

12/10/04

2466 ✓



# GETTLER-RYAN INC.

## TRANSMITTAL

November 22, 2004  
G-R #386498

TO: Mr. Robert Foss  
Cambria Environmental Technology, Inc.  
5900 Hollis Street, Suite A  
Emeryville, California 94608

CC: Ms. Karen Streich  
ChevronTexaco Company  
P.O. Box 6012, Room K2256  
San Ramon, California 94583

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

RE: **Chevron #206127**  
**2301-2337 Blanding Avenue**  
**Alameda, California**  
**(Former Signal Oil Marine Terminal)**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	November 22, 2004	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of October 22, 2004

COMMENTS:

This report is being sent for your review. Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to **December 10, 2004**, at which time the final report will be distributed to the following:

cc: Mr. Barney Chan, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577

Enclosures



# GETTLER - RYAN INC.

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November 22, 2004  
G-R Job #386498

Ms. Karen Streich  
ChevronTexaco Company  
P.O. Box 6012, Room K2256  
San Ramon, CA 94583

**RE: Fourth Quarter Event of October 22, 2004**  
Groundwater Monitoring & Sampling Report  
Chevron #206127 (Former Signal Oil Marine Terminal)  
2301-2337 Blanding Avenue  
Alameda, California

Dear Ms. Streich:

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

Static groundwater level was measured and the well was checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevation, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Groundwater Elevation Map is included as Figure 1.

Groundwater samples were collected from the monitoring well and submitted to a state certified laboratory for analyses. The field data sheet for this event is attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached.

Please call if you have any questions or comments regarding this report. Thank you.

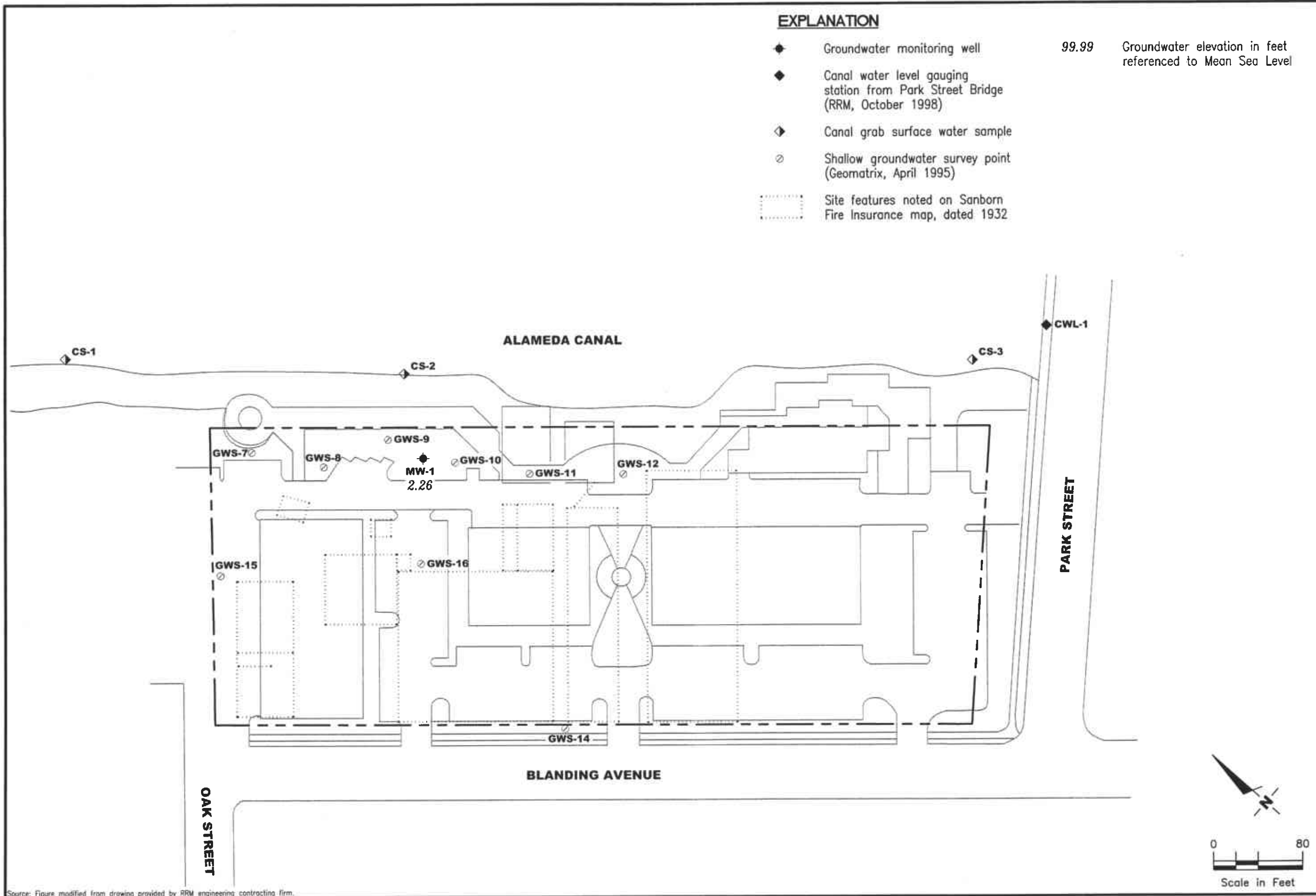
Sincerely,

Deanna L. Harding  
Project Coordinator

Hagop Kevork  
P.E. No. C55734



Figure 1: Groundwater Elevation Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports



Source: Figure modified from drawing provided by RRM engineering contracting firm.

FIGURE **1**

**GROUNDWATER ELEVATION MAP**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301 - 2337 Blanding Avenue  
 Alameda, California

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

PROJECT NUMBER: 386498  
 REVIEWED BY: [Signature]  
 DATE: October 22, 2004  
 REVISED DATE: [Blank]

FILE NAME: P:\Environ\Chevron\206127\004-20-6127.DWG | Layout: Job Plot

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301-2337 Blanding Avenue  
 Alameda, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-1</b>										
01/23/01 <sup>1</sup>	--	7.16	--	1,100 <sup>2,3</sup>	5,210 <sup>4</sup>	868	<50.0	<50.0	<50.0	<250
04/09/01	10.62	8.12	2.50	1,200 <sup>6</sup>	3,000 <sup>5</sup>	920	<20	<20	<20	<100
07/30/01	10.62	9.15	1.47	550 <sup>3,8</sup>	2,000 <sup>7</sup>	730	13	<5.0	<5.0	<25
10/08/01	10.62	7.86	2.76	2,200 <sup>9</sup>	1,200	120	2.4	5.9	6.4	<2.5
01/13/02	10.62	7.02	3.60	3,300 <sup>3</sup>	930	320	0.78	0.87	3.8	<2.5
04/08/02	10.62	9.60	1.02	1,200 <sup>3</sup>	960	50	1.4	2.6	9.0	<2.5
07/31/02	10.62	9.27	1.35	2,800 <sup>3</sup>	930	64	1.4	1.9	11	<5.0
10/15/02	10.62	8.00	2.62	1,000 <sup>3</sup>	620	25	0.78	1.4	4.3	<2.5
01/14/03	10.62	7.05	3.57	960 <sup>3</sup>	1,600	20	1.3	1.3	<1.5	<2.5
04/15/03	10.62	8.02	2.60	920 <sup>3</sup>	870	56	1	1.4	3.1	<2.5
07/16/03 <sup>10</sup>	10.62	10.08	0.54	1,400 <sup>3</sup>	780	85	1	0.8	0.7	<0.5
10/18/03 <sup>10</sup>	10.62	8.51	2.11	1,200 <sup>3</sup>	640	42	0.8	<0.5	0.5	<0.5
01/22/04 <sup>10</sup>	10.62	8.95	1.67	1,500 <sup>3</sup>	440	18	<0.5	<0.5	<0.5	<0.5
04/23/04 <sup>10</sup>	10.62	8.95	1.67	2,200 <sup>3</sup>	410	10	<0.5	<0.5	<0.5	<0.5
07/23/04 <sup>10</sup>	10.62	9.21	1.41	1,800 <sup>3</sup>	400	6	<0.5	<0.5	<0.5	<0.5
10/22/04 <sup>10</sup>	10.62	8.36	2.26	2,200 <sup>3</sup>	150	2	<0.5	<0.5	<0.5	<0.5
<b>CS-2</b>										
07/30/01	--	--	--	140 <sup>3,5</sup>	<50	<0.50	<0.50	<0.50	<0.50	<2.5
10/08/01	--	--	--	53 <sup>9</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	--	--	--	<50 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
04/08/02	--	--	--	77 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
07/31/02	--	--	--	<50 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
10/15/02	--	--	--	<50 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/14/03	--	--	--	<50 <sup>3</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5
04/15/03	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5
07/16/03 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	0.7	<0.5	0.6	<0.5
10/18/03 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/22/04 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301-2337 Blanding Avenue  
 Alameda, California

WELL ID/ DATE	TOC* ( <i>ft.</i> )	DTW ( <i>ft.</i> )	GWE ( <i>msl</i> )	TPH-D ( <i>ppb</i> )	TPH-G ( <i>ppb</i> )	B ( <i>ppb</i> )	T ( <i>ppb</i> )	E ( <i>ppb</i> )	X ( <i>ppb</i> )	MTBE ( <i>ppb</i> )
<b>CS-2 (cont)</b>										
04/23/04 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/23/04 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/22/04 <sup>10</sup>	--	--	--	<50 <sup>3</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>Trip Blank</b>										
TB-LB										
01/23/01	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
04/09/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/30/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
<b>QA</b>										
10/08/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
04/08/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
07/31/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
10/15/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/14/03	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
04/15/03	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
07/16/03 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/18/03 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/22/04 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/23/04 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
07/23/04 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/22/04 <sup>10</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Chevron #206127 (Former Signal Oil Marine Terminal)  
 2301-2337 Blanding Avenue  
 Alameda, California

**EXPLANATIONS:**

TOC = Top of Casing

(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

-- = Not Measured/Not Analyzed

CS-2 = Creek Sample

QA = Quality Assurance/Trip Blank

\* TOC elevations were surveyed on January 25, 2001, by Virgil Chavez Land Surveying. The benchmark used for the survey was a City of Alameda benchmark being a cut square at the centerline return, south corner of Oak and Blanding, (Benchmark Elevation = 8.236 feet, NGVD 29).

<sup>1</sup> Well development performed.

<sup>2</sup> Laboratory report indicates unidentified hydrocarbons <C16.

<sup>3</sup> TPH-D with silica gel cleanup.

<sup>4</sup> Laboratory report indicates weathered gasoline C6-C12.

<sup>5</sup> Laboratory report indicates discrete peaks.

<sup>6</sup> Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons <C16.

<sup>7</sup> Laboratory report indicates gasoline C6-C12.

<sup>8</sup> Laboratory report indicates unidentified hydrocarbons C9-C24.

<sup>9</sup> Analysis performed without silica gel cleanup although was requested on the Chain of Custody.

<sup>10</sup> BTEX and MTBE by EPA Method 8260.

## 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, 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. Temperature, pH and electrical conductivity are measured 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 ChevronTexaco Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ChevronTexaco #206127 Job Number: 386498  
 Site Address: 2301-2337 Blanding Avenue Event Date: 10-22-09 (inclusive)  
 City: Alameda, CA Sampler: Joc

Well ID: MW-1  
 Well Diameter: 2 in.  
 Total Depth: 17.15 ft.  
 Depth to Water: 8.36 ft.  
8.79 xVF

Date Monitored: 10-22-09 Well Condition: o.k.

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

0.17 = 1.49 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 Completed: \_\_\_\_\_ (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  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0828 Weather Conditions: clear  
 Sample Time/Date: 0850 10-22-09 Water Color: clear Odor: yes  
 Purging Flow Rate: 0.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm) x 100 <sup>0</sup>	Temperature (C)	D.O. (mg/L)	ORP (mV)
<u>0834</u>	<u>1.5</u>	<u>6.47</u>	<u>0.26</u>	<u>64.0</u>	_____	_____
<u>0837</u>	<u>3</u>	<u>6.51</u>	<u>0.30</u>	<u>64.1</u>	_____	_____
<u>0841</u>	<u>4.5</u>	<u>6.52</u>	<u>0.27</u>	<u>64.7</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	6 x vva vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8260)
	2 x Amber	YES	NP	LANCASTER	TPH-Dw/sg

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_





# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ChevronTexaco #206127 Job Number: 386498  
 Site Address: 2301-2337 Blanding Avenue Event Date: 10-22-04 (inclusive)  
 City: Alameda, CA Sampler: Joc

Well ID: CS-2 Date Monitored: \_\_\_\_\_ Well Condition: Creek Sample  
 Well Diameter: \_\_\_\_\_ in.  
 Total Depth: \_\_\_\_\_ ft.  
 Depth to Water: \_\_\_\_\_ ft.  
 \_\_\_\_\_ xVF \_\_\_\_\_ = \_\_\_\_\_ x3 case volume= Estimated Purge Volume: \_\_\_\_\_ 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 Completed: \_\_\_\_\_ (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  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0815 Weather Conditions: Clear  
 Sample Time/Date: 110.22.04 Water Color: clear Odor: none  
 Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) <sup>100</sup>	Temperature (CE)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
CS-2	6 x vov vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX+MTBE(8260)
	2 x Amber	YES	NP	LANCASTER	TPH-Dw/sq

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_

# Chevron California Region Analysis Request/Chain of Custody



102504-14

Acct. #: 10904

For Lancaster Laboratories use only  
Sample #: 4387507-09

Group# 917893  
SCR#:

Facility #: <u>SS#206127 G-R#386498 Global ID#</u> Site Address: <u>2301-2337 BLANDING AVENUE, ALAMEDA, CA</u> Chevron PMS: _____ Lead Consultant: <u>AMBRIA</u> Consultant/Office: <u>G-R, Inc., 6747 Sierra Court, Suite J, Dublin, Ca. 94568</u> Consultant Prj. Mgr.: <u>Deanna L. Harding (deanna@grinc.com)</u> Consultant Phone: <u>925-551-7555</u> Fax: <u>925-551-7899</u> Sampler: <u>JOE ASEMIAN</u> Service Order #: _____ <input type="checkbox"/> Non SAR: _____				<b>Matrix</b> Soil <input type="checkbox"/> Potable Water <input type="checkbox"/> NPDES <input type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>		<b>Analyses Requested</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="10">Preservation Codes</th> </tr> <tr> <td>H</td><td>H</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>BTEX + MTBE 8260</td><td>8021</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>TPH 8015 MOD</td><td>8260</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>TPH 8015 MOD DRO</td><td>Silica Gel Cleanup</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>8260 full scan</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Chrysenes</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Lead 7420</td><td>7421</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>										Preservation Codes										H	H									BTEX + MTBE 8260	8021									TPH 8015 MOD	8260									TPH 8015 MOD DRO	Silica Gel Cleanup									8260 full scan										Chrysenes										Lead 7420	7421									<b>Preservative Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other  <input type="checkbox"/> J value reporting needed <input checked="" type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds  8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy s on highest hit <input type="checkbox"/> Run ___ oxy s on all hits	
Preservation Codes																																																																																																	
H	H																																																																																																
BTEX + MTBE 8260	8021																																																																																																
TPH 8015 MOD	8260																																																																																																
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8260 full scan																																																																																																	
Chrysenes																																																																																																	
Lead 7420	7421																																																																																																
Sample Identification			Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8260	TPH 8015 MOD	TPH 8015 MOD DRO	8260 full scan	Chrysenes	Lead 7420	7421	Comments / Remarks																																																																														
QA					✓		✓				2	✓	✓	✓																																																																																			
mw-1			10.22-04	0850	✓						8	✓	✓	✓																																																																																			
CS-2			"	0815	"						8	✓	✓	✓																																																																																			

**Turnaround Time Requested (TAT) (please circle)**

24 hour      72 hour      48 hour  
 4 day      5 day

**Data Package Options (please circle if required)**

QC Summary      Type I — Full  
 Type VI (Raw Data)       Coelt Deliverable not needed  
 WIP (RWQCB)  
 Disk

Relinquished by: <u>Joe Asemian</u>	Date: <u>10.22.04</u>	Time: <u>11:25</u>	Received by:	Date:	Time:
Relinquished by: <u>Deanna Harding</u>	Date: <u>10.25.04</u>	Time: <u>11:10</u>	Received by: <u>Bernard Amey</u>	Date: <u>10/25/04</u>	Time: <u>11:10</u>
Relinquished by: <u>Bernard Amey</u>	Date: <u>10/25/04</u>	Time: <u>11:10</u>	Received by: <u>DHL</u>	Date: <u>10/25/04</u>	Time: <u>11:10</u>
Relinquished by Commercial Carrier: <u>UPS</u>	Date: _____	Time: _____	Received by: <u>Joe Asemian</u>	Date: <u>10-26-04</u>	Time: <u>0845</u>
Temperature Upon Receipt: <u>10.25 C°</u>			Custody Seals Intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

**ANALYTICAL RESULTS**

Prepared for:

ChevronTexaco  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

925-842-8582

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

RECEIVED

Lancaster Laboratories, Inc.  
2425 New Holland Pike  
Lancaster, PA 17605-2425**SAMPLE GROUP**

The sample group for this submittal is 917893. Samples arrived at the laboratory on Tuesday, October 26, 2004. The PO# for this group is 99011184 and the release number is STREICH.

<u>Client Description</u>		<u>Lancaster Labs Number</u>
QA-T-041022	NA Water	4387507
MW-1-W-041022	Grab Water	4387508
CS-2-W-041022	Grab Water	4387509

1 COPY TO Cambria C/O Gettler- Ryan  
ELECTRONIC Gettler-Ryan  
COPY TO

Attn: Deanna L. Harding  
Attn: Cheryl Hansen



## **Analysis Report**

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2661 • www.lancasterlabs.com

Questions? Contact your Client Services Representative  
Megan A Moeller at (717) 656-2300.

Respectfully Submitted,

A handwritten signature in cursive script that reads "Victoria M. Martell".

Victoria M. Martell  
Chemist



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Lancaster Laboratories Sample No. WW 4387507

QA-T-041022 NA Water  
 Facility# 206127 Job# 386498 GRD  
 2301-2337 Blanding-Alamed T0600101574 QA  
 Collected: 10/22/2004

Account Number: 10904

Submitted: 10/26/2004 08:45  
 Reported: 11/05/2004 at 15:15  
 Discard: 12/06/2004

ChevronTexaco  
 6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

BLAQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01728	TPH-GRO - Waters	n.a.	N.D.	50.		ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
06054	BTEX+MTBE by 8260B						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5		ug/l	1
05401	Benzene	71-43-2	N.D.	0.5		ug/l	1
05407	Toluene	108-88-3	N.D.	0.5		ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5		ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5		ug/l	1

State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/27/2004	21:07	Michael F Barrow	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	11/05/2004	03:15	Roy R Mellott Jr	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/27/2004	21:07	Michael F Barrow	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/05/2004	03:15	Roy R Mellott Jr	n.a.

Lancaster Laboratories Sample No. **WW 4387508**

MW-1-W-041022                      Grab                      Water  
 Facility# 206127 Job# 386498                      GRD  
 2301-2337 Blanding-Alamed T0600101574 MW-1  
 Collected: 10/22/2004 08:50                      by JA

Account Number: 10904

Submitted: 10/26/2004 08:45  
 Reported: 11/05/2004 at 15:15  
 Discard: 12/06/2004

ChevronTexaco  
 6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

BLAM1

CAT No.	Analysis Name	CAS Number	As Received	As Received	Units	Dilution Factor
			Result	Method Detection Limit		
01728	TPH-GRO - Waters	n.a.	150.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06610	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	2,200.	51.	ug/l	2
	The surrogate recovery for the LCS associated with this sample is above QC limits. Since the spike recovery is within limits, the data is accepted.					
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	2.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO - Waters	N. CA LUFT Gasoline	1	10/27/2004 21:36	Michael F Barrow	1
06610	TPH-DRO CALUFT(Water) w/Si Gel	CALUFT-DRO/8015B, Modified	1	10/29/2004 14:49	Tracy A Cole	2
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	11/05/2004 03:36	Roy R Mellott Jr	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/27/2004 21:36	Michael F Barrow	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/05/2004 03:36	Roy R Mellott Jr	n.a.
02135	Extraction - DRO Water Special	TPH by CA LUFT	1	10/28/2004 04:10	David V Hershey Jr	1

Lancaster Laboratories Sample No. WW 4387509

CS-2-W-041022 Grab Water  
 Facility# 206127 Job# 386498 GRD  
 2301-2337 Blanding-Alamed T0600101574 CS-2  
 Collected: 10/22/2004 08:15 by JA

Account Number: 10904

Submitted: 10/26/2004 08:45  
 Reported: 11/05/2004 at 15:15  
 Discard: 12/06/2004

ChevronTexaco  
 6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

BLAC2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01728	TPH-GRO - Waters	n.a.	N.D.		50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
06610	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	N.D.		50.	ug/l	1
	The surrogate recovery for the LCS associated with this sample is above QC limits. Since the spike recovery is within limits, the data is accepted.						
06054	BTEX+MTBE by 8260B						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.5	ug/l	1

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/27/2004 22:05	Michael F Barrow	1
06610	TPH-DRO CALUFT(Water) w/Si Gel	CALUFT-DRO/8015B, Modified	1	10/29/2004 10:09	Tracy A Cole	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	11/05/2004 03:57	Roy R Mellott Jr	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/27/2004 22:05	Michael F Barrow	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	11/05/2004 03:57	Roy R Mellott Jr	n.a.
02135	Extraction - DRO Water Special	TPH by CA LUFT	1	10/28/2004 04:10	David V Hershey Jr	1

## Quality Control Summary

 Client Name: ChevronTexaco  
 Reported: 11/05/04 at 03:16 PM

Group Number: 917893

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 043010003A TPH-DRO CALUFT(Water) w/Si Gel	N.D.	50.	ug/l	99	94	61-126	5	20
Batch number: 04301A08B TPH-GRO - Waters	N.D.	50.	ug/l	94	89	70-130	5	30
Batch number: Z043092AA Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	93		77-127		
Benzene	N.D.	0.5	ug/l	97		85-117		
Toluene	N.D.	0.5	ug/l	100		85-115		
Ethylbenzene	N.D.	0.5	ug/l	101		82-119		
Xylene (Total)	N.D.	0.5	ug/l	99		83-113		

### Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 04301A08B TPH-GRO - Waters	114	115	63-154	1	30				
Batch number: Z043092AA Methyl Tertiary Butyl Ether	96	91	69-134	5	30				
Benzene	103	99	83-128	4	30				
Toluene	105	102	83-127	3	30				
Ethylbenzene	105	101	82-129	4	30				
Xylene (Total)	102	99	82-130	3	30				

### Surrogate Quality Control

 Analysis Name: TPH-DRO CALUFT(Water) w/Si Gel  
 Batch number: 043010003A  
 Orthoterphenyl

4387508	107
4387509	105
Blank	96
LCS	133*
LCSD	124

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



## Quality Control Summary

Client Name: ChevronTexaco  
Reported: 11/05/04 at 03:16 PM

Group Number: 917893

### Surrogate Quality Control

Limits: 57-128

Analysis Name: TPH-GRO - Waters  
Batch number: 04301A08B  
Trifluorotoluene-F

4387507	101
4387508	107
4387509	100
Blank	100
LCS	111
LCSD	111
MS	100
MSD	105

Limits: 57-146

Analysis Name: BTEX+MTBE by 8260B  
Batch number: Z043092AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4387507	96	98	97	93
4387508	96	96	97	95
4387509	98	98	99	94
Blank	95	99	98	92
LCS	94	96	97	98
MS	97	98	97	98
MSD	96	97	98	99

Limits: 81-120

82-112

85-112

83-113

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>ug</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>ml</b>	milliliter(s)	<b>l</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>ul</b>	microliter(s)
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>J</b>	estimated value - The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

## U.S. EPA CLP Data Qualifiers:

### Organic Qualifiers

<b>A</b>	TIC is a possible aldol-condensation product
<b>B</b>	Analyte was also detected in the blank
<b>C</b>	Pesticide result confirmed by GC/MS
<b>D</b>	Compound quantitated on a diluted sample
<b>E</b>	Concentration exceeds the calibration range of the instrument
<b>N</b>	Presumptive evidence of a compound (TICs only)
<b>P</b>	Concentration difference between primary and confirmation columns $>25\%$
<b>U</b>	Compound was not detected
<b>X,Y,Z</b>	Defined in case narrative

### Inorganic Qualifiers

<b>B</b>	Value is $<$ CRDL, but $\geq$ IDL
<b>E</b>	Estimated due to interference
<b>M</b>	Duplicate injection precision not met
<b>N</b>	Spike sample not within control limits
<b>S</b>	Method of standard additions (MSA) used for calculation
<b>U</b>	Compound was not detected
<b>W</b>	Post digestion spike out of control limits
<b>*</b>	Duplicate analysis not within control limits
<b>+</b>	Correlation coefficient for MSA $<0.995$

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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