



**GETTLER-RYAN INC.** RO 2438

**TRANSMITTAL**

MAY 17 2002

April 29, 2002  
G-R #386911

TO: Mr. James Brownell  
Delta Environmental Consultants, Inc.  
3164 Gold Camp Drive, Suite 200  
Rancho Cordova, California 95670

CC: Ms. Karen Streich  
Chevron Products Company  
P.O. Box 6004  
San Ramon, California 94583

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

RE: Chevron Service Station  
#9-2029  
890 West MacArthur Blvd.  
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	April 25, 2002	Groundwater Monitoring and Sampling Report First Quarter - Event of March 12, 2002

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 **May 14, 2002**, 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, 1153 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577  
Mr. Greg Gurss, Gettler-Ryan Inc., 3140 Gold Camp Drive, Suite 170, Rancho Cordova, CA 95670

Enclosures

trans/9-2029-ks



# GETTLER-RYAN INC.

April 25, 2002  
G-R Job #386911

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

MAY 17 2002

**RE: First Quarter Event of March 12, 2002**  
Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

Dear Ms. Streich:

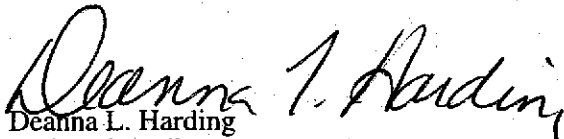
This report documents the well development and the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

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



Douglas J. Lee  
Senior Geologist, R.G. No. 6882

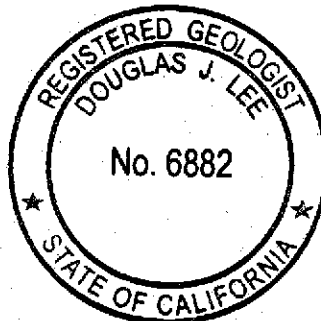
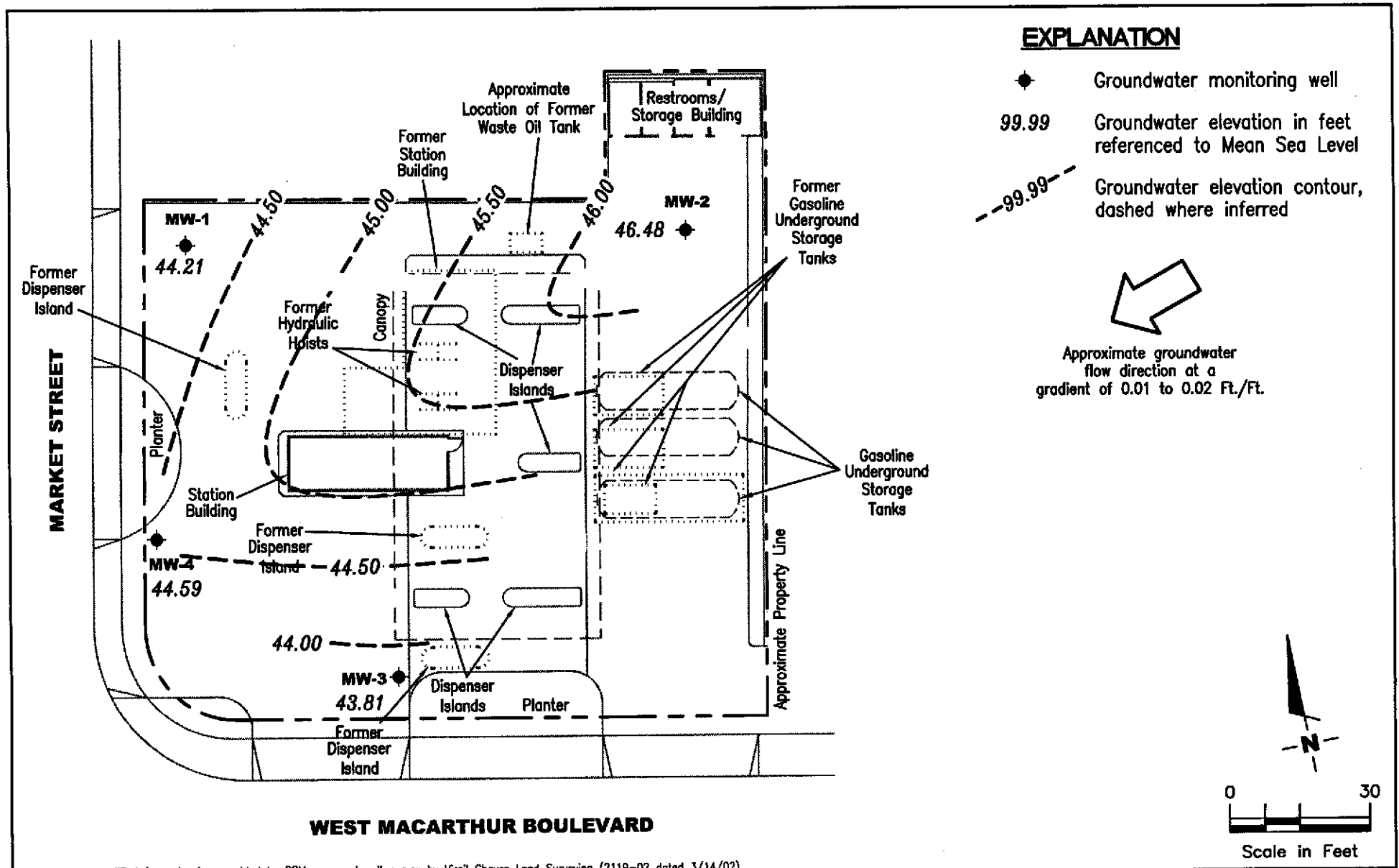


Figure 1: Potentiometric Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Groundwater Analytical Results - Oxygenate Compounds  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports



Source: Figure modified from drawing provided by RRM eng. and well survey by Virgil Chavez Land Surveying (2119-02 dated 3/14/02).

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

**POTENTIOMETRIC MAP**  
 Chevron Service Station #9-2029  
 890 West MacArthur Boulevard  
 Oakland, California

FIGURE

1

PROJECT NUMBER  
 386911

REVIEWED BY

DATE  
 March 12, 2002

REVISED DATE

FILE NAME: P:\Enviro\Chevron\9-2029\Q02-9-2029.dwg | Layout Tab: Pot1

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1 50.71	03/12/02 <sup>1</sup>	6.50	44.21	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>2</sup>
MW-2 52.57	03/12/02 <sup>1</sup>	6.09	46.48	<50	<0.50	<0.50	<0.50	<1.5	<2.5/3 <sup>2</sup>
MW-3 50.31	03/12/02 <sup>1</sup>	6.50	43.81	12,000	600	8.5	1,100	370	700/650 <sup>2</sup>
MW-4 49.93	03/12/02 <sup>1</sup>	5.34	44.59	9,700	360	5.3	1,100	150	170/170 <sup>2</sup>
TRIP BLANK QA	03/12/02	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

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**EXPLANATIONS:**

TOC = Top of Casing

(ft.) = Feet

GWE = Groundwater Elevation

(msl) = Mean sea level

DTW = Depth to Water

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

\* TOC elevations were surveyed on March 14, 2002, by Virgil Chavez Land Surveying. The benchmark for this survey was a USGS bronze disk located near the north end of the curb return at the Northwest corner of 38th Street and Broadway, (Benchmark Elevation = 85.41 feet, NGVD29).

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

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

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Chevron Service Station #9-2029  
890 West MacArthur Blvd.  
Oakland, California

WELL ID	DATE	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	03/12/02	<100	<2	<2	<2	<2	<2	<2
MW-2	03/12/02	<100	3	<2	<2	<2	<2	<2
MW-3	03/12/02	<100	650	<2	<2	18	<2	<2
MW-4	03/12/02	<100	170	<2	<2	13	<2	<2

**EXPLANATIONS:**

TBA = tertiary-Butyl alcohol  
MTBE = Methyl tertiary butyl ether  
DIPE = Di-isopropyl ether  
ETBE = Ethyl tertiary butyl ether  
TAME = tertiary-Amyl methyl ether  
1,2-DCA = 1,2-Dichloroethane  
EDB = 1,2-Dibromoethane  
(ppb) = Parts per billion

**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 well development, each well is monitored for the presence of free-phase hydrocarbons and the depth to water is recorded. Wells are then developed by alternately surging the well with the bailer, then purging the well with a pump to remove accumulated sediments and draw groundwater into the well. Development continues until the groundwater parameters (temperature, pH, and conductivity) have stabilized.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride 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 Chevron-designated 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.

**WELL MONITORING/DEVELOPMENT  
FIELD DATA SHEET**

Client/ CHEVRON  
 Facility 9-2029  
 Address: 890 W. MacArthur Blvd.  
 City: Oakland, CA

Job#: 386911  
 Date: 3/12/02  
 Sampler: BG

Well ID MW-1

Well Condition: OK

Well Diameter 2 in.

Hydrocarbon Thickness: Ø Ft. Amount Bailed (product/water): Ø (gal.)

Total Depth 22.29 ft.

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

Depth to Water 6.50 ft.

15.79 x VF 17 = 3 x <sup>10</sup>/<sub>10</sub> (case volume) = Estimated Purge Volume: 30 (gal.)

Purge Equipment:

- Disposable Bailer
- Bailer
- Stack
- Suction
- Grundfos
- Other: Stainless steel Bailer

Sampling Equipment:

- Disposable Bailer
- Bailer
- Pressure Bailer
- Grab Sample
- Other: \_\_\_\_\_

Starting Time: 0930

Weather Conditions: Cloudy

Sampling Time: 0958

Water Color: Light Brown Odor: NO

Purging Flow Rate: 3 gpm.

Sediment Description: little to no silt.

Did well de-water? NO

If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>0931</u>	<u>3</u>	<u>7.44</u>	<u>925</u>	<u>63.8</u>			
	<u>6</u>						
	<u>9</u>						
	<u>12</u>						
<u>0938</u>	<u>15</u>	<u>7.03</u>	<u>455</u>	<u>65.5</u>			
	<u>18</u>						
	<u>21</u>						
	<u>24</u>						
	<u>27</u>						
<u>0945</u>	<u>30</u>	<u>6.98</u>	<u>455</u>	<u>65.8</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>6x VOAS</u>	<u>Y</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPHG/BLU/MRE Foxys</u>

COMMENTS: TP AFTER SURGING AND PURGING 24.67.



**WELL MONITORING/DEVELOPMENT  
FIELD DATA SHEET**

Client/ CHEVRON

Facility 9-2029

9-2029

Job#: 386911

386911

Address: 890 W. MacArthur Blvd.

Date: 3-12-02

3-12-02

City: Oakland, CA

Sampler: RG

RG

Well ID MW 2

MW 2

Well Condition: OK

OK

Well Diameter 2 in.

2

Hydrocarbon Thickness: 0 Ft.

0

Amount Bailed (product/water): 6 (gal.)

6

Total Depth 20.65 ft.

20.65

Volume Factor (VF)

2" = 0.17  
3" = 0.38  
4" = 0.66  
6" = 1.50  
12" = 5.80

2" = 0.17

3" = 0.38

4" = 0.66

6" = 1.50

12" = 5.80

Depth to Water 16.09 ft.

16.09

14.56

X VF

.17

=

2

X

10

(case volume)

=

Estimated Purge Volume:

20

(gal.)

Purge Equipment:

Disposable Bailer  
Bailer

Stack

Suction

Grundfos

(Other: Stainless steel Bailer)

Sampling Equipment:

Disposable Bailer

Bailer

Pressure Bailer

Grab Sample

Other: \_\_\_\_\_

Starting Time: 1131

1131

Weather Conditions: Cloudy

Cloudy

Sampling Time: 1158

1158

Water Color: light Brown

Odor: APC

Purging Flow Rate: 3 gpm.

3

Sediment Description: light silt

Did well de-water? N/A

N/A

If yes; Time: \_\_\_\_\_

Volume: \_\_\_\_\_

(gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1132</u>	<u>2</u>	<u>7.14</u>	<u>548</u>	<u>65.0</u>			
	<u>4</u>						
	<u>6</u>						
	<u>8</u>						
<u>1135</u>	<u>10</u>	<u>6.88</u>	<u>538</u>	<u>65.3</u>			
	<u>12</u>						
	<u>14</u>						
	<u>16</u>						
	<u>18</u>						
<u>1140</u>	<u>20</u>	<u>6.89</u>	<u>531</u>	<u>66.1</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW 2</u>	<u>6 x VOA</u>	<u>C</u>	<u>HCL</u>	<u>APC Laxar</u>	<u>TPHC/BTEX/INTOX/TOX</u>

COMMENTS: 21, 21 TO APC SURGING AND PURGING

**WELL MONITORING/DEVELOPMENT  
FIELD DATA SHEET**

Client/ CHEVRON  
 Facility 9-2029 Job#: 386911  
 Address: 890 W. MacArthur Blvd. Date: 3-12-02  
 City: Oakland, CA Sampler: B6

Well ID MW-3 Well Condition: OK  
2  
 Well Diameter \_\_\_\_\_ in. Hydrocarbon Thickness: 0 Amount Bailed 0  
 Total Depth 24.54 ft. (product/water): \_\_\_\_\_ (gal.)  
 Depth to Water 6.50 ft.

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

18.04 x VF .17 = 3 x 10 (case volume) = Estimated Purge Volume: 30 (gal.)

Purge Equipment: Disposable Bailer Bailer Stack Suction Grundfos Other: Stainless Steel Bailer  
 Sampling Equipment: Disposable Bailer Pressure Bailer Grab Sample Other: \_\_\_\_\_

Starting Time: 1030 Weather Conditions: Cloudy  
 Sampling Time: 1052 Water Color: Brown Odor: No  
 Purging Flow Rate: 3 gpm. Sediment Description: light silt.  
 Did well de-water? N/A If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1031</u>	<u>3</u>	<u>5.30</u>	<u>571</u>	<u>67.1</u>			
	<u>6</u>						
	<u>9</u>						
	<u>12</u>						
<u>1036</u>	<u>15</u>	<u>6.11</u>	<u>561</u>	<u>67.6</u>			
	<u>18</u>						
	<u>21</u>						
	<u>24</u>						
	<u>27</u>						
<u>1042</u>	<u>30</u>	<u>6.18</u>	<u>560</u>	<u>67.8</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>6 x VARS</u>	<u>Y</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH, S/BTEX, MTBE, 70MGT</u>

COMMENTS: NEW TP AFTER SURGING AND PURGING 24.50

**WELL MONITORING/DEVELOPMENT  
FIELD DATA SHEET**

Client/ CHEVRON  
 Facility 9-2029  
 Address: 890 W. MacArthur Blvd.  
 City: Oakland, CA

Job#: 386911  
 Date: 3-12-02  
 Sampler: BE

Well ID MW-4  
 Well Diameter 2 in.  
 Total Depth 24.57 ft.  
 Depth to Water 5.34 ft.

Well Condition: OK  
 Hydrocarbon Thickness: 0 Ft. Amount Bailed 0 (gal.)  
 Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66  
 6" = 1.50 12" = 5.80

19.23 x VF 17 = 3 x 3 (case volume) = Estimated Purge Volume: 30 (gal.)

Purge Equipment: Disposable Bailer  
 Bailer  
 Stack  
 Suction  
 Grundfos  
 (Other: Standard steel Bailer)

Sampling Equipment: Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 1107  
 Sampling Time: 1125  
 Purging Flow Rate: 3 gpm.  
 Did well de-water? N

Weather Conditions: Cloudy  
 Water Color: light brown Odor: Slight  
 Sediment Description: \_\_\_\_\_  
 If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1108</u>	<u>3</u>	<u>6.47</u>	<u>540</u>	<u>66.0</u>			
	<u>6</u>						
	<u>9</u>						
	<u>12</u>						
<u>1112</u>	<u>15</u>	<u>5.97</u>	<u>601</u>	<u>68.4</u>			
	<u>18</u>						
	<u>21</u>						
	<u>24</u>						
	<u>27</u>						
<u>1119</u>	<u>30</u>	<u>5.96</u>	<u>611</u>	<u>68.5</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>OX VOLS</u>	<u>Y</u>	<u>HCL</u>	<u>Lancaster</u>	<u>TOH, a, mtes, bic, T, m, p</u>

COMMENTS: New TD After Surging and Purge is 24.64





## ANALYTICAL RESULTS

Prepared for:

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904  
925-842-8582

Prepared by:

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

RECEIVED

APR 01 2002

GETTLER-RYAN INC.  
GENERAL CONTRACTOR

## SAMPLE GROUP

The sample group for this submittal is 800511. Samples arrived at the laboratory on Friday, March 15, 2002. The PO# for this group is 99011184 and the release number is BAUHS.

<u>Client Description</u>			<u>Lancaster Labs Number</u>
QA-T-020312	NA	Water	3789391
MW-1-W-020312	Grab	Water	3789392
MW-2-W-020312	Grab	Water	3789393
MW-3-W-020312	Grab	Water	3789394
MW-4-W-020312	Grab	Water	3789395

## METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO

Chevron Products Company

Attn: Deanna Harding





## Lancaster Laboratories

*Where quality is a science.*

Questions? Contact your Client Services Representative

Teresa M Lis at (717) 656-2300.

Respectfully Submitted,

*Victoria M Martell*

Victoria M. Martell  
Chemist



Lancaster Laboratories, Inc.  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. WW 3789391

Collected: 03/12/2002 00:00

Account Number: 10992

Submitted: 03/15/2002 09:10

Chevron Products Company

Reported: 03/29/2002 at 08:49

6001 Bollinger Canyon Road

Discard: 04/06/2002

Building L PO Box 6004

QA-T-020312

NA

Water

San Ramon CA 94583-0904

Facility# 92029 Job# 386911

GRD

890 W MACARTHUR-OAKLAND

NA

QA

QA029

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	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.						
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
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.						

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/18/2002 21:37	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/18/2002 21:37	Melissa D Mann	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/18/2002 21:37	Melissa D Mann	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit

N.D.=Not detected at or above the Reporting Limit



Lancaster Laboratories Inc.  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. WW 3789392

Collected: 03/12/2002 09:58 by BG

Account Number: 10992

Submitted: 03/15/2002 09:10  
 Reported: 03/29/2002 at 08:49  
 Discard: 04/06/2002

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

MW-1-W-020312 Grab Water

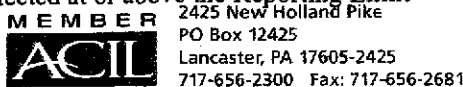
Facility# 92029 Job# 386911 GRD  
 890 W MACARTHUR-OAKLAND NA NA

M1029

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	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.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
	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.					
01595	Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	N.D.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

State of California Lab Certification No. 2116

#=Laboratory Method Detection Limit exceeded target detection limit  
 N.D.=Not detected at or above the Reporting Limit.







Lancaster Laboratories Sample No. WW 3789392

Collected: 03/12/2002 09:58 by BG

Account Number: 10992

Submitted: 03/15/2002 09:10

Chevron Products Company

Reported: 03/29/2002 at 08:49

6001 Bollinger Canyon Road

Discard: 04/06/2002

Building L PO Box 6004

MW-1-W-020312

Grab

Water

San Ramon CA 94583-0904

Facility# 92029 Job# 386911

GRD

890 W MACARTHUR-OAKLAND NA

NA

M1029

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/18/2002 15:04	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/18/2002 15:04	Melissa D Mann	1
01595	Oxygenates by 8260B	SW-846 8260B	1	03/21/2002 21:46	Susan McMahon-Luu	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/18/2002 15:04	Melissa D Mann	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/21/2002 21:46	Susan McMahon-Luu	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit

N.D.=Not detected at or above the Reporting Limit



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Lancaster, PA 17605-2425  
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Lancaster Laboratories Sample No. **WW 3789393**

Collected: 03/12/2002 11:58 by **BG**

Account Number: 10992

Submitted: 03/15/2002 09:10  
 Reported: 03/29/2002 at 08:49  
 Discard: 04/06/2002

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

MW-2-W-020312 Grab Water

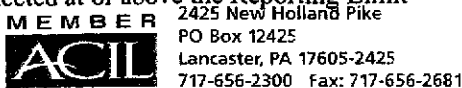
Facility# 92029 Job# 386911 GRD  
 890 W MACARTHUR-OAKLAND NA NA

M2029

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	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.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
	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.					
01595	Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	3.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

State of California Lab Certification No. 2116

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Lancaster Laboratories Sample No. **WW 3789393**

Collected: 03/12/2002 11:58 by **BG**

Account Number: 10992

Submitted: 03/15/2002 09:10

Chevron Products Company

Reported: 03/29/2002 at 08:49

6001 Bollinger Canyon Road

Discard: 04/06/2002

Building L PO Box 6004

MW-2-W-020312

Grab

Water

San Ramon CA 94583-0904

Facility# 92029 Job# 386911

GRD

890 W MACARTHUR-OAKLAND NA

NA

M2029

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/18/2002 15:39	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/18/2002 15:39	Melissa D Mann	1
01595	Oxygenates by 8260B	SW-846 8260B	1	03/21/2002 22:12	Susan McMahon-Luu	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/18/2002 15:39	Melissa D Mann	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/21/2002 22:12	Susan McMahon-Luu	n.a.

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Lancaster Laboratories Sample No. **WW 3789394**

Collected: 03/12/2002 10:52 by **BG**

Account Number: **10992**

Submitted: 03/15/2002 09:10  
 Reported: 03/29/2002 at 08:49  
 Discard: 04/06/2002

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

MW-3-W-020312                      Grab                      Water

Facility# 92029      Job# 386911                      GRD  
 890 W MACARTHUR-OAKLAND      NA                      NA

M3029

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	12,000.	250.	ug/l	5
	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.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	600.	1.0	ug/l	5
00777	Toluene	108-88-3	8.5	1.0	ug/l	5
00778	Ethylbenzene	100-41-4	1,100.	1.0	ug/l	5
00779	Total Xylenes	1330-20-7	370.	3.0	ug/l	5
00780	Methyl tert-Butyl Ether	1634-04-4	700.	2.5	ug/l	5
	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.					
01595	Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	650.	3.	ug/l	5
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	18.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

State of California Lab Certification No. 2116

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 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. WW 3789394

Collected: 03/12/2002 10:52 by BG

Account Number: 10992

Submitted: 03/15/2002 09:10

Chevron Products Company

Reported: 03/29/2002 at 08:49

6001 Bollinger Canyon Road

Discard: 04/06/2002

Building L PO Box 6004

MW-3-W-020312

Grab

Water

San Ramon CA 94583-0904

Facility# 92029 Job# 386911

GRD

890 W MACARTHUR-OAKLAND NA

NA

M3029

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/19/2002	06:50	Melissa D Mann	5
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/19/2002	06:50	Melissa D Mann	5
01595	Oxygenates by 8260B	SW-846 8260B	1	03/21/2002	23:03	Susan McMahon-Luu	5
01595	Oxygenates by 8260B	SW-846 8260B	1	03/21/2002	23:28	Susan McMahon-Luu	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/19/2002	06:50	Melissa D Mann	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/21/2002	23:03	Susan McMahon-Luu	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit

N.D.=Not detected at or above the Reporting Limit



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Lancaster Laboratories Sample No. **WW 3789395**

Collected: 03/12/2002 11:25 by **BG**

Account Number: 10992

Submitted: 03/15/2002 09:10  
 Reported: 03/29/2002 at 08:49  
 Discard: 04/06/2002  
 MW-4-W-020312                      Grab              Water

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 Building L PO Box 6004  
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Facility# 92029    Job# 386911                      GRD  
 890 W MACARTHUR-OAKLAND    NA                      NA

M4029

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	9,700.	250.	ug/l	5
	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.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	360.	1.0	ug/l	5
00777	Toluene	108-88-3	5.3	1.0	ug/l	5
00778	Ethylbenzene	100-41-4	1,100.	1.0	ug/l	5
00779	Total Xylenes	1330-20-7	150.	3.0	ug/l	5
00780	Methyl tert-Butyl Ether	1634-04-4	170.	2.5	ug/l	5
	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.					
01595	Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	170.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	13.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

State of California Lab Certification No. 2116

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Lancaster Laboratories Sample No. WW 3789395

Collected: 03/12/2002 11:25 by BG

Account Number: 10992

Submitted: 03/15/2002 09:10

Chevron Products Company

Reported: 03/29/2002 at 08:49

6001 Bollinger Canyon Road

Discard: 04/06/2002

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MW-4-W-020312

Grab

Water

San Ramon CA 94583-0904

Facility# 92029 Job# 386911

GRD

890 W MACARTHUR-OAKLAND NA

NA

M4029

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/19/2002 07:25	Melissa D Mann	5
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/19/2002 07:25	Melissa D Mann	5
01595	Oxygenates by 8260B	SW-846 8260B	1	03/21/2002 22:38	Susan McMahon-Luu	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/19/2002 07:25	Melissa D Mann	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/21/2002 22:38	Susan McMahon-Luu	n.a.

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Client Name: Chevron Products Company  
 Reported: 03/29/02 at 08:49 AM

Group Number: 800511

### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 02077A51A      Sample number(s): 3789391-3789393								
Benzene	N.D.	.2	ug/l	108	109	80-118	2	30
Toluene	N.D.	.5	ug/l	108	109	82-119	1	30
Ethylbenzene	N.D.	.5	ug/l	108	108	81-119	1	30
Total Xylenes	N.D.	1.5	ug/l	109	108	82-120	0	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	115	114	79-127	1	30
TPH-GRO - Waters	N.D.	50.	ug/l	99	96	76-126	3	30
Batch number: 02077A51B      Sample number(s): 3789394-3789395								
Benzene	N.D.	.2	ug/l	108	109	80-118	2	30
Toluene	N.D.	.5	ug/l	108	109	82-119	1	30
Ethylbenzene	N.D.	.5	ug/l	108	108	81-119	1	30
Total Xylenes	N.D.	1.5	ug/l	109	108	82-120	0	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	115	114	79-127	1	30
TPH-GRO - Waters	N.D.	50.	ug/l	99	96	76-126	3	30
Batch number: P020801AB      Sample number(s): 3789392-3789395								
Methyl t-butyl ether	N.D.	2.	ug/l	111		77-127		
di-Isopropyl ether	N.D.	.5	ug/l	113		74-125		
Ethyl t-butyl ether	N.D.	.5	ug/l	108		74-120		
t-Amyl methyl ether	N.D.	.5	ug/l	113		71-114		
t-Butyl alcohol	N.D.	5.	ug/l	107		59-139		
1,2-Dichloroethane	N.D.	.5	ug/l	123		77-132		
1,2-Dibromoethane	N.D.	.5	ug/l	112		84-119		

### Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	BKG MAX	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 02077A51A      Sample number(s): 3789391-3789393								
Benzene	114		77-131					
Toluene	114		80-128					
Ethylbenzene	115		76-132					
Total Xylenes	115		76-132					
Methyl tert-Butyl Ether	116		61-144					
TPH-GRO - Waters	107		74-132					
Batch number: 02077A51B      Sample number(s): 3789394-3789395								
Benzene	114		77-131					
Toluene	114		80-128					
Ethylbenzene	115		76-132					
Total Xylenes	115		76-132					
Methyl tert-Butyl Ether	116		61-144					
TPH-GRO - Waters	107		74-132					

\*. 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.







Client Name: Chevron Products Company  
 Reported: 03/29/02 at 08:49 AM

Group Number: 800511

### Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	BKG MAX	DUP Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: P020801AB	Sample number(s): 3789392-3789395								
Methyl t-butyl ether	120	121	69-134	0	30				
di-Isopropyl ether	123	125	68-133	1	30				
Ethyl t-butyl ether	124*	130*	73-123	5	30				
t-Amyl methyl ether	114	117	69-118	2	30				
t-Butyl alcohol	110	110	51-148	0	30				
1,2-Dichloroethane	125	128	75-141	3	30				
1,2-Dibromoethane	113	117	78-120	3	30				

### Surrogate Quality Control

Analysis Name: TPH-GRO - Waters  
 Batch number: 02077A51A

	Trifluorotoluene-F	Trifluorotoluene-P
3789391	97	96
3789392	98	94
3789393	98	94
Blank	102	96
LCS	111	97
LCSD	110	97
MS	115	97
Limits:	67-135	71-130

Analysis Name: TPH-GRO - Waters  
 Batch number: 02077A51B

	Trifluorotoluene-F	Trifluorotoluene-P
3789394	111	109
3789395	117	112
Blank	98	95
LCS	111	97
LCSD	110	97
MS	115	97
Limits:	67-135	71-130

Analysis Name: Oxygenates by 8260B  
 Batch number: P020801AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
3789392	104	99	99	97
3789393	104	97	100	96

\*- 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.





Client Name: Chevron Products Company  
Reported: 03/29/02 at 08:49 AM

Group Number: 800511

### Surrogate Quality Control

3789394	99	96	101	97
3789395	98	91	99	104
Blank	102	95	100	97
LCS	103	97	99	101
MS	101	98	100	100
MSD	100	97	99	99
<hr/>				
Limits:	86-118	80-120	88-110	86-115

\*- 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.



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