

Ro 2435



# GETTLER-RYAN INC.

## TRANSMITTAL

Alameda County

November 6, 2003

G-R #386895

NOV 25 2003

TO: Mr. Robert Foss **Environmental Health** Karen Streich  
 Cambria Environmental Technology, Inc. Chevron Products Company  
 5900 Hollis Street, Suite A P.O. Box 6004  
 Emeryville, CA 94608 San Ramon, California 94583

FROM: Deanna L. Harding **RE: Chevron Service Station**  
 Project Coordinator #9-3600  
 Gettler-Ryan Inc. 2200 Telegraph Avenue  
 6747 Sierra Court, Suite J Oakland, California  
 Dublin, California 94568

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	November 6, 2003	Groundwater Monitoring and Sampling Report Fourth Quarter - Event of October 2, 2003

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 **November 20, 2003**, at which time the final report will be distributed to the following:

- cc: Mr. Don Hwang, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577
- Mr. Yichin Hwang (Property Owner) 2200 Telegraph Avenue, Oakland, CA 94612

Enclosures



# GETTLER-RYAN INC.

November 6, 2003  
G-R Job #386895

Ms. Karen Streich  
Chevron Products Company  
P.O. Box 6004  
San Ramon, CA 94583

**RE: Fourth Quarter Event of October 2, 2003**  
Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-3600  
2200 Telegraph Avenue  
Oakland, 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 levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

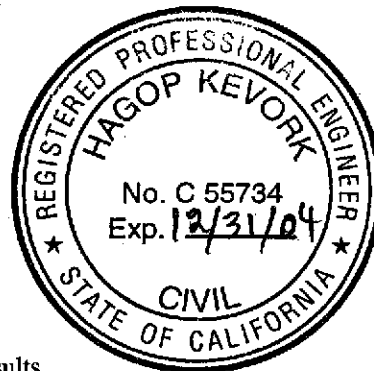
Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are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

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

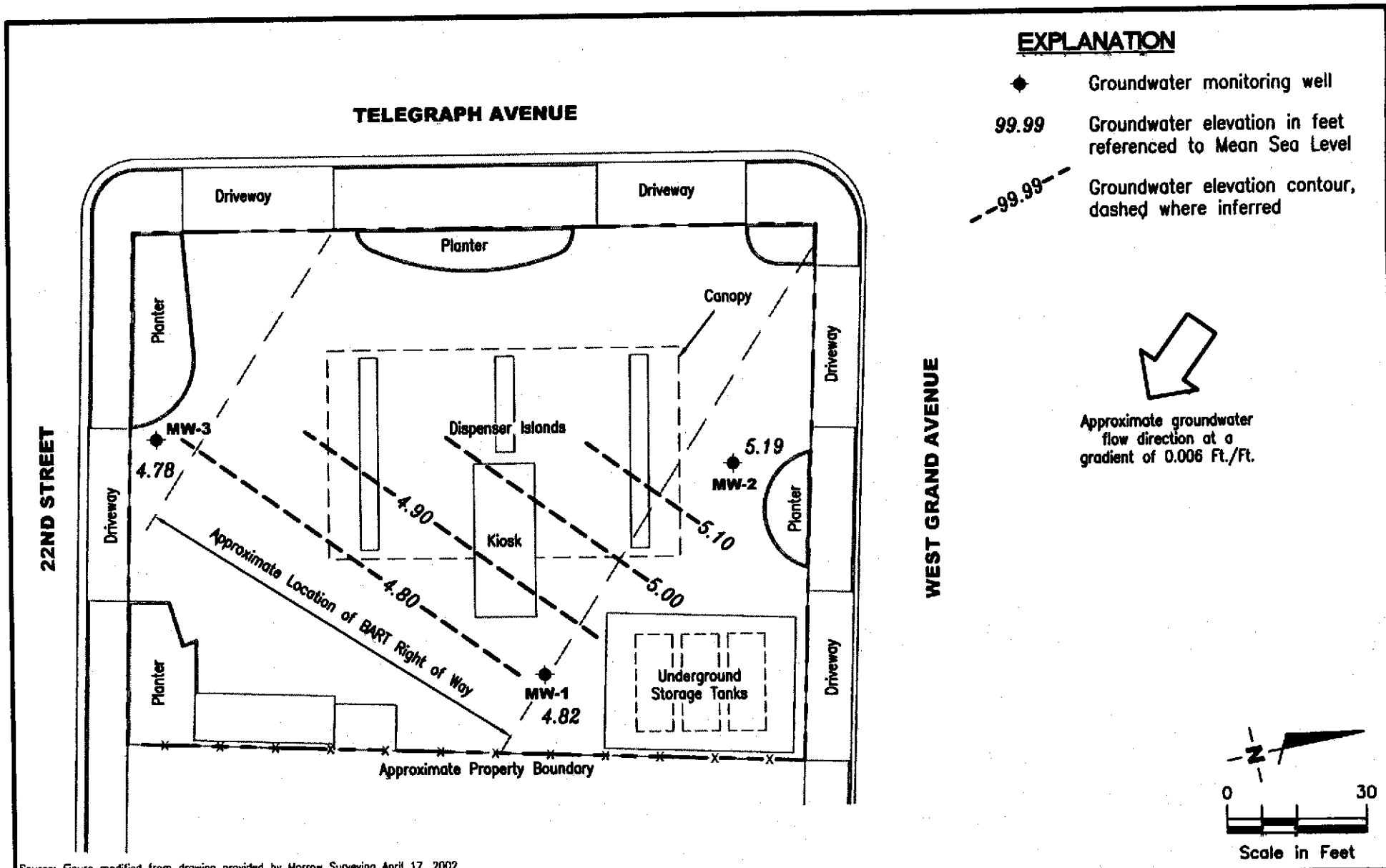
Sincerely,

Deanna L. Harding  
Project Coordinator

Hagop Kevork  
P.E. No. C55734



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



**GETTLER - RYAN INC.**

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

**POTENTIOMETRIC MAP**  
Chevron Service Station #9-3600  
2200 Telegraph Avenue  
Oakland, California

FIGURE

1

PROJECT NUMBER  
386895

REVIEWED BY

DATE  
October 2, 2003

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-3600  
2200 Telegraph Avenue  
Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	GWE (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-1</b>									
17.07	04/05/02 <sup>1</sup>	11.68	5.39	2,000	5.0	<1.0	14	8.4	310/370 <sup>2</sup>
	07/01/02	12.01	5.06	2,000	8.9	<1.0	97	31	370/420 <sup>2</sup>
	10/08/02	12.20	4.87	1,400	9.2	<10	75	20	440/360 <sup>2</sup>
	01/11/03	11.13	5.94	1,600	7.1	0.51	53	13	280/270 <sup>2</sup>
	04/01/03	11.53	5.54	1,800	5.2	0.6	25	9.1	210/210 <sup>2</sup>
	07/01/03 <sup>3</sup>	11.95	5.12	2,000	4	<0.5	31	12	170
	10/02/03 <sup>3</sup>	12.25	4.82	480	<5	<5	<5	<5	9,800
<b>MW-2</b>									
16.82	04/05/02 <sup>1</sup>	11.17	5.65	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
	07/01/02	11.36	5.46	<50	<0.50	0.57	0.52	<1.5	<2.5/<2 <sup>2</sup>
	10/08/02	11.57	5.25	<100	<2.0	<2.0	<2.0	<5.0	<10/<2 <sup>2</sup>
	01/11/03	10.94	5.88	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
	04/01/03	11.03	5.79	<50	<0.5	<0.5	<0.5	<1.5	<2.5/<0.5 <sup>2</sup>
	07/01/03 <sup>3</sup>	11.30	5.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	10/02/03 <sup>3</sup>	11.63	5.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-3</b>									
16.52	04/05/02 <sup>1</sup>	11.29	5.23	<50	<0.50	0.59	<0.50	<1.5	<2.5/<2 <sup>2</sup>
	07/01/02	11.55	4.97	<50	<0.50	0.60	<0.50	<1.5	<2.5/<2 <sup>2</sup>
	10/08/02	11.62	4.90	<100	<2.0	<2.0	<2.0	<5.0	<10/<2 <sup>2</sup>
	01/11/03	11.09	5.43	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
	04/01/03	11.25	5.27	<50	<0.5	<0.5	<0.5	<1.5	<2.5/<0.5 <sup>2</sup>
	07/01/03 <sup>3</sup>	11.42	5.10	<50	<0.5	<0.5	<0.5	<0.5	2
	10/02/03 <sup>3</sup>	11.74	4.78	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Chevron Service Station #9-3600  
 2200 Telegraph Avenue  
 Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	GWE (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>TRIP BLANK</b>									
QA	04/05/02	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
	07/01/02	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
	10/08/02	--	--	<100	<2.0	<2.0	<2.0	<5.0	<10
	01/11/03	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
	04/01/03	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	07/01/03 <sup>3</sup>	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	10/02/03 <sup>3</sup>	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-3600  
2200 Telegraph Avenue  
Oakland, California

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**EXPLANATIONS:**

TOC = Top of Casing  
(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

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

QA = Quality Assurance/Trip Blank

\* TOC elevations were surveyed on April 17, 2002, by Morrow Surveying. The elevations are based on a City of Oakland Benchmark No. 37JC, (Benchmark Elevation = 17.68 Feet).

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

<sup>2</sup> MTBE by EPA Method 8260.

<sup>3</sup> BTEX and MTBE by EPA Method 8260.

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Chevron Service Station #9-3600  
 2200 Telegraph Avenue  
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)
MW-1	04/05/02	--	200	370	<2	<2	10
	07/01/02	--	190	420	<2	<2	9
	10/08/02	--	110	360	<2	<2	8
	01/11/03	--	<100	270	<2	<2	7
	04/01/03	--	22	210	<0.5	<0.5	5
	07/01/03	<50	26	170	<0.5	<0.5	5
	10/02/03	<500	2,600	9,800	<5	<5	6
MW-2	04/05/02	--	<100	<2	<2	<2	<2
	07/01/02	--	<100	<2	<2	<2	<2
	10/08/02	--	<100	<2	<2	<2	<2
	01/11/03	--	<100	<2	<2	<2	<2
	04/01/03	--	<5	<0.5	<0.5	<0.5	<0.5
	07/01/03	<50	<5	<0.5	<0.5	<0.5	<0.5
	10/02/03	<50	<5	<0.5	<0.5	<0.5	<0.5
MW-3	04/05/02	--	<100	<2	<2	<2	<2
	07/01/02	--	<100	<2	<2	<2	<2
	10/08/02	--	<100	<2	<2	<2	<2
	01/11/03	--	<100	<2	<2	<2	<2
	04/01/03	--	<5	<0.5	<0.5	<0.5	<0.5
	07/01/03	<50	<5	2	<0.5	<0.5	<0.5
	10/02/03	<50	<5	<0.5	<0.5	<0.5	<0.5

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Chevron Service Station #9-3600  
2200 Telegraph Avenue  
Oakland, California

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**EXPLANATIONS:**

TBA = Tertiary butyl alcohol  
MTBE = Methyl tertiary butyl ether  
DIPE = Di-isopropyl ether  
ETBE = Ethyl tertiary butyl ether  
TAME = Tertiary amyl methyl ether  
(ppb) = Parts per billion  
-- = Not Analyzed

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds



## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, 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 Chevron Products 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 #9-3600 Job Number: 386895  
 Site Address: 2200 Telegraph Avenue Event Date: 10-2-03 (inclusive)  
 City: Oakland, CA Sampler: D.O.

Well ID: MW-1 Date Monitored: 10-2 Well Condition: OK  
 Well Diameter: 2 in.  
 Total Depth: 20.36 ft.  
 Depth to Water: 12.25 ft.  
8.01 xVF .17 = 1.36 x3 (case volume) = Estimated Purge Volume: 4 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 X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

Sampling Equipment:  
 Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Bailed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: \_\_\_\_\_ 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): 0531 Weather Conditions: clear / foggy  
 Sample Time/Date: 0546 / 10-2-03 Water Color: clear Odor: slight  
 Purging Flow Rate: - 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>0534</u>	<u>1.5</u>	<u>7.55</u>	<u>468</u>	<u>17.6</u>		
<u>0537</u>	<u>3</u>	<u>7.47</u>	<u>475</u>	<u>17.6</u>		
<u>0539</u>	<u>4</u>	<u>7.44</u>	<u>479</u>	<u>17.5</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>6 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX+MTBE(8260)/ 5 OXYS+ETHANOL(8260)</u>

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ChevronTexaco #9-3600 Job Number: 386895  
 Site Address: 2200 Telegraph Avenue Event Date: 10.2.03 (inclusive)  
 City: Oakland, CA Sampler: P.O.

Well ID: MW-2 Date Monitored: 10.2 Well Condition: OK  
 Well Diameter: 2 in.  
 Total Depth: 20.23 ft.  
 Depth to Water: 11.63 ft.  
 $8.60 \times VF .17 = 1.46 \times 3 \text{ (case volume)} = \text{Estimated Purge Volume: } 4.5 \text{ gal.}$

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: \_\_\_\_\_ 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): 0603 Weather Conditions: Clear/foggy  
 Sample Time/Date: 0618 / 10.2.03 Water Color: clear Odor: no  
 Purging Flow Rate: - 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>0606</u>	<u>1.5</u>	<u>7.85</u>	<u>386</u>	<u>17.9</u>		
<u>0609</u>	<u>3</u>	<u>7.79</u>	<u>395</u>	<u>17.8</u>		
<u>0612</u>	<u>4.5</u>	<u>7.72</u>	<u>401</u>	<u>17.8</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX+MTBE(8260)/ 5 OXYS+ETHANOL(8260)</u>

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ChevronTexaco #9-3600 Job Number: 386895  
 Site Address: 2200 Telegraph Avenue Event Date: 10.2.03 (inclusive)  
 City: Oakland, CA Sampler: D.O.

Well ID: MW-3 Date Monitored: 10.2 Well Condition: OK

Well Diameter: 2 in.

Total Depth: 20.19 ft.

Depth to Water: 11.74 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

8.45 x VF .17 = 1.40 x3 (case volume) = Estimated Purge Volume: 4 gal.

### Purge Equipment:

Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Bailed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: \_\_\_\_\_ 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): 0636 Weather Conditions: foggy  
 Sample Time/Date: 0651 / 10.2 Water Color: clear Odor: no  
 Purging Flow Rate: — 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>0639</u>	<u>1.5</u>	<u>7.69</u>	<u>357</u>	<u>18.0</u>	_____	_____
<u>0642</u>	<u>3</u>	<u>7.61</u>	<u>362</u>	<u>18.0</u>	_____	_____
<u>0644</u>	<u>4</u>	<u>7.57</u>	<u>364</u>	<u>18.1</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>6</u> x vov vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-G(8015)/BTEX+MTBE(8260)/ 5 OXYS+ETHANOL(8260)</u>

### COMMENTS:

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

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





# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2881 • www.lancasterlabs.com

## 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

## SAMPLE GROUP

The sample group for this submittal is 869564. Samples arrived at the laboratory on Saturday, October 04, 2003. The PO# for this group is 99011184 and the release number is STREICH.

<u>Client Description</u>			<u>Lancaster Labs Number</u>
QA-T-031002	NA	Water	4136966
MW-1-W-031002	Grab	Water	4136967
MW-2-W-031002	Grab	Water	4136968
MW-3-W-031002	Grab	Water	4136969


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

Attn: Cheryl Hansen

Attn: Deanna L. Harding

Questions? Contact your Client Services Representative  
Teresa L Cunningham at (717) 656-2300.

Respectfully Submitted,

  
Victoria M. Martell  
Chemist

Lancaster Laboratories Sample No. WW 4136966

 QA-T-031002 NA Water  
 Facility# 93600 Job# 386895 GRD  
 2200 Telegraph-Oakland 15050 QA  
 Collected: 10/02/2003 00:00

Account Number: 10904

 Submitted: 10/04/2003 09:50  
 Reported: 10/14/2003 at 23:56  
 Discard: 11/14/2003

 ChevronTexaco  
 6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

TAOQA

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. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
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	1	10/09/2003 11:57	Todd T Smythe	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	10/10/2003 19:35	Elizabeth M Taylor	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/09/2003 11:57	Todd T Smythe	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/10/2003 19:35	Elizabeth M Taylor	n.a.



Lancaster Laboratories Sample No. WW 4136967

 MW-1-W-031002                      Grab                      Water  
 Facility# 93600    Job# 386895    GRD  
 2200 Telegraph-Oakland    15050                      MW-1  
 Collected: 10/02/2003 05:46

Account Number: 10904

 Submitted: 10/04/2003 09:50  
 Reported: 10/14/2003 at 23:56  
 Discard: 11/14/2003

 ChevronTexaco  
 6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

TAO01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received	Units	Dilution Factor
				Method		
01728	TPH-GRO - Waters	n.a.	480.	Detection Limit 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. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
06059	BTEX+5 Oxygenates+ETOH					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	10
02010	Methyl Tertiary Butyl Ether	1634-04-4	9,800.	50.	ug/l	100
02011	di-Isopropyl ether	108-20-3	N.D.	5.	ug/l	10
02013	Ethyl t-butyl ether	637-92-3	N.D.	5.	ug/l	10
02014	t-Amyl methyl ether	994-05-8	6.	5.	ug/l	10
02015	t-Butyl alcohol	75-65-0	2,600.	50.	ug/l	10
05401	Benzene	71-43-2	N.D.	5.	ug/l	10
05407	Toluene	108-88-3	N.D.	5.	ug/l	10
05415	Ethylbenzene	100-41-4	N.D.	5.	ug/l	10
06310	Xylene (Total)	1330-20-7	N.D.	5.	ug/l	10
The reporting limits for the GC/MS volatile compounds were raised because sample dilution was necessary to bring target compounds into the calibration range of the system.						

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	10/09/2003 20:37	Todd T Smythe	1
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	10/09/2003 19:52	Elizabeth M Taylor	10
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	10/09/2003 20:18	Elizabeth M Taylor	100
01146	GC VOA Water Prep	SW-846 5030B	1	10/09/2003 20:37	Todd T Smythe	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/09/2003 19:52	Elizabeth M Taylor	n.a.

Lancaster Laboratories Sample No. **WW 4136968**

 MW-2-W-031002                      **Grab**                      **Water**  
 Facility# 93600    Job# 386895                      **GRD**  
 2200 Telegraph-Oakland    15050                      **MW-2**  
 Collected: 10/02/2003 06:18

Account Number: 10904

 Submitted: 10/04/2003 09:50  
 Reported: 10/14/2003 at 23:56  
 Discard: 11/14/2003

 ChevronTexaco  
 6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

TAO02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
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. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
06059	BTEX+5 Oxygenates+ETOH					
01587	Ethanol	64-17-5	N.D.	50.	ug/l	1
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	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 Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	10/09/2003 13:02	Todd T Smythe	1
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	10/09/2003 18:58	Elizabeth M Taylor	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/09/2003 13:02	Todd T Smythe	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/09/2003 18:58	Elizabeth M Taylor	n.a.

Lancaster Laboratories Sample No. **WW 4136969**
**MW-3-W-031002**                      **Grab**                      **Water**  
**Facility# 93600**    **Job# 386895**                      **GRD**  
**2200 Telegraph-Oakland**    **15050**                      **MW-3**  
**Collected:10/02/2003 06:51**

Account Number: 10904

 Submitted: 10/04/2003 09:50  
 Reported: 10/14/2003 at 23:56  
 Discard: 11/14/2003

 ChevronTexaco  
 6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

TAO03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01728	TPH-GRO - Waters	n.a.	N.D.	Detection Limit	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. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
06059	BTEX+5 Oxygenates+ETOH					
01587	Ethanol	64-17-5	N.D.		50.	ug/l 1
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l 1
02011	di-Isopropyl ether	108-20-3	N.D.		0.5	ug/l 1
02013	Ethyl t-butyl ether	637-92-3	N.D.		0.5	ug/l 1
02014	t-Amyl methyl ether	994-05-8	N.D.		0.5	ug/l 1
02015	t-Butyl alcohol	75-65-0	N.D.		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	10/09/2003 13:35	Todd T Smythe	1
06059	BTEX+5 Oxygenates+ETOH	SW-846 8260B	1	10/09/2003 19:25	Elizabeth M Taylor	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/09/2003 13:35	Todd T Smythe	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	10/09/2003 19:25	Elizabeth M Taylor	n.a.

## Quality Control Summary

 Client Name: ChevronTexaco  
 Reported: 10/14/03 at 11:56 PM

Group Number: 869564

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCS D Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 03282A07B TPH-GRO - Waters	N.D.	50.	ug/l	97	114	70-130	16	30
Sample number(s): 4136966,4136968-4136969								
Batch number: 03282A07C TPH-GRO - Waters	N.D.	50.	ug/l	97	114	70-130	16	30
Sample number(s): 4136967								
Batch number: P032821AA Ethanol	N.D.	50.	ug/l	91		46-145		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	93		77-127		
di-Isopropyl ether	N.D.	0.5	ug/l	95		74-125		
Ethyl t-butyl ether	N.D.	0.5	ug/l	97		74-120		
t-Amyl methyl ether	N.D.	0.5	ug/l	94		79-113		
t-Butyl alcohol	N.D.	5.	ug/l	90		53-147		
Benzene	N.D.	0.5	ug/l	97		85-117		
Toluene	N.D.	0.5	ug/l	99		85-115		
Ethylbenzene	N.D.	0.5	ug/l	98		82-119		
Xylene (Total)	N.D.	0.5	ug/l	99		84-120		
Sample number(s): 4136966								
Batch number: P032832AA Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	105		77-127		
Benzene	N.D.	0.5	ug/l	111		85-117		
Toluene	N.D.	0.5	ug/l	107		85-115		
Ethylbenzene	N.D.	0.5	ug/l	106		82-119		
Xylene (Total)	N.D.	0.5	ug/l	107		84-120		

### Sample Matrix Quality Control

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>BKG MAX</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 03282A07B TPH-GRO - Waters	112		63-154					
Sample number(s): 4136966,4136968-4136969								
Batch number: 03282A07C TPH-GRO - Waters	112		63-154					
Sample number(s): 4136967								
Batch number: P032821AA Ethanol	88	97	38-149	9	30			
Methyl Tertiary Butyl Ether	96	96	69-134	0	30			
di-Isopropyl ether	98	97	75-130	0	30			
Ethyl t-butyl ether	98	98	78-119	0	30			
t-Amyl methyl ether	97	98	77-117	0	30			
t-Butyl alcohol	98	98	44-150	0	30			
Benzene	104	102	83-128	2	30			
Toluene	105	103	83-127	2	30			
Ethylbenzene	105	104	82-129	0	30			
Xylene (Total)	105	104	82-130	1	30			
Sample number(s): 4136966								
Batch number: P032832AA Methyl Tertiary Butyl Ether	111	111	69-134	0	30			
Benzene	121	121	83-128	0	30			
Toluene	116	114	83-127	2	30			
Ethylbenzene	115	113	82-129	1	30			

\*- 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: 10/14/03 at 11:56 PM

Group Number: 869564

### Sample Matrix Quality Control

Analysis Name	MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup RPD Max
	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD
Xylene (Total)	115	113	82-130	2	30			

### Surrogate Quality Control

 Analysis Name: TPH-GRO - Waters  
 Batch number: 03282A07B  
 Trifluorotoluene-F

4136966	79
4136968	79
4136969	83
Blank	78
LCS	104
LCSD	108
MS	117

Limits: 57-146

 Analysis Name: TPH-GRO - Waters  
 Batch number: 03282A07C  
 Trifluorotoluene-F

4136967	95
Blank	82
LCS	104
LCSD	108
MS	117

Limits: 57-146

 Analysis Name: BTEX+5 Oxygenates+ETOH  
 Batch number: P032821AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4136967	97	94	100	97
4136968	96	93	100	98
4136969	97	95	100	98
Blank	97	95	100	97
LCS	96	94	100	99
MS	97	93	99	98
MSD	97	94	99	98

Limits: 81-120      82-112      85-112      83-113

 Analysis Name: BTEX+MTBE by 8260B  
 Batch number: P032832AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4136966	92	93	90	90
Blank	91	90	89	88
LCS	90	90	89	90
MS	93	92	90	89

#### \*- 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: 10/14/03 at 11:56 PM

Group Number: 869564

### Surrogate Quality Control

MSD	92	92	89	89
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 falls within the Method Detection Limit (MDL) and 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		Inorganic Qualifiers	
<b>A</b>	TIC is a possible aldol-condensation product	<b>B</b>	Value is <CRDL, but ≥IDL
<b>B</b>	Analyte was also detected in the blank	<b>E</b>	Estimated due to interference
<b>C</b>	Pesticide result confirmed by GC/MS	<b>M</b>	Duplicate injection precision not met
<b>D</b>	Compound quantitated on a diluted sample	<b>N</b>	Spike sample not within control limits
<b>E</b>	Concentration exceeds the calibration range of the instrument	<b>S</b>	Method of standard additions (MSA) used for calculation
<b>N</b>	Presumptive evidence of a compound (TICs only)	<b>U</b>	Compound was not detected
<b>P</b>	Concentration difference between primary and confirmation columns >25%	<b>W</b>	Post digestion spike out of control limits
<b>U</b>	Compound was not detected	*	Duplicate analysis not within control limits
<b>X,Y,Z</b>	Defined in case narrative	+	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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