



GETTLER-RYAN INC.

TRANSMITTAL

June 22, 2001
G-R #: 180233

JUL 12 2001

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 (76) Service Station #0018**
6201 Claremont Boulevard
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	June 15, 2001	Groundwater Monitoring and Sampling Report Second Quarter - Event of May 11, 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 **July 6, 2001**, this report will be distributed to the following:

cc: **Mr. Don Huang, Alameda County Health Care Service Division, 1131 Harbor Bay Pkwy., Ste. 250,
Alameda, CA 94502**

Enclosure

trans/0018-dbd



GETTLER - RYAN INC.

June 15, 2001
G-R Job #180264

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

RE: Second Quarter Event of May 11, 2001
Groundwater Monitoring & Sampling Report
Tosco (76) Service Station #0018
6201 Claremont Avenue
Oakland, 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 and 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Deanna L. Harding
Deanna L. Harding
Project Coordinator

Stephen J. Carter
Stephen J. Carter
Senior Geologist, R.G. No. 5577

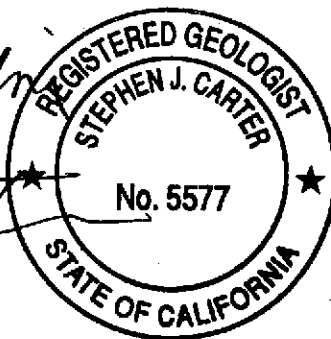


Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results - Oxygenate Compounds
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

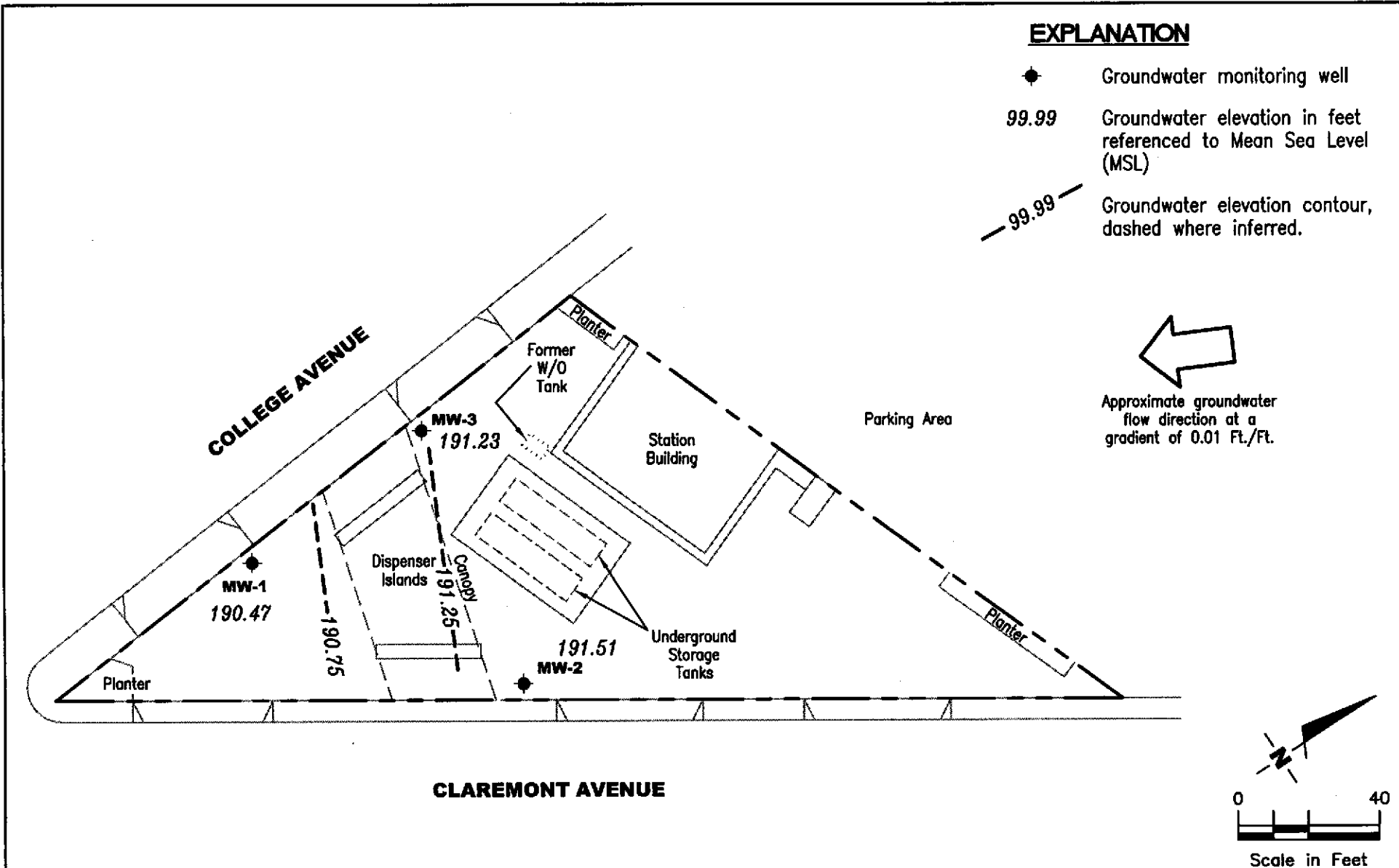
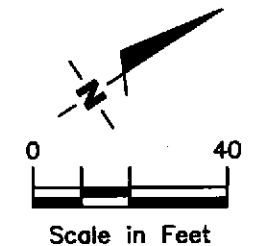
(018-qml)

EXPLANATION

- ◆ Groundwater monitoring well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 --- Groundwater elevation contour, dashed where inferred.



Approximate groundwater flow direction at a gradient of 0.01 Ft./Ft.



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

POTENTIOMETRIC MAP
 Tosco (76) Service Station #0018
 6201 Claremont Avenue
 Oakland, California

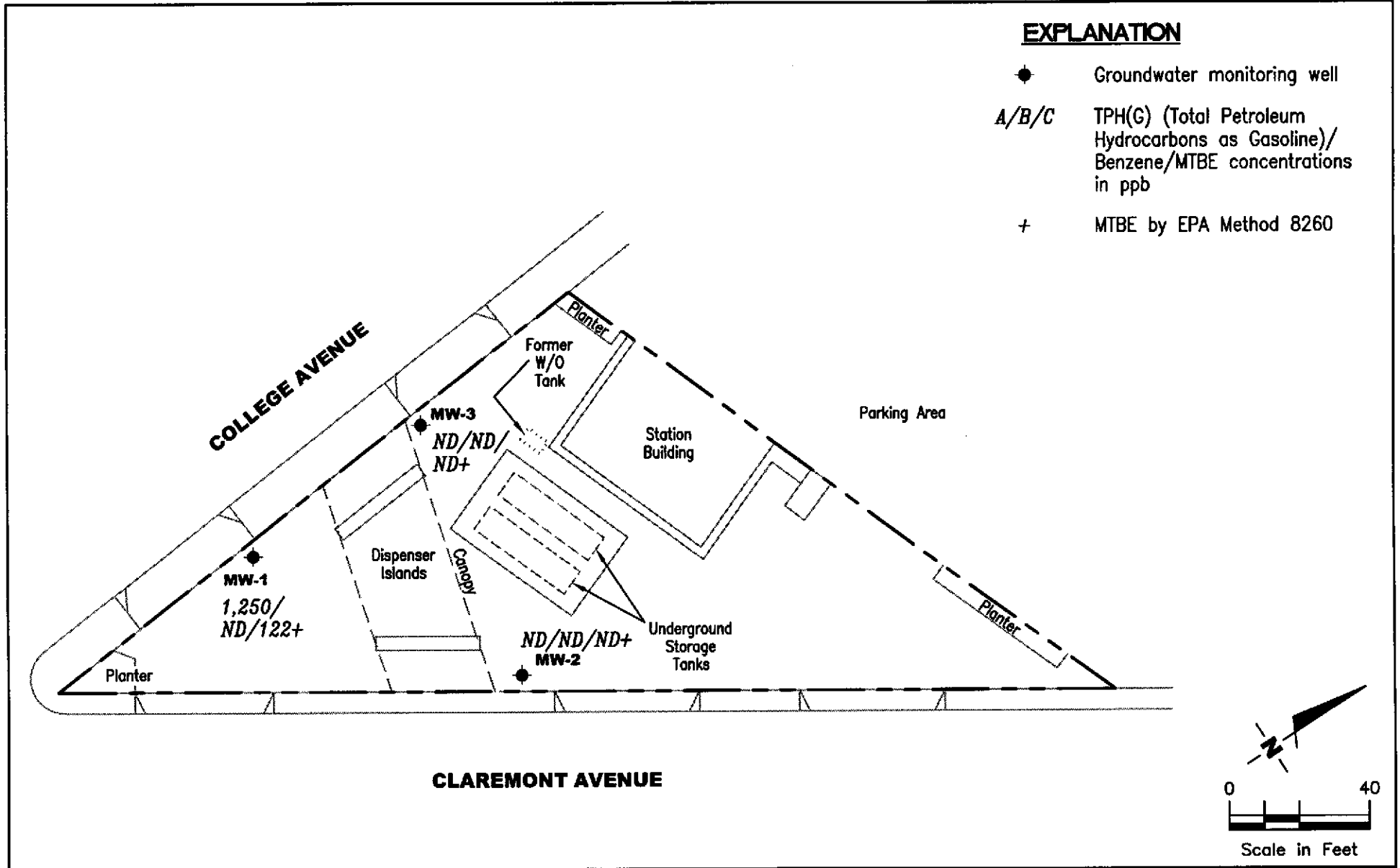
FIGURE
1

PROJECT NUMBER 180264	REVIEWED BY	DATE May 11, 2001	REVISED DATE
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FILE NAME: P:\Enviro\Tosco\0018\Q01-0018.DWG | Layout Tab: Pot2

EXPLANATION

- Groundwater monitoring well
- A/B/C TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/ Benzene/MTBE concentrations in ppb
- + MTBE by EPA Method 8260



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

CONCENTRATION MAP
 Tosco (76) Service Station #0018
 6201 Claremont Avenue
 Oakland, California

FIGURE
2

PROJECT NUMBER 180264	REVIEWED BY	DATE May 11, 2001	REVISED DATE
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Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (76) Service Station #0018
 6201 Claremont Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1										
208.15	08/24/00	18.55	10.0-30.0	189.60	120 ¹	0.67	ND	0.86	1.4	54/54 ²
	11/16/00	20.30		187.85	169 ³	ND	1.20	1.74	0.629	68.6/97.7 ²
	02/09/01	20.16		187.99	330 ³	1.3	ND	1.0	4.6	140/150 ²
	05/11/01	17.68		190.47	1,250 ³	ND ⁴	ND ⁴	ND ⁴	ND ⁴	145/122 ²
MW-2										
210.27	08/24/00	19.69	10.0-30.0	190.58	ND	ND	ND	ND	ND	ND/ND ²
	11/16/00	21.61		188.66	ND	ND	ND	ND	ND	ND/ND ²
	02/09/01	21.52		188.75	ND	ND	ND	ND	ND	ND/ND ²
	05/11/01	18.76		191.51	ND	ND	ND	ND	ND	ND/ND ²
MW-3										
208.98	08/24/00	18.68	10.0-30.0	190.30	ND	ND	ND	ND	ND	4.7/2.3 ²
	11/16/00	20.56		188.42	ND	ND	ND	ND	ND	ND/ND ²
	02/09/01	20.45		188.53	ND	ND	ND	ND	ND	ND/ND ²
	05/11/01	17.75		191.23	ND	ND	ND	ND	ND	ND/ND ²
Trip Blank										
TB-LB	08/24/00	--	--	--	ND	ND	ND	ND	ND	ND
	11/16/00	--		--	ND	ND	ND	ND	ND	ND
	02/09/01	--		--	ND	ND	ND	ND	ND	ND
	05/11/01	--		--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (76) Service Station #0018
6201 Claremont Avenue
Oakland, California

EXPLANATIONS:

TOC = Top of Casing

DTW = Depth to Water

(ft.) = Feet

S.I. = Screen Interval

(ft. bgs) = Feet Below Ground Surface

GWE = Groundwater Elevation

(msl) = Mean seal level

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

ND = Not Detected

-- = Not Measured/Not Analyzed

* TOC elevations have been surveyed relative to msl; per the city of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue, (Benchmark Elevation = 179.075 feet, msl).

¹ Laboratory report indicates gasoline C6-C12.

² MTBE by EPA Method 8260.

³ Laboratory report indicates unidentified hydrocarbons C6-C12.

⁴ Detection limit raised. Refer to analytical reports.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (76) Service Station #0018
 6201 Claremont Avenue
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	08/24/00	ND	ND	54	ND	ND	ND	--	--
	11/16/00	ND	ND	97.7	ND	ND	ND	--	--
	02/09/01	ND	ND	150	ND	ND	ND	ND	ND
	05/11/01	ND	ND	122	ND	ND	ND	ND	ND
MW-2	08/24/00	ND	ND	ND	ND	ND	ND	--	--
	11/16/00	ND	ND	ND	ND	ND	ND	--	--
	02/09/01	ND	ND	ND	ND	ND	ND	ND	ND
	05/11/01	ND	ND	ND	ND	ND	ND	ND	ND
MW-3	08/24/00	ND	ND	2.3	ND	ND	ND	--	--
	11/16/00	ND	ND	ND	ND	ND	ND	--	--
	02/09/01	ND	ND	ND	ND	ND	ND	ND	ND
	05/11/01	ND	ND	ND	ND	ND	ND	ND	ND

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 = Ethylene Dibromide or 1,2-Dibromoethane
 (ppb) = Parts per billion
 ND = Not Detected
 -- = Not Analyzed

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, 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.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility # 0018 Job#: 180264
 Address: 6201 Claremont Blvd. Date: 5-11-01
 City: Oakland, CA. Sampler: Joe

Well ID MW-1 Well Condition: O.K.
 Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
 Total Depth 30.03 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

 Depth to Water 17.68 ft.
12.35 x VF 0.17 = 2.10 x 3 (case volume) = Estimated Purge Volume: 6.5 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1:35 Weather Conditions: Hot
 Sampling Time: 2:03 p.m. (14:03) Water Color: clear Odor: yes
 Purging Flow Rate: 0.5 gpm. Sediment Description: _____
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}^\circ\text{C}$	Temperature $^\circ\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:46</u>	<u>2</u>	<u>7.10</u>	<u>6.92</u>	<u>66.2</u>	_____	_____	_____
<u>1:50</u>	<u>4</u>	<u>7.18</u>	<u>6.91</u>	<u>66.5</u>	_____	_____	_____
<u>1:54</u>	<u>6.5</u>	<u>7.14</u>	<u>6.95</u>	<u>66.4</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3V0A</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2V0A</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>(6) ORY, 1,2 DCA/EDS 6/8260</u>
_____	_____	_____	_____	_____	_____

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility # 0018 Job#: 180264
 Address: 6201 Claremont Blvd. Date: 5-11-01
 City: Oakland, CA. Sampler: Joe

Well ID MW-2 Well Condition: o.k.
 Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
 Total Depth 30.06 ft. Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 18.76 ft. 6" = 1.50 12" = 5.80

11.3 x VF 0.17 = 1.92 x 3 (case volume) = Estimated Purge Volume: 6 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____
 Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 12:55 Weather Conditions: Hot
 Sampling Time: 1:25 P.M. (13:25) Water Color: clear Odor: None
 Purging Flow Rate: 0.5 gpm. Sediment Description: _____
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}^\circ\text{K}$	Temperature $^\circ\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:07</u>	<u>2</u>	<u>7.92</u>	<u>9.67</u>	<u>65.9</u>			
<u>1:10</u>	<u>4</u>	<u>7.51</u>	<u>9.92</u>	<u>66.0</u>			
<u>1:14</u>	<u>6</u>	<u>7.42</u>	<u>10.01</u>	<u>65.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3V0A</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2V0A</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>(6) Oxy's, 1,2 DCA/EDSL, 8260</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0018 Job#: 180264
Address: 6201 Claremont Blvd. Date: 5-11-01
City: Oakland, CA. Sampler: Joe

Well ID MW-3 Well Condition: O.K.
Well Diameter 2 in. Hydrocarbon Amount Bailed
Thickness: 0 in. (product/water): 0 (gal.)
Total Depth 29.98 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
Depth to Water 17.75 ft. Factor (VF) 6" = 1.50 12" = 5.80

12.23 x VF 0.17 = 2.08 x 3 (case volume) = Estimated Purge Volume: 6.5 (gal.)

Purge Equipment: Disposable Bailer Sampling Equipment: Disposable Bailer
Stack
Suction
Grundfos
Other: _____
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 12:15 Weather Conditions: Hot
Sampling Time: 12:46 P.M. (12:46) Water Color: clear Odor: none
Purging Flow Rate: 0.5 gpm. Sediment Description: _____
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}^\circ\text{K}$	Temperature $^\circ\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:30</u>	<u>2</u>	<u>8.22</u>	<u>10.69</u>	<u>65.8</u>			
<u>12:33</u>	<u>4</u>	<u>7.41</u>	<u>10.75</u>	<u>65.6</u>			
<u>12:37</u>	<u>6.5</u>	<u>7.37</u>	<u>10.76</u>	<u>65.9</u>			
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3V0A</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2V0A</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>(6) oxy's, 1,2 DCA/EDSL</u>

COMMENTS: _____

Chain-of-Custody-Record



Tosco Marketing Company
2330 Cree Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number Tosco # 0018
 Facility Address 6201 Clement Blvd. Oakland
 Consultant Project Number 180264
 Consultant Name Gettler-Ryan Inc. (G-R Inc.)
 Address 6747 Sierra Court, Suite J, Dublin, CA 94568
 Project Contact (Name) Deanna L. Harding
 (Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name) Mr. Dave DeWitt
 (Phone) (925) 277-2384
 Laboratory Name Sequoia Analytical
 Laboratory Release Number _____
 Samples Collected by (Name) JOE ASEMIAN
 Collection Date 5-11-01
 Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes To Be Performed										Remarks						
								TPH Gas + BTEX w/MIB (8016)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	DOXYS 1, 2 DCA EDS 69 P260								
L105109	TB-LB 01	60A	W	G	-	HCL	Y	✓																
	MW-1 02	504	/	/	14:03	/	/	✓																
	MW-2 03	"	/	/	13:25	/	/	✓																
	MW-3 04	"	/	/	12:46	/	/	✓																

DO NOT BILL
TB-LB ANALYSIS

Released By (Signature) <u>[Signature]</u>	Organization G-R Inc.	Date/Time (6:00) 5-11-01	Received By (Signature) <u>[Signature]</u>	Organization SEQUOIA	Date/Time 5/11/01 16:00
Shipped By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Delivered By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)

24 Hrs.
 48 Hrs.
 5 Days
 10 Days
 As Contracted



Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612
www.sequoialabs.com

May 25 , 2001

Deanna Harding
Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568
RE: Tosco(1) / L105109

Enclosed are the results of analyses for samples received by the laboratory on 05/11/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt *for*
Project Manager

CA ELAP Certificate Number 2360



Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin CA, 94568

Project: Tosco(1)
Project Number: Tosco #0018, Oakland, CA
Project Manager: Deanna Harding

Reported:
05/25/01 13:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	L105109-01	Water	05/11/01 00:00	05/11/01 16:00
MW-1	L105109-02	Water	05/11/01 14:03	05/11/01 16:00
MW-2	L105109-03	Water	05/11/01 13:25	05/11/01 16:00
MW-3	L105109-04	Water	05/11/01 12:46	05/11/01 16:00

Göttler-Ryan/Geostrategies(1)
 6747 Sierra Court, Suite J
 Dublin CA, 94568

Project: Tosco(1)
 Project Number: Tosco #0018, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 05/25/01 13:53

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 (L105109-01) Water Sampled: 05/11/01 00:00 Received: 05/11/01 16:00									
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l	1	1050100	05/23/01	05/23/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.00	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.0 %		70-130	"	"	"	"	
MW-1 (L105109-02) Water Sampled: 05/11/01 14:03 Received: 05/11/01 16:00									
Purgeable Hydrocarbons as Gasoline	1250	100	ug/l	2	1050106	05/24/01	05/24/01	DHS LUFT	P-03
Benzene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	145	10.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.6 %		70-130	"	"	"	"	
MW-2 (L105109-03) Water Sampled: 05/11/01 13:25 Received: 05/11/01 16:00									
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l	1	1050099	05/23/01	05/23/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.00	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.4 %		70-130	"	"	"	"	

Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin CA, 94568

Project: Tosco(1)
Project Number: Tosco #0018, Oakland, CA
Project Manager: Deanna Harding

Reported:
05/25/01 13:53

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-3 (L105109-04) Water Sampled: 05/11/01 12:46 Received: 05/11/01 16:00									
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l	1	1050099	05/23/01	05/23/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.00	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		88.8 %		70-130	"	"	"	"	

Gottler-Ryan/Geostrategies(1)
 6747 Sierra Court, Suite J
 Dublin CA, 94568

Project: Tosco(1)
 Project Number: Tosco #0018, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 05/25/01 13:53

Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (L105109-02) Water Sampled: 05/11/01 14:03 Received: 05/11/01 16:00									
Ethanol	ND	1000	ug/l	1	1050074	05/17/01	05/17/01	EPA 8260B	
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	122	2.00	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Tert-butyl alcohol	ND	100	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		97.0 %		76-114	"	"	"	"	
Surrogate: Toluene-d8		102 %		88-110	"	"	"	"	
MW-2 (L105109-03) Water Sampled: 05/11/01 13:25 Received: 05/11/01 16:00									
Ethanol	ND	1000	ug/l	1	1050076	05/17/01	05/17/01	EPA 8260B	
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		90.4 %		76-114	"	"	"	"	
Surrogate: Toluene-d8		102 %		88-110	"	"	"	"	
MW-3 (L105109-04) Water Sampled: 05/11/01 12:46 Received: 05/11/01 16:00									
Ethanol	ND	1000	ug/l	1	1050076	05/17/01	05/17/01	EPA 8260B	
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		92.0 %		76-114	"	"	"	"	
Surrogate: Toluene-d8		99.8 %		88-110	"	"	"	"	

Sequoia Analytical - San Carlos

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Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin CA, 94568

Project: Tosco(1)
Project Number: Tosco #0018, Oakland, CA
Project Manager: Deanna Harding

Reported:
05/25/01 13:53

**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
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Batch 1050099 - EPA 5030B (P/T)

Blank (1050099-BLK1)

Prepared & Analyzed: 05/23/01

Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	5.00	"							
Surrogate: a,a,a-Trifluorotoluene	7.36		"	10.0		73.6	70-130			

LCS (1050099-BS1)

Prepared & Analyzed: 05/23/01

Benzene	9.74	0.500	ug/l	10.0		97.4	70-130			
Toluene	10.1	0.500	"	10.0		101	70-130			
Ethylbenzene	10.6	0.500	"	10.0		106	70-130			
Xylenes (total)	31.6	0.500	"	30.0		105	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.21		"	10.0		92.1	70-130			

LCS (1050099-BS2)

Prepared & Analyzed: 05/23/01

Purgeable Hydrocarbons as Gasoline	244	50.0	ug/l	250		97.6	70-130			
Surrogate: a,a,a-Trifluorotoluene	8.06		"	10.0		80.6	70-130			

Matrix Spike (1050099-MS1)

Source: L105109-04

Prepared & Analyzed: 05/23/01

Benzene	8.88	0.500	ug/l	10.0	ND	88.8	60-140			
Toluene	8.96	0.500	"	10.0	ND	89.6	60-140			
Ethylbenzene	8.87	0.500	"	10.0	ND	88.7	60-140			
Xylenes (total)	26.8	0.500	"	30.0	ND	89.3	60-140			
Surrogate: a,a,a-Trifluorotoluene	8.69		"	10.0		86.9	70-130			

Matrix Spike Dup (1050099-MSD1)

Source: L105109-04

Prepared & Analyzed: 05/23/01

Benzene	8.97	0.500	ug/l	10.0	ND	89.7	60-140	1.01	25	
Toluene	8.98	0.500	"	10.0	ND	89.8	60-140	0.223	25	
Ethylbenzene	8.92	0.500	"	10.0	ND	89.2	60-140	0.562	25	
Xylenes (total)	26.9	0.500	"	30.0	ND	89.7	60-140	0.372	25	
Surrogate: a,a,a-Trifluorotoluene	8.62		"	10.0		86.2	70-130			

Sequoia Analytical - San Carlos

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Gottler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin CA, 94568

Project: Tosco(1)
Project Number: Tosco #0018, Oakland, CA
Project Manager: Deanna Harding

Reported:
05/25/01 13:53

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
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Batch 1050100 - EPA 5030B (P/T)

Blank (1050100-BLK1)

Prepared & Analyzed: 05/23/01

Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	5.00	"							
Surrogate: a,a,a-Trifluorotoluene	9.12		"	10.0		91.2	70-130			

LCS (1050100-BS1)

Prepared & Analyzed: 05/23/01

Benzene	9.67	0.500	ug/l	10.0		96.7	70-130			
Toluene	10.1	0.500	"	10.0		101	70-130			
Ethylbenzene	10.9	0.500	"	10.0		109	70-130			
Xylenes (total)	32.6	0.500	"	30.0		109	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.93		"	10.0		99.3	70-130			

LCS (1050100-BS2)

Prepared & Analyzed: 05/23/01

Purgeable Hydrocarbons as Gasoline	237	50.0	ug/l	250		94.8	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.0		"	10.0		100	70-130			

Matrix Spike (1050100-MS1)

Source: L105115-01

Prepared: 05/23/01

Analyzed: 05/24/01

Benzene	8.55	0.500	ug/l	10.0	ND	85.5	60-140			
Toluene	8.42	0.500	"	10.0	ND	84.2	60-140			
Ethylbenzene	8.63	0.500	"	10.0	ND	86.3	60-140			
Xylenes (total)	25.7	0.500	"	30.0	ND	85.7	60-140			
Surrogate: a,a,a-Trifluorotoluene	8.59		"	10.0		85.9	70-130			

Matrix Spike Dup (1050100-MSD1)

Source: L105115-01

Prepared: 05/23/01

Analyzed: 05/24/01

Benzene	8.28	0.500	ug/l	10.0	ND	82.8	60-140	3.21	25	
Toluene	8.18	0.500	"	10.0	ND	81.8	60-140	2.89	25	
Ethylbenzene	8.38	0.500	"	10.0	ND	83.8	60-140	2.94	25	
Xylenes (total)	24.9	0.500	"	30.0	ND	83.0	60-140	3.16	25	
Surrogate: a,a,a-Trifluorotoluene	8.39		"	10.0		83.9	70-130			

Sequoia Analytical - San Carlos

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Gettler-Ryan/Geostrategies(1)
 6747 Sierra Court, Suite J
 Dublin CA, 94568

Project: Tosco(1)
 Project Number: Tosco #0018, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 05/25/01 13:53

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	RPD	RPD	Notes
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Batch 1050106 - EPA 5030B (P/T)

Blank (1050106-BLK1)

Prepared & Analyzed: 05/24/01

Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l						
Benzene	ND	0.500	"						
Toluene	ND	0.500	"						
Ethylbenzene	ND	0.500	"						
Xylenes (total)	ND	0.500	"						
Methyl tert-butyl ether	ND	5.00	"						
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.13		"	10.0		91.3		70-130	

LCS (1050106-BS1)

Prepared & Analyzed: 05/24/01

Benzene	8.07	0.500	ug/l	10.0		80.7		70-130	
Toluene	7.97	0.500	"	10.0		79.7		70-130	
Ethylbenzene	8.13	0.500	"	10.0		81.3		70-130	
Xylenes (total)	24.4	0.500	"	30.0		81.3		70-130	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.55		"	10.0		85.5		70-130	

LCS (1050106-BS2)

Prepared & Analyzed: 05/24/01

Purgeable Hydrocarbons as Gasoline	226	50.0	ug/l	250		90.4		70-130	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.75		"	10.0		87.5		70-130	

Matrix Spike (1050106-MS1)

Source: L105111-08

Prepared & Analyzed: 05/24/01

Purgeable Hydrocarbons as Gasoline	228	50.0	ug/l	250	ND	91.2		60-140	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.7		"	10.0		107		70-130	

Matrix Spike Dup (1050106-MSD1)

Source: L105111-08

Prepared & Analyzed: 05/24/01

Purgeable Hydrocarbons as Gasoline	231	50.0	ug/l	250	ND	92.4		60-140	1.31 25
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.5		"	10.0		105		70-130	

Gottler-Ryan/Geostrategies(1)
 6747 Sierra Court, Suite J
 Dublin CA, 94568

Project: Tosco(1)
 Project Number: Tosco #0018, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 05/25/01 13:53

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1050074 - EPA 5030B [P/T]

Blank (1050074-BLK1)

Prepared & Analyzed: 05/17/01

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	"							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	100	"							
Surrogate: 1,2-Dichloroethane-d4	44.9		"	50.0		89.8	76-114			
Surrogate: Toluene-d8	53.6		"	50.0		107	88-110			

Blank (1050074-BLK2)

Prepared & Analyzed: 05/18/01

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	"							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	100	"							
Surrogate: 1,2-Dichloroethane-d4	44.7		"	50.0		89.4	76-114			
Surrogate: Toluene-d8	51.2		"	50.0		102	88-110			

LCS (1050074-BS1)

Prepared & Analyzed: 05/17/01

Methyl tert-butyl ether	46.0	2.00	ug/l	50.0		92.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	49.6		"	50.0		99.2	76-114			
Surrogate: Toluene-d8	53.8		"	50.0		108	88-110			

Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin CA, 94568

Project: Tosco(1)
Project Number: Tosco #0018, Oakland, CA
Project Manager: Deanna Harding

Reported:
05/25/01 13:53

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1050074 - EPA 5030B [P/T]

LCS (1050074-BS2)

Prepared & Analyzed: 05/18/01

Methyl tert-butyl ether	45.2	2.00	ug/l	50.0		90.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0	76-114			
Surrogate: Toluene-d8	50.6		"	50.0		101	88-110			

Matrix Spike (1050074-MS1)

Source: L105074-12

Prepared & Analyzed: 05/17/01

Methyl tert-butyl ether	46.4	2.00	ug/l	50.0	ND	92.8	60-140			
Surrogate: 1,2-Dichloroethane-d4	48.0		"	50.0		96.0	76-114			
Surrogate: Toluene-d8	52.3		"	50.0		105	88-110			

Matrix Spike Dup (1050074-MSD1)

Source: L105074-12

Prepared & Analyzed: 05/17/01

Methyl tert-butyl ether	45.8	2.00	ug/l	50.0	ND	91.6	60-140	1.30	25	
Surrogate: 1,2-Dichloroethane-d4	48.4		"	50.0		96.8	76-114			
Surrogate: Toluene-d8	51.2		"	50.0		102	88-110			

Batch 1050076 - EPA 5030B [P/T]

Blank (1050076-BLK1)

Prepared & Analyzed: 05/17/01

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	"							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	100	"							
Surrogate: 1,2-Dichloroethane-d4	41.1		"	50.0		82.2	76-114			
Surrogate: Toluene-d8	51.9		"	50.0		104	88-110			

Geffler-Ryan/Geostrategies(1)
 6747 Sierra Court, Suite J
 Dublin CA, 94568

Project: Tosco(1)
 Project Number: Tosco #0018, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 05/25/01 13:53

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1050076 - EPA 5030B [P/T]

Blank (1050076-BLK2)

Prepared & Analyzed: 05/18/01

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	"							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	100	"							
Surrogate: 1,2-Dichloroethane-d4	43.6		"	50.0		87.2	76-114			
Surrogate: Toluene-d8	50.3		"	50.0		101	88-110			

LCS (1050076-BS1)

Prepared & Analyzed: 05/17/01

Methyl tert-butyl ether	41.4	2.00	ug/l	50.0		82.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	41.3		"	50.0		82.6	76-114			
Surrogate: Toluene-d8	50.2		"	50.0		100	88-110			

LCS (1050076-BS2)

Prepared & Analyzed: 05/18/01

Methyl tert-butyl ether	42.5	2.00	ug/l	50.0		85.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	44.7		"	50.0		89.4	76-114			
Surrogate: Toluene-d8	50.2		"	50.0		100	88-110			

Matrix Spike (1050076-MS1)

Source: L105103-02

Prepared & Analyzed: 05/17/01

Methyl tert-butyl ether	42.5	2.00	ug/l	50.0	ND	85.0	60-140			
Surrogate: 1,2-Dichloroethane-d4	44.5		"	50.0		89.0	76-114			
Surrogate: Toluene-d8	51.0		"	50.0		102	88-110			

Matrix Spike Dup (1050076-MSD1)

Source: L105103-02

Prepared & Analyzed: 05/17/01

Methyl tert-butyl ether	43.8	2.00	ug/l	50.0	ND	87.6	60-140	3.01	25	
Surrogate: 1,2-Dichloroethane-d4	44.1		"	50.0		88.2	76-114			
Surrogate: Toluene-d8	50.8		"	50.0		102	88-110			

Sequoia Analytical - San Carlos

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Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin CA, 94568

Project: Tosco(1)
Project Number: Tosco #0018, Oakland, CA
Project Manager: Deanna Harding

Reported:
05/25/01 13:53

Notes and Definitions

P-03 Chromatogram Pattern: Unidentified Hydrocarbons C6-C12

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