GETTLER-RYAN INC.

TRANSMITTAL

January 17, 2001 G-R#: 180233

TO:

Mr. David B. De Witt

Tosco Marketing Company

2000 Crow Canyon Place, Suite 400

San Ramon, California 94583

CC:

Mr. Douglas Lee

Gettler-Ryan, Inc.

Dublin, California

FROM:

Deanna L. Harding

Project Coordinator

Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568

RE:

Tosco (76) SS #0018

6201 Claremont Boulevard

Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	December 14, 2000	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of November 16, 2000

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by January 30, 2001, this report will be distributed to the following:

Mr. Don Husng, Alameda County Health Care Service Division, 1131 Harbor Bay Pkwy., Sta. 250, Alamosa CA 94502

December 14, 2000 G-R Job #180264

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

RE: Fourth Quarter 2000 Groundwater Monitoring & Sampling Report

Tosco (76) Service Station #0018 6201 Claremont Boulevard

Oakland, California

Dear Mr. De Witt:

This report documents the groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On November 16, 2000, field personnel monitored and sampled three wells (MW-1 through MW-3) 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

Stephen J. Carter

Senior Geologist, R.G. No. 5577

Figure 1:

Potentiometric Map

Table 1:

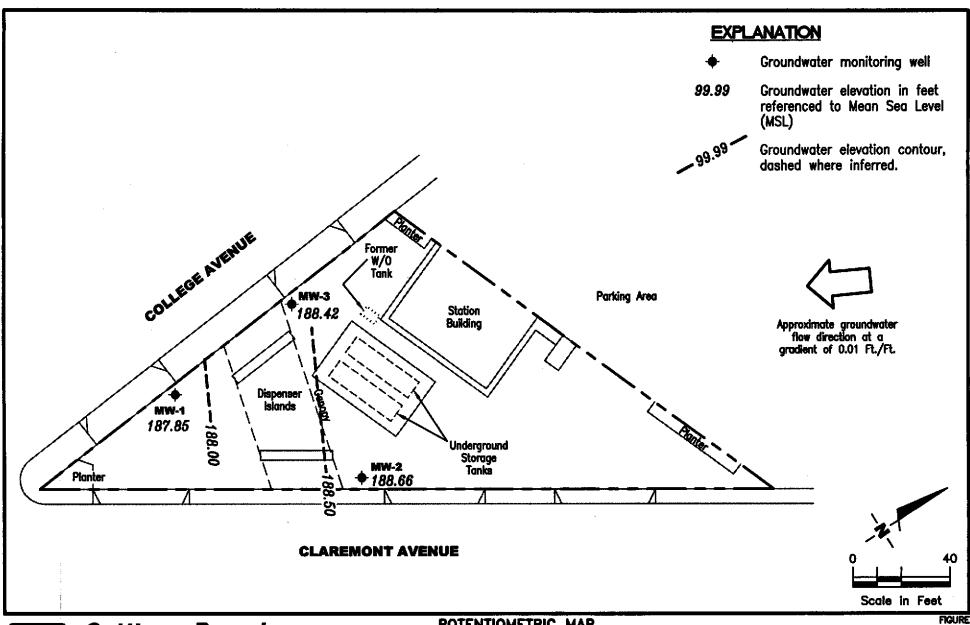
Groundwater Monitoring Data and Analytical Results

Table 2: Attachments: Groundwater Analytical Results - Oxygenate Compounds Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

0018-gml





Gettler - Ryan Inc.

6747 Slorre Ct., Suite J

(925) 551-7555

POTENTIOMETRIC MAP

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

DATE

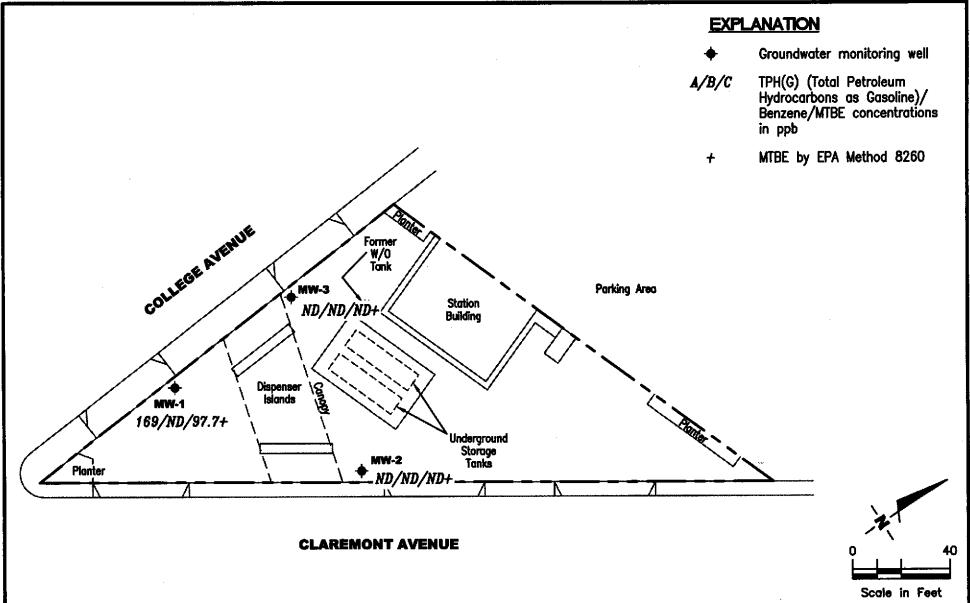
REVISED DATE

PROJECT NUMBER 180264

REVIEWED BY

November 16, 2000

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PROJECT NUMBER

Gettler - Ryan Inc.

REVIEWED BY

6747 Sierra Ct., Suite J Dublin, CA 94568

(925) 551-7555

CONCENTRATION MAP

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

REVISED DATE

DATE

November 16, 2000

FIGURE

2

180264
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Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (76) Service Station #0018

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

TOC*	DATE	DTW (fl.)	S.L. (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 ^t	0.67	ND	0.86	1.4	54/54 ²
200.13	11/16/00	20.30		187.85	169 ³	ND	1.20	1.74	0.629	68.6/97.7 ²
MW-2							·			
210.27	08/24/00	19.69	10.0-30.0	190.58	ND	ND	ND	ND	ND	ND/ND ²
210.27	11/16/00	21.61	10.0 00.0	188.66	ND	ND	ND	ND	ND	ND/ND ²
MW-3										
208.98	08/24/00	18.68	10.0-30.0	190.30	ND	ND	ND	ND	ND	4.7/2.3 ²
	11/16/00	20.56		188.42	ND	ND	ND	ND	ND	ND/ND²
Trip Blank										
TB-LB	08/24/00		·		ND	ND	ND	ND	ND	ND
	11/16/00		***		ND	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

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

EXPLANATIONS:

TOC = Top of Casing

B = Benzene

(ppb) = Parts per billion

DTW = Depth to Water

T = Toluene

ND = Not Detected

(ft.) = Feet

E = Ethylbenzene

-- = Not Measured/Not Analyzed

S.I. = Screen Interval

X = Xylenes

(ft. bgs) = Feet Below Ground Surface

MTBE = Methyl tertiary butyl ether

GWE = Groundwater Elevation

(msl) = Mean seal level

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

- TOC elevations have been surveyed relative to Mean Sea Level (msl), per the city of Oakland benchmark; a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue. The station and offset data are relative to the existing building face. Measurements taken at approximate north side of top of box and top of casing. Benchmark elevation = 179.075 feet, msl.
- Laboratory report indicates gasoline C6-C12.
- 2 MTBE by EPA Method 8260.
- 3 Laboratory report indicates unidentified hydrocarbons C6-C12.

Table 2
Groundwater Analytical Results - Oxygenate Compounds

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

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (pph)	ETBE (ppb)	TAME (ppb)
MW-1	08/24/00	ND .	ND	54	ND	ND	ND
<u>-</u>	11/16/00	ND	ND	97.7	ND	ND	ND
MW-2	08/24/00	ND	ND	ND	ND	ND	ND
14144-2	11/16/00	ND	ND	ND	ND	ND	ND
3.6737 A	00/04/00	NO	ND	2.3	ND	ND	ND
MW-3	08/24/00 11/16/00	ND ND	ND ND	ND	ND	ND	ND

EXPLANATIONS:

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

(ppb) = Parts per billion

ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

STANDARD OPERATING PROCEDURE -GROUNDWATER SAMPLING

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

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

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

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

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

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

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

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility #_ USA	M 0018		Job#:	18026	+	
	ol Clarement	- Blvd.	Date:	11-16-0	0	
	Fland, CA.		Sample	er: <u>Joe</u>		
Well ID		Well Condi	tion:	o.k.		
Well Diameter	<u> 2 :</u>	Hydrocarbo		Amount B		tool.)
Total Depth	30.00	Thickness:	2* = 0.17	<u>in</u> tproduct/wa		- 0.66
Depth to Water	20.30 +	Facor (VF)		6° = 1.50	12" = 5.50	
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos	VF <u>0.17 = 1.6</u>	Sampling Equipment:	Disposable Bailer Pressure Baile Grab Sample	iller	S Ical
	2:05 2:30 e: 0:50	Mater Sedim	nent Descripti	Neve		M.G.
	/olume pH (gal.) 1.5 7.97 3 7.42 7.35		y _{le} n Temper	(mg/L)	ORP (mV)	Alkalinity (ppm)
SAMPLE 1D	(#) - CONTAINER		TY INFORMA	TION	ANALY	rses
MW-1	3 404		tCL	Sequoia	TPHG, BTEX	
	2 VOA	ir	1.	"	(6) 0xy's	7 8260
COMMENTS: .		•				

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility #_ 😘	M 0018		Job#	18026	<u> </u>
	1 Claremon	+ Blv.	Date:	11-16-00	2
	claud, CA.			oler: Joe	
Weil ID	mw-2	Well	Condition:	0.k ·	
Well Diameter	<u> 2</u>		rocarbon	Amount Ba	
Total Depth	30.00 .		kness:		
Depth to Water	21.61 +		ecr (VF)	6" = 1.50	12" = 5.50
	8.39 ×	vf <u>0.17</u>	=1143 x 3 (case	volume) = Estimated Pu	argo Volume: 4.5 lost)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	_	Sampling Equipment	Bailer Pressure Baile Grab Sample Other:	er
Sampling Time: Purging Flow Rate Did well de-water	1:201 e:		Sediment Descrip	mion: None Volum	
	olume pH (gal.)	tea.	ductivity (1) Temp hos/emy	E (mg/L)	ORP Alkalinity (mV) (ppm)
1:00	1.5 7.46 3 7.56			5.0 4.7 4.6	
					
			-		. •
			RATORY INFORM	ATION LABORATORY	ANALYSES
SAMPLE ID	(#) - CONTAINER 3 YOA	REFRIG.	PRESERV. TYPE	Seguoia	TPHG, BTEX, MTBG
	2 VOA	i	(:		6) 0×4's 44 8260
	1			<u> </u>	1
CO649 4F2 FT					
COMMENTS: _					
					

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ acility #_ USE	# 00 18		Job#:	180269	<u> </u>	
	1 Claremont	- Blvd.	_ Date:	11-16-00	2	
			Samol	er: <u>Joe</u>	•	
city: <u>Oak</u>	-land, CA.		28111bi	ei. <u> </u>		
					<u></u>	
	mw-3	Mail C	ondition:	0.k:		
Well ID		Wen C)(A)((O)()			
Vell Diameter	2 -	Hydroc	arbon n2	' Amount Ba		
,	2.0	Tnickn	ess:	in toroduct/wat	(er):	10e()
otal Depth	30.00 +	Volum	z 2" = 0.1			0.66
N NAJ	20.56	Factor	(VF)	6" == 1.50	12" = 5.SO	
Depth to Water		<u> </u>				
	a.44	n.17 _	160 x 3 1000 x	volume) = Estimated Pu	rne Volume:	<u>Ical</u>
	x '	VF <u>0:1 1</u> =	<u> </u>			: -
Purge (Disposable Bailer	-	Sampling		-	
Equipment:	Bailer	•	Equipment		iller	· · · · ·
	Stack			Bailer Pressure Baile	er er	
	Suction Grundfos	•		-Grab Sample	-	
•	Other:		· ·	Other:		
_ , _		Aur V	ediment Descrip	neve Volum		
No well de-water	·		,			-
	olume pH	Condu	ctivity _{(v}) Tempe skeny +	nature D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
	(E-T)		•	•	(m.)	(P)-L
		10.0	3 65	<u>o</u>		
1:37	(g=1)	10.0	65 65	./		
	(gal) 1.5 7.85		65 65	./		
1:37	(gal) 1.5 7.85	<u></u>	65 65	./		47-7
1:37	(gal) 1.5 7.85	<u></u>	65 65	./		
1:37	(gal) 1.5 7.85	<u></u>	65 65	./		
1:37	(gal) 1.5 7.85		65 65 60 65	<i>y</i>		
1:37 1:40 1:44	(gal.) 1.5 7.85 3 7.39 5 7.47		65 65 60 65 ATORY INFORMA	7	ANAL	
1:37	(gal.) 1.5 7.85 3 7.39 5 7.47		TORY INFORMA	ATION LABORATORY	ANALY	rses
1:37 1:40 1:44	(g=1) 1.5 7.85 3 7.39 - 7.47 (s) - CONTAINER 3 YOA	LABORA REFRIG.	ATORY INFORMATORY TYPE HCL	TION LABORATORY Sequoia	ANAL)	rses c, mtbc
1:37 1:40 1:44	(gal.) 1.5 7.85 3 7.39 5 7.47		TORY INFORMA	ATION LABORATORY	ANALY	rses c, mtbc
1:37 1:40 1:44	(g=1) 1.5 7.85 3 7.39 - 7.47 (s) - CONTAINER 3 YOA	LABORA REFRIG.	ATORY INFORMATORY TYPE HCL	TION LABORATORY Sequoia	ANAL)	rses c, mtbc
1:37 1:40 1:44	(g=1) 1.5 7.85 3 7.39 - 7.47 (s) - CONTAINER 3 YOA	LABORA REFRIG.	ATORY INFORMATORY TYPE HCL	TION LABORATORY Sequoia	ANAL)	rses c,mtbe
1:37 1:40 1:44 SAMPLE ID MW-3	(g=1) 1.5 7.85 3 7.39 - 7.47 (s) - CONTAINER 3 YOA	LABORA REFRIG.	ATORY INFORMATORY TYPE HCL	TION LABORATORY Sequoia	ANAL)	rses c, mtbc
1:37 1:40 1:44	(g=1) 1.5 7.85 3 7.39 - 7.47 (s) - CONTAINER 3 YOA	LABORA REFRIG.	ATORY INFORMATORY TYPE HCL	TION LABORATORY Sequoia	ANAL)	rses c, mtbc

Chain-of-Custody-Record Mr. Dave DeWitt. Facility Number Tosco # come oci8
Facility Address 6201 Clacement Blvd. Od Eland Contact (Name) ___ (925) 277-2384 Laborotory Name Sequoia Analytical Consultant Project Number. 1.80264 Consultant Nome Gettler-Ryan Inc. (G-R Inc.) Laboratory Release Number Samples Collected by (Name) 50E ASEMIAN Address 6747 Sierra Court, Suite J. Dublin, CA 94568 Touce Marketing Company 2000 Crow Caryon PL, Ste. 400 San Remon, California 94563 Project Contact (Nome) Deanna L. Harding Collection Date Signature Ton Qui (Phone) 515-551-7555 (Fox Number) 915-551-7888 DO NOT BILL Analyses To Be Performed A = Air C = Charcool TB~LB ANALYSIS Extractable Organics (8270) Puryechie Halocarbo (8010) load (Yee or No) OE and Greate (5520) L011179 TPH Diograf (8015) 111 900 Remarks G HCL 01 TB-LB 02 2:30 1 mw-1 03 1:20 / MW-2 1 1:54 mw-3 Turn Around Time (Circle Cholce) 11/16 19h Redelved By (Signature) الديم : Date/Time م Organization Organization Relinquished by (Signature) 11-16-00 24 Hrs. G-R Inc. 48 Hrs. Date/Ilme Organization Received By (Signature) Enquish (d By (Signoture) Date/Time Organization 5 Days 10 Days Date/Time Realeved For Laboratory By (Signature) Contracted Date/Time wiehed By (Signature) Organization





November 30, 2000

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

RE: Tosco(4)/L011179

Dear Deanna Harding:

Enclosed are the results of analyses for sample(s) received by the laboratory on November 16, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Project Manager

CA ELAP Certificate Number I-2360





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

Project: Tosco(4)

Sampled: 11/16/00

Project Number: TOSCO #0018/6201 CLAREMONT BLVD., ORKdeAbd: 11/16/00

Project Manager: Deanna Harding

Reported: 11/30/00

ANALYTICAL REPORT FOR L011179

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
TB-LB	L011179-01	Water	11/16/00
MW-1	L011179-02	Water	11/16/00
MW-2	L011179-03	Water	11/16/00
MW-3	L011179-04	Water	11/16/00





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

Project:

Tosco(4)

Sampled: 11/16/00

Project Number: TOSCO #0018/ 6201 CLAREMONT BLVD., ORKdeivled: 11/16/00

Dublin, CA 94568

Project Manager:

Deanna Harding

Reported: 11/30/00

Sample Description:

Laboratory Sample Number:

TB-LB L011179-01

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
		<u>Sequo</u>	<u>oia Analytica</u>	<u>i - San Carlos</u>				
Total Purgeable Hydrocarbons (C6-C	12). BTEX at	nd MTBE by	DHS LUFT					
Purgeable Hydrocarbons as Gasoline	0110120	11/27/00	11/28/00		50.0	ND	ug/l	
· ·	W110120	H 1727700	n		0.500	ND	er -	
Benzene			,,		0.500	ND	**	
Toluene	•					ND	n	
Ethylbenzene	n	n .			0.500	=	**	
Xylenes (total)	n	#	Ħ		0.500	ND		
Methyl tert-butyl ether	H	*	Ħ		5.00	ND_	*	
Surrogate: a,a,a-Trifluorotoluene		T T	н	70.0-130		94.7	%	



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

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

Project: Tosco(4)

11/16/00 Sampled:

Project Number: TOSCO #0018/6201 CLAREMONT BLVD., ORKdeAbd:

11/16/00

Dublin, CA 94568

Project Manager: Deanna Harding

Reported: 11/30/00

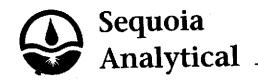
Sample Description:

Laboratory Sample Number:

MW-1

L011179-02

	Batch	Date	Date	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Analyte	Number	Prepared	Analyzed	Surrogate Litting	Lanne	resure	<u> </u>	
		Seguo	ia Analytical	- San Carlos				
Total Purgeable Hydrocarbons (C6-C1	2). BTEX an							
Purgeable Hydrocarbons as Gasoline	0110126	11/28/00	11/28/00		50.0	169	ug/l	1
Benzene	"		#		0.500	ND	19	
Toluene	н	et	**		0.500	1.20	н	
Ethylbenzene	W	17	H		0.500	1.74	н	
Xylenes (total)	11	п	н		0.500	0.629	n	
Methyl tert-butyl ether	**	*	Ħ		5.00	68.6	**	
Surrogate: a,a,a-Trifluorotoluene	n	H	н	70.0-130		99.5	%	
Volatile Organic Oxygenated Compou	nds by EPA	Method 8260	<u>)B</u>					
Ethanol	0110100	11/20/00	11/20/00	,	1000	ND	ug/l	
Tert-butyl alcohol	n	**	Ħ		100	ND	H	
Methyl tert-butyl ether	17	IP	41		2.00	97.7	**	
Di-isopropyl ether	w	n	ŧŧ		2.00	ND	17	
Ethyl tert-butyl ether		n	**		2.00	ND	Ħ	
Tert-amyl methyl ether	Ħ	н	n		2.00	ND	<u> </u>	
Surrogate: 1,2-Dichloroethane-d4	н	Ħ	W	76.0-114		96.2	%	



Gestler-Ryan/Geostrategies(1)

6747 Sierra Court, Suite J

Project: Tosco(4)

Project: Tosco(4)

Project: Tosco(4)

Project: Tosco(4)

Project Mumber: TOSCO #0018/ 6201 CLAREMONT BLVD., ORKGeAted: 11/16/00

Project Manager: Deanna Harding

Reported: 11/30/00

Sample Description:

Laboratory Sample Number:

MW-2 L011179-03

	Batch	Date	Date	Specific Method/		. n 1:	TILLIA	Notes*
Analyte	Number	Prepared	Analyzed	Surrogate Limits	Limit	Result	Units	Notes
		0	.a	Con Corles				
				l - San Carlos				
Total Purgeable Hydrocarbons (C6-C)	<u>12), BTEX an</u>	d MTBE by	DHS LUFT		£0.0	MD	130/I	
Purgeable Hydrocarbons as Gasoline	0110126	11/28/00	11/28/00		50.0	ND	ug/l	
Benzene	Ħ	11			0.500	ND		
Toluene	#	и	H		0.500	ND	**	
Ethylbenzene	**	#1	Ħ		0.500	ND	Ħ	
Xylenes (total)		*1	н		0.500	ND	8 †	
- , ,	11		n		5.00	ND	11	
Methyl test-butyl ether			*	70.0-130		72.5	%	
Surrogate: a,a,a-Trifluorotoluene				, 0.0 200				
**		Mathad 9766	n IR					
Volatile Organic Oxygenated Compou	0110100	11/20/00	11/20/00		1000	ND	ug/l	
Ethanol	0110100	11/20/00	1 1/20/00		100	ND	#	
Tert-butyl alcohol					2.00	ND	Ħ	
Methyl text-butyl ether	Ti		#		2.00	ND	**	
Di-isopropyl ether	**	Ħ				ND	**	
Ethyl tert-butyl ether		**	7		2.00			
Tert-amyl methyl ether	₩.	17	H		2.00	ND		
Surrogate: 1,2-Dichloroethane-d4	W	#	*	76.0-114		96.2	%	



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

Project: Tosco(4)

Sampled: 11/16/00

Project Number: TOSCO #0018/6201 CLAREMONT BLVD., ORKdeAbd: 11/16/00

Project Manager: Deanna Harding

Reported: 11/30/00

Sample Description:

Laboratory Sample Number:

MW-3 L011179-04

	Batch	Date	Date	Specific Method/				
Analyte	Number	Prepared	Analyzed	Surrogate Limits	<u>Limit</u>	Result	Units	Notes*
				<u>- San Carlos</u>				
Total Purgeable Hydrocarbons (C6-C1	2), BTEX an	d MTBE by	DHS LUFT				_	
Purgeable Hydrocarbons as Gasoline	0110126	11/28/00	11/28/00		50.0	ND	ug/l	
Benzene		Ħ	**		0.500	ND		
Toluene	#	tt	n		0.500	ND	T .	
Ethylbenzene	17	•	н		0.500	ND	н	
Xylenes (total)	m	**	*		0.500	ND	**	
Methyl tert-butyl ether	er	H	11		5.00	ND	**	
Surrogate: a,a,a-Trifluorotoluene	"	#	н	70.0-130		89.5	%	
Volatile Organic Oxygenated Compou	nds by EPA	Method 8260	<u>)B</u>					
Ethanol	0110100	11/20/00	11/20/00		1000	ND	ug/l	•
Tert-butyl alcohol	н	#	Ħ		100	ND	10	
Methyl tert-butyl ether		#	M		2.00	ND		
Di-isopropyl ether	91	n	**		2.00	ND	M	
Ethyl tert-butyl ether	11	Ħ	m		2.00	ND	Ħ	
Tert-amyl methyl ether	n		*		2.00	ND	#	
Surrogate: 1,2-Dichloroethane-d4	п		W	76.0-114		95.4	%	





Sampled: 11/16/00 Tosco(4) Gettler-Ryan/Geostrategies(1) Project: Project Number: TOSCO #0018/6201 CLAREMONT BLVD., ORKieAbd: 11/16/00 6747 Sierra Court, Suite J Reported: 11/30/00 Deanna Harding Dublin, CA 94568 Project Manager:

	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	%	Notes
					_					
Batch: 0110120	Date Prepa		<u>/00</u>		Extract	ion Method: EPA	<u> 5030B</u>	P/T1		
<u>Blank</u>	<u>0110120-BI</u>	<u>.K1</u>		***		50.0				
Purgeable Hydrocarbons as Gasoline	11/27/00			ND	ug/l					
Benzene	Ħ			ND	**	0.500				
l'oluene	*			ND	**	0.500				
Ethylbenzene	**			ND		0.500				
Kylenes (total)				ND		0.500				
Methyl tert-butyl ether	7			ND		5.00	061			
Surrogate: a,a,a-Trifluorotoluene		10.0		8.61	n	70.0-130	<i>86.1</i>			
LCS	0110120-B	<u>51</u>								
Benzene	11/27/00	10.0		8.67	ug/l	70.0-130	86.7			
Toluene	n	10.0		8.16	**	70.0-130	81.6			
Ethylbenzene		10.0		8.35	77	70.0-130	83.5			
Xylenes (total)		30.0	•	24.9	Ħ	70.0-130	83.0			
Surrogate: a,a,a-Trifluorotoluene	*	10.0		9.59	*	70.0-130	95.9			
	0110120-B	E2								
LCS	11/27/00	<u>34</u> 250		229	ug/l	70.0-130	91.6			
Purgeable Hydrocarbons as Gasoline Surrogate: a,a,a-Trifluorotoluene	#	10.0		7.67	<u> </u>	70.0-130	76.7			
surrogate: a,a,a-1791uorototuene		10.0		7.57						
<u>Matrix Spike</u>	<u>0110120-M</u>		011198-04		•	60.0.140	86.0			
Purgeable Hydrocarbons as Gasoline	11/27/00	250	ND	215	ug/l	60.0-140	78.5			
Surrogate: a,a,a-Trifluorotoluene	n	10.0		7.85		70.0-130	/0.5			
<u>Matrix Spike Dup</u>	0110120-M		.0111 <u>98-04</u>		_			25.0	0.53	
Purgeable Hydrocarbons as Gasoline	11/27/00	250	ND_	237	ug/l	60.0-140	94.8	25.0	9.73	
Surrogate: a,a,a-Trifluorotoluene	н	10.0		8.45	W	70.0-130	84.5			
Batch: 0110126	Date Prepa	red: 11/2	B/ 00		Extrac	tion Method: EP	A 5030B	[P/T]		
Blank	0110126-B									
Purgeable Hydrocarbons as Gasoline	11/28/00			ND	ug/l	50.0				
Benzene	#			ND	**	0.500				
Toluene	н			ND	n	0.500				
Ethylbenzene				ND		0.500				
Euryneanzene Xylenes (total)	*			ND	M	0.500				
Ayleries (wan) Methyl tert-butyl ether	n		•	ND	w	5.00				
Surrogate: a,a,a-Trifluorotoluene		10.0		7.26	n	70.0-130	72.6			
ı CS	0110126-E	:S1								
LCS	11/28/00	10.0		10.3	ug/i	70.0-130	103			
Benzene	11/20/00	10.0		10.0	-₽.•	70.0-130				



Gettler-Ryan/Geostrategies(1)
Project: Tosco(4)
Sampled: 11/16/00
6747 Sierra Court, Suite J
Project Number: TOSCO #0018/ 6201 CLAREMONT BLVD., ORKdeAled: 11/16/00
Dublin, CA 94568
Project Manager: Deanna Harding Reported: 11/30/00

Total Purgeab	le Hydrocarb	ons (C6-C	(2), BITEX	and MTB	E by Di	IS_UET/Onalif	(Onte			
	ELL ELL	- Sequoi	a Analytica	i-San Cai	(98)					eristik inte
	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	<u>%</u>	Limit	%	Notes*
LCS (continued)	0110126-BS	S1		,						
Ethylbenzene	11/28/00	10.0		9.84	ug/l	70.0-130	98.4			
Xylenes (total)	n	30.0		29.5	*	70.0-130	98.3			
Surrogate: a,a,a-Trifluorotoluene	н	10.0		7.39	n	70.0-130	73.9			
1.00	0110136 D6	29								
LCS	0110126-BS 11/28/00	<u>34</u> 250		232	ug/l	70.0-130	92.8			
Purgeable Hydrocarbons as Gasoline Surrogate: a,a,a-Trifluorotoluene	# 11/26/00	10.0		7.81	# # T	70.0-130	78.1			
- · ·							•			
Matrix Spike	<u>0110126-M</u>	_	<u>011179-03</u>		_					
Benzene	11/29/00	10.0	ND	9.32	ug/l	60.0-140				
Toluene	H	10.0	ND	8.67	•	60.0-140				
Ethylbenzene	17	10.0	ND	9.06	Ħ	60.0-140	-			
Xylenes (total)	11	30.0	ND	27.4		60.0-140				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.83	n	70.0-130	88.3			
Matrix Spike Dup	0110126-M	SD1 L	011179-03					:		
Benzene	11/29/00	10.0	ND	9.50	ug/l	60.0-140	95.0	25.0	1.91	
Toluene	H	10.0	ND	8.78	» T	60.0-140	87.8	25.0	1.26	
Ethylbenzene	н	10.0	ND	9.21		60.0-140	92.1	25.0	1.64	
Xylenes (total)	•	30.0	ND	27.8	Ħ	60.0-140	92.7	25.0	1.52	
Surrogate: a,a,a-Trifluorotoluene	н	10.0		9.42	H	70.0-130	94.2			<u></u>



Gettler-Ryan/Geostrategies(1)

6747 Sierra Court, Suite J

Project Number: Tosco(4)

Project Number: Tosco #0018/6201 CLAREMONT BLVD., ORKdeAled: 11/16/00

Project Manager: Deanna Harding

Reported: 11/30/00

	50.0	Sample Result	QC Result ND	Units Extract ug/l "" "" ""	Reporting Limit Recov. Limits tion Method: EP 1000 100 2.00 2.00	%	RPD Limit [P/T]	RPD %	Notes
Analyzed I Date Prepared: 0110100-BLK1 11/20/00 " " " " 0110100-BLK2 11/20/00	. 11/20.	Result	ND	Extracug/l	1000 1000 100 2.00 2.00			<u> </u>	Notes
0110100-BLK1 11/20/00 " " " " 0110100-BLK2 11/20/00	50.0	/00	ND ND ND ND ND	ug/l	1000 100 2.00 2.00	A 5030B	P/TI		
0110100-BLK1 11/20/00 " " " " 0110100-BLK2 11/20/00	50.0		ND ND ND ND ND	ug/l	1000 100 2.00 2.00				
11/20/00 " " " " " " 0110100-BLK2 11/20/00	50.0		ND ND ND ND ND	11 11 11	100 2.00 2.00				
" " " " " " 0110100-BLK2 11/20/00			ND ND ND ND ND	11 11 11	100 2.00 2.00				
" " " 0110100-BLK2 11/20/00			ND ND ND ND	#1 #1	2.00 2.00				
0110100-BLK2			ND ND ND	**	2.00				
0110100-BLK2			ND ND						
0110100-BLK2			ND	**	2.00				
0110100-BLK2					2.00				
0110100-BLK2			77.4	**	76.0-114	94.2			
11/20/00	<u>2</u>				70.0 117	,,,_		•	
"			ND	ug/l	1000				
			ND	**	190				
			ND	**	2.00				
11			ND		2.00				
H			ND	H	2.00				
п			ND	**	2.00				
"	50.0	· · · · · · · · · · · · · · · · · · ·	46.6	,	76.0-114	93.2			
01101 00_R I.K	3								
	<u>~</u>		ND	ug/l	1000				
11/22/00				"	100				
**				*	2.00				
H				*	2.00				
				H					
*				**					
н	50.0		49.0	"	76.0-114	98.0			
	50.0		40 7	no/l	70.0-130	99.4			
		 		"					
-	<i>50.0</i>		70.3		70.0 117	,			
0110100-BS2									
11/20/00	50.0		45.3	ug/l					
*	50.0	<u> </u>	47.8		76.0-114	95.6			
0110100_RQ3									
			47.4	ug/l	70.0-13 0	94.8			
#	50.0		50.4	H	76.0-114				
044D400 B/604	1 7	. 011178 03							
	-		40.0	ug/l	ራ ስ በ∟1 <i>ል</i> በ	QQ 2			
	11/22/00 " " " " " " " " " " " " " " " " " "	" 50.0 0110100-BS1 11/20/00 50.0 0110100-BS2 11/20/00 50.0 0110100-BS3 11/22/00 50.0 0110100-MS1	11/22/00 " " " " " " " " " " " " " " " " " "	11/22/00 " " ND	11/22/00 "	11/22/00 "	11/22/00 " ND ug/l 1000 " ND " 100 " ND " 2.00 " 76.0-114 98.0 11/20/00 50.0 49.7 ug/l 70.0-130 99.4 " 50.0 45.3 ug/l 70.0-130 90.6 11/20/00 50.0 47.8 " 76.0-114 95.6 11/22/00 50.0 47.8 " 76.0-114 95.6	11/22/00 ND ug/l 1000 ND " 100 ND " 2.00 ND " 76.0-114 98.0 11/20/00 50.0 49.7 ug/l 70.0-130 99.4 " 50.0 48.5 " 76.0-114 97.0 110100-BS2 11/20/00 50.0 47.8 " 76.0-114 95.6 11/22/00 50.0 47.4 ug/l 70.0-130 94.8 11/22/00 50.0 47.4 ug/l 70.0-130 94.8 11/22/00 50.0 47.4 ug/l 70.0-130 94.8 11/22/00 50.0 50.0 47.4 ug/l 70.0-130 94.8 11/22/00 50.0 50.0 47.4 ug/l 70.0-130 94.8	11/22/00 ND ug/l 1000 ND " 100 ND " 2.00 ND " 76.0-114 98.0 11/20/00 50.0 49.7 ug/l 70.0-130 99.4 " 50.0 48.5 " 76.0-114 97.0 0110100-BS2 11/20/00 50.0 47.8 " 76.0-114 95.6 0110100-BS3 11/22/00 50.0 47.8 " 76.0-114 95.6





Gettler-Ryan/Geostrategies(1)
Project: Tosco(4)
Sampled: 11/16/00
6747 Sierra Court, Suite J
Project Number: TOSCO #0018/ 6201 CLAREMONT BLVD., ORKieAled: 11/16/00
Dublin, CA 94568
Project Manager: Deanna Harding
Reported: 11/30/00

Volatile Organic Oxygenated Compounds by EPA Method 8260B/Quality Control & Sequois 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)	<u>0110100-M</u>	<u> S1 L</u>	011175 <u>-03</u>							
Surrogate: 1,2-Dichloroethane-d4	11/20/00	50.0		51.4	ug/l	76.0-114	103			
Matrix Spike Dup	0110100-M	SD1 L	011175-03							
Methyl tert-butyl ether	11/20/00	50.0	ND	45.7	ug/l	60.0-140	91.4	25.0	8.79	
Surrogate: 1.2-Dichloroethane-d4	"	50.0		47.7	Ħ	76.0-114	95.4			





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

Project: Tosco(4)

Sampled: 11/16/00

Project Manager: Deanna Harding

Project Number: TOSCO #0018/6201 CLAREMONT BLVD., ORKdeAled: 11/16/00

Reported: 11/30/00

Notes and Definitions

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