



# GETTLER-RYAN INC.

## TRANSMITTAL

December 29, 2000

G-R #180255

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

CC: Mr. David Vossler  
Gettler-Ryan Inc.  
Petaluma, California

FROM: Deanna L. Harding  
Project Coordinator  
Gettler-Ryan Inc.  
6747 Sierra Court, Suite J  
Dublin, California 94568

RE: Tosco (76) SS #4625  
3070 Fruitvale Avenue  
Oakland, California

### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	December 11, 2000	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of October 29, 2000

### 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 11, 2001**, this report will be distributed to the following:

Enclosure

cc: Mr. Don Hwang, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, California 94502

trans/4625-DBD



# GETTLER-RYAN INC.

December 11, 2000  
G-R Job #180255

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

RE: Fourth Quarter 2000 Groundwater Monitoring & Sampling Report  
Tosco (76) Service Station #4625  
3070 Fruitvale Avenue  
Oakland, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On October 29, 2000, field personnel monitored and sampled four wells (MW-1 through MW-4) and monitored the UST Observation Well at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of 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.

Sincerely,

*Deanna L. Harding*

Deanna L. Harding  
Project Coordinator

*Stephen J. Carter*

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

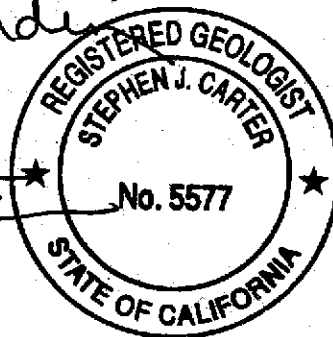
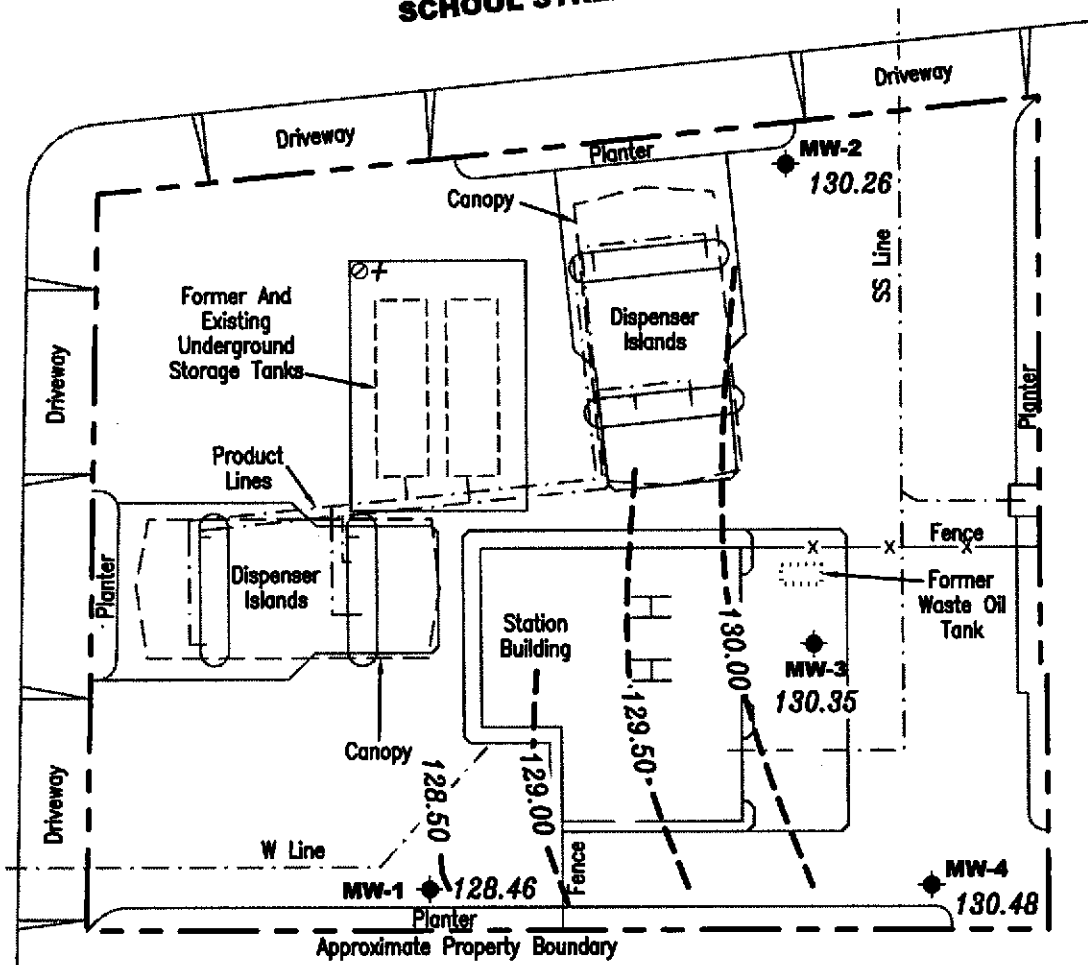


Figure 1: Potentiometric Map  
Figure 2: Concentration Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Groundwater Analytical Results  
Table 3: Groundwater Analytical Results - Oxygenate Compounds  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

4625.qml

SCHOOL STREET

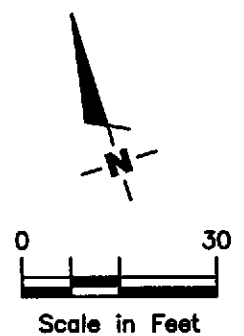
FRUITVALE AVENUE



**EXPLANATION**

- ◆ Groundwater monitoring well
- UST Observation well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- - - 99.99 - - - Groundwater elevation contour, dashed where inferred.
- + TOC not available

Approximate groundwater flow direction at a gradient of 0.03 Ft./Ft.



Source: Figure modified from drawing provided by Unocal.

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 Dublin, CA 94568 (925) 551-7555

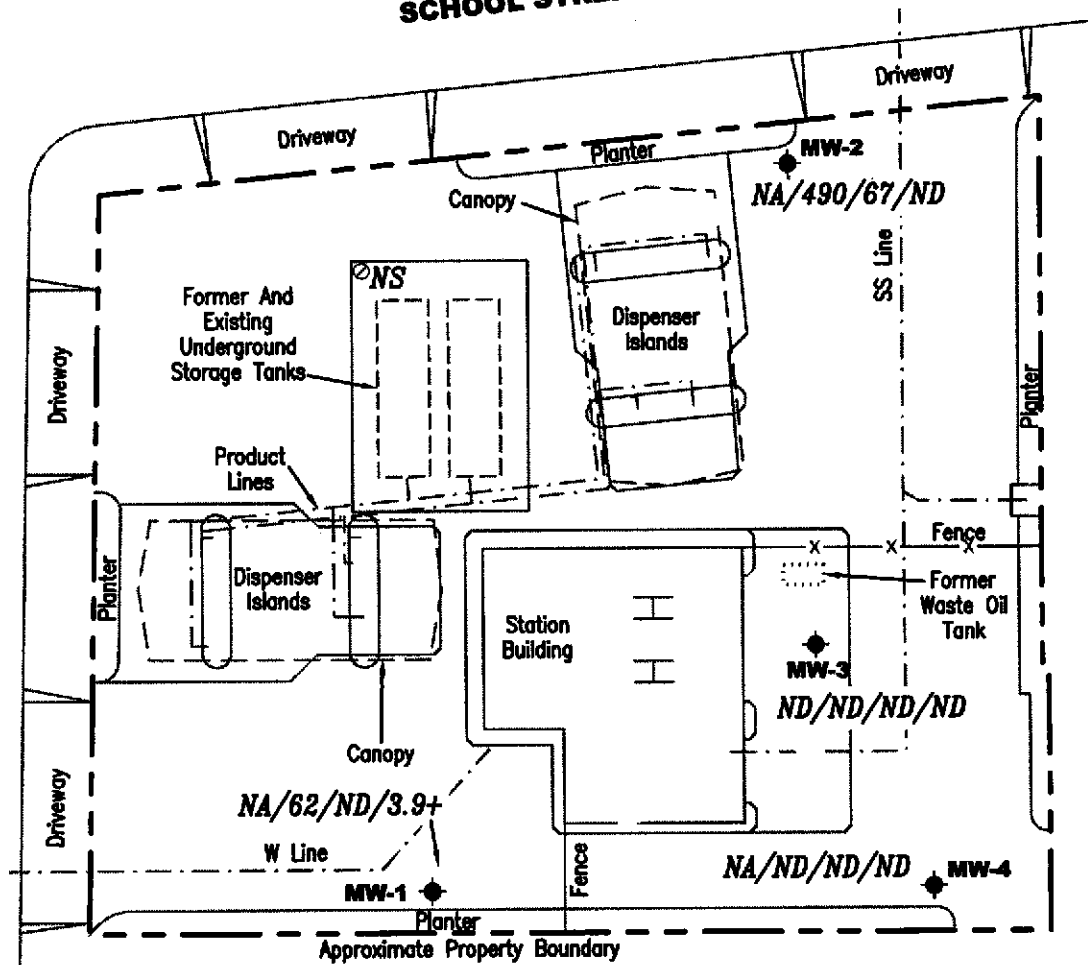
**POTENTIOMETRIC MAP**  
 Tosco (Unocal) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

FIGURE  
**1**

PROJECT NUMBER 180255	REVIEWED BY	DATE October 29, 2000	REVISED DATE
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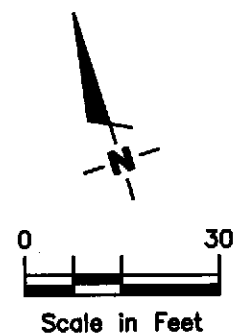
**SCHOOL STREET**

**FRUITVALE AVENUE**



**EXPLANATION**

- ◆ Groundwater monitoring well
- UST Observation well
- A/B/C/D TPH(D) (Total Petroleum Hydrocarbons as Diesel)/TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/Benzene/MTBE concentrations in ppb
- ND Not Detected
- NA Not Analyzed
- + MTBE by EPA Method 8260
- NS Not Sampled



Source: Figure modified from drawing provided by Unocal.



**Gettler - Ryan Inc.**

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Dublin, CA 94568 (925) 551-7555

**CONCENTRATION MAP**  
Tosco (Unocal) Service Station #4625  
3070 Fruitvale Avenue  
Oakland, California

FIGURE  
**2**

PROJECT NUMBER 180255      REVIEWED BY      DATE October 29, 2000      REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.L. (ft. bgs.)	GWE (msl)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-1</b>											
136.36	05/03/00	11.81	5.0-25.0	124.55	--	ND	ND	ND	ND	ND	11/14 <sup>2</sup>
	07/28/00	7.79		128.57	--	ND	ND	ND	ND	ND	21/19 <sup>2</sup>
	10/29/00	7.90		128.46	--	62 <sup>1</sup>	ND	ND	ND	ND	6.5/3.9 <sup>2</sup>
<b>MW-2</b>											
138.64	05/03/00	8.59	5.0-25.0	130.05	--	2,400 <sup>1</sup>	53	ND <sup>3</sup>	ND <sup>3</sup>	240	<sup>3</sup> ND/ND <sup>2</sup>
	07/28/00	9.95		128.69	--	2,200 <sup>1</sup>	680	4.1	57	270	24/ND <sup>2</sup>
	10/29/00	8.38		130.26	--	490 <sup>1</sup>	67	ND <sup>3</sup>	23	22	ND <sup>3</sup>
<b>MW-3</b>											
137.68	05/03/00	7.60	5.0-25.0	130.08	93 <sup>5</sup>	ND	ND	ND	ND	ND	ND/ND <sup>4</sup>
	07/28/00	8.82		128.86	ND <sup>3</sup>	ND	ND	ND	ND	ND	ND/ND <sup>4</sup>
	10/29/00	7.33		130.35	ND	ND	ND	ND	ND	ND	ND
<b>MW-4</b>											
136.60	05/03/00	6.48	5.0-25.0	130.12	--	ND	ND	ND	ND	ND	ND/ND <sup>2</sup>
	07/28/00	7.55		129.05	--	ND	ND	ND	ND	ND	ND
	10/29/00	6.12		130.48	--	ND	ND	ND	ND	ND	ND
<b>UST OBSERVATION WELL</b>											
	05/03/00	8.00		--	--	--	--	--	--	--	--
	07/28/00	9.28		--	--	--	--	--	--	--	--
	10/29/00	7.75		--	--	--	--	--	--	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	SL (ft. bgs.)	GWE (msl)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>Trip Blank</b>											
TB-LB	05/03/00	--		--	--	ND	ND	ND	ND	ND	ND
	07/28/00	--		--	--	ND	ND	ND	ND	ND	ND
	10/29/00	--		--	--	ND	ND	ND	ND	ND	ND

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Tosco (76) Service Station #4625  
3070 Fruitvale Avenue  
Oakland, California

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**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 sea level

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

TPH(D) = Total Petroleum Hydrocarbons as Diesel

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 were surveyed based on a cut square on School Street, City of Oakland Benchmark No. 3783, (Elevation = 136.99 feet msl).

<sup>1</sup> Laboratory report indicates gasoline C6-C12.

<sup>2</sup> MTBE by EPA Method 8260.

<sup>3</sup> Detection limit raised. Refer to analytical reports.

<sup>4</sup> MTBE by EPA Method 8240.

<sup>5</sup> Laboratory report indicates unidentified hydrocarbons C9-C24.

**Table 2**  
**Groundwater Analytical Results**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

<b>WELL ID</b>	<b>DATE</b>	<b>VOCs (ppb)</b>	<b>SVOCs (ppb)</b>	<b>Chromium (ppm)</b>	<b>TOG (ppm)</b>
MW-3	05/03/00	ND	ND	ND	ND
	07/28/00	ND <sup>1</sup>	ND	1.8	ND
	10/29/00	ND	ND	ND	7.0

**EXPLANATIONS:**

VOCs = Volatile Organic Compounds  
 SVOCs = Semi-Volatile Organic Compounds  
 TOG = Total Oil and Grease  
 (ppb) = Parts per billion  
 (ppm) = Parts per million  
 ND = Not Detected

<sup>1</sup> All VOCs by EPA Method 8240 were ND, except for Tetrachloroethene was detected at 2.7 ppb.

**ANALYTICAL METHODS:**

EPA Method 8240B for VOCs  
 EPA Method 8270B for SVOCs  
 EPA 200 Series Methods for Chromium

All EPA Method 8240 and 8270 constituents were ND, unless noted.



**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale 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-3	07/28/00 <sup>1</sup>	--	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  
 (ppb) = Parts per billion  
 -- = Not Analyzed  
 ND = Not Detected

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

<sup>1</sup> VOCs by EPA Method 8240.

## 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: TOSCO 76 # 4625 Job#: 180255  
 Address: 3070 Fruitvale Ave Date: 10/29/00  
 City: OAKLAND, CA Sampler: HAIG K.

Well ID: MW-1 Well Condition: OK  
 Well Diameter: 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed: Ø (Gallons)  
 Total Depth: 25.06 ft. Volume Factor (VF): 2" = 0.17, 3" = 0.38, 4" = 0.66, 6" = 1.50, 12" = 5.80  
 Depth to Water: 17.90 ft.

17.16 x VF 0.17 = 2.9 x 3 (case volume) = Estimated Purge Volume: 8.7 (gal.)

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

Starting Time: 14:37 Weather Conditions: CLOUDY  
 Sampling Time: 14:55 Water Color: CLEAR Odor: \_\_\_\_\_  
 Purging Flow Rate: ~1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:40</u>	<u>3</u>	<u>7.10</u>	<u>923</u>	<u>68.0</u>			
	<u>6</u>	<u>6.98</u>	<u>890</u>	<u>67.6</u>			
<u>14:47</u>	<u>9</u>	<u>6.94</u>	<u>868</u>	<u>67.3</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>2 VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>G/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/Facility: TOSCO 76 # 4625 Job#: 180255  
 Address: 3070 FRUITVALE AVE Date: 10/29/00  
 City: OAKLAND, CA Sampler: HAIG R.

Well ID: MW-2 Well Condition: OK  
 Well Diameter: 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed: Ø (Gallons)  
 Total Depth: 24.28 ft. Volume Factor (VF): 2" = 0.17, 3" = 0.38, 4" = 0.66, 6" = 1.50, 12" = 5.80  
 Depth to Water: 8.38 ft.

15.90 x VF 0.17 = 2.7 x 3 (case volume) = Estimated Purge Volume: 8.1 (gal.)

Purge Equipment: Disposable Bailer  
 Stack  
 Suction  
 Grundfos  
 Other: \_\_\_\_\_

Sampling Equipment:  Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 15:05 Weather Conditions: CLOUDY  
 Sampling Time: 15:25 Water Color: \_\_\_\_\_ Odor: YES  
 Purging Flow Rate: 2.1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>15:08</u>	<u>3</u>	<u>6.10</u>	<u>515</u>	<u>69.2</u>			
	<u>6</u>	<u>6.62</u>	<u>430</u>	<u>68.9</u>			
<u>15:14</u>	<u>8</u>	<u>6.63</u>	<u>439</u>	<u>68.5</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>2 VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>G/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/Facility: TOSCO 76 # 4625 Job#: 180255  
 Address: 3070 Fruitvale Ave Date: 10/29/00  
 City: OAKLAND, CA Sampler: HAIG K.

Well ID: MW-3 Well Condition: OK  
 Well Diameter: 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)  
 Total Depth: 24.73 ft.  
 Depth to Water: 17.33 ft.

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

17.40 x VF 0.17 = 3 x 3 (case volume) = Estimated Purge Volume: 9 (gal.)

Purge Equipment: Disposable Bailer Bailer  Stack  Suction  Grundfos  Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  Bailer  Pressure Bailer  Grab Sample  Other: \_\_\_\_\_

Starting Time: 13:57 Weather Conditions: CLOUDY  
 Sampling Time: 14:20 Water Color: CLOUDY Odor: NO  
 Purging Flow Rate: ≈ 1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:00</u>	<u>3</u>	<u>6.86</u>	<u>436</u>	<u>68.5</u>			
	<u>6</u>	<u>6.78</u>	<u>375</u>	<u>68.0</u>			
<u>14:07</u>	<u>9</u>	<u>6.73</u>	<u>398</u>	<u>68.2</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>4 VOAS</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>G/BTEX/MTBE/8240</u>
<u>↓</u>	<u>3 AMBER</u>	<u>Y</u>		<u>"</u>	<u>TPH-D / TOG</u>
<u>↓</u>	<u>1-500ML PLASTIC</u>	<u>Y</u>		<u>"</u>	<u>Total Chromium</u>
<u>↓</u>	<u>1 AMBER</u>	<u>Y</u>		<u>"</u>	<u>EPA 8270</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/Facility: TOSCO 76 # 4625 Job#: 180255  
 Address: 3070 Fruitvale Ave Date: 10/29/00  
 City: OAKLAND, CA Sampler: HAIG K.

Well ID: MW-4 Well Condition: OK  
 Well Diameter: 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed: Ø (Gallons)  
 Total Depth: 24.65 ft. Volume Factor (VF):  
 Depth to Water: 6.12 ft. 
 2" = 0.17      3" = 0.38      4" = 0.66  
 6" = 1.50      12" = 5.80

18.53 x VF 0.17 = 3 x 3 (case volume) = Estimated Purge Volume: 9 (gal.)

Purge Equipment: Disposable Bailer  
 Bailer  
 Stack  
 Suction  
 Grundfos  
 Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 13:26 Weather Conditions: CLOUDY  
 Sampling Time: 13:50 Water Color: CLEAR Odor: NO  
 Purging Flow Rate: ≈ 1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ hos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>13:29</u>	<u>3</u>	<u>6.60</u>	<u>733</u>	<u>68.2</u>			
	<u>6</u>	<u>6.53</u>	<u>698</u>	<u>67.8</u>			
<u>13:37</u>	<u>9</u>	<u>6.50</u>	<u>680</u>	<u>67.6</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>2 VOA</u>	<u>Y</u>	<u>14CL</u>	<u>SEQUOIA</u>	<u>G/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Tosco Marketing Company  
2220 Civic Center Pl., Box 408  
San Ramon, California 94583

Facility Number TOSCO SS #4625  
 Facility Address 3070 FRUITVALE AVE., OAKLAND, CA,  
180255  
 Consultant Project Number 180255  
 Consultant Name Gettler-Ryan Inc. (G-R Inc.)  
 Address 6747 Sierra Court, Suite J, Dublin, CA 94568  
 Project Contact (Name) Deanna L. Harding  
 (Phone) (925) 551-7555 (Fax Number) (925) 551-7888

Contact (Name) Mr. David De Witt  
 (Phone) (925) 277-2384  
 Laboratory Name Sequoia Analytical  
 Laboratory Release Number \_\_\_\_\_  
 Samples Collected by (Name) HAIG KEVORK  
 Collection Date 10/29/00  
 Signature [Signature]

Analyses To Be Performed

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	Iod (Yes or No)	Analyses To Be Performed														
								TPH Gas + BTEX w/MTBE (8015)	TPH Diesel (8015)	Oil and Grease (8520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	TOTAL CHROMIUM						
TB-LB		1	W	G		HCL	YES	✓														
MW-1		2	W	G	14:55	HCL		✓														
MW-2		2	W	G	15:25	HCL		✓														
MW-3		9	W	G	14:20	HCL (VIA)		✓	✓	✓			✓	✓								
MW-4		2	W	G	13:50	HCL	Y	✓														

DO NOT BILL  
 TB-LB ANALYSIS  
 \*confirm mte hits by running mte  
 Remarks  
 by 0260.

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>10/30/00 17:15</u>	Received By (Signature) _____	Organization _____	Date/Time _____
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received By (Signature) _____	Organization _____	Date/Time _____
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received For Laboratory By (Signature) <u>WC</u>	Organization _____	Date/Time <u>10/30/00 17:15</u>

Turn Around Time (Circle Choice)

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility # Tosco 76 # 4625  
Address: 3070 Fruitvale AVE.  
City: OAKLAND, CA

Job#: 180255  
Date: \_\_\_\_\_  
Sampler: \_\_\_\_\_

Well ID UST WELL Well Condition: OK  
Well Diameter \_\_\_\_\_ in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)  
Total Depth \_\_\_\_\_ ft. 

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

  
Depth to Water \_\_\_\_\_ ft.

\_\_\_\_\_ X VF \_\_\_\_\_ = \_\_\_\_\_ X 3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: \_\_\_\_\_  
Sampling Time: \_\_\_\_\_  
Purging Flow Rate: \_\_\_\_\_ gpm.  
Did well de-water? \_\_\_\_\_

Weather Conditions: \_\_\_\_\_  
Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
Sediment Description: \_\_\_\_\_  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: "MONITOR ONLY"





Tosco Marketing Company  
3020 Gate Canyon Pl., Ste. 400  
San Ramon, California 94583

Facility Number TOSCO SS #4625  
Facility Address 3070 FRUITVALE AVE., OAKLAND, CA  
180255  
Consultant Project Number  
Consultant Name Gettler-Ryan Inc. (G-R Inc.)  
Address 6747 Sierra Court, Suite J, Dublin, CA 94568  
Project Contact (Name) Deanna L. Harding  
(Phone) (925) 551-7555 (Fax Number) (925) 551-7888

Contact (Name) Mr. David De Witt  
(Phone) (925) 277-2384 W010724  
Laboratory Name Sequoia Analytical  
Laboratory Release Number \_\_\_\_\_  
Samples Collected by (Name) HAIG KEVORK  
Collection Date: 10/29/00  
Signature: [Handwritten Signature]

Analyses To Be Performed

DO NOT BILL  
TB-LB ANALYSIS

X confirm  
mtbe hits  
by running  
mtbe  
Remarks

by 0260.

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iod (Yes or No)	Analyses To Be Performed																	
								TPH Gas + STDX w/MTBE (8016)	TPH Diesel (8015)	Oil and Grease (8020)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or M)	TOTAL CHROMIUM									
TB-LB	01A	1	W	G		HCL	YES	✓																	
MW-1	02A,B	2	W	G	14:55	HCL		✓																	
MW-2	03A,B	2	W	G	15:25	HCL		✓																	
MW-3	04A-1	9	W	G	14:20	HCL (VDA)		✓	✓	✓				✓	✓										
MW-4	05AB	2	W	G	13:50	HCL	✓	✓																	

Retinquished By (Signature) <u>[Handwritten Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>10/30/00</u> <u>17:15</u>	Received By (Signature) _____	Organization _____	Date/Time _____
Retinquished By (Signature) _____	Organization _____	Date/Time _____	Received By (Signature) _____	Organization _____	Date/Time _____
Retinquished By (Signature) _____	Organization _____	Date/Time _____	Received For Laboratory By (Signature) <u>W.C.</u> <u>[Handwritten Signature]</u>	Organization _____	Date/Time <u>10/30/00</u> <u>17:15</u>

Turn Around Time (Circle Choice)

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



# Sequoia Analytical

404 N. Wiget Lane  
Walnut Creek, CA 94598  
(925) 988-9600  
FAX (925) 988-9673  
www.sequoialabs.com

20 November, 2000

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

RE: Tosco  
Sequoia Report W010724

Enclosed are the results of analyses for samples received by the laboratory on 30-Oct-00 17:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater  
Project Manager

CA ELAP Certificate #1271





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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TBLB	W010724-01	Water	29-Oct-00 00:00	30-Oct-00 17:15
MW-1	W010724-02	Water	29-Oct-00 14:55	30-Oct-00 17:15
MW-2	W010724-03	Water	29-Oct-00 15:25	30-Oct-00 17:15
MW-3	W010724-04	Water	29-Oct-00 14:20	30-Oct-00 17:15
MW-4	W010724-05	Water	29-Oct-00 13:50	30-Oct-00 17:15

Sequoia Analytical - Walnut Creek

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Charlie Westwater, Project Manager





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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TBLB (W010724-01) Water</b> Sampled: 29-Oct-00 00:00 Received: 30-Oct-00 17:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	OK10007	10-Nov-00	10-Nov-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		105 %	70-130		"	"	"	"	
<b>MW-1 (W010724-02) Water</b> Sampled: 29-Oct-00 14:55 Received: 30-Oct-00 17:15 <span style="float:right">P-01</span>									
Purgeable Hydrocarbons	62	50	ug/l	1	OK10007	10-Nov-00	10-Nov-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	6.5	2.5	"	"	"	"	"	"	CC-3
Surrogate: a,a,a-Trifluorotoluene		96.3 %	70-130		"	"	"	"	
<b>MW-2 (W010724-03) Water</b> Sampled: 29-Oct-00 15:25 Received: 30-Oct-00 17:15 <span style="float:right">P-01</span>									
Purgeable Hydrocarbons	490	130	ug/l	2.5	OK10007	10-Nov-00	10-Nov-00	EPA 8015M/8020	
Benzene	67	1.3	"	"	"	"	"	"	
Toluene	ND	1.3	"	"	"	"	"	"	
Ethylbenzene	23	1.3	"	"	"	"	"	"	
Xylenes (total)	22	1.3	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	6.3	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		87.3 %	70-130		"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (W010724-04) Water</b> Sampled: 29-Oct-00 14:20 Received: 30-Oct-00 17:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	0K11002	11-Nov-00	11-Nov-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.7 %		70-130	"	"	"	"	
<b>MW-4 (W010724-05) Water</b> Sampled: 29-Oct-00 13:50 Received: 30-Oct-00 17:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	0K10007	10-Nov-00	10-Nov-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		115 %		70-130	"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**Diesel Hydrocarbons (C9-C24) by DHS LUFT**  
**Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W010724-04) Water Sampled: 29-Oct-00 14:20 Received: 30-Oct-00 17:15									
Diesel Range Hydrocarbons	ND	50	ug/l	1	0K10013	10-Nov-00	12-Nov-00	EPA 8015M	
Surrogate: n-Pentacosane		117 %	50-150		"	"	"	"	





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6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**MTBE Confirmation by EPA Method 8260A**

**Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W010724-02) Water Sampled: 29-Oct-00 14:55 Received: 30-Oct-00 17:15									
Methyl tert-butyl ether	3.9	2.0	ug/l	1	0K11008	11-Nov-00	12-Nov-00	EPA 8260B	
Surrogate: Dibromofluoromethane		96.0 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		90.0 %	50-150		"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**Total Metals by EPA 200 Series Methods  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W010724-04) Water Sampled: 29-Oct-00 14:20 Received: 30-Oct-00 17:15									
Chromium	ND	0.010	mg/l	1	0K01016	01-Nov-00	17-Nov-00	EPA 200.7	







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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

## Volatile Organic Compounds by EPA Method 8240B Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W010724-04) Water Sampled: 29-Oct-00 14:20 Received: 30-Oct-00 17:15									
Chloromethane	ND	2.0	ug/l	1	OK08011	08-Nov-00	08-Nov-00	EPA 8240B	
Vinyl chloride	ND	2.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	2.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	2.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	2.0	"	"	"	"	"	"	
Acetone	ND	10	"	"	"	"	"	"	
Carbon disulfide	ND	2.0	"	"	"	"	"	"	
Methylene chloride	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	2.0	"	"	"	"	"	"	
Vinyl acetate	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	2.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	2.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
Chloroform	ND	2.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	2.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.0	"	"	"	"	"	"	
Benzene	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Trichloroethene	ND	2.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	2.0	"	"	"	"	"	"	
Bromodichloromethane	ND	2.0	"	"	"	"	"	"	
2,2,5,5-Tetramethyltetrahydrofuran	ND	2.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	2.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	
Toluene	ND	2.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	2.0	"	"	"	"	"	"	
Tetrachloroethene	ND	2.0	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Dibromochloromethane	ND	2.0	"	"	"	"	"	"	
Chlorobenzene	ND	2.0	"	"	"	"	"	"	
Ethylbenzene	ND	2.0	"	"	"	"	"	"	
Total Xylenes	ND	2.0	"	"	"	"	"	"	
Styrene	ND	2.0	"	"	"	"	"	"	
Bromoform	ND	2.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	2.0	"	"	"	"	"	"	

Sequoia Analytical - Walnut Creek

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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**Volatile Organic Compounds by EPA Method 8240B  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (W010724-04) Water</b> <b>Sampled: 29-Oct-00 14:20</b> <b>Received: 30-Oct-00 17:15</b>									
1,3-Dichlorobenzene	ND	2.0	ug/l	1	0K08011	08-Nov-00	08-Nov-00	EPA 8240B	
1,4-Dichlorobenzene	ND	2.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		92.0 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		92.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.0 %	50-150		"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W010724-04) Water Sampled: 29-Oct-00 14:20 Received: 30-Oct-00 17:15									
Acenaphthene	ND	5.0	ug/l	1	0J31017	31-Oct-00	01-Nov-00	EPA 8270B	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Aniline	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzoic acid	ND	10	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.0	"	"	"	"	"	"	
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	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.0	"	"	"	"	"	"	
4-Chloroaniline	ND	10	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.0	"	"	"	"	"	"	
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	5.0	"	"	"	"	"	"	
Dibenzofuran	ND	5.0	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	10	"	"	"	"	"	"	
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	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (W010724-04) Water Sampled: 29-Oct-00 14:20 Received: 30-Oct-00 17:15</b>									
Di-n-octyl phthalate	ND	5.0	ug/l	1	0J31017	31-Oct-00	01-Nov-00	EPA 8270B	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	5.0	"	"	"	"	"	"	
Hexachlorobenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10	"	"	"	"	"	"	
Hexachloroethane	ND	5.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.0	"	"	"	"	"	"	
Isophorone	ND	5.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.0	"	"	"	"	"	"	
2-Methylphenol	ND	5.0	"	"	"	"	"	"	
4-Methylphenol	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
2-Nitroaniline	ND	10	"	"	"	"	"	"	
3-Nitroaniline	ND	10	"	"	"	"	"	"	
4-Nitroaniline	ND	10	"	"	"	"	"	"	
Nitrobenzene	ND	5.0	"	"	"	"	"	"	
2-Nitrophenol	ND	5.0	"	"	"	"	"	"	
4-Nitrophenol	ND	10	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	5.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	5.0	"	"	"	"	"	"	
Pentachlorophenol	ND	10	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Phenol	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	10	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		18.5 %		21-110	"	"	"	"	S-04
Surrogate: Phenol-d6		1.62 %		10-110	"	"	"	"	S-04
Surrogate: Nitrobenzene-d5		37.8 %		35-114	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		39.8 %		43-116	"	"	"	"	S-04
Surrogate: 2,4,6-Tribromophenol		45.7 %		10-123	"	"	"	"	
Surrogate: p-Terphenyl-d14		38.9 %		33-141	"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**Conventional Chemistry Parameters by APHA/EPA Methods  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W010724-04) Water Sampled: 29-Oct-00 14:20 Received: 30-Oct-00 17:15									
TRPH	7.0	5.0	mg/l	1	OK16015	16-Nov-00	17-Nov-00	SM 5520B/F	





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Dublin CA, 94568

Project: Tosco  
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Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0K10007 - EPA 5030B [P/T]**

**Blank (0K10007-BLK1)**

Prepared & Analyzed: 10-Nov-00

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a, a, a-Trifluorotoluene</i>	27.3		"	30.0		91.0	70-130			

**LCS (0K10007-BS1)**

Prepared & Analyzed: 10-Nov-00

Benzene	20.0	0.50	ug/l	20.0		100	70-130			
Toluene	20.4	0.50	"	20.0		102	70-130			
Ethylbenzene	20.5	0.50	"	20.0		103	70-130			
Xylenes (total)	59.1	0.50	"	60.0		98.5	70-130			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	30.1		"	30.0		100	70-130			

**Matrix Spike (0K10007-MS1)**

Source: W010700-13

Prepared & Analyzed: 10-Nov-00

Benzene	20.9	0.50	ug/l	20.0	ND	104	70-130			
Toluene	21.3	0.50	"	20.0	ND	106	70-130			
Ethylbenzene	21.4	0.50	"	20.0	ND	107	70-130			
Xylenes (total)	61.7	0.50	"	60.0	ND	103	70-130			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	30.9		"	30.0		103	70-130			

**Matrix Spike Dup (0K10007-MSD1)**

Source: W010700-13

Prepared & Analyzed: 10-Nov-00

Benzene	21.4	0.50	ug/l	20.0	ND	107	70-130	2.36	20	
Toluene	21.8	0.50	"	20.0	ND	109	70-130	2.32	20	
Ethylbenzene	21.8	0.50	"	20.0	ND	109	70-130	1.85	20	
Xylenes (total)	62.6	0.50	"	60.0	ND	104	70-130	1.45	20	
<i>Surrogate: a, a, a-Trifluorotoluene</i>	31.0		"	30.0		103	70-130			





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6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 0K11002 - EPA 5030B [P/T]

#### Blank (0K11002-BLK1)

Prepared & Analyzed: 11-Nov-00

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	36.3		"	30.0		121	70-130			

#### LCS (0K11002-BS1)

Prepared & Analyzed: 11-Nov-00

Benzene	20.8	0.50	ug/l	20.0		104	70-130			
Toluene	21.2	0.50	"	20.0		106	70-130			
Ethylbenzene	21.2	0.50	"	20.0		106	70-130			
Xylenes (total)	61.0	0.50	"	60.0		102	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	30.4		"	30.0		101	70-130			

#### Matrix Spike (0K11002-MS1)

Source: W011024-06

Prepared & Analyzed: 11-Nov-00

Benzene	22.2	0.50	ug/l	20.0	ND	111	70-130			
Toluene	22.5	0.50	"	20.0	ND	113	70-130			
Ethylbenzene	23.0	0.50	"	20.0	ND	115	70-130			
Xylenes (total)	66.0	0.50	"	60.0	ND	110	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	32.2		"	30.0		107	70-130			

#### Matrix Spike Dup (0K11002-MSD1)

Source: W011024-06

Prepared & Analyzed: 11-Nov-00

Benzene	20.4	0.50	ug/l	20.0	ND	102	70-130	8.45	20	
Toluene	20.6	0.50	"	20.0	ND	103	70-130	8.82	20	
Ethylbenzene	20.8	0.50	"	20.0	ND	104	70-130	10.0	20	
Xylenes (total)	60.4	0.50	"	60.0	ND	101	70-130	8.86	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.7		"	30.0		99.0	70-130			





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6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0K10013 - EPA 3510B</b>										
<b>Blank (0K10013-BLK1)</b>										
Prepared: 10-Nov-00 Analyzed: 11-Nov-00										
Diesel Range Hydrocarbons	ND	50	ug/l							
Surrogate: <i>n</i> -Pentacosane	25.0		"	33.3		75.1	50-150			
<b>LCS (0K10013-BS1)</b>										
Prepared: 10-Nov-00 Analyzed: 11-Nov-00										
Diesel Range Hydrocarbons	428	50	ug/l	500		85.6	60-140			
Surrogate: <i>n</i> -Pentacosane	19.0		"	33.3		57.1	50-150			
<b>LCS Dup (0K10013-BSD1)</b>										
Prepared: 10-Nov-00 Analyzed: 12-Nov-00										
Diesel Range Hydrocarbons	407	50	ug/l	500		81.4	60-140	5.03	50	
Surrogate: <i>n</i> -Pentacosane	22.0		"	33.3		66.1	50-150			







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Dublin CA, 94568

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Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**MTBE Confirmation by EPA Method 8260A - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0K11008 - EPA 5030B [P/T]**

**Blank (0K11008-BLK1)**

Prepared & Analyzed: 11-Nov-00

Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	46.0		"	50.0		92.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0	50-150			

**LCS (0K11008-BS1)**

Prepared & Analyzed: 11-Nov-00

Methyl tert-butyl ether	44.4	2.0	ug/l	50.0		88.8	70-130			
Surrogate: Dibromofluoromethane	49.0		"	50.0		98.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	46.0		"	50.0		92.0	50-150			

**LCS Dup (0K11008-BSD1)**

Prepared & Analyzed: 11-Nov-00

Methyl tert-butyl ether	44.7	2.0	ug/l	50.0		89.4	70-130	0.673	25	
Surrogate: Dibromofluoromethane	51.0		"	50.0		102	50-150			
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0	50-150			





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Dublin CA, 94568

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**Total Metals by EPA 200 Series Methods - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0K01016 - 200.7</b>										
<b>Blank (0K01016-BLK1)</b>										
Prepared: 01-Nov-00 Analyzed: 17-Nov-00										
Chromium	ND	0.010	mg/l							
<b>LCS (0K01016-BS1)</b>										
Prepared: 01-Nov-00 Analyzed: 17-Nov-00										
Chromium	0.952	0.010	mg/l	1.00		95.2	80-120			
<b>LCS Dup (0K01016-BSD1)</b>										
Prepared: 01-Nov-00 Analyzed: 17-Nov-00										
Chromium	0.965	0.010	mg/l	1.00		96.5	80-120	1.36	20	
<b>Matrix Spike (0K01016-MS1)</b>										
Source: W010724-04 Prepared: 01-Nov-00 Analyzed: 17-Nov-00										
Chromium	0.969	0.010	mg/l	1.00	ND	96.9	80-120			
<b>Matrix Spike Dup (0K01016-MSD1)</b>										
Source: W010724-04 Prepared: 01-Nov-00 Analyzed: 17-Nov-00										
Chromium	0.970	0.010	mg/l	1.00	ND	97.0	80-120	0.103	20	





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Dublin CA, 94568

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

## Volatile Organic Compounds by EPA Method 8240B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0K08011 - EPA 5030B [P/T]

Blank (0K08011-BLK1)

Prepared & Analyzed: 07-Nov-00

Chloromethane	ND	2.0	ug/l
Vinyl chloride	ND	2.0	"
Bromomethane	ND	5.0	"
Chloroethane	ND	2.0	"
Trichlorofluoromethane	ND	2.0	"
1,1-Dichloroethene	ND	2.0	"
Acetone	ND	10	"
Carbon disulfide	ND	2.0	"
Methylene chloride	ND	10	"
Methyl tert-butyl ether	ND	2.0	"
trans-1,2-Dichloroethene	ND	2.0	"
Vinyl acetate	ND	5.0	"
1,1-Dichloroethane	ND	2.0	"
cis-1,2-Dichloroethene	ND	2.0	"
2-Butanone	ND	10	"
Chloroform	ND	2.0	"
1,1,1-Trichloroethane	ND	2.0	"
Carbon tetrachloride	ND	2.0	"
Benzene	ND	2.0	"
1,2-Dichloroethane	ND	2.0	"
Trichloroethene	ND	2.0	"
1,2-Dichloropropane	ND	2.0	"
Bromodichloromethane	ND	2.0	"
2,2,5,5-Tetramethyltetrahydrofuran	ND	2.0	"
cis-1,3-Dichloropropene	ND	2.0	"
4-Methyl-2-pentanone	ND	10	"
Toluene	ND	2.0	"
trans-1,3-Dichloropropene	ND	5.0	"
1,1,2-Trichloroethane	ND	2.0	"
Tetrachloroethene	ND	2.0	"
2-Hexanone	ND	10	"
Dibromochloromethane	ND	2.0	"
Chlorobenzene	ND	2.0	"
Ethylbenzene	ND	2.0	"

Sequoia Analytical - Walnut Creek

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Dublin CA, 94568

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

## Volatile Organic Compounds by EPA Method 8240B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 0K08011 - EPA 5030B [P/T]

#### Blank (0K08011-BLK1)

Prepared & Analyzed: 07-Nov-00

Total Xylenes	ND	2.0	ug/l							
Styrene	ND	2.0	"							
Bromoform	ND	2.0	"							
1,1,2,2-Tetrachloroethane	ND	2.0	"							
1,3-Dichlorobenzene	ND	2.0	"							
1,4-Dichlorobenzene	ND	2.0	"							
1,2-Dichlorobenzene	ND	2.0	"							
<i>Surrogate: Dibromofluoromethane</i>	50.0		"	50.0		100	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	52.0		"	50.0		104	50-150			
<i>Surrogate: Toluene-d8</i>	52.0		"	50.0		104	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	49.0		"	50.0		98.0	50-150			

#### Blank (0K08011-BLK2)

Prepared & Analyzed: 08-Nov-00

Chloromethane	ND	2.0	ug/l							
Vinyl chloride	ND	2.0	"							
Bromomethane	ND	5.0	"							
Chloroethane	ND	2.0	"							
Trichlorofluoromethane	ND	2.0	"							
1,1-Dichloroethene	ND	2.0	"							
Acetone	ND	10	"							
Carbon disulfide	ND	2.0	"							
Methylene chloride	ND	10	"							
Methyl tert-butyl ether	ND	2.0	"							
trans-1,2-Dichloroethene	ND	2.0	"							
Vinyl acetate	ND	5.0	"							
1,1-Dichloroethane	ND	2.0	"							
cis-1,2-Dichloroethene	ND	2.0	"							
2-Butanone	ND	10	"							
Chloroform	ND	2.0	"							
1,1,1-Trichloroethane	ND	2.0	"							
Carbon tetrachloride	ND	2.0	"							
Benzene	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Trichloroethene	ND	2.0	"							
1,2-Dichloropropane	ND	2.0	"							

Sequoia Analytical - Walnut Creek

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# Sequoia Analytical

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Dublin CA, 94568

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

## Volatile Organic Compounds by EPA Method 8240B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 0K08011 - EPA 5030B [P/T]

Prepared & Analyzed: 08-Nov-00

#### Blank (0K08011-BLK2)

Bromodichloromethane	ND	2.0	ug/l							
2,2,5,5-Tetramethyltetrahydrofuran	ND	2.0	"							
cis-1,3-Dichloropropene	ND	2.0	"							
4-Methyl-2-pentanone	ND	10	"							
Toluene	ND	2.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
1,1,2-Trichloroethane	ND	2.0	"							
Tetrachloroethene	ND	2.0	"							
2-Hexanone	ND	10	"							
Dibromochloromethane	ND	2.0	"							
Chlorobenzene	ND	2.0	"							
Ethylbenzene	ND	2.0	"							
Total Xylenes	ND	2.0	"							
Styrene	ND	2.0	"							
Bromoform	ND	2.0	"							
1,1,2,2-Tetrachloroethane	ND	2.0	"							
1,3-Dichlorobenzene	ND	2.0	"							
1,4-Dichlorobenzene	ND	2.0	"							
1,2-Dichlorobenzene	ND	2.0	"							
<i>Surrogate: Dibromofluoromethane</i>	52.0		"	50.0		104	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	48.0		"	50.0		96.0	50-150			
<i>Surrogate: Toluene-d8</i>	50.0		"	50.0		100	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	47.0		"	50.0		94.0	50-150			

#### LCS (0K08011-BS1)

Prepared & Analyzed: 07-Nov-00

1,1-Dichloroethene	55.4	2.0	ug/l	70.0		79.1	65-135			
Methyl tert-butyl ether	48.8	2.0	"	50.0		97.6	70-130			
Benzene	50.5	2.0	"	50.0		101	70-130			
Trichloroethene	49.9	2.0	"	50.0		99.8	70-130			
Toluene	48.4	2.0	"	50.0		96.8	70-130			
Chlorobenzene	49.7	2.0	"	50.0		99.4	70-130			
<i>Surrogate: Dibromofluoromethane</i>	49.0		"	50.0		98.0	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	47.0		"	50.0		94.0	50-150			
<i>Surrogate: Toluene-d8</i>	52.0		"	50.0		104	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	49.0		"	50.0		98.0	50-150			

Sequoia Analytical - Walnut Creek

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

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

**Volatile Organic Compounds by EPA Method 8240B - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0K08011 - EPA 5030B [P/T]**

**LCS (0K08011-BS2)**

Prepared & Analyzed: 08-Nov-00

1,1-Dichloroethene	56.1	2.0	ug/l	70.0		80.1	65-135			
Methyl tert-butyl ether	48.2	2.0	"	50.0		96.4	70-130			
Benzene	52.6	2.0	"	50.0		105	70-130			
Trichloroethene	53.4	2.0	"	50.0		107	70-130			
Toluene	53.3	2.0	"	50.0		107	70-130			
Chlorobenzene	54.6	2.0	"	50.0		109	70-130			
Surrogate: Dibromofluoromethane	49.0		"	50.0		98.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0	50-150			
Surrogate: Toluene-d8	51.0		"	50.0		102	50-150			
Surrogate: 4-Bromofluorobenzene	49.0		"	50.0		98.0	50-150			

**Matrix Spike (0K08011-MS1)**

Source: W011041-01

Prepared & Analyzed: 07-Nov-00

1,1-Dichloroethene	53.6	2.0	ug/l	70.0	ND	76.6	60-140			
Methyl tert-butyl ether	48.8	2.0	"	50.0	ND	97.6	60-140			
Benzene	51.9	2.0	"	50.0	ND	104	60-140			
Trichloroethene	51.7	2.0	"	50.0	ND	103	60-140			
Toluene	51.6	2.0	"	50.0	ND	103	60-140			
Chlorobenzene	50.2	2.0	"	50.0	ND	100	60-140			
Surrogate: Dibromofluoromethane	48.0		"	50.0		96.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	46.0		"	50.0		92.0	50-150			
Surrogate: Toluene-d8	49.0		"	50.0		98.0	50-150			
Surrogate: 4-Bromofluorobenzene	49.0		"	50.0		98.0	50-150			

**Matrix Spike Dup (0K08011-MSD1)**

Source: W011041-01

Prepared & Analyzed: 07-Nov-00

1,1-Dichloroethene	61.7	2.0	ug/l	70.0	ND	88.1	60-140	14.1	25	
Methyl tert-butyl ether	55.0	2.0	"	50.0	ND	110	60-140	11.9	25	
Benzene	59.5	2.0	"	50.0	ND	119	60-140	13.6	25	
Trichloroethene	57.9	2.0	"	50.0	ND	116	60-140	11.3	25	
Toluene	58.2	2.0	"	50.0	ND	116	60-140	12.0	25	
Chlorobenzene	59.1	2.0	"	50.0	ND	118	60-140	16.3	25	
Surrogate: Dibromofluoromethane	49.0		"	50.0		98.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0	50-150			
Surrogate: Toluene-d8	50.0		"	50.0		100	50-150			
Surrogate: 4-Bromofluorobenzene	48.0		"	50.0		96.0	50-150			





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6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Tosco  
Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0J31017 - EPA 3510B**

Prepared: 31-Oct-00 Analyzed: 01-Nov-00

**Blank (0J31017-BLK1)**

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	"							
Benzo (b) fluoranthene	ND	5.0	"							
Benzo (k) fluoranthene	ND	5.0	"							
Benzo (ghi) perylene	ND	5.0	"							
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	"							
Butyl benzyl phthalate	ND	5.0	"							
4-Chloroaniline	ND	10	"							
2-Chloronaphthalene	ND	5.0	"							
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	5.0	"							
Dibenzofuran	ND	5.0	"							
Di-n-butyl phthalate	ND	10	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
3,3'-Dichlorobenzidine	ND	10	"							
2,4-Dichlorophenol	ND	5.0	"							
Diethyl phthalate	ND	5.0	"							
2,4-Dimethylphenol	ND	5.0	"							
Dimethyl phthalate	ND	5.0	"							

Sequoia Analytical - Walnut Creek

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Project Number: Tosco # 4625  
Project Manager: Deanna L. Harding

Reported:  
20-Nov-00 07:27

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0J31017 - EPA 3510B

Blank (0J31017-BLK1)

Prepared: 31-Oct-00 Analyzed: 01-Nov-00

4,6-Dinitro-2-methylphenol	ND	10	ug/l							
2,4-Dinitrophenol	ND	10	"							
2,4-Dinitrotoluene	ND	5.0	"							
2,6-Dinitrotoluene	ND	5.0	"							
Di-n-octyl phthalate	ND	5.0	"							
Fluoranthene	ND	5.0	"							
Fluorene	ND	5.0	"							
Hexachlorobenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Hexachlorocyclopentadiene	ND	10	"							
Hexachloroethane	ND	5.0	"							
Indeno (1,2,3-cd) pyrene	ND	5.0	"							
Isophorone	ND	5.0	"							
2-Methylnaphthalene	ND	5.0	"							
2-Methylphenol	ND	5.0	"							
4-Methylphenol	ND	5.0	"							
Naphthalene	ND	5.0	"							
2-Nitroaniline	ND	10	"							
3-Nitroaniline	ND	10	"							
4-Nitroaniline	ND	10	"							
Nitrobenzene	ND	5.0	"							
2-Nitrophenol	ND	5.0	"							
4-Nitrophenol	ND	10	"							
N-Nitrosodimethylamine	ND	5.0	"							
N-Nitrosodiphenylamine	ND	5.0	"							
N-Nitrosodi-n-propylamine	ND	5.0	"							
Pentachlorophenol	ND	10	"							
Phenanthrene	ND	5.0	"							
Phenol	ND	5.0	"							
Pyrene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
2,4,5-Trichlorophenol	ND	10	"							
2,4,6-Trichlorophenol	ND	5.0	"							
<i>Surrogate: 2-Fluorophenol</i>	43.8		"	150		29.2	21-110			

Sequoia Analytical - Walnut Creek

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0J31017 - EPA 3510B</b>										
<b>Blank (0J31017-BLK1)</b>										
Prepared: 31-Oct-00 Analyzed: 01-Nov-00										
Surrogate: Phenol-d6	27.6		ug/l	150		18.4	10-110			
Surrogate: Nitrobenzene-d5	46.9		"	100		46.9	35-114			
Surrogate: 2-Fluorobiphenyl	45.5		"	100		45.5	43-116			
Surrogate: 2,4,6-Tribromophenol	80.1		"	150		53.4	10-123			
Surrogate: p-Terphenyl-d14	38.0		"	100		38.0	33-141			
<b>LCS (0J31017-BS1)</b>										
Prepared: 31-Oct-00 Analyzed: 01-Nov-00										
Acenaphthene	42.2	5.0	ug/l	100		42.2	46-118			Q-01
4-Chloro-3-methylphenol	63.6	5.0	"	150		42.4	23-97			
2-Chlorophenol	56.6	5.0	"	150		37.7	27-123			
1,4-Dichlorobenzene	36.2	5.0	"	100		36.2	36-97			
2,4-Dinitrotoluene	44.1	5.0	"	100		44.1	24-96			
4-Nitrophenol	30.0	10	"	150		20.0	10-80			
N-Nitrosodi-n-propylamine	48.0	5.0	"	100		48.0	41-116			
Pentachlorophenol	77.4	10	"	150		51.6	9-103			
Phenol	25.7	5.0	"	150		17.1	12-110			
Pyrene	36.4	5.0	"	100		36.4	26-127			
1,2,4-Trichlorobenzene	39.3	5.0	"	100		39.3	39-98			
Surrogate: 2-Fluorophenol	43.9		"	150		29.3	21-110			
Surrogate: Phenol-d6	27.3		"	150		18.2	10-110			
Surrogate: Nitrobenzene-d5	45.2		"	100		45.2	35-114			
Surrogate: 2-Fluorobiphenyl	42.9		"	100		42.9	43-116			S-03
Surrogate: 2,4,6-Tribromophenol	77.6		"	150		51.7	10-123			
Surrogate: p-Terphenyl-d14	37.7		"	100		37.7	33-141			
<b>LCS Dup (0J31017-BSD1)</b>										
Prepared: 31-Oct-00 Analyzed: 01-Nov-00										
Acenaphthene	44.2	5.0	ug/l	100		44.2	46-118	4.63	30	Q-01
4-Chloro-3-methylphenol	66.4	5.0	"	150		44.3	23-97	4.31	30	
2-Chlorophenol	59.4	5.0	"	150		39.6	27-123	4.83	30	
1,4-Dichlorobenzene	36.5	5.0	"	100		36.5	36-97	0.825	30	
2,4-Dinitrotoluene	47.0	5.0	"	100		47.0	24-96	6.37	30	
4-Nitrophenol	29.0	10	"	150		19.3	10-80	3.39	30	
N-Nitrosodi-n-propylamine	51.8	5.0	"	100		51.8	41-116	7.62	30	
Pentachlorophenol	82.2	10	"	150		54.8	9-103	6.02	30	
Phenol	25.9	5.0	"	150		17.3	12-110	0.775	30	
Pyrene	39.1	5.0	"	100		39.1	26-127	7.15	30	



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20-Nov-00 07:27

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0J31017 - EPA 3510B**

LCS Dup (0J31017-BSD1)		Prepared: 31-Oct-00 Analyzed: 01-Nov-00								
1,2,4-Trichlorobenzene	39.5	5.0	ug/l	100		39.5	39-98	0.508	30	
Surrogate: 2-Fluorophenol	44.5		"	150		29.7	21-110			
Surrogate: Phenol-d6	26.9		"	150		17.9	10-110			
Surrogate: Nitrobenzene-d5	46.8		"	100		46.8	35-114			
Surrogate: 2-Fluorobiphenyl	45.2		"	100		45.2	43-116			
Surrogate: 2,4,6-Tribromophenol	82.6		"	150		55.1	10-123			
Surrogate: p-Terphenyl-d14	40.5		"	100		40.5	33-141			





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20-Nov-00 07:27

## Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0K16015 - EPA 3510B</b>										
<b>Blank (0K16015-BLK1)</b>										
Prepared: 16-Nov-00 Analyzed: 17-Nov-00										
TRPH	ND	5.0	mg/l							
<b>LCS (0K16015-BS1)</b>										
Prepared: 16-Nov-00 Analyzed: 17-Nov-00										
TRPH	84.1	5.0	mg/l	100		84.1	70-130			
<b>LCS Dup (0K16015-BSD1)</b>										
Prepared: 16-Nov-00 Analyzed: 17-Nov-00										
TRPH	84.3	5.0	mg/l	100		84.3	70-130	0.238	30	





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20-Nov-00 07:27

**Notes and Definitions**

- CC-3 Continuing Calibration indicates that the quantitative result for this analyte includes a greater than 15% degree of uncertainty. The value as reported is within method acceptance.
- P-01 Chromatogram Pattern: Gasoline C6-C12
- Q-01 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- S-03 The surrogate recovery for this sample is outside of established control limits. Review of associated QC indicates the recovery for this surrogate does not represent an out-of-control condition.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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

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