



GETTLER-RYAN INC.

TRANSMITTAL Alameda County

January 16, 2003 G-R #180203

FEB 0 6 2003

TO:

Mr. David B. De Witt

ConocoPhillips

2000 Crow Canyon Place, Suite 400

San Ramon, California 94583

Environmental Health

ERI, Inc.

73 Digital Drive, Suite 100 Novato, California 94949

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568

RE: **Former Tosco 76 Service Station**

#0843

1629 Webster Street Alameda, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	January 15, 2003	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of December 12, 2002

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by January 31, 2003, this report will be distributed to the following:

Ms. Eva Chu, Alameda County Dept., of Environmental Health, 1131 Harbor Bay Parkway, Alameda, CA 94502 cc:

Enclosure

January 15, 2003 G-R Job #180203

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

RE: Fourth Quarter Event of December 12, 2002

Groundwater Monitoring & Sampling Report Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, 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 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: Table 1:

Concentration Map

Table 2:

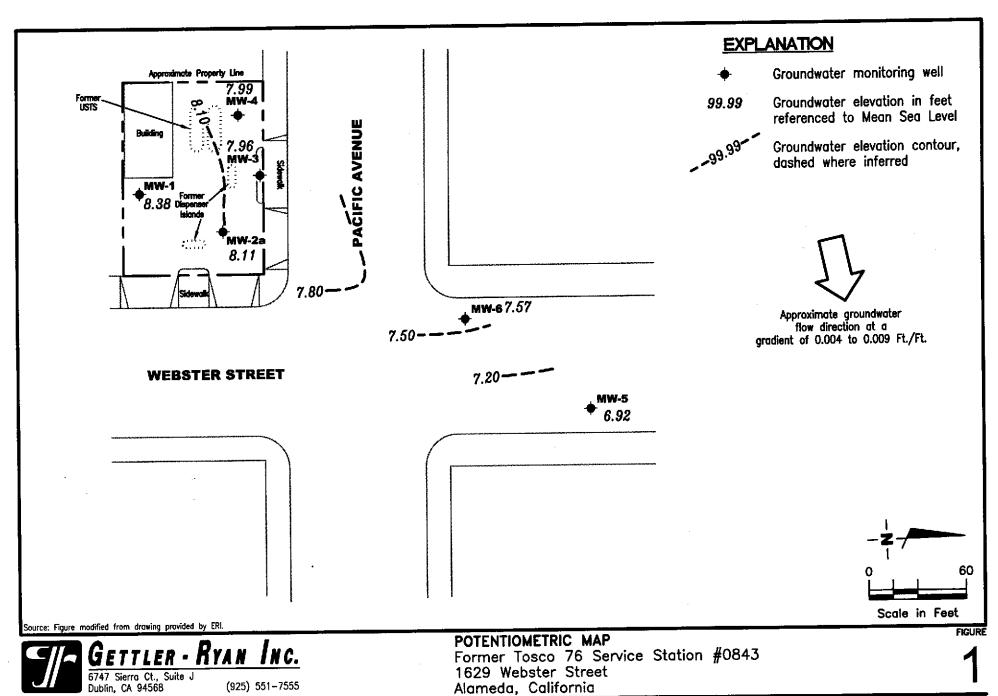
Groundwater Monitoring Data and Analytical Results
Groundwater Analytical Results - Oxygenate Compounds
Standard Operating Procedure - Groundwater Sampling

Attachments:

Field Data Sheets

0843.qml

Chain of Custody Document and Laboratory Analytical Reports



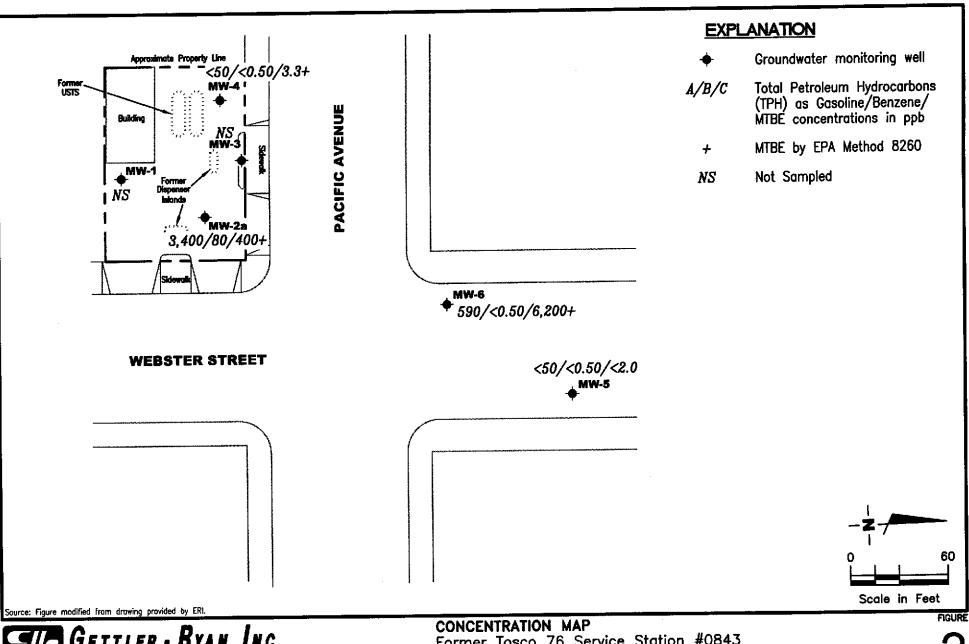
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REVIEWED BY

PROJECT NUMBER

December 12, 2002

REVISED DATE



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

Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

REVISED DATE

PROJECT NUMBER REVIEWED BY 180203

December 12, 2002

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Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	X	MTBE
TOC*(ft.)	DAID	(ft.)	(ft.bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
<u> </u>										
MW-1					•				4.07	23.9^{2}
16.18	03/05/991		4.5-20-5		86.6 ³	ND	2.04	ND	4.06	ND/ND ²
	06/03/99	6.24		9.94	ND	ND	ND	ND	ND ND	ND/ND ²
	09/02/99	7.19	ė.	8.99	ND	ND	ND	ND	ND	ND
	12/14/99	8.07		8.11	ND	ND	ND	ND	ND	ND
	03/14/00	5.47		10.71	ND	ND	ND	ND		ND
	05/31/00	6.22		9.96	ND	ND	ND	ND	ND	ND ND
	08/29/00	6.82		9.36	ND	ND	ND	ND	ND	ND ND
	12/01/00	7.54		8.64	ND	ND	ND	ND	ND	ND ND
	03/17/01	5.73		10.45	ND	ND	ND	ND	ND	
	05/23/01	6.43		9.75	ND	ND	ND	ND	ND	ND
	09/24/01	7.12		9.06	<50	< 0.50	<0.50	<0.50	<0.50	<5.0
	12/10/01	6.89		9.29	<50	< 0.50	<0.50	<0.50	<0.50	<5.0
	03/11/02	5.61		10.57	<50	< 0.50	<0.50	< 0.50	<0.50	<5.0
	06/07/02	5.71		10.47	<50	< 0.50	<0.50	<0.50	<0.50	<2.5
	09/03/02	NOT MONITO	RED/SAMPLED		**	* -	- -			
	12/12/02	7.80		8.38	NO LONGER S	AMPLED				••
1.611.	03/05/991	- -	4.5-20.5		34,400	2,070	7,710	2,340	8,240	8,460 ²
MW-2	06/03/99	5.96	4.5-20.5	9.61	51,200 ⁴	1,820	7,570	2,510	7,320	$6,460/8,800^2$
15.57	09/02/99	6.85		8.72	17,000 ⁵	1,000	3,100	1,400	3,700	4,000/3,720 ²
	12/14/99	7.65		7.92	83,000 ⁵	3,000	22,000	4,500	17,000	9,100/11,000 ²
	03/14/00	5.26		10.31	31,000 ⁵	1,600	4,600	2,300	7,300	5,700/8,700 ²
	05/31/00	5.60		9.97	9,970 ⁵	598	1,030	487	2,060	2,500/1,670 ²
		6.35		9.22	7,900 ⁵	390	1,500	280	1,900	1,800/1,300 ²
	08/29/00 12/01/00	7.06		8.51	87,500 ⁵	1,860	17,400	5,590	19,400	6,220/3,790 ²
	03/17/01	5.98		9.59	4,310 ⁵	371	59.0	280	682	321/433 ²
		6.97		8.60	45,400 ⁵	374	4,490	2,790	10,900	⁷ ND/406 ²
	05/23/01	7.56		8.01	76,000 ³	430	13,000	4,700	18,000	<2,000/480 ²
	09/24/01			9.05	82,000 ³	320	9,100	4,400	16,000	<2,500/270 ²
	12/10/01	6.52		7.00	02,000	320	2,100	,,,,,,,,	- 5,000	•

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	X	MTBE
TOC*(ft.)	DAIL	(ft.)	(ft.bgs)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
100 (1.)										2
MW-2	03/11/02	5.51	4.5-20.5	10.06	14,000 ³	75	1,400	1,100	3,600	<250/150 ²
(cont)	06/07/02	5.73		9.84	14,000	120	1,200	1,400	4,700	540/200 ²
(cont)	09/03/02	6.81		8.76	10,000 ¹¹	150	1,200	610	2,800	510/460 ²
		(This well has!	been replaced, new	well ID MW	-2a)					
MW-2a							460		1,000	380/400 ²
15.56	12/12/02	7.45		8.11	3,400	80	260	210	1,000	300,400
					135 ³	ND	ND	ND	4.84	2.46 ²
MW-3	03/05/991		5.0-20.0		ND	ND	ND	ND	ND	5.23/12.7 ²
15.11	06/03/99	5.57		9.54	ND ND	ND ND	ND	ND	ND	13/11.0 ²
	09/02/99	6.50		8.61	ND ND	ND	ND	ND	ND	ND
	12/14/99	7.28		7.83	ND	ND	ND	ND	ND	7.2/6.3 ²
	03/14/00	4.87		10.24	ND	ND	ND	ND	NĎ	ND
	05/31/00	5.58		9.53 9.05	ND ND	ND	ND	ND	ND	ND
	08/29/00	6.06		9.03 8.35	ND ND	ND	ND	ND	ND	ND
	12/01/00	6.76		10.02	ND	ND	ND	ND	ND	· ND
	03/17/01	5.09		9.39	NĐ	ND	ND	ND	ND	ND
	05/23/01	5.72		9.39 8.77	<50	<0.50	<0.50	<0.50	< 0.50	<5.0
	09/24/01	6.34 6.31		8.80	<50	<0.50	<0.50	<0.50	< 0.50	<5.0
	12/10/01 03/11/02	5.15		9.96	<50	<0.50	<0.50	<0.50	< 0.50	<5.0
	06/07/02	5.45		9,66	<50	<0.50	< 0.50	<0.50	< 0.50	<2.5
	09/03/02		RED/SAMPLED	7,00						
	12/12/02	7.15	KLD/SAMI BLD	7.96	NO LONGER S	AMPLED				••
MW-4	03/05/991		5.0-20.5		ND	ND	ND	ND	2.44	25.2 ²
15.17	06/03/99	5.45		9.72	ND	ND	ND	ND	ND	ND/3.96 ²
	09/02/99	6.48		8.69	ND	ND	ND	ND	ND	$23/27.0^2$
	12/14/99	7.27		7.90	ND	ND	ND	ND	ND	200/270 ²

Table 1
Groundwater Monitoring Data and Analytical Results

TENTE T TO	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	X	MTBE
WELL ID/ TOC*(ft.)	DAIL	(ft.)	(ft.bgs)	(msl)	(pph)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
100 (1.)			V8-2	3 <u> </u>						2
MW-4	03/14/00	4.67	5.0-20.5	10.50	ND	ND	ND	ND	ND	46/49 ²
	05/31/00	5.48		9.69	ND	ND	ND	ND	ND	ND
(cont)	08/29/00	6.10		9.07	ND	ND	ND	ND	ND	$6.1/3.2^2$
	12/01/00	6.79		8.38	ND	ND	ND	ND	ND	152/101 ²
	03/17/01	5.01		10.16	ND	ND	ND	ND	ND	ND
	05/23/01	5.78		9.39	ND	ND	ND	ND	ND	ND
	09/24/01	6.42		8.75	<50	< 0.50	< 0.50	< 0.50	<0.50	<5.0
	12/10/01	6.41		8.76	<50	< 0.50	< 0.50	< 0.50	< 0.50	1,700/1,300 ²
	03/11/02	5.05		10.12	<50	< 0.50	< 0.50	< 0.50	< 0.50	<5.0
	06/07/02	5,42		9.75	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
	09/03/02	6.50		8.67	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
	12/12/02	7.18		7.99	<50	< 0.50	< 0.50	< 0.50	< 0.50	2.9/3.3 ²
	12/12/02	,,,,,								
		*				NID	ND	ND	ND	3.5/3.8 ²
MW-5	12/14/99	6.45		6.89	ND	ND	ND	ND ND	ND	ND
13.34	03/14/00	4 .46		8.88	ND	ND	ND	ND	ND	ND
	05/31/00	5.18		8.16	ND	ND	ND	ND ND	ND	ND
	08/29/00	5.46		7.88	ND	ND	ND		ND	ND
	12/01/00	5.95		7.39	ND	ND	ND	ND	ND ND	ND
	03/17/01	5.36		7.98	ND	ND	ND	ND		ND
	05/23/01	5.09		8.25	ND	ND	ND	ND .o.so	ND <0.50	<5.0
	09/24/01	5.58		7.76	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	12/10/01	5.51		7.83	<50	<0.50	<0.50	<0.50		<5.0
	03/11/02	4.70		8.64	<50	< 0.50	< 0.50	<0.50	< 0.50	
	06/07/02		LE - PAVED OVE							
	09/03/02	INACCESSIBI	LE - PAVED OVE					 		
	12/12/02	6.42		6.92	<50	<0.50	<0.50	<0.50	<0.50	<2.0
				7.44	ND	ND	ND	ND	ND	11,000/18,000 ²
MW-6	12/14/99	6.64		7.44	ND ⁷	19,000/21,000 ^{2.6}				
14.08	03/14/00	4.72		9.36	ND ⁷	13,200				
	05/31/00	5.28		8.80	עא	ND	1410	,,,,,	110	10,200

Table 1
Groundwater Monitoring Data and Analytical Results
Former Tosco 76 Service Station #0843

WELL ID/	DATE	DTW	S.I.	GWE	TPH-G	В	T	E	X	MTBE
TOC*(ft.)	DATE	(ft.)	(ft.hgs)	(msl)	(ppb)	(ppb)	(pph)	(ppb)	(ppb)	(ppb)
100 (11)										2
MW-6	08/29/00	5.39		8.69	ND	ND	ND	ND	ND	270/400 ²
(cont)	12/01/00	6.11		7.97	ND	ND	ND	ND	ND	6,330/3,640 ²
(cont)	03/17/01	6.02		8.06	18,700 ⁵	2,950	989	1,040	3,000	10,200/11,500
	05/23/01	5.82		8.26	ND ⁷	ND ⁷	ND ⁷	ND^7	ND ⁷	4,6608
	09/24/01 ¹⁰	6.59		7.49	<50	< 0.50	< 0.50	< 0.50	< 0.50	160/190 ⁹
	12/10/01	6.50		7.58	<50	< 0.50	< 0.50	< 0.50	< 0.50	$3,200/2,400^2$
	03/11/02	4.81		9.27	<50	< 0.50	< 0.50	< 0.50	< 0.50	92/120 ²
	06/07/02		E - PAVED OVER	•						
	09/03/02		E - PAVED OVER							1
	12/12/02	6.51		7.57	590 ¹²	< 0.50	< 0.50	< 0.50	< 0.50	1,500/6,200 ²
Trip Blank	03/05/99 ¹				ND	ND	ND	ND	ND	ND^2
TB-LB	06/03/99				ND	ND	ND	ND	ND	ND
I D-LD	09/02/99				ND	ND	ND	ND	ND	ND
	12/14/99				ND	ND	ND	ND	ND	ND
	03/14/00			 ,	ND	ND	ND	ND	ND	ND
	05/31/00			••	ND	ND	ND	ND	ND	· ND
	08/29/00				ND	ND	ND	ND	ND	ND
	12/01/00				ND	ND	ND	ND	ND	ND
	03/17/01				ND	ND	ND	ND	ND	ND
	05/23/01				ND	ND	ND	ND	ND	ND
	09/24/01			- -	<50	< 0.50	< 0.50	< 0.50	< 0.50	<5.0
	12/10/01				<50	< 0.50	< 0.50	< 0.50	< 0.50	<5.0
	03/11/02			••	<50	< 0.50	< 0.50	< 0.50	< 0.50	<5.0
	06/07/02				<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
QA	09/03/02				<50	<0.50	< 0.50	<0.50	< 0.50	<2.5
V _N	12/12/02				<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.0

Table 1

Groundwater Monitoring Data and Analytical Results

Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to June 3, 1999, were compiled from reports prepared by ERI, Inc.

TOC = Top of Casing

TPH-G = Total Petroleum Hydrocarbons as Gasoline

(ft.) = Feet

B = Benzene

DTW = Depth to Water

T = Toluene

S.I. = Screen Interval

E = Ethylbenzene

(ft.bgs) = Feet Below Ground Surface

X = Xylenes

GWE = Groundwater Elevation

MTBE = Methyl tertiary butyl ether

(msl) = Mean sea level

- TOC elevations are based on USC&GS Benchmark WEB PAC 1947 R 1951; (Elevation = 14.054 feet).
- B,T,E,X by EPA Method 8260.
- MTBE by EPA Method 8260.
- Laboratory report indicates weathered gasoline C6-C12.
- Laboratory report indicates chromatogram pattern C6-C12.
- Laboratory report indicates gasoline C6-C12.
- Laboratory report indicates sample was analyzed 03/28/00 but required reanalysis at a dilution. The dilution was analyzed outside of the EPA recommended holding time.
- Detection limit raised. Refer to analytical reports.
- Laboratory did not perform analysis for MTBE by EPA Method 8260 as requested on the Chain of Custody for 8020 MTBE hits.
- MTBE by EPA Method 8260 was analyzed past the EPA recommended holding time.
- Due to laboratory error, MW-6 was not analyzed within the EPA recommended holding time.
- Laboratory report indicates gasoline C6-C10.
- Laboratory report indicates discrete peak @ C5.

(ppb) = Parts per billion

ND = Not Detected

-- = Not Measured/Not Analyzed

QA = Quality Assurance/Trip Blank

Table 2
Groundwater Analytical Results - Oxygenate Compounds

				Manio	ia, Camoma				
WELL ID	DATE	ETHANOL	TBA	MTBE	DIPE	ЕТВЕ	TAME	1,2-DCA	EDB
TTELLI ID	1773 E 13	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-1	09/02/99	ND	ND	ND	ND	ND	ND		
2011 4	09/02/99	ND ⁱ	ND ¹	3,720	ND ¹	ND ¹	ND¹		
MW-2	12/14/99	ND ¹	ND ¹	11,000	ND^1	ND^1	ND^1	ND	ND ¹
	03/14/00	ND ¹	1,300	8,700	ND ¹	ND^1	ND^1	ND ¹	ND ¹
	05/31/00	ND ¹	ND ¹	1,670	ND^1	ND^1	ND	ND^1	ΝD ^ι
	03/31/00	ND	250	1,300	ND	ND	ND	ND	ND
	12/01/00	ND ¹	ND ¹	3,790	ND ¹	ND	\mathbf{ND}^1	ND ¹	ND
	03/17/01	ND ¹	ND ¹	433	14.8	ND¹	ND¹	ND ¹	ND¹
	05/23/01	ND ¹	ND ¹	406	ND^1	ND^1	ND	ND ¹	ND_I
	09/24/01	<50,000	<5,000	480	<100	<100	<100	<100	<100
	12/10/01	<12,000	<500	270	<25	<25	<25	<25	<25
	03/11/02	<5,000	<1,000	150	<20	<20	<20	<20	<20
	06/07/02	<2,000	<1,000	200	<25	<25	<25	<25	<25
	09/03/02	<5,000	<1,000	460	<20	<20	<20	<20	<20
	DESTROYED	(This well has been		ell ID MW-2a)					
MW-2a	12/12/02	<500	<100	400	<2.0	<2.0	<2.0	2.3	<2.0
MW-3	09/02/99	ND	ND	11.0	ND	ND	ND		
	03/14/00			6.3				••	
MW-4	09/02/99	ND	ND	27.0	ND	ND	ND		
	12/14/99			270	•				
	03/14/00			49					

Table 2
Groundwater Analytical Results - Oxygenate Compounds
Former Tosco 76 Service Station #0843

1629 Webster Street Alameda, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
	·	<u> </u>							
MW-4	08/29/00			3.2					
(cont)	12/10/01	<7,100	<290	1,300	<14	<14	<14	<14	<14
()	12/12/02	<500	<100	3.3	<2.0	<2.0	<2.0	<2.0	<2.0
			•						
MW-5	12/14/99			3.8					
	12/12/02								
3.4337 £	12/14/99			18,000	-+				
MW-6	03/14/00			$21,000^2$			·		
				400					
	08/29/00	 ND ¹	ND ¹	11,500	ND ¹	ND^1	ND^1	219	ND¹
	03/17/01 05/23/01 ³					<u></u>			
		-1.000	 -100	190	<2.0	<2.0	<2.0	<2.0	<2.0
	09/24/014	<1,000	<100	2,400	<25	<25	<25	<25	<25
	12/10/01	<12,000	<500			<2.0	<2.0	<2.0	<2.0
	03/11/02	<500	<100	120	<2.0		•	<200	<200
	12/12/02	<50,000	<10,000	6,200	<200	<200	<200	<400	<200

Table 2

Groundwater Analytical Results - Oxygenate Compounds

Former Tosco 76 Service Station #0843 1629 Webster Street Alameda, California

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

-- = Not Analyzed

ND = Not Detected

Detection limit raised. Refer to analytical reports.

- Laboratory report indicates sample was analyzed 03/28/00 but required reanalysis at a dilution. The dilution was analyzed outside of the EPA recommended holding time.
- Laboratory did not perform analyzsis for oxygenates as requested on the Chain of Custody, on all 8020 MTBE hits.
- Laboratory report indicates sample was analyzed past the EPA recommended holding time.

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

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



Client/Facility #:	Tosco #0843			Job Number:	180203	·
	1629 Webster S	Street		Event Date:	12-12-02	(inclusi
City:	Alameda, CA			Sampler:	Joe	
Well ID	MW- I	Date	Monitored:	12-12.0	ک Well Condition: <u>ر</u>	o.k.
Well Diameter	2 in.		Volume	3/4"= 0.02	1"= 0.04 2"= 0.17 3)"= 0.38
Total Depth	20.05 tt.		Factor (VF			2"= 5.80
Depth to Water	7.80 ft.	F	=	x3 (case volume) =	Estimated Purge Volume:	gal.
- 					Time Started:	(2400 hrs)
Purge Equipment:			npling Equipment: oosable Bailer	•	Time Bailed: Depth to Product:	
Disposable Bailer	<u> </u>	•	ssure Bailer		Depth to Water:	f
Stainless Steel Bailer Stack Pump			crete Bailer		Hydrocarbon Thickness:	ft
Suction Pump		Oth	er:		Visual Confirmation/Desc	enpuon:
Grundfos					Skimmer / Absorbant So	
Other:					Amt Removed from Skin Amt Removed from Well	
					Product Transferred to:_	
Did well de-water Time (2400 hr.)	Volume (gal.)	If yes, Tin	Conductivity (umhos/cm)	Volume: Temperature (C/F)	gal. D.O. (mg/L)	ORP (mV)
	<u> </u>					
			BORATORY IN		RY ANALY	/eFe
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPI			
MW-	x voa viat	YES	HCL	SEQUOIA	TPH-G(8015)/BTEX/M 8 Oxy's(8260)	TBE(8021)/
COMMENTS		(
COMMENTS:	<u> </u>	1				
Add/Replace	ced Lock:			Add/Replaced	l Plug: Siz	e:

Client/Facility #:	Tosco #0843			Job Number:	180203	<u>. </u>
Site Address:	1629 Webster	Street		Event Date:	12-12-02	(inclusive
City:	Alameda, CA			Sampler:	500	<u> </u>
Well ID	MW- 20	▼ Dat	e Monitored:	12-12-02	Well Condition: O	
Well Diameter	2 in.					
Total Depth	10.55 ft.		Volume Factor (VF)	3/4*= 0.02 4*= 0.66	1"= 0.04 2"= 0.17 3"= 0.38 5"= 1.02 6"= 1.50 12"= 5.80	,
Depth to Water	7.45 tt.		- doto: (***)			
·	<u> 3, 0 </u>	VF <u>ه ، آ</u>	7 = <u>0.53</u>	x3 (case volume) =	Estimated Purge Volume: 2	gal.
Purge Equipment:		Sai	mpling Equipment:		Time Started:	(2400 hrs) (2400 hrs)
Disposable Bailer			posable Bailer	~	Depth to Product:	ft
Stainless Steel Bailer		Pre	ssure Bailer		Depth to Water:	f
Stack Pump		Dis	crete Bailer		Hydrocarbon Thickness:	ftft
Suction Pump		Oth	ner:		Visual Confirmation/Description:	l.
Grundfos					Skimmer / Absorbant Sock (circle	e one)
Other:					Amt Removed from Skimmer:	
					Amt Removed from Well: Product Transferred to:	gal
Start Time (purge Sample Time/Da Purging Flow Rate Did well de-water (2400 hr.)	te: <u> 10 R 17</u> te: <u>2.ápm.</u>	2-12-02 Sedim	ent Description: ne:	<u> </u>	Odor:	
		Δ 1	BORATORY INF	ORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATOR	RY ANALYSES	
MW- 2-	s x voa vial	YES	HCL	SEQUOIA	TPH-G(8015)/BTEX/MTBE(802	1)/
				-	8 Oxy's(8260)	
				ļ		

COMMENTS:	Note	new i	vell Leat	4 Loc	ation of well	(C. (L.)
in the d		of Well	الد ز	a. 1 1	+ 12 1 4.	
10000	in fall of	3 'c'(1	's 12 ((('F	COS 1 - 1 1 - 13 - TIL	ma pri
Add/Replac	ed Lock:	 	A	.dd/Replaced	Plug: Size:	



lient/Facility #:	Tosco #0843			Job Number:	180203	
Site Address:	1629 Webster	Street		Event Date:	12-12-02	(inclusiv
City:	Alameda, CA			Sampler:	JUC	
Well ID	мw-3	Date	e Monitored:	12.12-07	Well Condition:	0.6
Well Diameter	2 in.		Volume	3/4"= 0.02	1"= 0.04 2"= 0.17	3"= 0.38
Total Depth	19.91 tt.		Factor (VI	4°= 0.66	5"= 1.02 6"= 1.50	12"= 5.80
Depth to Water	7-15 ft.	vF	<u>=</u>	x3 (case volume) =	Estimated Purge Volume: _	gal.
	^			,	Time Started:	(2400 hrs)
Purge Equipment:		San	npling Equipmen	t:	Time Bailed:	
Disposable Bailer	<u></u>	Disp	oosable Bailer		Depth to Product: Depth to Water:	
Stainless Steel Bail	er	,	ssure Bailer		Hydrocarbon Thicknes	
Stack Pump		= -	crete Bailer er:		Visual Confirmation/Do	
Suction Pump Grundfos		0.			Skimmer / Absorbant	Sock (circle one)
Other:					Arnt Removed from SI	dmmer: gal
					Amt Removed from W Product Transferred to	'ell: gal
Other Times (see		\Meal	her Conditions	s:		
Start Time (pur	ge):/ Date:/	VV-C21		r:		
Purging Flow F		Sedim		າ:		<u> </u>
Did well de-wa	 -			Volume:		
		•				ORP .
Time	Volume	pН	Conductivity (umhos/cm)	Temperature (C/F)	0.0. (mg/L)	(mV)
(2400 hr.) (gal.)		(Billiosciii)	(01.)		
M						
	Z					
	<u> </u>	L	ABORATORY II			
SAMPLE ID		REFRIG.	PRESERV. TY			LYSES
MW-	x voa via	al YES	HCL	SEQUOI	A TPH-G(8615)/BTEX 8 Oxy's(8260)	M BE(8021)/
1		 				
				1	1	
COMMENTS		(
COMMENTS	:	14				

Webster Streemeda, CA MW- 4 2 in. 7.78 ft.	Date Monitored:	Sampler:	(2 - (2 - 0 2)	(inclusi
MW- 4 2 in.		-		0.1
2 in.		12-12-02	Well Condition:	0.1
7.18 ft.	Volume Factor (V	<u>, </u>	1"= 0.04 2"= 0.17 5"= 1.02 6"= 1.50	3'= 0.38 12'= 5.80
2.6xvf			Time Started: Time Bailed: Depth to Product: Depth to Water: Hydrocarbon Thicknes Visual Confirmation/De Skimmer / Absorbant S Amt Removed from W Product Transferred to	(2400 hrs) (2400 hrs) ft ss:ft escription: Sock (circle one) kimmer: gal /ell: gal
/ gpm. S If ye Volume (gal.)	Water Color Sediment Description s, Time: Conductivity (umhos/cm)	r:	Odor:	ORP (mV)
4 3.6	126 1.26	79.6		
	LABORATORY IN	FORMATION		
	RIG. PRESERV. TYP		TPH-G(8015)/BTEX/I	LYSES MTBE(8021)/
	/ 000 12-12-12-13-15 15 ye 15 ye	Sampling Equipment Disposable Bailer Pressure Bailer Discrete Bailer Other: Weather Conditions Of Papm. Sediment Description If yes, Time: Volume (gal.) PH Conductivity (umhos/cm) A A A A CONTAINER REFRIG. PRESERV. TYPI	Sampling Equipment: Disposable Bailer Pressure Bailer Discrete Bailer Other: O O O	Sampling Equipment: Disposable Bailer Pressure Bailer Discrete Bailer Other: Weather Conditions: If yes, Time: Volume (gal.) Volume (gal.) Volume (gal.) LABORATORY INFORMATION CONTAINER REFRIG. Pressure Bailer Discrete Bailer Discrete Bailer Discrete Bailer Discrete Bailer Discrete Bailer Depth to Product: Depth to Water: Hydrocarbon Thicknes Visual Confirmation/D Skimmer / Absorbant: Ant Removed from W Product Transferred to Temperature (QC) (mg/L) Temperature (QC) (mg/L) ANA LABORATORY INFORMATION CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANA The palled: Depth to Product: Depth to Water: Hydrocarbon Thicknes Visual Confirmation/D Skimmer / Absorbant: Ant Removed from W Product Transferred to Temperature (QC) (mg/L) Temperature D.O. (mg/L) Temperature (ABORATORY INFORMATION LABORATORY INFORMATION CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANA TPH-G(8015)/BTEX/I



GETTLER-RYAN INC.

Client/Facility #:	Tosco #0843			Job Number:	180203	
Site Address:	1629 Webster S	treet	•••	Event Date:	12-12-02	(inclusiv
City:	Alameda, CA	-		Sampler:	Joe	
Well ID	MW- ≶	Date	Monitored: _i	2=12-02	Well Condition:	0.10
Well Diameter	2 in.		Volume	3/4"= 0.02	1"= 0.04 2"= 0.17	3*= 0.38
Total Depth	20.23 ft.		Factor (V		5°= 1.02 6°= 1.50	12*= 5.80
Depth to Water	6.42 ft.	7 رم	2.35	y3 (case volume) =	Estimated Purge Volume:	7. S gal.
	13.81 xVF				Time Started:	(2400 hrs)
Purge Equipment:			pling Equipmen	τ.	Time Bailed:	
Disposable Bailer		-	osable Bailer		Depth to Product: Depth to Water:	
Stainless Steel Bailer			sure Bailer		Hydrocarbon Thicknes	
Stack Pump			rete Bailer er:	 	Visual Confirmation/D	
Suction Pump Grundtos		Ollin			Skimmer / Absorbant	Sock (circle one)
Other:					Amt Removed from S	
Outer,					Amt Removed from W	/ell: gal
					Product Transferred to	0:
Time (2400 hr.)	Volume (gal.)	рн 7 э л	Conductivity (umhos/cm) /	Volume: / Temperature (C/RD)	D.O. (mg/L)	ORP (mV)
0853	- 	61	5 25	72.1		
0855	7,5	7 168	5.82	71.6		
			BORATORY IN		DV ANA	ALYSES
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYP	SEQUOIA		
MW- \$	2 x voa vial	YES	HCL	Sections	8 Oxy's(8260) -	/MTBE(6021)/
COMMENTS:						
Add/Repla	iced Lock:			Add/Replaced	Plug: S	ize:



Client/Facility #:	Tosco #0843		Job Number:	180203	
Site Address:	1629 Webster St	reet	Event Date:	12-12-02	(inclusiv
City:	Alameda, CA		Sampler:	50 c	
Well ID	MW-6	Date Monitored:	12-12-02	- Well Condition: 0 (K
Well Diameter	2 in.	Volume	3/4"= 0.02	1"= 0.04 2"= 0.17 3"= 0.3	
Total Depth	20.16 ft.	Factor (VI		5"= 1.02 6"= 1.50 12"= 5.	
Depth to Water	13.65 xVF.	0.17 = 232	x3 (case volume) = I	Estimated Purge Volume:	gal.
Purge Equipment:		Sampling Equipment	ı.	Time Started:	(2400 hrs)
Disposable Bailer		Disposable Bailer		Time Bailed: Depth to Product:	,
Stainless Steel Bailer		Pressure Bailer		Depth to Water:	f
Stack Pump Suction Pump		Discrete Bailer Other:		Hydrocarbon Thickness: Visual Confirmation/Description	ft n:
Grundios				Skimmer / Absorbant Sock (circ	
Other:				Amt Removed from Skimmer:_	
				Amt Removed from Well: Product Transferred to:	
Time (2400 hr.) 0930 0932	Volume (gal.)	Conductivity (umhos/cm) X (2.65) 2.1 2.67 2.84	73 / 72 8 72 3	D.O. OF (mg/L) (m'	
CAMPLEID		LABORATORY INF		W ANALYSES	
SAMPLE ID	(#) CONTAINER R	YES HCL	LABORATOR SEQUOIA	- 	04)/
10100-	y A VOA VIAI	TEG NOL	SEGOOIA	TPH-G(8015)/BTEX/MTBE(80 8 Oxy's(8260)	21 <i>y</i> /
COMMENTS:					
					<u></u>

Gettler-Ryan Inc., Chain-of-Custody

			y Numi		10843 1629 W	ERSTE	R STRE	ET. ALA	MEDA, 1					ı	poratory maultant			ER-RTAI	I INC.				1ARDING
Tosco Corp./ Phillips 66 Co.		Focilit	y Addr	99 9 —							203.80			1	Idr ust					J, DU	BLIN CA 9	4568	
000 Crow Canyon	Ploca	Globa	10		T060010	UZZ63	DEWIT	' r	Project						hone _			551 - 7.		fox		51-769	
Suite 400 San Ramon, CA 9:	1583	1	Conto	ct	(925)									_ s	neutries	Collecte	d by	50	EA	<u>5/-7-1</u>	(As)		
		Phon	•													Ě					<u> </u>		Remarks
SAMPLE 10	Number of Containses Matrix	= Sol A = Air = Water C = Charcoal	Sample Preservation		Dote/Time (2400 Hrs)		PH-045/8TEX/MBE EPA 8015/80218	TPK-OKSEL EPA 9015	TPH-DESEL W/SAco gel EPA 8015	TPKUAS EPA 8015	TPH-CAS/BITX/ATBE EPA \$280	FL 8260	METHANOL. EPA 8013	TOTAL OIL & GREASE EPA 5520	METALS Cd. Cr. Pb. Zb. Ni	,	HYGG'S (8010) EPA 80218	VOC'S (8240) EPA 8280	\$40C'3 EPA 8270				- -
	23	დ.≱		7	2-12-6	27 <u> </u>	1	, <u> </u>	<u> </u>								SA	ιờ	i (1-0)				2 20 1 1
QA	<u> </u>	w)	4161	_	1101	-	✓					7							<u>-0</u> 2			<u> </u>	Run 8 Oxy's b 8260 on all 80
MW-2	5	*	"								 								403				MTBE hits.
MW-4	3	11	<u>"_</u>	1-	1030	ļ	-				 	 							ا4ريــ				أ
MW-5	3	11	"		070:		<u>~</u>			<u> </u>	 	├			-		 		-215				
m.w-6	3	11	6	1/2	094	<u>3</u>	<u>~</u>	<u> </u>		-	<u> </u>	├—			 	╁──	┼──						
										<u> </u>	<u> </u>	 	 -		┼─		-						7
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	 	 	+	1								<u> </u>			<u> </u>	-		 	╂╾╼╾┼╸	-		_	OKYGENATES 52
·	├-	╄	+	╁╌				1				<u> </u>	<u> </u>			 	-	<u> </u>	┞╺┈╏ ╸			╌┞┈╌	1 - MTBE
	 	┼	 	+			╁┈╌	╁──	+					·	<u> </u>	<u>. </u>		<u> </u>	↓ —-}-			 	2 - TBA 3 - TAME
	<u> </u>	↓		4-			╁	+	+-	+	1 -								<u> </u>				4 - DIPE 5 - ETBE
		_	1	1_			┼-	┿		╁	 	+-		\vdash	<u> </u>								5 - 1,2-0C
		<u></u>					 	 	-	 -	+-	+-	+-	+-	 	-	1						B - ETHANOI
Relinquished By (5	anjapa.	•}	On	goriza	egon	Date/	क्तिक दुई			<i>a</i> .	_		Orts	क्राडियां	m O	2/ ₁₂	02	ket	N V	T.	eth Around	Time (24 Hrs 48 Hrs	
Refindulated By 5	<u> 1</u> 00		Or	ganla	atton	Date/	7 -0 7mg (=	55VA	eceived	By (50	noture)		Org	anizoti	- † -	ote/Tim	T. B	loed '	ļ			72 Hrs 5 Days	•
Relinquished By (S	<u>. (</u>]	-	ganka		Date/	フィー Time	-	est mod	For La	orotot)	<u>By</u> (5%	(2) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1		(0)	7/7	·2 91	lced '	(/N		يعے	10 Day	



2 January, 2003

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

RE: Tosco 0843, Alameda, CA Sequoia Work Order: S212411

Enclosed are the results of analyses for samples received by the laboratory on 12/13/02 09:15. If you have any questions concerning this report, please feel free to contact me.

CONTRACTOR STATES

Sincerely,

Ron Chew Client Services Representative

CA ELAP Certificate #1624



819 Striker Ave Ste 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100 www.sequoialabs.com

Gettler-Ryan - Dublin 6747 Sierra Court, Ste. J Dublin CA, 94568 Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S212411 Reported: 01/02/03 20:10

ANALYTICAL REPORT FOR SAMPLES

Sample 1D	Laboratory ID	Matrix	Date Sampled	Date Received
QA	S212411-01	Water	12/12/02 00:00	12/13/02 09:15
MW-2	\$212411-02	Water	12/12/02 11:08	12/13/02 09:15
MW-4	S212411-03	Water	12/12/02 10:30	12/13/02 09:15
MW-5	\$212411-04	Water	12/12/02 09:05	12/13/02 09:15
MW-6	S212411-05	Water	12/12/02 09:43	12/13/02 09:15



Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

\$212411 Reported: 01/02/03 20:10

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
QA (S212411-01) Water	Sampled: 12/12/02 00:00	Received: 12/1	3/02 09:1	15					
Purgeable Hydrocarbons	ND	50	սք/l	1	2120429	12/24/02	12/24/02	DHS LUFT	
Benzene	ND	0.50	"	**	71	**		**	
Toluene	ND	0.50	11	**	11	**	•	11	
Ethylbenzene	ND	0.50	**		H	11	•	н	
Xylenes (total)	ND	0.50		**	н	**	**	++	
Methyl tert-butyl ether	ND	2.0	77	н	11	n	4	и	
Surrogate: a,a,a-Trifluoroto	oluene	91 %	60-	-140	"	"	"	"	
MW-2 (S212411-02) Wate	r Sampled: 12/12/02 11:0	8 Received: 1	2/13/02	09:15					
Purgeable Hydrocarbons	3400	500	ug/l	10	2120429	12/24/02	12/25/02	DHS LUFT	
Benzene	80	5.0		11	H	11	#	1 1	
Toluene	260	5.0	"	н	**	11	**	11	
Ethylbenzene	210	5.0	*	"	77	11	**	H	
Xylenes (total)	1000	5.0	Ħ	*	R	11	11	H	
Methyl tert-butyl ether	380	20	n	**	ŧı	*	п	"	
Surrogate: a,a,a-Trifluorot	oluene	80 %	60	-140	"	*	n	n	
MW-4 (S212411-03) Wate	er Sampled: 12/12/02 10:	30 Received: 1	12/13/02	09:15					
Purgeable Hydrocarbons	ND	50	ug/l	1	2120429	12/24/02	12/25/02	DHS LUFT	
Benzene	ND	0.50	н	**	**	**	**	41	
Toluene	ND	0.50		n	**	н	u	Ħ	
Ethylbenzene	ND	0.50	n	n	n	**	11	"	
Xylenes (total)	ND	0.50	н	н	"	71	Ħ	**	
Methyl tert-butyl ether	2.9	2.0		Ħ		**	н	"	
Surrogate: a,a,a-Trifluoroi	oluene	88 %	60		#	"	"	"	



819 Striker Ave Ste 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100 www.sequoialabs.com

Gettler-Ryan - Dublin 6747 Sierra Court, Ste. J Dublin CA, 94568 Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S212411 Reported: 01/02/03 20:10

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (S212411-04) Water	Sampled: 12/12/02 09:05	Received: 1	2/13/02 (9:15					
Purgeable Hydrocarbons	ND	50	սջ/I	1	2120429	12/24/02	12/25/02	DHS LUFT	
Benzene	ND	0.50	11	11	n	11	11	н	
Toluene	ND	0.50	*	11	*	π	11	н	
Ethylbenzene	ND	0.50	u	**	11	11	••	**	
Xylenes (total)	ND	0.50	н	ti	P	II .	II.	11	
Methyl tert-butyl ether	ND	2.0	#	"	61	Ħ	#1	"	
Surrogate: a,a,a-Trifluorotoli		90 %	60	-140	"	,,	"	"	
MW-6 (S212411-05) Water	Sampled: 12/12/02 09:43	Received: 1	2/13/02	09:15			·		·
Purgeable Hydrocarbons	590	50	ug/l	1	2120429	12/24/02	12/25/02	DHS LUFT	HC-19
Benzene	ND	0.50	Ħ	"	D	"	**	"	
Toluene	ND	0.50	11	**		**	11	#	
Ethylbenzene	ND	0.50		11	н	H	n	"	
Xylenes (total)	ND	0.50	,,	"	**	**	**	••	
Methyl tert-butyl ether	1500	100	Ħ	50	**	"	12/26/02		
Surrogate: a,a,a-Trifluoroto	luene	79 %	60	0-140	и	и	12/25/02	н	





Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S212411 Reported: 01/02/03 20:10

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (S212411-02) Water	Sampled: 12/12/02 11:08	Received: 1	2/13/02 0	9:15					
Tert-butyl alcohol	ND	100	ug/l	1	2120403	12/24/02	12/24/02	EPA 8260B	
Di-isopropyl ether	ND	2.0	n	, D	41	н	11	11	
Ethyl tert-butyl ether	ND	2.0	n	Ħ	11	n	n	Ħ	
Tert-amyl methyl ether	ND	2.0	н	**	**	**	"	H	
Ethanol	ND	500	n	"	n	п	"	H	
1,2-Dichloroethane	2.3	2.0	n	11	•	**	•		
1,2-Dibromoethane (EDB)	ND	2.0		н	#	*1	"	H	
Surrogate: 1,2-DCA-d4		88 %	60-	-140	"	#	"	п	
MW-2 (S212411-02RE1) Wa	ater Sampled: 12/12/02 11	:08 Receive	ed: 12/13	3/02 09:15					
Methyl tert-butyl ether	400	20	ug/l	10	2120442	12/27/02	12/27/02	EPA 8260B	HT-RS
Surrogate: 1,2-DCA-d4		126 %	60-	-140	11	#	#	M	HT-RS
MW-4 (S212411-03) Water	Sampled: 12/12/02 10:30	Received: 1	2/13/02	09:15					
Tert-butyl alcohol	ND	100	ug/l	1	2120433	12/26/02	12/26/02	EPA 8260B	
Methyl tert-butyl ether	3.3	2.0	В	**	11	н	R	**	
Di-isopropyl ether	ND	2.0		**	N	•	•	н	
Ethyl tert-butyl ether	ND	2.0	**	**	н		"	н	
Tert-amyl methyl ether	ND	2.0	**	Ð	44	•	н	**	
Ethanol	מא	500	н	н	Ħ	*	н	н	
1,2-Dichloroethane	ND	2.0			#1		11	11	
1,2-Dibromoethane (EDB)	ND	2.0	**	**	**	**	н	"	
Surrogate: 1,2-DCA-d4		95 %	60	-140	"	"	н	"	
MW-6 (S212411-05) Water	Sampled: 12/12/02 09:43	Received: 1	12/13/02	09:15					
Tert-butyl alcohol	ND	10000	ug/l	100	2120433	12/26/02	12/26/02	EPA 8260B	
Methyl tert-butyl ether	6200	200	#	n	н	н	"		
Di-isopropyl ether	ND	200	**	11	#	**	**		
Ethyl tert-butyl ether	ND	200	и		n		"	•	
Tert-amyl methyl ether	ND	200	11	**	n	11	ŧı	**	
Ethanol	ND	50000	11	**	11	•	11	••	
1,2-Dichloroethane	ND	200	"	11	μ	11	11	**	
1,2-Dibromoethane (EDB)	ND	200	,,	н	н	11	n	11	
Surrogate: 1,2-DCA-d4		99 %	61)-140	"	"	"	"	



Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S212411 Reported: 01/02/03 20:10

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

ND	50 0.50 0.50 0.50 0.50 2.0	Units ug/l	Prepared	Result	%REC	Limits	RPD	Limit	Notes
ND ND ND ND ND	0.50 0.50 0.50 0.50	H H H		& Analyz	ed: 12/24/0	02			
ND ND ND ND ND	0.50 0.50 0.50 0.50	H H H		& Analyz	ed: 12/24/(02			<u> </u>
ND ND ND ND ND	0.50 0.50 0.50 0.50	H H H	10.0						÷
ND ND ND ND	0.50 0.50 0.50	H H H	10.0						
ND ND ND	0.50 0.50	11 11	10.0						
ND ND 8.79	0.50	H H	10.0						٠
ND 8.79		"	10.0						
8.79	2.0		10.0						
		n .	10.0						
ND					88	60-140			
ND			Prepared	& Analyz	ed: 12/26/	02			
. 12	50	ug/l		•				•	
ND	0.50	Ħ							
ND	0.50	**							
ND	0.50	Ħ							
ND	0.50	•							
ND	2.0	"							
8.76		"	10.0	<u> </u>	88	60-140			<u>-</u>
			Prepared	i & Analy	zed: 12/26	/02			
ND	50	ug/l							
ND	0.50								
ND	0.50	"							
ND	0.50	**							
ND	0.50	**							
ND	2.0	*1							
10.1		#	10.0		101	60-140			
			Drana-a	d & Anals	rzed: 1979	1/02			
	0.50	11011							
		_							
		,							
	ND ND ND ND ND 10.1	ND 50 ND 0.50 ND 0.50 ND 0.50 ND 0.50 ND 2.0 10.1 9.32 0.50 9.19 0.50 9.36 0.50 27.5 0.50	ND 50 ug/l ND 0.50 " ND 0.50 " ND 0.50 " ND 0.50 " ND 2.0 " 10.1 " 9.32 0.50 ug/l 9.19 0.50 " 9.36 0.50 " 27.5 0.50 "	Prepared ND 50 ug/l ND 0.50 " ND 0.50 " ND 0.50 " ND 0.50 " ND 2.0 " 10.1 " 10.0 Prepared 9.32 0.50 ug/l 10.0 9.19 0.50 " 10.0 9.36 0.50 " 10.0 27.5 0.50 " 30.0	Prepared & Analy ND 50 ug/l ND 0.50 " ND 0.50 " ND 0.50 " ND 0.50 " ND 2.0 " 10.1 " 10.0 Prepared & Analy 9.32 0.50 ug/l 10.0 9.19 0.50 " 10.0 9.36 0.50 " 10.0 27.5 0.50 " 30.0	Prepared & Analyzed: 12/26 ND 50 ug/l ND 0.50 " ND 10.1 " 10.0 101 Prepared & Analyzed: 12/24 9.32 0.50 ug/l 10.0 93 9.19 0.50 " 10.0 92 9.36 0.50 " 10.0 94 27.5 0.50 " 30.0 92	Prepared & Analyzed: 12/26/02 ND 50 ug/l ND 0.50 " ND 2.0 " Prepared & Analyzed: 12/24/02 9.32 0.50 ug/l 10.0 93 70-130 9.19 0.50 " 10.0 92 70-130 9.36 0.50 " 10.0 94 70-130 27.5 0.50 " 30.0 92 70-130	Prepared & Analyzed: 12/26/02 ND 50 ug/l ND 0.50 " ND 2.0 " Prepared & Analyzed: 12/24/02 9.32 0.50 ug/l 10.0 93 70-130 9.19 0.50 " 10.0 92 70-130 9.36 0.50 " 10.0 94 70-130 27.5 0.50 " 30.0 92 70-130	Prepared & Analyzed: 12/26/02 ND 50 ug/l ND 0.50 " ND 2.0 " Prepared & Analyzed: 12/24/02 9.32 0.50 ug/l 10.0 93 70-130 9.19 0.50 " 10.0 92 70-130 9.36 0.50 " 10.0 94 70-130 27.5 0.50 " 30.0 92 70-130

Sequoia Analytical - Sacramento

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.



Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S212411 Reported: 01/02/03 20:10

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2120429 - EPA 5030B (P/T)										
Laboratory Control Sample (2120429-BS1)				Prepared o	& Analyz	ed: 12/24/0	02			
Surrogate: a,a,a-Trifluorotoluene	9.90		ug/l	10.0		99	60-140			
Laboratory Control Sample (2120429-BS2)				Prepared	& Analyz	ed: 12/26/	02			
Benzene	9.49	0.50	ug/l	10.0		95	70-130	-	·	
Toluene	9.49	0.50	H	10.0		95	70-130			
Ethylbenzene	9.69	0.50	**	10.0		97	70-130			
Xylenes (total)	28.7	0.50	**	30.0		96	70-130			
Methyl tert-butyl ether	9.99	2.0	··	10.0		100	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.2		н	10.0		102	60-140			 .
Laboratory Control Sample (2120429-BS3)				Ртерагед	& Analyz	ed: 12/26/	02			
Benzene	9.34	0.50	ug/l	10.0		93	70-130			
Toluene	9.96	0.50	n	10.0		100	70-130			
Ethylbenzene	10.0	0.50	**	10.0		100	70-130			
Xylenes (total)	29.4	0.50	**	30.0		98	70-130			
Methyl tert-butyl ether	11.1	2.0	**	10.0		311	70-130			
Surrogate: a,a,a-Trifluorotoluene	11.2		<i>n</i>	10.0		112	60-140			
Laboratory Control Sample Dup (2120429-	BSD1)			Prepared	& Analyz	ed: 12/24/	02			
Benzene	9.49	0.50	ug/l	10.0		95	70-130	2	25	
Toluene	9.39	0.50		10.0		94	70-130	2	25	
Ethylbenzene	9.49	0.50	11	10.0		95	70-130	1	25	
Xylenes (total)	28.4	0.50	н	30.0		95	70-130	3	25	
Methyl tert-butyl ether	10.2	- 2.0	H .	10.0		102	70-130	5	25	
Surrogate: a,a,a-Trifluorotoluene	10.1		*	10.0		101	60-140	 .		
Duplicate (2120429-DUP1)	S	ource: S2124	11-04	Prepared	: 12/24/02	: Analyze	d: 12/26/02			
Purgeable Hydrocarbons	ND	50		•	ND	-			50	
Benzene	ND	0.50			ND				50	
Toluene	ND	0.50			ND				50	
Ethylbenzene	ND	0.50			ND				50	





Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S212411 Reported: 01/02/03 20:10

Total Purgeable Hydrocarbon, BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2120429 - EPA 5030B (P/T)										
Duplicate (2120429-DUP1)	So	urce: S21241	1-04	Prepared:	12/24/02	Analyzed	l: 12/26/02			
Xylenes (total)	ND	0.50	ug/l		ND				50	
Methyl tert-butyl ether	ND	2.0	11		ND			60	50	
Surrogate: a,a,a-Trifluorotoluene	8.86			10.0		89	60-140			





Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

\$212411 Reported: 01/02/03 20:10

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2120403 - EPA 5030B [P/T]										
Blank (2120403-BLK1)				Prepared	& Analyze	ed: 12/24/	02			
Fert-butyl alcohol	ND	100	ug/l						• •	
Methyl tert-butyl ether	ND	2.0	#							
Di-isopropyl ether	ND	2.0	. "							
Ethyl tert-butyl ether	ND	2.0	п							
ert-amyl methyl ether	ND	2.0	н							
Ethanol	ND	500					·			
,2-Dichloroethane	ND	2,0	11							
,2-Dibromoethane (EDB)	ND	2.0	•							
Surrogate: 1,2-DCA-d4	20.5	· · · · · · · · ·	"	25.0		82	60-140			
Laboratory Control Sample (2120403-BS1)				Prepared	& Analyz	ed: 12/24/	02			
Methyl tert-butyl ether	18.7	2.0	ug/l	22.4		83	60-140			
Surrogate: 1,2-DCA-d4	24.6	···	B	25.0	<u>.</u>	98	60-140			
Matrix Spike (2120403-MS1)	So	urce; \$2125!	95-01	Prepared	& Analyz	ed: 12/24/	02			
Methyl tert-butyl ether	36.2	2.0	սք/1	22.4	13	104	60-140			
Surrogate: 1,2-DCA-d4	24.5		n	25.0		98	60-140			
Matrix Spike Dup (2120403-MSD1)	So	ource: S2125!	95-01	Prepared	& Analyz	ed: 12/24/	'02			
Methyl tert-butyl ether	36.2	2.0	ug/l	22.4	13	104	60-140	0	25	
Surrogate: 1,2-DCA-d4	24.0	 	"	25.0		96	60-140			<u> </u>
Batch 2120433 - EPA 5030B [P/T]										
Blank (2120433-BLK1)				Prepared	& Analyz	ed: 12/26/	/02			
Tert-butyl alcohol	ND	100	ug/l							
Methyl tert-butyl ether	ND	2.0	h							
Di-isopropyl ether	ND	2.0	"							
		2.0	**							
	ND	2.0								
Ethyl tert-butyl ether Tert-amyl methyl ether	ND ND	2.0								

Sequoia Analytical - Sacramento

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Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S212411 Reported: 01/02/03 20:10

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD_	RPD Limit	Notes
Batch 2120433 - EPA 5030B [P/T]				<u>,</u>					<u></u>	
Blank (2120433-BLK1)				Prepared	& Analyz	ed: 12/26/	02		<u>.</u>	
,2-Dichloroethane	ND	2.0	ug/l							
,2-Dibromoethane (EDB)	ND	2.0	н							
urrogate: 1,2-DCA-d4	26.5		"	25.0		106	60-140			
Laboratory Control Sample (2120433-BS1)				Prepared	& Analyz	ed: 12/26/	02			
Methyl tert-butyl ether	20.2	2.0	ug/l	22.4		90	60-140			
Surrogate: 1,2-DCA-d4	23.8		"	25.0		95	60-140	<u> </u>		
Matrix Spike (2120433-MS1)	So	urce: S21261	70-03	Prepared	& Analyz	zed: 12/26/	/02			
Methyl tert-butyl ether	21.8	2.0	սջ/Լ	22.4	ND	94	60-140			
Surrogate: 1,2-DCA-d4	23.2	<u></u>	"	25.0		93	60-140			
Matrix Spike Dup (2120433-MSD1)	Se	urce: S2126	70-03	Prepared	i & Analyz	zed: 12/26	/02			
Methyl tert-butyl ether	22,1	2.0		22.4	ND	95	60-140	1	25	
Surrogale: 1,2-DCA-d4	23.7	<u>.</u>	"	25.0		95	60-140	<u> </u>		
Batch 2120442 - EPA 5030B [P/T]										
Blank (2120442-BLK1)				Ргераге	d & Analy	zed: 12/27	/02			
Tert-butyl alcohol	ND	100	ug/l							
Methyl tert-butyl ether	ND	2.0) н							
Di-isopropyl ether	ND	2.0	. "							
Ethyl tert-butyl ether	ND	2.0) В							
Tert-amyl methyl ether	ND	2.0) "							
Ethanol	ND	500) "							
1,2-Dichloroethane	ND	2.0	۳ (
1,2-Dibromoethane (EDB)	ND	2.0								
			н	25.0		124	60-140			



Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager. Deanna L. Harding

S212411 Reported: 01/02/03 20:10

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2120442 - EPA 5030B [P/T]	, 									
Laboratory Control Sample (2120442-BS1)				Prepared	& Analyze	ed: 12/27/	02			
Methyl tert-butyl ether	22.6	2.0	นยู/ไ	22.4		101	60-140	-		
Surrogate: 1,2-DCA-d4	31.7			25.0		127	60-140	·		
Matrix Spike (2120442-MS1)	So	urce: S21267	3-04	Prepared	& Analyz	ed: 12/27/	02			
Methyl tert-butyl ether	19.7	2.0	ug/l	22.4	ND	88	60-140			
Surrogate: 1,2-DCA-d4	29.9		"	25.0		120	60-140			
Matrix Spike Dup (2120442-MSD1)	So	ource: S21267	73-04	Prepared	& Analyz	ed: 12/27/	02			
Methyl tert-butyl ether	20.0	2.0	นย/ไ	22,4	ND	89	60-140	2	25	
Surrogate: 1,2-DCA-d4	30.8		tr	25.0		123	60-140			



819 Striker Ave Ste 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100 www.sequoialabs.com

Gettler-Ryan - Dublin 6747 Sierra Court, Ste. J Dublin CA, 94568 Project: Tosco 0843, Alameda, CA

Project Number: N/A

Project Manager: Deanna L. Harding

S212411 Reported: 01/02/03 20:10

Notes and Definitions

HC-19 Discrete peak @ C5.

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