

GETTLER-RYAN INC.

My My

TRANSMITTAL

May 7, 2001 G-R #: 180012

TO:

Mr. David B. De Witt

Tosco Marketing Company

2000 Crow Canyon Place, Suite 400

San Ramon, California 94583

CC:

Mr. Douglas Lee

Gettler-Ryan Inc.

Dublin, California

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

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

Tosco (Unocal) SS #5484

18950 Lake Chabot Road

Castro Valley, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	May 1, 2001	Groundwater Monitoring and Sampling Report Annual - Event of March 28, 2001

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by *May 18, 2001*, this report will be distributed to the following:

Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94501

Enclosure

agency/5484-dbd



May 1, 2001 G-R Job #180012

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

RE: Annual Event of March 28, 2001

Groundwater Monitoring & Sampling Report

Tosco (Unocal) Service Station #5484

18950 Lake Chabot Road Castro Valley, 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. 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, 2 and 3. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sinç*e*rely,

Deanna L. Harding Project Coordinator

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P.E. No. C55734

Figure 1: Potentiometric Map Figure 2: Concentration Map

Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results

Table 2: Groundwater Analytical Results

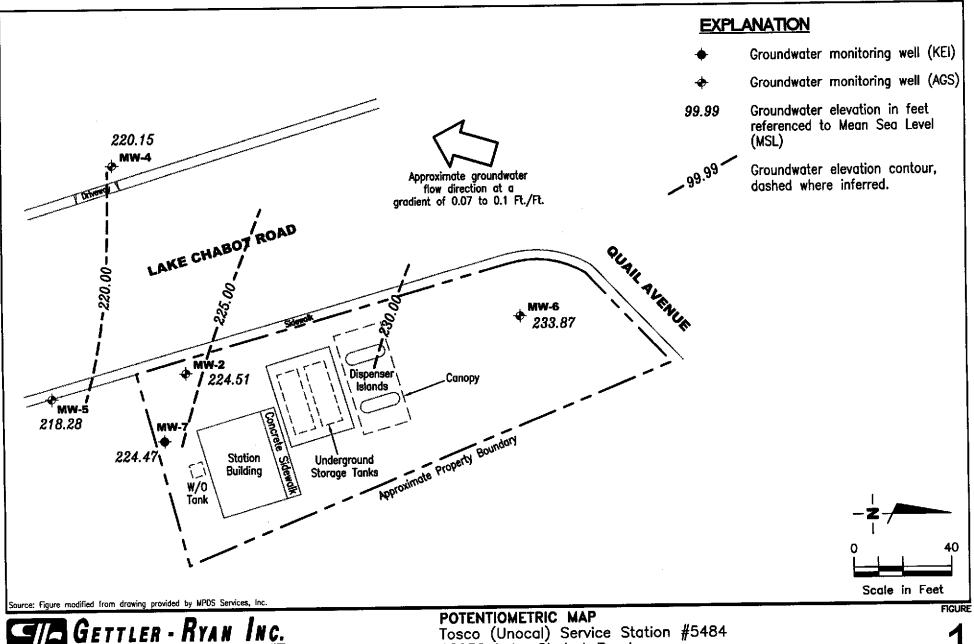
Table 3: Groundwater Analytical Results - Oxygenate Compounds
Attachments: Standard Operating Procedure - Groundwater Sampling

1. Hardin

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

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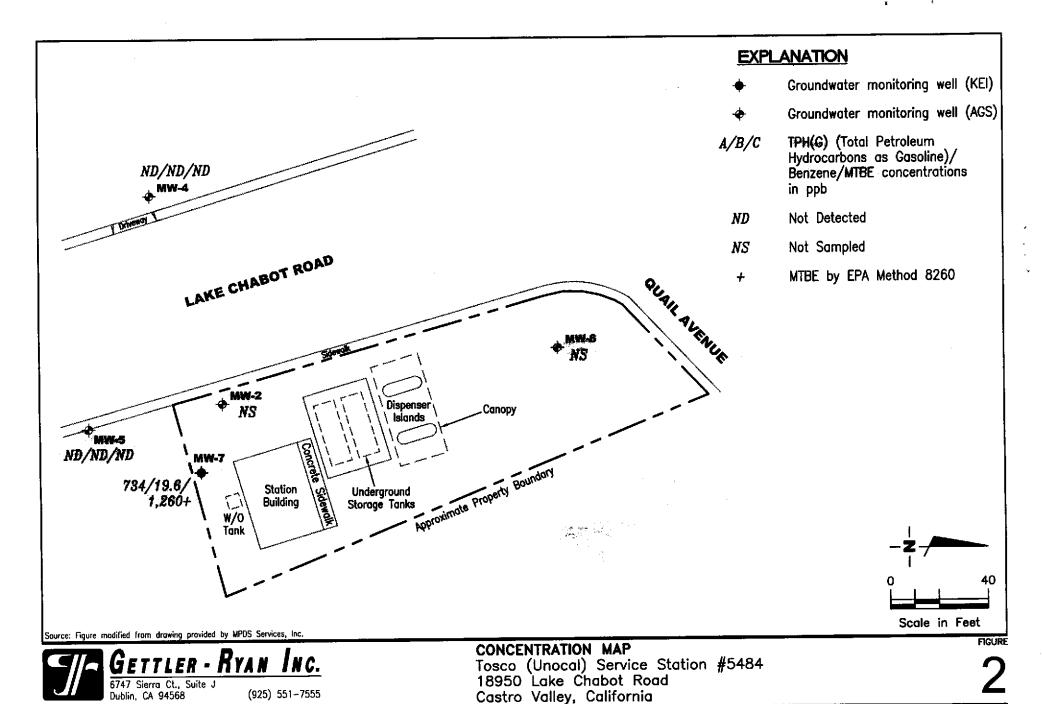
6747 Sierra Ct., Suite J Dublin, CA 94568 (925) 551-7555 Tosco (Unocal) Service Station #5484 18950 Lake Chabot Road Castro Valley, California

REVISED DATE

PROJECT NUMBER REVIEWED BY 180012

<u>March</u> 28, 2001

DATE



PROJECT NUMBER
180012

REVIEWED BY

DATE March 28, 2001 REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5484 18950 Lake Chabot Road Castro Valley, California

Well ID/	Date	DTW	GWE	TPH-D	TPH-G	В	T	E	X	MTBE
TOC*	T	(ft.)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-2	05/23/91				ND	ND	ND	ND	ND	
	09/20/91				ND	ND	ND	ND	ND	
	12/19/91				140	0.66	ND	0.64	1.2	
	03/20/92				120	ND	ND	ND	ND	
	06/18/92				140¹	ND	ND	ND	ND	••
	09/10/92				61¹	ND	ND	ND	ND	110
	12/10/92				1 00 ¹	ND	ND	ND	ND	170
229.47	03/10/93	4.69	224.78		110¹	ND	ND	ND	ND	350
£27.47	06/09/93	5.85	223.62		1201	ND	ND	ND	ND	300
228.88	09/09/93	6.59	222.29		210^{1}	ND	ND	ND	ND	
220.00	12/09/93	6.94	221.94		96 ¹	ND	ND	ND	ND	
	03/03/94	4.91	223.97		240 ¹	ND	ND	ND	ND	
	06/03/94	5.71	223.17		190 ¹	ND	ND	ND	ND	
	09/02/94	7.05	221.83		720	ND	ND	ND	4.6	
	12/01/94	6.98	221.90		200	0.70	ND	0.58	ND	
	03/01/95	4.60	224.28	₩=	ND	ND	ND	ND	ND	
	06/01/95	4.65	224.23		420 ^t	ND	ND	ND	ND	
	09/05/95	5.66	223.22		ND	ND	0.80	ND	0.74	 ⁵
	12/05/95	6.32	222.56	· 	ND	ND	ND	ND	ND	390
	04/11/96	4.22	224.66	NOT SAMPLED ⁶						
	03/13/97	6.58	222.30							
	03/02/98	5.18	223.70							
	03/25/99	4.84	224.04							
	03/07/00	4.92	223.96							
	03/28/01	4.37	224.51							

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5484

osco (Unocal) Service Station #5484 18950 Lake Chabot Road Castro Valley, California

Well ID/	Date	DTW	GWE	TPH-D	TPH-G	В	T	E	X	MTBE
TOC*	PAIC	(ft.)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
100"		(J+-)	AMARY SOUR							
MW-4	05/23/91				ND	ND	ND	ND	ND	
141 11 11 [1]	09/20/91			SAMPLED SEMI	-ANNUALLY					
	12/19/91			₩#	ND	ND	ND	ND	ND	
	03/20/92									
	06/18/92				ND	0.41	0.84	ND	0.55	
	09/10/92									
	12/10/92				ND	ND	ND	ND	ND	
220.00	03/10/93	7.24	220.84		ND	ND	ND	ND	ND	
228.08	06/09/93	8.79	219.29		ND	ND	ND	ND	ND	
227.77	09/09/93	9.91	217.86		ND	ND	ND	ND	ND	
221.11	12/09/93	INACCESSIBLE						••		
	03/03/94	6.98	220.79		ND	ND	ND	ND	ND	
	06/03/94	8.26	219.51		ND	ND	ND	ND	ND	
	09/02/94	10.08	217.69		ND	ND	ND	ND	ND	
	12/01/94	10.01	217.76		ND	ND	ND	ND	ND	
	03/01/95	7.29	220.48		ND	ND	1.1	ND	0.75	
	05/01/95	7.65	220.12		ND	ND	0.78	ND	1.7	
	09/05/95	9.27	218.50	#₩	ND	ND	0.70	ND	0.71	
	12/05/95	9.92	217.85		ND	ND	ND	ND	ND	0.68
	04/11/96	7.55	220.22		ND	ND	ND	ND	ND	ND
		9.84	217.93		ND	ND	ND	ND	ND	ND
	03/13/97 03/02/98	8.84	218.93		ND	ND	ND	ND	ND	ND
		7.46	220.31		ND	ND	ND	ND	ND	7.6
	03/25/99	7.48 7.58	220.31		ND	ND	1.11	ND	ND	ND
	03/07/00		220.15		ND	ND	ND	ND	ND	ND
	03/28/01	7.62	440.15		4 185	- ·-				

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5484

Cosco (Unocal) Service Station #548 18950 Lake Chabot Road Castro Valley, California

Well ID/	Date	DTW	GWE	TPH-D	TPH-G	В	T	E	X	MTBE
TOC*		(fi.)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
Section 10 to										
MW-5	05/23/91				ND	ND	ND	ND	ND	
	09/20/91			450	ND	ND	ND	ND	ND	
	10/10/91			ND						
	12/19/91				ND	ND	ND	ND	ND	
	03/20/92			170	ND	ND	ND	ND	ND	
	06/18/92			ND	ND	ND	ND	ND	ND	
	09/10/92	**		110^2	ND	ND	ND	ND	ND	
	12/10/92			83 ³	ND	ND	ND	ND	ND	
225.42	03/10/93	7.67	217.75	69^{2}	ND	ND	ND	ND	ND	
	06/09/93	8.57	216.85	64	ND	ND	ND	ND	ND	
225.11	09/09/93	9.12	215.99	58 ³	ND	ND	ND	ND	ND	
	12/09/93	9.97	215.14	87 ³	ND	ND	ND	ND	ND	
	03/03/94	7.87	217.24	ND	ND	ND	ND	0.71	1.7	ND
	06/03/94	9.01	216.10	80^{3}	ND	ND	ND	ND	ND	
	09/02/94	9.23	215.88	130 ²	ND	ND	ND	ND	ND	
	12/01/94	9.18	215.93	79 ²	ND	ND	ND	ND	ND	
	03/01/95	7.98	217.13	ND	ND	ND	ND	ND	ND	
	06/01/95	8.21	216.90	57 ²	ND	ND	ND	ND	ND	
	09/05/95	9.57	215.54	210 ²	ND	ND	0.95	ND	0.87	5
	12/05/95	9.60	215.51	170^{2}	ND	ND	ND	ND	ND	27
	04/11/96	7.48	217.63		ND	ND	ND	ND	ND	56
	03/13/97	9.56	215.55		ND	ND	ND	ND	ND	ND
	03/02/98	8.96	216.15		ND	ND	ND	ND	ND	ND
	03/25/99	7.53	217.58		ND	ND	ND	ND	ND	3.9
	03/07/00	7.49	217.62		ND	ND	1.13	ND	ND	ND
	03/28/01	6.83	218.28		ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5484 18950 Lake Chabot Road Castro Valley, California

Well ID/	Date	DTW	GWE	TPH-D	TPH-G	В	T	E.	X	MTBE
TOC*		(ft.)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(pph)	(pph)
								110	NID.	
MW-6	05/23/91				ND	ND	ND	ND	ND	
	09/20/91			SAMPLED SEMI-A					ND	
	12/19/91				ND	ND	ND	ND	ND	
	06/18/92				ND	ND	ND	ND	ND ND	
	12/10/92				ND	ND	ND	ND		
239.38	03/10/93	5.32	234.06							
	06/09/93	5.94	233.44		ND	ND	ND	ND	ND	
239.04	09/09/93	6.82	232.22						<u>'</u>	
	12/09/93	7.43	231.61		150	ND	ND	ND	1.7	
	03/03/94	6.45	232.59							
	06/03/94	5.81	233.23		ND	ND	ND	ND	ND	
	09/02/94	6.98	232.06							
	12/01/94	6.92	232.12		ND	ND	ND	ND	ND	
	03/01/95	5.17	233.87							
	06/01/95	4.76	234.28		ND	ND	0.70	ND	1.7	
	09/05/95	5.69	233.35							
	12/05/95	6.75	232.29		ND	ND	ND	ND	ND	1.4
	04/11/96	4.28	234.76	NOT SAMPLED ⁶						
	03/13/97	7.05	231.99							
	03/02/98	5.14	233.90							
	03/25/99	5.05	233.99	-ب						
	03/07/00	5.15	233.89							
	03/28/01	5.17	233.87							
	03/20/01	2127								
MW-7	05/23/91			540	3,000	160	1.2	25	120	+-
	09/20/91			580	1,400	160	0.75	89	130	
	12/19/91		• ••	770	3,900	240	2.4	280	270	
	03/20/92		••	3,200	11,000	980	ND	990	1,600	
	06/18/92		. 	990^{2}	5,500	340	4.2	380	410	

Table 1
Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5484 18950 Lake Chabot Road Castro Valley, California

Well ID/	Date	DTW	GWE	TPH-D	TPH-G	В	Т	E	Х	MTBE
TOC*		(ft.)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(pph)	(ppb)	(ppb)
MW-7	09/10/92			290^{2}	2,100	160	1.9	140	150	
(cont)	12/10/92			200^{3}	1,200	28	ND	37	13	•
231,66	03/10/93	7.69	223.97	$1,100^2$	4,400	310	ND	300	330	
	06/09/93	8.59	223.07	830 ³	4,600	430	ND	510	430	
231.39	09/09/93	10.11	221.28	550 ³	2,600 ⁴	160	19	250	120	
	12/09/93	10.65	220.74	250^{2}	980	54	4.6	71	5.6	
	03/03/94	8.17	223.22	$1,400^2$	9,300	290	ND	590	400	1.7
	06/03/94	8.73	222.66	$2,000^2$	9,400	380	5.0	820	240	
	09/02/94	11.00	220.39	490 ²	3,800	77	ND	180	42	
	12/01/94	10.95	220.44	260 ²	3,100	80	ND	250	190	
	03/01/95	8.03	223.36	1,900 ³	3,300	200	3.9	300	350	
	06/01/95	7.92	223.47	$1,600^2$	3,900	170	ND	400	430	
	09/05/95	8.61	222.78	ND	710	32	ND	85	33	5
	12/05/95	9.69	221.70	110 ²	400	23	ND	34	16	1,600
	12/08/95	9.59	221.80							
	04/11/96	7.31	224.08		1,500	52	ND	160	130	1,500
	03/13/97	9.48	221.91		460	13	ND	31	4.0	430
	03/02/98	7.93	223.46		1,800	63	ND^7	240	60	790
	03/25/99	7.25	224.14	**	380	6.4	ND^7	10	4.9	1,200
	03/07/00	7.12	224.27		199 ⁸	3.51	ND	3.30	0.697	1,250
	03/28/01	6.92	224.47		734 ⁹	19.6	0.514	23.3	6.13	1,070/1,260 ¹⁰
									÷	
Trip Blank										
TB-LB	03/02/98				ND	ND	ND	ND	ND	ND
	03/25/99				ND	ND	ND	ND	ND	ND
	03/07/00				ND	ND	ND	ND	ND	ND
	03/28/01	~-			ND	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station 5484 18950 Lake Chabot Road Castro Valley, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 2, 1998, were provided by MPDS Services, Inc.

TOC = Top of Casing

B = Benzene

(ppb) = Parts per billion

DTW = Depth to Water

T = Toluene

ND = Not Detected

(ft.) = Feet

E = Ethylbenzene

-- = Not Measured/Not Analyzed

GWE = Groundwater Elevation

X = Xylenes

(msl) = Relative to mean sea level

MTBE = Methyl tertiary butyl ether

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-G = Total Petroleum Hydrocarbons as Gasoline

- * TOC elevations are relative to Mean Sea Level (msl), per the Alameda County Benchmark (Elevation = 219.68 feet msl). Prior to September 9, 1993, DTW measurements were taken from the top of well covers.
- Laboratory reported that the hydrocarbons detected did not appear to be gasoline.
- Laboratory report indicates that the hydrocarbons detected did not appear to be diesel.
- 3 Laboratory report indicates that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- 4 Laboratory reported that 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.
- Sampling discontinued per Alameda County Health Care Services letter dated April 1, 1996.
- Detection limit raised. Refer to analytical reports.
- 8 Laboratory report indicates weathered gasoline C6-C12.
- Laboratory report indicates gasoline C6-C12.
- MTBE by EPA Method 8260.

Table 2 **Groundwater Analytical Results**

Tosco (Unocal) Service Station #5484 18950 Lake Chabot Road Castro Valley, California

	-	тод	Bis (2-ethylhexyl)	2-Methyl-	Naphthalene	1,2- Dichloroethane	Chloroform	Bromodich- loromethane
Well ID	Date	TOG	phthalate <i>(ppb)</i>	naphthalene (ppb)	(ppb)	(ppb)	(ppb)	(ppb)
		(ppm)	(рри)	(рро)	\P\Pu\			
MW-4	04/11/96		ND	ND	ND	ND		
11277 4	03/13/97		ND	ND	ND	ND		
	03/02/98 ⁶					ND		
	03/25/99		ND	ND	ND	ND		
	03/07/00		ND^7	ND^7	ND^7	ND^7	87.1	ND^7
	03/28/01		ND	ND	ND	ND	ND	ND
						,		
MW-5	03/10/93		ND	ND	ND	ND		
	06/09/93		**			ND		
	09/09/93					ND	- -	
	12/09/93					ND		
	03/03/94					ND		
	06/03/94					ND		
	09/02/94					ND		
	12/01/94					ND		
	03/01/95					ND		
	06/01/95					ND		
	09/05/95					ND		
	12/05/95					ND		
	04/11/96		ND	ND	ND	ND		••
	03/13/97		740	ND	ND	ND		
	03/02/98 ⁶					ND		
	03/25/99		ND	ND	ND	ND ND ⁷		 71.1
	03/07/00		ND ⁷	ND ⁷	ND ⁷		69.7	7.16 ND
	03/28/01	. ••	ND	ND	ND	ND	ND	ND
MW-7	05/23/91	ND				3.4		
	09/20/91	ND				ND		
	12/19/91	ND				3.1		
	03/20/92	ND				ND		
	06/18/92	ND				ND		
	09/10/92					2.3		
	12/10/92					2.0		
	03/10/931		13	19	83	1.3		
	06/09/93 ²		13	19	83	1.3		
	09/09/933		ND	11	48	1.5		
	12/09/93		ND	ND	15	1.5		
	03/03/94		ND	34	130	1.7		
	06/03/94		ND	18	61	1.4		
	09/02/94		ND	ND	NĐ	1.1		
	12/01/94		ND	ND	2.5	1.0		
	03/01/95⁴		ND	40	120	1.6		
5	6484.xls/#180012			7			Aso	of 03/28/01

Table 2

Groundwater Analytical Results

Tosco (Unocal) Service Station #5484 18950 Lake Chabot Road Castro Valley, California

Well ID	Date	TOG (ppm)	Bis (2-ethylhexyl) phthalate (ppb)	2-Methyl- naphthalene (ppb)	Naphthalene (ppb)	1,2- Dichloroethane (ppb)	Chloroform (ppb)	Bromodich- loromethane (ppb)
MW-7	06/01/95		ND	13	83	1.4		
(cont)	09/05/95		ND	ND	7.0	1.8	••	
(/	12/05/95 ⁵			••		ND		
	12/08/95		ND	ND	14			
	04/11/96		ND	7.6	42	0.75		
	03/13/97		120	ND	9.0	ND		
	03/02/986					0.92		
	03/25/99		ND	ND	ND	ND		
	03/07/00		ND^7	ND^7	ND^7	ND^7	ND^7	ND ⁷
	03/28/01		ND	ND	7.7	ND	ND	ND

EXPLANATIONS:

Groundwater analytical results prior to March 2, 1998, were provided by MPDS Services, Inc.

TOG = Total Oil and Grease

(ppb) = Parts per billion

(ppm) = Parts per million

ND = Not Detected

-- = Not Analyzed

- Nine "tentatively identified compounds" were detected by the EPA Method 8270 open scan at concentrations ranging from 10 ppb to 59 ppb. Refer to laboratory analysis sheets for the specific compounds and concentrations.
- Ten "tentatively identified compounds" were detected by the EPA Method 8270 open scan at concentrations ranging from 14 ppb to 150 ppb. Refer to laboratory analysis sheets for the specified compounds and concentrations.
- Seven "tentatively identified compounds" were detected by the EPA Method 8270 open scan at concentrations ranging 11 ppb to 88 ppb. Refer to laboratory analysis sheets for the specific compounds and concentrations.
- Phenol was detected at a concentration of 2.1 ppb.
- Tetrachloroethene was detected at a concentration of 56 ppb.
- 6 EPA Method 8270 requested on chain of custody; laboratory inadvertently omitted testing.
- Detection limit raised. Refer to analytical reports.

Note: All EPA Method 8010 and 8270 compounds were ND, except as listed above.

Table 3

Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #5484 18950 Lake Chabot Road Castro Valley, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-7	03/28/01	ND¹	ND ¹	1,260	ND ¹	ND ¹	ND ¹	ND^1	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

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

•		FIELD DAT	A SHEET			
lient/ acility # <u>Tosa</u>	6 # 5484 111	- 01	Job#: Date:	180012 3/28/21		<u> </u>
ddress: <u>1895</u>	o Cake Clabot	Ra:	Date	: Varther		
ity:Ca	tro Vally, Co	<u>. </u>	Sampler			_
Well ID	MW-2	Well Condi	tion:	>K		-
Vell Diameter		Hydrocarbo Thickness:		Amount Bai	or); <u> </u>	
otal Depth	19.15 m	Volume Factor (VF	2" = 0.17	3" = 0.38 6" = 1.50	12" = 5.80	
Depth to Water	1.54 h		X 3 (case vo	lume) = Estimated Pu	rge Volume:	ثاهر
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	_	Sampling Equipment:	Disposable Ba Bailer Pressure Baile Grab Sample Other:		
Starting Time: Sampling Time: Purging Flow Rat Did well de-wate	te:	Wat	ther Condition er Color: iment Descript es; Time:	ion:	Odor:	(
Time	Volume pH (gal.)	Conducth µmhos/c	Tempé			linity pm)
		\mathcal{Z}				
		_	ORY INFORMA	ATION LABORATORY	ANALYSES	
SAMPLE ID	(#) - CONTAINER	REFRIG. P	HESERV	SEQUOID	TPHG BTEX MTG)E
		-		<u> </u>		
COMMENTS:	Manitoronl		<u> </u>			
						

Well ID	stro Valley, (ndition:	OK	/artter		
/ell Diameter	<i>y</i> in	Hydroc		60 in	Amount Bail	ed 🖈	(oal.)
otal Depth	27.25 1	Thickne		= 0.17	3" = 0.38		- 0:66
epth to Water	762 4	Factor		<u> </u>	1-10		
		vf <u>0.66</u> =	12.95 x 3 to	casa volume) :	= Estimated Pur	ge Volume: 2	9.0 (04.)
Purge quipment:	Disposable Bailer Bailer		Sampli Equipm	ent: Q	isposable Ball	95	-
dribueur.	Stack Suction			P	ailer ressure Bailer		
	Grundfos Other:	·			Srab Sample		
Starting Time:	12:55		/eather Con Vater Color:	_ 1	clear	Odor: no	
Sampling Time: Surging Flow B	1;23 ate: 2			scription: .			
Did well de-wat	. ^	H	yes; Time	:	Volum	e:	<u>igel l</u>
Time	Volume pH (gal.)	Condu µmho		Temperature	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1:01	13 7.55		<u> </u>	66.2	 		
1:08	26 7.4° 39 7.3	$\frac{2}{9} - \frac{14}{12}$	74 -	66,4			
	71 7.2	+			<u> </u>	·	
			·				
	·		ATORY INFO	ORMÁTION	BORATORY	ANAL	YSES
	(#) - CONTAINER	REFRIG.	HCL		QUOIA	TPHG BTE	MINET 8
SAMPLE ID		1		<u> </u>	-	8270	
SAMPLE ID	1 Auster	- u	NONE			1	

tell Diameter otal Depth otal Depth epth to Water 16.97 x vf 2.66	Colific # 70 SCO # 59 Po			FIELD DA	ATA SHEET			
Well ID Well Diameter Vell Diameter Hydrocarbon Thickness: Otal Depth 2380 ft. Volume Factor (VF) Purge Disposable Bailer Stack Suction Grundros Other: Starting Time: Purging Flow Rate: Purging Flow Rate: Volume Volume Sampling Time: Volume Starting Time: Volume Factor (VF) AD Weather Conditions: Water Color: Sediment Description: If yes; Time: Volume: (gal.) 1:50	Well ID Well Diameter ### In Hydrocarbon Thickness: ### In Indiana	dress: 18950	lake chabo	t Rol.	Detai	3/28/01	<i>,</i>	
Purge Disposable Bailer Stack Starting Time: St	Time Volume pH Conductivity Temperature (gal.) 1.50	Well ID	MW-5	Well Con	dition: 8			 .
Volume 23.80 tr Volume 2" = 0.17 3" = 0.38 12" = 5.80 12	Purge Disposable Bailer Sampling Equipment: Bailer Stack Suction Grandfos Other: Starting Time: 2.15	Il Diameter	<u> 4 in </u>	Hydroca Thicknes	rbon ss: <u>~ 50</u>	in_ (product/w	ater): 	
Purge Disposable Bailer Sampling Equipment: Bailer Stack Pressure Bailer Grab Sample Other: O	Purge Disposable Bailer Sampling Conductivity Temperature (gal.) 1	tal Depth	• _	Volume	2" = 0.17		9 4	- 0.66
Purge Disposable Bailer Equipment: Bailer Stack Pressure Bailer Grab Sample Grundfos Other: Starting Time: Starting Time: Sampling Time: Purging Flow Rate: Did well de-water? Time Volume pH Conductivity Temperature (mg/L) (mV) (ppm) (gal.) 1:50 11 7.30 7.66 888 66.5 2:02 34 7.60 812 66.8 SAMPLE ID (8) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY THE LABORATORY TEMPERATORE THE LABORATORY TEMPERATURE ANALYSES LABORATORY INFORMATION LABORATORY INFORMATION LABORATORY INFORMATION LABORATORY INFORMATION ANALYSES TPHS SEQUOLA TEMPERATURE SEQUOLA SECRETORY SEC	Purge Disposable Bailer Grab Sample Other: Starting Time: // // Weather Conditions: // Other: Odor: O	pth to Water	<u>6.83 n</u>	<u></u>			Nahamat 3	Ý. O toeld
Purge Disposable Baller Stack Pressure Bailer Stack Pressure Bailer Grab Sample Other: Starting Time: // 45 Weather Conditions: // Odor:	Purge Disposable Baller Stack Suction Grundfus Other: Starting Time: Starting Time: Purging Flow Rate: Did well de-water? Time Volume (gal.) 1:50 1:50 1:50 2:02 3:40 2:02 3:40 LABORATORY INFORMATION SAMPLE ID Silvania Superation Equipment: Disposable Baller Refrig. Pressure Bailer Grab Sample Other: Odor:		16.97 x VI	: <u>2.66</u> -1	1.20 X 3 (case vo	lume) = Estimated	Purge voicine.	
Starting Time: Starting Time:	Starting Time: Starting Time: Starting Time: Sampling Time: Purging Flow Rate: Pu	-		,		Disposable	Bailer	•
Starting Time: Starting Time: 1.45 Weather Conditions: Classes	Starting Time: Starting Time: Sampling Time: Sampling Time: Purging Flow Rate: Did well de-water? Time Volume (gal.) 1:50	juipment:	Stack	•		Pressure Ba	iler	
Starting Time: Sampling Time: Sampling Time: Sampling Time: Sampling Time: Sediment Description: Sediment Descrip	Starting Time: Sampling Time: 1.45			·	c		ie 	
Starting Time: Sampling Time: Sampling Time: Purging Flow Rate: Did well de-water? Time Volume (gal.) 1:50	Starting Time: Sampling Time: Sampl		Other:	<u>.</u>				•
Sampling Time: Purging Flow Rate: Did well de-water? Time Volume pH Conductivity Temperature D.O. ORP (mg/L) (mV) (ppm) [1.50 1.7.80 79.5 66.5 1.56 72.5 7.66 80.8 66.5 2.02 34 7.60 81.2 66.8 LABORATORY INFORMATION SAMPLE ID (8) - CONTAINER REFRIG. PRESERV. TYPE: LABORATORY TPHG BTEX /MTOE	Sampling Time: Purging Flow Rate: Did well de-water? Time Volume (gal.) 1:50 1:56 2:02 34 Conductivity prohos/cm (gal.) 1:56 2:02 34 366.5 2:02 34 Conductivity prohos/cm (gal.) 1:56 2:08 Conductivity prohos/cm Conductivity	_		_		s:		
Time Volume pH Conductivity Temperature D.O. ORP Alkalini (gal.) 1:50 1 7.80 795 66.3 1:56 72.5 7.66 808 66.5 2:02 34 2.60 812 66.8 LABORATORY INFORMATION SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE: LABORATORY TPHG REEK /MTOE MW-5 5 x VDA VIAL Y HCC 5EQUOID TPHG REEK /MTOE	Time Volume pH Conductivity Temperature D.O. ORP (myl.) (myl.) 1:50 1 7.80 795 66.7 1:56 72.5 7.66 808 66.5 2:02 34 7.60 812 66.8 LABORATORY INFORMATION SAMPLE ID (8) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY MW-5 5 k VDA VIAL 9 Held 5 EQUOID TPHG 8 TEX / M TOE + 1: Amber 1 Amber 1 No NB 1 8270		•;	 m. Se	ediment Descript	ion:		. (cel.)
Time Volume pH Conductivity Temperature (mg/L) (mV) (ppsm) 1:50 1	Time Volume pH Conductivity Temperature (mg/L) (mV) (ppm)		 ℓ)	If	yes; Time:	Vo	JUINE:	
1:50 1:56 1:56 1:56 1:56 1:56 1:56 1:50 1:50 1:50 1:50 1:50 1:50 1:50 1:50	1:50 1:56 22.5 2:66 808 66.5 2:02 34 2:60 812 66.8 LABORATORY INFORMATION SAMPLE ID W-5 5 × VDA VIAL Y HCL 5EQUOIA TPHG SETTO 8:270	Time V	Tolume pH	µmho	√cm °F	(mg/		
SAMPLE ID 18) - CONTAINER REFRIG. PRESERV. TYPE: LABORATORY ANALYSES MW-5 5 x VDA VIAL Y HCC SEQUOID TPHG BTEX /MTOE	LABORATORY INFORMATION SAMPLE ID (3) - CONTAINER REFRIG. PRESERV. TYPE: LABORATORY MW-5 5 x VDA VIAL Y HLL SEQUOID TPHG SEX /MTOE + NONE 1 Auber	1:50	11 7.80	$-\frac{795}{808}$				
LABORATORY INFORMATION SAMPLE ID (3) - CONTAINER REFRIG. PRESERV. TYPE: LABORATORY ANALYSES MW-5 5 x VDA VIAL Y HCC SEQUOIA TPHG BTEX /MTOE 8270	LABORATORY INFORMATION SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE: LABORATORY ANALYSES MW-5 5 x VDA VIAL Y HLL 5EQUOIA TPHG BTEX /MTDE + NO N					8	·	
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE: CABONATOR TPHG BTEX MTGE MW-5 5 x VDA VIAL Y HCC SEQUOIA TPHG BTEX MTGE 8270	SAMPLE ID (1) - CONTAINER REFRIG. PRESERV. TYPE: LABORATOR THE BTEX MIDE + MW-5 5 x VDA VIAL Y HLL SEQUOID TPHG BTEX /MIDE + 11 / Aucher	1:02	37 4.80				<u> </u>	
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE: CABONATOR TPHG BTEX MTOE MW-5 5 X VDA VIAL Y HCC SEQUOIA TPHG BTEX MTOE	SAMPLE ID (1) - CONTAINER REFRIG. PRESERV. TYPE: LABORATOR THE BTEX MIDE + MW-5 5 x VDA VIAL Y HLL SEQUOID TPHG BTEX /MIDE + 11 / Aucher							,
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE: CABONATOR TPHG BTEX MTGE MW-5 5 x VDA VIAL Y HCC SEQUOID TPHG BTEX MTGE 8:270	SAMPLE ID (1) - CONTAINER REFRIG. PRESERV. TYPE: LABORATOR THE BTEX MIDE + MW-5 5 x VDA VIAL Y HLL SEQUOID TPHG BTEX /MIDE + 11 / Aucher							
MW-5 5 X VDA VIAL Y HEL SEQUOIT TPHGIBTEX IMTGE	MW-5 5 x VDA VIAL Y HLL SEQUOID TRAGISTEX MADE TO 8:270				TORY INFORMA	LABORATOR		
MW-5 3 X VOA VIAL 10 WE 2	1 / Auber in NoNE 2 8000					SEQUOIA		
1 Aucher	The but					1	8270	
		1 77	tueber	 		 		
				1	- -	<u> </u>		

	sio #5484		Job#:	180012		
Address: <u>/89</u> City:	so take Chas	Ca.	Date: Sample	r: <u>Vartke</u>		
Well ID	Mw-6	Well Condition	n:	24		
Well Diameter	<u></u>	Hydrocarbon Thickness: _	0.00	Amount E		(gel.)
Total Depth	26.42 th	Volume Factor (VF)	2" = 0.17	3" = 0.3 6" = 1.50	12" = 5.80	- 0.66
Depth to Water	x\	/F	X 3 (case ve	olume) = Estimated	Purge Volume:	(gel.)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		ampling quipment: (Disposable E Bailer Pressure Bai Grab Sampl Other:	iler e	
Starting Time:			r Condition	S:	Odor:	
Sampling Time:				ion;		
Did well de-wat	ate:gr		Time: —	Volu	.me:	(gal.)
Time	Volume pH (gal.)	Conductivity	-/			Alkalinity (ppm)
	otag = ota					
	A TO COMPANIED	LABORATOR'		TION LABORATORY	ANA	LYSES
SAMPLE ID	(#) - CONTAINER		cu	SEQUEIT	TPHG 87E	X M TOE
	V VOII VIVI					
		<u> </u>				
COMMENTS:	Monitor an	4	<u> </u>			

WELL MONITORING/SAMPLING

•		FIELD C	ATA SHEET				
ient/ cility # Tos	w#5484	1 0-1	_ Job#:		8/01		
ddress: <u>/89</u>	50 Lake Chabi	f Rd.	_ Date:	er: <u>Va</u>	. 141		
ity: <u>(a</u>	tro · Valley, ca		_ Sample	er: _ <i>Va</i>	<i>M.10</i> ₃		
Well ID	MW-7	Well Co	ondition:	<u>ol_</u>	- Paile		 .
Vell Diameter	2 b	Hydroc Thickn		A <u>عنا</u> <u>اعنا</u>	mount Baile product/water):	<u> </u>	igel
otal Depth	19.55 n	Volum Factor	2* = 0.1	7 6" = 1.50	3" = 0.38) 1	4" = 2" = 5.80	0.66
Depth to Water	<u>6.92 #</u>	l '		·			
	12.63 x v	F 0.17 -	214 x 3 (case	roljume) = E	stimated Purg	Volume: —	- igal.)
Purge	Disposable Bailer		Sampli ng Equipment:	Disp	osable Baile		•
Equipment:	Bailer Stack	•		Baile Pres	ssure Bailer		
	Suction Grundfos	•			b Sample		
	Other:	-	•	Other:			
Starting Time: Sampling Time		<u> </u>	Weather Condition Water Color: Sediment Descri	gear	- clear yist - SEIT	Odor: Mile	
Purging Flow R	Rate:		If yes; Time: _		Volume	:	(<u>leal.</u>)
Time	Volume pH (gal.)	penh	os/cm	erature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
2:35	2 7.46			9.2			
2:37	4 7.33		142 <u>6</u> 138 <u>6</u>	3.0			<u>.</u>
2:40	6.5 7.31						
							•
				i.			
 -			RATORY INFORM PRESERV. TYPE	IATION LAB	ORATORY		YSES
SAMPLE ID		REFRIG.	HCL		WOIA (TPHE BTE	K /MTOE +
MW-7	7 x VDA VIAL	 Y	HEE			6)0443+1,	LDCA+GD3
	· · · · · · · · · · · · · · · · · · ·		NOWE	<u> </u>		8270	
"	1 Amber	~~ _	7.0			1	

																					ody-	<u>-Kec</u>	OFC
		T	Fool	He Numb	., To	sco# s	5481	7						Contact	(Name)					Witt			32%
) D		Facili	the Address	1899	50 lake	Chal	bot 1	Rd.C	ast	o Vedl	4 42	•		(Phone) <u>Z</u> Z	17-Z	<u>.38</u> 7	/				<u> </u>
18	Γ	Cone	eullant Pr	roject Nur	mber	180012	-85	,				_ .	.aborator	ry Name	<u>Se</u>	quoia	Ana	<u>lytic</u>	<u>al</u>				
TOSC	20	Cone	oultant Na	omo <u>Ge</u>	ettler	-Ryan Inc	c. (G-	-R In				— ı	aborator	y Releo	ee Num	ber		• • •			• • • •		
Touce Marketing		1				Court. S			րրյու	aCA	. 9456	í& s	amples	Collecte	d by (i	lome)	Vasi	tkes	105	chjia	<u>,, , , , , , , , , , , , , , , , , , ,</u>		3/3 3/4
2000 Grow Carryon San Remon, Califo	PL, 344, 400 prois 94583	F	^a roject Cr	ontact (N	iame) _D	eanna L.	<u>Hardi</u>	<u>ng</u>			7000			<i>.</i>	#	28/0	1-						
	1	<u> </u>		(P	hone) <u>51</u>	0-551-755)5_(Fax	Number	<u>)210-</u>	-221-	/888	<u>L</u> s	ignotur•		<u> </u>		<u></u>						
	1 1		Air Charcool					<u> </u>		T	1 ,	·	T	• To B	• Perfo	7:2	1				DO N TB-LB	OT BI	LL **
40319	ک م	Containera	≒ૄ	posite	1	ngou	_ '	AET S			Purgeable Halocarborn (8010)	Purgeable Aromatica (8020)	100	is .		36							
<u>δ</u> ,	5	Contr	1 † ≺o	Control of the contro	'	200	or No)	BIEX WANTBE		• • • • • • • • • • • • • • • • • • •) Sep	Ę	Purgeable Organica (8240)	Extractable Organics (8270)	23	100					:		
E .	Sample	9	Soil Water	000	1	e e			100 C	Oil and Gra (5520)	\$ C	\$ 600	₹ ₆	3 th	Metals CACT.Pb.Zn.Ni (ICAP or AA)	2.42		<u> </u>	İ				
Sample Nur	8 9	Nember	Matrix	<u>\$</u>	Time	Sample	Cad (Yes	TPH G	1PH Dissel (8015)	(552)	100 100 100	\$08) \$000	824	\$ (S)	출수 3	8 3					Rer	morke	
8	<u>.</u> .	ž	žω≯	12	F	Ŋ	<u> </u>	F =	F	ļ°,	-		<u> </u>	ļ	-	93				 			
TB-LB	0	1	W	C		Hel	4	X	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	ļ			-		 			· ()
MW-4	02	6	٠.	~	12/FM	بر	٠-ر	X	<u> </u>	<u> </u>	17		<u> </u>	X	· - 	<u> </u>			 		·		
Mw-5	03	6	~	4	ZIFM)	٠,	X	<u> </u>	<u> </u>	X	ļ <u>.</u>	<u> </u>	X	<u> </u>							<u> </u>	
Mw-7	04	8	u		250		بب	X			X		<u> </u>	X	ļ	X			ļ	<u> </u>		<u> </u>	1,33
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		<u> </u>				Sale Mine of \$	2 80	00 byyd B	Slan	olured)	,L	1	Organizat	L	Dat	g/Time		 T	Furn Are	mIT baye	• (Circle	Cholos)	
Relinquished By	1.		1 -	ponizotion -R Inc		Date/Time 4% 42861	An I nev	Ko	•	10	را		7 y -7		13/	20/10	20				Hre.		100
Relinquished By	(Slaneture)			anization		7 <i>080 </i> Dole/Time	Rec	celved By	7.7	olure)	7.4	С	Organizat	lon		e/Time	>			48	Hre.		7
Ramidanisas =>	(organization of																			6 D 10 L	_		**
Relinquished By	(Signature)		Org	onizotion	7	Date/Time	Rec	sleved F	or Labo	ratory E	y (Signa	ature)			Dal	•/Time				A∉ Con	-		
747	W a				Ţ		[•			- 1						(A)





April 11, 2001

Deanna Harding Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568 RE: Tosco(1) / L103179

Enclosed are the results of analyses for samples received by the laboratory on 03/28/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt Project Manager

CA ELAP Certificate Number 2360

ronya K. Pett

Project: Tosco(1)
Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	L103179-01	Water	03/28/01 00:00	03/28/01 17:27
MW-4	L103179-02	Water	03/28/01 13:25	03/28/01 17:27
MW-5	L103179-03	Water	03/28/01 14:15	03/28/01 17:27
MW-7	L103179-04	Water	03/28/01 14:50	03/28/01 17:27

Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (L103179-01) Water	Sampled: 03/28/01 00:00	Received: (3/28/01	17:27					
Purgeable Hydrocarbons as Gas	soline ND	50.0	ug/l	1	1040024	04/06/01	04/07/01	DHS LUFT	
Benzene	ND	0.500	н	11	**	Ħ	Ħ	n n	
Toluene	ND	0.500	••	π	"	Ħ	H	н	
Ethylbenzene	ND	0.500	*	**	**	**	•	*	
Xylenes (total)	ND	0.500	**	Ħ	"	н	•	11	
Methyl tert-butyl ether	ND	5.00	п	R	*	π		T	
Surrogate: a,a,a-Trifluorotolue	ene	99.2 %	70-	-130	"	"	**	**	
MW-4 (L103179-02) Water	Sampled: 03/28/01 13:25	Received: 0	3/28/01	17:27					
Purgeable Hydrocarbons as Gas	soline ND	50.0	ug/l	1	1040024	04/06/01	04/07/01	DHS LUFT	
Benzene	ND	0.500	н		**	H	**	Ħ	
Toluene	ND	0.500			"	*	Ħ	Ħ	
Ethylbenzene	ND	0.500	n	n	91	#	**	H	
Xylenes (total)	ND	0.500	,,,	**	"	"	H		
Methyl tert-butyl ether	ND	5.00	n	n	"	11		**	
Surrogate: a,a,a-Trifluorotolue	ene ·	100 %	70	-130	"	н	"	#	
MW-5 (L103179-03) Water	Sampled: 03/28/01 14:15	Received:	03/28/01	17:27					
Purgeable Hydrocarbons as Ga		50.0	ug/l	1	1040024	04/06/01	04/07/01	DHS LUFT	
Benzene	ND	0.500	"	n	**	n	Ħ	*	
Toluene	ND	0.500	н		**		**	•	
Ethylbenzene	ND	0.500	u	н	n	π	**	ņ	
Xylenes (total)	ND	0.500	n	и		11		11	
Methyl tert-butyl ether	ND	5.00	"	u	•	H	#	tt	
Surrogate: a,a,a-Trifluorotolu		101 %	70)-130	**	n	,,	п	

6747 Sierra Court, Suite J

Dublin CA, 94568

Project: Tosco(1)

Project Number: Tosco #5484

Project Manager: Deanna Harding

Reported:

04/11/01 13:15

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (L103179-04) Water Sample	d: 03/28/01 14:50	Received: 0	3/28/01	17:27					
Purgeable Hydrocarbons as Gasoline	734	50.0	ug/l	1	1040025	04/06/01	04/06/01	DHS LUFT	P-01
Benzene	19.6	0.500	"	н	11	w	11	**	
Toluene	0.514	0.500	"	n	ŤI	ir	**	#1	
Ethylbenzene	23.3	0.500	"	11	n	**	11	H	
Xylenes (total)	6.13	0.500	11	"	Ħ	**	#	"	
Methyl tert-butyl ether	1070	100	tr	20	н	n		11	M-04
Surrogate: a,a,a-Trifluorotoluene		161 %	70-	130	"	н	,,	**	S-04

Dublin CA, 94568

Project: Tosco(1)

Project Number: Tosco #5484

Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Volatile Organic 8 Oxyganated Compounds by EPA Method 8260B

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-7 (L103179-04) Water	Sampled: 03/28/01 14:50	Received: 0	3/28/01 17	:27					
Ethanol	ND	12500	ug/l	12.5	1040005	04/02/01	04/02/01	EPA 8260B	
1.2-Dibromoethane	ND	25.0	n	"	**	**	•	***	
• •	ND ND	25.0	н	и	**		"	n	
1,2-Dichloroethane	ND ND	25.0	#		H	H	#	••	
Di-isopropyl ether	•		**	**			н	ч	
Ethyl tert-butyl ether	ND	25.0	ti	,,		,,	-	#	
Methyl tert-butyl ether	1260	25.0			,, f1		,	n	
Tert-amyl methyl ether	ND	25.0	"	п			#	#	
Tert-butyl alcohol	ND	1250	#			<u> </u>			····
Surrogate: 1,2-Dichloroethan	re-d4	88.8 %	76-1	14	n	n	и	"	
Surrogate: 1,2-Dictior dethan Surrogate: Toluene-d8	W-W7	96.6 %	88-1	10	W	"	"	**	

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Tosco #5484

Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Volatile Organic Compounds by EPA Method 8010B Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (L103179-02) Water S	Sampled: 03/28/01 13:25	Received: 0	3/28/01	17:27					·····
Chloromethane	ND	2.0	ug/l	1	1D04016	04/05/01	04/05/01	EPA 8010B	
Vinyl chloride	ND	1.0	*1		Ħ	n	u		
Bromomethane	ND	1.2	Ħ	**	n		n	11	
Chloroethane	ND	1.0	H				11	ii .	
Trichlorofluoromethane	ND	0.60	n	π	**	11	Ħ	н	
Freon 113	ND	1.0	"	**	*	11	*	11	
1,1-Dichloroethene	ND	1.0	н	**	n	**	*	Ħ	
Methylene chloride	ND	11	**	"	u	11		Ħ	
trans-1,2-Dichloroethene	ND	1.0	•	11	11	Ħ	"	Ħ	
1,1-Dichloroethane	ND	1.0	**	11	41	Ħ		tt	
cis-1,2-Dichloroethene	ND	1.0		h	Ħ	н	п	P	
Chloroform	ND	1.0	**	n	n	"	**	н	
1,1,1-Trichloroethane	ND	1.0	#	"	h	n		*	
Carbon tetrachloride	ND	1.0	41	n	Ħ			"	
1,2-Dichloroethane	ND	1.6	11		11		#		
Trichloroethene	ND	1.1	Ħ		11	W	Ħ		
1,2-Dichloropropane	ND	1.0	11	*	•	•	11	**	
Bromodichloromethane	ND	1.0		**	**		11	•	
cis-1,3-Dichloropropene	ND	1.0	n	#	я	н	Ħ	11	
trans-1,3-Dichloropropene	ND	0.60	**	**	*	Ħ	**	Ħ	
1,1,2-Trichloroethane	ND	0.50		11	41	н	*	n	
Tetrachloroethene	ND	0.60	11	11	tt	п	n	н	
Dibromochloromethane	ND	0.50		hr	Ħ	H	n	#	
1,2-Dibromoethane	ND	1.0	11	11	R	P	*	"	
Chlorobenzene	ND	1.0	Ħ		•	n	**	n	
Bromoform	ND	0.50	H	•	**	**	**	н	
1,2,3-Trichloropropane	ND	0.50	Ħ	n			Ħ		
1,1,2,2-Tetrachloroethane	ND	0.60	n	**	•	п	,,	н	
1,3-Dichlorobenzene	ND	0.50	**	н	u	*	#	tt	
1,4-Dichlorobenzene	ND	1.2		**	W	er -	11	**	
1,2-Dichlorobenzene	ND	1.2		.,	11	н	Ħ	#	
Surrogate: Dibromodifluoromet		131 %	50	-150	"	,,	, , , ,	"	
Surrogate: 4-Bromofluorobenze		96.9 %		-150	u	"	n	"	

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

Dublin CA, 94568

Project: Tosco(1)

Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Volatile Organic Compounds by EPA Method 8010B Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (L103179-03) Water S	Sampled: 03/28/01 14:15	Received: 0	3/28/01	17:27					
Chloromethane	ND	2.0	ug/i	1	1D04016	04/05/01	04/05/01	EPA 8010B	
Vinyl chloride	ND	1.0	"	**	**	**	**	# .	
Bromomethane	ND	1.2		Ħ	71	11	**	II .	
Chloroethane	ND	1.0	r	H	11	Ħ	н	"	
Trichlorofluoromethane	ND	0.60	**	"	11	"	Ħ	н	
Freon 113	ND	1.0	**	π	H	R	*	#	
1,1-Dichloroethene	ND	1.0	11	**	n	**	"	H	
Methylene chloride	ND	11	H	п .	n	**	Ħ	11	
trans-1,2-Dichloroethene	ND	1.0	"	н	**	#		n	
1,1-Dichloroethane	ND	1.0	"	11	11	"	•		
cis-1,2-Dichloroethene	ND	1.0		n	11	tt	n	•	
Chloroform	ND	1.0	*1	H	n	H	n	T	
1,1,1-Trichloroethane	ND	1.0	11	*	ır	**	11	"	
Carbon tetrachloride	ND	1.0	**	11	H	₩	H	ŧı	
1,2-Dichloroethane	ND	1.6	*	11	Ħ	#	**	n	
Trichloroethene	ND	1.1	**	**	**	11	•	Ħ	
1,2-Dichloropropane	ND	1.0	•	**	**	"		"	
Bromodichloromethane	ND	1.0	n	ti	Ħ	n	•	,	
cis-1,3-Dichloropropene	ND	1.0	ŧŧ	n	"	"	**	H	
trans-1,3-Dichloropropene	ND	0.60	»	11	n		11	*	
1,1,2-Trichloroethane	ND	0.50	н	*1	*	••	TI	•	
Tetrachloroethene	ND	0.60	**	Ħ	11	11	"	π	
Dibromochloromethane	ND	0.50	**	n	11	Ħ	11	n	
1,2-Dibromoethane	ND	1.0	41		Ħ	**	**	п	
Chlorobenzene	ND	1.0	**	-	**	"	**	Ħ	
Bromoform	ND	0.50		"	Ħ	n	"	b	
1,2,3-Trichloropropane	ND	0.50	*	11	Ħ	#	u		
1,1,2,2-Tetrachloroethane	ND	0.60	*	ŧr	*1	н	Ħ		
1,3-Dichlorobenzene	ND	0.50	**	n	Ħ	n		•	
1,4-Dichlorobenzene	ND ND	1.2	Ħ	Ħ	H	h	iT	11	
1,2-Dichlorobenzene	ND	1.2	"	**	"			tı .	
Surrogate: Dibromodifluorome	thane	130 %	50	0-150	"	"		"	
Surrogate: 4-Bromofluorobenz		97.7 %		0-150	n	*	*	#	

Project: Tosco(1)
Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Volatile Organic Compounds by EPA Method 8010B Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (L103179-04) Water S	Sampled: 03/28/01 14:50	Received: 0	3/28/01	17:27					
Chloromethane	ND	2.0	ug/l	1	1D04016	04/05/01	04/05/01	EPA 8010B	
Vinyl chloride	ND	1.0	Ħ	Ħ	n	**	"		
Bromomethane	ND	1.2		"	"	**		#	
Chloroethane	ND	1.0	*		H	"	*	11	
Trichlorofluoromethane	ND	0.60	**	π	11	π		**	
Freon 113	ND	1.0	#	11	н	TP	11	n	
1,1-Dichloroethene	ND	1.0	#	n	**	n	R	H	
Methylene chloride	ND	11	**	**		11	"	•	
trans-1,2-Dichloroethene	ND	1.0	n	P	n	Ħ		**	
1,1-Dichloroethane	ND	1.0	•	m	#	"		•	
cis-1,2-Dichloroethene	ND	1.0	#1	**	**	*	•	Ħ	
Chloroform	ND	1.0	"	#1	**	**	н	n	
1,1,1-Trichloroethane	ND	1.0	н	Ħ	₩	**	Ħ	n	
Carbon tetrachloride	ND	1.0	**	n	**	ţı.	Ħ	н	
1,2-Dichloroethane	ND	1.6		14	"	17	n	H .	
Trichloroethene	ND	1.1			Ħ		11		
1,2-Dichloropropane	ND	1.0	**	•	н		*	Ħ	
Bromodichloromethane	ND	1.0	**	n	H	TI	T	**	
cis-1,3-Dichloropropene	ND	1.0	11	**	**	M	н	н .	
trans-1,3-Dichloropropene	ND	0.60	*	н	**	**	#	61	
1,1,2-Trichloroethane	ND	0.50	19	n	11	н	n	н	
Tetrachloroethene	ND	0.60	*	**	Ħ	P	Ħ	Ħ	
Dibromochloromethane	ND	0.50	**	**		**	н	Ħ	
1,2-Dibromoethane	ND	1.0	11	**	n	н	**	n	
Chlorobenzene	ND	1.0	n	н	11	Ħ	•	**	
Bromoform	ND	0.50	*	W	Ħ	u u	11	tı	
1,2,3-Trichloropropane	ND	0.50	17	**	н	n	#	#1	
1,1,2,2-Tetrachloroethane	ND	0.60	11	#1		**	n		
1,3-Dichlorobenzene	ND	0.50	н	łt	*	Ħ	ir	n	
1,4-Dichlorobenzene	ND	1.2	n	**	11	Ħ	n	n	
1,2-Dichlorobenzene	ND	1.2	D	Ħ	"		n	"	
Surrogate: Dibromodifluorome		128 %	٢	0-150	,,	п	#	"	
Surrogate: 4-Bromofluorobenze		98.6 %		0-150 0-150	n	"	,,	n	

Project: Tosco(1)
Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

	T	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Analyte	Result				Datch	1 Teparon	- Talalyzoo		
MW-4 (L103179-02) Water	Sampled: 03/28/01 13:25	Received: 0	3/28/01	17:27					
Acenaphthene	ND	5.0	ug/l	1	1D03014	04/03/01	04/03/01	EPA 8270C	
Acenaphthylene	ND	5.0	Ħ		**	**	п	n n	
Aniline	ND	5.0	H	**	11	11	Ħ		
Anthracene	ND	5.0	"	**	п	"	P	"	
Benzoic acid	ND	10	•	**	11	11		,	
Benzo (a) anthracene	ND	5.0	#	h	N	H	u	"	
Benzo (b) fluoranthene	ND	5.0	"	n	•		ij,	"	
Benzo (k) fluoranthene	ND	5.0	*		**	•	n		
Benzo (ghi) perylene	ND	5.0	Ħ	-	11	"	н		
Benzo[a]pyrene	ND	5.0	н	**	Ħ	#1	H		
Benzyl alcohol	ND	5.0	**	11		н	Ħ	11	
Bis(2-chloroethoxy)methane	ND	5.0	"	**	**			"	
Bis(2-chloroethyl)ether	ND	5.0	Ħ		11	•	91		
Bis(2-chloroisopropyl)ether	ND	5.0	n	•	Ħ	#	Ħ	*	
Bis(2-ethylhexyl)phthalate	ND	10	**	"	n	11	n	#	
4-Bromophenyl phenyl ether	ND	5.0	77	Ħ	**	п		"	
Butyl benzyl phthalate	ND	50	e	"	n	**	**	**	
4-Chloroaniline	ND	25	н	Ħ	n	Ħ	"	. "	
2-Chloronaphthalene	ND	5.0		**	tt	"	н	-	
4-Chloro-3-methylphenol	ND	5.0	•	**	"	Ħ	••	n	
2-Chlorophenol	ND	5.0	**	Ħ	P	Ħ	**	"	
4-Chlorophenyl phenyl ether		5.0		H	**		•	п	
Chrysene	ND	5.0	Ħ	m	Ħ	#	**	*	
Dibenz (a,h) anthracene	ND	10	*	•	#	"	. #	n	
Dibenzofuran	ND	5.0	**	**	11	Ħ	n	•	
Di-n-butyl phthalate	ND	10	11	"			**	#	
1,2-Dichlorobenzene	ND	5.0	**	**	11	17	n	"	
1,3-Dichlorobenzene	ND	5.0	n	**	Ħ	11	#	#	
1,4-Dichlorobenzene	ND	10	u	**		Ħ	H	н	
3,3'-Dichlorobenzidine	ND	10	**	11	н	n	•		
2,4-Dichlorophenol	ND	5.0	**	н	•		*	п	
Diethyl phthalate	ND	5.0	n	n	**	•	**	**	
2,4-Dimethylphenol	, ND	5.0	н	₩	ti	**	11	н	
Dimethyl phthalate	ND ND	5.0		11		11	n	tr	
4,6-Dinitro-2-methylphenol	ND ND	10	н	11	#	**	н	н	
	ND ND	10		Ħ	**	**	n	#	
2,4-Dinitrophenol	ND ND	10			n	71	N	11	
2,4-Dinitrotoluene	ND ND	10		**	#	"	n	Ħ	
2,6-Dinitrotoluene	ND ND	10		и		**	n	n	
Di-n-octyl phthalate		5.0		н	77		**	*	
Fluoranthene	ND	3.0							

Sequoia Analytical - San Carlos

Project: Tosco(1)
Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (L103179-02) Water	Sampled: 03/28/01 13:25	Received: 0	3/28/01	17:27					
Fluorene	ND	5.0	ug/l	1	1D03014	04/03/01	04/03/01	EPA 8270C	
Hexachlorobenzene	ND	10	h	н	11	Ħ	"	11	
Hexachlorobutadiene	ND	10	n	11	11	H	н		
Hexachlorocyclopentadiene	ND	10	**	,,,	19	11	**	"	
Hexachloroethane	ND	5.0	n	#	**	"	**	H	
Indeno (1,2,3-cd) pyrene	ND	10	**	u	41	11	*	11	
lsophorone	, ND	5.0	**	n	**	**	#	**	
2-Methylnaphthalene	ND	5.0	Ħ	#	***	11	Ħ	"	
2-Methylphenol	ND	5.0	**	Ħ	Ħ	**	. "	"	
4-Methylphenol	ND	5.0	**	Ħ	H	Ħ	n	Ħ	
Naphthalene	ND	5.0	"	н	и .	H		ŧI	
2-Nitroaniline	ND	10	**			H	#	"	
3-Nitroaniline	ND	10	77		-	87	-	"	
4-Nitroaniline	ND	20	#	.*	**	n	**	"	
Nitrobenzene	ND	5.0	11	#	**	**	Ħ	Ħ	
2-Nitrophenol	ND	5.0	**	11	**	11	"	**	
4-Nitrophenol	ND	10	Ħ	11	Ħ	**	и	**	
N-Nitrosodimethylamine	ND	5.0	11	н	H	11	**	Ħ	
N-Nitrosodiphenylamine	ND	5.0	H	**	H	"	H	**	
N-Nitrosodi-n-propylamine	ND	5.0	*	"	n	"	**	H	
Pentachlorophenol	ND	10		**	•	**	•	n	
Phenanthrene	ND	5.0	#		**	n	11	11	
Phenol	ND	5.0	"	*	111	11	"	Ħ	
Рутепе	ND	5.0	Ħ	"	#1	#1	"	₩	
1,2,4-Trichlorobenzene	ND	5.0	n	. "	**	tt	n	7	
2,4,5-Trichlorophenol	ND	10		: н	n	н	11	**	
2,4,6-Trichlorophenol	ND	10	п))		н	н		
Surrogate: 2-Fluorophenol		16.9 %	21	-110	rr	"	*	#	S-08
Surrogate: Phenol-d6		17.7 %	10	-110	"	#	"	и	
Surrogate: Nitrobenzene-d5		69.9 %	35	-114	"	"	"	tt	
Surrogate: 2-Fluorobiphenyl		71.9 %	43	-116	"	"	n .	#	
Surrogate: 2,4,6-Tribromophe	enol	18.9 %	10	-123	μ	"	"	#	
Surrogate: p-Terphenyl-d14		84.8 %	33	-141	n	н	n	*	

Project: Tosco(1)

Project Number: Tosco #5484 Project Manager: Deanna Harding Reported: 04/11/01 13:15

Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (L103179-03) Water	Sampled: 03/28/01 14:15	Received: 0	3/28/01	17:27					
Acenaphthene	ND	5.0	ug/l	1	1D03014	04/03/01	04/03/01	EPA 8270C	
Acenaphthylene	ND	5.0	Ħ	**	11	ŧı	н	#1	
Aniline	ND	5.0	n	**		"		"	
Anthracene	ND	5.0	"	"	•	n	•		
Benzoic acid	ND	10	#	TI .	u	*	н	"	
Benzo (a) anthracene	ND	5.0	"	"	Ħ	*	Ħ	,, H	
Benzo (b) fluoranthene	ND	5.0	**	**	н	*	#	. "	
Benzo (k) fluoranthene	ND	5.0	Ħ	**	**	**		-	
Benzo (ghi) perylene	ND	5.0	,,	u	Ħ	Ħ		**	
Benzo[a]pyrene	ND	5.0	**	n	19	н	"	,,	
Benzyl alcohol	ND	5.0	"	"	11	"			
Bis(2-chloroethoxy)methane	ND	5.0	н	-	11	**	"	-	
Bis(2-chloroethyl)ether	ND	5.0	"	.,	**	**		"	
Bis(2-chloroisopropyl)ether	· ND	5.0	*	n	•	Ħ		-	
Bis(2-ethylhexyl)phthalate	ND	10	"	**	"	"	11		
4-Bromophenyl phenyl ether	ND	5.0	Ħ	п	**	"	n *		
Butyl benzyl phthalate	ND	50	P	*1	11	••	" •		
4-Chloroaniline	ND	25	*	31	*	**			
2-Chloronaphthalene	ND	5.0		"	*1		"	_	
4-Chloro-3-methylphenol	ND	5.0	11	**	Ħ	**	"	-	
2-Chlorophenol	ND	5.0	"	11	H	**	" #		
4-Chlorophenyl phenyl ether	ND	5.0	#	*11	**			 H	
Chrysene	ND	5.0	"	"	"	**	**	 #1	
Dibenz (a,h) anthracene	ND	10	11		"	•	" "		
Dibenzofuran	ND	5.0	Ħ	**	"	4	"		
Di-n-butyl phthalate	ND	10	н	11	n		"		
1,2-Dichlorobenzene	ND	5.0	"	**	"	TI			
1,3-Dichlorobenzene	ND	5.0	**	ir	"			"	
1,4-Dichlorobenzene	ND	10	"	**	"	" "	" "	π	
3,3'-Dichlorobenzidine	ND	10	•	**		"	,,	,	
2,4-Dichlorophenol	ND	5.0	77	H	**	"			
Diethyl phthalate	ND	5.0	**	н		10		**	
2,4-Dimethylphenol	ND	5.0	(1	11	rı ••	n		11	
Dimethyl phthalate	ND	5.0	"		"	"	 **	n	
4,6-Dinitro-2-methylphenol	ND	10			" "	"	" H	Ħ	
2,4-Dinitrophenol	ND	10	**	"	#	r	" H	R	
2,4-Dinitrotoluene	ND	10	11	**	11		**	н	
2,6-Dinitrotoluene	ND	10	**	"	"	"	"		
Di-n-octyl phthalate	ND	10		17	,	n	" H	u	
Fluoranthene	ND	5.0	11	17	,,	.,			

Sequoia Analytical - San Carlos

Project: Tosco(1)
Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (L103179-03) Water	Sampled: 03/28/01 14:15	Received: 0	3/28/01	17:27					
Fluorene	ND	5.0	ug/l	1	1D03014	04/03/01	04/03/01	EPA 8270C	
Hexachlorobenzene	ND	10	**	11	n	41	**	•	
Hexachlorobutadiene	ND	10		n	₩.	и .		•	
Hexachlorocyclopentadiene	ND	10	**	п	n	#1	н	TI .	
Hexachloroethane	ND	5.0	11	n	**	11	*	"	
Indeno (1,2,3-cd) pyrene	ND	10	**	**	**	ŧi	**	ıı	
Isophorone	ND	5.0	n	**	#1	**		н	
2-Methylnaphthalene	ND	5.0	н	*	n	"	Ħ	н	
2-Methylphenol	ND	5.0	н	**	11		11	**	
4-Methylphenol	ND	5.0	"	**	н	**	"	Ħ	
Naphthalene	ND	5.0		44	н	"	Ħ	11	
2-Nitroaniline	ND	10	11	11	**	*	. 11	Ħ	
3-Nitroaniline	ND	10	"	**	Ħ	**	**	#	
4-Nitroaniline	ND	20	*	11	m	**	п	h	
Nitrobenzene	ND	5.0	**	11		41	ıt	tt	
2-Nitrophenol	ND	5.0	**	11	n	11	. н	n	
4-Nitrophenol	ND	10	11	n	**	11	"		
N-Nitrosodimethylamine	ND	5.0	**	. "	*	11	•	tt .	
N-Nitrosodiphenylamine	ND	5.0	**	n	n	ii.	n	•	
N-Nitrosodi-n-propylamine	ND	5.0	tt	н	**	**	11	•	
Pentachlorophenol	ND	10	*	н	11	"	**	•	
Phenanthrene	ND	5.0	n	**	11	н	**	**	
Phenol	ND	5.0	HT.	n	н	Ħ	•	Ħ	
Ругепе	ND	5.0	*	**	11	#	**	**	
1,2,4-Trichlorobenzene	ND	5.0	**	**	Ħ	11	'n	Ħ	
2,4,5-Trichlorophenol	ND	10	н	n		ŧ	Ħ	n	
2,4,6-Trichlorophenol	ND	10	**	Ħ	н	H	"	8	
Surrogate: 2-Fluorophenol		36.3 %	21	-110	п	"	n	"	
Surrogate: Phenol-d6		24.5 %	10	-110	#	"	**	н	
Surrogate: Nitrobenzene-d5		62.6 %	35	-114	*	н	π	#	
Surrogate: 2-Fluorobiphenyl		64.4 %	43	-116	"	u	"	**	
Surrogate: 2,4,6-Tribromophe	nol	48.9 %		-123	*	n	77	N	
Surrogate: p-Terphenyl-d14		75.0 %		-141	n	tr	"	H	

Project: Tosco(1)
Project Number: Tosco #5484

Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (L103179-04) Water	Sampled: 03/28/01 14:50	Received: 0	3/28/01	17:27	<u> </u>	·····			
Acenaphthene	ND	5.0	ug/l	1	1D03014	04/03/01	04/03/01	EPA 8270C	
Acenaphthylene	ND ND	5.0	#	11	**	**	н	n	
Aniline	ND	5.0		H	**	**	11	Ħ	
Anthracene	ND	5.0	-		11	# .	n	**	
Benzoic acid	ND	10	•	77		н	**	P	
Benzo (a) anthracene	ND ND	5.0	Ħ	Ħ	**	п	11	en '	
	ND ND	5.0		Ħ	11	Ħ	n	41	
Benzo (b) fluoranthene	ND ND	5.0			н	Ħ	H	#1	
Benzo (k) fluoranthene		5.0	11		H	n		**	
Benzo (ghi) perylene	ND	5.0	11	**			**	II.	
Benzo[a]pyrene	ND	5.0		Ħ	11	"	**	•	
Benzyl alcohol	ND	5.0	•	N	н	n	n	n	
Bis(2-chloroethoxy)methane	ND	5.0 5.0	"	91	и		н	**	
Bis(2-chloroethyl)ether	ND		н	**		11	п	"	
Bis(2-chloroisopropyl)ether	ND	5.0		H	41	n			
Bis(2-ethylhexyl)phthalate	ND	10			**	**	#1		
4-Bromophenyl phenyl ether	ND	5.0		#		•		н	
Butyl benzyl phthalate	ND	50	"		**	#		**	
4-Chloroaniline	ND	25			#1	*	11		
2-Chloronaphthalene	ND	5.0				R	π	•	
4-Chloro-3-methylphenol	ND	5.0			**	n		#	
2-Chlorophenol	ND	5.0	11	" "	**	"	*	Ħ	
4-Chlorophenyl phenyl ether	ND	5.0	н	"	" H	,,	**	n	
Chrysene	ND	5.0	**				71		
Dibenz (a,h) anthracene	ND	10	*				н	**	
Dibenzofuran	ND	5.0	Ħ	11	" "	" n		*	
Di-n-butyl phthalate	ND	10	**	н			"		
1,2-Dichlorobenzene	ND	5.0	*	u	#		"	,,	
1,3-Dichlorobenzene	ND	5.0	"	n	н	n	"		
1,4-Dichlorobenzene	ND	10	н	Ħ	ч	**			
3,3'-Dichlorobenzidine	ND	10		H	Ħ	H	₩		
2,4-Dichlorophenol	ND	5.0	**	н	11	•	#		
Diethyl phthalate	ND	5.0	**	11	**	"	n	"	
2,4-Dimethylphenol	ND	5.0	h	11	"	ti	п		
Dimethyl phthalate	ND	5.0		H	H		71	# 	
4,6-Dinitro-2-methylphenol	ND	10	**			**	Ħ	**	
2,4-Dinitrophenol	ND	10	11		p	"	H	"	
2,4-Dinitrotoluene	ND	10	"	11	11	Ħ	н	n	
2,6-Dinitrotoluene	ND	10		"	**		u	tr.	
Di-n-octyl phthalate	ND	10		*	=		#	**	
* *	ND	5.0		41	**	H		u	
Fluoranthene	140	2.0							

Sequoia Analytical - San Carlos

Project: Tosco(1)
Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Semivolatile Organic Compounds by EPA Method 8270C Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (L103179-04) Water	Sampled: 03/28/01 14:50	Received: 0	3/28/01	17:27					
Fluorene	ND	5.0.	ug/l	1	1D03014	04/03/01	04/03/01	EPA 8270C	
Hexachlorobenzene	ND	10	11	n	н	H	n	•	
Hexachlorobutadiene	ND	10	**	Ħ	n	*	n	11	
Hexachlorocyclopentadiene	ND	10	H	Ħ	H	**		**	
Hexachloroethane	ND	5.0		"	**	•	Ħ	H	
Indeno (1,2,3-cd) pyrene	ND	10	m		**	ų	**	н	
Isophorone	ND	5.0	"	**	**	**	**	11	
2-Methylnaphthalene	ND	5.0	**	77	**	Ħ	**	m '	
2-Methylphenol	ND	5.0	11	**	**	ti	Ħ	n	
4-Methylphenol	ND	5.0	**	11	"	н	н	11	
Naphthalene	7.7	5.0	*1	**	11	"	#	11	
2-Nitroaniline	ND	10	н	ti	Ħ	•	**	1)	
3-Nitroaniline	ND	10	**	h	н		n	H	
4-Nitroaniline	ND	20	"	н	H		н	"	
Nitrobenzene	ND	5.0	*	**	"	**	H	n	
2-Nitrophenol	ND	5.0	11		"	**	**	и	
4-Nitrophenol	ND	10		н	п	11		H	
N-Nitrosodimethylamine	ND	5.0	**	#	**	**	•		
N-Nitrosodiphenylamine	ND	5.0	11	**	**	Ħ	*	-	
N-Nitrosodi-n-propylamine	ND	5.0	**	**	**	H	n	41	
Pentachlorophenol	ND	10	Ħ	Ħ	**	"	*	а	
Phenanthrene	ND	5.0	Ħ	н	**	n	11	Ħ	
Phenol	ND	5.0	"	H	**		**	41	
Pyrene	ND	5.0		ii	"	n	#	ff .	
1,2,4-Trichlorobenzene	ND	5.0	*	П	17	**	ħ	tt	
2,4,5-Trichlorophenol	ND	10	₩	*	n	u	н	**	
2,4,6-Trichlorophenol	ND	10	**	**	**	"	*	n	
Surrogate: 2-Fluorophenol		35.6 %	21	-110	"	"	п	Ħ	
Surrogate: Phenol-d6		24.0 %	10	-110	"	**	"	n	
Surrogate: Nitrobenzene-d5		61.8 %	35	-114	"	<i>11</i>	rr	"	
Surrogate: 2-Fluorobiphenyl		63.2 %	43	-116	"	n	n	n	
Surrogate: 2,4,6-Tribromophe	enol	54.0 %	10)-123	n	п	**	π	
Surrogate: p-Terphenyl-d14		50.8 %	33	3-141	"	"	"	"	

Project: Tosco(1)

Project Number: Tosco #5484

Project Manager: Deanna Harding

Reported: 04/11/01 13:15

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1040024 - EPA 5030B (P/T)										
Blank (1040024-BLK1)				Prepared a	& Analyz	ed: 04/06/0	01			
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l					•		
Benzene	ND	0.500	77							
Foluene	ND	0.500	**							
Ethylbenzene	ND	0.500	Ħ							
Xylenes (total)	ND	0.500								
Methyl tert-butyl ether	ND	5.00	*							
Surrogate: a,a,a-Trifluorotoluene	7.83		"	10.0	_	78.3	70-130			
LCS (1040024-BS1)				Prepared	& Analyz	ed: 04/06/				
Benzene	8.51	0.500	ug/l	10.0		85.1	70-130			
Toluene	8.53	0.500	"	10.0		85.3	70-130		•	
Ethylbenzene	8.54	0.500	. н	10.0		85.4	70-130			
Xylenes (total)	26.0	0.500	II	30.0		86.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	8.02		"	10.0		80.2	70-130			
LCS (1040024-BS2)				Prepared	& Analyz	zed: 04/06/				
Purgeable Hydrocarbons as Gasoline	264	50.0	ug/l	250		106	70-130			
Surrogate: a,a,a-Trifluorotoluene	8.98	· · · · · · · · · · · · · · · · · · ·	,,	10.0		89.8	70-130	- -		
Matrix Spike (1040024-MS1)	So	urce: L10401	14-04	Prepared	& Analys	zed: 04/06				
Purgeable Hydrocarbons as Gasoline	267	50.0	ug/l	250	ND	107	60-140		_	
Surrogate: a,a,a-Trifluorotoluene	10.8		н	10.0		108	70-130			
Matrix Spike Dup (1040024-MSD1)	So	urce: L1040	14-04	Prepared	& Analy	zed: 04/06				
Purgeable Hydrocarbons as Gasoline	275	50.0	ug/l	250	ND	110	60-140	2.95	25	
Surrogate: a,a,a-Trifluorotoluene	10.3			10.0		103	70-130			

6747 Sierra Court, Suite J

Project: Tosco(1)

Project Number: Tosco #5484 Project Manager: Deanna Harding Reported: 04/11/01 13:15

Dublin CA, 94568

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

		Reporting		Spike	Source	*****	%REC	DDD	RPD	M-4
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1040025 - EPA 5030B (P/T)						<u></u>				
Blank (1040025-BLK1)				Prepared	& Analyze	ed: 04/06/	D1			
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l							
Benzene	ND	0.500	н							
Tolu en e	ND	0.500	**							
Ethylbenzene	ND	0.500								
Xylenes (total)	ND	0.500	**							
Methyl tert-butyl ether	ND	5.00	**							
Surrogate: a,a,a-Trifluorotoluene	9.83		"	10.0		98.3	70-130			
LCS (1040025-BS1)				Prepared	& Analyz	ed: 04/06/	01			
Benzene	9.78	0.500	ug/l	10.0		97.8	70-130			
Toluene	9.85	0.500	**	10.0		98.5	70-130			
Ethylbenzene	9.76	0.500	**	10.0		97.6	70-130			
Xylenes (total)	29.5	0.500		30.0		98.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.0		"	10.0		100	70-130			
LCS (1040025-BS2)				Prepared	& Analyz	ed: 04/06/	01			
Purgeable Hydrocarbons as Gasoline	218	50.0	ug/l	250		87.2	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.89		"	10.0		98.9	70-130		·	
Matrix Spike (1040025-MS1)	So	urce: L10401	4-07	Prepared:	04/06/01	Analyzeo	1: 04/07/01			
Purgeable Hydrocarbons as Gasoline	242	50.0	ug/l	250	ND	96.8	60-140	-		
Surrogate: a,a,a-Trifluorotoluene	12.5		н	10.0		125	70-130			
Matrix Spike Dup (1040025-MSD1)	Source: L104014-07 F		Prepared	: 04/06/01	Analyze	d: 04/07/01				
Purgeable Hydrocarbons as Gasoline	237	50.0	ug/l	250	ND	94.8	60-140	2.09	25	
Surrogate: a,a,a-Trifluorotoluene	12.2		"	10.0		122	70-130			

6747 Sierra Court, Suite J

Dublin CA, 94568

Project: Tosco(1)

Project Number: Tosco #5484

Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Volatile Organic 8 Oxyganated Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - San Carlos

1,2-Dichloroethane ND 2.00 " Di-isopropyl ether ND 2.00 " Ethyl tert-butyl ether ND 2.00 " Methyl tert-butyl ether ND 2.00 " Tert-amyl methyl ether ND 2.00 "	4
Prepared & Analyzed: 04/02/01	4
Ethanol ND 1000 ug/l	4
1,2-Dibromoethane ND 2.00 1,2-Dichloroethane ND 2.00 Di-isopropyl ether ND 2.00 Ethyl tert-butyl ether ND 2.00 Methyl tert-butyl ether ND 2.00 Tert-amyl methyl ether ND 2.00 Tert-butyl alcohol ND 100 Surrogate: 1,2-Dichloroethane-d4 49.1 " 50.0 98.2 76-11-12-	4
1,2-Dichloroethane	4
Di-isopropyl ether	4
Ethyl tert-butyl ether	4
Methyl tert-butyl ether	4
Test-amyl methyl ether	4
ND 100	4
Surrogate: 1,2-Dichloroethane-d4	14
Surrogate: Toluene-d8	
Ethanol	'0 .
Ethanol ND 1000 ug/l 1,2-Dibromoethane ND 2.00 " 1,2-Dichloroethane ND 2.00 " Di-isopropyl ether ND 2.00 " Ethyl tert-butyl ether ND 2.00 " Methyl tert-butyl ether ND 2.00 "	
1,2-Dibromoethane ND 2.00 " 1,2-Dichloroethane ND 2.00 " Di-isopropyl ether ND 2.00 " Ethyl tert-butyl ether ND 2.00 " Methyl tert-butyl ether ND 2.00 "	
1,2-Dichloroethane ND 2.00 " Di-isopropyl ether ND 2.00 " Ethyl tert-butyl ether ND 2.00 " Methyl tert-butyl ether ND 2.00 "	
Di-isopropyl ether ND 2.00 " Ethyl tert-butyl ether ND 2.00 " Methyl tert-butyl ether ND 2.00 "	
Ethyl tert-butyl ether ND 2.00 " Methyl tert-butyl ether ND 2.00 "	
Methyl tert-butyl ether ND 2.00	•
I Citrality i monty i onto	
Tert-butyl alcohol ND 100 "	
Surrogate: 1,2-Dichloroethane-d4 48.3 " 50.0 96.6 76-11	
Surrogate: Toluene-d8 46.1 " 50.0 92.2 88-11	10
LCS (1040005-BS1) Prepared & Analyzed: 04/02/01	
Methyl tert-butyl ether 44.9 2.00 ug/l 50.0 89.8 70-13	30
Surrogate: 1,2-Dichloroethane-d4 48.3 " 50.0 96.6 76-11	14
Surrogate: Toluene-d8 48.5 " 50.0 97.0 88-11	

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Tosco #5484 Project Manager: Deanna Harding Reported: 04/11/01 13:15

Volatile Organic 8 Oxyganated Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - San Carlos

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1040005 - EPA 5030B [P/T]								·		
LCS (1040005-BS2)				Prepared	& Analyz	ed: 04/03/	01			
Methyl tert-butyl ether	48.8	2.00	ug/l	50.0		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	49.8		"	50.0		99.6	76-114			
Surrogate: Toluene-d8	50.7		"	50.0		101	88-110			
Matrix Spike (1040005-MS1)	Source: L103167-07			Prepared	& Analyz	ed: 04/02/	01			
Methyl tert-butyl ether	39.9	2.00	ug/l	50.0	ND	79.8	60-140			
Surrogate: 1,2-Dichloroethane-d4	45.8		"	50.0		91.6	76-114			
Surrogate: Toluene-d8	47.4		"	50.0		94.8	88-110			
Matrix Spike Dup (1040005-MSD1)	Sou	rce: L10316	7-07	Prepared	& Analyz	ed: 04/02/	01			
Methyl tert-butyl ether	43.8	2.00	ug/l	50.0	ND	87.6	60-140	9.32	25	
Surrogate: 1,2-Dichloroethane-d4	45.4		"	50.0		90.8	76-114			
Surrogate: Toluene-d8	47.1		n	50.0		94.2	88-110			

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Analyte

Project: Tosco(1)

Project Number: Tosco #5484 Project Manager: Deanna Harding Reported: 04/11/01 13:15

RPD

Limit

Notes

%REC

Limits

RPD

Volatile Organic Compounds by EPA Method 8010B - Quality Control Sequoia Analytical - Walnut Creek

Units

Reporting

Limit

Result

ND

ND

ND

ND

ND

12.9

10.0

0.50

0.60 0.50

1.2

1.2

10.0

10.0

Spike

Level

Source

Result

%REC

Blank (1D04016-BLK1)				Prepared & Analyzed: 04/04/01
Chloromethane	ND	2.0	ug/l	
Vinyl chloride	ND	1.0	Ħ	
Bromomethane	ND	1.2		
Chloroethane	ND	1.0		
Trichlorofluoromethane	ND	0.60	**	
Freon 113	ND	1.0	"	
1,1-Dichloroethene	ND	1.0	н	
Methylene chloride	ND	10	#	
rans-1,2-Dichloroethene	ND	1.0	"	
,1-Dichloroethane	ND	1.0	**	·
cis-1,2-Dichloroethene	ND	1.0	11	
Chloroform	ND	1.0	**	
1,1,1-Trichloroethane	ND	1.0	н	
Carbon tetrachloride	ND	1.0	"	
1,2-Dichloroethane	ND	1.6	•	
Trichloroethene	ND	1.1	**	
1,2-Dichloropropane	ND	1.0	#	
Bromodichloromethane	ND	1.0	H	
cis-1,3-Dichloropropene	ND	1.0		
trans-1,3-Dichloropropene	ND	0.60	"	
1,1,2-Trichloroethane	ND	0.50	n	
Tetrachloroethene	ND	0.60	11	
Dibromochloromethane	ND	0.50	*	
1,2-Dibromoethane	ND	1.0	**	
Chlorobenzene	ND	1.0	,,	
Bromoform	ND	0.50		

Surrogate: Dibromodifluoromethane

Surrogate: 4-Bromofluorobenzene

1,2,3-Trichloropropane 1,1,2,2-Tetrachloroethane

1,3-Dichlorobenzene

1,4-Dichlorobenzene

1,2-Dichlorobenzene

50-150

50-150

129

100

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Tosco #5484 Project Manager: Deanna Harding Reported: 04/11/01 13:15

Volatile Organic Compounds by EPA Method 8010B - Quality Control Sequoia Analytical - Walnut Creek

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1D04016 - EPA 5030B [P/T]							 -
Blank (1D04016-BLK2)	• • • •			Prepared & Anal	lyzed: 04/05/0	01	
Chloromethane	ND	2.0	ug/l				
Vinyl chloride	ND	1.0	Ħ				
Bromomethane	ND	1.2	P				
Chloroethane	ND	1.0					
Trichlorofluoromethane	ND	0.60	11				
Freon 113	ND	1.0	n				
1,1-Dichloroethene	ND	1.0	H				
Methylene chloride	ND	10	11				
rans-1,2-Dichloroethene	ND	1.0					
,1-Dichloroethane	ND	1.0	11				
is-1,2-Dichloroethene	ND	1.0	n				
Chloroform	ND	1.0	n				
,1,1-Trichloroethane	ND	1.0	#		•		
Carbon tetrachloride	ND	1.0	16				
,2-Dichloroethane	ND	1.6	*				
Frichloroethene	ND	1.1	п				
,2-Dichloropropane	ND	1.0	#				
3romodichloromethane	ND	1.0	ŧŧ				
is-1,3-Dichloropropene	ND	1.0	h				
rans-1,3-Dichloropropene	ND	0.60	H				
,1,2-Trichloroethane	ND	0,50	**				
letrachloroethene	ND	0,60	.,				
Dibromochloromethane	ND	0.50	**				
1,2-Dibromoethane	ND	1.0	11				
Chiorobenzene	ND	1.0	H				
Bromoform	ND	0.50	*				
1,2,3-Trichloropropane	ND	0.50	**				
1,1,2,2-Tetrachloroethane	ND	0.60	Ħ				
1,3-Dichlorobenzene	ND	0.50	H				
1,4-Dichlorobenzene	ND	1.2	H				
1,2-Dichlorobenzene	ND	1.2	n				
Surrogate: Dibromodifluoromethane	9.69		n	10.0	96.9	50-150	
Surrogate: 4-Bromofluorobenzene	9.01		"	10.0	90.1	50-150	

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Project: Tosco(1)
Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Volatile Organic Compounds by EPA Method 8010B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D04016 - EPA 5030B [P/T]	<u>.</u>									
LCS (1D04016-BS1)				Prepared of	& Analyze	d: 04/04/				
1,1-Dichloroethene	19.1	1.0	ug/l	20.0		95.5	65-135			-
Trichloroethene	18.0	1.1	"	20.0		90.0	70-130			
Chiorobenzene	16.4	1.0	n	20.0		82.0	70-130			
Surrogate: Dibromodifluoromethane	11.9		п	10.0		119	50-150			
Surrogate: 4-Bromofluorobenzene	10.5		"	10.0		105	50-150			
LCS (1D04016-BS2)				Prepared	& Analyz	ed: 04/05/				
1,1-Dichloroethene	18.8	1.0	ug/l	20.0		94.0	65-135			
Trichloroethene	16.5	1.1	. •	20.0		82.5	70-130			
Chlorobenzene	16.1	1.0	Ħ	20.0		80.5	70-130			
Surrogate: Dibromodifluoromethane	12.4		"	10.0		124	50-150			
Surrogate: 4-Bromofluorobenzene	10.8		n	10.0		108	50-150			
Matrix Spike (1D04016-MS1)	So	urce: W1035	24-02	Prepared	_					
1.1-Dichloroethene	17.9	1.0	ug/l	20.0	ND	89.5	60-140			
Trichloroethene	17.3	1.1	•	20.0	ND	86.5	60-140			
Chlorobenzene	15.4	1.0	**	20.0	ND	77.0	60-140			
Surrogate: Dibromodifluoromethane	12.1		"	10.0		121	50-150			
Surrogate: 4-Bromofluorobenzene	10.5		п	10.0		105	50-150			
Matrix Spike Dup (1D04016-MSD1)	So	urce: W1035	524-02	Prepared	& Analya	zed: 04/04	/01			
1,1-Dichloroethene	19.5	1.0	ug/l	20.0	ND	97.5	60-140	8.56	25	
Trichloroethene	18.3	1,1	"	20.0	ND	91.5	60-140	5.62	25	
Chlorobenzene	16.8	1.0	π	20.0	ND	84.0	60-140	8.70	25	
Surrogate: Dibromodifluoromethane	12.3			10.0	·	123	50-150			
Surrogate: 4-Bromofluorobenzene	10.8		*	10.0		108	50-150			

Batch 1D03014 - EPA 3510B Sen Funnel

Dublin CA, 94568

Project: Tosco(1)

Project Number: Tosco #5484 Project Manager: Deanna Harding Reported: 04/11/01 13:15

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (1D03014-BLK1)				Prepared & Analyzed: 04/03/01
Acenaphthene	ND	5.0	ug/l	
Acenaphthylene	ND	5.0		
Aniline	ND	5.0	**	
Anthracene	ND	5.0	*	
Benzoic acid	ND	10	**	
Benzo (a) anthracene	ND	5.0	11	
Benzo (b) fluoranthene	ND	5.0	11	
Benzo (k) fluoranthene	ND	5.0	**	·
Benzo (ghi) perylene	ND	5.0	Ħ	
Benzo[a]pyrene	ND	5.0	**	
Benzyl alcohol	ND	5.0	×	·
Bis(2-chloroethoxy)methane	ND	5.0		
Bis(2-chloroethyl)ether	ND	5.0		
Bis(2-chloroisopropyl)ether	ND	5.0		
Bis(2-ethylhexyl)phthalate	ND	10	**	
4-Bromophenyl phenyl ether	ND	5.0	91	
Butyl benzyl phthalate	ND	50	**	·
4-Chloroaniline	ND	25	Ħ	
2-Chloronaphthalene	ND	5.0	p	•
4-Chloro-3-methylphenol	ND	5.0	**	
2-Chlorophenol	ND	5.0		
4-Chlorophenyl phenyl ether	ND	5.0	**	
Chrysene	ND	5.0	**	
Dibenz (a,h) anthracene	ND	10	**	
Dibenzofuran	ND	5.0	#	`.
Di-n-butyl phthalate	ND	10	#1	
1,2-Dichlorobenzene	ND	5.0	**	
1,3-Dichlorobenzene	ND	5.0	n	
1,4-Dichlorobenzene	ND	10	**	
3,3'-Dichlorobenzidine	ND	10	m	
2,4-Dichlorophenol	ND	5.0	**	
Diethyl phthalate	ND	5.0	**	
2,4-Dimethylphenol	ND	5.0	*	
Dimethyl phthalate	ND	5.0	**	
4,6-Dinitro-2-methylphenol	ND	10	**	
2,4-Dinitrophenol	ND	10		

Sequoia Analytical - San Carlos

Dublin CA, 94568

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Project: Tosco(1)

Project Number: Tosco #5484 Project Manager: Deanna Harding Reported:

RPD

%REC

04/11/01 13:15

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Reporting

Spike

Source

		Reporting		Spike	Source		%REC		KFD	37
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1D03014 - EPA 3510B Sep	Funnel									
Blank (1D03014-BLK1)				Prepared	& Analyz	ed: 04/03/0	01	, <u></u>		
2,4-Dinitrotoluene	ND	10	ug/l							
2,6-Dinitrotoluene	ND	10	**							
Di-n-octyl phthalate	ND	10	н							
Fluoranthene	ND	5.0	н							
Fluorene	ND	5.0	"							
Hexachlorobenzene	ND	10	Ħ							
Hexachlorobutadiene	ND	10	н				•			
Hexachlorocyclopentadiene	ND	10	7							
Hexachloroethane	ND	5.0	Ħ							
Indeno (1,2,3-cd) pyrene	ND	10	n							
Isophorone	ND	5.0	17							
2-Methylnaphthalene	ND	5.0	11							
2-Methylphenol	ND	5.0	Ħ							
4-Methylphenol	ND	5.0	tr							
Naphthalene	ND	5.0	**							
2-Nitroaniline	ND	10	Ħ							
3-Nitroaniline	ND	10	**							
4-Nitroaniline	ND	20	**							
Nitrobenzene	ND	5.0	11							
2-Nitrophenol	ND	5.0	11							
4-Nitrophenol	ND	10	*							
N-Nitrosodimethylamine	ND	5.0	#							
N-Nitrosodiphenylamine	ND	5.0								
N-Nitrosodi-n-propylamine	ND	5.0	-							
Pentachlorophenol	ND	10	n							
Phenanthrene	ND	5.0	*							
Phenol	ND	5.0	н				•			
Pyrene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	Ħ							
2,4,5-Trichlorophenol	ND	10	P							
2,4,6-Trichlorophenol	ND	10	n							
Surrogate: 2-Fluorophenol	71.5		#	150		47.7	21-110			
Surrogate: Phenol-d6	46.2			150		30.8	10-110			
Surrogate: Nitrobenzene-d5	75.0		"	100		75.0	35-114			
Surrogate: 2-Fluorobiphenyl	74.8		u	100		74.8	43-116			

Sequoia Analytical - San Carlos

Project Tosco(1)
Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

RPD

%REC

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Spike

Source

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1D03014 - EPA 3510B Sep 1	Funnel									
Blank (1D03014-BLK1)	Prepared & Analyzed: 04/03/01									
Surrogate: 2,4,6-Tribromophenol	92.3		ug/l	150		61.5	10-123			
Surrogate: p-Terphenyl-d14	82.5		n	100		82.5	33-141			
LCS (1D03014-BS1)				Prepared	& Analyz	ed: 04/03/				
Acenaphthene	65.5	5.0	ug/l	100		65.5	46-118			
-Chloro-3-methylphenol	89.7	5.0	**	150		59.8	23-97			
-Chlorophenol	89.8	5.0	*1	150		59.9	27-123			
,4-Dichlorobenzene	54.2	10	H	100		54.2	36-97			
4,4-Dinitrotoluene	61.0	10	H	100		61.0	24-96			
I-Nitrophenol	40.4	10	**	150		26.9	10-80			
N-Nitrosodi-n-propylamine	73.1	5.0	•	100		73.1	41-116			
entachlorophenol	108	10	11	150		72.0	9-103			
Phenol	43.3	5.0	11	150		28.9	12-110			
утеле	84.5	5.0	n	100		84.5	26-127			
,2,4-Trichlorobenzene	57.6	5.0	•	100		57.6	39-98			
Surrogate: 2-Fluorophenol	70.8		н	150	· · ·	47.2	21-110			
Surrogate: Phenol-d6	44.4		"	150		29.6	10-110			
Surrogate: Nitrobenzene-d5	74.5		"	100		74.5	35-114			
Surrogate: 2-Fluorobiphenyl	<i>72.8</i>		#	100		<i>72.8</i>	43-116			
Surrogate: 2,4,6-Tribromophenol	94.4		*	150		62.9	10-123			
Surrogate: p-Terphenyl-d14	81.2		"	100		81.2	33-141			
LCS Dup (1D03014-BSD1)		Prepared & Analyzed: 04/03/01								
Acenaphthene	67.7	5.0	ug/l	100		67.7	46-118	3.30	30	
-Chloro-3-methylphenol	96.4	5.0	11	150		64.3	23-97	7.20	30	
2-Chlorophenol	94.6	5.0	n	150		63.1	27-123	5.21	30	
,4-Dichlorobenzene	55.7	10		100		55.7	36-97	2.73	30	
2,4-Dinitrotoluene	63.2	10		100		63.2	24-96	3.54	30	
I-Nitrophenol	40.4	10	**	150		26.9	10-80	0	30	
N-Nitrosodi-n-propylamine	78.1	5.0		100		78.1	41-116	6.61	30	
Pentachlorophenol	110	10	11	150		73.3	9-103	1.83	30	
Phenol	46.8	5.0	41	150		31.2	12-110	7,77	30	
Pyrene	88,2	5.0	н	100		88.2	26-127	4.28	30	
1,2,4-Trichlorobenzene	59.7	5.0	r	100		59.7	39-98	3.58	30	
Surrogate: 2-Fluorophenol	71.5		п	150		47.7	21-110			
Surrogate: Phenol-d6	44.7		rr	150		29.8	10-110			

Sequoia Analytical - San Carlos

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Tosco #5484

Project Manager: Deanna Harding 04/11/01

Reported: 04/11/01 13:15

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1D03014 - EPA 3510B Sep Funnel

LCS Dup (1D03014-BSD1)			Prepared & An	alyzed: 04/03/	01
Surrogate: Nitrobenzene-d5	75.7	ug/l	100	75.7	35-114
Surrogate: 2-Fluorobiphenyl	72.7	"	100	72.7	43-116
Surrogate: 2,4,6-Tribromophenol	94.0	n	150	62.7	10-123
Surrogate: p-Terphenyl-d14	83.8	rr	100	83.8	33-141

Dublin CA, 94568

Project: Tosco(1)
Project Number: Tosco #5484
Project Manager: Deanna Harding

Reported: 04/11/01 13:15

Notes and Definitions

M-04	MTBE was reported from second analysis.
P-01	Chromatogram Pattern: Gasoline C6-C12
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
S-08	Surrogate recovery does not meet acceptance criteria. According to US EPA CLP protocol, the sample quality control is within compliance based on the acceptance of the additional surrogates.
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