



GETTLER-RYAN Inc.

TRANSMITTAL

ENVIRONMENTAL
PROTECTION

00 MAY 15 AM 9:53

May 1, 2000

G-R #:180203

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

CC: Mr. Glen Matteucci
ERI, Inc.
73 Digital Drive, Suite 100
Novato, California 94949

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

RE: Former Tosco 76 SS #0843
1629 Webster Street
Alameda, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	April 28, 2000	Groundwater Monitoring and Sampling Report First Quarter 2000 - Event of March 14, 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 *May 12, 2000*, this report will be distributed to the following:

Enclosure

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

QUARTERLY SUMMARY REPORT

First Quarter 2000

(January - March)

TOSCO SERVICE STATION 0843

1629 Webster Street

Alameda, California

City/County ID: City of Alameda/Alameda County

Lead Agency: Alameda County Department of Environmental Health Services

BACKGROUND

During June 1998, Tosco Marketing Company (Tosco) removed two 10,000-gallon gasoline underground storage tanks (USTs), one 550-gallon used-oil UST, product lines, and dispensers, and excavated and removed 388 tons of soil and backfill. Concentrations of residual total purgeable petroleum hydrocarbons as gasoline (TPPHg) and methyl tertiary butyl ether (MTBE) were detected in soil up to 44 parts per million (ppm) and 280 ppm, respectively, in soil samples collected from the sidewalls of the gasoline UST cavity. Concentrations of dissolved TPPHg, MTBE, and benzene were detected in a groundwater sample collected from the gasoline UST cavity up to 19,000 parts per billion (ppb), 1,300 ppb, and 880 ppb, respectively.

During March 1999, Environmental Resolutions, Inc. (ERI) drilled four soil borings at the site and installed groundwater monitoring wells MW1 through MW4 in the borings. Concentrations of residual benzene (0.0295 ppm) and MTBE (0.561 ppm) were detected in the soil samples collected from boring MW2. Concentrations of dissolved TPPHg (up to 34,400 ppb), benzene (at 2,070 ppb), and MTBE (up to 8,460 ppb) were detected in groundwater samples collected in well MW1 through MW4.

During fourth quarter 1999, ERI installed two off-site groundwater monitoring wells downgradient of the site. Concentrations of dissolved MTBE were detected the newly installed off-site wells MW5 and MW6 at 3.8 ppb and 18,000 ppb, respectively.

RECENT QUARTER ACTIVITIES

ERI submitted the report entitled *Supplemental Evaluation of Groundwater* dated March 7, 2000. Performed ongoing quarterly groundwater monitoring, sampling, and reporting.

NEXT QUARTER ACTIVITIES

Continue quarterly groundwater monitoring, sampling, and reporting.

CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated?	<u>Yes</u>
Dissolved groundwater delineated?	<u>No</u>
Free Product delineated?	<u>NA</u>
Amount of gw contaminant recovered?	<u>NA</u>
Amount of soil contamination recovered?	<u>344 tons</u>
Soil remediation in progress?	<u>No</u>
Dissolved/free product remediation in progress?	<u>No</u>

CONSULTANT:

Environmental Resolutions, Inc.



GETTLER - RYAN INC.

April 28, 2000
G-R Job #180203

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

RE: First Quarter 2000 Groundwater Monitoring & Sampling Report
Former Tosco 76 Service Station #0843
1629 Webster Street
Alameda, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On March 14, 2000, field personnel monitored and sampled six wells (MW-1 through MW-6) and 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 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 is also attached.

Sincerely,

Deanna L. Harding
Project Coordinator

Douglas J. Lee
Senior Geologist, R.G. No. 6882

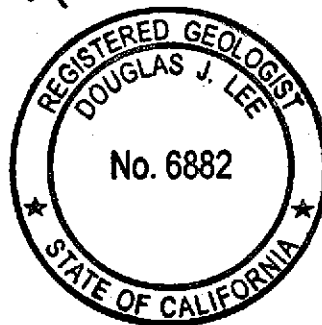
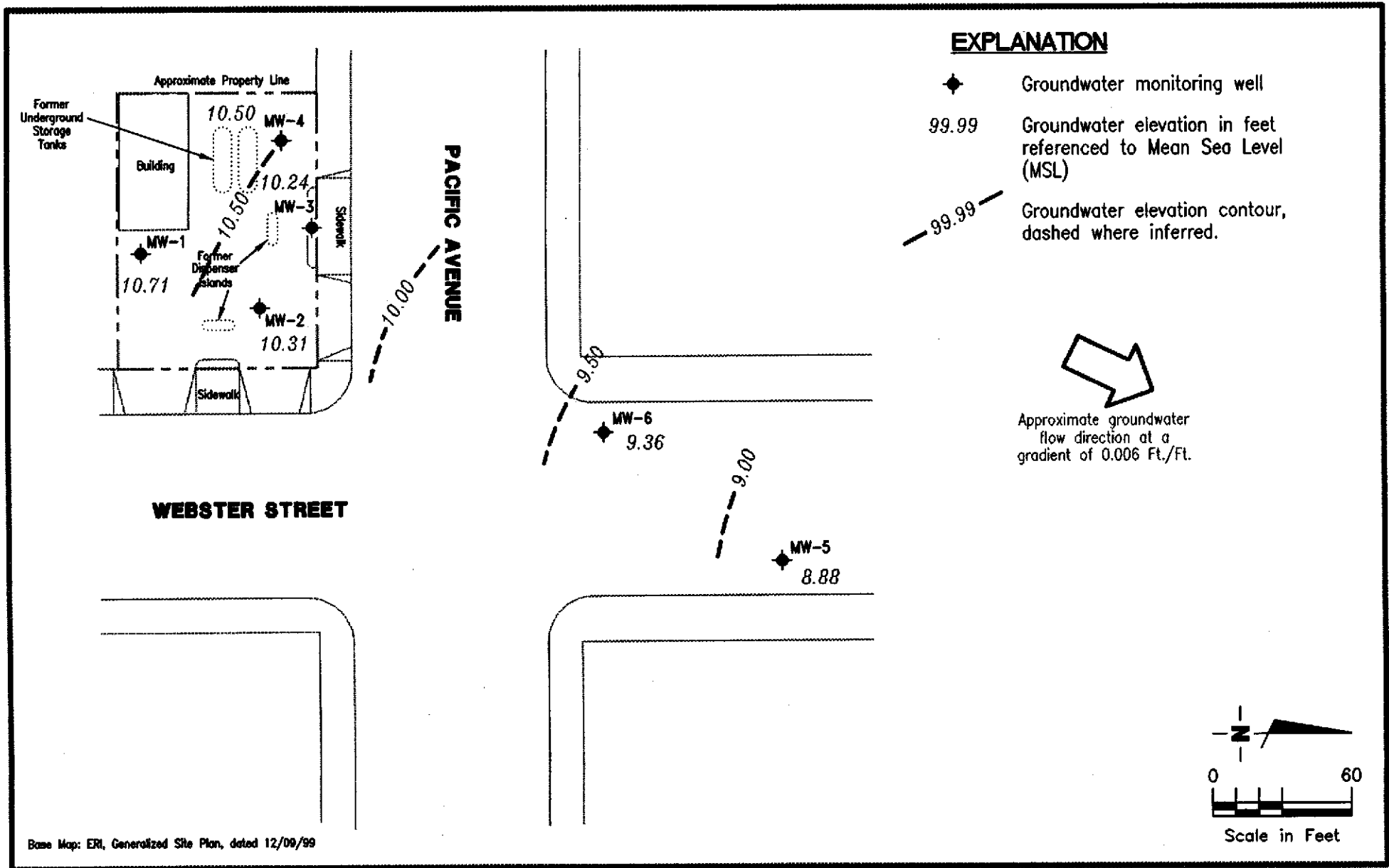


Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results - Oxygenate Compounds
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory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

0843.qml



FIGURE

1



Gettler - Ryan Inc.

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

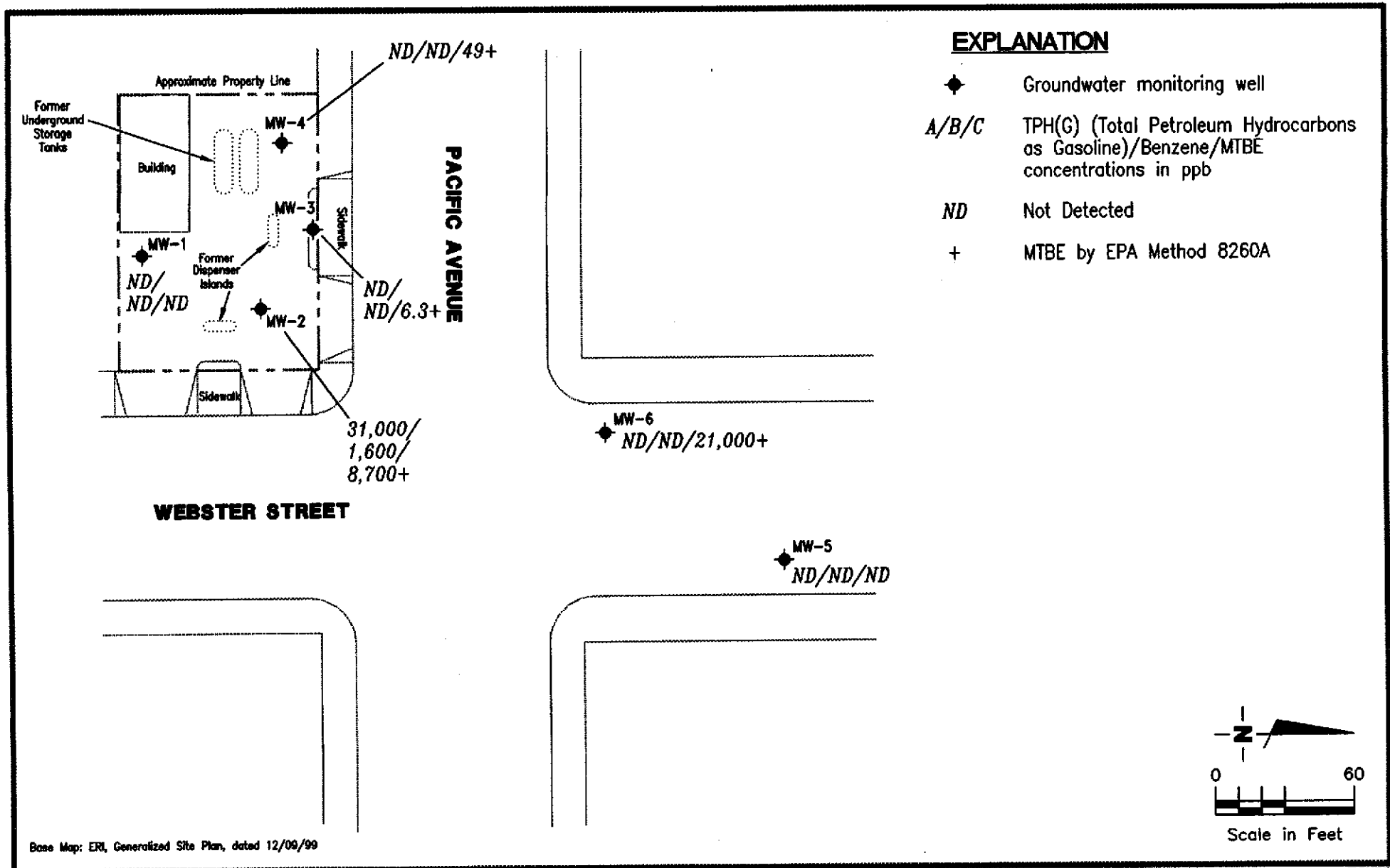
POTENTIOMETRIC MAP
Former Tosco 76 Service Station #0843
1629 Webster Street
Alameda, California

JOB NUMBER
180203

REVIEWED BY

DATE
March 14, 2000

REVISED DATE



Gettler - Ryan Inc.

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

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

FIGURE

2

JOB NUMBER
180203

REVIEWED BY

DATE
March 14, 2000

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
Former Tosco 76 Service Station #0843
1629 Webster Street
Alameda, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1									
16.18	03/05/99 ¹	--	--	86.6 ³	ND	2.04	ND	4.06	23.9 ²
	06/03/99	6.24	9.94	ND	ND	ND	ND	ND	ND/ND ²
	09/02/99	7.19	8.99	ND	ND	ND	ND	ND	ND/ND ²
	12/14/99	8.07	8.11	ND	ND	ND	ND	ND	ND
	03/14/00	5.47	10.71	ND	ND	ND	ND	ND	ND
MW-2									
15.57	03/05/99 ¹	--	--	34,400	2,070	7,710	2,340	8,240	8,460 ²
	06/03/99	5.96	9.61	51,200 ⁴	1,820	7,570	2,510	7,320	6,460/8,800 ²
	09/02/99	6.85	8.72	17,000 ⁵	1,000	3,100	1,400	3,700	4,000/3,720 ²
	12/14/99	7.65	7.92	83,000 ⁵	3,000	22,000	4,500	17,000	9,100/11,000 ²
	03/14/00	5.26	10.31	31,000⁵	1,600	4,600	2,300	7,300	5,700/8,700²
MW-3									
15.11	03/05/99 ¹	--	--	135 ³	ND	ND	ND	4.84	2.46 ²
	06/03/99	5.57	9.54	ND	ND	ND	ND	ND	5.23/12.7 ²
	09/02/99	6.50	8.61	ND	ND	ND	ND	ND	13/11.0 ²
	12/14/99	7.28	7.83	ND	ND	ND	ND	ND	ND
	03/14/00	4.87	10.24	ND	ND	ND	ND	ND	7.2/6.3²
MW-4									
15.17	03/05/99 ¹	--	--	ND	ND	ND	ND	2.44	25.2 ²
	06/03/99	5.45	9.72	ND	ND	ND	ND	ND	ND/3.96 ²
	09/02/99	6.48	8.69	ND	ND	ND	ND	ND	23/27.0 ²
	12/14/99	7.27	7.90	ND	ND	ND	ND	ND	200/270 ²
	03/14/00	4.67	10.50	ND	ND	ND	ND	ND	46/49²

Table 1
Groundwater Monitoring Data and Analytical Results
Former Tosco 76 Service Station #0843
1629 Webster Street
Alameda, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-5									
13.34	12/14/99	6.45	6.89	ND	ND	ND	ND	ND	3.5/3.8 ²
	03/14/00	4.46	8.88	ND	ND	ND	ND	ND	ND
MW-6									
14.08	12/14/99	6.64	7.44	ND	ND	ND	ND	ND	11,000/18,000 ²
	03/14/00	4.72	9.36	ND ⁷	ND ⁷	ND ⁷	ND ⁷	ND ⁷	19,000/21,000^{2,6}
Trip Blank									
TB-LB	03/05/99 ¹	--	--	ND	ND	ND	ND	ND	ND ²
	06/03/99	--	--	ND	ND	ND	ND	ND	ND
	09/02/99	--	--	ND	ND	ND	ND	ND	ND
	12/14/99	--	--	ND	ND	ND	ND	ND	ND
	03/14/00	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Former Tosco 76 Service Station #0843
1629 Webster Street
Alameda, California

EXPLANATIONS:

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

TOC = Top of Casing elevation

B = Benzene

ppb = Parts per billion

DTW = Depth to Water

T = Toluene

ND = Not Detected

(ft.) = Feet

E = Ethylbenzene

-- = Not Measured/Not Analyzed

GWE = Groundwater Elevation

X = Xylenes

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

MTBE = Methyl tertiary butyl ether

* TOC elevations are based on USC&GS Benchmark WEB PAC - 1947 - R 1951; (Elevation = 14.054 feet).

¹ Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8260A.

² MTBE by EPA Method 8260A.

³ Laboratory report indicates weathered gasoline C6-C12.

⁴ Laboratory report indicates chromatogram pattern C6-C12.

⁵ Laboratory report indicates gasoline C6-C12.

⁶ Laboratory report indicates sample was analyzed 03/28/00 but required reanalysis at a dilution. The dilution was analyzed outside of the EPA recommended holding time.

⁷ Detection limit raised. Refer to analytical reports.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
Former Tosco 76 Service Station #0843
1629 Webster Street
Alameda, California

Well ID	Date	Ethanol (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	09/02/99	ND	ND	ND	ND	ND	ND	--	--
MW-2	09/02/99	ND ¹	ND ¹	3,720	ND ¹	ND ¹	ND ¹	--	--
	12/14/99	ND ¹	ND ¹	11,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	03/14/00	ND ¹	1,300	8,700	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
MW-3	09/02/99	ND	ND	11.0	ND	ND	ND	--	--
	03/14/00	--	--	6.3	--	--	--	--	--
MW-4	09/02/99	ND	ND	27.0	ND	ND	ND	--	--
	12/14/99	--	--	270	--	--	--	--	--
	03/14/00	--	--	49	--	--	--	--	--
MW-5	12/14/99	--	--	3.8	--	--	--	--	--
MW-6	12/14/99	--	--	18,000	--	--	--	--	--
	03/14/00	--	--	21,000 ²	--	--	--	--	--

Table 2
Groundwater Analytical Results - Oxygenate Compounds
Former Tosco 76 Service Station #0843
1629 Webster Street
Alameda, California

EXPLANATIONS:

TBA = Tertiary Butyl Alcohol
MTBE = Methyl Tertiary Butyl Ether
DIPE = Di-isopropyl Ether
ETBE = Ethyl Tertiary Butyl Ether
TAME = Tertiary Amyl Methyl Ether
1,2-DCA = 1,2-Dichloroethane
EDB = Ethylene dibromide
ppb = Parts per billion
ND = Not Detected
-- = Not Analyzed

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

¹ Detection limit raised. Refer to analytical reports.

² Laboratory report indicates sample was analyzed 03/28/00 but required reanalysis at a dilution. The dilution was analyzed outside of the EPA recommended holding time.

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 a MMC flexi-dip 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: Former Tosco #0843 Job#: 180203
 Address: 1629 Webster St. Date: 3/14/00
 City: Alameda, CA Sampler: Vaultles

Well ID: MW-1 Well Condition: OK
 Well Diameter: 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth: 20.50 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water: 5.47 ft. Factor (VF) 6" = 1.50 12" = 5.80

15.03 X VF 0.17 = 2.55 X 3 (case volume) = Estimated Purge Volume: 7.66 (gal.)

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

Starting Time: 11:00 Weather Conditions: clear
 Sampling Time: 11:15 Water Color: brn Odor: no
 Purging Flow Rate: 1 gpm. Sediment Description: silt
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gall)	pH	Conductivity (µmhos/cm) x 100	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:02</u>	<u>2.5</u>	<u>7.88</u>	<u>7.74</u>	<u>63.8</u>			
<u>11:05</u>	<u>5</u>	<u>7.65</u>	<u>7.94</u>	<u>64.1</u>			
<u>11:08</u>	<u>8</u>	<u>7.60</u>	<u>7.89</u>	<u>64.7</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPHGas/Btex/Mtbe</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility Former Tosco #0843 Job#: 180203
 Address: 1629 Webster St. Date: 3/14/00
 City: Alameda, CA Sampler: Vantles

Well ID MW-2 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Thickness: ∅ (feet) Amount Bailed (product/water): ∅ (Gallons)
 Total Depth 20.50 ft.
 Depth to Water 5.26 ft.

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

15.24 x VF 0.17 = 2.59 x 3 (case volume) = Estimated Purge Volume: 7.77 (gal.)

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

Starting Time: 1:25 Weather Conditions: clear
 Sampling Time: 1:40 Water Color: gray Odor: y
 Purging Flow Rate: 1 gpm. Sediment Description: silt
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 100$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:27</u>	<u>2.5</u>	<u>7.12</u>	<u>8.25</u>	<u>66.8</u>			
<u>1:30</u>	<u>5</u>	<u>7.02</u>	<u>8.20</u>	<u>64.9</u>			
<u>1:33</u>	<u>8</u>	<u>6.93</u>	<u>8.22</u>	<u>65.1</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3 VOA</u>	<u>Y</u>	<u>Hel</u>	<u>SEQUOIA</u>	<u>TPH Gas/Btex/Mtbe</u>
<u>MW-2</u>	<u>2 VOA</u>	<u>-</u>	<u>Hel</u>	<u>~</u>	<u>8260(6) OXYS.</u>
<u>MW-2</u>	<u>2 VOA</u>	<u>~</u>	<u>Hel</u>	<u>~</u>	<u>1,2 DCA + EDB</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility Former Tosco #0843 Job#: 180203
 Address: 1629 Webster St. Date: 3/14/00
 City: Alameda, CA Sampler: Ventiles

Well ID MW- 3 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth 20.50 ft.
 Depth to Water 4.87 ft.

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

15.63 x VF 0.17 = 2.65 x 3 (case volume) = Estimated Purge Volume: 7.97 (gal.)

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

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

Starting Time: 11:34 Weather Conditions: clear
 Sampling Time: 11:50 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 $\mu\text{mhos/cm} @ 25^\circ\text{C}$	Temperature $^\circ\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:37</u>	<u>2.5</u>	<u>8.07</u>	<u>6.64</u>	<u>65.7</u>			
<u>11:39</u>	<u>5</u>	<u>7.91</u>	<u>6.52</u>	<u>64.6</u>			
<u>11:42</u>	<u>8</u>	<u>7.85</u>	<u>6.57</u>	<u>65.1</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW- 3</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH/Gas/Btox/Mtbe</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
 Facility Former Tosco #0843 Job#: 180203
 Address: 1629 Webster St. Date: 3/14/00
 City: Alameda, CA Sampler: VanDyke

Well ID MW-4 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Amount Bailed
 Thickness: Ø (feet) (product/water): Ø (Gallons)
 Total Depth 20.50 ft.
 Depth to Water 4.67 ft.

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

15.83 x VF 0.17 = 2.69 x 3 (case volume) = Estimated Purge Volume: 8.02 (gal.)

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

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

Starting Time: 12:00 Weather Conditions: clear
 Sampling Time: 12:15 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 μ mhos/cm $\times 100$	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:03</u>	<u>2</u>	<u>8.11</u>	<u>11.25</u>	<u>66.6</u>			
<u>12:06</u>	<u>6</u>	<u>7.93</u>	<u>11.33</u>	<u>65.5</u>			
<u>12:09</u>	<u>8.5</u>	<u>7.88</u>	<u>11.43</u>	<u>66.1</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3 VOA</u>	<u>Y</u>	<u>Hot</u>	<u>SEQUOIA</u>	<u>TPH Gas/Btex/Mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility Former Tosco #0843 Job#: 180203
 Address: 1629 Webster St. Date: 3/19/00
 City: Alameda, CA Sampler: Ventura

Well ID MW-5 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth 20.22 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 4.46 ft. Factor (VF) 6" = 1.50 12" = 5.80

15.76 x VF 0.17 = 2.67 x 3 (case volume) = Estimated Purge Volume: 8.03 (gal.)

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

Starting Time: 12:28 Weather Conditions: clear
 Sampling Time: 12:45 Water Color: brn Odor: no
 Purging Flow Rate: 1 gpm. Sediment Description: sand (very turbid)
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
12:31	3	8.21	6.68	67.1			
12:34	6	8.03	66.84	65.9			
12:37	8.5	7.92	68.6	66.2			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3 U&A	Y	HCl	SEQUOIA	TPHGas/Btex/Mtbe

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
Facility Former Tosco #0843 Job#: 180203
Address: 1629 Webster St. Date: 3/14/00
City: Alameda, CA Sampler: Vanth

Well ID MW-6 Well Condition: OK
Well Diameter 2 in. Hydrocarbon Thickness: ∅ (feet) Amount Bailed (product/water): ∅ (Gallons)
Total Depth 20.15 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
Depth to Water 4.72 ft. Factor (VF) 6" = 1.50 12" = 5.80

15.43 x VF 0.17 = 2.62 X 3 (case volume) = Estimated Purge Volume: 7.86 (gal.)

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

Starting Time: 12:53 Weather Conditions: clear
Sampling Time: 1:10 Water Color: brn Odor: mild
Purging Flow Rate: 1 gpm. Sediment Description: Sand (very Turbid)
Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 100$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:55</u>	<u>2.5</u>	<u>7.71</u>	<u>6.68</u>	<u>67.3</u>			
<u>12:58</u>	<u>5</u>	<u>7.58</u>	<u>7.57</u>	<u>65.7</u>			
<u>1:01</u>	<u>8</u>	<u>7.49</u>	<u>7.57</u>	<u>65.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3 WBA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH Gas/Btex/Mtbe</u>

COMMENTS: _____



Tosco Marketing Company
3000 Cape Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number: TOSCO (Former 76) SS #0843
 Facility Address: 1629 Webster Street, ALAMEDA CA
 Consultant Project Number: 180023.85
 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. Ed Ralston David W. Witt
 (Phone): (916) 774-2910
 Laboratory Name: Sequoia Analytical
 Laboratory Release Number: W003376
 Samples Collected by (Name): Vanther Teohjoo
 Collection Date: 3/14/00
 Signature: Vanther Teohjoo

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	Lead (Yes or No)	Analytes To Be Performed											Remarks						
								TPH Gas - BTEX w/MTBE (8016)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or M)	8260 (6)	oxy. Comp.	1,2 DCA+EDB		8260					
TB-LB	01A	1	W	G		HCl	Y	X																	
MW-1	02A-C	3	-	G	11:15 A		Y	X																	Run MTBE By 8260 on any hits of MTBE (8020)
MW-2	03A-G	7	-	G	1:40 P		Y	X																	
MW-3	04A-C	3	-	G	11:50 A		Y	X																	
MW-4	05	3	-	G	12:15 P		Y	X																	
MW-5	06	3	-	G	12:45 P		Y	X																	
MW-6	07 V	3	-	G	1:10 P		Y	X																	

DO NOT BILL TB-LB ANALYSIS

Relinquished By (Signature) <i>Vanther Teohjoo</i>	Organization G-R Inc.	Date/Time 3/14/00 3:00 pm	Received By (Signature) <i>Kerri Pan</i>	Organization ESC	Date/Time 3/15/00 15:00	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature) <i>Novel</i>	Organization SERQ	Date/Time 3/15/00	Received By (Signature) <i>[Signature]</i>	Organization ESC	Date/Time 3-15 13:00	
Relinquished By (Signature) <i>[Signature]</i>	Organization CR	Date/Time 2:45	Received For Laboratory By (Signature) <i>[Signature]</i>	Organization ESC	Date/Time 3/15 14:35	



Sequoia Analytical

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


7 April, 2000

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

RE: Tosco
Sequoia Report: W003376

Enclosed are the results of analyses for samples received by the laboratory on 15-Mar-00 14:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,


for Alan B. Kemp
Laboratory Director

CA ELAP Certificate #1271





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

Project: Tosco
Project Number: Tosco # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W003376-01	Water	14-Mar-00 00:00	15-Mar-00 14:35
MW-1	W003376-02	Water	14-Mar-00 11:15	15-Mar-00 14:35
MW-2	W003376-03	Water	14-Mar-00 13:40	15-Mar-00 14:35
MW-3	W003376-04	Water	14-Mar-00 11:50	15-Mar-00 14:35
MW-4	W003376-05	Water	14-Mar-00 12:15	15-Mar-00 14:35
MW-5	W003376-06	Water	14-Mar-00 12:45	15-Mar-00 14:35
MW-6	W003376-07	Water	14-Mar-00 13:10	15-Mar-00 14:35





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

Project: Tosco
Project Number: Tosco # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

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
TB-LB (W003376-01) Water Sampled: 14-Mar-00 00:00 Received: 15-Mar-00 14:35									
Purgeable Hydrocarbons	ND	50	ug/l	1	0C25001	25-Mar-00	25-Mar-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>		104 %	70-130		"	"	"	"	
MW-1 (W003376-02) Water Sampled: 14-Mar-00 11:15 Received: 15-Mar-00 14:35									
Purgeable Hydrocarbons	ND	50	ug/l	1	0C25001	25-Mar-00	25-Mar-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>		105 %	70-130		"	"	"	"	
MW-2 (W003376-03) Water Sampled: 14-Mar-00 13:40 Received: 15-Mar-00 14:35 P-01									
Purgeable Hydrocarbons	31000	5000	ug/l	100	0C25001	25-Mar-00	25-Mar-00	EPA 8015M/8020	
Benzene	1600	50	"	"	"	"	"	"	
Toluene	4600	50	"	"	"	"	"	"	
Ethylbenzene	2300	50	"	"	"	"	"	"	
Xylenes (total)	7300	50	"	"	"	"	"	"	
Methyl tert-butyl ether	5700	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	70-130		"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

**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
MW-3 (W003376-04) Water Sampled: 14-Mar-00 11:50 Received: 15-Mar-00 14:35									
Purgeable Hydrocarbons	ND	50	ug/l	1	0C25001	25-Mar-00	25-Mar-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	7.2	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		101 %	70-130	"	"	"	"	"	
MW-4 (W003376-05) Water Sampled: 14-Mar-00 12:15 Received: 15-Mar-00 14:35									
Purgeable Hydrocarbons	ND	50	ug/l	1	0C25001	25-Mar-00	25-Mar-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	46	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.3 %	70-130	"	"	"	"	"	
MW-5 (W003376-06) Water Sampled: 14-Mar-00 12:45 Received: 15-Mar-00 14:35									
Purgeable Hydrocarbons	ND	50	ug/l	1	0C25001	25-Mar-00	25-Mar-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>		105 %	70-130	"	"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

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
MW-6 (W003376-07) Water Sampled: 14-Mar-00 13:10 Received: 15-Mar-00 14:35									
Purgeable Hydrocarbons	ND	1000	ug/l	20	0C25001	25-Mar-00	25-Mar-00	EPA 8015M/8020	
Benzene	ND	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		107 %	70-130	"	"	"	"	"	
MW-6 (W003376-07RE1) Water Sampled: 14-Mar-00 13:10 Received: 15-Mar-00 14:35									
Methyl tert-butyl ether	19000	2500	ug/l	1000	0C25001	25-Mar-00	25-Mar-00	EPA 8015M/8020	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %	70-130	"	"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

MTBE Confirmation by EPA Method 8260A

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W003376-04) Water Sampled: 14-Mar-00 11:50 Received: 15-Mar-00 14:35									
Methyl tert-butyl ether	6.3	2.0	ug/l	1	0C28024	28-Mar-00	28-Mar-00	EPA 8260A	
Surrogate: Dibromofluoromethane		90.0 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		84.0 %	50-150		"	"	"	"	
MW-4 (W003376-05) Water Sampled: 14-Mar-00 12:15 Received: 15-Mar-00 14:35									
Methyl tert-butyl ether	49	2.0	ug/l	1	0C28024	28-Mar-00	28-Mar-00	EPA 8260A	
Surrogate: Dibromofluoromethane		92.0 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		90.0 %	50-150		"	"	"	"	
MW-6 (W003376-07) Water Sampled: 14-Mar-00 13:10 Received: 15-Mar-00 14:35 A-01									
Methyl tert-butyl ether	21000	1000	ug/l	500	0C28024	28-Mar-00	29-Mar-00	EPA 8260A	
Surrogate: Dibromofluoromethane		104 %	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 # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

**Volatile Organic Compounds by EPA Method 8260A
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (W003376-03) Water Sampled: 14-Mar-00 13:40 Received: 15-Mar-00 14:35									
Ethanol	ND	2500	ug/l	5	0C19001	20-Mar-00	21-Mar-00	EPA 8260A	
tert-Butyl alcohol	1300	500	"	"	"	"	"	"	
Methyl tert-butyl ether	8700	200	"	100	"	"	22-Mar-00	"	
Di-isopropyl ether	ND	10	"	5	"	"	21-Mar-00	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	10	"	"	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	"	"	
Ethylene dibromide	ND	10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		88.0 %		50-150	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		72.0 %		50-150	"	"	"	"	





Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Tosco Project Number: Tosco # 0843 Project Manager: Deanna L. Harding	Reported: 07-Apr-00 09:58
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**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 0C25001 - EPA 5030B [P/T]

Blank (0C25001-BLK1)

Prepared & Analyzed: 25-Mar-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>	33.6		"	30.0		112	70-130			

LCS (0C25001-BS1)

Prepared & Analyzed: 25-Mar-00

Benzene	18.1	0.50	ug/l	20.0		90.5	70-130			
Toluene	18.7	0.50	"	20.0		93.5	70-130			
Ethylbenzene	19.9	0.50	"	20.0		99.5	70-130			
Xylenes (total)	62.0	0.50	"	60.0		103	70-130			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	27.8		"	30.0		92.7	70-130			

Matrix Spike (0C25001-MS1)

Source: W003375-02

Prepared & Analyzed: 25-Mar-00

Benzene	15.8	0.50	ug/l	20.0	ND	79.0	70-130			
Toluene	16.5	0.50	"	20.0	ND	82.5	70-130			
Ethylbenzene	16.0	0.50	"	20.0	ND	80.0	70-130			
Xylenes (total)	50.4	0.50	"	60.0	ND	84.0	70-130			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	26.4		"	30.0		88.0	70-130			

Matrix Spike Dup (0C25001-MSD1)

Source: W003375-02

Prepared & Analyzed: 25-Mar-00

Benzene	15.2	0.50	ug/l	20.0	ND	76.0	70-130	3.87	20	
Toluene	16.1	0.50	"	20.0	ND	80.5	70-130	2.45	20	
Ethylbenzene	15.7	0.50	"	20.0	ND	78.5	70-130	1.89	20	
Xylenes (total)	46.9	0.50	"	60.0	ND	78.2	70-130	7.19	20	
<i>Surrogate: a, a, a-Trifluorotoluene</i>	25.6		"	30.0		85.3	70-130			





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

Project: Tosco
Project Number: Tosco # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C28024 - EPA 5030B [P/T]										
Blank (0C28024-BLK1)										
Prepared: 28-Mar-00 Analyzed: 29-Mar-00										
Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	51.0		"	50.0		102	50-150			
Surrogate: 1,2-Dichloroethane-d4	45.0		"	50.0		90.0	50-150			
LCS (0C28024-BS1)										
Prepared: 28-Mar-00 Analyzed: 29-Mar-00										
Methyl tert-butyl ether	46.0	2.0	ug/l	50.0		92.0	70-130			
Surrogate: Dibromofluoromethane	46.0		"	50.0		92.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	41.0		"	50.0		82.0	50-150			
LCS Dup (0C28024-BSD1)										
Prepared & Analyzed: 29-Mar-00										
Methyl tert-butyl ether	51.5	2.0	ug/l	50.0		103	70-130	11.3	25	
Surrogate: Dibromofluoromethane	52.0		"	50.0		104	50-150			
Surrogate: 1,2-Dichloroethane-d4	45.0		"	50.0		90.0	50-150			





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

Project: Tosco
Project Number: Tosco # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

**Volatile Organic Compounds 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 0C19001 - EPA 5030B [P/T]

Blank (0C19001-BLK1)

Prepared & Analyzed: 17-Mar-00

Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	100	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							
<i>Surrogate: Dibromofluoromethane</i>	55.0		"	50.0		110	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	55.0		"	50.0		110	50-150			

Blank (0C19001-BLK2)

Prepared & Analyzed: 20-Mar-00

Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	100	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							
<i>Surrogate: Dibromofluoromethane</i>	51.0		"	50.0		102	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	45.0		"	50.0		90.0	50-150			

LCS (0C19001-BS1)

Prepared & Analyzed: 17-Mar-00

Methyl tert-butyl ether	60.8	2.0	ug/l	50.0		122	70-130			
<i>Surrogate: Dibromofluoromethane</i>	54.0		"	50.0		108	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	52.0		"	50.0		104	50-150			





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

Project: Tosco
Project Number: Tosco # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

**Volatile Organic Compounds 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
Batch 0C19001 - EPA 5030B [P/T]										
LCS (0C19001-BS2)										
				Prepared & Analyzed: 20-Mar-00						
Methyl tert-butyl ether	48.3	2.0	ug/l	50.0		96.6	70-130			
Surrogate: Dibromofluoromethane	49.0		"	50.0		98.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	44.0		"	50.0		88.0	50-150			
Matrix Spike (0C19001-MS1)										
				Source: W003125-10		Prepared & Analyzed: 17-Mar-00				
Methyl tert-butyl ether	43.1	2.0	ug/l	50.0	ND	86.2	60-150			
Surrogate: Dibromofluoromethane	51.0		"	50.0		102	50-150			
Surrogate: 1,2-Dichloroethane-d4	51.0		"	50.0		102	50-150			
Matrix Spike (0C19001-MS2)										
				Source: W003275-02		Prepared & Analyzed: 20-Mar-00				
Methyl tert-butyl ether	46.1	2.0	ug/l	50.0	6.4	79.4	60-150			
Surrogate: Dibromofluoromethane	46.0		"	50.0		92.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	39.0		"	50.0		78.0	50-150			
Matrix Spike Dup (0C19001-MSD1)										
				Source: W003125-10		Prepared & Analyzed: 17-Mar-00				
Methyl tert-butyl ether	43.2	2.0	ug/l	50.0	ND	86.4	60-150	0.232	25	
Surrogate: Dibromofluoromethane	51.0		"	50.0		102	50-150			
Surrogate: 1,2-Dichloroethane-d4	50.0		"	50.0		100	50-150			
Matrix Spike Dup (0C19001-MSD2)										
				Source: W003275-02		Prepared & Analyzed: 20-Mar-00				
Methyl tert-butyl ether	59.0	2.0	ug/l	50.0	6.4	105	60-150	24.5	25	
Surrogate: Dibromofluoromethane	47.0		"	50.0		94.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	41.0		"	50.0		82.0	50-150			





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Project: Tosco
Project Number: Tosco # 0843
Project Manager: Deanna L. Harding

Reported:
07-Apr-00 09:58

Notes and Definitions

- A-01 Sample was analyzed 3/28/00 but required reanalysis at a dilution. The dilution was analyzed outside of the EPA recommended holding time.
- P-01 Chromatogram Pattern: Gasoline 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

