



GETTLER-RYAN Inc. ENVIRONMENTAL PROTECTION

TRANSMITTAL

99 NOV 15 PM 4: 25

October 27, 1999

G-R #:180225

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

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

RE: Tosco 76 Service Station #1156
4276 MacArthur Boulevard
Oakland, California

*4/17/99 Rel. yesterday to D Harding
Can discontinue \$260 for MBE.
Just do 8020 for BUCK, MBE.*

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	October 25, 1999	Groundwater Monitoring and Sampling Report Fourth Quarter 1999 - Event of September 28, 1999

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 **November 9, 1999**, this report will be distributed to the following:

Enclosure

cc: Ms. Eva Chu, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502
Mr. Bob Hale, Alameda County Public Works Agency, Water Resources Section, 951 Turner CT, Suite 300, Hayward, CA 94545



GETTLER-RYAN INC.

October 25, 1999
G-R Job #180225

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

RE: Fourth Quarter 1999 Groundwater Monitoring & Sampling Report
Tosco 76 Service Station #1156
4276 MacArthur Boulevard
Oakland, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On September 28, 1999, field personnel monitored and sampled four wells (MW-1 through MW-4) at the above referenced site.

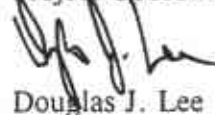
Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map is included as Figure 1.

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 are also attached.

Sincerely,


Deanna L. Harding

Project Coordinator

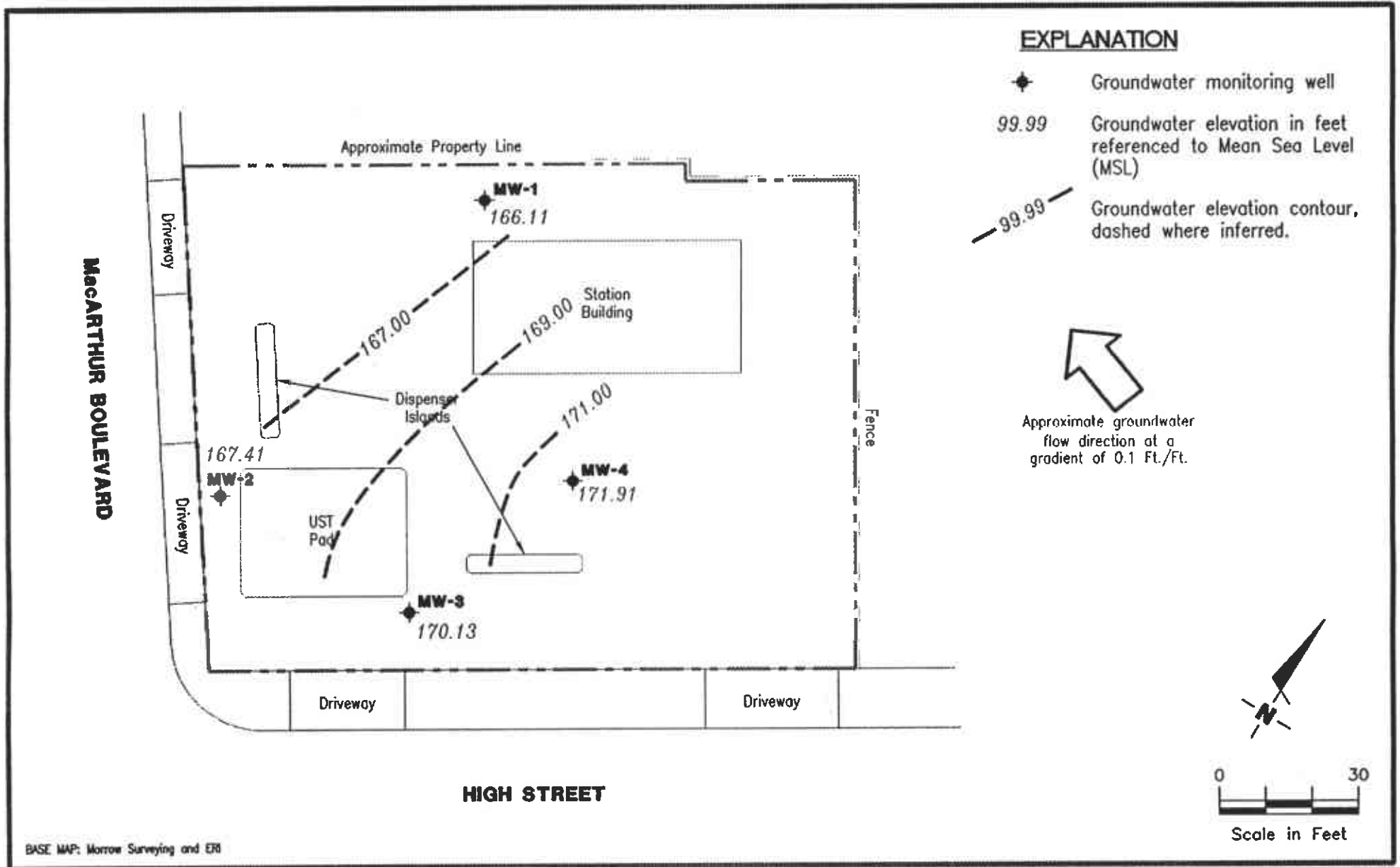

Douglas J. Lee

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
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

1156.qml



BASE MAP: Morrow Surveying and ERI



Gettler - Ryan Inc.

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

POTENTIOMETRIC MAP
Tosco 76 Service Station #1156
4276 MacArthur Boulevard
Oakland, California

FIGURE

1

JOB NUMBER
180225

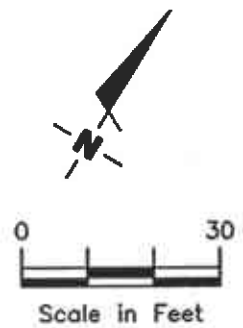
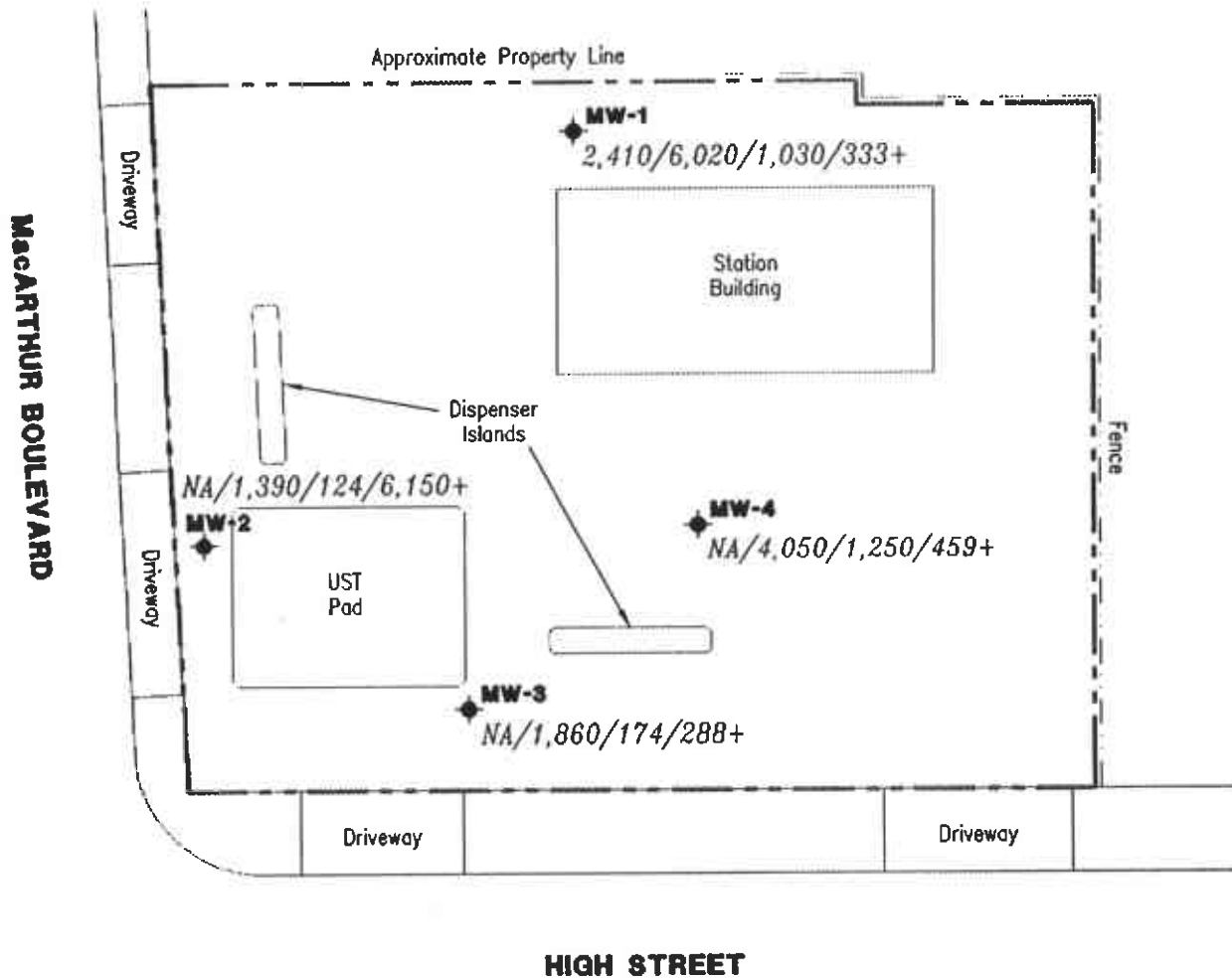
REVIEWED BY

DATE
September 28, 1999

REVISED DATE

EXPLANATION

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



BASE MAP: Morrow Surveying and ER



Gottler - Ryan Inc.

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

CONCENTRATION MAP
Tosco 76 Service Station #1156
4276 MacArthur Boulevard
Oakland, California

FIGURE
2

JOB NUMBER
180225

REVIEWED BY

DATE
September 28, 1999

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco 76 Service Station #1156
 4276 MacArthur Boulevard
 Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product							
				Thickness (ppb)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1 174.86	07/20/99 ⁵	7.50	167.36	--	16,000 ²	120,000	11,000	27,000	3,300	18,000	ND ¹
	09/28/99	8.75	166.11	<0.01	2,410 ²	6,020 ⁶	1,030	1,040	68.5	412	321/333 ³
MW-2 173.01	07/20/99	5.40	167.61	--	--	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	4,500/11,000 ^{3,4}
	09/28/99	5.60	167.41	0.00	--	1,390 ⁶	124	ND ¹	62.9	43.1	5,280/6,150 ³
MW-3 178.44	07/20/99	8.50	169.94	--	--	1,000	76	52	79	76	330
	09/28/99	8.31	170.13	0.00	--	1,860 ⁶	174	95.4	71.8	135	443/288 ³
MW-4 179.10	07/20/99	7.40	171.70	--	--	69	2.7	0.77	ND	7.1	100
	09/28/99	7.19	171.91	0.00	--	4,050 ⁶	1,250	72.0	51.3	133	416/459 ³
Trip Blank TB-LB	07/20/99	--	--	--	--	--	--	--	--	--	--
	09/28/99	--	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco 76 Service Station #1156
4276 MacArthur Boulevard
Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to September 28, 1999, were compiled from reports prepared by Environmental Resolutions, Inc.

TOC = Top of Casing elevation

DTW = Depth to Water

(ft.) = Feet

GWE = Groundwater Elevation

(msl) = Referenced relative to mean sea level

TPH(D) = Total Petroleum Hydrocarbons as Diesel

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

ppb = Parts per billion

ND = Not Detected

-- = Not Measured/Not Analyzed

* TOC elevations are based on City of Oakland Benchmark No. 3967, (Elevation = 174.40 feet msl).

¹ Detection limit raised. Refer to analytical reports.

² Laboratory report indicates unidentified hydrocarbons C9-C24.

³ MTBE by EPA Method 8260.

⁴ Laboratory analyzed sample past EPA recommended holding time.

⁵ Total Recoverable Petroleum Oil was ND.

⁶ Laboratory report indicates gasoline C6-C12.

Table 2
Groundwater Analytical Results
 Tosco 76 Service Station #1156
 4276 MacArthur Boulevard
 Oakland, California

Well ID	Date	Ethanol (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	HVOCs (ppb)	SVOCs (ppb)
MW-1	07/20/99	--	--	11,000 ³	--	--	--	ND ¹	ND ²
	09/28/99	--	ND ⁶	333	ND ⁶	ND ⁶	ND ⁶	ND ⁴	ND ⁵
MW-2	09/28/99	--	ND ⁶	6,150	ND ⁶	ND ⁶	ND ⁶	--	--
MW-3	09/28/99	--	ND ⁶	288	ND ⁶	ND ⁶	8.80	--	--
MW-4	09/28/99	--	ND ⁶	459	ND ⁶	ND ⁶	ND ⁶	--	--

Table 2
Groundwater Analytical Results
Tosco 76 Service Station #1156
4276 MacArthur Boulevard
Oakland, California

EXPLANATIONS:

Groundwater analytical results prior to September 28, 1999, were compiled from reports prepared by Environmental Resolutions, Inc.

TBA = Tertiary Butyl Alcohol

MTBE = Methyl Tertiary Butyl Ether

DIPE = Di-isopropyl Ether

ETBE = Ethyl Tertiary Butyl Ether

TAME = Tertiary Amyl Methyl Ether

EDB = 1,2-Dibromoethane

HVOCs = Halogenated Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

ppb = Parts per billion

-- = Not Analyzed

ND = Not Detected

- ¹ All HVOCs were ND except for Chlorobenzene at 12 ppb; 1,2-Dichlorobenzene (1,2-DCB) at 3.9 ppb; 1,1-Dichloroethane (1,1-DCA) at 2.0 ppb; 1,2-Dichloroethane (1,2-DCA) at 20 ppb; cis-1,2-Dichloroethene (cis-1,2-DCE) at 3.6 ppb; and 1,2-Dichloropropane (1,2-DCP) at 0.92 ppb.
- ² All SVOCs were ND except for Benzyl alcohol at 37 ppb; 2,4-Dimethylphenol at 140 ppb; 2-Methylnaphthalene at 240 ppb; 4-Methylphenol at 27 ppb; and Naphthalene at 600 ppb.
- ³ Laboratory analyzed sample past EPA recommended holding time.
- ⁴ All HVOCs were ND except for Benzene at 6,130 ppb; Ethylbenzene at 1,590 ppb; Naphthalene at 534 ppb; Toluene at 11,900 ppb; 1,2,4-Trimethylbenzene at 1,240 ppb; 1,3,5-Trimethylbenzene at 318 ppb; and Total Xylenes at 7,360 ppb.
- ⁵ All SVOCs were ND (with a raised detection limit) except for 2,4-Dimethylphenol at 13.6 ppb; 2-Methylnaphthalene at 87.4 ppb; 2-Methylphenol at 26.4; 4-Methylphenol at 35.6; and Naphthalene at 292 ppb.
- ⁶ Detection limit raised. Refer to analytical reports.

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

EPA Method 8010 for HVOCs

EPA Method 8270 for SVOCs

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 # Tosco 1156
 Address: 4276 MacArthur Blvd
 City: Oakland

Job#: 180225
 Date: 9/28/99
 Sampler: Varthu

Well ID: MW-1
 Well Diameter: 2 in.
 Total Depth: 25.00 ft.
 Depth to Water: 8.75 ft.

Well Condition: OK
 Hydrocarbon Thickness: 20.01 (feet)
 Amount Bailed (product/water): φ (Gallons)
 Volume Factor (VF):
 2" = 0.17 3" = 0.38 4" = 0.66
 6" = 1.50 12" = 5.80

16.25 x VF 0.17 = 2.76 x 3 (case volume) = Estimated Purge Volume: 8.28 (gal.)

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

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

Starting Time: 12:07
 Sampling Time: 12:25
 Purging Flow Rate: 1 gpm.
 Did well de-water? no

Weather Conditions: clear
 Water Color: clear Odor: y
 Sediment Description: _____
 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>12:10</u>	<u>3</u>	<u>7.70</u>	<u>8.74</u>	<u>71.9</u>	_____	_____	_____
<u>12:13</u>	<u>6</u>	<u>7.64</u>	<u>8.72</u>	<u>71.1</u>	_____	_____	_____
<u>12:16</u>	<u>8.5</u>	<u>7.59</u>	<u>8.67</u>	<u>70.6</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>TPH(G)/btex/mtba</u>
<u>MW-1</u>	<u>2 VOA</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>8260(5) Oxy-Gas.</u>
<u>MW-1</u>	<u>3 VOA</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>HVOC's (8260)</u>
<u>MW-1</u>	<u>1 Amber</u>	<u>~</u>	<u>~</u>	<u>NONE</u>	<u>TPH-D</u>
<u>MW-1</u>	<u>2 Ambers</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>SVOC's (8270)</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility # Tosco 1156
 Address: 4276 MacArthur Blvd.
 City: Oakland

Job#: 180225
 Date: 9/28/99
 Sampler: Vault

Well ID: MW-2
 Well Diameter: 2 in.
 Total Depth: 25.50 ft.
 Depth to Water: 5.60 ft.

Well Condition: OK
 Hydrocarbon Thickness: ∅ (feet) Amount Bailed (Gallons): ∅

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

19.90 x VF 0.17 = 3.38 x 3 (case volume) = Estimated Purge Volume: 10.14 (gal.)

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

Starting Time: 10:00 Weather Conditions: clear
 Sampling Time: 10:30 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 $\mu\text{mhos/cm} \times 100$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:13</u>	<u>3.5</u>	<u>7.77</u>	<u>7.25</u>	<u>69.4</u>	_____	_____	_____
<u>10:17</u>	<u>7</u>	<u>7.60</u>	<u>7.56</u>	<u>71.1</u>	_____	_____	_____
<u>10:20</u>	<u>10.5</u>	<u>7.54</u>	<u>7.62</u>	<u>71.7</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>
<u>MW-2</u>	<u>2 VOA</u>	<u>Y</u>	<u>~</u>	<u>~</u>	<u>8260 (5) O&G CO-P</u>
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility # Tosco 1156
 Address: 4276 MacArthur Blvd.
 City: Oakland

Job#: 180225
 Date: 9/28/99
 Sampler: Ventura

Well ID MW-3
 Well Diameter 2 in.
 Total Depth 25.00 ft.
 Depth to Water 8.31 ft.

Well Condition: OK
 Hydrocarbon Thickness: φ (feet) Amount Bailed (product/water): φ (Gallons)

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

16.69 x VF 0.17 = 2.83 x 3 (case volume) = Estimated Purge Volume: 8.51 (gal.)

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

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

Starting Time: 12:21
 Sampling Time: 11:40
 Purging Flow Rate: 1 gpm.
 Did well de-water? no

Weather Conditions: clear
 Water Color: clear Odor: 7
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm/100	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:24</u>	<u>3</u>	<u>7.48</u>	<u>7.39</u>	<u>71.7</u>			
<u>11:27</u>	<u>6</u>	<u>7.52</u>	<u>7.74</u>	<u>71.2</u>			
<u>11:30</u>	<u>9</u>	<u>7.53</u>	<u>7.19</u>	<u>70.8</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(G)/btex/mtbe</u>
<u>MW-3</u>	<u>2 VOA</u>	<u>u</u>	<u>u</u>	<u>u</u>	<u>8260 (5) 044.60</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility # Tosco 11.56 Job#: 180225
 Address: 4276 MacArthur Blvd. Date: 9/28/99
 City: Oakland Sampler: Varkh

Well ID MW-4 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth 25.340 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 7.19 ft. Factor (VF) 6" = 1.50 12" = 5.80

18.11 x VF 0.17 = 3.07 x 3 (case volume) = Estimated Purge Volume: 9.23 (gal.)

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

Starting Time: 10:45 Weather Conditions: clear
 Sampling Time: 11:05 Water Color: brn Odor: no
 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>10:48</u>	<u>3</u>	<u>7.57</u>	<u>10.31</u>	<u>72.2</u>			
<u>10:51</u>	<u>6</u>	<u>7.44</u>	<u>10.60</u>	<u>72.5</u>			
<u>10:54</u>	<u>9.5</u>	<u>7.39</u>	<u>10.65</u>	<u>72.3</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>
<u>MW-4</u>	<u>2 VOA</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>8260(5) Oxy. Comp.</u>

COMMENTS: _____



October 19, 1999

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

RE: Tosco(4)/L909259

Dear Deanna Harding

Enclosed are the results of analyses for sample(s) received by the laboratory on September 28, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wayne Stevenson
Project Manager

CA ELAP Certificate Number 2245



Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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ANALYTICAL REPORT FOR L909259

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
TB-LB	L909259-01	Water	9/28/99
MW-1	L909259-02	Water	9/28/99
MW-2	L909259-03	Water	9/28/99
MW-3	L909259-04	Water	9/28/99
MW-4	L909259-05	Water	9/28/99





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
				<u>L909259-01</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	9100036	10/8/99	10/8/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		90.5	%	
				<u>L909259-02</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	9100036	10/8/99	10/9/99		1000	6020	ug/l	
Benzene	"	"	"		10.0	1030	"	
Toluene	"	"	"		10.0	1040	"	
Ethylbenzene	"	"	"		10.0	68.5	"	
Xylenes (total)	"	"	"		10.0	412	"	
Methyl tert-butyl ether	"	"	"		100	321	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		NR	%	
				<u>L909259-03</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	9100036	10/8/99	10/9/99		250	1390	ug/l	
Benzene	"	"	"		2.50	124	"	
Toluene	"	"	"		2.50	ND	"	
Ethylbenzene	"	"	"		2.50	62.9	"	
Xylenes (total)	"	"	"		2.50	43.1	"	
Methyl tert-butyl ether	"	"	10/12/99		200	5280	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	10/9/99	70.0-130		86.3	%	
				<u>L909259-04</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	9100046	10/11/99	10/12/99		500	1860	ug/l	1
Benzene	"	"	"		5.00	174	"	
Toluene	"	"	"		5.00	95.4	"	
Ethylbenzene	"	"	"		5.00	71.8	"	
Xylenes (total)	"	"	"		5.00	135	"	
Methyl tert-butyl ether	"	"	"		50.0	443	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		78.0	%	
				<u>L909259-05</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	9100046	10/11/99	10/12/99		1250	4050	ug/l	1
Benzene	"	"	"		12.5	1250	"	
Toluene	"	"	"		12.5	72.0	"	
Ethylbenzene	"	"	"		12.5	51.3	"	
Xylenes (total)	"	"	"		12.5	133	"	





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

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-4 (continued)				<u>L909259-05</u>				
Methyl tert-butyl ether	9100046	10/11/99	10/12/99		125	416	ug/l	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		90.1	%	



Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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**Volatile Organic Compounds by EPA Method 8260A
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1			<u>L909259-02</u>				Water	
Benzene	9090135	9/29/99	9/29/99		200	6130	ug/l	
Bromobenzene	"	"	"		200	ND	"	
Bromochloromethane	"	"	"		200	ND	"	
Bromodichloromethane	"	"	"		200	ND	"	
Bromoform	"	"	"		200	ND	"	
Bromomethane	"	"	"		500	ND	"	
n-Butylbenzene	"	"	"		200	ND	"	
sec-Butylbenzene	"	"	"		200	ND	"	
tert-Butylbenzene	"	"	"		200	ND	"	
Carbon tetrachloride	"	"	"		200	ND	"	
Chlorobenzene	"	"	"		200	ND	"	
Chloroethane	"	"	"		500	ND	"	
Chloroform	"	"	"		200	ND	"	
Chloromethane	"	"	"		500	ND	"	
2-Chlorotoluene	"	"	"		200	ND	"	
4-Chlorotoluene	"	"	"		200	ND	"	
Dibromochloromethane	"	"	"		200	ND	"	
1,2-Dibromoethane	"	"	"		200	ND	"	
Dibromomethane	"	"	"		200	ND	"	
1,2-Dibromo-3-chloropropane	"	"	"		500	ND	"	
1,2-Dichlorobenzene	"	"	"		200	ND	"	
1,3-Dichlorobenzene	"	"	"		200	ND	"	
1,4-Dichlorobenzene	"	"	"		200	ND	"	
Dichlorodifluoromethane	"	"	"		500	ND	"	
1,1-Dichloroethane	"	"	"		200	ND	"	
1,2-Dichloroethane	"	"	"		200	ND	"	
1,1-Dichloroethene	"	"	"		200	ND	"	
cis-1,2-Dichloroethene	"	"	"		200	ND	"	
trans-1,2-Dichloroethene	"	"	"		200	ND	"	
1,2-Dichloropropane	"	"	"		200	ND	"	
1,3-Dichloropropane	"	"	"		200	ND	"	
2,2-Dichloropropane	"	"	"		200	ND	"	
1,1-Dichloropropene	"	"	"		200	ND	"	
Ethylbenzene	"	"	"		200	1590	"	
Hexachlorobutadiene	"	"	"		200	ND	"	
Isopropylbenzene	"	"	"		200	ND	"	
p-Isopropyltoluene	"	"	"		200	ND	"	
Methylene chloride	"	"	"		500	ND	"	
Naphthalene	"	"	"		500	534	"	
n-Propylbenzene	"	"	"		200	ND	"	
Styrene	"	"	"		200	ND	"	



Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4)	Sampled: 9/28/99
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	Project Manager: Deanna Harding	Reported: 10/19/99

**Volatile Organic Compounds by EPA Method 8260A
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1 (continued)				L909259-02			Water	
1,1,1,2-Tetrachloroethane	9090135	9/29/99	9/29/99		200	ND	ug/l	
1,1,2,2-Tetrachloroethane	"	"	"		200	ND	"	
Tetrachloroethene	"	"	"		200	ND	"	
Toluene	"	"	"		200	11900	"	
1,2,3-Trichlorobenzene	"	"	"		200	ND	"	
1,2,4-Trichlorobenzene	"	"	"		200	ND	"	
1,1,1-Trichloroethane	"	"	"		200	ND	"	
1,1,2-Trichloroethane	"	"	"		200	ND	"	
Trichloroethene	"	"	"		200	ND	"	
Trichlorofluoromethane	"	"	"		500	ND	"	
1,2,3-Trichloropropane	"	"	"		200	ND	"	
1,2,4-Trimethylbenzene	"	"	"		200	1240	"	
1,3,5-Trimethylbenzene	"	"	"		200	318	"	
Vinyl chloride	"	"	"		200	ND	"	
Total Xylenes	"	"	"		200	7360	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		99.2	%	
Surrogate: Toluene-d8	"	"	"	88.0-110		98.8	"	
Surrogate: 4-BFB	"	"	"	86.0-115		98.6	"	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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**Volatile Organic Oxygenated Compounds by EPA Method 8260A
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1				<u>L909259-02</u>			<u>Water</u>	
Tert-butyl alcohol	9090136	9/29/99	9/29/99		6670	ND	ug/l	
Methyl tert-butyl ether	"	"	"		66.7	333	"	
Di-isopropyl ether	"	"	"		66.7	ND	"	
Ethyl tert-butyl ether	"	"	"		66.7	ND	"	
Tert-amyl methyl ether	"	"	"		66.7	ND	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		98.0	%	
MW-2				<u>L909259-03</u>			<u>Water</u>	
Tert-butyl alcohol	9090136	9/29/99	9/29/99		10000	ND	ug/l	
Methyl tert-butyl ether	"	"	"		100	6150	"	
Di-isopropyl ether	"	"	"		100	ND	"	
Ethyl tert-butyl ether	"	"	"		100	ND	"	
Tert-amyl methyl ether	"	"	"		100	ND	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		105	%	
MW-3				<u>L909259-04</u>			<u>Water</u>	
Tert-butyl alcohol	9090143	9/29/99	10/4/99		500	ND	ug/l	
Methyl tert-butyl ether	"	"	"		5.00	288	"	
Di-isopropyl ether	"	"	"		5.00	ND	"	
Ethyl tert-butyl ether	"	"	"		5.00	ND	"	
Tert-amyl methyl ether	"	"	"		5.00	8.80	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		88.2	%	
MW-4				<u>L909259-05</u>			<u>Water</u>	
Tert-butyl alcohol	9090136	9/29/99	9/29/99		1250	ND	ug/l	
Methyl tert-butyl ether	"	"	"		12.5	459	"	
Di-isopropyl ether	"	"	"		12.5	ND	"	
Ethyl tert-butyl ether	"	"	"		12.5	ND	"	
Tert-amyl methyl ether	"	"	"		12.5	ND	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		97.6	%	



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**Diesel Hydrocarbons (C9-C24) by DHS LUFT
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>MW-1</u>				<u>L909259-02</u>			<u>Water</u>	
Diesel Range Hydrocarbons	9100191	10/7/99	10/12/99		50.0	2410	ug/l	2
<i>Surrogate: n-Pentacosane</i>	"	"	"	50.0-150		93.1	%	



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	Project Number: TOSCO (76) SS#1156, 180225.85	Received: 9/28/99
	Project Manager: Deanna Harding	Reported: 10/19/99

**Semivolatile Organic Compounds by EPA Method 8270B
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1			<u>L909259-02</u>				<u>Water</u>	
Acenaphthene	9100145	10/5/99	10/11/99		10.0	ND	ug/l	D
Acenaphthylene	"	"	"		10.0	ND	"	D
Anthracene	"	"	"		10.0	ND	"	D
Benzoic acid	"	"	"		20.0	ND	"	D
Benzo (a) anthracene	"	"	"		10.0	ND	"	D
Benzo (b) fluoranthene	"	"	"		10.0	ND	"	D
Benzo (k) fluoranthene	"	"	"		10.0	ND	"	D
Benzo (ghi) perylene	"	"	"		10.0	ND	"	D
Benzo[a]pyrene	"	"	"		10.0	ND	"	D
Benzyl alcohol	"	"	"		10.0	ND	"	D
Bis(2-chloroethoxy)methane	"	"	"		10.0	ND	"	D
Bis(2-chloroethyl)ether	"	"	"		10.0	ND	"	D
Bis(2-chloroisopropyl)ether	"	"	"		10.0	ND	"	D
Bis(2-ethylhexyl)phthalate	"	"	"		20.0	ND	"	D
4-Bromophenyl phenyl ether	"	"	"		10.0	ND	"	D
Butyl benzyl phthalate	"	"	"		10.0	ND	"	D
4-Chloroaniline	"	"	"		20.0	ND	"	D
2-Chloronaphthalene	"	"	"		10.0	ND	"	D
4-Chloro-3-methylphenol	"	"	"		10.0	ND	"	D
2-Chlorophenol	"	"	"		10.0	ND	"	D
4-Chlorophenyl phenyl ether	"	"	"		10.0	ND	"	D
Chrysene	"	"	"		10.0	ND	"	D
Dibenz (a,h) anthracene	"	"	"		10.0	ND	"	D
Dibenzofuran	"	"	"		10.0	ND	"	D
Di-n-butyl phthalate	"	"	"		20.0	ND	"	D
1,2-Dichlorobenzene	"	"	"		10.0	ND	"	D
1,3-Dichlorobenzene	"	"	"		10.0	ND	"	D
1,4-Dichlorobenzene	"	"	"		10.0	ND	"	D
3,3'-Dichlorobenzidine	"	"	"		20.0	ND	"	D
2,4-Dichlorophenol	"	"	"		10.0	ND	"	D
Diethyl phthalate	"	"	"		10.0	ND	"	D
2,4-Dimethylphenol	"	"	"		10.0	13.6	"	D
Dimethyl phthalate	"	"	"		10.0	ND	"	D
4,6-Dinitro-2-methylphenol	"	"	"		20.0	ND	"	D
2,4-Dinitrophenol	"	"	"		20.0	ND	"	D
2,4-Dinitrotoluene	"	"	"		10.0	ND	"	D
2,6-Dinitrotoluene	"	"	"		10.0	ND	"	D
Di-n-octyl phthalate	"	"	"		10.0	ND	"	D
Fluoranthene	"	"	"		10.0	ND	"	D
Fluorene	"	"	"		10.0	ND	"	D
Hexachlorobenzene	"	"	"		10.0	ND	"	D





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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**Semivolatile Organic Compounds by EPA Method 8270B
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1 (continued)				L909259-02			Water	
Hexachlorobutadiene	9100145	10/5/99	10/11/99		10.0	ND	ug/l	D
Hexachlorocyclopentadiene	"	"	"		20.0	ND	"	D
Hexachloroethane	"	"	"		10.0	ND	"	D
Indeno (1,2,3-cd) pyrene	"	"	"		10.0	ND	"	D
Isophorone	"	"	"		10.0	ND	"	D
2-Methylnaphthalene	"	"	"		10.0	87.4	"	D
2-Methylphenol	"	"	"		10.0	26.4	"	D
4-Methylphenol	"	"	"		10.0	35.6	"	D
Naphthalene	"	"	"		10.0	292	"	D
2-Nitroaniline	"	"	"		20.0	ND	"	D
3-Nitroaniline	"	"	"		20.0	ND	"	D
4-Nitroaniline	"	"	"		20.0	ND	"	D
Nitrobenzene	"	"	"		10.0	ND	"	D
2-Nitrophenol	"	"	"		10.0	ND	"	D
4-Nitrophenol	"	"	"		20.0	ND	"	D
N-Nitrosodiphenylamine	"	"	"		10.0	ND	"	D
N-Nitrosodi-n-propylamine	"	"	"		10.0	ND	"	D
Pentachlorophenol	"	"	"		20.0	ND	"	D
Phenanthrene	"	"	"		10.0	ND	"	D
Phenol	"	"	"		10.0	ND	"	D
Pyrene	"	"	"		10.0	ND	"	D
1,2,4-Trichlorobenzene	"	"	"		10.0	ND	"	D
2,4,5-Trichlorophenol	"	"	"		20.0	ND	"	D
2,4,6-Trichlorophenol	"	"	"		10.0	ND	"	D
Surrogate: 2-Fluorophenol	"	"	"	21.0-110		61.0	%	D
Surrogate: Phenol-d6	"	"	"	10.0-110		45.2	"	D
Surrogate: Nitrobenzene-d5	"	"	"	35.0-114		94.0	"	D
Surrogate: 2-Fluorobiphenyl	"	"	"	43.0-116		91.5	"	D
Surrogate: 2,4,6-Tribromophenol	"	"	"	10.0-123		89.5	"	D
Surrogate: p-Terphenyl-d14	"	"	"	33.0-141		96.0	"	D





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

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9100036		Date Prepared: 10/8/99		Extraction Method: EPA 5030B [P/T]						
Blank		9100036-BLK1								
Purgeable Hydrocarbons as Gasoline	10/8/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.38	"	70.0-130	93.8			
LCS		9100036-BS1								
Benzene	10/8/99	10.0		8.39	ug/l	70.0-130	83.9			
Toluene	"	10.0		8.34	"	70.0-130	83.4			
Ethylbenzene	"	10.0		8.42	"	70.0-130	84.2			
Xylenes (total)	"	30.0		25.2	"	70.0-130	84.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.64	"	70.0-130	86.4			
LCS		9100036-BS2								
Purgeable Hydrocarbons as Gasoline	10/8/99	250		246	ug/l	70.0-130	98.4			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		7.21	"	70.0-130	72.1			
Matrix Spike		9100036-MS1		L909258-02						
Purgeable Hydrocarbons as Gasoline	10/8/99	250	ND	250	ug/l	60.0-140	100			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.18	"	70.0-130	81.8			
Matrix Spike Dup		9100036-MSD1		L909258-02						
Purgeable Hydrocarbons as Gasoline	10/8/99	250	ND	246	ug/l	60.0-140	98.4	25.0	1.61	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		7.84	"	70.0-130	78.4			
Batch: 9100046		Date Prepared: 10/11/99		Extraction Method: EPA 5030B [P/T]						
Blank		9100046-BLK1								
Purgeable Hydrocarbons as Gasoline	10/11/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.14	"	70.0-130	91.4			
LCS		9100046-BS1								
Benzene	10/11/99	10.0		7.97	ug/l	70.0-130	79.7			
Toluene	"	10.0		7.93	"	70.0-130	79.3			





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

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS (continued)		9100046-BS1								
Ethylbenzene	10/11/99	10.0		7.96	ug/l	70.0-130	79.6			
Xylenes (total)	"	30.0		23.9	"	70.0-130	79.7			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.65	"	70.0-130	86.5			
LCS		9100046-BS2								
Purgeable Hydrocarbons as Gasoline	10/11/99	250		250	ug/l	70.0-130	100			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		7.62	"	70.0-130	76.2			
Matrix Spike		9100046-MS1		L909248-03						
Purgeable Hydrocarbons as Gasoline	10/11/99	250	ND	244	ug/l	60.0-140	97.6			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.28	"	70.0-130	82.8			
Matrix Spike Dup		9100046-MSD1		L909248-03						
Purgeable Hydrocarbons as Gasoline	10/12/99	250	ND	235	ug/l	60.0-140	94.0	25.0	3.76	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		7.78	"	70.0-130	77.8			





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Volatile Organic Compounds by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9090135	Date Prepared: 9/29/99					Extraction Method: EPA 5030B [P/T]				
Blank	9090135-BLK1									
Benzene	9/29/99			ND	ug/l	2.00				
Bromobenzene	"			ND	"	2.00				
Bromochloromethane	"			ND	"	2.00				
Bromodichloromethane	"			ND	"	2.00				
Bromoform	"			ND	"	2.00				
Bromomethane	"			ND	"	5.00				
n-Butylbenzene	"			ND	"	2.00				
sec-Butylbenzene	"			ND	"	2.00				
tert-Butylbenzene	"			ND	"	2.00				
Carbon tetrachloride	"			ND	"	2.00				
Chlorobenzene	"			ND	"	2.00				
Chloroethane	"			ND	"	5.00				
Chloroform	"			ND	"	2.00				
Chloromethane	"			ND	"	5.00				
2-Chlorotoluene	"			ND	"	2.00				
4-Chlorotoluene	"			ND	"	2.00				
Dibromochloromethane	"			ND	"	2.00				
1,2-Dibromoethane	"			ND	"	2.00				
Dibromomethane	"			ND	"	2.00				
1,2-Dibromo-3-chloropropane	"			ND	"	5.00				
1,2-Dichlorobenzene	"			ND	"	2.00				
1,3-Dichlorobenzene	"			ND	"	2.00				
1,4-Dichlorobenzene	"			ND	"	2.00				
Dichlorodifluoromethane	"			ND	"	5.00				
1,1-Dichloroethane	"			ND	"	2.00				
1,2-Dichloroethane	"			ND	"	2.00				
1,1-Dichloroethene	"			ND	"	2.00				
cis-1,2-Dichloroethene	"			ND	"	2.00				
trans-1,2-Dichloroethene	"			ND	"	2.00				
1,2-Dichloropropane	"			ND	"	2.00				
1,3-Dichloropropane	"			ND	"	2.00				
2,2-Dichloropropane	"			ND	"	2.00				
1,1-Dichloropropene	"			ND	"	2.00				
Ethylbenzene	"			ND	"	2.00				
Hexachlorobutadiene	"			ND	"	2.00				
Isopropylbenzene	"			ND	"	2.00				
p-Isopropyltoluene	"			ND	"	2.00				
Methylene chloride	"			ND	"	5.00				
Naphthalene	"			ND	"	5.00				
n-Propylbenzene	"			ND	"	2.00				





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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Volatile Organic Compounds by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	9090135-BLK1									
Styrene	9/29/99			ND	ug/l	2.00				
1,1,1,2-Tetrachloroethane	"			ND	"	2.00				
1,1,2,2-Tetrachloroethane	"			ND	"	2.00				
Tetrachloroethene	"			ND	"	2.00				
Toluene	"			ND	"	2.00				
1,2,3-Trichlorobenzene	"			ND	"	2.00				
1,2,4-Trichlorobenzene	"			ND	"	2.00				
1,1,1-Trichloroethane	"			ND	"	2.00				
1,1,2-Trichloroethane	"			ND	"	2.00				
Trichloroethene	"			ND	"	2.00				
Trichlorofluoromethane	"			ND	"	5.00				
1,2,3-Trichloropropane	"			ND	"	2.00				
1,2,4-Trimethylbenzene	"			ND	"	2.00				
1,3,5-Trimethylbenzene	"			ND	"	2.00				
Vinyl chloride	"			ND	"	2.00				
Total Xylenes	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		49.5	"	76.0-114	99.0			
Surrogate: Toluene-d8	"	50.0		49.2	"	88.0-110	98.4			
Surrogate: 4-BFB	"	50.0		48.8	"	86.0-115	97.6			

Blank	9090135-BLK2									
Benzene	9/30/99			ND	ug/l	2.00				
Bromobenzene	"			ND	"	2.00				
Bromochloromethane	"			ND	"	2.00				
Bromodichloromethane	"			ND	"	2.00				
Bromoform	"			ND	"	2.00				
Bromomethane	"			ND	"	5.00				
n-Butylbenzene	"			ND	"	2.00				
sec-Butylbenzene	"			ND	"	2.00				
tert-Butylbenzene	"			ND	"	2.00				
Carbon tetrachloride	"			ND	"	2.00				
Chlorobenzene	"			ND	"	2.00				
Chloroethane	"			ND	"	5.00				
Chloroform	"			ND	"	2.00				
Chloromethane	"			ND	"	5.00				
2-Chlorotoluene	"			ND	"	2.00				
4-Chlorotoluene	"			ND	"	2.00				
Dibromochloromethane	"			ND	"	2.00				
1,2-Dibromoethane	"			ND	"	2.00				
Dibromomethane	"			ND	"	2.00				
1,2-Dibromo-3-chloropropane	"			ND	"	5.00				



Göttler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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Volatile Organic Compounds by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	9090135-BLK2									
1,2-Dichlorobenzene	9/30/99			ND	ug/l	2.00				
1,3-Dichlorobenzene	"			ND	"	2.00				
1,4-Dichlorobenzene	"			ND	"	2.00				
Dichlorodifluoromethane	"			ND	"	5.00				
1,1-Dichloroethane	"			ND	"	2.00				
1,2-Dichloroethane	"			ND	"	2.00				
1,1-Dichloroethene	"			ND	"	2.00				
cis-1,2-Dichloroethene	"			ND	"	2.00				
trans-1,2-Dichloroethene	"			ND	"	2.00				
1,2-Dichloropropane	"			ND	"	2.00				
1,3-Dichloropropane	"			ND	"	2.00				
2,2-Dichloropropane	"			ND	"	2.00				
1,1-Dichloropropene	"			ND	"	2.00				
Ethylbenzene	"			ND	"	2.00				
Hexachlorobutadiene	"			ND	"	2.00				
Isopropylbenzene	"			ND	"	2.00				
p-Isopropyltoluene	"			ND	"	2.00				
Methylene chloride	"			ND	"	5.00				
Naphthalene	"			ND	"	5.00				
n-Propylbenzene	"			ND	"	2.00				
Styrene	"			ND	"	2.00				
1,1,1,2-Tetrachloroethane	"			ND	"	2.00				
1,1,2,2-Tetrachloroethane	"			ND	"	2.00				
Tetrachloroethene	"			ND	"	2.00				
Toluene	"			ND	"	2.00				
1,2,3-Trichlorobenzene	"			ND	"	2.00				
1,2,4-Trichlorobenzene	"			ND	"	2.00				
1,1,1-Trichloroethane	"			ND	"	2.00				
1,1,2-Trichloroethane	"			ND	"	2.00				
Trichloroethene	"			ND	"	2.00				
Trichlorofluoromethane	"			ND	"	5.00				
1,2,3-Trichloropropane	"			ND	"	2.00				
1,2,4-Trimethylbenzene	"			ND	"	2.00				
1,3,5-Trimethylbenzene	"			ND	"	2.00				
Vinyl chloride	"			ND	"	2.00				
Total Xylenes	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		47.4	"	76.0-114	94.8			
Surrogate: Toluene-d8	"	50.0		47.2	"	88.0-110	94.4			
Surrogate: 4-BFB	"	50.0		48.6	"	86.0-115	97.2			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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Volatile Organic Compounds by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank	9090135-BLK3									
Benzene	10/4/99			ND	ug/l	2.00				
Bromobenzene	"			ND	"	2.00				
Bromochloromethane	"			ND	"	2.00				
Bromodichloromethane	"			ND	"	2.00				
Bromoform	"			ND	"	2.00				
Bromomethane	"			ND	"	5.00				
n-Butylbenzene	"			ND	"	2.00				
sec-Butylbenzene	"			ND	"	2.00				
tert-Butylbenzene	"			ND	"	2.00				
Carbon tetrachloride	"			ND	"	2.00				
Chlorobenzene	"			ND	"	2.00				
Chloroethane	"			ND	"	5.00				
Chloroform	"			ND	"	2.00				
Chloromethane	"			ND	"	5.00				
2-Chlorotoluene	"			ND	"	2.00				
4-Chlorotoluene	"			ND	"	2.00				
Dibromochloromethane	"			ND	"	2.00				
1,2-Dibromoethane	"			ND	"	2.00				
Dibromomethane	"			ND	"	2.00				
1,2-Dibromo-3-chloropropane	"			ND	"	5.00				
1,2-Dichlorobenzene	"			ND	"	2.00				
1,3-Dichlorobenzene	"			ND	"	2.00				
1,4-Dichlorobenzene	"			ND	"	2.00				
Dichlorodifluoromethane	"			ND	"	5.00				
1,1-Dichloroethane	"			ND	"	2.00				
1,2-Dichloroethane	"			ND	"	2.00				
1,1-Dichloroethene	"			ND	"	2.00				
cis-1,2-Dichloroethene	"			ND	"	2.00				
trans-1,2-Dichloroethene	"			ND	"	2.00				
1,2-Dichloropropane	"			ND	"	2.00				
1,3-Dichloropropane	"			ND	"	2.00				
2,2-Dichloropropane	"			ND	"	2.00				
1,1-Dichloropropene	"			ND	"	2.00				
Ethylbenzene	"			ND	"	2.00				
Hexachlorobutadiene	"			ND	"	2.00				
Isopropylbenzene	"			ND	"	2.00				
p-Isopropyltoluene	"			ND	"	2.00				
Methylene chloride	"			ND	"	5.00				
Naphthalene	"			ND	"	5.00				
n-Propylbenzene	"			ND	"	2.00				
Styrene	"			ND	"	2.00				





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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Volatile Organic Compounds by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit	Recov.	RPD	RPD	Notes*
						Recov. Limits	%	Limit	%	
Blank (continued)		9090135-BLK3								
1,1,1,2-Tetrachloroethane	10/4/99			ND	ug/l	2.00				
1,1,2,2-Tetrachloroethane	"			ND	"	2.00				
Tetrachloroethene	"			ND	"	2.00				
Toluene	"			ND	"	2.00				
1,2,3-Trichlorobenzene	"			ND	"	2.00				
1,2,4-Trichlorobenzene	"			ND	"	2.00				
1,1,1-Trichloroethane	"			ND	"	2.00				
1,1,2-Trichloroethane	"			ND	"	2.00				
Trichloroethene	"			ND	"	2.00				
Trichlorofluoromethane	"			ND	"	5.00				
1,2,3-Trichloropropane	"			ND	"	2.00				
1,2,4-Trimethylbenzene	"			ND	"	2.00				
1,3,5-Trimethylbenzene	"			ND	"	2.00				
Vinyl chloride	"			ND	"	2.00				
Total Xylenes	"			ND	"	2.00				
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Surrogate: 1,2-Dichloroethane-d4	"	50.0		53.0	"	76.0-114	106			
Surrogate: Toluene-d8	"	50.0		50.6	"	88.0-110	101			
Surrogate: 4-BFB	"	50.0		49.0	"	86.0-115	98.0			
LCS		9090135-BS1								
Benzene	9/29/99	50.0		48.5	ug/l	70.0-130	97.0			
Chlorobenzene	"	50.0		47.5	"	70.0-130	95.0			
1,1-Dichloroethene	"	50.0		46.6	"	70.0-130	93.2			
Toluene	"	50.0		46.7	"	70.0-130	93.4			
Trichloroethene	"	50.0		47.3	"	70.0-130	94.6			
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Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.1	"	76.0-114	100			
Surrogate: Toluene-d8	"	50.0		49.2	"	88.0-110	98.4			
Surrogate: 4-BFB	"	50.0		46.8	"	86.0-115	93.6			
LCS		9090135-BS2								
Benzene	9/30/99	50.0		54.7	ug/l	70.0-130	109			
Chlorobenzene	"	50.0		60.8	"	70.0-130	122			
1,1-Dichloroethene	"	50.0		50.2	"	70.0-130	100			
Toluene	"	50.0		55.7	"	70.0-130	111			
Trichloroethene	"	50.0		55.6	"	70.0-130	111			
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Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.4	"	76.0-114	96.8			
Surrogate: Toluene-d8	"	50.0		48.4	"	88.0-110	96.8			
Surrogate: 4-BFB	"	50.0		48.6	"	86.0-115	97.2			
LCS		9090135-BS3								
Benzene	10/4/99	50.0		45.5	ug/l	70.0-130	91.0			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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Volatile Organic Compounds by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS (continued)		9090135-BS3								
Chlorobenzene	10/4/99	50.0		48.1	ug/l	70.0-130	96.2			
1,1-Dichloroethene	"	50.0		44.2	"	70.0-130	88.4			
Toluene	"	50.0		42.8	"	70.0-130	85.6			
Trichloroethene	"	50.0		46.5	"	70.0-130	93.0			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.3	"	76.0-114	96.6			
Surrogate: Toluene-d8	"	50.0		46.6	"	88.0-110	93.2			
Surrogate: 4-BFB	"	50.0		47.0	"	86.0-115	94.0			
Matrix Spike		9090135-MS1	L909254-02							
Benzene	9/29/99	50.0	ND	48.1	ug/l	60.0-140	96.2			
Chlorobenzene	"	50.0	ND	46.8	"	60.0-140	93.6			
1,1-Dichloroethene	"	50.0	ND	45.5	"	60.0-140	91.0			
Toluene	"	50.0	ND	46.5	"	60.0-140	93.0			
Trichloroethene	"	50.0	ND	46.6	"	60.0-140	93.2			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.2	"	76.0-114	96.4			
Surrogate: Toluene-d8	"	50.0		48.7	"	88.0-110	97.4			
Surrogate: 4-BFB	"	50.0		48.2	"	86.0-115	96.4			
Matrix Spike Dup		9090135-MSD1	L909254-02							
Benzene	9/29/99	50.0	ND	47.6	ug/l	60.0-140	95.2	25.0	1.04	
Chlorobenzene	"	50.0	ND	46.6	"	60.0-140	93.2	25.0	0.428	
1,1-Dichloroethene	"	50.0	ND	46.9	"	60.0-140	93.8	25.0	3.03	
Toluene	"	50.0	ND	46.0	"	60.0-140	92.0	25.0	1.08	
Trichloroethene	"	50.0	ND	46.5	"	60.0-140	93.0	25.0	0.215	
Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.2	"	76.0-114	96.4			
Surrogate: Toluene-d8	"	50.0		49.0	"	88.0-110	98.0			
Surrogate: 4-BFB	"	50.0		47.3	"	86.0-115	94.6			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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Volatile Organic Oxygenated Compounds by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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Batch: 9090136	Date Prepared: 9/29/99	Extraction Method: EPA 5030B [P/T]								
Blank	9090136-BLK1									
Ethanol	9/29/99			ND	ug/l	1000				
Tert-butyl alcohol	"			ND	"	200				
Methyl tert-butyl ether	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	"	50.0		47.8	"	76.0-114	95.6			

Blank	9090136-BLK2									
Ethanol	9/29/99			ND	ug/l	1000				
Tert-butyl alcohol	"			ND	"	200				
Methyl tert-butyl ether	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	"	50.0		53.8	"	76.0-114	108			

Blank	9090136-BLK3									
Ethanol	9/30/99			ND	ug/l	1000				
Tert-butyl alcohol	"			ND	"	200				
Methyl tert-butyl ether	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	"	50.0		51.4	"	76.0-114	103			

LCS	9090136-BS1									
Methyl tert-butyl ether	9/29/99	50.0		40.3	ug/l	70.0-130	80.6			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	"	50.0		49.9	"	76.0-114	99.8			

LCS	9090136-BS2									
Methyl tert-butyl ether	9/29/99	50.0		44.1	ug/l	70.0-130	88.2			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	"	50.0		53.7	"	76.0-114	107			

LCS	9090136-BS3									
Methyl tert-butyl ether	9/30/99	50.0		48.3	ug/l	70.0-130	96.6			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	"	50.0		55.5	"	76.0-114	111			

Matrix Spike	9090136-MS1	L909253-02								
Methyl tert-butyl ether	9/29/99	50.0	ND	38.9	ug/l	60.0-140	77.8			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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Volatile Organic Oxygenated Compounds by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike (continued)										
	9090136-MS1	L909253-02								
Surrogate: 1,2-Dichloroethane-d4	9/29/99	50.0		52.2	ug/l	76.0-114	104			
Matrix Spike Dup										
	9090136-MSD1	L909253-02								
Methyl tert-butyl ether	9/29/99	50.0	ND	41.2	ug/l	60.0-140	82.4	25.0	5.74	
Surrogate: 1,2-Dichloroethane-d4	"	50.0		51.8	"	76.0-114	104			
Batch: 9090143										
Blank										
	9090143-BLK1									
Ethanol	9/30/99			ND	ug/l	1000				
Tert-butyl alcohol	"			ND	"	200				
Methyl tert-butyl ether	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		51.4	"	76.0-114	103			
Blank										
	9090143-BLK2									
Ethanol	10/4/99			ND	ug/l	1000				
Tert-butyl alcohol	"			ND	"	200				
Methyl tert-butyl ether	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		46.9	"	76.0-114	93.8			
LCS										
	9090143-BS1									
Methyl tert-butyl ether	9/30/99	50.0		48.3	ug/l	70.0-130	96.6			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		55.5	"	76.0-114	111			
LCS										
	9090143-BS2									
Methyl tert-butyl ether	10/4/99	50.0		41.2	ug/l	70.0-130	82.4			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.1	"	76.0-114	96.2			
Matrix Spike										
	9090143-MS1	L909273-02								
Methyl tert-butyl ether	9/30/99	50.0	23.2	64.7	ug/l	60.0-140	83.0			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		53.6	"	76.0-114	107			
Matrix Spike Dup										
	9090143-MSD1	L909273-02								
Methyl tert-butyl ether	9/30/99	50.0	23.2	66.6	ug/l	60.0-140	86.8	25.0	4.48	
Surrogate: 1,2-Dichloroethane-d4	"	50.0		54.1	"	76.0-114	108			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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**Diesel Hydrocarbons (C9-C24) by DHS LUFT/Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9100191		Date Prepared: 10/7/99			Extraction Method: EPA 3510B					
Blank		9100191-BLK1								
Diesel Range Hydrocarbons	10/12/99			ND	mg/l	0.0500				
Surrogate: n-Pentacosane	"	0.100		0.0926	"	50.0-150	92.6			
LCS		9100191-BS1								
Diesel Range Hydrocarbons	10/12/99	1.00		0.870	mg/l	60.0-140	87.0			
Surrogate: n-Pentacosane	"	0.100		0.0999	"	50.0-150	99.9			
LCS Dup		9100191-BSD1								
Diesel Range Hydrocarbons	10/12/99	1.00		0.823	mg/l	60.0-140	82.3	50.0	5.55	
Surrogate: n-Pentacosane	"	0.100		0.103	"	50.0-150	103			





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**Semivolatile Organic Compounds by EPA Method 8270B/Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD % Notes*
Batch: 9100145	Date Prepared: 10/5/99					Extraction Method: EPA 3510B			
Blank	9100145-BLK1								
Acenaphthene	10/9/99			ND	ug/l	5.00			
Acenaphthylene	"			ND	"	5.00			
Anthracene	"			ND	"	5.00			
Benzoic acid	"			ND	"	10.0			
Benzo (a) anthracene	"			ND	"	5.00			
Benzo (b) fluoranthene	"			ND	"	5.00			
Benzo (k) fluoranthene	"			ND	"	5.00			
Benzo (ghi) perylene	"			ND	"	5.00			
Benzo[a]pyrene	"			ND	"	5.00			
Benzyl alcohol	"			ND	"	5.00			
Bis(2-chloroethoxy)methane	"			ND	"	5.00			
Bis(2-chloroethyl)ether	"			ND	"	5.00			
Bis(2-chloroisopropyl)ether	"			ND	"	5.00			
Bis(2-ethylhexyl)phthalate	"			ND	"	10.0			
4-Bromophenyl phenyl ether	"			ND	"	5.00			
Butyl benzyl phthalate	"			ND	"	5.00			
4-Chloroaniline	"			ND	"	10.0			
2-Chloronaphthalene	"			ND	"	5.00			
4-Chloro-3-methylphenol	"			ND	"	5.00			
2-Chlorophenol	"			ND	"	5.00			
4-Chlorophenyl phenyl ether	"			ND	"	5.00			
Chrysene	"			ND	"	5.00			
Dibenz (a,h) anthracene	"			ND	"	5.00			
Dibenzofuran	"			ND	"	5.00			
Di-n-butyl phthalate	"			ND	"	10.0			
1,2-Dichlorobenzene	"			ND	"	5.00			
1,3-Dichlorobenzene	"			ND	"	5.00			
1,4-Dichlorobenzene	"			ND	"	5.00			
3,3'-Dichlorobenzidine	"			ND	"	10.0			
2,4-Dichlorophenol	"			ND	"	5.00			
Diethyl phthalate	"			ND	"	5.00			
2,4-Dimethylphenol	"			ND	"	5.00			
Dimethyl phthalate	"			ND	"	5.00			
4,6-Dinitro-2-methylphenol	"			ND	"	10.0			
2,4-Dinitrophenol	"			ND	"	10.0			
2,4-Dinitrotoluene	"			ND	"	5.00			
2,6-Dinitrotoluene	"			ND	"	5.00			
Di-n-octyl phthalate	"			ND	"	5.00			
Fluoranthene	"			ND	"	5.00			
Fluorene	"			ND	"	5.00			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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Semivolatile Organic Compounds by EPA Method 8270B/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)										
9100145-BLK1										
Hexachlorobenzene	10/9/99			ND	ug/l	5.00				
Hexachlorobutadiene	"			ND	"	5.00				
Hexachlorocyclopentadiene	"			ND	"	10.0				
Hexachloroethane	"			ND	"	5.00				
Indeno (1,2,3-cd) pyrene	"			ND	"	5.00				
Isophorone	"			ND	"	5.00				
2-Methylnaphthalene	"			ND	"	5.00				
2-Methylphenol	"			ND	"	5.00				
4-Methylphenol	"			ND	"	5.00				
Naphthalene	"			ND	"	5.00				
2-Nitroaniline	"			ND	"	10.0				
3-Nitroaniline	"			ND	"	10.0				
4-Nitroaniline	"			ND	"	10.0				
Nitrobenzene	"			ND	"	5.00				
2-Nitrophenol	"			ND	"	5.00				
4-Nitrophenol	"			ND	"	10.0				
N-Nitrosodiphenylamine	"			ND	"	5.00				
N-Nitrosodi-n-propylamine	"			ND	"	5.00				
Pentachlorophenol	"			ND	"	10.0				
Phenanthrene	"			ND	"	5.00				
Phenol	"			ND	"	5.00				
Pyrene	"			ND	"	5.00				
1,2,4-Trichlorobenzene	"			ND	"	5.00				
2,4,5-Trichlorophenol	"			ND	"	10.0				
2,4,6-Trichlorophenol	"			ND	"	5.00				
Surrogate: 2-Fluorophenol	"	200		128	"	21.0-110	64.0			
Surrogate: Phenol-d6	"	200		104	"	10.0-110	52.0			
Surrogate: Nitrobenzene-d5	"	200		180	"	35.0-114	90.0			
Surrogate: 2-Fluorobiphenyl	"	200		172	"	43.0-116	86.0			
Surrogate: 2,4,6-Tribromophenol	"	200		135	"	10.0-123	67.5			
Surrogate: p-Terphenyl-d14	"	200		117	"	33.0-141	58.5			
LCS										
9100145-BS1										
Acenaphthene	10/9/99	200		159	ug/l	46.0-118	79.5			
4-Chloro-3-methylphenol	"	200		182	"	23.0-97.0	91.0			
2-Chlorophenol	"	200		161	"	27.0-123	80.5			
1,4-Dichlorobenzene	"	200		150	"	36.0-97.0	75.0			
2,4-Dinitrotoluene	"	200		145	"	24.0-96.0	72.5			
4-Nitrophenol	"	200		77.6	"	10.0-80.0	38.8			
N-Nitrosodi-n-propylamine	"	200		200	"	41.0-116	100			
Pentachlorophenol	"	200		128	"	9.00-103	64.0			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: TOSCO (76) SS#1156, 180225.85 Project Manager: Deanna Harding	Sampled: 9/28/99 Received: 9/28/99 Reported: 10/19/99
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Semivolatile Organic Compounds by EPA Method 8270B/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS (continued)		9100145-BS1								
Phenol	10/9/99	200		116	ug/l	12.0-110	58.0			
Pyrene	"	200		175	"	26.0-127	87.5			
1,2,4-Trichlorobenzene	"	200		177	"	39.0-98.0	88.5			
Surrogate: 2-Fluorophenol	"	200		138	"	21.0-110	69.0			
Surrogate: Phenol-d6	"	200		112	"	10.0-110	56.0			
Surrogate: Nitrobenzene-d5	"	200		198	"	35.0-114	99.0			
Surrogate: 2-Fluorobiphenyl	"	200		171	"	43.0-116	85.5			
Surrogate: 2,4,6-Tribromophenol	"	200		163	"	10.0-123	81.5			
Surrogate: p-Terphenyl-d14	"	200		103	"	33.0-141	51.5			
LCS Dup		9100145-BSD1								
Acenaphthene	10/9/99	200		150	ug/l	46.0-118	75.0	30.0	5.83	
4-Chloro-3-methylphenol	"	200		178	"	23.0-97.0	89.0	30.0	2.22	
2-Chlorophenol	"	200		157	"	27.0-123	78.5	30.0	2.52	
1,4-Dichlorobenzene	"	200		146	"	36.0-97.0	73.0	30.0	2.70	
2,4-Dinitrotoluene	"	200		139	"	24.0-96.0	69.5	30.0	4.23	
4-Nitrophenol	"	200		80.7	"	10.0-80.0	40.3	30.0	3.79	
N-Nitrosodi-n-propylamine	"	200		194	"	41.0-116	97.0	30.0	3.05	
Pentachlorophenol	"	200		123	"	9.00-103	61.5	30.0	3.98	
Phenol	"	200		115	"	12.0-110	57.5	30.0	0.866	
Pyrene	"	200		163	"	26.0-127	81.5	30.0	7.10	
1,2,4-Trichlorobenzene	"	200		166	"	39.0-98.0	83.0	30.0	6.41	
Surrogate: 2-Fluorophenol	"	200		125	"	21.0-110	62.5			
Surrogate: Phenol-d6	"	200		106	"	10.0-110	53.0			
Surrogate: Nitrobenzene-d5	"	200		180	"	35.0-114	90.0			
Surrogate: 2-Fluorobiphenyl	"	200		158	"	43.0-116	79.0			
Surrogate: 2,4,6-Tribromophenol	"	200		153	"	10.0-123	76.5			
Surrogate: p-Terphenyl-d14	"	200		91.0	"	33.0-141	45.5			





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Notes and Definitions

#	Note
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- D Data reported from a dilution.
- 1 Chromatogram Pattern: Gasoline C6-C12
- 2 Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
- 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
- Recov. Recovery
- RPD Relative Percent Difference





Tosco Marketing Company
2000 Concession Pl., Ste. 400
San Ramon, California 94583

909259

Facility Number TOSCO (76) SS#1156
 Facility Address 4276 MACARTHUR, OAKLAND CA
180225.85
 Consultant Project Number 180225.85
 Consultant Name Gettler-Ryan Inc. (G-R Inc.)
 Address 6747 Sierra Court, Suite 1, Dublin, CA 94568
 Project Contact (Name) Deanna L. Harding
 (Phone) 925-551-7555 (Fax Number) 925-551-7888

Contact (Name) MR. DAVID DEWITT
 (Phone) (925) 277-2384
 Laboratory Name Sequoia Analytical
 Laboratory Release Number _____
 Samples Collected by (Name) Varthos Testjic
 Collection Date 9/28/99
 Signature Keith Pelletier

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)	Analysis To Be Performed											DO NOT BILL TB-LB ANALYSIS 5 Oxygenate <u>NO Ethyl 101</u> Remarks	
								TPH Gas + BTEX W/M/T/S/E (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 (MCP or M)	HVOC's by 8260	SVOC's by 8270	8260 (S)		Oxy-comp.
TB-LB	01	1	W	G		HC	Y	X												
MW-1	02	11	W	G	12:30 PM		Y	X	X								X	X	X	
MW-2	03	5	W	G	10:35 AM		Y	X											X	X
MW-3	04	5	W	G	11:40 AM		Y	X											X	X
MW-4	05	5	W	G	11:05 AM		Y	X											X	X

Released By (Signature) <u>Keith Pelletier</u>	Organization G-R Inc.	Date/Time 9/28/99 2:40 PM	Received By (Signature) <u>Richard Yee</u>	Organization Sequoia S.C.	Date/Time 9/28/99 2:40	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Released By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Released By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time	