RO-409

GETTLER-RYAN INC.

TRANSMITTAL

JUL 10 2002

June 17, 2002
G-R #180225

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

CC: Mr. Paul Blank
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

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	June 3, 2002	Groundwater Monitoring and Sampling Report Second Quarter - Event of April 25, 2002

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 ***July 8, 2002***, this report will be distributed to the following:

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 Court, Suite 300, Hayward, CA 94545

Enclosure

trans/1156-DBD

GETTLER-RYAN INC.

June 3, 2002
G-R Job #180225

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

RE: Second Quarter Event of April 25, 2002
Groundwater Monitoring & Sampling Report
Tosco 76 Service Station #1156
4276 MacArthur Boulevard
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 any of the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map is included as Figure 1.

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

Sincerely,

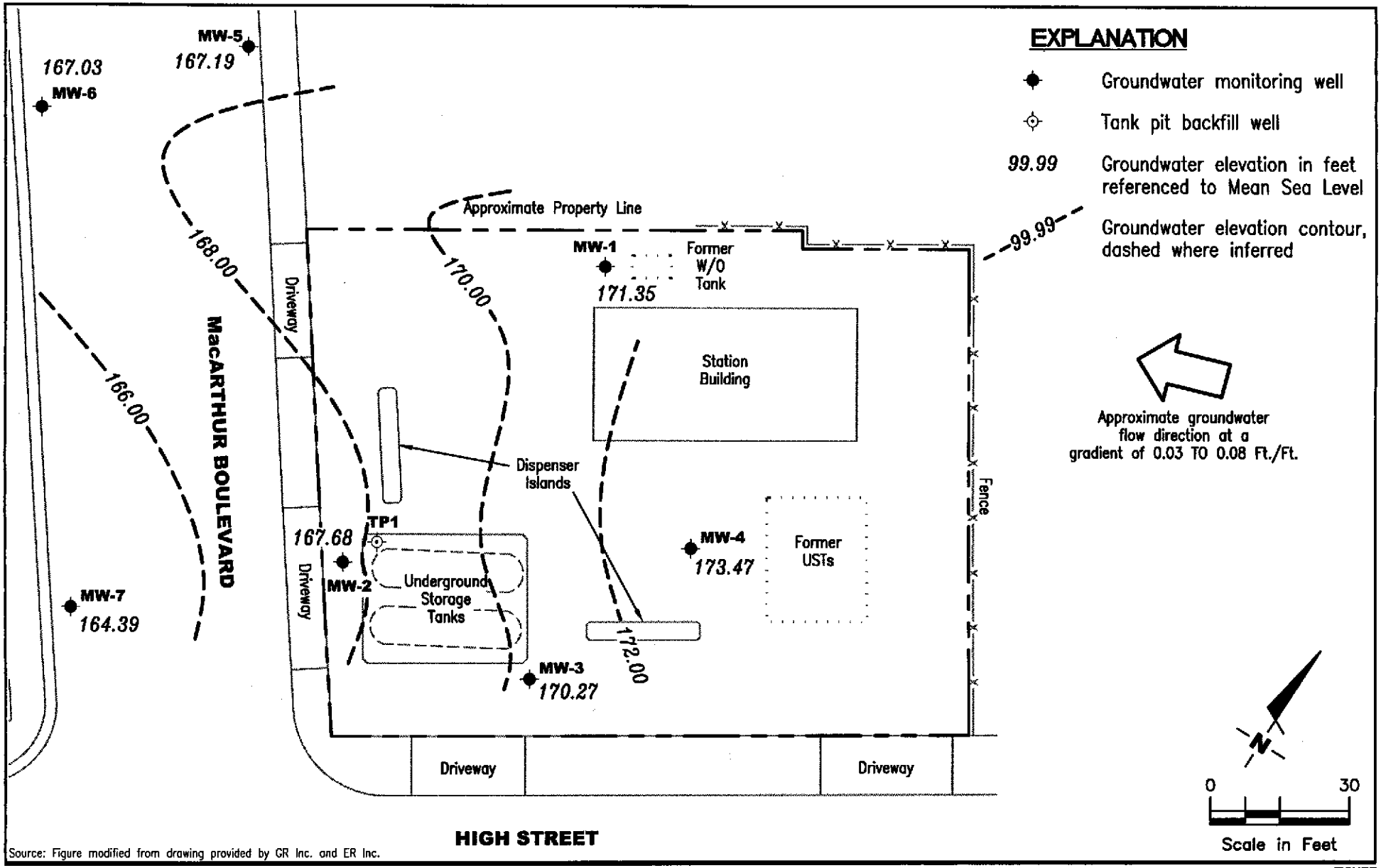
Deanna L. Harding
Project Coordinator

REGISTERED GEOLOGIST
DOUGLAS J. LEE
No. 6882
STATE OF CALIFORNIA

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



Source: Figure modified from drawing provided by GR Inc. and ER Inc.

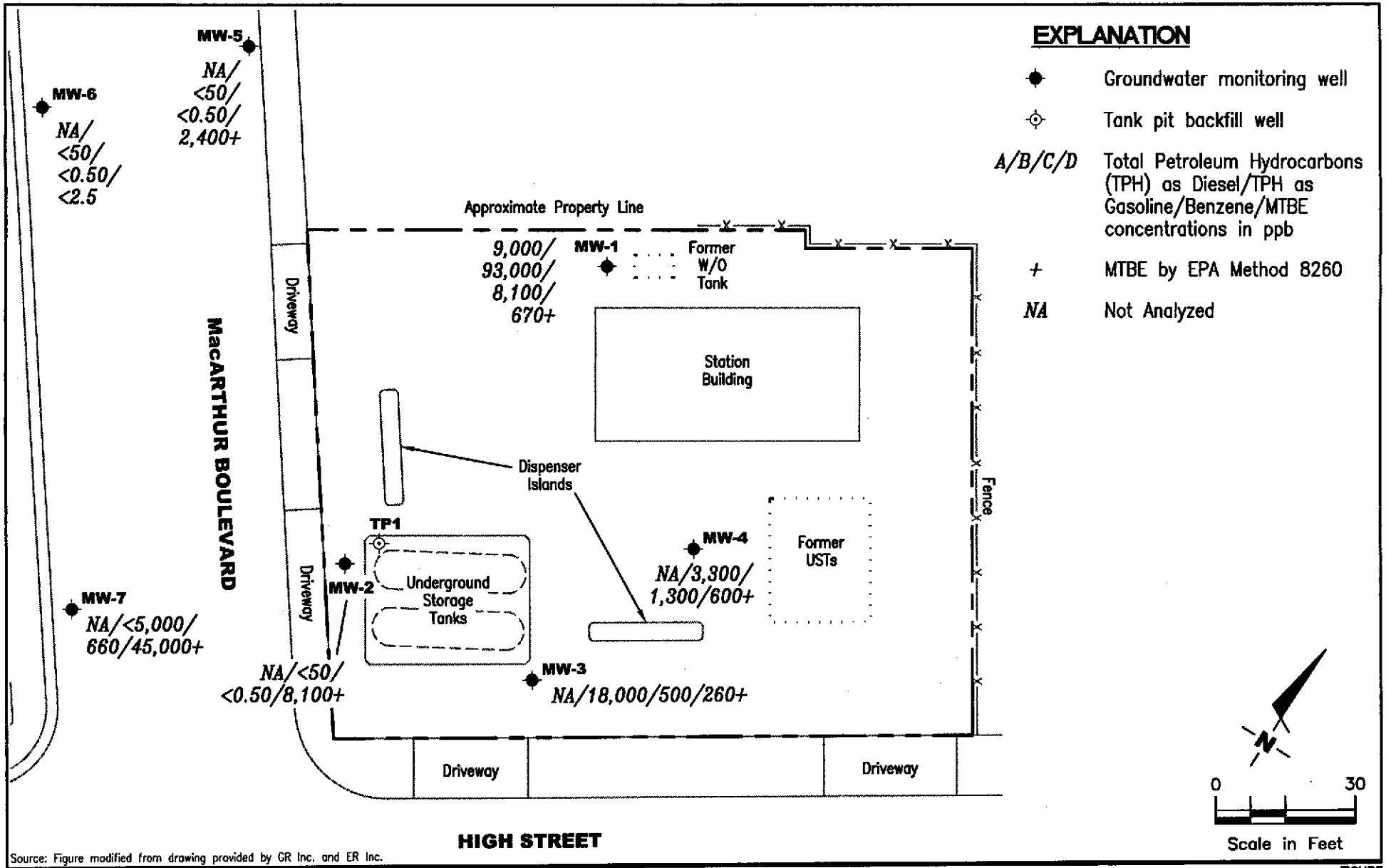
GETTLER - RYAN INC.
6747 Sierra Ct., Suite J
Dublin, CA 94568
(925) 551-7555

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

FIGURE
1

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
180225		April 25, 2002	

FILE NAME: P:\Enviro\TOSCO\1156\Q02-1156.DWG | Layout Tab: Pot2



Source: Figure modified from drawing provided by GR Inc. and ER Inc.

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

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

FIGURE
2

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
180225		April 25, 2002	

FILE NAME: P:\Enviro\TOSCO\1156\Q02-1156.DWG | Layout Tab: Con2

Table 1

Groundwater Monitoring Data and Analytical Results

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

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product Thickness (ft.)	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	5.0-25.0	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]
	01/07/00	9.05		165.83**	0.02	7,870[2,4]	72,700[6]	7,410	13,900	2,070	9,620	ND[1]
	03/31/00	7.18		167.68	0.00	3,600[2]	92,000[6]	10,000	23,000	3,200	14,000	ND[1]
	07/14/00	7.68		167.18	0.00	8,580[2]	108,000[6]	8,250	18,700	3,750	17,800	ND[1]
	10/03/00	7.99		166.87	0.00	9,260[2]	96,000[6]	8,760	20,000	3,350	15,600	ND[1]
	01/03/01	9.18		165.68	0.00	11,000[8]	37,000[6]	5,800	13,000	1,700	8,100	2,200
	04/04/01	8.05		166.81	0.00	14,000[8]	86,900[6]	7,780	18,500	2,470	11,800	[1]ND/481[3]
	07/17/01	7.01		167.85	0.00	2,200[8]	79,000[6]	5,600	11,000	2,800	12,000	[1]ND/230[3]
177.54	10/03/01	7.89		169.65	0.00	--	99,000[6]	8,200	18,000	3,000	16,000	<2,500
	10/05/01	7.91		169.63	0.00	13,000[2]	--	--	--	--	--	--
	01/28/02	5.98		171.56	0.00	4,400[11]	110,000[12]	8,900	19,000	2,600	12,000	3,000/440[3]
	04/25/02	**6.19**		**171.35**	**0.00**	**9,000[13]**	**93,000**	**8,100**	**18,000**	**3,000**	**15,000**	**810/670[3]**
MW-2												
173.01	07/20/99	5.40	5.0-25.0	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]
	01/07/00	5.92		167.09	0.00	--	1,450[6]	99.0	ND[1]	23.8	16.0	33,100
	03/31/00	5.23		167.78	0.00	--	ND[1]	42	ND[1]	ND[1]	ND[1]	17,000
	07/14/00	5.52		167.49	0.00	--	ND[1]	44.7	ND[1]	ND[1]	ND[1]	66,500
	10/03/00	6.04		166.97	0.00	--	ND[1]	56.7	ND[1]	ND[1]	ND[1]	57,500
	01/03/01	6.42		166.59	0.00	--	ND[1]	ND[1]	ND[1]	ND[1]	ND[1]	49,000
	04/04/01	6.14		166.87	0.00	--	ND[1]	ND[1]	ND[1]	ND[1]	ND[1]	38,700/37,800[3]
	07/17/01	5.30		167.71	0.00	--	ND[1]	ND[1]	ND[1]	ND[1]	ND[1]	65,000/56,000[3]
173.50	10/03/01	7.38		166.12	0.00	--	<250	2.7	<2.5	<2.5	<2.5	14,000/18,000[3]
	01/28/02	5.68		167.82	0.00	--	<250	2.5	4.4	2.8	7.4	11,000/10,000[3]
	04/25/02	**5.82**		**167.68**	**0.00**	**--**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**8,400/8,100[3]**

Table 1

Groundwater Monitoring Data and Analytical Results

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

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-3												
178.44	07/20/99	8.50	5.0-25.0	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]
	01/07/00	8.56		169.88	0.00	--	28,400[6]	2,450	3,090	1,560	3,910	1,940
	03/31/00	8.42		170.02	0.00	--	26,000[6]	1,300	2,900	2,600	3,500	2,800
	07/14/00	8.61		169.83	0.00	--	24,500[6]	1,850	2,630	2,750	3,900	548
	10/03/00	9.14		169.30	0.00	--	22,000[6]	1,910	2,020	2,400	2,680	965
	01/03/01	9.06		169.38	0.00	--	14,000[6]	1,600	1,100	2,300	1,400	3,300
	04/04/01	8.98		169.46	0.00	--	19,600[6]	1,150	1,470	2,100	1,820	1,050/450[3]
	07/17/01	7.46		170.98	0.00	--	26,000[6]	1,500	2,100	2,100	3,400	[1]ND/350[3]
178.13	10/03/01	9.81		168.32	0.00	--	22,000[6]	830	1,900	1,700	3,000	<1,000
	01/28/02	7.39		170.74	0.00	--	30,000[12]	880	2,600	1,800	4,300	3,200/210[3]
	04/25/02	**7.86**		**170.27**	**0.00**	**--**	**18,000**	**500**	**2,000**	**1,300**	**3,800**	**500/260[3]**
MW-4												
179.10	07/20/99	7.40	5.0-25.0	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]
	01/07/00	8.98		170.12	0.00	--	7,010[6]	2,260	167	271	276	764
	03/31/00	7.26		171.84	0.00	--	5,500[6]	1,800	230	330	400	1,000
	07/14/00	7.67		171.43	0.00	--	7,940[6]	2,810	332	450	247	1,530
	10/03/00	8.12		170.98	0.00	--	11,400[6]	3,110	437	519	816	1,040
	01/03/01[7]	9.10		170.00	0.00	--	8,600[6]	2,500	340	480	960	850
	04/04/01	8.63		170.47	0.00	--	9,950[6]	2,380	126	416	725	1,140/819[3]
	07/17/01	6.49		172.61	0.00	--	10,000[6]	2,300	110	410	800	1,200/900[3]
178.96	10/03/01	7.01		171.95	0.00	--	7,800[6]	2,100	85	380	390	580/820[3]
	01/28/02	6.21		172.75	0.00	--	12,000[12]	2,100	130	350	670	1,100/500[3]
	04/25/02	**5.49**		**173.47**	**0.00**	**--**	**3,300**	**1,300**	**42**	**270**	**250**	**680/600[3]**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco 76 Service Station #1156

4276 MacArthur Boulevard

Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-5												
169.18	10/03/01[10]	2.81	--	166.37	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	1,800/2,100[3]
	01/28/02	1.88		167.30	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	650/550[3]
	04/25/02	**1.99**		**167.19**	**0.00**	**--**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2,200/2,400[3]**
MW-6												
169.04	10/03/01[10]	2.87	--	166.17	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	200/270[3]
	01/28/02	1.82		167.22	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	04/25/02	**2.01**		**167.03**	**0.00**	**--**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
MW-7												
171.64	10/03/01[10]	7.62	--	164.02	0.00	--	10,000[9]	210	<50	<50	800	35,000/40,000[3]
	01/28/02	7.21		164.43	0.00	--	<1,000	<10	<10	<10	<10	42,000/38,000[3]
	04/25/02	**7.25**		**164.39**	**0.00**	**--**	**<5,000**	**660**	**<50**	**<50**	**<50**	**42,000/45,000[3]**
Trip Blank												
TB-LB	07/20/99	--	--	--	--	--	--	--	--	--	--	--
	09/28/99	--		--	--	--	ND	ND	ND	ND	ND	ND
	01/07/00	--		--	--	--	ND	ND	ND	ND	ND	ND
	03/31/00	--		--	--	--	ND	ND	ND	ND	ND	ND
	07/14/00	--		--	--	--	ND	ND	ND	ND	ND	ND
	10/03/00	--		--	--	--	ND	ND	ND	ND	ND	ND
	01/03/01	--		--	--	--	ND	ND	ND	ND	ND	ND
	04/04/01	--		--	--	--	ND	ND	ND	ND	ND	ND
	07/17/01	--		--	--	--	ND	ND	ND	ND	ND	ND
	10/03/01	--		--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco 76 Service Station #1156

4276 MacArthur Boulevard

Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TB-LB	10/05/01	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
(cont)	01/28/02	--		--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	04/25/02	--		--	--	--	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**

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
(ft.) = Feet
DTW = Depth to Water
S.I. = Screen Interval
(ft. bgs) = Feet Below Ground Surface
GWE = Groundwater Elevation
(msl) = 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 were resurveyed in September 2001, by Morrow Surveying. TOC elevations are based on City of Oakland Benchmark No. 3967, (Elevation = 174.40 feet, msl).

** GWE has been corrected due to the presence of free product; correction factor: [(TOC - DTW) + (Product Thickness x 0.77)].

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.

7 This sample was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.

8 Laboratory report indicates unidentified hydrocarbons <C16.

9 Laboratory report indicates weathered gasoline C6-C12.

10 Well development performed.

11 Laboratory report indicates unidentified hydrocarbons C10-C28.

12 Laboratory report indicates gasoline C6-C10.

13 Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitation range but it does not resemble the pattern of the requested fuel.

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)	1,2-DCA (ppb)	EDB (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]
	01/07/00	--	--	--	--	--	--	--	--	ND[7,8]	ND[9]
	03/31/00	--	--	--	--	--	--	--	--	--[11]	ND[10]
	07/14/00	--	--	--	--	--	--	--	--	ND[12]	ND[13]
	10/03/00	--	--	--	--	--	--	--	--	ND[15]	ND[14]
	01/03/01	--	--	--	--	--	--	--	--	ND[15]	ND[16]
	04/04/01	ND[6]	ND[6]	481	ND[6]	ND[6]	ND[6]	ND[6]	ND[6]	ND[17]	ND[18]
	07/17/01	ND[6]	ND[6]	230	ND[6]	ND[6]	ND[6]	ND[6]	ND[6]	ND[20]	ND[19]
	01/28/02	--	--	440	--	--	--	--	--	--	--
	04/25/02	--	--	**670**	--	--	--	--	--	--	--
MW-2	09/28/99	--	ND[6]	6,150	ND[6]	ND[6]	ND[6]	--	--	--	--
	04/04/01	ND[6]	ND[6]	37,800	ND[6]	ND[6]	ND[6]	ND[6]	ND[6]	--	--
	07/17/01	ND[6]	ND[6]	56,000	ND[6]	ND[6]	ND[6]	ND[6]	ND[6]	--	--
	10/03/01	--	--	18,000	--	--	--	--	--	--	--
	01/28/02	--	--	10,000	--	--	--	--	--	--	--
	04/25/02	--	--	**8,100**	--	--	--	--	--	--	--
MW-3	09/28/99	--	ND[6]	288	ND[6]	ND[6]	8.80	--	--	--	--
	04/04/01	ND[6]	ND[6]	450	ND[6]	ND[6]	ND[6]	ND[6]	ND[6]	--	--
	07/17/01	ND[6]	ND[6]	350	ND[6]	ND[6]	ND[6]	ND[6]	ND[6]	--	--
	01/28/02	--	--	210	--	--	--	--	--	--	--
	04/25/02	--	--	**260**	--	--	--	--	--	--	--

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)	1,2-DCA (ppb)	EDB (ppb)	HVOCs (ppb)	SVOCs (ppb)
MW-4	09/28/99	--	ND[6]	459	ND[6]	ND[6]	ND[6]	--	--	--	--
	04/04/01	ND[6]	ND[6]	819	ND[6]	ND[6]	ND[6]	ND[6]	ND[6]	--	--
	07/17/01	ND[6]	ND[6]	900	ND[6]	ND[6]	ND[6]	ND[6]	ND[6]	--	--
	10/03/01	--	--	820	--	--	--	--	--	--	--
	01/28/02	--	--	500	--	--	--	--	--	--	--
	04/25/02	--	--	**600**	--	--	--	--	--	--	--
MW-5	10/03/01	--	--	2,100	--	--	--	--	--	--	--
	01/28/02	--	--	550	--	--	--	--	--	--	--
	04/25/02	--	--	**2,400**	--	--	--	--	--	--	--
MW-6	10/03/01	--	--	270	--	--	--	--	--	--	--
MW-7	10/03/01	--	--	40,000	--	--	--	--	--	--	--
	01/28/02	--	--	38,000	--	--	--	--	--	--	--
	04/25/02	--	--	**45,000**	--	--	--	--	--	--	--

Table 2

Groundwater Analytical Results

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

EXPLANATIONS:

Groundwater laboratory 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
ND = Not Detected
-- = Not Analyzed

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.

7 All HVOCs were ND (with a raised detection limit) except for Benzene at 8,380 ppb; Ethylbenzene at 2,380 ppb; Naphthalene at 1,050 ppb; n-Propylbenzene at 371 ppb; Toluene at 17,600 ppb; 1,2,4-Trimethylbenzene at 2,210 ppb; 1,3,5-Trimethylbenzene at 597 ppb and Total Xylenes at 10,800 ppb.

8 EPA Method 8260 for HVOCs.

9 All SVOCs were ND (with a raised detection limit) except for 2-Methylnaphthalene at 315 ppb and Naphthalene at 615 ppb.

10 All SVOCs were ND except for Bis(2-ethylhexyl)phthalate at 10 ppb; 1,2-DCB at 6.2 ppb; 2-Methylnaphthalene at 73 ppb; 2-Methylphenol at 31 ppb; 4-Methylphenol at 18 ppb and Naphthalene at 140 ppb. Laboratory report indicates all SVOCs were analyzed outside the EPA recommended holding time.

11 Laboratory did not analyze for HVOCs.

12 All HVOCs were ND (with a raised detection limit) except for Tetrachloroethene at 334 ppb.

13 All SVOCs were ND (with a raised detection limit) except for 2-Methylnaphthalene at 300 ppb and Naphthalene at 690 ppb.

14 All SVOCs were ND (with a raised detection limit) except for Benzoic acid at 362 ppb; Bis(2-ethylhexyl)phthalate at 51.6 ppb; 2-Methylnaphthalene at 98.1 ppb; 4-Methylphenol at 28.9 ppb and Naphthalene at 361 ppb.

15 All HVOCs were ND (with a raised detection limit).

16 All SVOCs were ND (with a raised detection limit) except for 2-Methylnaphthalene at 180 ppb and Naphthalene at 400 ppb.

17 All HVOCs were ND except for cis-1,2-DCA at 3.4 ppb; 1,2-DCA at 5.7 ppb; Chlorobenzene at 5.6 ppb and 1,2-DCB at 4.6 ppb.

18 All SVOCs were ND except for Benzoic acid at 28 ppb; Bis(2-ethylhexyl)phthalate at 55 ppb; 2-Methylnaphthalene at 78 ppb and Naphthalene at 490 ppb.

EXPLANATIONS: (cont)

[19] All SVOCs were ND except for Bis(2-ethylhexyl)phthalate at 400 ppb; 1,2-DCB at 18 ppb; 2,4-Dimethylphenol at 16 ppb; 2-Methylnaphthalene at 290 ppb; 2-Methylphenol at 47 ppb; 4-Methylphenol at 25 ppb; Naphthalene at 740 ppb and N-Nitrosodimethylamine at 7.7 ppb.

[20] Volatile Organic Compounds (VOCs) by EPA Method 8021B were ND with a raised detection limit.

ANALYTICAL METHODS:

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 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 # Tosco # 1156 Job#: 180325

Address: 4276 MacArthur Date: 4/25/02

City: Oakland, CA Sampler: A. Smith

Well ID MW-1 Well Condition: Good

Well Diameter 2 in. Hydrocarbon Thickness: _____ (feet) Amount Bailed (product/water): _____ (Gallons)

Total Depth 25.11 ft.

Depth to Water 6.19 ft.

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

18.92 X VF 0.17 = 3.2 X 3 (case volume) = Estimated Purge Volume: 9.6 (gal.)

Purge Equipment:
- (Disposable Bailer)
- Bailer
- ~~Steel~~ AS
- Suction
- Grundfos
- Other: _____

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

Starting Time: 1425 Weather Conditions: Sunny / Overcast

Sampling Time: 1445 Water Color: Clear / Greenish Odor: Gasoline

Purging Flow Rate: N/A gpm. Sediment Description: Sheen on surface of water

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1424	3	7.15	1021	19.4			
1437	8	7.27	1085	19.2			
1442	12	6.95	1075	19.4			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 X VOA VIAL	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe
	1-1 Liter amb	Y	none	"	TPHd

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # Tosco # 1156 Job#: 180225

Address: 4276 MacArthur Date: 4/25/02

City: Oakland, CA Sampler: A. Smith

Well ID MW-2 Well Condition: Good

Well Diameter 2 in. Hydrocarbon Thickness: ____ (feet) Amount Bailed (product/water): ____ (Gallons)

Total Depth 24.13 ft.

Depth to Water 5.82 ft.

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

18.31 X VF 0.17 = ____ X 3 (case volume) = Estimated Purge Volume: 9.3 (gal.)

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

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

Starting Time: 1240 Weather Conditions: Sunny / overcast

Sampling Time: 1255 Water Color: Clear Odor: none

Purging Flow Rate: 1.5 gpm. Sediment Description: None

Did well de-water? NO If yes; Time: ____ Volume: ____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1242	3	7.83	819	20.5			
1243	m.L.	Down to	9.1', Lower	pump	continue	Purging	
1246	≈6	7.35	As 8.11 811	19.7			
1250	≈10	6.90	794	19.7			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	3 X VOA VIAL	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: ____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility# Tosco # 1156 Job#: 180225

Address: 4276 MacArthur Date: 4/25/02

City: Oakland, CA Sampler: A. Smith

Well ID MW-3 Well Condition: Good

Well Diameter 2 in. Hydrocarbon Thickness: _____ (feet) Amount Bailed (product/water): _____ (Gallons)

Total Depth 25.05 ft.

Depth to Water 7.86 ft.

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

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

Purge Equipment:
- ✓ Disposable Bailer
- ~~Bailer~~ As
- Stack
- Suction
- Grundfos
- Other: _____

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

Starting Time: 1315 Weather Conditions: Sunny

Sampling Time: 1335 Water Color: Greenish Brown Odor: Yes, Gasoline

Purging Flow Rate: N/A gpm. Sediment Description: None

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1320	3	7.17	908	19.3			
1324	6	6.62	879	18.9			
1330	9	6.66	836	19.1			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 X VOA VIAL	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: _____

9/97-fieldat.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # Tosco # 1156 Job#: 180225

Address: 4276 MacArthur Date: 4/25/02

City: Oakland, CA Sampler: A. Smith

Well ID MW-4 Well Condition: Good

Well Diameter 2 in. Hydrocarbon Thickness: _____ (feet) Amount Bailed (product/water): _____ (Gallons)

Total Depth 25.31 ft.

Depth to Water 5.49 ft.

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

19.82 X VF 0.17 = 3.4 X 3 (case volume) = Estimated Purge Volume: 10.1 (gal.)

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

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

Starting Time: 1355 Weather Conditions: Getting Over Cast

Sampling Time: 1410 Water Color: Clear Odor: Yes

Purging Flow Rate: ≈ 1.5 gpm. Sediment Description: none

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

	Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
	1357	3.0	7.21	999	19.3			
*	1400	7.5	6.95	991	19.7			
	1405	~~5~~ 12	6.75	967	18.9			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	3 X VOA VIAL	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: * @ 1402 water in well down to 12.4', Lower Pump Continue Purging.

9/97-fieldat.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility# Tosco # 1156 Job#: 180225

Address: 4276 MacArthur Date: 4/25/02

City: Oakland, CA Sampler: A. Smith

Well ID MW-5 Well Condition: Good

Well Diameter 2 in. Hydrocarbon Thickness: ____ (feet) Amount Bailed (product/water): ____ (Gallons)

Total Depth 25.39 ft.

Depth to Water 1.99 ft.

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

23.40 X VF 0.17 = 4.0 X 3 (case volume) = Estimated Purge Volume: 11.9 (gal.)

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

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

Starting Time: 1045 Weather Conditions: Sunny

Sampling Time: 1100 Water Color: Light Brown Odor: none

Purging Flow Rate: 1.5 gpm. Sediment Description: Light Silt (not much)

Did well de-water? NO If yes; Time: ____ Volume: ____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1048	4.5	6.92	948	19.8			
1050	7.5	6.82	947	19.6			
1055	15	6.84	948	19.7			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3 X VOA VIAL	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: ____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # Tosco # 1156 Job#: 180323

Address: 4276 MacArthur Date: 4/25/02

City: Oakland, CA Sampler: Andrew Smith

Well ID MW-6 Well Condition: Good

Well Diameter 2 in. Hydrocarbon Thickness: _____ (feet) Amount Bailed (product/water): _____ (Gallons)

Total Depth 24.91 ft.

Depth to Water 2.01 ft.

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

22.90 X VF 0.17 = 3.9 X 3 (case volume) = Estimated Purge Volume: 12 (gal.)

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

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

Starting Time: 1015 Weather Conditions: overcast

Sampling Time: 1025 Water Color: Light Brown Odor: none

Purging Flow Rate: ≈ 2 gpm. Sediment Description: silty

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1017	4	7.67	843	17.9			
1019	8	7.19	787	17.9			
1022	14	6.95	782	17.8			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	3 X VOA VIAL	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco # 1156 Job#: 180225

Address: 4276 MacArthur Date: 4/25/02

City: Oakland, CA Sampler: A. Smith

Well ID MW-7 Well Condition: Good

Well Diameter 2 in. Hydrocarbon Thickness: _____ (feet) Amount Bailed (product/water): _____ (Gallons)

Total Depth 25.51 ft.

Depth to Water 7.25 ft.

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

18.26 X VF 0.17 = 3.1 X 3 (case volume) = Estimated Purge Volume: 9.3 (gal.)

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

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

Starting Time: 1122 Weather Conditions: Sunny

Sampling Time: 1135 Water Color: Clear (Cloudy) Odor: yes, Petro-chc

Purging Flow Rate: 1.5 gpm. Sediment Description: none

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1124	3	7.24	1234	19.1			
1127	7.5	6.78	1208	18.2			
1130	12	6.78	1213	18.8			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	3 X VOA VIAL	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: _____

GLOBAL ID# T0600102279

Chain-of-Custody-Record

TOSCO

Facility Number: TOSCO(76) SS# 1156
Facility Address: 4276 MacArthur, Oakland, CA
Consultant Project Number: 180225.85
Consultant Name: Gettler-Ryan Inc. (G-R Inc.)
Address: 6747 SIERRA COURT, SUITE J, DUBLIN, CA 94568
Project Contact (Name): Deanna L. Harding
(Phone): (925) 551-7555 (Fax Number): 925-551-7899

Contact (Name): MR. Dave DeWitt
(Phone): 925-277-2384
Laboratory Name: Sequoia Analytical #204465
Laboratory Release Number:
Samples Collected by (Name): Andrew Smith
Collection Date: 4/25/02
Signature:

Sample Number	Lab Sample Number	Number of Containers	Matrix (W = Water, S = Soil, A = Air, C = Charcoal)	Type (G = Grab, C = Composite, D = Discrete)	Time	Sample Preservation	Iced (Yes or No)	TPH as Gas + BTEX + MTBE (8015/8020)	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 (TTLC or STLC)					
								Analyses To Be Performed												
B-LB	01A	1	W	G	930	HCL	Y	X												
MW-1	02A-D	4	W	G	1445	1-1 Liters no Pres/HCL	Y	X	X											
MW-2	03A-C	3	W		1255	HCL		X												
MW-3	04	3	W		1335	HCL		X												
MW-4	05	3	W		1410	HCL		X												
MW-5	06	3	W		1100	HCL		X												
MW-6	07	3	W		1025	HCL		X												
MW-7	08	3	W		1135	HCL		X												

DO NOT BILL TB-LB ANALYSIS

Run MTBE by 8260 on all 8020 MTBE hits.

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	G-R Inc.	4/25/02 1605			
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
					1605 4/25/02

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

SEQUOIA ANALYTICAL
(925) 988-9673
05/10/02 11:28 :02/02 NO:018

Sequoia
Analytical

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

10 May, 2002

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

RECEIVED
MAY 10 2002

RE: Tosco
Sequoia Report: W204465

Enclosed are the results of analyses for samples received by the laboratory on 25-Apr-02 16:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	W204465-02	Water	25-Apr-02 14:45	25-Apr-02 16:05
MW-2	W204465-03	Water	25-Apr-02 12:55	25-Apr-02 16:05
MW-3	W204465-04	Water	25-Apr-02 13:35	25-Apr-02 16:05
MW-4	W204465-05	Water	25-Apr-02 14:10	25-Apr-02 16:05
MW-5	W204465-06	Water	25-Apr-02 11:00	25-Apr-02 16:05
MW-6	W204465-07	Water	25-Apr-02 10:25	25-Apr-02 16:05
MW-7	W204465-08	Water	25-Apr-02 11:35	25-Apr-02 16:05

Sequoia Analytical - Walnut Creek

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

Charlie Westwater, Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (W204465-01) Water Sampled: 25-Apr-02 09:30 Received: 25-Apr-02 16:05									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2E02003	06-May-02	06-May-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*115 %*	*70-130*		"	"	"	"	
MW-1 (W204465-02) Water Sampled: 25-Apr-02 14:45 Received: 25-Apr-02 16:05									
Purgeable Hydrocarbons (C6-C12)	**93000**	10000	ug/l	200	2E02003	06-May-02	06-May-02	EPA 8015M/8021	
Benzene	**8100**	100	"	"	"	"	"	"	
Toluene	**18000**	100	"	"	"	"	"	"	
Ethylbenzene	**3000**	100	"	"	"	"	"	"	
Xylenes (total)	**15000**	100	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	**810**	500	"	"	"	"	"	"	Q-28b
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*70-130*		"	"	"	"	
MW-2 (W204465-03) Water Sampled: 25-Apr-02 12:55 Received: 25-Apr-02 16:05									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2E02003	06-May-02	06-May-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*100 %*	*70-130*		"	"	"	"	

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (W204465-03RE1) Water Sampled: 25-Apr-02 12:55 Received: 25-Apr-02 16:05									
Methyl tert-butyl ether (MTBE)	**8400**	1200	ug/l	500	2E02003	07-May-02	08-May-02	EPA 8015M/8021	Q-28
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*70-130*		"	"	"	"	
MW-3 (W204465-04) Water Sampled: 25-Apr-02 13:35 Received: 25-Apr-02 16:05									
Purgeable Hydrocarbons (C6-C12)	**18000**	5000	ug/l	100	2E02003	06-May-02	06-May-02	EPA 8015M/8021	
Benzene	**500**	50	"	"	"	"	"	"	
Toluene	**2000**	50	"	"	"	"	"	"	
Ethylbenzene	**1300**	50	"	"	"	"	"	"	
Xylenes (total)	**3800**	50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	**500**	250	"	"	"	"	"	"	Q-28b
Surrogate: a,a,a-Trifluorotoluene		*101 %*	*70-130*		"	"	"	"	
MW-4 (W204465-05) Water Sampled: 25-Apr-02 14:10 Received: 25-Apr-02 16:05									
Purgeable Hydrocarbons (C6-C12)	**3300**	500	ug/l	10	2E02003	09-May-02	09-May-02	EPA 8015M/8021	
Benzene	**1300**	5.0	"	"	"	"	"	"	
Toluene	**42**	5.0	"	"	"	"	"	"	
Ethylbenzene	**270**	5.0	"	"	"	"	"	"	
Xylenes (total)	**250**	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	**680**	25	"	"	"	"	"	"	Q-28a
Surrogate: a,a,a-Trifluorotoluene		*116 %*	*70-130*		"	"	"	"	
MW-5 (W204465-06) Water Sampled: 25-Apr-02 11:00 Received: 25-Apr-02 16:05									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2E02003	06-May-02	06-May-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*70-130*		"	"	"	"	

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (W204465-06RE1) Water Sampled: 25-Apr-02 11:00 Received: 25-Apr-02 16:05									
Methyl tert-butyl ether (MTBE)	**2200**	250	ug/l	100	2E02003	08-May-02	08-May-02	EPA 8015M/8021	Q-28
Surrogate: a,a,a-Trifluorotoluene		*103 %*	*70-130*		"	"	"	"	
MW-6 (W204465-07) Water Sampled: 25-Apr-02 10:25 Received: 25-Apr-02 16:05									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2E02003	06-May-02	06-May-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.3 %*	*70-130*		"	"	"	"	
MW-7 (W204465-08) Water Sampled: 25-Apr-02 11:35 Received: 25-Apr-02 16:05									
Purgeable Hydrocarbons (C6-C12)	ND	5000	ug/l	100	2E02003	06-May-02	06-May-02	EPA 8015M/8021	
Benzene	**660**	50	"	"	"	"	"	"	QR-04
Toluene	ND	50	"	"	"	"	"	"	
Ethylbenzene	ND	50	"	"	"	"	"	"	
Xylenes (total)	ND	50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*79.3 %*	*70-130*		"	"	"	"	
MW-7 (W204465-08RE1) Water Sampled: 25-Apr-02 11:35 Received: 25-Apr-02 16:05									
Methyl tert-butyl ether (MTBE)	**42000**	1200	ug/l	500	2E02003	06-May-02	06-May-02	EPA 8015M/8021	
Surrogate: a,a,a-Trifluorotoluene		*97.0 %*	*70-130*		"	"	"	"	

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

Diesel Hydrocarbons (C10-C23) by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W204465-02) Water Sampled: 25-Apr-02 14:45 Received: 25-Apr-02 16:05									
Diesel Range Hydrocarbons (C10-C28)	**9000**	250	ug/l	5	2E08011	08-May-02	09-May-02	EPA 8015M	HC-12
Surrogate: n-Octacosane		*71.7 %*	*50-150*		"	"	"	"	

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

MTBE Confirmation by EPA Method 8260B

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W204465-02) Water Sampled: 25-Apr-02 14:45 Received: 25-Apr-02 16:05									
Methyl tert-butyl ether (MTBE)	**670**	20	ug/l	10	2E09009	09-May-02	09-May-02	EPA 8260B	
Surrogate: Dibromofluoromethane		*97.2 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*		*50-150*	"	"	"	"	
MW-2 (W204465-03) Water Sampled: 25-Apr-02 12:55 Received: 25-Apr-02 16:05									
Methyl tert-butyl ether (MTBE)	**8100**	200	ug/l	100	2E09009	09-May-02	09-May-02	EPA 8260B	
Surrogate: Dibromofluoromethane		*96.8 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.6 %*		*50-150*	"	"	"	"	
MW-3 (W204465-04) Water Sampled: 25-Apr-02 13:35 Received: 25-Apr-02 16:05									
Methyl tert-butyl ether (MTBE)	**260**	10	ug/l	5	2E09009	09-May-02	09-May-02	EPA 8260B	
Surrogate: Dibromofluoromethane		*94.8 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*100 %*		*50-150*	"	"	"	"	
MW-4 (W204465-05) Water Sampled: 25-Apr-02 14:10 Received: 25-Apr-02 16:05									
Methyl tert-butyl ether (MTBE)	**600**	10	ug/l	5	2E09009	09-May-02	09-May-02	EPA 8260B	
Surrogate: Dibromofluoromethane		*98.2 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97.6 %*		*50-150*	"	"	"	"	
MW-5 (W204465-06) Water Sampled: 25-Apr-02 11:00 Received: 25-Apr-02 16:05									
Methyl tert-butyl ether (MTBE)	**2400**	40	ug/l	20	2E09009	09-May-02	09-May-02	EPA 8260B	
Surrogate: Dibromofluoromethane		*97.6 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97.0 %*		*50-150*	"	"	"	"	
MW-7 (W204465-08) Water Sampled: 25-Apr-02 11:35 Received: 25-Apr-02 16:05									
Methyl tert-butyl ether (MTBE)	**45000**	400	ug/l	200	2E09009	09-May-02	09-May-02	EPA 8260B	
Surrogate: Dibromofluoromethane		*96.4 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97.6 %*		*50-150*	"	"	"	"	

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2E02003 - EPA 5030B P/T										
Blank (2E02003-BLK1)				Prepared & Analyzed: 06-May-02						
Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*31.7*		"	*30.0*		*106*	*70-130*			
Blank (2E02003-BLK2)				Prepared & Analyzed: 07-May-02						
Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*31.6*		"	*30.0*		*105*	*70-130*			
Blank (2E02003-BLK3)				Prepared & Analyzed: 08-May-02						
Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*32.0*		"	*30.0*		*107*	*70-130*			
Blank (2E02003-BLK4)				Prepared & Analyzed: 09-May-02						
Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*32.9*		"	*30.0*		*110*	*70-130*			

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2E02003 - EPA 5030B P/T										
LCS (2E02003-BS1)				Prepared & Analyzed: 06-May-02						
Benzene	19.8	0.50	ug/l	20.0		99.0	70-130			
Toluene	17.7	0.50	"	20.0		88.5	70-130			
Ethylbenzene	18.9	0.50	"	20.0		94.5	70-130			
Xylenes (total)	54.3	0.50	"	60.0		90.5	70-130			
Surrogate: a,a,a-Trifluorotoluene	*31.0*		"	*30.0*		*103*	*70-130*			
LCS (2E02003-BS2)				Prepared & Analyzed: 07-May-02						
Benzene	20.7	0.50	ug/l	20.0		104	70-130			
Toluene	18.5	0.50	"	20.0		92.5	70-130			
Ethylbenzene	19.1	0.50	"	20.0		95.5	70-130			
Xylenes (total)	57.9	0.50	"	60.0		96.5	70-130			
Surrogate: a,a,a-Trifluorotoluene	*32.8*		"	*30.0*		*109*	*70-130*			
LCS (2E02003-BS3)				Prepared & Analyzed: 08-May-02						
Benzene	19.6	0.50	ug/l	20.0		98.0	70-130			
Toluene	17.7	0.50	"	20.0		88.5	70-130			
Ethylbenzene	17.3	0.50	"	20.0		86.5	70-130			
Xylenes (total)	56.0	0.50	"	60.0		93.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	*31.6*		"	*30.0*		*105*	*70-130*			
LCS (2E02003-BS4)				Prepared & Analyzed: 09-May-02						
Benzene	19.7	0.50	ug/l	20.0		98.5	70-130			
Toluene	17.5	0.50	"	20.0		87.5	70-130			
Ethylbenzene	18.4	0.50	"	20.0		92.0	70-130			
Xylenes (total)	52.9	0.50	"	60.0		88.2	70-130			
Surrogate: a,a,a-Trifluorotoluene	*30.9*		"	*30.0*		*103*	*70-130*			
LCS Dup (2E02003-BSD1)				Prepared & Analyzed: 06-May-02						
Benzene	18.8	0.50	ug/l	20.0		94.0	70-130	5.18	20	
Toluene	17.7	0.50	"	20.0		88.5	70-130	0.00	20	
Ethylbenzene	17.6	0.50	"	20.0		88.0	70-130	7.12	20	
Xylenes (total)	55.7	0.50	"	60.0		92.8	70-130	2.55	20	
Surrogate: a,a,a-Trifluorotoluene	*29.9*		"	*30.0*		*99.7*	*70-130*			

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2E02003 - EPA 5030B P/T										
Matrix Spike (2E02003-MS1)	**Source: W204481-05**			Prepared & Analyzed: 06-May-02						
Benzene	23.1	0.50	ug/l	20.0	ND	116	70-130			
Toluene	20.3	0.50	"	20.0	ND	102	70-130			
Ethylbenzene	20.9	0.50	"	20.0	ND	104	70-130			
Xylenes (total)	62.1	0.50	"	60.0	ND	104	70-130			
Surrogate: a,a,a-Trifluorotoluene	*37.4*		"	*30.0*		*125*	*70-130*			
Matrix Spike Dup (2E02003-MSD1)	**Source: W204481-05**			Prepared & Analyzed: 06-May-02						
Benzene	20.2	0.50	ug/l	20.0	ND	101	70-130	13.4	20	
Toluene	18.6	0.50	"	20.0	ND	93.0	70-130	8.74	20	
Ethylbenzene	19.4	0.50	"	20.0	ND	97.0	70-130	7.44	20	
Xylenes (total)	57.6	0.50	"	60.0	ND	96.0	70-130	7.52	20	
Surrogate: a,a,a-Trifluorotoluene	*30.4*		"	*30.0*		*101*	*70-130*			

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

Diesel Hydrocarbons (C10-C23) by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2E08011 - EPA 3510B										
Blank (2E08011-BLK1)				Prepared: 08-May-02 Analyzed: 09-May-02						
Diesel Range Hydrocarbons (C10-C28)	ND	50	ug/l							
Surrogate: n-Octacosane	*101*		"	*100*		*101*	*50-150*			
LCS (2E08011-BS1)				Prepared: 08-May-02 Analyzed: 09-May-02						
Diesel Range Hydrocarbons (C10-C28)	316	50	ug/l	500		63.2	60-140			
Surrogate: n-Octacosane	*90.3*		"	*100*		*90.3*	*50-150*			
LCS Dup (2E08011-BSD1)				Prepared: 08-May-02 Analyzed: 09-May-02						
Diesel Range Hydrocarbons (C10-C28)	332	50	ug/l	500		66.4	60-140	4.94	50	
Surrogate: n-Octacosane	*91.3*		"	*100*		*91.3*	*50-150*			

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2E09009 - EPA 5030B (P/T)										
Blank (2E09009-BLK1)				Prepared & Analyzed: 09-May-02						
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	*48.7*		"	*50.0*		*97.4*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*48.7*		"	*50.0*		*97.4*	*50-150*			
LCS (2E09009-BS1)				Prepared & Analyzed: 09-May-02						
Methyl tert-butyl ether (MTBE)	51.0	2.0	ug/l	50.0		102	70-130			
Surrogate: Dibromofluoromethane	*49.7*		"	*50.0*		*99.4*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*50.2*		"	*50.0*		*100*	*50-150*			
LCS Dup (2E09009-BSD1)				Prepared & Analyzed: 09-May-02						
Methyl tert-butyl ether (MTBE)	51.9	2.0	ug/l	50.0		104	70-130	1.75	25	
Surrogate: Dibromofluoromethane	*49.4*		"	*50.0*		*98.8*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*49.2*		"	*50.0*		*98.4*	*50-150*			

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (916) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 1156	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	10-May-02 11:23

Notes and Definitions

HC-12	Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
Q-28	The opening calibration verification standard was outside acceptance criteria by 1.5%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
Q-28a	The opening calibration verification standard was outside acceptance criteria by 3%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
Q-28b	The opening calibration verification standard was outside acceptance criteria by 9.5%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
QR-04	Primary and confirmation results varied by greater than 40% RPD. The results may still be useful for their intended purpose.
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