

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

dp

Sample contains discrete peak in addition to gasoline.

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.



2000 Crow Canyon Place
Suite 400
San Ramon, CA 94583

Phone: (925) 277-2305
Fax: (925) 277-2361

Environmental Department

August 21, 2003

**Re: Tosco (Unocal) Service Station #4186
1771 First Street
Livermore, California**

Alameda County
AUG 23 2003
Environmental Health

" I declare under penalty of perjury, that to the best of my knowledge at the present time, the information and/or recommendations contained in the attached proposal or report is true and correct."

A handwritten signature in cursive script that reads "David B. DeWitt".

David B. DeWitt
Site Manager
ConocoPhillips



GETTLER-RYAN INC.

TRANSMITTAL

August 6, 2003

G-R #180181

TO: Mr. David B. De Witt
ConocoPhillips
76 Broadway Avenue
Sacramento, California 95818

Alameda County

Mr. David Vossler
Gettler-Ryan Inc.
Petaluma, California

AUG 25 2003

Environmental Health

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

RE: **Tosco (Unocal) Service Station
#4186
1771 First Street
Livermore, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	July 29, 2003	Groundwater Monitoring and Sampling Report Third Quarter - Event of July 1, 2003

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 **August 20, 2003**, this report will be distributed to the following:

cc: Ms. Eva Chu, Alameda County Health Care Services, 1131 Harbor Bay Pkwy., Alameda, CA 94502
Ms. Carol Mahoney, Zone 7 Water Zone, 5997 Parkside Drive, Pleasanton, CA 94588

Enclosures

trans/4186-dbd



GETTLER-RYAN Inc.

July 29, 2003
G-R Job #180181

Mr. David B. De Witt
ConocoPhillips
76 Broadway Avenue
Sacramento, California 95818

RE: Third Quarter Event of July 1, 2003
Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #4186
1771 First Street
Livermore, California

Dear Mr. De Witt:

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

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

Groundwater samples were collected from the monitoring wells 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,

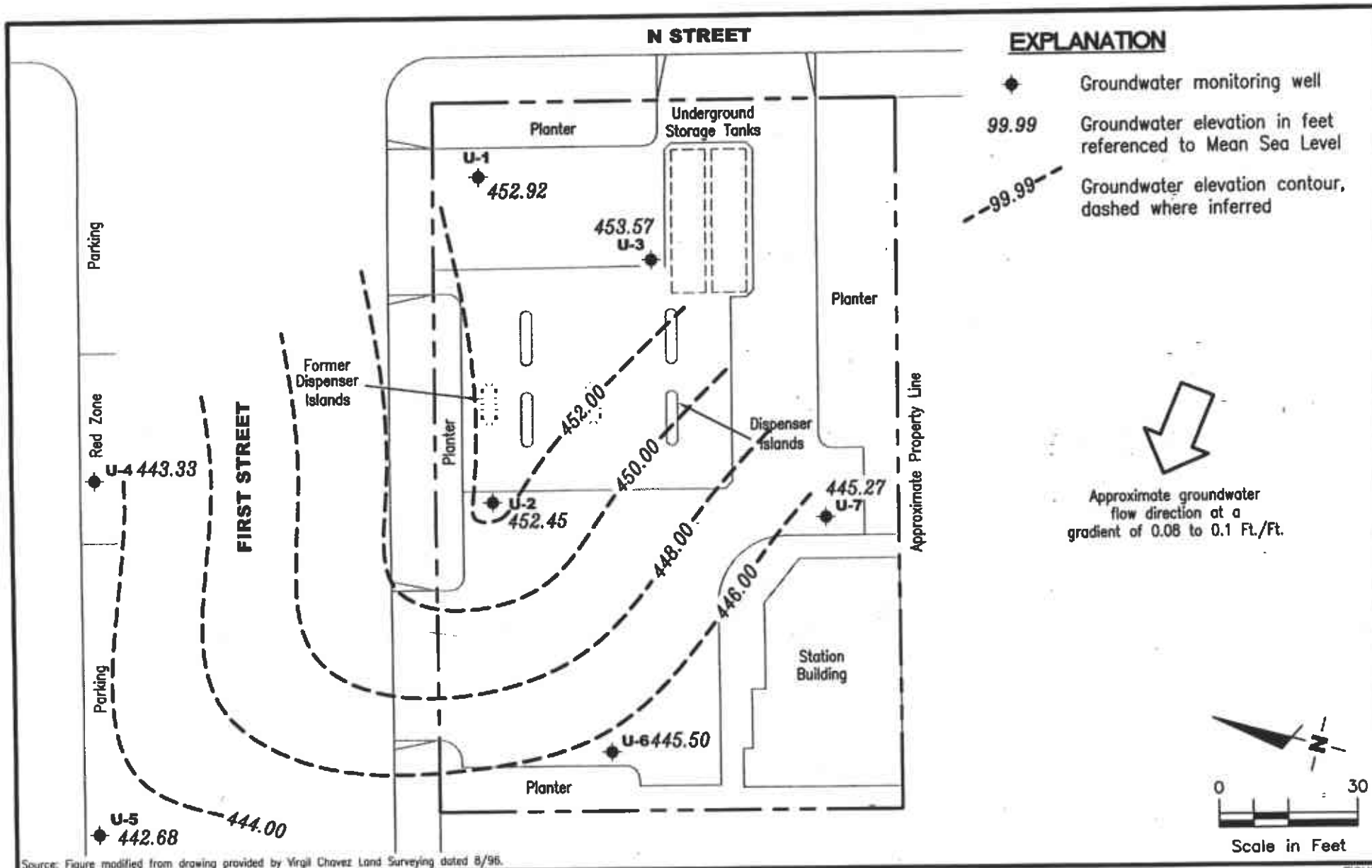
Deanna L. Harding
Project Coordinator

Robert C. Mallory
Registered Geologist, No. 7285



Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results - Oxygenate Compounds
Table 3: Field Measurements
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

4186 qml



GETTLER - RYAN INC.

6747 Sierra Ct., Suite J
Dublin, CA 94568

(925) 551-7555

POTENTIOMETRIC MAP
Tosco (Unocal) Service Station #4186
1771 First Street
Livermore, California

FIGURE

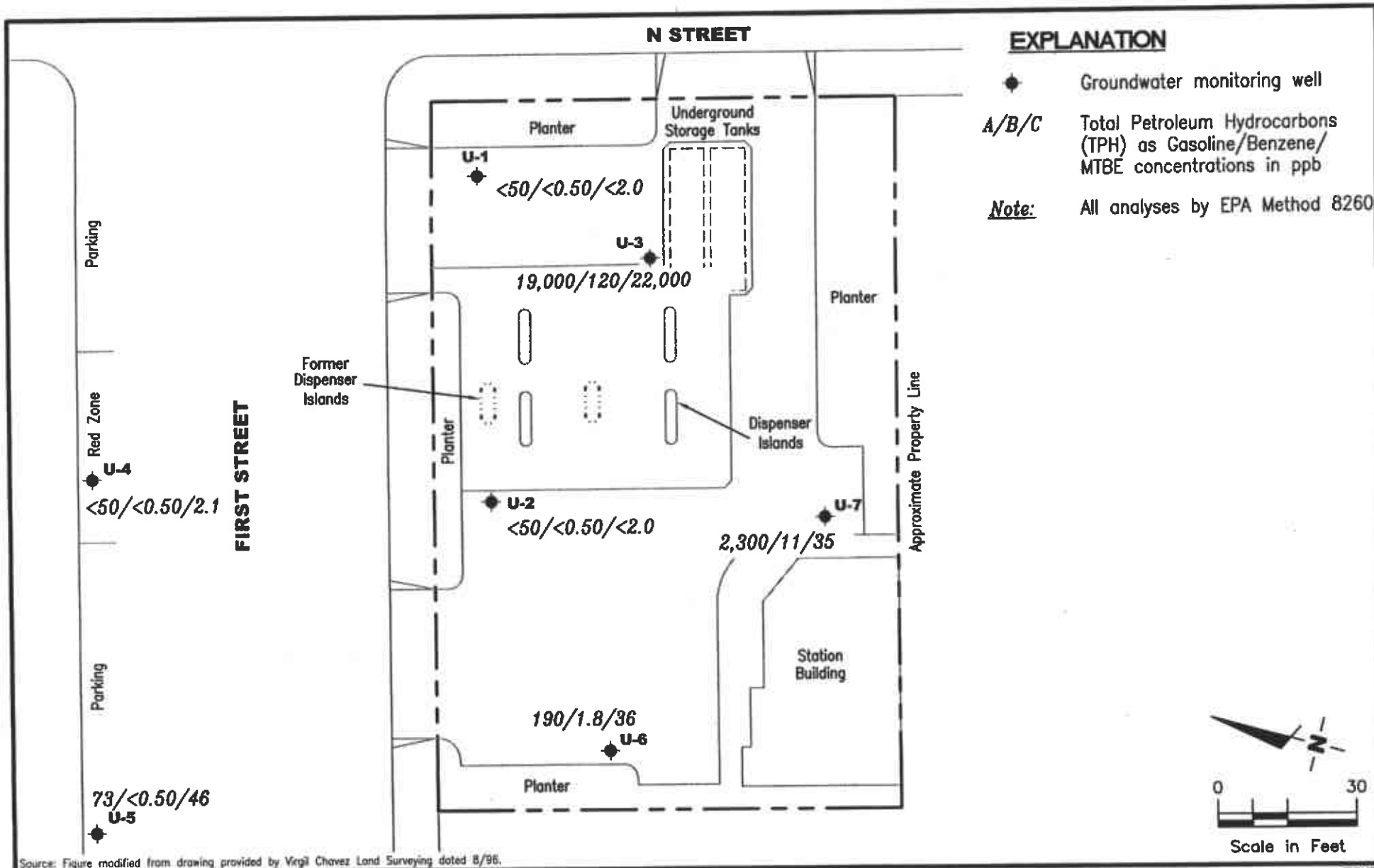
1

PROJECT NUMBER
180181

REVIEWED BY

DATE
July 1, 2003

REVISED DATE



Source: Figure modified from drawing provided by Virgil Chavez Land Surveying dated 8/96.

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

CONCENTRATION MAP
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

FIGURE

2

PROJECT NUMBER
 180181

REVIEWED BY

DATE
 July 1, 2003

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-1 478.27	07/13/98	23.28	14.0-34.0	454.99	ND	ND	ND	ND	ND	ND
	10/07/98	26.43		451.84	ND	ND	ND	ND	ND	ND
	01/15/99	30.42		447.85	ND	ND	ND	ND	1.1	7.3
	04/14/99	24.21		454.06	ND	ND	ND	ND	ND	160
	07/19/99	27.10		451.17	ND	ND	ND	ND	ND	92
	10/12/99	29.40		448.87	ND	ND	ND	ND	ND	37
	01/24/00	27.90		450.37	ND	ND	ND	ND	ND	28
	04/10/00	26.16		452.11	ND	ND	0.930	ND	ND	ND
	07/17/00	28.04		450.23	ND	ND	ND	ND	ND	160
	10/02/00	28.41		449.86	ND	ND	ND	ND	ND	120
	01/08/01	28.68		449.59	ND	ND	ND	ND	ND	103
	04/03/01	25.74		452.53	ND	ND	ND	ND	ND	55.1
	07/02/01	30.67		447.60	ND	ND	ND	ND	ND	ND
NP	10/08/01	33.13		445.14	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	01/03/02	27.67		450.60	160 ⁹	<0.50	0.51	<0.50	0.69	31
	04/05/02	29.40		448.87	<50	<0.50	<0.50	<0.50	<0.50	60
	07/02/02 ¹⁰	31.17		447.10	1,100	<0.50	1.7	0.73	130	35
	10/01/02 ¹⁰	33.00		445.27	120	<0.50	<0.50	<0.50	8.8	28
	12/30/02 ¹⁰	22.03		456.24	<50	<0.50	<0.50	<0.50	1.2	90
	05/02/03 ¹⁰	24.13		454.14	<50	<0.50	<0.50	<0.50	<1.0	50
	07/01/03 ¹⁰	25.35		452.92	<50	<0.50	<0.50	<0.50	<1.0	<2.0
U-2 477.44	07/13/98	23.52	13.0-33.0	453.92	1,200	130	12	62	180	1,100
	10/07/98	25.31		452.13	ND	ND	ND	ND	ND	160
	01/15/99	30.22		447.22	ND	ND	ND	ND	ND	280
	04/14/99	24.50		452.94	ND	ND	ND	ND	ND	460
	07/19/99	28.54		448.90	ND	ND	ND	ND	ND	220
	10/12/99	30.48		446.96	ND	ND	ND	ND	ND	160
	01/24/00	24.52		452.92	ND	ND	ND	ND	ND	150
	04/10/00	23.68		453.76	ND	ND	ND	ND	ND	177

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-2	07/17/00	28.35	13.0-33.0	449.09	ND	ND	ND	ND	ND	62.7
(cont)	10/02/00	28.72		448.72	ND	ND	ND	ND	ND	52
	01/08/01	29.11		448.33	ND	ND	ND	ND	ND	57.3
	04/03/01	25.95		451.49	ND	ND	ND	ND	ND	30.2
	07/02/01	29.01		448.43	ND	ND	ND	ND	ND	16
	10/08/01	30.94		446.50	<50	<0.50	<0.50	<0.50	<0.50	82
	01/03/02	27.33		450.11	260 ⁴	7.7	11	1.7	15	42
	04/05/02	30.02		447.42	<50	<0.50	<0.50	<0.50	<0.50	25
	07/02/02 ¹⁰	31.23		446.21	<50	<0.50	<0.50	<0.50	<1.0	<0.50
	10/01/02 ¹⁰	32.00		445.44	<50	<0.50	0.62	<0.50	<1.0	<2.0
	12/30/02 ¹⁰	22.32		455.12	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	05/02/03 ¹⁰	25.92		451.52	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	07/01/03 ¹⁰	24.99		452.45	<50	<0.50	<0.50	<0.50	<1.0	<2.0
U-3										
478.46	07/13/98	23.82	14.0-34.0	454.64	70,000	3,100	5,500	2,700	16,000	7,500
	10/07/98	25.64		452.82	54,000	5,000	1,100	3,100	14,000	6,100
	01/15/99	30.92		447.54	41,000 ¹	3,100	ND ²	1,800	3,800	15,000
	04/14/99	24.48		453.98	33,000	86	290	2,200	7,800	39,000
	07/19/99	28.46		450.00	48,000	3,900	2,500	3,600	14,000	12,000/16,000 ³
	10/12/99	30.39		448.07	35,000 ⁴	4,200	ND ²	2,300	1,800	22,000/8,300 ⁵
	01/24/00	23.43		455.03	13,000 ⁴	260	ND ²	770	3,200	53,000/42,000 ³
	04/10/00	23.31		455.15	35,200 ⁴	1,070	241	2,820	8,850	35,600/40,900 ³
	07/17/00	27.53		450.93	29,000 ⁴	3,570	525	3,180	5,660	22,500/21,000 ³
	10/02/00	28.19		450.27	11,000 ⁴	2,100	31	2,000	780	25,000/28,000 ^{3,6}
	01/08/01	29.85		448.61	33,600 ⁴	3,060	427	3,040	4,190	24,700/30,900 ³
	04/03/01	24.98		453.48	5,390 ⁴	660	10.8	304	356	15,200/19,300 ⁵
	07/02/01	31.35		447.11	13,000 ⁴	1,200	58	1,300	930	25,000/26,000 ³
NP	10/08/01	32.69		445.77	6,100 ⁴	500	<10	570	130	23,000/22,000 ³
	01/03/02	23.73		454.73	9,900 ⁴	700	130	24	1,000	14,000/12,000 ³
	04/05/02	28.27		450.19	9,800	1,100	180	220	1,400	16,000/30,000 ³
	07/02/02 ¹⁰	29.71		448.75	<25,000	<250	<250	<250	<500	12,000

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #4186
1771 First Street
Livermore, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-3 (cont)	10/01/02 ¹⁰	31.18	14.0-34.0	447.28	<25,000	<250	<250	<250	<500	12,000
	12/30/02 ¹⁰	21.62		456.84	23,000	330	170	870	4,900	18,000
	05/02/03 ¹⁰	23.11		455.35	19,000	280	<50	880	1,500	15,000
	07/01/03 ¹⁰	24.89		453.57	19,000 ¹²	120	<100	180	880	22,000
U-4 476.93	04/03/01 ⁷	31.63	35.0-45.0	445.30	ND	ND	ND	ND	ND	37.8/38.2 ³
	07/02/01	37.96		438.97	ND	ND	ND	ND	ND	ND/5.3 ³
	10/08/01	44.24		432.69	NOT SAMPLED DUE TO INSUFFICIENT WATER					--
	01/03/02	36.15		440.78	100 ⁹	<0.50	<0.50	<0.50	<0.50	10/8.5 ³
	04/05/02	37.64		439.29	<50	0.50	<0.50	<0.50	<0.50	4.1
	07/02/02 ¹⁰	36.85		440.08	67 ¹¹	<0.50	<0.50	<0.50	<1.0	12
	10/01/02 ¹⁰	38.54		438.39	<50	<0.50	<0.50	<0.50	<1.0	9.8
	12/30/02 ¹⁰	32.64		444.29	<50	<0.50	<0.50	<0.50	<1.0	25
	05/02/03 ¹⁰	31.40		445.53	<50	<0.50	<0.50	<0.50	<1.0	4.1
	07/01/03 ¹⁰	33.60		443.33	<50	<0.50	<0.50	<0.50	<1.0	2.1
U-5 476.51	04/03/01 ⁷	31.75	37.0-47.0	444.76	ND	ND	0.728	ND	0.993	54.8/55.4 ³
	07/02/01	38.68		437.83	ND	ND	ND	ND	ND	88/94 ³
	NP 10/08/01	46.31		430.20	<50	<0.50	<0.50	<0.50	<0.50	37/54 ³
	01/03/02	36.55		439.96	<50	<0.50	0.59	<0.50	0.91	51/53 ³
	04/05/02	37.83		438.68	<50	<0.50	<0.50	<0.50	<0.50	37
	07/02/02 ¹⁰	36.92		439.59	<50	<0.50	<0.50	<0.50	<1.0	43
	10/01/02	INACCESSIBLE - TRUCK PARKED OVER WELL				--	--	--	--	--
	12/30/02	INACCESSIBLE - VEHICLE PARKED OVER WELL				--	--	--	--	--
	05/02/03 ¹⁰	31.55		444.96	<50	<0.50	<0.50	<0.50	<1.0	18
	07/01/03 ¹⁰	33.83		442.68	73 ¹²	<0.50	<0.50	<0.50	<1.0	46

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-6										
478.38	01/03/02 ⁷	33.99	--	444.39	5,000 ⁸	36	<25	260	450	<250/<10 ³
	04/05/02	36.18		442.20	1,300	16	<5.0	54	<5.0	<25
	07/02/02 ¹⁰	36.33		442.05	1,100	1.4	<0.50	16	<1.0	0.94
	10/01/02 ¹⁰	37.70		440.68	2,000	5.4	<0.50	62	<1.0	2.6
	12/30/02 ¹⁰	31.63		446.75	130	<0.50	<0.50	2.3	<1.0	<2.0
	05/02/03 ¹⁰	31.49		446.89	150	<0.50	<0.50	1.8	1.7	82
	07/01/03 ¹⁰	32.88		445.50	190	1.8	<0.50	9.4	8.7	36
U-7										
478.74	01/03/02 ⁷	32.43	--	446.31	3,100 ⁸	93	<10	35	73	140/130 ³
	04/05/02	34.06		444.68	630	22	0.53	2.6	<0.50	45
	07/02/02 ¹⁰	35.28		443.46	1,100	21	<0.50	6.9	<1.0	60
	10/01/02 ¹⁰	37.70		441.04	1,700	11	<0.50	3.1	<1.0	25
	12/30/02 ¹⁰	31.93		446.81	4,600	41	5.3	32	13	34
	05/02/03 ¹⁰	31.81		446.93	3,000	17	2.7	14	5.1	42
	07/01/03 ¹⁰	33.47		445.27	2,300 ¹³	11	0.53	8.0	1.5	35
TRIP BLANK										
	07/13/98	--	--	--	ND	ND	ND	ND	ND	ND
	10/07/98	--	--	--	ND	ND	ND	ND	ND	ND
	01/15/99	--	--	--	ND	ND	ND	ND	ND	ND
	04/14/99	--	--	--	ND	ND	ND	ND	ND	ND
	07/19/99	--	--	--	ND	ND	ND	ND	ND	ND
	10/12/99	--	--	--	ND	ND	ND	ND	ND	ND
	01/24/00	--	--	--	ND	ND	ND	ND	ND	ND
	04/10/00	--	--	--	ND	ND	ND	ND	ND	ND
	07/17/00	--	--	--	ND	ND	ND	ND	ND	ND
	10/02/00	--	--	--	ND	ND	ND	ND	ND	ND
	01/08/01	--	--	--	ND	ND	ND	ND	ND	ND
	04/03/01	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TRIP BLANK	07/02/01	--	--	--	ND	ND	ND	ND	ND	ND
(cont)	10/08/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	01/03/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	04/05/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	07/02/02 ¹⁰	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50
	10/01/02 ¹⁰	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	12/30/02 ¹⁰	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	05/02/03 ¹⁰	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	07/01/03 ¹⁰	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<2.0

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

EXPLANATIONS:

TOC = Top of Casing
 (ft.) = Feet
 DTW = Depth to Water
 S. I. = Screen Interval
 (ft.bgs) = Feet Below Ground Surface
 GWE = Groundwater Elevation
 (msl) = Mean sea level

TPH-G = Total Petroleum Hydrocarbons as Gasoline
 B = Benzene
 T = Toluene
 E = Ethylbenzene
 X = Xylenes
 MTBE = Methyl tertiary butyl ether
 (ppb) = Parts per billion

ND = Not Detected
 -- = Not Measured/Not Analyzed
 NP = No Purge
 QA = Quality Assurance/Trip Blank

* TOC elevations are relative to msl in feet. The benchmark used was a City of Livermore survey monument at First & "Q" Streets, (Benchmark Elevation = 469.246 feet, msl). Wells U-6 and U-7 were surveyed on January 16, 2002, using the previous benchmark.

¹ Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.

² Detection limit raised. Refer to analytical reports.

³ MTBE by EPA Method 8260.

⁴ Laboratory report indicates gasoline C6-C12.

⁵ MTBE by EPA Method 8260 analyzed past EPA recommended holding time.

⁶ Laboratory report indicates the sample was analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommend holding time.

⁷ Well development performed.

⁸ Laboratory report indicates weathered gasoline C6-C12.

⁹ Laboratory report indicates unidentified hydrocarbons C6-C12.

¹⁰ TPH-G, BTEX and MTBE by EPA Method 8260.

¹¹ Laboratory report indicates hydrocarbon reported in the gasoline range does not match our gasoline standard.

¹² Laboratory report indicates a hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.

¹³ Laboratory report indicates sample contains discrete peak in addition to gasoline.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
U-1	10/02/00	--	ND	--	--	--	--	--	--
	07/02/02	--	--	35	--	--	--	--	--
	10/01/02	--	--	28	--	--	--	--	--
	12/30/02	--	--	90	--	--	--	--	--
	05/02/03	--	--	50	--	--	--	--	--
	07/01/03	<500	--	<2.0	--	--	--	--	--
U-2	10/02/00	--	ND	--	--	--	--	--	--
	07/02/02	--	--	<0.50	--	--	--	--	--
	10/01/02	--	--	<2.0	--	--	--	--	--
	12/30/02	--	--	<2.0	--	--	--	--	--
	05/02/03	--	--	<2.0	--	--	--	--	--
	07/01/03	<500	--	<2.0	--	--	--	--	--
U-3	07/19/99	--	--	16,000	--	--	--	--	--
	10/12/1999	--	--	8,300	--	--	--	--	--
	01/24/00	--	--	42,000	--	--	--	--	--
	04/10/00	--	--	40,900	--	--	--	--	--
	07/17/00	--	--	21,000	--	--	--	--	--
	10/02/00	--	63,000	28,000	--	--	--	--	--
	01/08/01	ND ¹	49,300	30,900	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	04/03/01 ²	ND ¹	22,200	19,300	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	07/02/01	ND ¹	27,000	26,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	10/08/01	<140,000	33,000	22,000	<290	<290	<290	<290	<290
	01/03/02	<50,000	17,000	12,000	<100	<100	<100	<100	<100
	04/05/02	<25,000	66,000	30,000	<100	<100	<100	<100	<100
	07/02/02	<13,000	47,000	12,000	<500	<250	<250	<250	<250
	10/01/02	<250,000	<50,000	12,000	<1,000	<1,000	<1,000	<1,000	<1,000
	12/30/02	<100,000	23,000	18,000	<400	<400	<400	<400	<400
05/02/03	<50,000	25,000	15,000	<200	<200	<200	<200	<200	
07/01/03	<100,000	32,000	22,000	<400	<400	<400	<400	<400	

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
U-4	04/03/01	ND	ND	38.2	ND	ND	ND	ND	ND
	07/02/01	ND	ND	5.3	ND	ND	ND	ND	ND
	01/03/02	<500	<20	8.5	<1.0	<1.0	<1.0	<1.0	<1.0
	07/02/02	--	--	12	--	--	--	--	--
	10/01/02	--	--	9.8	--	--	--	--	--
	12/30/02	--	--	25	--	--	--	--	--
	05/02/03	--	--	4.1	--	--	--	--	--
	07/01/03	<500	--	2.1	--	--	--	--	--
U-5	04/03/01	ND	ND	55.4	ND	ND	ND	ND	ND
	07/02/01	ND	ND	94	ND	ND	ND	ND	ND
	10/08/01	<1,000	<100	54	<2.0	<2.0	<2.0	<2.0	<2.0
	01/03/02	<500	<20	53	<1.0	<1.0	<1.0	<1.0	<1.0
	07/02/02	--	--	43	--	--	--	--	--
	10/01/02	INACCESSIBLE - TRUCK PARKED OVER WELL			--	--	--	--	--
	12/30/02	INACCESSIBLE - VEHICLE PARKED OVER WELL			--	--	--	--	--
	05/02/03	--	--	18	--	--	--	--	--
07/01/03	<500	--	46	--	--	--	--	--	
U-6	01/03/02	<5,000	<200	<10	<10	<10	<10	<10	<10
	07/02/02	--	--	0.94	--	--	--	--	--
	10/01/02	--	--	2.6	--	--	--	--	--
	12/30/02	--	--	<2.0	--	--	--	--	--
	05/02/03	--	--	82	--	--	--	--	--
	07/01/03	<500	--	36	--	--	--	--	--
U-7	01/03/02	<500	30	130	<1.0	<1.0	<1.0	<1.0	<1.0
	07/02/02	--	--	60	--	--	--	--	--
	10/01/02	--	--	25	--	--	--	--	--

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
U-7	12/30/02	--	--	34	--	--	--	--	--
(cont)	05/02/03	--	--	42	--	--	--	--	--
	07/01/03	<500	--	35	--	--	--	--	--

Table 2
Groundwater Analytical Results - Oxygenate Compounds
Tosco (Unocal) Service Station #4186
1771 First Street
Livermore, California

EXPLANATIONS:

TBA = Tertiary butyl alcohol
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
EDB = 1,2-Dibromoethane
1,2-DCA = 1,2-Dichloroethane
(ppb) = Parts per billion
ND = Not Detected
-- = Not Analyzed

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

¹ Detection limit raised. Refer to analytical reports.

² Laboratory report indicates this sample was analyzed outside of the EPA recommended holding time.

Table 3
Field Measurements
Tosco (Unocal) Service Station #4186
1771 First Street
Livermore, California

WELL ID	DATE	Time (2400 hr)	pH	Conductivity (μ mhos/cm)	Temp. ($^{\circ}$ C/ $^{\circ}$ F)	DO (mg/L)	ORP (mV)	
U-1	10/01/02	NOT MEASURED DUE TO INSUFFICIENT WATER					--	--
	12/30/02	1024	7.29	808	20.4/--	0.80	96	
		1027	7.26	810	20.1/--	0.90	98	
		1031	7.21	812	20.2/--	0.60	91	
	05/02/03	1027	7.57	864	--/67.4	0.60	100	
		1029	7.50	871	--/67.2	0.40	95	
		1032	7.46	874	--/67.1	0.50	90	
	07/01/03	1139	7.53	873	--/66.4	0.70	105	
		1145	7.44	861	--66.8	0.50	115	
		1152	7.41	859	--/67.0	0.60	110	
U-2	10/01/02	1558	7.26	1249	20.4/--	1.40	--	
	12/30/02	0940	7.16	808	20.1/--	3.80	110	
		0943	7.10	810	20.2/--	3.10	118	
		0946	7.16	812	20.0/--	2.80	120	
	05/02/03	1102	7.67	764	--/67.8	120.00	115	
		1107	7.53	753	--/68.1	140.00	120	
		1106	7.50	753	--/68.1	150.00	120	
	07/01/03	1222	7.53	846	--/67.2	1.10	95	
		1230	7.42	841	--/67.5	1.20	100	
		1237	7.39	840	--/67.7	1.20	110	
U-3	10/01/02	1710	6.98	1262	19.8/--	0.80	-40	
		1712	6.82	1227	20.1/--	0.50	-47	
	12/30/02	1145	7.05	699	19.7/--	0.30	97	
		1148	7.00	689	19.5/--	0.30	110	
		1151	6.91	688	19.7/--	0.20	106	
	05/02/03	1252	7.40	664	--/69.1	0.50	80	
		1254	7.27	653	--/68.7	0.60	90	
		1256	7.23	648	--/68.7	0.50	85	
	07/01/03	1427	7.32	596	--/68.5	0.40	70	
		1433	7.20	586	--/68.9	0.50	90	
		1440	7.21	589	--/68.7	0.50	90	
U-4	10/01/02	1738	7.45	784	19.6/--	0.60	58	
		1742	7.35	793	19.7/--	0.60	63	
		1745	7.34	846	19.5/--	1.00	83	
	12/30/02	1000	7.38	663	19.4/--	0.40	150	
		1003	7.31	667	19.3/--	0.30	130	
		1005	7.28	666	19.3/--	0.40	126	

Table 3
Field Measurements
 Tosco (Unocal) Service Station #4186
 1771 First Street
 Livermore, California

WELL ID	DATE	Time (2400 hr)	pH	Conductivity (μ mhos/cm)	Temp. ($^{\circ}$ C/ $^{\circ}$ F)	DO (mg/L)	ORP (mV)	
U-4 (cont)	05/02/03	0947	7.61	735	--/65.9	0.80	105	
		0950	7.50	723	--/65.7	0.70	110	
		0952	7.48	720	--/65.5	0.70	120	
	07/01/03	0952	7.57	670	--/67.8	0.50	115	
		0954	7.46	663	--/68.4	0.60	120	
		0956	7.44	658	--/68.7	0.60	130	
U-5	10/01/02	INACCESSIBLE - TRUCK PARKED OVER WELL				--	--	
	12/30/02	INACCESSIBLE - VEHICLE PARKED OVER WELL				--	--	
	05/02/03	0908	7.56	652	--/65.2	0.70	125	
		0910	7.43	641	--/65.4	0.50	130	
		0913	7.41	638	--/65.3	0.60	120	
	07/01/03	1028	7.64	660	--/68.6	0.80	150	
		1030	7.56	651	--/69.0	0.80	140	
		1034	7.51	646	--/69.1	0.90	145	
	U-6	10/01/02	1533	6.92	1315	19.9/--	0.70	--
1535			6.88	1277	19.5/--	0.70	--	
1537			6.91	1266	19.3/--	0.90	--	
12/30/02		1115	7.21	832	18.9/--	0.60	91	
		1118	7.26	840	18.6/--	0.40	86	
		1121	7.21	841	18.5/--	0.20	88	
05/02/03		1142	7.45	783	--/68.4	0.85	135	
		1145	7.34	774	--/68.7	0.95	140	
		1147	7.31	776	--/68.6	0.90	145	
07/01/03		1302	7.64	723	--/70.2	0.60	115	
		1307	7.53	714	--/69.7	0.80	110	
		1306	7.54	717	--/69.3	0.70	120	
U-7		10/01/02	1640	7.26	1146	19.6/--	1.70	-43
			1642	7.18	1143	19.4/--	1.10	-69
			1645	7.19	1132	19.1/--	1.80	-60
		12/30/02	1048	7.32	831	19.4/--	0.10	116
			1050	7.28	830	19.1/--	0.20	120
			1053	7.21	833	19.3/--	0.10	121
	05/02/03	1217	7.36	687	--/69.3	0.60	90	
		1219	7.24	698	--/68.9	0.50	100	
		1222	7.21	703	--/68.8	0.40	105	
	07/01/03	1343	7.74	624	--/68.5	0.40	80	
		1351	7.60	613	--/68.9	0.60	90	
		1400	7.54	610	--/69.1	0.50	95	

Table 3

Field Measurements

Tosco (Unocal) Service Station #4186

1771 First Street

Livermore, California

EXPLANATIONS:

(μ mhos/cm) = Micromhos per centimeter

($^{\circ}$ C/ $^{\circ}$ F) = Degrees Celsius/Degrees Fahrenheit

DO = Dissolved Oxygen

(mg/L) = Milligrams per liter

ORP = Oxidation Reduction Potential

(mV) = Millivolts

-- = Not Measured

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, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

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 disposable 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 and is labeled as QA. 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 ConocoPhillips Company, the purge water and decontamination water generated during sampling activities is transported to ConocoPhillips - San Francisco Refinery, located in Rodeo, California.



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #4186 Job Number: 180181
 Site Address: 1771 First Street Event Date: 7/1/03 (inclusive)
 City: Livermore, CA Sampler: Varkas

Well ID: U-1 Date Monitored: 7/1/03 Well Condition: OK
 Well Diameter: 2 in.
 Total Depth: 34.00 ft.
 Depth to Water: 25.35 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

 xVF 0.17 = 1.42 x3 (case volume) = Estimated Purge Volume: 4.5 gal.

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

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

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description:
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 1133 Weather Conditions: clear
 Sample Time/Date: 1200 7/1/03 Water Color: brn. Odor: _____
 Purging Flow Rate: _____ gpm. Sediment Description: silt
 Did well de-water? no If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C)	D.O. (mg/L)	ORP (mV)
<u>1139</u>	<u>1.5</u>	<u>7.53</u>	<u>873</u>	<u>66.4</u>	<u>0.70</u>	<u>105</u>
<u>1145</u>	<u>3</u>	<u>7.74</u>	<u>861</u>	<u>66.8</u>	<u>0.80</u>	<u>115</u>
<u>1152</u>	<u>4.5</u>	<u>7.71</u>	<u>859</u>	<u>67.0</u>	<u>0.60</u>	<u>110</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-1</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)/ETHANOL</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____ Size: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #4186 Job Number: 180181
 Site Address: 1771 First Street Event Date: 7/1/03 (inclusive)
 City: Livermore, CA Sampler: Vastkas

Well ID: U-3 Date Monitored: 7/1/03 Well Condition: OK
 Well Diameter: 2 in.
 Total Depth: 33.68 ft.
 Depth to Water: 24.89 ft.
 $8.79 \times VF \ 0.17 = 1.45 \times 3 \text{ (case volume)} = \text{Estimated Purge Volume: } 4.5 \text{ gal.}$

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 Equipment:

Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 1420 Weather Conditions: clear
 Sample Time/Date: 1445 7/1/03 Water Color: clear Odor: _____
 Purging Flow Rate: _____ 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>1427</u>	<u>1.5</u>	<u>7.32</u>	<u>596</u>	<u>68.5</u>	<u>0.40</u>	<u>70</u>
<u>1433</u>	<u>3</u>	<u>7.20</u>	<u>586</u>	<u>68.9</u>	<u>0.50</u>	<u>90</u>
<u>1440</u>	<u>7.5</u>	<u>7.21</u>	<u>589</u>	<u>68.7</u>	<u>0.50</u>	<u>90</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-3</u>	<u>4 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)/ETHANOL</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS:

Add/Replaced Lock: _____

Add/Replaced Plug: _____ Size: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #4186 Job Number: 180181
 Site Address: 1771 First Street Event Date: 7/1/03 (inclusive)
 City: Livermore, CA Sampler: Vertec

Well ID: U-4 Date Monitored: 7/1/03 Well Condition: OK
 Well Diameter: 2 in.
 Total Depth: 45.28 ft.
 Depth to Water: 33.60 ft.
 $11.68 \times VF 0.17 = 1.98$ x3 (case volume) = Estimated Purge Volume: 6 gal.

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

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

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: Ø ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 0950 Weather Conditions: clear
 Sample Time/Date: 1010 7/1/03 Water Color: brn. Odor: _____
 Purging Flow Rate: 1 gpm. Sediment Description: silt (bottom)
 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>0952</u>	<u>2</u>	<u>7.57</u>	<u>670</u>	<u>67.8</u>	<u>0.50</u>	<u>115</u>
<u>0957</u>	<u>4</u>	<u>7.46</u>	<u>663</u>	<u>68.4</u>	<u>0.60</u>	<u>120</u>
<u>0956</u>	<u>6</u>	<u>7.74</u>	<u>658</u>	<u>68.7</u>	<u>0.60</u>	<u>130</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-4</u>	<u>3</u> x vva vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260) / ETHANOL</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #4186
 Site Address: 1771 First Street
 City: Livermore, CA

Job Number: 180181
 Event Date: 7/1/03 (inclusive)
 Sampler: Varkas

Well ID: U-5
 Well Diameter: 2 in.
 Total Depth: 47.20 ft.
 Depth to Water: 33.83 ft.

Date Monitored: 7/1/03 Well Condition: 02

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

13.37 xVF 0.17 = 2.27 x3 (case volume) = Estimated Purge Volume: 7 gal.

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 1026 Weather Conditions: Clear
 Sample Time/Date: 1045 7/1/03 Water Color: clear Odor: _____
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C)	D.O. (mg/L)	ORP (mV)
<u>1028</u>	<u>2</u>	<u>7.64</u>	<u>660</u>	<u>68.6</u>	<u>0.80</u>	<u>150</u>
<u>1030</u>	<u>4.5</u>	<u>7.56</u>	<u>651</u>	<u>69.0</u>	<u>0.80</u>	<u>140</u>
<u>1034</u>	<u>7</u>	<u>7.51</u>	<u>646</u>	<u>69.1</u>	<u>0.90</u>	<u>145</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-5</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)/ETHANOL</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS:

Add/Replaced Lock: _____

Add/Replaced Plug: _____ Size: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #4186 Job Number: 180181
 Site Address: 1771 First Street Event Date: 7/1/03 (inclusive)
 City: Livermore, CA Sampler: Vantek

Well ID: U-6 Date Monitored: 7/1/03 Well Condition: 04
 Well Diameter: 2 in.
 Total Depth: 44.63 ft.
 Depth to Water: 32.88 ft.
 Volume Factor (VF): $11.75 \times VF 0.17 = 1.99$ x3 (case volume) = Estimated Purge Volume: 6 gal.

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

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

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 1300 Weather Conditions: clear
 Sample Time/Date: 1320 7/1/03 Water Color: clear Odor: _____
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? no If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (°C)	D.O. (mg/L)	ORP (mV)
<u>1302</u>	<u>2</u>	<u>7.64</u>	<u>723</u>	<u>70.2</u>	<u>0.60</u>	<u>115</u>
<u>1307</u>	<u>4</u>	<u>7.53</u>	<u>714</u>	<u>69.7</u>	<u>0.80</u>	<u>110</u>
<u>1306</u>	<u>6</u>	<u>7.54</u>	<u>717</u>	<u>69.3</u>	<u>0.70</u>	<u>120</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-6</u>	<u>3</u> x vov vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260) / ETHANOL</u>

COMMENTS: _____

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #4186 Job Number: 180181
 Site Address: 1771 First Street Event Date: 7/1/03 (inclusive)
 City: Livermore, CA Sampler: Vanttes

Well ID: U-7 Date Monitored: 7/1/03 Well Condition: OK
 Well Diameter: 2 in.
 Total Depth: 44.45 ft.
 Depth to Water: 33.47 ft.
10.98 xVF 0.17 = 1.86 x3 (case volume) = Estimated Purge Volume: 5.5 gal.

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

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

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 1335 Weather Conditions: clear
 Sample Time/Date: 1410 7/1/03 Water Color: clear Odor: _____
 Purging Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? no If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1343</u>	<u>2</u>	<u>7.74</u>	<u>624</u>	<u>68.5</u>	<u>0.40</u>	<u>80</u>
<u>1351</u>	<u>7</u>	<u>7.60</u>	<u>613</u>	<u>68.9</u>	<u>0.60</u>	<u>90</u>
<u>1400</u>	<u>5.5</u>	<u>7.54</u>	<u>610</u>	<u>69.1</u>	<u>0.50</u>	<u>95</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-7</u>	<u>3 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)/ETHANOL</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

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

2003-07-0146

Gettler-Ryan Inc., Chain-of-Custody

Tosco Corp./ Phillips 66 Co. 2000 Crow Canyon Place Suite 400 San Ramon, CA 94583	Facility Number	14186	Laboratory Name	STL - PLEASANTON, CA
	Facility Address	1711 FIRST STREET, LIVERMORE, CA	Consultant	GETTLER-RYAN, INC. DEANNA L. HARDING
	Global ID	T0500101777	Project	180181.80
	Client Contact	MR. DAVID B. DEWITT	Address	6747 SIERRA CT., SUITE J, DUBLIN CA 94568
	Phone	916-558-7666	Phone	(925) 551-7555 Fax (925) 551-7899
			Samples Collected by	Naxtkes Tashjian

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	OXYGENATES EPA 8260	METHANOL EPA 8015	TOTAL OIL & GREASE EPA 5520	METALS Cd, Cr, Pb, Zn, Ni	NITRATE/SULFATE/ALKALINITY EPA 300 SERIES	HMOC'S (8010) EPA 8021B	VOC'S (8240) EPA 8260	SVOC'S EPA 8270	ETHANOL (8260)	Remarks
QA	1	W	Hel	7/1/03					X										Run 8 Oxy's by 8260 on 8260 MTBE hit, U-3 Only.
U-1	3	u	u	u 1200					X									X	
U-2	3	u	u	u 1245					X									X	
U-3	4	u	u	u 1445					X									X	
U-4	3	u	u	u 1010					X									X	
U-5	3	u	u	u 1045					X									X	
U-6	3	u	u	u 1320					X									X	
U-7	3	u	u	u 1410					X									X	

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

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Lead	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 72 Hrs. 5 Days 10 Days As Contracted
<i>Deanna L. Harding</i>	G-R	7/1/03 1320	<i>Naxtkes Tashjian</i>	G-R	7/01/03	Lead <input checked="" type="checkbox"/> N	
<i>Deanna L. Harding</i>	G-R	7/08/03	<i>Deanna L. Harding</i>	PTC-SF	7/2/03	Lead Y/N	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	Lead	
<i>Deanna L. Harding</i>	PTC-SF	7/2/03 1740	<i>Deanna L. Harding</i>		7/2/03 1740	Lead Y/N	

FILE NAME: P:\EMW01\X-CHARACTIS001\STEP-COC.DWG [Layout] Fabr Woods

48

Gettler Ryan

July 18, 2003

6747 Sierra Court Suite J
Dublin, CA 94568

Attn.: Deanna Harding

Project#: 180181.80

Project: Conoco #4186

Site: 1711 First Street, Livermore

RECEIVED

SEVERN TRENT LABORATORIES, INC.
GENERAL CONTRACTORS

Dear Ms. Harding,

Attached is our report for your samples received on 07/02/2003 17:40.

This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 08/16/2003 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: tgranicher@stl-inc.com

Sincerely,



Tod Granicher
Project Manager

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
QA	07/01/2003	Water	1
U-1	07/01/2003 12:00	Water	2
U-2	07/01/2003 12:45	Water	3
U-3	07/01/2003 14:45	Water	4
U-4	07/01/2003 10:10	Water	5
U-5	07/01/2003 10:45	Water	6
U-6	07/01/2003 13:20	Water	7
U-7	07/01/2003 14:10	Water	8

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: QA

Lab ID: 2003-07-0146 - 1

Sampled: 07/01/2003

Extracted: 7/11/2003 18:49

Matrix: Water

QC Batch#: 2003/07/11-1B.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/11/2003 18:49	
Benzene	ND	0.50	ug/L	1.00	07/11/2003 18:49	
Toluene	ND	0.50	ug/L	1.00	07/11/2003 18:49	
Ethylbenzene	ND	0.50	ug/L	1.00	07/11/2003 18:49	
Total xylenes	ND	1.0	ug/L	1.00	07/11/2003 18:49	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	07/11/2003 18:49	
Surrogates(s)						
1,2-Dichloroethane-d4	97.2	76-114	%	1.00	07/11/2003 18:49	
Toluene-d8	100.9	88-110	%	1.00	07/11/2003 18:49	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: U-1	Lab ID: 2003-07-0146 - 2
Sampled: 07/01/2003 12:00	Extracted: 7/11/2003 21:25
Matrix: Water	QC Batch#: 2003/07/11-2A.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/11/2003 21:25	
Benzene	ND	0.50	ug/L	1.00	07/11/2003 21:25	
Toluene	ND	0.50	ug/L	1.00	07/11/2003 21:25	
Ethylbenzene	ND	0.50	ug/L	1.00	07/11/2003 21:25	
Total xylenes	ND	1.0	ug/L	1.00	07/11/2003 21:25	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	07/11/2003 21:25	
Ethanol	ND	500	ug/L	1.00	07/11/2003 21:25	
Surrogates(s)						
1,2-Dichloroethane-d4	98.5	76-114	%	1.00	07/11/2003 21:25	
Toluene-d8	103.1	88-110	%	1.00	07/11/2003 21:25	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan
Attn.: Deanna Harding

6747 Sierra Court Suite J
Dublin, CA 94568
Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80
Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: U-2	Lab ID: 2003-07-0146 - 3
Sampled: 07/01/2003 12:45	Extracted: 7/11/2003 19:11
Matrix: Water	QC Batch#: 2003/07/11-1B.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/11/2003 19:11	
Benzene	ND	0.50	ug/L	1.00	07/11/2003 19:11	
Toluene	ND	0.50	ug/L	1.00	07/11/2003 19:11	
Ethylbenzene	ND	0.50	ug/L	1.00	07/11/2003 19:11	
Total xylenes	ND	1.0	ug/L	1.00	07/11/2003 19:11	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	07/11/2003 19:11	
Ethanol	ND	500	ug/L	1.00	07/11/2003 19:11	
Surrogates(s)						
1,2-Dichloroethane-d4	96.6	76-114	%	1.00	07/11/2003 19:11	
Toluene-d8	102.1	88-110	%	1.00	07/11/2003 19:11	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: U-3	Lab ID: 2003-07-0146 - 4
Sampled: 07/01/2003 14:45	Extracted: 7/11/2003 19:34
Matrix: Water	QC Batch#: 2003/07/11-1B.62
Analysis Flag: o (See Legend and Note Section)	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	19000	10000	ug/L	200.00	07/11/2003 19:34	g
Benzene	120	100	ug/L	200.00	07/11/2003 19:34	
Toluene	ND	100	ug/L	200.00	07/11/2003 19:34	
Ethylbenzene	180	100	ug/L	200.00	07/11/2003 19:34	
Total xylenes	880	200	ug/L	200.00	07/11/2003 19:34	
tert-Butyl alcohol (TBA)	32000	20000	ug/L	200.00	07/11/2003 19:34	
Methyl tert-butyl ether (MTBE)	22000	400	ug/L	200.00	07/11/2003 19:34	
Di-isopropyl Ether (DIPE)	ND	400	ug/L	200.00	07/11/2003 19:34	
Ethyl tert-butyl ether (ETBE)	ND	400	ug/L	200.00	07/11/2003 19:34	
tert-Amyl methyl ether (TAME)	ND	400	ug/L	200.00	07/11/2003 19:34	
1,2-DCA	ND	400	ug/L	200.00	07/11/2003 19:34	
EDB	ND	400	ug/L	200.00	07/11/2003 19:34	
Ethanol	ND	100000	ug/L	200.00	07/11/2003 19:34	
Surrogates(s)						
1,2-Dichloroethane-d4	108.7	76-114	%	200.00	07/11/2003 19:34	
Toluene-d8	101.7	88-110	%	200.00	07/11/2003 19:34	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	U-4	Lab ID:	2003-07-0146 - 5
Sampled:	07/01/2003 10:10	Extracted:	7/15/2003 11:26
Matrix:	Water	QC Batch#:	2003/07/15-01.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/15/2003 11:26	
Benzene	ND	0.50	ug/L	1.00	07/15/2003 11:26	
Toluene	ND	0.50	ug/L	1.00	07/15/2003 11:26	
Ethylbenzene	ND	0.50	ug/L	1.00	07/15/2003 11:26	
Total xylenes	ND	1.0	ug/L	1.00	07/15/2003 11:26	
Methyl tert-butyl ether (MTBE)	2.1	2.0	ug/L	1.00	07/15/2003 11:26	
Ethanol	ND	500	ug/L	1.00	07/15/2003 11:26	
Surrogates(s)						
1,2-Dichloroethane-d4	93.3	76-114	%	1.00	07/15/2003 11:26	
Toluene-d8	101.4	88-110	%	1.00	07/15/2003 11:26	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: U-5	Lab ID: 2003-07-0146 - 6
Sampled: 07/01/2003 10:45	Extracted: 7/11/2003 22:55
Matrix: Water	QC Batch#: 2003/07/11-2A.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	73	50	ug/L	1.00	07/11/2003 22:55	g
Benzene	ND	0.50	ug/L	1.00	07/11/2003 22:55	
Toluene	ND	0.50	ug/L	1.00	07/11/2003 22:55	
Ethylbenzene	ND	0.50	ug/L	1.00	07/11/2003 22:55	
Total xylenes	ND	1.0	ug/L	1.00	07/11/2003 22:55	
Methyl tert-butyl ether (MTBE)	46	2.0	ug/L	1.00	07/11/2003 22:55	
Ethanol	ND	500	ug/L	1.00	07/11/2003 22:55	
Surrogates(s)						
1,2-Dichloroethane-d4	92.1	76-114	%	1.00	07/11/2003 22:55	
Toluene-d8	99.4	88-110	%	1.00	07/11/2003 22:55	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	U-6	Lab ID:	2003-07-0146 - 7
Sampled:	07/01/2003 13:20	Extracted:	7/11/2003 23:17
Matrix:	Water	QC Batch#:	2003/07/11-2A.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	190	50	ug/L	1.00	07/11/2003 23:17	
Benzene	1.8	0.50	ug/L	1.00	07/11/2003 23:17	
Toluene	ND	0.50	ug/L	1.00	07/11/2003 23:17	
Ethylbenzene	9.4	0.50	ug/L	1.00	07/11/2003 23:17	
Total xylenes	8.7	1.0	ug/L	1.00	07/11/2003 23:17	
Methyl tert-butyl ether (MTBE)	36	2.0	ug/L	1.00	07/11/2003 23:17	
Ethanol	ND	500	ug/L	1.00	07/11/2003 23:17	
Surrogates(s)						
1,2-Dichloroethane-d4	94.2	76-114	%	1.00	07/11/2003 23:17	
Toluene-d8	99.3	88-110	%	1.00	07/11/2003 23:17	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: U-7	Lab ID: 2003-07-0146 - 8
Sampled: 07/01/2003 14:10	Extracted: 7/11/2003 23:39
Matrix: Water	QC Batch#: 2003/07/11-2A.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	2300	50	ug/L	1.00	07/11/2003 23:39	dp
Benzene	11	0.50	ug/L	1.00	07/11/2003 23:39	
Toluene	0.53	0.50	ug/L	1.00	07/11/2003 23:39	
Ethylbenzene	8.0	0.50	ug/L	1.00	07/11/2003 23:39	
Total xylenes	1.5	1.0	ug/L	1.00	07/11/2003 23:39	
Methyl tert-butyl ether (MTBE)	35	2.0	ug/L	1.00	07/11/2003 23:39	
Ethanol	ND	500	ug/L	1.00	07/11/2003 23:39	
Surrogates(s)						
1,2-Dichloroethane-d4	90.3	76-114	%	1.00	07/11/2003 23:39	
Toluene-d8	94.4	88-110	%	1.00	07/11/2003 23:39	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2003/07/11-1B.62-005

Water

Test(s): 8260FAB

QC Batch # 2003/07/11-1B.62

Date Extracted: 07/11/2003 10:05

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	07/11/2003 10:05	
Benzene	ND	0.5	ug/L	07/11/2003 10:05	
Toluene	ND	0.5	ug/L	07/11/2003 10:05	
Ethylbenzene	ND	0.5	ug/L	07/11/2003 10:05	
Total xylenes	ND	1.0	ug/L	07/11/2003 10:05	
tert-Butyl alcohol (TBA)	ND	100	ug/L	07/11/2003 10:05	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	07/11/2003 10:05	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	07/11/2003 10:05	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	07/11/2003 10:05	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	07/11/2003 10:05	
1,2-DCA	ND	2.0	ug/L	07/11/2003 10:05	
EDB	ND	2.0	ug/L	07/11/2003 10:05	
Ethanol	ND	500	ug/L	07/11/2003 10:05	
Surrogates(s)					
1,2-Dichloroethane-d4	91.4	76-114	%	07/11/2003 10:05	
Toluene-d8	98.9	88-110	%	07/11/2003 10:05	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2003/07/11-2A.62-040

Water

Test(s): 8260FAB

QC Batch # 2003/07/11-2A.62

Date Extracted: 07/11/2003 20:40

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	07/11/2003 20:40	
Benzene	ND	0.5	ug/L	07/11/2003 20:40	
Toluene	ND	0.5	ug/L	07/11/2003 20:40	
Ethylbenzene	ND	0.5	ug/L	07/11/2003 20:40	
Total xylenes	ND	1.0	ug/L	07/11/2003 20:40	
tert-Butyl alcohol (TBA)	ND	100	ug/L	07/11/2003 20:40	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	07/11/2003 20:40	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	07/11/2003 20:40	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	07/11/2003 20:40	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	07/11/2003 20:40	
1,2-DCA	ND	2.0	ug/L	07/11/2003 20:40	
EDB	ND	2.0	ug/L	07/11/2003 20:40	
Ethanol	ND	500	ug/L	07/11/2003 20:40	
Surrogates(s)					
1,2-Dichloroethane-d4	87.5	76-114	%	07/11/2003 20:40	
Toluene-d8	99.0	88-110	%	07/11/2003 20:40	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2003/07/15-01.65-030

Water

Test(s): 8260FAB

QC Batch # 2003/07/15-01.65

Date Extracted: 07/15/2003 10:30

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	07/15/2003 10:30	
Benzene	ND	0.5	ug/L	07/15/2003 10:30	
Toluene	ND	0.5	ug/L	07/15/2003 10:30	
Ethylbenzene	ND	0.5	ug/L	07/15/2003 10:30	
Total xylenes	ND	1.0	ug/L	07/15/2003 10:30	
tert-Butyl alcohol (TBA)	ND	100	ug/L	07/15/2003 10:30	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	07/15/2003 10:30	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	07/15/2003 10:30	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	07/15/2003 10:30	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	07/15/2003 10:30	
1,2-DCA	ND	2.0	ug/L	07/15/2003 10:30	
EDB	ND	2.0	ug/L	07/15/2003 10:30	
Ethanol	ND	500	ug/L	07/15/2003 10:30	
Surrogates(s)					
1,2-Dichloroethane-d4	96.0	76-114	%	07/15/2003 10:30	
Toluene-d8	103.7	88-110	%	07/15/2003 10:30	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike

Water

QC Batch # 2003/07/11-1B.62

LCS 2003/07/11-1B.62-021

Extracted: 07/11/2003

Analyzed: 07/11/2003 09:21

LCSD 2003/07/11-1B.62-043

Extracted: 07/11/2003

Analyzed: 07/11/2003 09:43

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	27.6	28.0	25	110.4	112.0	1.4	69-129	20		
Toluene	27.2	26.7	25	108.8	106.8	1.9	70-130	20		
Methyl tert-butyl ether (MTBE)	26.0	26.4	25	104.0	105.6	1.5	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	446	454	500	89.2	90.8		76-114			
Toluene-d8	514	524	500	102.8	104.8		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan
Attn.: Deanna Harding

6747 Sierra Court Suite J
Dublin, CA 94568
Phone: (925) 551-7444 Fax: (925) 551-7899
Project: 180181.80
Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike

Water

QC Batch # 2003/07/11-2A.62

LCS 2003/07/11-2A.62-056

Extracted: 07/11/2003

Analyzed: 07/11/2003 19:56

LCSD 2003/07/11-2A.62-018

Extracted: 07/11/2003

Analyzed: 07/11/2003 20:18

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD %	Ctrl.Limits %			Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD	
Benzene	25.4	23.9	25	101.6	95.6	6.1	69-129	20			
Toluene	25.1	23.5	25	100.4	94.0	6.6	70-130	20			
Methyl tert-butyl ether (MTBE)	24.3	22.5	25	97.2	90.0	7.7	65-165	20			
Surrogates(s)											
1,2-Dichloroethane-d4	454	457	500	90.8	91.4		76-114				
Toluene-d8	513	524	500	102.6	104.8		88-110				

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180181.80

Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike

Water

QC Batch # 2003/07/15-01.65

LCS 2003/07/15-01.65-046

Extracted: 07/15/2003

Analyzed: 07/15/2003 09:46

LCSD 2003/07/15-01.65-008

Extracted: 07/15/2003

Analyzed: 07/15/2003 10:08

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	20.9	21.6	25.0	83.6	86.4	3.3	69-129	20		
Toluene	20.9	21.6	25.0	83.6	86.4	3.3	70-130	20		
Methyl tert-butyl ether (MTBE)	18.9	20.6	25.0	75.6	82.4	8.6	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	492	508	500	98.4	101.6		76-114			
Toluene-d8	532	513	500	106.4	102.6		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan
Attn.: Deanna Harding

6747 Sierra Court Suite J
Dublin, CA 94568
Phone: (925) 551-7444 Fax: (925) 551-7899
Project: 180181.80
Conoco #4186

Received: 07/02/2003 17:40

Site: 1711 First Street, Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Matrix Spike (MS / MSD)

Water

QC Batch # 2003/07/11-2A.62

U-1 >> MS

Lab ID: 2003-07-0146 - 002

MS: 2003/07/11-2A.62-047

Extracted: 07/11/2003

Analyzed: 07/11/2003 21:47

Dilution: 1.00

MSD: 2003/07/11-2A.62-010

Extracted: 07/11/2003

Analyzed: 07/11/2003 22:10

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	27.1	25.9	ND	25	108.4	103.6	4.5	69-129	20		
Toluene	26.6	25.9	ND	25	106.4	103.6	2.7	70-130	20		
Methyl tert-butyl ether	27.6	29.8	1.40	25	104.8	113.6	8.1	65-165	20		
Surrogate(s)											
1,2-Dichloroethane-d4	460	483		500	92.1	96.6		76-114			
Toluene-d8	512	500		500	102.3	100.0		88-110			