon 113	ND	1.0	ug/l								
Bromodichloromethane	ND	0.50	51								
Bromoform	ND	0.50	71								
Bromomethane	ND	1.0	**								
Carbon tetrachloride	ND	0.50	11								
Chlorobenzene	ND	0.50	н								
Chloroethane	ND	0.50	**								
Chloroform	ND	0.50	*1								
Chloromethane	ND	0.50	17								
Dibromochloromethane	ND	0.50	51								
1,2-Dibromoethane (EDB)	ND	0.50	н								
1,2-Dichlorobenzene	ND	0.50	**								
1,3-Dichlorobenzene	ND	0.50	11								
1,4-Dichlorobenzene	ND	0.50	17								
Dichlorodifluoromethane	ND	0.50	H			٠					
1,I-Dichloroethane	ND	0.50	+r								
1,2-Dichloroethane	ND	0.50	n			•					
1,1-Dichloroethene	ND	0.50	44								
cis-1,2-Dichloroethene	ND	0.50	11								
trans-1,2-Dichloroethene	ND	0.50	bi								
1,2-Dichloropropane	ND	0.50	**								
cis-1,3-Dichloropropene	ND	0.50	**								
trans-1,3-Dichloropropene	ND	0.50	**								
Methylene chloride	ND	5.0	71								
1,1,2,2-Tetrachloroethane	ND	1.0	н								
Tetrachloroethene	ND	0.50	61								
1,1,1-Trichloroethane	ND	0.50	•								
1,1,2-Trichloroethane	ND	0.50	*1			,					
Trichloroethene	ND	0.50	**								
Trichlorofluoromethane	ND	0.50	b								
Vinyl chloride	ND	0.50	"					·			
Surrogate: 1,2-DCA-d4	22.6		11	25.0		90	70-130				
Surrogate: Toluene-dk	23.0		*	25.0		92	70-130				
Surrogate: 4-BFB	24.7		••	25.0		99	70-130				





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Project: TOSCO 3538, Oakland, CA

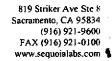
Project Number: N/A

Project Manager: Deanna L. Harding

\$307308 Reported: 07/28/03 12:29

Volatile Organic Compounds 8010B list by EPA Method 8260B - Quality Control Sequoia Analytical - Sacramento

		Reporting		Spike	Source	A/DEC	%REC	רוסס	RPD Limit	Notes
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 3070259 - EPA 5030B [P/T]									·	
Laboratory Control Sample (3070259-BS1)	Prepared & Analyzed: 07/24/03									
Chlorobenzene	25.1	0.50	ug/l	25.0		100	70-130			
1,1-Dichloroethene	18.9	0.50	41	25.0		76	70-130			
Trichloroethene	20.8	0.50	1)	25.0		83	70-130			
Surrogate: 1,2-DCA-d4	22.8		,,	25.0		91	70-130			
Surrogate: Toluene-d8	23.0		n	25.0		92	70-130			
Surrogate: 4-BFB	24.3		**	25.0		97	70-130			
Matrix Spike (3070259-MS1)	Source: S307234-01 Prepared & Analyz						03		<u> </u>	
Chlorobenzene	26.1	0.50	սք/\	25.0	ND	104	60-140			
1,1-Dichloroethene	18.4	0.50	Ħ	25.0	ND	74	60-140			
Trichloroethene	20.7	0.50	n	25.0	ND	83	60-140			
Surrogate: 1,2-DCA-d4	20.6		. "	25.0		82	70-130			
Surrogate: Toluene-d8	24.8		Pf	25.0		99	70-130			
Surrogate: 4-BFB	25.2		**	25.0		101	70-130			
Matrix Spike Dup (3070259-MSD1)	Source: S307234-01 Prepared & Analyzed: 07/24/03									
Chlorobenzene	25.2	0.50	ug/J	25.0	ND	101	60-140	4	25	
1,1-Dichloroethene	16.8	0.50	10	25.0	ND	67	60-140	9	25	
Trichloroethene	19.2	0.50	н	25.0	ND	77	60-140	8	25	
Surrogate: 1,2-DCA-d4	20.6		ří	25.0		82	70-130			
Surrogate: Toluene-d8	24.9		FF	25.0		100	70-130			
Surrogate: 4-BFB	25.8		**	25.0		103	7 0-13 0			





Dublin CA, 94568

Project: TOSCO 3538, Oakland, CA

Project Number: N/A

Project Manager: Deanna L. Harding

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Notes and Definitions

HT-RS This sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was

performed past the recommended hold time. 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