GETTLER-RYAN INC.

01-18-02 08:50 RCVD

TRANSMITTAL

December 28, 2001
G-R #180264

JAN 24 2002

TO: Mr. David B. De Witt
Phillips 66 Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

CC: Mr. Douglas Lee
Gettler-Ryan, Inc.
Dublin, California

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

RE: Tosco (76) Service Station
#0018
6201 Claremont Avenue
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	December 14, 2001	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of November 7, 2001

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by ***January 15, 2002***, this report will be distributed to the following:

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

Enclosure

trans/0018-dbd

GETTLER-RYAN INC.

December 14, 2001
G-R Job #180264

Mr. David B. De Witt
Phillips 66 Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

RE: Fourth Quarter Event of November 7, 2001
Groundwater Monitoring & Sampling Report
Tosco (76) Service Station #0018
6201 Claremont Avenue
Oakland, California

Dear Mr. De Witt:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

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

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Tables 1 and 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

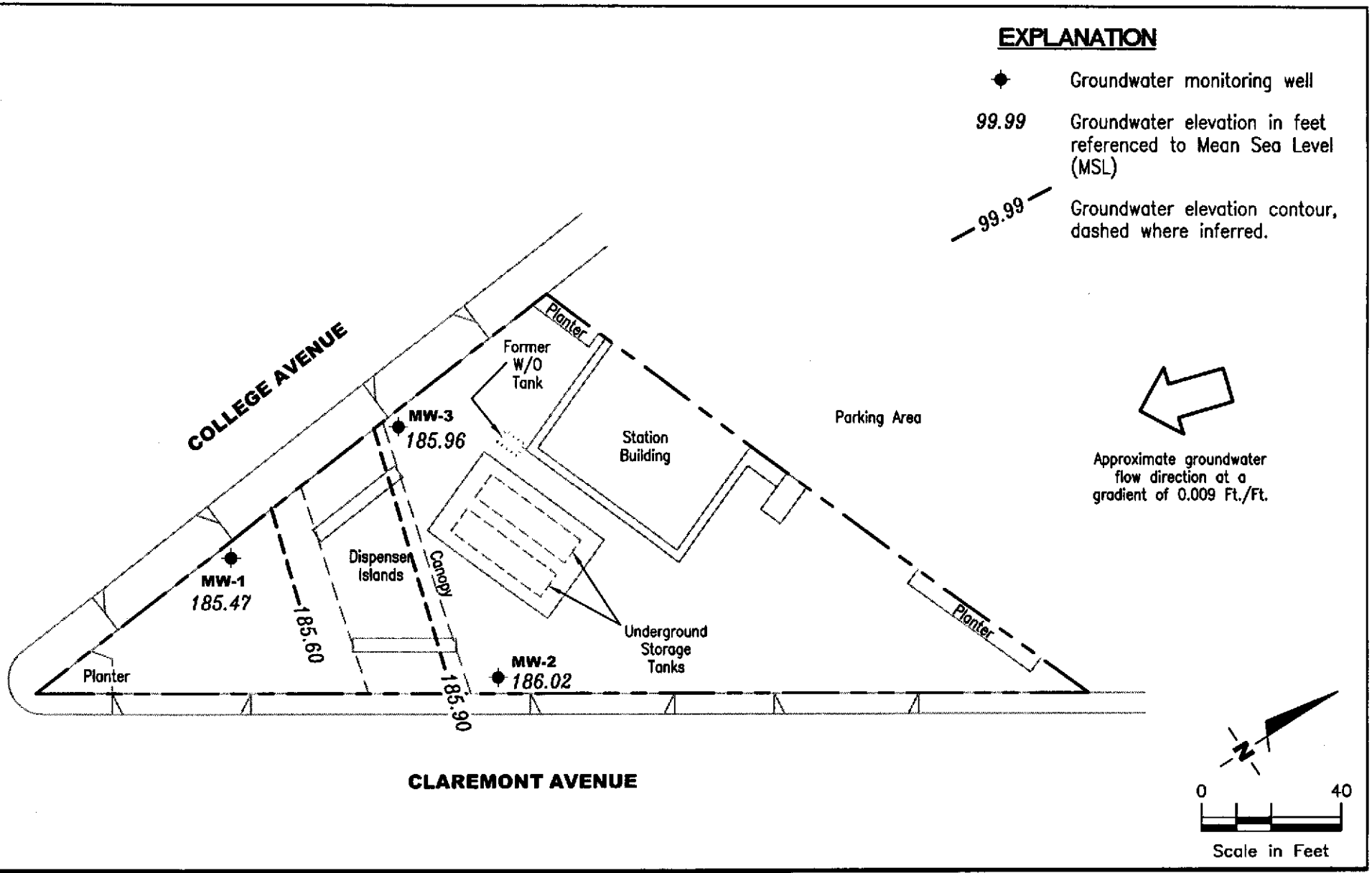
Anamarie Nereau
-FOR-
Deanna L. Harding
Project Coordinator

Hagop Kevork
P.E. No. C55734

REGISTERED PROFESSIONAL ENGINEER
HAGOP KEVORK
No. C 55734
Exp. 12/31/04
CIVIL
STATE OF CALIFORNIA

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

0018-qml



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

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

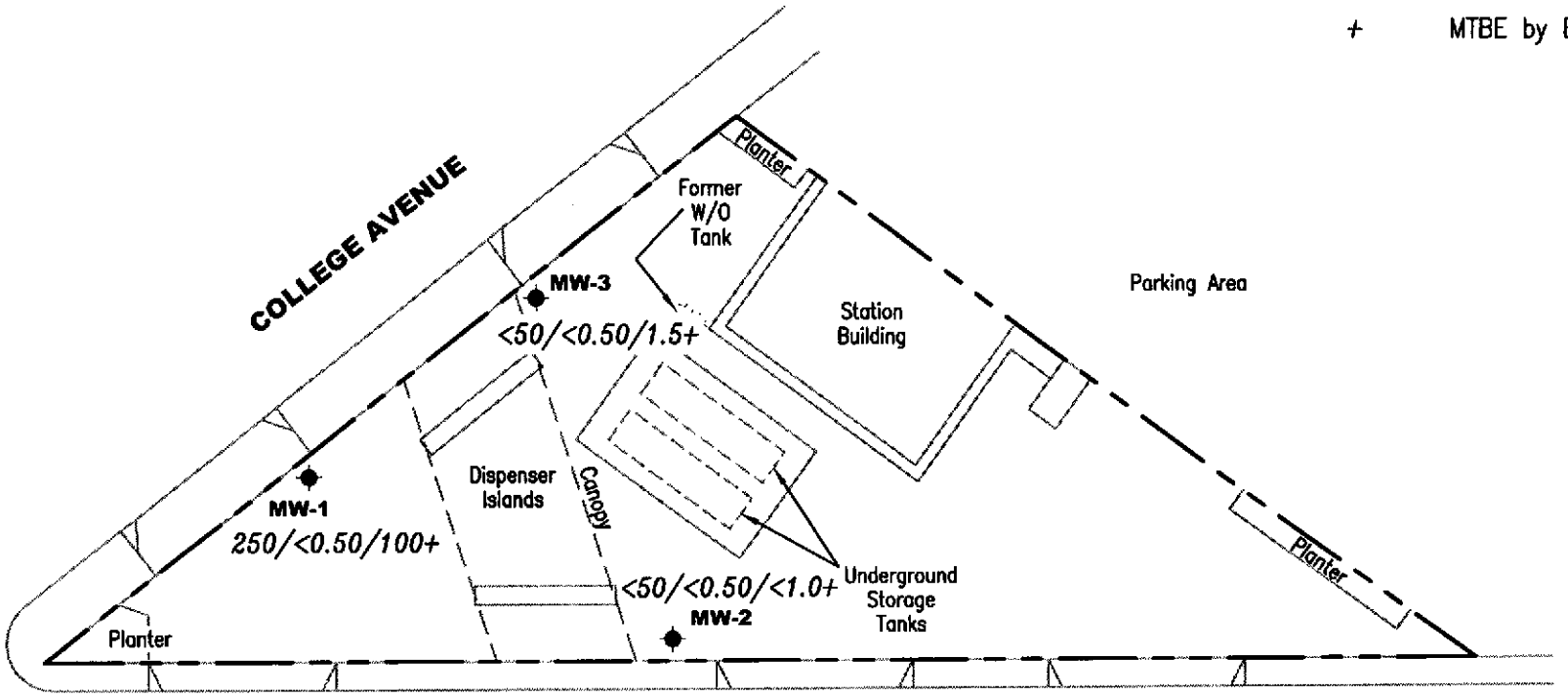
FIGURE
1

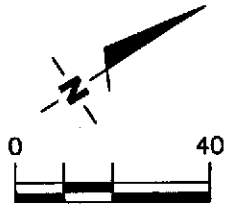
PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
180264		November 7, 2001	

FILE NAME: P:\Enviro\Tosco\0018\Q01-0018.DWG | Layout Tab: Pot4

EXPLANATION

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





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Dublin, CA 94568 (925) 551-7555

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

FIGURE
2

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
180264		November 7, 2001	

FILE NAME: P:\Enviro\Tosco\0018\001-0018.DWG | Layout Tab: Con4

Table

Groundwater Monitoring Data and Analytical Results

Tosco (76) Service Station #0018

6201 Claremont Avenue

Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1										
208.15	08/24/00	18.55	10.0-30.0	189.60	120[1]	0.67	ND	0.86	1.4	54/54[2]
	11/16/00	20.30		187.85	169[3]	ND	1.20	1.74	0.629	68.6/97.7[2]
	02/09/01	20.16		187.99	330[3]	1.3	ND	1.0	4.6	140/150[2]
	05/11/01	17.68		190.47	1,250[3]	ND[4]	ND[4]	ND[4]	ND[4]	145/122[2]
	08/10/01	20.38		187.77	580[3]	<0.50	<0.50	<0.50	<0.50	110/150[2]
	11/07/01	**22.68**		**185.47**	**250[3]**	**<0.50**	**1.5**	**<0.50**	**<0.50**	**120/100[2]**
MW-2										
210.27	08/24/00	19.69	10.0-30.0	190.58	ND	ND	ND	ND	ND	ND/ND[2]
	11/16/00	21.61		188.66	ND	ND	ND	ND	ND	ND/ND[2]
	02/09/01	21.52		188.75	ND	ND	ND	ND	ND	ND/ND[2]
	05/11/01	18.76		191.51	ND	ND	ND	ND	ND	ND/ND[2]
	08/10/01	21.65		188.62	<50	<0.50	<0.50	<0.50	<0.50	<5.0/<2.0[2]
	11/07/01	**24.25**		**186.02**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<5.0/<1.0[2]**
MW-3										
208.98	08/24/00	18.68	10.0-30.0	190.30	ND	ND	ND	ND	ND	4.7/2.3[2]
	11/16/00	20.56		188.42	ND	ND	ND	ND	ND	ND/ND[2]
	02/09/01	20.45		188.53	ND	ND	ND	ND	ND	ND/ND[2]
	05/11/01	17.75		191.23	ND	ND	ND	ND	ND	ND/ND[2]
	08/10/01	20.70		188.28	<50	<0.50	<0.50	<0.50	<0.50	<5.0/<2.0[2]
	11/07/01	**23.02**		**185.96**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<5.0/1.5[2]**
Trip Blank										
TB-LB	08/24/00	--	--	--	ND	ND	ND	ND	ND	ND
	11/16/00	--		--	ND	ND	ND	ND	ND	ND
	02/09/01	--		--	ND	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (76) Service Station #0018

6201 Claremont Avenue

Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TB-LB	05/11/01	--	--	--	ND	ND	ND	ND	ND	ND
(cont)	08/10/01	--		--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	11/07/01	--		--	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<5.0**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco Service Station #0018

6201 Claremont Avenue

Oakland, California

EXPLANATIONS:

TOC = Top of Casing

DTW = Depth to Water

(ft.) = Feet

S.I. = Screen Interval

(ft. bgs) = Feet Below Ground Surface

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

ND = Not Detected

-- = Not Measured/Not Analyzed

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

[1] Laboratory report indicates gasoline C6-C12.

[2] MTBE by EPA Method 8260.

[3] Laboratory report indicates unidentified hydrocarbons C6-C12.

[4] Detection limit raised. Refer to analytical reports.

Table 2

Groundwater Analytical Results - Oxygenate Compounds

Tosco (76) Service Station #0018

6201 Claremont Avenue

Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	08/24/00	ND	ND	54	ND	ND	ND	--	--
	11/16/00	ND	ND	97.7	ND	ND	ND	--	--
	02/09/01	ND	ND	150	ND	ND	ND	ND	ND
	05/11/01	ND	ND	122	ND	ND	ND	ND	ND
	08/10/01	<1,000	<100	150	<2.0	<2.0	<2.0	<2.0	<2.0
	11/07/01	**<500**	**<20**	**100**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**
MW-2	08/24/00	ND	ND	ND	ND	ND	ND	--	--
	11/16/00	ND	ND	ND	ND	ND	ND	--	--
	02/09/01	ND	ND	ND	ND	ND	ND	ND	ND
	05/11/01	ND	ND	ND	ND	ND	ND	ND	ND
	08/10/01	<1,000	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	11/07/01	**<500**	**<20**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**
MW-3	08/24/00	ND	ND	2.3	ND	ND	ND	--	--
	11/16/00	ND	ND	ND	ND	ND	ND	--	--
	02/09/01	ND	ND	ND	ND	ND	ND	ND	ND
	05/11/01	ND	ND	ND	ND	ND	ND	ND	ND
	08/10/01	<1,000	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	11/07/01	**<500**	**<20**	**1.5**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**

Table

Groundwater Analytical Results - Oxygenate Compounds

Tosco (76) Service Station #0018

6201 Claremont Avenue

Oakland, 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-Dichlorothane

EDB = Ethylene Dibromide or 1,2-Dibromoethane

(ppb) = Parts per billion

ND = Not Detected

-- = Not Analyzed

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

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

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 0018 Job#: 180264

Address: 6201 Claremont Blvd. Date: 11-7-01

City: Oakland, CA Sampler: Joe

Well ID MW-1 Well Condition: O.K

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 30.03 ft.

Depth to Water 22.68 ft.

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

7.35 X VF 0.17 = 1.25 X 3 (case volume) = Estimated Purge Volume: 4 (gal.)

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

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

Starting Time: 8:40 Weather Conditions: clear

Sampling Time: 9:08 A.m (0908) Water Color: clear Odor: yes

Purging Flow Rate: 0.5 gpm Sediment Description: _____

Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
8:51	1.5	6.96	4.75	65.5			
8:54	3	6.99	4.78	65.2			
8:57	4	7.06	4.72	65.7			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 VOA	Y	HCL	Seq.	TPHG, BTEX, MTBE
	2 VOA	"	"	"	(8) Oxy's by 8260

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 0018 Job#: 180264

Address: 6201 Claremont Blvd. Date: 11-7-01

City: Oakland, CA Sampler: Joe

Well ID MW-2 Well Condition: O.K

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 30.06 ft.

Depth to Water 24.25 ft.

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

5.81 X VF 0.17 = 0.99 X 3 (case volume) = Estimated Purge Volume: 3 (gal.)

Purge Equipment: (Disposable Bailer) / Bailer / Stack / Suction / Grundfos / Other:

Sampling Equipment: (Disposable Bailer) / Bailer / Pressure Bailer / Grab Sample / Other:

Starting Time: 8:00 Weather Conditions: clear

Sampling Time: 8:30AM (0830) Water Color: clear Odor: none

Purging Flow Rate: 0.5gpm Sediment Description:

Did well de-water? If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm X	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
8:08	1	7.94	11.33	65.8			
8:11	2	7.38	11.31	65.4			
8:14	3	7.46	11.27	65.6			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	3 VOA	Y	HCL	Seq.	TPHG, BTEX, MTBE
	2 VOA	"	"	"	(8) Oxy's by 8260

COMMENTS:

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility # 0018 Job#: 180264

Address: 6201 Claremont Blvd. Date: 11-7-01

City: Oakland, CA Sampler: Joe

Well ID MW-3 Well Condition: O.K

Well Diameter 2 in Hydrocarbon Thickness: 0 in Amount Bailed (product/water): 0 (gal.)

Total Depth 29.98 ft

Depth to Water 23.02 ft

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

6.96 X VF 0.17 = 1.18 X 3 (case volume) = Estimated Purge Volume: 3.5 (gal.)

Purge Equipment: (Disposable Bailer) Bailer Stack Suction Grundfos Other:

Sampling Equipment: (Disposable Bailer) Bailer Pressure Bailer Grab Sample Other:

Starting Time: 7:18 Weather Conditions: clear

Sampling Time: 7:46 A.M. (0746) Water Color: clear Odor: none

Purging Flow Rate: 2.5 gpm Sediment Description:

Did well de-water? If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
7:30	1	7.59	13.01	66.2			
7:33	2	7.47	12.68	66.0			
7:36	3.5	7.46	12.61	65.9			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 VOA	Y	HCL	Seq.	TPHG, BTEX, MTBE
	2 VOA	"	"	"	(8) Oxy's by 8260

COMMENTS:

GLOBAL ID# T0600102231

Chain-of-Custody-Record

TOSCO

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

Facility Number TOSCO # 0018
Facility Address 6201 Claremont Blvd., Oakland, CA
Consultant Project Number 180264
Consultant Name Gettler-Ryan Inc. (G-R Inc.)
Address 6747 SIERRA COURT, SUITE J, DUBLIN, CA 94568
Project Contact (Name) Deanna L. Harding
(Phone) (925)551-7555 (Fax Number) 925-551-7899

Contact (Name) MR. Dave DeWitt
(Phone) 925-277-2384
Laboratory Name Sequoia Analytical
Laboratory Release Number
Samples Collected by (Name) JOE AJEMIAN
Collection Date 11-7-01
Signature

U11067

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: TPH Gas + BTEX w/MTBE (8015)	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 (TCLP or AA)	8 Oxy's by 8260				DO NOT BILL TB-LB ANALYSIS Remarks
TB-LB	01	1 VOA	W	G	—	HCL	Y	✓												
MW-1	02	5 VOA	"	"	0908	"	"	✓								✓				
MW-2	03	"	"	"	0830	"	"	✓								✓				
MW-3	04	"	"	"	0746	"	"	✓								✓				

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	G-R Inc.	11-7-01 1550		SEQ. S.C.	11/7/01 1650
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received for Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Sequoia
Analytical

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

16 November, 2001

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

RECEIVED

6

GETTLER-RYAN INC.
GENERAL CONTRACTOR

RE: Tosco(1)
Sequoia Report: L111067

Enclosed are the results of analyses for samples received by the laboratory on 11/07/01 15:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya K. Pelt

Latonya Pelt
Project Manager

CA ELAP Certificate #2360

Sequoia Analytical

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

Gettler-Ryan/Geostrategies(1)	Project: Tosco(1)	
6747 Sierra Court, Suite J	Project Number: Tosco #0018, Oakland, CA	**Reported:**
Dublin CA, 94568	Project Manager: Deanna Harding	11/16/01 08:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	L111067-01	Water	11/07/01 00:00	11/07/01 15:50
MW-1	L111067-02	Water	11/07/01 09:08	11/07/01 15:50
MW-2	L111067-03	Water	11/07/01 08:30	11/07/01 15:50
MW-3	L111067-04	Water	11/07/01 07:46	11/07/01 15:50

Sequoia Analytical - San Carlos

Latonya K. Pelt

Latonya Pelt, Project Manager

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

Sequoia Analytical

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

Gettler-Ryan/Geostrategies(1)	Project: Tosco(1)	
6747 Sierra Court, Suite J	Project Number: Tosco #0018, Oakland, CA	**Reported:**
Dublin CA, 94568	Project Manager: Deanna Harding	11/16/01 08:31

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (L111067-01) Water Sampled: 11/07/01 00:00 Received: 11/07/01 15:50									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1110046	11/13/01	11/13/01	EPA 8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*76.7 %*		*70-130*		"	"	"	
MW-1 (L111067-02) Water Sampled: 11/07/01 09:08 Received: 11/07/01 15:50									
Purgeable Hydrocarbons as Gasoline	**250**	50	ug/l	1	1110045	11/13/01	11/13/01	EPA 8021B	P-03
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	**1.5**	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**120**	5.0	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*124 %*		*70-130*		"	"	"	
MW-2 (L111067-03) Water Sampled: 11/07/01 08:30 Received: 11/07/01 15:50									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1110046	11/13/01	11/13/01	EPA 8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*84.5 %*		*70-130*		"	"	"	

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Gettler-Ryan/Geostrategies(1)	Project: Tosco(1)	
6747 Sierra Court, Suite J	Project Number: Tosco #0018, Oakland, CA	**Reported:**
Dublin CA, 94568	Project Manager: Deanna Harding	11/16/01 08:31

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (L111067-04) Water Sampled: 11/07/01 07:46 Received: 11/07/01 15:50									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1110046	11/13/01	11/13/01	EPA 8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*91.2 %*		*70-130*	"	"	"	"	

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Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin CA, 94568	Project: Tosco(1) Project Number: Tosco #0018, Oakland, CA Project Manager: Deanna Harding	**Reported:** 11/16/01 08:31

Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (L111067-02) Water Sampled: 11/07/01 09:08 Received: 11/07/01 15:50									
Ethanol	ND	500	ug/l	1	1110053	11/14/01	11/14/01	EPA 8260B	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**100**	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*80.2 %*	*70-130*		"	"	"	"	
Surrogate: Toluene-d8		*95.6 %*	*70-130*		"	"	"	"	
MW-2 (L111067-03) Water Sampled: 11/07/01 08:30 Received: 11/07/01 15:50									
Ethanol	ND	500	ug/l	1	1110053	11/14/01	11/14/01	EPA 8260B	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
[illegible]rt-butyl alcohol	ND	20	"	"	"	"	"	"	
[illegible]rogate: 1,2-Dichloroethane-d4		*82.6 %*	*70-130*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*70-130*		"	"	"	"	
MW-3 (L111067-04) Water Sampled: 11/07/01 07:46 Received: 11/07/01 15:50									
Ethanol	ND	500	ug/l	1	1110053	11/14/01	11/14/01	EPA 8260B	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**1.5**	1.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*85.8 %*	*70-130*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*70-130*		"	"	"	"	

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Gettler-Ryan/Geostrategies(1)	Project: Tosco(1)	
6747 Sierra Court, Suite J	Project Number: Tosco #0018, Oakland, CA	**Reported:**
Dublin CA, 94568	Project Manager: Deanna Harding	11/16/01 08:31

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B - Quality Control

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1110045 - EPA 5030B (P/T)										
Blank (1110045-BLK1)				Prepared & Analyzed: 11/13/01						
Purgeable Hydrocarbons as Gasoline	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	5.0	"							
Surrogate: a,a,a-Trifluorotoluene	*10.2*		"	*10.0*		*102*	*70-130*			
LCS (1110045-BS1)				Prepared & Analyzed: 11/13/01						
Benzene	9.89	0.50	ug/l	10.0		98.9	70-130			
Toluene	10.1	0.50	"	10.0		101	70-130			
Ethylbenzene	9.85	0.50	"	10.0		98.5	70-130			
Xylenes (total)	29.7	0.50	"	30.0		99.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*9.77*		"	*10.0*		*97.7*	*70-130*			
LCS (1110045-BS2)				Prepared & Analyzed: 11/13/01						
Purgeable Hydrocarbons as Gasoline	245	50	ug/l	250		98.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*11.5*		"	*10.0*		*115*	*70-130*			
Matrix Spike (1110045-MS1)		**Source: L111041-04**		Prepared & Analyzed: 11/13/01						
Benzene	11.9	0.50	ug/l	10.0	ND	119	60-140			
Toluene	11.7	0.50	"	10.0	ND	117	60-140			
Ethylbenzene	11.8	0.50	"	10.0	ND	118	60-140			
Xylenes (total)	35.1	0.50	"	30.0	ND	117	60-140			
Surrogate: a,a,a-Trifluorotoluene	*7.96*		"	*10.0*		*79.6*	*70-130*			
Matrix Spike Dup (1110045-MSD1)		**Source: L111041-04**		Prepared & Analyzed: 11/13/01						
Benzene	11.3	0.50	ug/l	10.0	ND	113	60-140	5.17	25	
Toluene	11.2	0.50	"	10.0	ND	112	60-140	4.37	25	
Ethylbenzene	11.4	0.50	"	10.0	ND	114	60-140	3.45	25	
Xylenes (total)	33.8	0.50	"	30.0	ND	113	60-140	3.77	25	
Surrogate: a,a,a-Trifluorotoluene	*8.39*		"	*10.0*		*83.9*	*70-130*			

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Gettler-Ryan/Geostrategies(1)	Project: Tosco(1)	
6747 Sierra Court, Suite J	Project Number: Tosco #0018, Oakland, CA	**Reported:**
Dublin CA, 94568	Project Manager: Deanna Harding	11/16/01 08:31

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B - Quality Control
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1110046 - EPA 5030B (P/T)										
Blank (1110046-BLK1)				Prepared & Analyzed: 11/13/01						
Purgeable Hydrocarbons as Gasoline	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	5.0	"							
Surrogate: a,a,a-Trifluorotoluene	*10.4*		"	*10.0*		*104*	*70-130*			
LCS (1110046-BS1)				Prepared & Analyzed: 11/13/01						
Benzene	8.58	0.50	ug/l	10.0		85.8	70-130			
Toluene	8.26	0.50	"	10.0		82.6	70-130			
Ethylbenzene	8.45	0.50	"	10.0		84.5	70-130			
Xylenes (total)	25.2	0.50	"	30.0		84.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*9.81*		"	*10.0*		*98.1*	*70-130*			
LCS (1110046-BS2)				Prepared & Analyzed: 11/13/01						
Purgeable Hydrocarbons as Gasoline	232	50	ug/l	250		92.8	70-130			
Surrogate: a,a,a-Trifluorotoluene	*9.72*		"	*10.0*		*97.2*	*70-130*			
Matrix Spike (1110046-MS1)		Source: L111041-02		Prepared & Analyzed: 11/13/01						
Benzene	8.99	0.50	ug/l	10.0	ND	89.9	60-140			
Toluene	8.69	0.50	"	10.0	ND	86.9	60-140			
Ethylbenzene	8.91	0.50	"	10.0	ND	89.1	60-140			
Xylenes (total)	26.5	0.50	"	30.0	ND	88.3	60-140			
Surrogate: a,a,a-Trifluorotoluene	*7.89*		"	*10.0*		*78.9*	*70-130*			
Matrix Spike Dup (1110046-MSD1)		Source: L111041-02		Prepared & Analyzed: 11/13/01						
Benzene	10.7	0.50	ug/l	10.0	ND	107	60-140	17.4	25	
Toluene	10.5	0.50	"	10.0	ND	105	60-140	18.9	25	
Ethylbenzene	10.8	0.50	"	10.0	ND	108	60-140	19.2	25	
Xylenes (total)	31.9	0.50	"	30.0	ND	106	60-140	18.5	25	
Surrogate: a,a,a-Trifluorotoluene	*9.49*		"	*10.0*		*94.9*	*70-130*			

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Gettler-Ryan/Geostrategies(1)	Project: Tosco(1)	
6747 Sierra Court, Suite J	Project Number: Tosco #0018, Oakland, CA	**Reported:**
Dublin CA, 94568	Project Manager: Deanna Harding	11/16/01 08:31

Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1110053 - EPA 5030B [P/T]										
Blank (1110053-BLK1)				Prepared & Analyzed: 11/14/01						
Ethanol	ND	500	ug/l							
1,2-Dibromoethane	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
Di-isopropyl ether	ND	1.0	"							
Ethyl tert-butyl ether	ND	1.0	"							
Methyl tert-butyl ether	ND	1.0	"							
Tert-amyl methyl ether	ND	1.0	"							
Tert-butyl alcohol	ND	20	"							
Surrogate: 1,2-Dichloroethane-d4	*41.0*		"	*50.0*		*82.0*	*70-130*			
Surrogate: Toluene-d8	*52.0*		"	*50.0*		*104*	*70-130*			
LCS (1110053-BS1)				Prepared & Analyzed: 11/14/01						
Methyl tert-butyl ether	44.9	1.0	ug/l	50.0		89.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	*42.4*		"	*50.0*		*84.8*	*70-130*			
Surrogate: Toluene-d8	*56.1*		"	*50.0*		*112*	*70-130*			
Matrix Spike (1110053-MS1)		**Source: L111067-03**		Prepared & Analyzed: 11/14/01						
Methyl tert-butyl ether	43.0	1.0	ug/l	50.0	ND	86.0	60-140			
Surrogate: 1,2-Dichloroethane-d4	*40.2*		"	*50.0*		*80.4*	*70-130*			
Surrogate: Toluene-d8	*56.1*		"	*50.0*		*112*	*70-130*			
Matrix Spike Dup (1110053-MSD1)		**Source: L111067-03**		Prepared & Analyzed: 11/14/01						
Methyl tert-butyl ether	42.8	1.0	ug/l	50.0	ND	85.6	60-140	0.466	25	
Surrogate: 1,2-Dichloroethane-d4	*40.1*		"	*50.0*		*80.2*	*70-130*			
Surrogate: Toluene-d8	*55.3*		"	*50.0*		*111*	*70-130*			

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Gettler-Ryan/Geostrategies(1)	Project: Tosco(1)	
6747 Sierra Court, Suite J	Project Number: Tosco #0018, Oakland, CA	**Reported:**
Dublin CA, 94568	Project Manager: Deanna Harding	11/16/01 08:31

Notes and Definitions

P-03	Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference