

120-409



GETTLER-RYAN INC.

TRANSMITTAL

September 6, 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	August 27, 2002	Groundwater Monitoring and Sampling Report Third Quarter - Event of July 18, 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 **September 20, 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

Alameda County

SEP 25 2002

Environmental Health

trans/1156-DBD



GETTLER-RYAN INC.

August 27, 2002
G-R Job #180225

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

RE: Third Quarter Event of July 18, 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). A joint groundwater monitoring event was conducted with the Shell Service Station, located at 4255 MacArthur Boulevard, Oakland, California.

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 and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. 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

Hagop Kevork
P.E. No. C55734

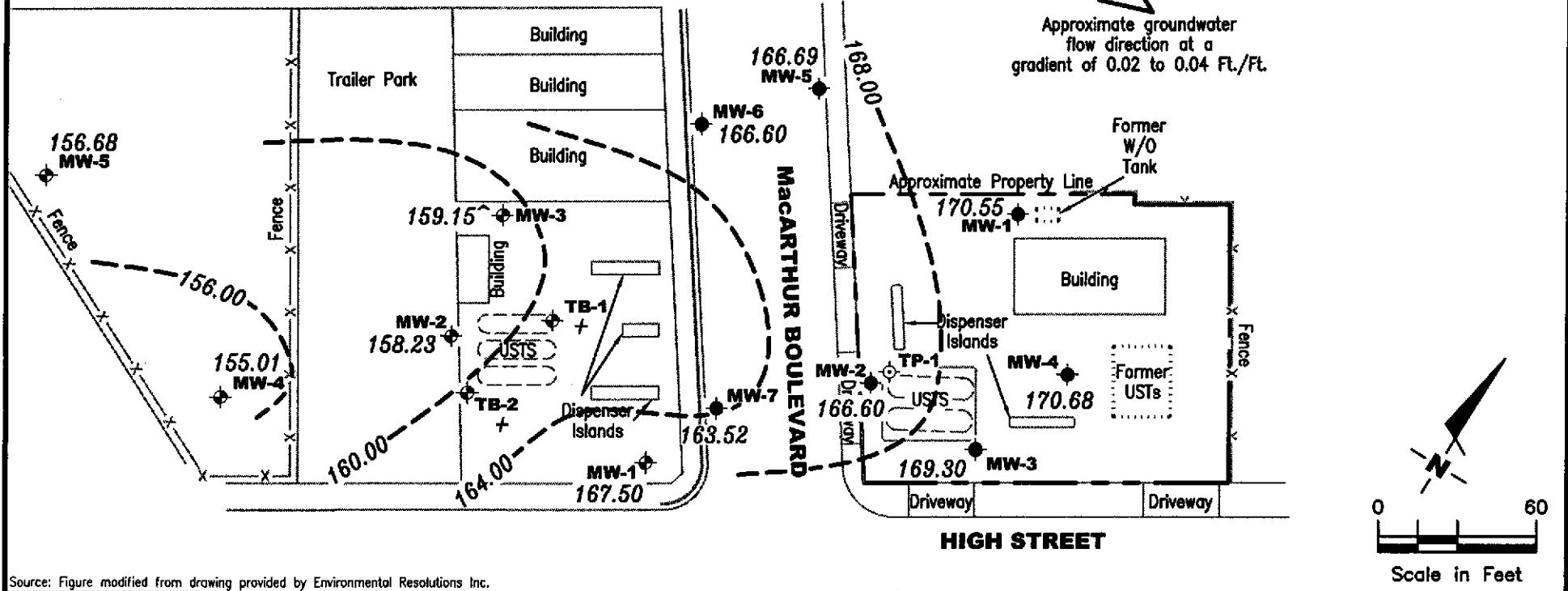


- Figure 1: Potentiometric Map
- Figure 2: Concentration Map
- Table 1: Groundwater Monitoring Data and Analytical Results
- Table 2: Groundwater Analytical Results
- Table 3: Groundwater Analytical Results
- Table 4: Joint Groundwater Monitoring Data - Provided by Blaine Tech Services, Inc.
- Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

EXPLANATION

- ◆ Groundwater monitoring well (Tosco) 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- ◆ Groundwater monitoring well (Shell) - - - 99.99 - - - Groundwater elevation contour, dashed where inferred
- ⊕ Tank Pit Backfill Well + TOC not available
- ^ Groundwater elevation corrected for the presence of free product

Note: Joint groundwater monitoring data provided by Blaine Tech Services when available



Source: Figure modified from drawing provided by Environmental Resolutions Inc.

GETTLER - RYAN INC.
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POTENTIOMETRIC MAP
 Tosco 76 Service Station #1156
 4276 MacArthur Boulevard
 Oakland, California

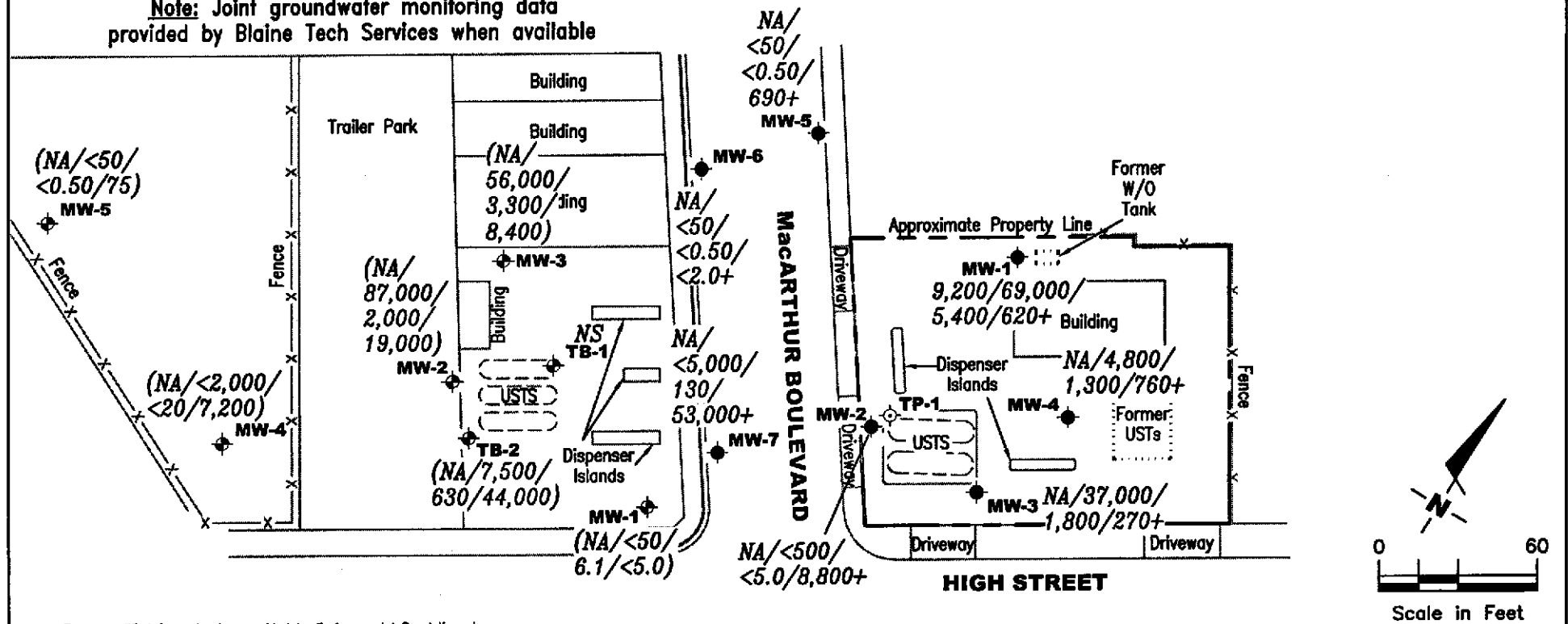
FIGURE
1

PROJECT NUMBER 180225	REVIEWED BY	DATE July 18, 2002	REVISED DATE
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EXPLANATION

◆	Groundwater monitoring well (Tosco)	A/B/C/D	Total Petroleum Hydrocarbons (TPH) as Diesel/TPH as Gasoline/Benzene/MTBE concentrations in ppb	+	MTBE by EPA Method 8260
◆	Groundwater monitoring well (Shell)			NS	Not Sampled
⊕	Tank Pit Backfill Well	()	Analyses by EPA Method 8260	NA	Not Analyzed

Note: Joint groundwater monitoring data provided by Blaine Tech Services when available



Source: Figure modified from drawing provided by Environmental Resolutions Inc.

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

FIGURE

2

PROJECT NUMBER
 180225

REVIEWED BY

DATE
 July 18, 2002

REVISED DATE

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. hgs)	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
	07/18/02	6.99		170.55	0.00	9,200 ¹³	69,000	5,400	10,000	2,100	10,000	<500/620 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

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-2	01/28/02	5.68		167.82	0.00	--	<250	2.5	4.4	2.8	7.4	11,000/10,000 ³
(cont)	04/25/02	5.82		167.68	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	8,400/8,100 ³
	07/18/02	6.90		166.60	0.00	--	<500	<5.0	<5.0	<5.0	<5.0	4,300/8,800 ³
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	1ND/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
	07/18/02	8.83		169.30	0.00	--	37,000	1,800	3,800	2,200	8,000	<250/270 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

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		TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
					Thickness (ft.)								
MW-4	04/04/01	8.63		170.47	0.00	--	9,950 ⁶	2,380	126	416	725	1,140/819 ³	
(cont)	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	
	07/18/02	8.28		170.68	0.00	--	4,800	1,300	71	290	220	530/760 ³	
MW-5													
169.18	10/03/01 ¹⁰	2.81	--	166.37	0.00	--	<50	<0.50	<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	<0.50	650/550 ³
	04/25/02	1.99		167.19	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2,200/2,400 ³
	07/18/02	2.49		166.69	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	530/690 ³
MW-6													
169.04	10/03/01 ¹⁰	2.87	--	166.17	0.00	--	<50	<0.50	<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	<0.50	<2.5
	04/25/02	2.01		167.03	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/18/02	2.44		166.60	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5/<2.0 ³
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	
	07/18/02	8.12		163.52	0.00	--	<5,000	130	<50	<50	<50	51,000/53,000 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)
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
	10/05/01	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	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
	07/18/02	--	--	--	--	--	<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	TPH-D = Total Petroleum Hydrocarbons as Diesel	(ppb) = Parts per billion
DTW = Depth to Water	TPH-G = Total Petroleum Hydrocarbons as Gasoline	ND = Not Detected
S.I. = Screen Interval (ft. bgs) = Feet Below Ground Surface	B = Benzene	-- = Not Measured/Not Analyzed
GWE = Groundwater Elevation (msl) = Mean sea level	T = Toluene	
	E = Ethylbenzene	
	X = Xylenes	
	MTBE = Methyl tertiary butyl ether	

* 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	--	--	--	--	--	--	--
07/18/02	<2,500	<100	620	<10	<10	<10	<10	<10	--	--	
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	--	--	--	--	--	--	--
	07/18/02	<25,000	<1,000	8,800	<100	<100	<100	<100	<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	--	--	--	--	--	--	--
	07/18/02	<1,200	<50	270	<5.0	<5.0	<5.0	<5.0	<5.0	--	--

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	--	--	--	--	--	--	--
	07/18/02	<2,500	<100	760	<10	<10	<10	49	<10	--	--
MW-5	10/03/01	--	--	2,100	--	--	--	--	--	--	--
	01/28/02	--	--	550	--	--	--	--	--	--	--
	04/25/02	--	--	2,400	--	--	--	--	--	--	--
	07/18/02	<500	<20	690	<2.0	<2.0	<2.0	<2.0	<2.0	--	--
MW-6	10/03/01	--	--	270	--	--	--	--	--	--	--
	07/18/02	<500	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	--
MW-7	10/03/01	--	--	40,000	--	--	--	--	--	--	--
	01/28/02	--	--	38,000	--	--	--	--	--	--	--
	04/25/02	--	--	45,000	--	--	--	--	--	--	--
	07/18/02	<5,000	33,000	53,000	<20	<20	<20	<20	<20	--	--

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	TAME = Tertiary amyl methyl ether	(ppb) = Parts per billion
MTBE = Methyl tertiary butyl ether	EDB = 1,2-Dibromoethane	ND = Not Detected
DIPE = Di-isopropyl ether	HVOCs = Halogenated Volatile Organic Compounds	-- = Not Analyzed
ETBE = Ethyl tertiary butyl ether	SVOCs = Semi-Volatile Organic Compounds	

- 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.

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

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

Table 3
Groundwater Analytical Results
 Tosco 76 Service Station #1156
 4276 MacArthur Boulevard
 Oakland, California

WELL ID	DATE	cis-1,2-DCE (ppb)	1,2-DCA (ppb)	PCE (ppb)	Chloro- benzene (ppb)	HVOCs (ppb)	Bis(2- ethylhexyl)ph thalate (ppb)	2-Methylnaph- thalene (ppb)	2-Methyl- phenol (ppb)	4-Methyl- phenol (ppb)	Naphthalene (ppb)	SVOCs (ppb)
MW-1	07/18/02	1.3	<1.6	<0.60	5.9	<0.50-<10 ¹	120	420	13	25	910	<5.0-<20 ²

Table 3
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. Historical Halogenated and Semi-Volatile Organic Compound data are presented in Table 2.

cis-1,2-DCE = cis-1,2-Dichloroethene

1,2-DCA = 1,2-Dichloroethane

PCE = Tetrachloroethene

HVOCs = Halogenated Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

(ppb) = Parts per billion

¹ All other HVOCs were less than the reporting limit except for Chloroethane was detected at 1.1 ppb, 1,4-Dichlorobenzene was detected at 1.3 ppb and 1,2-Dichlorobenzene was detected at 5.8 ppb.

² All other SVOCs were less than the reporting limit except for Phenol was detected at 32 ppb.

ANALYTICAL METHODS:

EPA Method 8010/8021 for HVOCs

EPA Method 8270 for SVOCs

TABLE 4
Joint Groundwater Monitoring Data and Analytical Results
 Shell-branded Service Station
 4255 MacArthur Boulevard
 Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-1	11/17/93	410	21	11	7.9	47	NA	NA	175.79	8.59	NA	167.20	NA	NA	NA
MW-1	1/20/94	1,200	180	19	48	47	NA	NA	175.79	8.22	NA	167.57	NA	NA	NA
MW-1	4/25/94	3,100	610	<10	130	27	NA	NA	175.79	7.63	NA	168.16	NA	NA	NA
MW-1	7/7/94	2,400	1,000	10	250	20	NA	NA	175.79	8.31	NA	167.48	NA	NA	NA
MW-1	10/27/94	2,200	500	3.1	72	1.8	NA	NA	175.79	8.84	NA	166.95	NA	NA	NA
MW-1	11/17/94	NA	NA	NA	NA	NA	NA	NA	175.79	7.60	NA	168.19	NA	NA	NA
MW-1	11/28/94	NA	NA	NA	NA	NA	NA	NA	175.79	7.56	NA	168.23	NA	NA	NA
MW-1	1/13/95	570	75	2.5	6.7	11	NA	NA	175.79	7.11	NA	168.68	NA	NA	NA
MW-1	4/12/95	1,800	480	<5.0	79	<5.0	NA	NA	175.79	7.08	NA	168.71	NA	NA	NA
MW-1	7/25/95	120	15	1.1	2.1	2.9	NA	NA	175.79	7.73	NA	168.06	NA	NA	NA
MW-1 (D)	7/25/95	300	88	2.4	11	6.5	NA	NA	175.79	7.73	NA	168.06	NA	NA	NA
MW-1	10/18/95	130	9.5	0.8	1.3	1.7	NA	NA	175.79	8.42	NA	167.37	NA	NA	NA
MW-1 (D)	10/18/95	120	11	0.8	1.4	1.8	NA	NA	175.79	8.42	NA	167.37	NA	NA	NA
MW-1	1/17/96	250	22	0.9	1.6	2.3	NA	NA	175.79	7.83	NA	167.96	NA	NA	NA
MW-1	4/25/96	<50	4.6	<0.5	<0.5	0.6	500b	NA	175.79	7.35	NA	168.44	NA	NA	NA
MW-1	7/17/96	<250	15	<2.5	<2.5	<2.5	540	NA	175.79	7.70	NA	168.09	NA	NA	NA
MW-1	10/1/96	1,200	500	12	57	82	1,900	NA	175.79	8.07	NA	167.72	NA	NA	NA
MW-1	1/22/97	640	170	4.3	33	33	1,200	NA	175.79	7.21	NA	168.58	NA	NA	NA
MW-1	4/8/97	<200	34	<2.0	3.3	4.3	950	NA	175.79	7.75	NA	168.04	NA	NA	NA
MW-1 (D)	4/8/97	<200	66	<2.0	6.4	8	740	NA	175.79	7.75	NA	168.04	NA	NA	NA
MW-1	7/8/97	190	49	1.2	5.8	8.6	560	NA	175.79	8.01	NA	167.78	NA	NA	NA
MW-1	10/8/97	<100	7	<1.0	<1.0	<1.0	620	NA	175.79	8.10	NA	167.69	NA	NA	NA
MW-1	1/9/98	970	390	12	48	71	1,200	NA	175.79	7.14	NA	168.65	NA	NA	NA
MW-1	4/13/98	<50	136	<0.50	1.5	1.8	170	NA	175.79	6.78	NA	169.01	NA	NA	NA
MW-1	7/17/98	2,500	750	11	88	67	150	NA	175.79	7.28	NA	168.51	NA	NA	NA
MW-1	10/2/98	8,000	970	36	270	440	35	NA	175.79	7.77	NA	168.02	NA	NA	NA
MW-1	2/3/99	210	56	0.82	<0.50	3.2	220	NA	175.79	7.45	NA	168.34	NA	1.4	NA
MW-1	4/29/99	<50	4.5	<0.50	0.56	<0.50	140	196	175.79	7.58	NA	168.21	NA	1.2	140
MW-1	7/23/99	<50.0	<0.500	<0.500	<0.500	<0.500	120	111*	175.79	8.51	NA	167.28	NA	1.0	NA
MW-1	11/1/99	<50.0	<0.500	<0.500	<0.500	<0.500	2.90	NA	175.79	8.30	NA	167.49	NA	1.4	-71
MW-1	1/17/00	<50	<0.50	<0.50	<0.50	<0.50	3.30	NA	175.79	8.04	NA	167.75	NA	16.9	64
MW-1	4/17/00	<50.0	1.08	<0.500	<0.500	<0.500	<2.50	NA	175.79	8.00	NA	167.79	NA	1.8	112

TABLE 4
Joint Groundwater Monitoring Data and Analytical Results
Shell-branded Service Station
4255 MacArthur Boulevard
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-1	7/26/00	125	54.3	2.16	5.45	9.86	33.1	NA	175.79	7.52	NA	168.27	NA	13.2	-140
MW-1	10/12/00	101	40.7	2.68	3.00	5.18	25.0	NA	175.79	7.71	NA	168.08	NA	>20	534
MW-1	1/15/01	<50.0	0.633	<0.500	0.505	1.74	<2.50	NA	175.79	7.33	NA	168.46	NA	16.9	-127
MW-1	4/9/01	<50.0	<0.500	<0.500	<0.500	0.927	<2.50	NA	175.79	7.68	NA	168.11	NA	12.8	-117
MW-1	7/24/01	<50	4.0	0.65	0.53	1.3	NA	<5.0	175.79	8.00	NA	167.79	NA	>20	43
MW-1	10/31/01	<50	4.4	<0.50	<0.50	0.98	NA	<5.0	175.79	7.94	NA	167.85	NA	13.6	123
MW-1	1/10/02	<50	2.2	<0.50	<0.50	1.2	NA	6.1	175.79	7.63	NA	168.16	NA	0.1	63
MW-1	4/25/02	<50	2.0	<0.50	<0.50	<0.50	NA	<5.0	175.79	7.76	NA	168.03	NA	0.3	54
MW-1	7/18/02	<50	6.1	<0.50	<0.50	0.98	NA	<5.0	175.79	8.29	NA	167.50	NA	1.1	32
MW-2	11/17/93	31,000	9,400	4,600	1,000	3,900	NA	NA	170.91	12.31	NA	158.60	NA	NA	NA
MW-2	1/20/94	40,000	6,900	5,600	780	4,100	NA	NA	170.91	11.48	NA	159.43	NA	NA	NA
MW-2 (D)	1/20/94	41,000	7,200	6,200	900	4,800	NA	NA	170.91	11.48	NA	159.43	NA	NA	NA
MW-2	4/25/94	60,000	9,300	6,100	1,400	6,200	NA	NA	170.91	10.84	NA	160.07	NA	NA	NA
MW-2	7/7/94	280,000a	40,000	26,000	8,100	32,000	NA	NA	170.91	11.89	NA	159.02	NA	NA	NA
MW-2 (D)	7/7/94	53,000	13,000	6,600	2,000	8,400	NA	NA	170.91	11.89	NA	159.02	NA	NA	NA
MW-2	10/27/94	130,000	14,000	12,000	2,400	13,000	NA	NA	170.91	12.89	NA	158.02	NA	NA	NA
MW-2 (D)	10/27/94	390,000	8,800	7,000	1,700	11,000	NA	NA	170.91	12.89	NA	158.02	NA	NA	NA
MW-2	11/17/94	NA	NA	NA	NA	NA	NA	NA	170.91	9.11	NA	161.80	NA	NA	NA
MW-2	11/28/94	NA	NA	NA	NA	NA	NA	NA	170.91	9.22	NA	161.69	NA	NA	NA
MW-2	1/13/95	75,000	5,900	12,000	3,100	17,000	NA	NA	170.91	8.10	NA	162.81	NA	NA	NA
MW-2	4/12/95	100,000	8,500	11,000	2,400	12,000	NA	NA	170.91	10.12	NA	160.79	NA	NA	NA
MW-2 (D)	4/12/95	80,000	4,200	9,300	2,500	12,000	NA	NA	170.91	10.12	NA	160.79	NA	NA	NA
MW-2	7/25/95	NA	NA	NA	NA	NA	NA	NA	170.91	11.53	NA	159.80	0.52	NA	NA
MW-2	10/18/95	NA	NA	NA	NA	NA	NA	NA	170.91	14.02	NA	156.99	0.13	NA	NA
MW-2	1/17/96	NA	NA	NA	NA	NA	NA	NA	170.91	10.27	NA	160.78	0.17	NA	NA
MW-2	4/25/96	NA	NA	NA	NA	NA	NA	NA	170.91	11.68	NA	159.25	0.03	NA	NA
MW-2	7/17/96	NA	NA	NA	NA	NA	NA	NA	170.91	12.78	NA	158.81	0.48	NA	NA
MW-2	10/1/96	NA	NA	NA	NA	NA	NA	NA	170.91	14.21	NA	156.70	0.28	NA	NA
MW-2	1/22/97	NA	NA	NA	NA	NA	NA	NA	170.91	10.92	NA	160.08	0.11	NA	NA
MW-2	4/8/97	NA	NA	NA	NA	NA	NA	NA	170.91	14.12	NA	156.95	0.20	NA	NA
MW-2	7/8/97	NA	NA	NA	NA	NA	NA	NA	170.91	14.98	NA	156.08	0.19	NA	NA

TABLE 4
Joint Groundwater Monitoring Data and Analytical Results
Shell-branded Service Station
4255 MacArthur Boulevard
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-2	10/8/97	NA	NA	NA	NA	NA	NA	NA	170.91	12.97	NA	157.98	0.05	NA	NA
MW-2	1/8/98	NA	NA	NA	NA	NA	NA	NA	170.91	12.54	NA	158.43	0.08	NA	NA
MW-2	4/13/98	180,000	2,800	5,200	2,400	13,000	71,000	NA	170.91	10.05	NA	160.86	NA	NA	NA
MW-2	7/17/98	NA	NA	NA	NA	NA	NA	NA	170.91	11.75	NA	159.24	0.10	NA	NA
MW-2	10/2/98	NA	NA	NA	NA	NA	NA	NA	170.91	16.78	NA	154.22	0.11	NA	NA
MW-2	2/3/99	NA	NA	NA	NA	NA	NA	NA	170.91	9.90	9.82	161.07	0.08	NA	NA
MW-2	4/29/99	NA	NA	NA	NA	NA	NA	NA	170.91	9.86	9.81	161.09	0.05	NA	NA
MW-2	7/23/99	65,800	6,500	4,480	1,960	8,960	46,600	58,500*	170.91	14.45	NA	156.46	NA	1.4	NA
MW-2	11/1/99	NA	NA	NA	NA	NA	NA	NA	170.91	11.84	11.81	159.09	0.03	NA	NA
MW-2	1/17/00	46,000	6,000	2,400	1,500	5,500	50,000	31,000	170.91	11.00	NA	159.91	NA	1.3	-54
MW-2	4/17/00	96,300	8,150	10,200	2,820	14,900	112,000	108,000	170.91	11.06	NA	159.85	NA	2.6	125
MW-2	7/26/00	72,400	8,680	5,620	2,810	13,400	66,200	46,300	170.91	12.82	NA	158.09	NA	2.2	113
MW-2	10/12/00	63,200	5,840	4,180	2,310	11,100	61,200	66,600	170.91	11.32	NA	159.59	NA	0.4	55
MW-2	1/15/01	59,700	2,630	4,800	2,050	11,500	44,400	5,080	170.91	10.19	NA	160.72	NA	1.1	-22
MW-2	4/9/01	56,900	1,860	2,550	1,810	9,720	40,000	46,600	170.91	11.15	NA	159.76	NA	1.0	-55
MW-2	7/24/01	84,000	3,000	4,600	2,500	13,000	NA	41,000	170.91	11.67	NA	159.24	NA	0.2	53
MW-2	10/31/01	45,000	2,200	3,000	1,500	7,700	NA	29,000	170.91	11.04	NA	159.87	NA	1.2	-17
MW-2	1/10/02	28,000	840	740	760	3,300	NA	32,000	170.91	9.58	NA	161.33	NA	2.1	-76
MW-2	4/25/02	41,000	1,900	2,000	1,200	6,900	NA	17,000	170.91	11.40	NA	159.51	NA	0.8	-95
MW-2	7/18/02	87,000	2,000	2,200	1,400	10,000	NA	19,000	170.91	12.68	NA	158.23	NA	0.7	-34
MW-3	11/17/93	18,000	5,400	660	720	2,200	NA	NA	174.61	15.40	NA	159.21	NA	NA	NA
MW-3	1/20/94	55,000	13,000	2,600	2,200	6,500	NA	NA	174.61	14.61	NA	160.00	NA	NA	NA
MW-3	4/25/94	96,000	11,000	1,600	3,100	9,900	NA	NA	174.61	13.12	NA	161.49	NA	NA	NA
MW-3 (D)	4/25/94	78,000	12,000	1,900	2,600	7,300	NA	NA	174.61	13.12	NA	161.49	NA	NA	NA
MW-3	7/7/94	NA	NA	NA	NA	NA	NA	NA	174.61	14.54	NA	160.07	0.02	NA	NA
MW-3	10/27/94	NA	NA	NA	NA	NA	NA	NA	174.61	15.62	NA	159.03	0.05	NA	NA
MW-3	11/17/94	NA	NA	NA	NA	NA	NA	NA	174.61	13.83	NA	160.78	NA	NA	NA
MW-3	11/28/94	NA	NA	NA	NA	NA	NA	NA	174.61	14.02	NA	160.59	NA	NA	NA
MW-3	1/13/95	180,000	3,200	2,700	1,700	5,200	NA	NA	174.61	12.13	NA	162.48	NA	NA	NA
MW-3 (D)	1/13/95	23,000	4,000	690	960	3,000	NA	NA	174.61	12.13	NA	162.48	NA	NA	NA
MW-3	4/12/95	56,000	8,700	1,500	2,100	6,300	NA	NA	174.61	12.96	NA	161.65	NA	NA	NA

TABLE 4
Joint Groundwater Monitoring Data and Analytical Results
Shell-branded Service Station
4255 MacArthur Boulevard
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-3	7/25/95	NA	NA	NA	NA	NA	NA	NA	174.61	14.28	NA	160.38	0.06	NA	NA
MW-3	10/18/95	NA	NA	NA	NA	NA	NA	NA	174.61	15.88	NA	158.77	0.05	NA	NA
MW-3	1/17/96	NA	NA	NA	NA	NA	NA	NA	174.61	13.86	NA	160.94	0.24	NA	NA
MW-3	4/25/96	NA	NA	NA	NA	NA	NA	NA	174.61	13.82	NA	160.81	0.02	NA	NA
MW-3	7/17/96	NA	NA	NA	NA	NA	NA	NA	174.61	16.11	NA	158.52	0.03	NA	NA
MW-3	10/1/96	46,000	7,300	530	1,700	3,900	3,200	NA	174.61	16.56	NA	158.05	NA	NA	NA
MW-3 (D)	10/1/96	47,000	7,100	530	1,700	4,000	2,900	NA	174.61	16.56	NA	158.05	NA	NA	NA
MW-3	1/22/97	82,000	5,200	1,300	2,800	8,900	1,100	NA	174.61	13.07	NA	161.54	NA	NA	NA
MW-3 (D)	1/22/97	61,000	8,400	1,100	2,300	7,000	2,700	NA	174.61	13.07	NA	161.54	NA	NA	NA
MW-3	4/8/97	NA	NA	NA	NA	NA	NA	NA	174.61	17.09	NA	157.54	0.03	NA	NA
MW-3	7/8/97	56,000	8,800	580	2,000	4,900	2,800	NA	174.61	15.85	NA	158.76	NA	NA	NA
MW-3	10/8/97	48,000	8,000	590	1,700	3,400	5,100	NA	174.61	16.22	NA	158.39	NA	NA	NA
MW-3	1/8/98	47,000	9,400	810	2,300	4,700	6,300	NA	174.61	13.80	NA	160.81	NA	NA	NA
MW-3 (D)	1/8/98	48,000	8,100	750	2,000	4,100	5,800	NA	174.61	13.80	NA	160.81	NA	NA	NA
MW-3	4/13/98	32,000	6,800	540	1,400	3,400	4,000	NA	174.61	12.97	NA	161.64	NA	NA	NA
MW-3 (D)	4/13/98	36,000	7,300	660	1,600	3,700	4,000	NA	174.61	12.97	NA	161.64	NA	NA	NA
MW-3	7/17/98	71,000	11,000	590	2,200	6,900	3,900	NA	174.61	11.51	NA	163.10	NA	NA	NA
MW-3 (D)	7/17/98	76,000	12,000	700	2,600	8,000	3,000	NA	174.61	11.51	NA	163.10	NA	NA	NA
MW-3	10/2/98	66,000	8,900	510	2,000	4,900	4,600	NA	174.61	16.50	NA	158.11	NA	NA	NA
MW-3 (D)	10/2/98	59,000	9,400	460	2,000	4,900	4,700	NA	174.61	16.50	NA	158.11	NA	NA	NA
MW-3	2/3/99	36,000	6,800	300	1,600	2,900	18,000	NA	174.61	15.21	NA	159.40	NA	1.3	NA
MW-3	4/29/99	45,000	8,100	580	2,200	5,800	4,700	5,150	174.61	15.43	NA	159.18	NA	1.5	-68
MW-3	7/23/99	29,400	3,540	215	810	3,800	4,720	6,950*	174.61	14.95	NA	159.66	NA	1.3	NA
MW-3	11/1/99	20,000	4,190	294	1,060	1,740	5,540	8,590	174.61	14.66	NA	159.95	NA	0.6	-110
MW-3	1/17/00	17,000	3,900	89	1,100	1,200	7,900	NA	174.61	13.94	NA	160.67	NA	1.3	-40
MW-3	4/17/00	28,100	5,240	247	1,540	2,750	16,600	NA	174.61	14.00	NA	160.61	NA	1.1	-86
MW-3	7/26/00	24,300	6,680	159	1,610	1,640	17,100	NA	174.61	13.72	NA	160.89	NA	0.9	-70
MW-3	10/12/00	14,300	2,630	86.7	241	1,360	16,300	NA	174.61	14.15	NA	160.46	NA	0.9	50
MW-3	1/15/01	22,100	4,400	266	977	2,990	13,200	NA	174.61	13.05	NA	161.56	NA	1.3	-40
MW-3	4/9/01	33,800	7,100	147	1,700	2,660	13,000	NA	174.61	13.59	NA	161.02	NA	0.6	-56
MW-3	7/24/01	220,000	5,600	1,900	4,400	19,000	NA	12,000	174.61	14.43	NA	160.18	NA	0.4	29
MW-3	10/31/01	65,000	2,700	510	1,800	7,200	NA	9,800	174.61	14.59	NA	160.02	NA	0.9	-27

TABLE 4
Joint Groundwater Monitoring Data and Analytical Results
 Shell-branded Service Station
 4255 MacArthur Boulevard
 Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-3	1/10/02	66,000	2,400	490	1,700	6,600	NA	5,500	174.61	12.65	NA	161.96	NA	1.7	-76
MW-3	4/25/02	55,000	4,600	460	2,400	6,900	NA	8,100	174.61	14.13	NA	160.48	NA	1.2	-96
MW-3	7/18/02	56,000	3,300	270	1,700	5,000	NA	8,400	174.61	15.48	15.45	159.15	0.03	0.8	-41
MW-4	11/17/94	NA	NA	NA	NA	NA	NA	NA	164.06	6.62	NA	157.44	NA	NA	NA
MW-4	11/28/94	2,900	200	17	76	260	NA	NA	164.06	6.11	NA	157.95	NA	NA	NA
MW-4	1/13/95	1,900	130	5.6	13	40	NA	NA	164.06	6.05	NA	158.01	NA	NA	NA
MW-4	4/12/95	680	150	<2.0	10	13	NA	NA	164.06	6.31	NA	157.75	NA	NA	NA
MW-4	7/25/95	340	100	0.8	8.8	3	NA	NA	164.06	7.36	NA	156.70	NA	NA	NA
MW-4	10/18/95	150	31	<0.5	3.5	0.8	NA	NA	164.06	8.54	NA	155.52	NA	NA	NA
MW-4	1/17/96	290	14	<0.5	1.8	0.8	NA	NA	164.06	8.48	NA	155.58	NA	NA	NA
MW-4	4/25/96	<500	65	<5	<5	<5	1,700	NA	164.06	7.40	NA	156.66	NA	NA	NA
MW-4 (D)	4/25/96	<500	66	<5	8.7	<5	1,500	NA	164.06	7.40	NA	156.66	NA	NA	NA
MW-4	7/17/96	<500	84	<5.0	6.5	<5.0	1,500	NA	164.06	7.75	NA	156.31	NA	NA	NA
MW-4 (D)	7/17/96	<500	54	<5.0	<5.0	<5.0	1,700	2,100	164.06	7.75	NA	156.31	NA	NA	NA
MW-4	10/1/96	<500	1.9	<5.0	<5.0	<5.0	3,000	NA	164.06	8.82	NA	155.24	NA	NA	NA
MW-4	1/22/97	580	130	<2.5	18	5.2	1,200	NA	164.06	7.51	NA	156.55	NA	NA	NA
MW-4	4/8/97	770	200	7	26	55	1,500	8	164.06	7.18	NA	156.88	NA	NA	NA
MW-4	7/8/97	570	78	<5.0	14	11	1,200	NA	164.06	9.00	NA	155.06	NA	NA	NA
MW-4 (D)	7/8/97	640	81	<5.0	16	19	1,600	NA	164.06	9.00	NA	155.06	NA	NA	NA
MW-4	10/8/97	<500	40	<5.0	7.4	5.4	1,400	NA	164.06	8.97	NA	155.09	NA	NA	NA
MW-4 (D)	10/8/97	<500	36	<5.0	5.9	<5.0	1,400	NA	164.06	8.97	NA	155.09	NA	NA	NA
MW-4	1/8/98	<1,000	55	<10	13	<10	2,000	NA	164.06	7.90	NA	156.16	NA	NA	NA
MW-4	4/13/98	350	110	2.4	20	26	<2.5	NA	164.06	7.35	NA	156.71	NA	NA	NA
MW-4	7/17/98	210	66	0.78	5.4	9.8	1,700	NA	164.06	6.95	NA	157.11	NA	NA	NA
MW-4	10/2/98	<50	0.69	<0.50	<0.50	<0.50	2,900	NA	164.06	7.35	NA	156.71	NA	NA	NA
MW-4	2/3/99	560	120	2.5	29	34	6,800	NA	164.06	7.71	NA	156.35	NA	0.9	NA
MW-4	4/29/99	390	80	1.9	13	19	7,000	8,360	164.06	7.83	NA	156.23	NA	1.1	-125
MW-4	7/23/99	460	93.6	8.40	25.2	28.8	3,760	6,000*	164.06	11.33	NA	152.73	NA	0.9	NA
MW-4	11/1/99	77.3	0.520	<0.500	<0.500	<0.500	539	NA	164.06	10.66	NA	153.40	NA	2.8	3
MW-4	1/17/00	160	27	<0.50	12	6.3	12,000	NA	164.06	10.15	NA	153.91	NA	3.9	-17
MW-4	4/17/00	<500	26	6.38	9.35	10.4	9,070	NA	164.06	10.10	NA	153.96	NA	1.7	-129

TABLE 4
Joint Groundwater Monitoring Data and Analytical Results
Shell-branded Service Station
4255 MacArthur Boulevard
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-4	7/26/00	<500	22.7	<5.00	7.59	6.96	7,660	NA	164.06	10.09	NA	153.97	NA	1.4	-137
MW-4	10/12/00	172	19.8	<0.500	7.47	4.50	8,290	NA	164.06	9.35	NA	154.71	NA	3.5	529
MW-4	1/15/01	53.6	1.50	<0.500	2.45	1.80	9,260	NA	164.06	8.77	NA	155.29	NA	2.3	53
MW-4	4/9/01	<500	<5.00	<5.00	<5.00	5.52	10,300	NA	164.06	7.75	NA	156.31	NA	1.0	-133
MW-4	7/24/01	58	3.8	<0.50	3.2	2.9	NA	1,700	164.06	10.07	NA	153.99	NA	0.5	106
MW-4	10/31/01	<1,000	<10	<10	<10	<10	NA	7,400	164.06	9.97	NA	154.09	NA	0.8	22
MW-4	1/10/02	<2,000	<20	<20	<20	<20	NA	12,000	164.06	8.53	NA	155.53	NA	8.9	224
MW-4	4/25/02	<2,000	<20	<20	<20	<20	NA	7,900	164.06	7.33	NA	156.73	NA	3.6	-84
MW-4	7/18/02	<2,000	<20	<20	<20	<20	NA	7,200	164.06	9.05	NA	155.01	NA	1.7	120
MW-5	1/4/02	NA	NA	NA	NA	NA	NA	NA	NA	5.62	NA	NA	NA	NA	NA
MW-5	1/10/02	<50	<0.50	<0.50	<0.50	<0.50	NA	110	164.06	5.88	NA	158.18	NA	3.3	172
MW-5	4/25/02	<50	<0.50	<0.50	<0.50	<0.50	NA	73	164.06	6.81	NA	157.25	NA	0.3	-44
MW-5	7/18/02	<50	<0.50	<0.50	<0.50	<0.50	NA	75	164.06	7.38	NA	156.68	NA	0.4	170
TB-1	4/29/99	NA	NA	NA	NA	NA	NA	NA	NA	6.00	NA	NA	NA	3.8	-132
TB-1	11/1/99	NA	NA	NA	NA	NA	NA	NA	NA	12.65	NA	NA	NA	0.2	-165
TB-1	1/17/00	NA	NA	NA	NA	NA	NA	NA	NA	7.72	NA	NA	NA	0.8	-178
TB-1	4/17/00	NA	NA	NA	NA	NA	NA	NA	NA	7.65	NA	NA	NA	0.5	-152
TB-1	7/26/00	NA	NA	NA	NA	NA	NA	NA	NA	5.13	NA	NA	NA	1.0	-124
TB-1	10/12/00	NA	NA	NA	NA	NA	NA	NA	NA	5.20	NA	NA	NA	0.7	-73
TB-1	1/15/01	NA	NA	NA	NA	NA	NA	NA	NA	5.09	NA	NA	NA	1.2	-118
TB-1	4/9/01	NA	NA	NA	NA	NA	NA	NA	NA	4.96	NA	NA	NA	1.0	-72
TB-1	7/24/01	NA	NA	NA	NA	NA	NA	NA	NA	6.03	NA	NA	NA	1.4	31
TB-1	10/31/01	1,000	85	<10	<10	42	NA	4,100	NA	5.89	NA	NA	NA	1.8	88
TB-1	1/10/02	5,000	410	390	65	620	NA	9,000	NA	7.47	NA	NA	NA	2.0	95
TB-1	4/25/02	5,000	780	60	49	91	NA	6,000	NA	11.71	NA	NA	NA	1.7	-136
TB-1	7/18/02	Insufficient water		NA	NA	NA	NA	NA	NA	13.50	NA	NA	NA	NA	NA
TB-2	4/29/99	NA	NA	NA	NA	NA	NA	NA	NA	4.76	NA	NA	NA	4.2	-108
TB-2	11/1/99	NA	NA	NA	NA	NA	NA	NA	NA	11.33	NA	NA	NA	0.5	-148
TB-2	1/17/00	NA	NA	NA	NA	NA	NA	NA	NA	9.79	NA	NA	NA	0.7	-162

TABLE 4
Joint Groundwater Monitoring Data and Analytical Results
 Shell-branded Service Station
 4255 MacArthur Boulevard
 Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
TB-2	4/17/00	NA	NA	NA	NA	NA	NA	NA	NA	9.75	NA	NA	NA	0.9	-121
TB-2	7/26/00	NA	NA	NA	NA	NA	NA	NA	NA	4.73	NA	NA	NA	0.9	-85
TB-2	10/12/00	NA	NA	NA	NA	NA	NA	NA	NA	4.05	NA	NA	NA	0.6	-47
TB-2	1/15/01	NA	NA	NA	NA	NA	NA	NA	NA	3.87	NA	NA	NA	0.7	-91
TB-2	4/9/01	46,600	1,240	1,310	1,110	12,100	31,300	NA	NA	3.76	NA	NA	NA	0.8	-24
TB-2	7/24/01	11,000	630	<25	310	200	NA	11,000	NA	4.75	NA	NA	NA	0.4	-51
TB-2	10/31/01	7,500	530	1,500	100	500	NA	2,500	NA	4.24	NA	NA	NA	0.6	-7
TB-2	1/10/02	<5,000	480	47	34	110	NA	12,000	NA	6.26	NA	NA	NA	1.3	-81
TB-2	4/25/02	4,700	470	140	<20	80	NA	7,400	NA	11.78	NA	NA	NA	0.9	-107
TB-2	7/18/02	7,500	630	650	<25	390	NA	44,000	NA	12.34	NA	NA	NA	0.9	-67

JOINT GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS PROVIDED BY BLAINE TECH SERVICES, INC.

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to July 24, 2001, analyzed by EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to July 24, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

NA = Not applicable

DO = Dissolved Oxygens

ppm = Parts per million

ORP = Oxidation Reduction Potential

mV = Millivolts

Notes:

* = Sample analyzed outside the EPA recommended holding time.

TABLE 4
Joint Groundwater Monitoring Data and Analytical Results
 Shell-branded Service Station
 4255 MacArthur Boulevard
 Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
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a = Ground water surface had a sheen when sampled.

b = MTBE value is estimated by Sequoia Analytical of Redwood City, California.

When separate-phase hydrocarbons are present, ground water elevation is adjusted using the relation:

Corrected ground water elevation = Top-of-casing elevation - depth to water + (0.8 x hydrocarbon thickness).

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.



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1156 Job Number: 180225
 Site Address: 4276 MacArthur Event Date: 7-19-02
 City: Oakland, CA Sampler: D.O.

Well ID: MW-1 Well Condition: OK
 Well Diameter: 2 in. Hydrocarbon Thickness: 0 ft. Amount Bailed (product/water): 0 gal.
 Total Depth: 25.1 ft.
 Depth to Water: 6.99 ft.
 Volume Factor (VF) table:

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

 Purge Volume: $18.12 \times VF .17 = 3.08$ x3 (case volume) = Estimated Purge Volume: 9 gal.

Purge Equipment: Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X
 Suction Pump _____
 Grundfos _____
 Other: _____
 Sampling Equipment: Disposable Bailer X
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Start Time (purge): 1433 Weather Conditions: Cloudy
 Sample Time/Date: 1451 17-18-02 Water Color: Clear Odor: yes
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? no If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1435</u>	<u>3</u>	<u>7.53</u>	<u>117</u>	<u>20.2</u>		
<u>1437</u>	<u>6</u>	<u>7.49</u>	<u>121</u>	<u>19.9</u>		
<u>1439</u>	<u>9</u>	<u>7.44</u>	<u>126</u>	<u>20.0</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	5 x voa vial	YES	HCL	SEQUOIA	TPH-G/BTEX/MTBE/ 8 Oxy's by 8260
MW-1	1 x amber	YES	NP	SEQUOIA	TPH-D
MW-1	1 x amber	Yes	NP	11	SVOC's 8270
MW-1	2 x voa vial	Yes	HCL	11	HVOC's 8070

COMMENTS: had to wait for manager to open side gate

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1156 Job Number: 180225
 Site Address: 4276 MacArthur Event Date: 7-18-02
 City: Oakland, CA Sampler: P.O.

Well ID: MW-2 Well Condition: Ok
 Well Diameter: 2 in. Hydrocarbon Thickness: Ø ft. Amount Bailed (product/water): Ø gal.
 Total Depth: 24.13 ft.
 Depth to Water: 6.90 ft.

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

17.23 xVF .17 = 2.92 x3 (case volume) = Estimated Purge Volume: 9 gal.

Purge Equipment: Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment: Disposable Bailer X
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Start Time (purge): 1222 Weather Conditions: cloudy
 Sample Time/Date: 1237 / 7-18-02 Water Color: clear Odor: no
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? no If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1224</u>	<u>3</u>	<u>7.62</u>	<u>157</u>	<u>22.1</u>		
<u>1226</u>	<u>6</u>	<u>7.49</u>	<u>139</u>	<u>19.8</u>		
<u>1228</u>	<u>9</u>	<u>7.36</u>	<u>144</u>	<u>19.9</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	5 x voa vial	YES	HCL	SEQUOIA	TPH-G/BTEX/MTBE/ 8 Oxy's by 8260
MW-	x amber	YES	NP	SEQUOIA	TPH-D

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1156 Job Number: 180225
 Site Address: 4276 MacArthur Event Date: 7-18-02
 City: Oakland, CA Sampler: D.O.

Well ID: MW-3 Well Condition: OK
 Well Diameter: 2 in. Hydrocarbon Thickness: 0 ft. Amount Bailed (product/water): 0 gal.
 Total Depth: 25.05 ft.
 Depth to Water: 8.83 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

16.28 xVF .17 = 2.75 x3 (case volume) = Estimated Purge Volume: 8 gal.

Purge Equipment: Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment: Disposable Bailer X _____
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Start Time (purge): 1335 Weather Conditions: cloudy
 Sample Time/Date: 1350 7-18-02 Water Color: cloudy/clear Odor: yes
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? no If yes, Time: _____ Volume: ✓ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1337</u>	<u>2.5</u>	<u>7.61</u>	<u>162</u>	<u>20.5</u>		
<u>1339</u>	<u>5</u>	<u>7.56</u>	<u>171</u>	<u>20.1</u>		
<u>1342</u>	<u>8</u>	<u>7.49</u>	<u>170</u>	<u>20.1</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>5</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-G/BTEX/MTBE/ 8 Oxy's by 8260</u>
<u>MW-</u>	<u>x amber</u>	<u>YES</u>	<u>NP</u>	<u>SEQUOIA</u>	<u>TPH-D</u>

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1156 Job Number: 180225
 Site Address: 4276 MacArthur Event Date: 7.17.02
 City: Oakland, CA Sampler: D.O.

Well ID: MW-4 Well Condition: OK
 Well Diameter: 2 in. Hydrocarbon Amount Bailed
 Total Depth: 25.31 ft. Thickness: Ø ft. (product/water): Ø gal.
 Depth to Water: 8.28 ft.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

17.03 xVF .17 = 2.89 x3 (case volume) = Estimated Purge Volume: 8.5 gal.

Purge Equipment: Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment: Disposable Bailer X
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Start Time (purge): 1259 Weather Conditions: Cloudy
 Sample Time/Date: 1313 17.18.02 Water Color: Clear Odor: slight
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? no If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1301</u>	<u>3</u>	<u>7.41</u>	<u>540</u>	<u>19.7</u>		
<u>1304</u>	<u>6</u>	<u>7.36</u>	<u>143</u>	<u>19.6</u>		
<u>1306</u>	<u>8.5</u>	<u>7.32</u>	<u>146</u>	<u>19.8</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>5</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-G/BTEX/MTBE/ 8 Oxy's by 8260</u>
<u>MW-</u>	<u>x</u> amber	<u>YES</u>	<u>NP</u>	<u>SEQUOIA</u>	<u>TPH-D</u>

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1156 Job Number: 180225
 Site Address: 4276 MacArthur Event Date: 7-18-02
 City: Oakland, CA Sampler: DD

Well ID: MW- 5 Well Condition: OK
 Well Diameter: 2 in. Hydrocarbon Thickness: Ø ft. Amount Bailed (product/water): Ø gal.
 Total Depth: 25.39 ft.
 Depth to Water: 2.49 ft.
 Volume Factor (VF) table:

3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

 $22.90 \times VF .17 = 3.89$ x3 (case volume) = Estimated Purge Volume: 11.5 gal.

Purge Equipment: Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment: Disposable Bailer X
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Start Time (purge): 0957 Weather Conditions: Cloudy
 Sample Time/Date: 1014 / 7-18-02 Water Color: light brown Odor: no
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? no If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1000</u>	<u>4</u>	<u>7.72</u>	<u>105</u>	<u>20.5</u>		
<u>1003</u>	<u>8</u>	<u>7.61</u>	<u>112</u>	<u>20.3</u>		
<u>1006</u>	<u>11.5</u>	<u>7.53</u>	<u>117</u>	<u>20.2</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW- 5</u>	<u>5 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-G/BTEX/MTBE/ 8 Oxy's by 8260</u>
MW- 5	4 x amber	YES	NP	SEQUOIA	TPH-D

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1156 Job Number: 180225
 Site Address: 4276 MacArthur Event Date: 7-18-02
 City: Oakland, CA Sampler: D.O.

Well ID: MW-6 Well Condition: OK
 Well Diameter: 2 in. Hydrocarbon Amount Bailed: 0 gal.
 Total Depth: 24.91 ft. Thickness: 0 ft. (product/water): 0 gal.
 Depth to Water: 2.44 ft.
 Volume Factor (VF) table:

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

 Purge Volume: 22.47 xVF .17 = 3.81 x3 (case volume) = Estimated Purge Volume: 11.5 gal.

Purge Equipment: Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X
 Suction Pump _____
 Grundfos _____
 Other: _____
 Sampling Equipment: Disposable Bailer X
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Start Time (purge): 1032 Weather Conditions: cloudy
 Sample Time/Date: 1050 / 7-18-02 Water Color: light brown Odor: slight
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? no If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1035</u>	<u>4</u>	<u>7.67</u>	<u>137</u>	<u>19.2</u>		
<u>1039</u>	<u>8</u>	<u>7.61</u>	<u>142</u>	<u>19.1</u>		
<u>1042</u>	<u>11.5</u>	<u>7.56</u>	<u>144</u>	<u>19.1</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>5 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-G/BTEX/MTBE/ 8 Oxy's by 8260</u>
<u>MW-</u>	<u>x amber</u>	<u>YES</u>	<u>NP</u>	<u>SEQUOIA</u>	<u>TPH-D</u>

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1156 Job Number: 180225
 Site Address: 4276 MacArthur Event Date: 7-18-02
 City: Oakland, CA Sampler: P.O.

Well ID: MW-7 Well Condition: OK
 Well Diameter: 2 in. Hydrocarbon Amount Bailed
 Total Depth: 25.51 ft. Thickness: Ø ft. (product/water): Ø gal.
 Depth to Water: 8.12 ft.

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

 $17.39_{xVF} \cdot 0.17 = 2.95$ x3 (case volume) = Estimated Purge Volume: 9 gal.

Purge Equipment: Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment: Disposable Bailer X _____
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Start Time (purge): 1123 Weather Conditions: cloudy
 Sample Time/Date: 1140 7-18-02 Water Color: brown Odor: yes
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? no If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1125</u>	<u>3</u>	<u>7.52</u>	<u>158</u>	<u>19.0</u>		
<u>1127</u>	<u>6</u>	<u>7.47</u>	<u>161</u>	<u>19.2</u>		
<u>1129</u>	<u>9</u>	<u>7.41</u>	<u>157</u>	<u>19.3</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>5</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-G/BTEX/MTBE/ 8 Oxy's by 8260</u>
<u>MW-</u>	<u>x amber</u>	<u>YES</u>	<u>NP</u>	<u>SEQUOIA</u>	<u>TPH-D</u>

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____

Tosco Corp./
Phillips 66 Co.
2000 Crow Canyon Place
Suite 400
San Ramon, CA 94583

Facility Number #1156
Facility Address 4276 MACARTHUR, OAKLAND, CA
Global ID T0600102279 Project 180225.80
Client Contact MR. DAVID B. DEWITT
Phone (925) 277-2384

Laboratory Name Sequoia W207278
Consultant GETTLER-RYAN, INC. DEANNA L. HARDING
Address 6747 SIERRA CT., SUITE J, DUBLIN CA 94568
Phone (925) 551-7555 Fax (925) 551-7899
Samples Collected by David Okimoto

SAMPLE ID	Number of Containers Matrix	S = Soil A = Air W = Water C = Charcoal	Sample Preservation	Date/Time (2400 Hrs)	TPH-GAS/BTEX/MTBE EPA 8015/8021B	TPH-DIESEL EPA 8015	TPH-DIESEL w/Silica gel EPA 8015	TPH-GAS EPA 8015	TPH-GAS/BTEX/MTBE EPA 8260	8-OXYGENATES EPA 8260	METHANOL EPA 8015	TOTAL OIL & GREASE EPA 5520	METALS Cd, Cr, Pb, Zn, Ni	NITRATE/SULFATE/ALKALINITY EPA 300 SERIES	HCOC'S (8010) EPA 8021B	VOC'S (8240) EPA 8260	SVOC'S EPA 8270	Remarks
TB-LB	1	W	Yes	7-18-02	X													
MW-1	9	W	A-No W-Yes	1451	X	X				X				X		X		01A
MW-2	5	W	Yes	1237	X					X								02A-I
MW-3	5	W	Yes	1350	X					X								03A-E
MW-4	5	W	Yes	1313	X					X								04
MW-5	5	W	Yes	1014	X					X								05
MW-6	5	W	Yes	1050	X					X								06
MW-7	5	W	Yes	1140	X					X								07
																		08

Run MTBE by 8260 on all 8020 MTBE hits, when not running Oxy's.

- OXYGENATES 8260
- 1 - MTBE
 - 2 - TBA
 - 3 - TAME
 - 4 - DIPE
 - 5 - ETBE
 - 6 - 1,2-DCA
 - 7 - EDB
 - 8 - ETHANOL

Relinquished By (Signature) <i>David Okimoto</i>	Organization G.R.	Date/Time 7-18-02/1110	Received By (Signature) <i>Sequoia</i>	Organization SEQUOIA	Date/Time 7-19-02/1110	iced Y/N	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 72 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	iced Y/N	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	iced Y/N	



**Sequoia
Analytical**

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
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6 August, 2002

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

01/17/02 11:10

AUG 06 2002

RE: Tosco
Sequoia Report: W207278

01/17/02 11:10
01/17/02 11:10

Enclosed are the results of analyses for samples received by the laboratory on 19-Jul-02 11:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271



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

Project: Tosco
Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
06-Aug-02 07:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	W207278-02	Water	18-Jul-02 14:51	19-Jul-02 11:10
MW-2	W207278-03	Water	18-Jul-02 12:37	19-Jul-02 11:10
MW-3	W207278-04	Water	18-Jul-02 13:50	19-Jul-02 11:10
MW-4	W207278-05	Water	18-Jul-02 13:13	19-Jul-02 11:10
MW-5	W207278-06	Water	18-Jul-02 10:14	19-Jul-02 11:10
MW-6	W207278-07	Water	18-Jul-02 10:50	19-Jul-02 11:10
MW-7	W207278-08	Water	18-Jul-02 11:40	19-Jul-02 11:10

Sequoia Analytical - Walnut Creek

Charlie Westwater, 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.

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

 Project: Tosco
 Project Number: Tosco # 1156
 Project Manager: Deanna L. Harding

 Reported:
 06-Aug-02 07:32

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 (W207278-01) Water Sampled: 18-Jul-02 00:00 Received: 19-Jul-02 11:10									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2G24003	24-Jul-02	24-Jul-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	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		101 %	70-130		"	"	"	"	
MW-1 (W207278-02) Water Sampled: 18-Jul-02 14:51 Received: 19-Jul-02 11:10									
Purgeable Hydrocarbons (C6-C12)	69000	10000	ug/l	200	2G24003	24-Jul-02	24-Jul-02	EPA 8015M/8021	
Benzene	5400	100	"	"	"	"	"	"	
Toluene	10000	100	"	"	"	"	"	"	
Ethylbenzene	2100	100	"	"	"	"	"	"	
Xylenes (total)	10000	100	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	500	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		102 %	70-130		"	"	"	"	
MW-2 (W207278-03) Water Sampled: 18-Jul-02 12:37 Received: 19-Jul-02 11:10									
Purgeable Hydrocarbons (C6-C12)	ND	500	ug/l	10	2G24003	24-Jul-02	24-Jul-02	EPA 8015M/8021	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.0 %	70-130		"	"	"	"	

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

 Project: Tosco
 Project Number: Tosco # 1156
 Project Manager: Deanna L. Harding

 Reported:
 06-Aug-02 07:32

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 (W207278-03RE1) Water Sampled: 18-Jul-02 12:37 Received: 19-Jul-02 11:10									
Methyl tert-butyl ether (MTBE)	4300	1000	ug/l	400	2G24003	25-Jul-02	25-Jul-02	EPA 8015M/8021	
Surrogate: a,a,a-Trifluorotoluene		102 %	70-130		"	"	"	"	
MW-3 (W207278-04) Water Sampled: 18-Jul-02 13:50 Received: 19-Jul-02 11:10									
Purgeable Hydrocarbons (C6-C12)	37000	5000	ug/l	100	2G24003	24-Jul-02	24-Jul-02	EPA 8015M/8021	
Benzene	1800	50	"	"	"	"	"	"	
Toluene	3800	50	"	"	"	"	"	"	
Ethylbenzene	2200	50	"	"	"	"	"	"	
Xylenes (total)	8000	50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		103 %	70-130		"	"	"	"	
MW-4 (W207278-05) Water Sampled: 18-Jul-02 13:13 Received: 19-Jul-02 11:10									
Purgeable Hydrocarbons (C6-C12)	4800	2500	ug/l	50	2G24003	24-Jul-02	24-Jul-02	EPA 8015M/8021	
Benzene	1300	25	"	"	"	"	"	"	
Toluene	71	25	"	"	"	"	"	"	
Ethylbenzene	290	25	"	"	"	"	"	"	
Xylenes (total)	220	25	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	530	120	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		98.7 %	70-130		"	"	"	"	
MW-5 (W207278-06) Water Sampled: 18-Jul-02 10:14 Received: 19-Jul-02 11:10									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2G24003	24-Jul-02	24-Jul-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	Q-28a
Surrogate: a,a,a-Trifluorotoluene		98.0 %	70-130		"	"	"	"	



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

Project: Tosco
Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
06-Aug-02 07:32

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 (W207278-06RE1) Water Sampled: 18-Jul-02 10:14 Received: 19-Jul-02 11:10									
Methyl tert-butyl ether (MTBE)	530	62	ug/l	25	2G24003	26-Jul-02	26-Jul-02	EPA 8015M/8021	Q-28
<i>Surrogate: a,a,a-Trifluorotoluene</i>		103 %	70-130		"	"	"	"	
MW-6 (W207278-07) Water Sampled: 18-Jul-02 10:50 Received: 19-Jul-02 11:10									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2G24003	24-Jul-02	24-Jul-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	Q-28a
Methyl tert-butyl ether (MTBE)	ND	2.5	"	"	"	"	"	"	Q-28b
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.3 %	70-130		"	"	"	"	
MW-7 (W207278-08) Water Sampled: 18-Jul-02 11:40 Received: 19-Jul-02 11:10									
Purgeable Hydrocarbons (C6-C12)	ND	5000	ug/l	100	2G24003	25-Jul-02	25-Jul-02	EPA 8015M/8021	
Benzene	130	50	"	"	"	"	"	"	
Toluene	ND	50	"	"	"	"	"	"	
Ethylbenzene	ND	50	"	"	"	"	"	"	
Xylenes (total)	ND	50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		101 %	70-130		"	"	"	"	
MW-7 (W207278-08RE1) Water Sampled: 18-Jul-02 11:40 Received: 19-Jul-02 11:10									
Methyl tert-butyl ether (MTBE)	51000	5000	ug/l	2000	2G24003	26-Jul-02	26-Jul-02	EPA 8015M/8021	Q-28
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %	70-130		"	"	"	"	



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

Project: Tosco
Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
06-Aug-02 07:32

**Diesel Hydrocarbons (C10-C23) by DHS LUFT
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W207278-02) Water Sampled: 18-Jul-02 14:51 Received: 19-Jul-02 11:10									
Diesel Range Hydrocarbons (C10-C28)	9200	500	ug/l	10	2G23015	23-Jul-02	24-Jul-02	EPA 8015M	HC-12
Surrogate: n-Octacosane		93.3 %	50-150		"	"	"	"	



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

Project: Tosco
Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
06-Aug-02 07:32

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W207278-02) Water Sampled: 18-Jul-02 14:51 Received: 19-Jul-02 11:10									
Ethanol	ND	2500	ug/l	5	2G23011	22-Jul-02	23-Jul-02	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	620	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	10	"	"	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	"	"	
Ethylene dibromide	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		118 %	50-150	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		118 %	50-150	"	"	"	"	"	
MW-2 (W207278-03) Water Sampled: 18-Jul-02 12:37 Received: 19-Jul-02 11:10									
Ethanol	ND	25000	ug/l	50	2G23011	22-Jul-02	22-Jul-02	EPA 8260B	
tert-Butyl alcohol	ND	1000	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	8800	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	100	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
Ethylene dibromide	ND	100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		106 %	50-150	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		94.8 %	50-150	"	"	"	"	"	
MW-3 (W207278-04) Water Sampled: 18-Jul-02 13:50 Received: 19-Jul-02 11:10									
Ethanol	ND	1200	ug/l	2.5	2G23011	22-Jul-02	25-Jul-02	EPA 8260B	
tert-Butyl alcohol	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	270	5.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethylene dibromide	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	50-150	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		118 %	50-150	"	"	"	"	"	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (W207278-05) Water Sampled: 18-Jul-02 13:13 Received: 19-Jul-02 11:10									
Ethanol	ND	2500	ug/l	5	2G23011	22-Jul-02	23-Jul-02	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	760	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	10	"	"	"	"	"	"	
1,2-Dichloroethane	49	10	"	"	"	"	"	"	
Ethylene dibromide	ND	10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		112 %	50-150	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	50-150	"	"	"	"	"	
MW-5 (W207278-06) Water Sampled: 18-Jul-02 10:14 Received: 19-Jul-02 11:10									
Ethanol	ND	500	ug/l	1	2G23011	22-Jul-02	22-Jul-02	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	690	10	"	5	"	"	23-Jul-02	"	
Di-isopropyl ether	ND	2.0	"	1	"	"	22-Jul-02	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Ethylene dibromide	ND	2.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		106 %	50-150	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.4 %	50-150	"	"	"	"	"	
MW-6 (W207278-07) Water Sampled: 18-Jul-02 10:50 Received: 19-Jul-02 11:10									
Ethanol	ND	500	ug/l	1	2G23011	22-Jul-02	22-Jul-02	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Ethylene dibromide	ND	2.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		101 %	50-150	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.4 %	50-150	"	"	"	"	"	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (W207278-08) Water Sampled: 18-Jul-02 11:40 Received: 19-Jul-02 11:10									
Ethanol	ND	5000	ug/l	10	2G23011	22-Jul-02	22-Jul-02	EPA 8260B	
tert-Butyl alcohol	33000	4000	"	200	"	"	23-Jul-02	"	
Methyl tert-butyl ether (MTBE)	53000	400	"	"	"	"	"	"	
Di-isopropyl ether	ND	20	"	10	"	"	22-Jul-02	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	20	"	"	"	"	"	"	
1,2-Dichloroethane	ND	20	"	"	"	"	"	"	
Ethylene dibromide	ND	20	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		111 %	50-150		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.8 %	50-150		"	"	"	"	

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Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W207278-02) Water Sampled: 18-Jul-02 14:51 Received: 19-Jul-02 11:10									
Dichlorodifluoromethane	ND	1.0	ug/l	1	2G19013	19-Jul-02	24-Jul-02	EPA 8021B	
Chloromethane	ND	2.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.2	"	"	"	"	"	"	
Chloroethane	1.1	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.60	"	"	"	"	"	"	
Freon 113	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	1.3	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.6	"	"	"	"	"	"	
Trichloroethene	ND	1.1	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.60	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.60	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	5.9	1.0	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.60	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	1.3	1.2	"	"	"	"	"	"	
1,2-Dichlorobenzene	5.8	1.2	"	"	"	"	"	"	
<i>Surrogate: Dibromodifluoromethane</i>		78.2 %		50-150	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.6 %		50-150	"	"	"	"	

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Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-1 (W207278-02) Water Sampled: 18-Jul-02 14:51 Received: 19-Jul-02 11:10										
Fluorene	ND	5.0		ug/l	1	2G24009	24-Jul-02	01-Aug-02	EPA 8270C	
Hexachlorobenzene	ND	10		"	"	"	"	"	"	
Hexachlorobutadiene	ND	10		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10		"	"	"	"	"	"	
Hexachloroethane	ND	5.0		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	10		"	"	"	"	"	"	
Isophorone	ND	5.0		"	"	"	"	"	"	
2-Methylnaphthalene	420	50		"	10	"	"	05-Aug-02	"	
2-Methylphenol	13	5.0		"	1	"	"	01-Aug-02	"	
4-Methylphenol	25	5.0		"	"	"	"	"	"	
Naphthalene	910	50		"	10	"	"	05-Aug-02	"	
2-Nitroaniline	ND	10		"	1	"	"	01-Aug-02	"	
3-Nitroaniline	ND	10		"	"	"	"	"	"	
4-Nitroaniline	ND	20		"	"	"	"	"	"	
Nitrobenzene	ND	5.0		"	"	"	"	"	"	
2-Nitrophenol	ND	5.0		"	"	"	"	"	"	
4-Nitrophenol	ND	10		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	5.0		"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.0		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10		"	"	"	"	"	"	
Pentachlorophenol	ND	10		"	"	"	"	"	"	
Phenanthrene	ND	5.0		"	"	"	"	"	"	
Phenol	32	5.0		"	"	"	"	"	"	
Pyrene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.0		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	10		"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		%			9-58	"	"	"	"	S-04
Surrogate: Phenol-d6		28.8 %			5-42	"	"	"	"	
Surrogate: Nitrobenzene-d5		74.4 %			13-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		89.6 %			11-131	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		109 %			15-127	"	"	"	"	
Surrogate: p-Terphenyl-d14		91.9 %			26-134	"	"	"	"	

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Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W207278-02) Water Sampled: 18-Jul-02 14:51 Received: 19-Jul-02 11:10									
Acenaphthene	ND	5.0	ug/l	1	2G24009	24-Jul-02	01-Aug-02	EPA 8270C	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Aniline	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzoic acid	ND	10	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.0	"	"	"	"	"	"	
Benzo[a]pyrene	ND	5.0	"	"	"	"	"	"	
Benzyl alcohol	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.0	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	120	10	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	10	"	"	"	"	"	"	
4-Chloroaniline	ND	25	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.0	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.0	"	"	"	"	"	"	
2-Chlorophenol	ND	5.0	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	10	"	"	"	"	"	"	
Dibenzofuran	ND	5.0	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	10	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	10	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.0	"	"	"	"	"	"	
Diethyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	5.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.0	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	10	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	10	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	10	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	10	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	

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.



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Project: Tosco
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Project Manager: Deanna L. Harding

Reported:
06-Aug-02 07:32

**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 2G24003 - EPA 5030B P/T										
Blank (2G24003-BLK1) Prepared & Analyzed: 24-Jul-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	30.9		"	30.0		103	70-130			
Blank (2G24003-BLK2) Prepared & Analyzed: 25-Jul-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	30.8		"	30.0		103	70-130			
Blank (2G24003-BLK3) Prepared & Analyzed: 26-Jul-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	30.7		"	30.0		102	70-130			
LCS (2G24003-BS1) Prepared & Analyzed: 24-Jul-02										
Benzene	19.2	0.50	ug/l	20.0		96.0	70-130			
Toluene	17.9	0.50	"	20.0		89.5	70-130			
Ethylbenzene	17.7	0.50	"	20.0		88.5	70-130			
Xylenes (total)	55.3	0.50	"	60.0		92.2	70-130			
Surrogate: a,a,a-Trifluorotoluene	33.0		"	30.0		110	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2G24003 - EPA 5030B P/T										
LCS (2G24003-BS2)										
Prepared & Analyzed: 25-Jul-02										
Benzene	18.9	0.50	ug/l	20.0		94.5	70-130			
Toluene	17.9	0.50	"	20.0		89.5	70-130			
Ethylbenzene	18.6	0.50	"	20.0		93.0	70-130			
Xylenes (total)	55.6	0.50	"	60.0		92.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	30.5		"	30.0		102	70-130			
LCS (2G24003-BS3)										
Prepared & Analyzed: 26-Jul-02										
Benzene	18.5	0.50	ug/l	20.0		92.5	70-130			
Toluene	17.3	0.50	"	20.0		86.5	70-130			
Ethylbenzene	18.2	0.50	"	20.0		91.0	70-130			
Xylenes (total)	53.6	0.50	"	60.0		89.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	30.0		"	30.0		100	70-130			
Matrix Spike (2G24003-MS1)										
Source: W207278-07 Prepared & Analyzed: 25-Jul-02										
Benzene	21.7	0.50	ug/l	20.0	ND	108	70-130			
Toluene	20.6	0.50	"	20.0	ND	103	70-130			
Ethylbenzene	21.9	0.50	"	20.0	ND	110	70-130			
Xylenes (total)	63.7	0.50	"	60.0	ND	106	70-130			
Surrogate: a,a,a-Trifluorotoluene	29.4		"	30.0		98.0	70-130			
Matrix Spike Dup (2G24003-MSD1)										
Source: W207278-07 Prepared & Analyzed: 25-Jul-02										
Benzene	21.9	0.50	ug/l	20.0	ND	110	70-130	0.917	20	
Toluene	21.2	0.50	"	20.0	ND	106	70-130	2.87	20	
Ethylbenzene	20.8	0.50	"	20.0	ND	104	70-130	5.15	20	
Xylenes (total)	66.7	0.50	"	60.0	ND	111	70-130	4.60	20	
Surrogate: a,a,a-Trifluorotoluene	30.7		"	30.0		102	70-130			

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 Project: Tosco
 Project Number: Tosco # 1156
 Project Manager: Deanna L. Harding

 Reported:
 06-Aug-02 07:32

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 2G23015 - EPA 3510B										
Blank (2G23015-BLK1) Prepared: 23-Jul-02 Analyzed: 24-Jul-02										
Diesel Range Hydrocarbons (C10-C28)	ND	50	ug/l							
Surrogate: <i>n-Octacosane</i>	69.3		"	100		69.3	50-150			
LCS (2G23015-BS1) Prepared: 23-Jul-02 Analyzed: 24-Jul-02										
Diesel Range Hydrocarbons (C10-C28)	374	50	ug/l	500		74.8	60-140			
Surrogate: <i>n-Octacosane</i>	83.0		"	100		83.0	50-150			
LCS Dup (2G23015-BSD1) Prepared: 23-Jul-02 Analyzed: 24-Jul-02										
Diesel Range Hydrocarbons (C10-C28)	378	50	ug/l	500		75.6	60-140	1.06	50	
Surrogate: <i>n-Octacosane</i>	79.7		"	100		79.7	50-150			

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 Project Number: Tosco # 1156
 Project Manager: Deanna L. Harding

 Reported:
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Volatile Organic Compounds 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
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Batch 2G23011 - EPA 5030B (P/T)
Blank (2G23011-BLK1)

Prepared & Analyzed: 22-Jul-02

Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether (MTBE)	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							
<i>Surrogate: Dibromofluoromethane</i>	51.4		"	50.0		103	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	49.2		"	50.0		98.4	50-150			

Blank (2G23011-BLK2)

Prepared & Analyzed: 23-Jul-02

Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether (MTBE)	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							
<i>Surrogate: Dibromofluoromethane</i>	53.8		"	50.0		108	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	46.2		"	50.0		92.4	50-150			

Blank (2G23011-BLK4)

Prepared & Analyzed: 25-Jul-02

Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether (MTBE)	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							
<i>Surrogate: Dibromofluoromethane</i>	49.9		"	50.0		99.8	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	51.2		"	50.0		102	50-150			



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Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
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Volatile Organic Compounds 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 2G23011 - EPA 5030B (P/T)										
LCS (2G23011-BS1)				Prepared & Analyzed: 22-Jul-02						
Methyl tert-butyl ether (MTBE)	56.7	2.0	ug/l	50.0		113	70-130			
Surrogate: Dibromofluoromethane	51.9		"	50.0		104	50-150			
Surrogate: 1,2-Dichloroethane-d4	49.9		"	50.0		99.8	50-150			
LCS (2G23011-BS2)				Prepared & Analyzed: 23-Jul-02						
Methyl tert-butyl ether (MTBE)	50.7	2.0	ug/l	50.0		101	70-130			
Surrogate: Dibromofluoromethane	52.5		"	50.0		105	50-150			
Surrogate: 1,2-Dichloroethane-d4	46.2		"	50.0		92.4	50-150			
LCS (2G23011-BS4)				Prepared & Analyzed: 25-Jul-02						
Methyl tert-butyl ether (MTBE)	46.4	2.0	ug/l	50.0		92.8	70-130			
Surrogate: Dibromofluoromethane	48.8		"	50.0		97.6	50-150			
Surrogate: 1,2-Dichloroethane-d4	51.7		"	50.0		103	50-150			
Matrix Spike (2G23011-MS1)				Source: W207278-07		Prepared: 22-Jul-02 Analyzed: 23-Jul-02				
Methyl tert-butyl ether (MTBE)	55.8	2.0	ug/l	50.0	ND	112	60-150			
Surrogate: Dibromofluoromethane	52.0		"	50.0		104	50-150			
Surrogate: 1,2-Dichloroethane-d4	46.6		"	50.0		93.2	50-150			
Matrix Spike Dup (2G23011-MSD1)				Source: W207278-07		Prepared: 22-Jul-02 Analyzed: 23-Jul-02				
Methyl tert-butyl ether (MTBE)	56.6	2.0	ug/l	50.0	ND	113	60-150	1.42	25	
Surrogate: Dibromofluoromethane	51.5		"	50.0		103	50-150			
Surrogate: 1,2-Dichloroethane-d4	48.1		"	50.0		96.2	50-150			



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Project Manager: Deanna L. Harding

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**Volatile Organic Compounds by EPA Method 8021B - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2G19013 - EPA 5030B [P/T]

Blank (2G19013-BLK1)

Prepared & Analyzed: 19-Jul-02

Dichlorodifluoromethane	ND	1.0	ug/l							
Chloromethane	ND	2.0	"							
Vinyl chloride	ND	1.0	"							
Bromomethane	ND	1.2	"							
Chloroethane	ND	1.0	"							
Trichlorofluoromethane	ND	0.60	"							
Freon 113	ND	1.0	"							
1,1-Dichloroethene	ND	1.0	"							
Methylene chloride	ND	10	"							
trans-1,2-Dichloroethene	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
cis-1,2-Dichloroethene	ND	1.0	"							
Chloroform	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Carbon tetrachloride	ND	1.0	"							
1,2-Dichloroethane	ND	1.6	"							
Trichloroethene	ND	1.1	"							
1,2-Dichloropropane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	0.60	"							
1,1,2-Trichloroethane	ND	0.50	"							
Tetrachloroethene	ND	0.60	"							
Dibromochloromethane	ND	0.50	"							
1,2-Dibromoethane	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
Bromoform	ND	0.50	"							
1,1,2,2-Tetrachloroethane	ND	0.60	"							
1,2,3-Trichloropropane	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	1.2	"							
1,2-Dichlorobenzene	ND	1.2	"							
Surrogate: Dibromodifluoromethane	10.3		"	10.0		103	50-150			
Surrogate: 4-Bromofluorobenzene	9.22		"	10.0		92.2	50-150			



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Project: Tosco
Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
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Volatile Organic Compounds by EPA Method 8021B - Quality Control
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2G19013 - EPA 5030B [P/T]

Blank (2G19013-BLK2)

Prepared & Analyzed: 24-Jul-02

Dichlorodifluoromethane	ND	1.0	ug/l							
Chloromethane	ND	2.0	"							
Vinyl chloride	ND	1.0	"							
Bromomethane	ND	1.2	"							
Chloroethane	ND	1.0	"							
Trichlorofluoromethane	ND	0.60	"							
Freon 113	ND	1.0	"							
1,1-Dichloroethene	ND	1.0	"							
Methylene chloride	ND	10	"							
trans-1,2-Dichloroethene	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
cis-1,2-Dichloroethene	ND	1.0	"							
Chloroform	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Carbon tetrachloride	ND	1.0	"							
1,2-Dichloroethane	ND	1.6	"							
Trichloroethene	ND	1.1	"							
1,2-Dichloropropane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	0.60	"							
1,1,2-Trichloroethane	ND	0.50	"							
Tetrachloroethene	ND	0.60	"							
Dibromochloromethane	ND	0.50	"							
1,2-Dibromoethane	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
Bromoform	ND	0.50	"							
1,1,2,2-Tetrachloroethane	ND	0.60	"							
1,2,3-Trichloropropane	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	1.2	"							
1,2-Dichlorobenzene	ND	1.2	"							
Surrogate: Dibromodifluoromethane	7.19		"	10.0		71.9	50-150			
Surrogate: 4-Bromofluorobenzene	7.65		"	10.0		76.5	50-150			

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 Project Manager: Deanna L. Harding

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Volatile Organic Compounds by EPA Method 8021B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2G19013 - EPA 5030B [P/T]										
LCS (2G19013-BS1) Prepared & Analyzed: 19-Jul-02										
1,1-Dichloroethene	23.0	1.0	ug/l	20.0		115	65-135			
Trichloroethene	19.6	1.1	"	20.0		98.0	70-130			
Chlorobenzene	17.2	1.0	"	20.0		86.0	70-130			
Surrogate: Dibromodifluoromethane	8.15		"	10.0		81.5	50-150			
Surrogate: 4-Bromofluorobenzene	10.2		"	10.0		102	50-150			
LCS (2G19013-BS2) Prepared & Analyzed: 24-Jul-02										
1,1-Dichloroethene	17.4	1.0	ug/l	20.0		87.0	65-135			
Trichloroethene	16.4	1.1	"	20.0		82.0	70-130			
Chlorobenzene	18.2	1.0	"	20.0		91.0	70-130			
Surrogate: Dibromodifluoromethane	6.59		"	10.0		65.9	50-150			
Surrogate: 4-Bromofluorobenzene	9.88		"	10.0		98.8	50-150			
LCS Dup (2G19013-BSD1) Prepared: 19-Jul-02 Analyzed: 24-Jul-02										
1,1-Dichloroethene	22.9	1.0	ug/l	20.0		114	65-135	0.436	25	
Trichloroethene	23.1	1.1	"	20.0		116	70-130	16.4	25	
Chlorobenzene	17.0	1.0	"	20.0		85.0	70-130	1.17	25	
Surrogate: Dibromodifluoromethane	15.0		"	10.0		150	50-150			
Surrogate: 4-Bromofluorobenzene	9.80		"	10.0		98.0	50-150			
Matrix Spike (2G19013-MS1) Source: W207207-02 Prepared: 19-Jul-02 Analyzed: 26-Jul-02										
1,1-Dichloroethene	26.1	1.0	ug/l	20.0	1.8	122	60-140			
Trichloroethene	19.3	1.1	"	20.0	ND	96.5	60-140			
Chlorobenzene	18.8	1.0	"	20.0	ND	94.0	60-140			
Surrogate: Dibromodifluoromethane	8.88		"	10.0		88.8	50-150			
Surrogate: 4-Bromofluorobenzene	9.93		"	10.0		99.3	50-150			
Matrix Spike Dup (2G19013-MSD1) Source: W207207-02 Prepared: 19-Jul-02 Analyzed: 26-Jul-02										
1,1-Dichloroethene	28.3	1.0	ug/l	20.0	1.8	132	60-140	8.09	25	
Trichloroethene	21.0	1.1	"	20.0	ND	105	60-140	8.44	25	
Chlorobenzene	20.5	1.0	"	20.0	ND	102	60-140	8.65	25	
Surrogate: Dibromodifluoromethane	9.43		"	10.0		94.3	50-150			
Surrogate: 4-Bromofluorobenzene	10.4		"	10.0		104	50-150			



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Project: Tosco
Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
06-Aug-02 07:32

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2G24009 - EPA 3510B Sep Funnel

Blank (2G24009-BLK1)

Prepared: 24-Jul-02 Analyzed: 31-Jul-02

Acenaphthene	ND	5.0	ug/l							
Acenaphthylene	ND	5.0	"							
Aniline	ND	5.0	"							
Anthracene	ND	5.0	"							
Benzoic acid	ND	10	"							
Benzo (a) anthracene	ND	5.0	"							
Benzo (b) fluoranthene	ND	5.0	"							
Benzo (k) fluoranthene	ND	5.0	"							
Benzo (ghi) perylene	ND	5.0	"							
Benzo[a]pyrene	ND	5.0	"							
Benzyl alcohol	ND	5.0	"							
Bis(2-chloroethoxy)methane	ND	5.0	"							
Bis(2-chloroethyl)ether	ND	5.0	"							
Bis(2-chloroisopropyl)ether	ND	5.0	"							
Bis(2-ethylhexyl)phthalate	ND	10	"							
4-Bromophenyl phenyl ether	ND	5.0	"							
Butyl benzyl phthalate	ND	10	"							
4-Chloroaniline	ND	25	"							
2-Chloronaphthalene	ND	5.0	"							
4-Chloro-3-methylphenol	ND	5.0	"							
2-Chlorophenol	ND	5.0	"							
4-Chlorophenyl phenyl ether	ND	5.0	"							
Chrysene	ND	5.0	"							
Dibenz (a,h) anthracene	ND	10	"							
Dibenzofuran	ND	5.0	"							
Di-n-butyl phthalate	ND	10	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	10	"							
3,3'-Dichlorobenzidine	ND	10	"							
2,4-Dichlorophenol	ND	5.0	"							
Diethyl phthalate	ND	5.0	"							
2,4-Dimethylphenol	ND	5.0	"							
Dimethyl phthalate	ND	5.0	"							
4,6-Dinitro-2-methylphenol	ND	10	"							
2,4-Dinitrophenol	ND	10	"							

Sequoia Analytical - Walnut Creek

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 Project Number: Tosco # 1156
 Project Manager: Deanna L. Harding

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 06-Aug-02 07:32

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2G24009 - EPA 3510B Sep Funnel
Blank (2G24009-BLK1)

Prepared: 24-Jul-02 Analyzed: 31-Jul-02

2,4-Dinitrotoluene	ND	10	ug/l							
2,6-Dinitrotoluene	ND	10	"							
Di-n-octyl phthalate	ND	10	"							
Fluoranthene	ND	5.0	"							
Fluorene	ND	5.0	"							
Hexachlorobenzene	ND	10	"							
Hexachlorobutadiene	ND	10	"							
Hexachlorocyclopentadiene	ND	10	"							
Hexachloroethane	ND	5.0	"							
Indeno (1,2,3-cd) pyrene	ND	10	"							
Isophorone	ND	5.0	"							
2-Methylnaphthalene	ND	5.0	"							
2-Methylphenol	ND	5.0	"							
4-Methylphenol	ND	5.0	"							
Naphthalene	ND	5.0	"							
2-Nitroaniline	ND	10	"							
3-Nitroaniline	ND	10	"							
4-Nitroaniline	ND	20	"							
Nitrobenzene	ND	5.0	"							
2-Nitrophenol	ND	5.0	"							
4-Nitrophenol	ND	10	"							
N-Nitrosodimethylamine	ND	5.0	"							
N-Nitrosodiphenylamine	ND	5.0	"							
N-Nitrosodi-n-propylamine	ND	10	"							
Pentachlorophenol	ND	10	"							
Phenanthrene	ND	5.0	"							
Phenol	ND	5.0	"							
Pyrene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
2,4,5-Trichlorophenol	ND	5.0	"							
2,4,6-Trichlorophenol	ND	10	"							
<i>Surrogate: 2-Fluorophenol</i>	56.0		"	150		37.3	9-58			
<i>Surrogate: Phenol-d6</i>	31.6		"	150		21.1	5-42			
<i>Surrogate: Nitrobenzene-d5</i>	67.5		"	100		67.5	13-120			
<i>Surrogate: 2-Fluorobiphenyl</i>	75.8		"	100		75.8	11-131			
<i>Surrogate: 2,4,6-Tribromophenol</i>	99.4		"	150		66.3	15-127			

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Project: Tosco
Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
06-Aug-02 07:32

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2G24009 - EPA 3510B Sep Funnel

Blank (2G24009-BLK1)

Prepared: 24-Jul-02 Analyzed: 31-Jul-02

Surrogate: p-Terphenyl-d14	74.8		ug/l	100		74.8	26-134			
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Blank (2G24009-BLK2)

Prepared: 29-Jul-02 Analyzed: 01-Aug-02

Acenaphthene	ND	5.0	ug/l							
Acenaphthylene	ND	5.0	"							
Aniline	ND	5.0	"							
Anthracene	ND	5.0	"							
Benzoic acid	ND	10	"							
Benzo (a) anthracene	ND	5.0	"							
Benzo (b) fluoranthene	ND	5.0	"							
Benzo (k) fluoranthene	ND	5.0	"							
Benzo (ghi) perylene	ND	5.0	"							
Benzo[a]pyrene	ND	5.0	"							
Benzyl alcohol	ND	5.0	"							
Bis(2-chloroethoxy)methane	ND	5.0	"							
Bis(2-chloroethyl)ether	ND	5.0	"							
Bis(2-chloroisopropyl)ether	ND	5.0	"							
Bis(2-ethylhexyl)phthalate	ND	10	"							
4-Bromophenyl phenyl ether	ND	5.0	"							
Butyl benzyl phthalate	ND	10	"							
4-Chloroaniline	ND	25	"							
2-Chloronaphthalene	ND	5.0	"							
4-Chloro-3-methylphenol	ND	5.0	"							
2-Chlorophenol	ND	5.0	"							
4-Chlorophenyl phenyl ether	ND	5.0	"							
Chrysene	ND	5.0	"							
Dibenz (a,h) anthracene	ND	10	"							
Dibenzofuran	ND	5.0	"							
Di-n-butyl phthalate	ND	10	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	10	"							
3,3'-Dichlorobenzidine	ND	10	"							
2,4-Dichlorophenol	ND	5.0	"							
Diethyl phthalate	ND	5.0	"							
2,4-Dimethylphenol	ND	5.0	"							

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

 Project: Tosco
 Project Number: Tosco # 1156
 Project Manager: Deanna L. Harding

 Reported:
 06-Aug-02 07:32

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2G24009 - EPA 3510B Sep Funnel

Blank (2G24009-BLK2)	Prepared: 29-Jul-02 Analyzed: 01-Aug-02
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Dimethyl phthalate	ND	5.0	ug/l							
4,6-Dinitro-2-methylphenol	ND	10	"							
2,4-Dinitrophenol	ND	10	"							
2,4-Dinitrotoluene	ND	10	"							
2,6-Dinitrotoluene	ND	10	"							
Di-n-octyl phthalate	ND	10	"							
Fluoranthene	ND	5.0	"							
Fluorene	ND	5.0	"							
Hexachlorobenzene	ND	10	"							
Hexachlorobutadiene	ND	10	"							
Hexachlorocyclopentadiene	ND	10	"							
Hexachloroethane	ND	5.0	"							
Indeno (1,2,3-cd) pyrene	ND	10	"							
Isophorone	ND	5.0	"							
2-Methylnaphthalene	ND	5.0	"							
2-Methylphenol	ND	5.0	"							
4-Methylphenol	ND	5.0	"							
Naphthalene	ND	5.0	"							
2-Nitroaniline	ND	10	"							
3-Nitroaniline	ND	10	"							
4-Nitroaniline	ND	20	"							
Nitrobenzene	ND	5.0	"							
2-Nitrophenol	ND	5.0	"							
4-Nitrophenol	ND	10	"							
N-Nitrosodimethylamine	ND	5.0	"							
N-Nitrosodiphenylamine	ND	5.0	"							
N-Nitrosodi-n-propylamine	ND	10	"							
Pentachlorophenol	ND	10	"							
Phenanthrene	ND	5.0	"							
Phenol	ND	5.0	"							
Pyrene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
2,4,5-Trichlorophenol	ND	5.0	"							
2,4,6-Trichlorophenol	ND	10	"							
<i>Surrogate: 2-Fluorophenol</i>	63.7		"	150		42.5	9-58			
<i>Surrogate: Phenol-d6</i>	36.4		"	150		24.3	5-42			

Sequoia Analytical - Walnut Creek

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Project Manager: Deanna L. Harding

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06-Aug-02 07:32

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2G24009 - EPA 3510B Sep Funnel

Blank (2G24009-BLK2)

Prepared: 29-Jul-02 Analyzed: 01-Aug-02

Surrogate: Nitrobenzene-d5	72.1		ug/l	100		72.1	13-120			
Surrogate: 2-Fluorobiphenyl	83.2		"	100		83.2	11-131			
Surrogate: 2,4,6-Tribromophenol	107		"	150		71.3	15-127			
Surrogate: p-Terphenyl-d14	81.7		"	100		81.7	26-134			

LCS (2G24009-BS1)

Prepared: 24-Jul-02 Analyzed: 31-Jul-02

Acenaphthene	78.1	5.0	ug/l	100		78.1	30-108			
4-Chloro-3-methylphenol	99.1	5.0	"	150		66.1	31-102			
2-Chlorophenol	110	5.0	"	150		73.3	27-96			
1,4-Dichlorobenzene	69.1	10	"	100		69.1	36-88			
2,4-Dinitrotoluene	68.4	10	"	100		68.4	45-96			
4-Nitrophenol	35.9	10	"	150		23.9	10-80			
N-Nitrosodi-n-propylamine	66.8	10	"	100		66.8	40-106			
Pentachlorophenol	95.7	10	"	150		63.8	10-110			
Phenol	45.5	5.0	"	150		30.3	11-43			
Pyrene	86.6	5.0	"	100		86.6	31-118			
1,2,4-Trichlorobenzene	72.8	5.0	"	100		72.8	37-92			
Surrogate: 2-Fluorophenol	73.7		"	150		49.1	9-58			
Surrogate: Phenol-d6	44.1		"	150		29.4	5-42			
Surrogate: Nitrobenzene-d5	75.9		"	100		75.9	13-120			
Surrogate: 2-Fluorobiphenyl	85.1		"	100		85.1	11-131			
Surrogate: 2,4,6-Tribromophenol	121		"	150		80.7	15-127			
Surrogate: p-Terphenyl-d14	77.7		"	100		77.7	26-134			

LCS (2G24009-BS2)

Prepared: 29-Jul-02 Analyzed: 31-Jul-02

Acenaphthene	79.0	5.0	ug/l	100		79.0	30-108			
4-Chloro-3-methylphenol	106	5.0	"	150		70.7	31-102			
2-Chlorophenol	108	5.0	"	150		72.0	27-96			
1,4-Dichlorobenzene	69.6	10	"	100		69.6	36-88			
2,4-Dinitrotoluene	68.4	10	"	100		68.4	45-96			
4-Nitrophenol	32.1	10	"	150		21.4	10-80			
N-Nitrosodi-n-propylamine	68.9	10	"	100		68.9	40-106			
Pentachlorophenol	91.6	10	"	150		61.1	10-110			
Phenol	44.4	5.0	"	150		29.6	11-43			
Pyrene	84.9	5.0	"	100		84.9	31-118			
1,2,4-Trichlorobenzene	73.3	5.0	"	100		73.3	37-92			
Surrogate: 2-Fluorophenol	68.3		"	150		45.5	9-58			

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Project: Tosco
Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
06-Aug-02 07:32

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2G24009 - EPA 3510B Sep Funnel

LCS (2G24009-BS2)

Prepared: 29-Jul-02 Analyzed: 31-Jul-02

Surrogate: Phenol-d6	42.5		ug/l	150		28.3	5-42			
Surrogate: Nitrobenzene-d5	72.8		"	100		72.8	13-120			
Surrogate: 2-Fluorobiphenyl	83.8		"	100		83.8	11-131			
Surrogate: 2,4,6-Tribromophenol	127		"	150		84.7	15-127			
Surrogate: p-Terphenyl-d14	75.2		"	100		75.2	26-134			

LCS Dup (2G24009-BSD1)

Prepared: 24-Jul-02 Analyzed: 31-Jul-02

Acenaphthene	76.6	5.0	ug/l	100		76.6	30-108	1.94	29	
4-Chloro-3-methylphenol	98.6	5.0	"	150		65.7	31-102	0.506	33	
2-Chlorophenol	104	5.0	"	150		69.3	27-96	5.61	40	
1,4-Dichlorobenzene	67.8	10	"	100		67.8	36-88	1.90	39	
2,4-Dinitrotoluene	69.5	10	"	100		69.5	45-96	1.60	29	
4-Nitrophenol	36.9	10	"	150		24.6	10-80	2.75	44	
N-Nitrosodi-n-propylamine	58.4	10	"	100		58.4	40-106	13.4	36	
Pentachlorophenol	95.4	10	"	150		63.6	10-110	0.314	30	
Phenol	42.8	5.0	"	150		28.5	11-43	6.12	45	
Pyrene	93.4	5.0	"	100		93.4	31-118	7.56	40	
1,2,4-Trichlorobenzene	71.5	5.0	"	100		71.5	37-92	1.80	35	
Surrogate: 2-Fluorophenol	70.2		"	150		46.8	9-58			
Surrogate: Phenol-d6	40.7		"	150		27.1	5-42			
Surrogate: Nitrobenzene-d5	71.9		"	100		71.9	13-120			
Surrogate: 2-Fluorobiphenyl	80.3		"	100		80.3	11-131			
Surrogate: 2,4,6-Tribromophenol	117		"	150		78.0	15-127			
Surrogate: p-Terphenyl-d14	81.9		"	100		81.9	26-134			



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Project: Tosco
Project Number: Tosco # 1156
Project Manager: Deanna L. Harding

Reported:
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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 -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 2.5%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
- Q-28b The opening calibration verification standard was outside acceptance criteria by 7%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
- S-04 The surrogate recovery for this sample is outside control limits due to interference from the sample matrix.
- 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