# GETTLER-RYAN INC.

## TRANSMITTAL

January 22, 2002
G-R #386346

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

CC: Mr. Thomas Bauhs
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**
**#9-8341**
**3530 MacArthur Boulevard**
**Oakland, California**

WE HAVE ENCLOSED THE FOLLOWING:

| COPIES | DATED | DESCRIPTION |
|---|---|---|
| 1 | January 16, 2002 | Groundwater Monitoring and Sampling Report<br>Fourth Quarter - Event of November 26, 2001 |

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 ***February 5, 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. Chuck Headlee, RWQCB-S.F. Bay Region, 1515 Clay St., Suite 1400, Oakland. CA 94612
Mr. Greg Gurss, Gettler-Ryan Inc., 3140 Gold Camp Drive, Suite 170, Rancho Cordova, CA 95670

Enclosures

trans/9-8341-TB

# GETTLER-RYAN INC.

January 16, 2002
G-R Job #386346

Mr. Thomas Bauhs
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

**RE: Fourth Quarter Event of November 26, 2001**
Groundwater Monitoring & Sampling Report
Chevron Service Station #9-8341
3530 MacArthur Boulevard
Oakland, California

Dear Mr. Bauhs:

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.

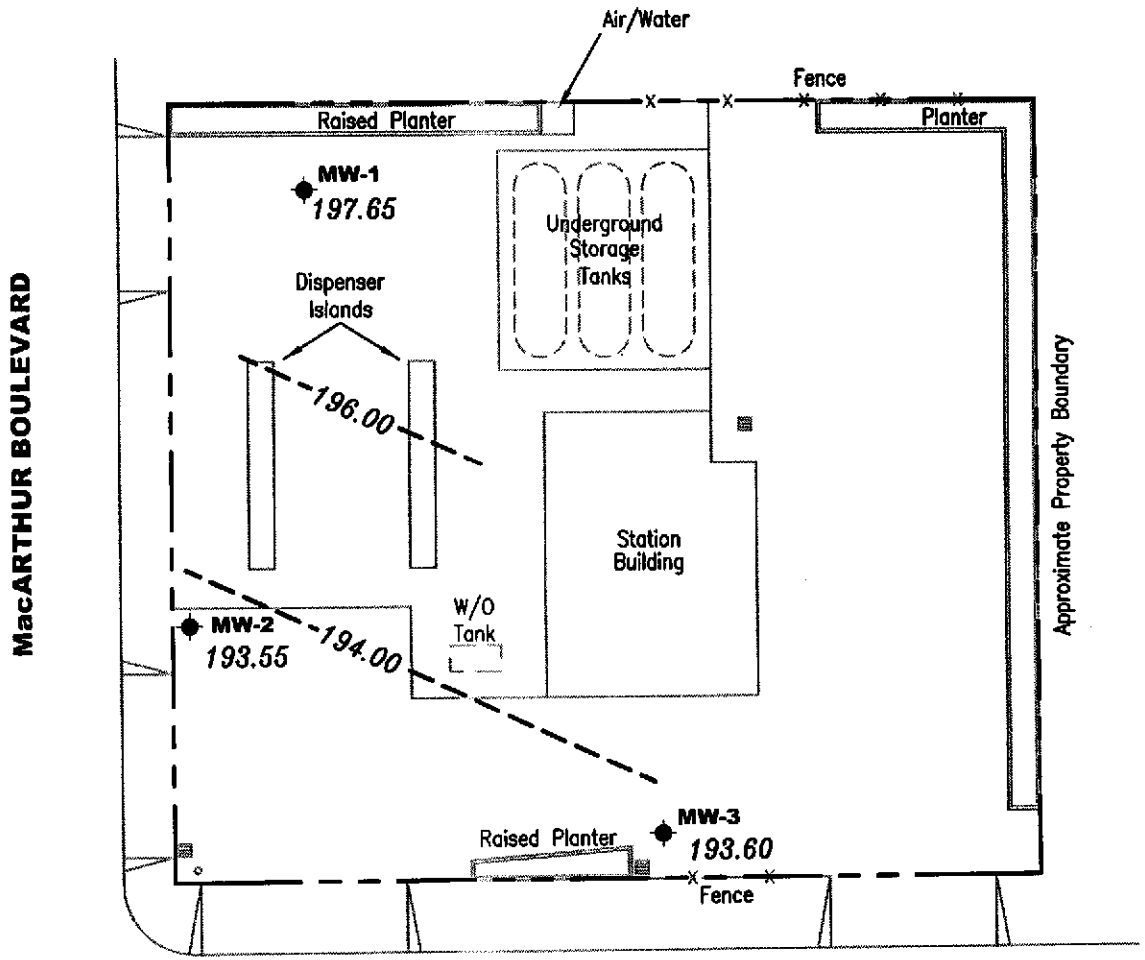
Sincerely,

Deanna L. Harding
Project Coordinator

Hagop Kevork
P.E. No. C55734

REGISTERED PROFESSIONAL ENGINEER
HAGOP KEVORK
No. C 55734
Exp. 12/31/04
CIVIL
STATE OF CALIFORNIA

Figure 1: Potentiometric 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




## EXPLANATION

- Groundwater monitoring well
- 99.99 — Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 — Groundwater elevation contour, dashed where inferred.
- Approximate groundwater flow direction at a gradient of 0.06 Ft./Ft.

N

0 30

Scale in Feet

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

**POTENTIOMETRIC MAP**
Chevron Service Station #9-8341
3530 MacArthur Boulevard
Oakland, California

FIGURE
1

JOB NUMBER
386346

REVIEWED BY

DATE
November 26, 2001

REVISED DATE

# Table 1

## Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-8341
3530 MacArthur Boulevard
Oakland, California

| WELL ID/ DATE | TOC (ft.) | GWE (msl) | DTW (ft.) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) |
|---|---|---|---|---|---|---|---|---|---|
| **MW-1** | | | | | | | | | |
| 04/04/96 | 202.47 | 198.65 | 3.82 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | ND |
| 11/01/96 | 202.47 | 197.45 | 5.02 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 01/06/97 | 202.47 | 199.72 | 2.75 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 14 |
| 04/14/97 | 202.47 | 197.71 | 4.76 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 07/17/97 | 202.47 | 196.72 | 5.75 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 10/29/97 | 202.47 | 196.97 | 5.50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 02/04/98 | 202.47 | 199.80 | 2.67 | <50 | 4.2 | <0.5 | <0.5 | <0.5 | 94 |
| 04/03/98 | 202.47 | 197.06 | 5.41 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 07/29/98 | 202.47 | 192.26 | 10.21 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 10/26/98 | 202.47 | 195.66 | 6.81 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 01/18/99 | 202.47 | 196.05 | 6.42 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.0 |
| 04/15/99 | 202.47 | 197.13 | 5.34 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 |
| 07/22/99 | 202.47 | 196.97 | 5.50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 10/13/99 | 202.47 | 196.43 | 6.04 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 01/21/00 | 202.47 | 197.11 | 5.36 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 04/10/00 | 202.47 | 197.60 | 4.87 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| 07/12/00 | 202.47 | 197.05 | 5.42 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 |
| 10/05/00 | 202.47 | 196.79 | 5.68 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 |
| 01/05/01 | 202.47 | 197.30 | 5.17 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| 04/05/01 | 202.47 | 197.83 | 4.64 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| 08/20/01 | 202.47 | 197.29 | 5.18 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| **11/26/01** | **202.47** | **197.65** | **4.82** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<1.5** | **<2.5** |
| **MW-2** | | | | | | | | | |
| 04/04/96 | 198.88 | 196.07 | 2.81 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 6,100 |
| 11/01/96 | 198.88 | 195.27 | 3.61 | <500 | <5.0 | <5.0 | <5.0 | <5.0 | 2,600 |
| 01/06/97 | 198.88 | 195.97 | 2.91 | <2,000 | 31 | <20 | <20 | <20 | 4,000 |
| 04/14/97 | 198.88 | 195.43 | 3.45 | <2,000 | <20 | <20 | <20 | <20 | 5,100/5,800[1] |
| 07/17/97 | 198.88 | 194.98 | 3.90 | <500 | <5.0 | <5.0 | <5.0 | <5.0 | 2,300/2,900[1] |
| 10/29/97 | 198.88 | 192.96 | 5.92 | 120[2] | 12 | <0.5 | <0.5 | <0.5 | 810/900[1] |

# Table 1

## Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-8341
3530 MacArthur Boulevard
Oakland, California

| WELL ID/ DATE | TOC (ft.) | GWE (msl) | DTW (ft.) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) |
|---|---|---|---|---|---|---|---|---|---|
| **MW-2 (cont)** | | | | | | | | | |
| 02/04/98 | 198.88 | 195.05 | 3.83 | <1,000 | <10 | <10 | <10 | <10 | 2,100/2,800[1] |
| 04/03/98 | 198.88 | 191.55 | 7.33 | <1,000 | <10 | <10 | <10 | <10 | 3,800/3,600[1] |
| 07/29/98 | 198.88 | 189.86 | 9.02 | 120[3] | <0.5 | <0.5 | <0.5 | <0.5 | 2,800/3,900[1] |
| 10/26/98 | 198.88 | 192.77 | 6.11 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 1,200 |
| 01/18/99 | 198.88 | 194.67 | 4.21 | <1,000 | <10 | <10 | <10 | 10.5 | 2,530 |
| 04/15/99 | 198.88 | 194.56 | 4.32 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 5,270 |
| 07/22/99 | 198.88 | 193.73 | 5.15 | <50 | 8.92 | <0.5 | <0.5 | <0.5 | 1,450 |
| 10/13/99 | 198.88 | 192.23 | 6.65 | <250 | <2.5 | <2.5 | <2.5 | <2.5 | 1,740 |
| 01/21/00 | 198.88 | 192.78 | 6.10 | 69.6 | <0.5 | <0.5 | <0.5 | <0.5 | 1,110 |
| 04/10/00 | 198.88 | 194.42 | 4.46 | <500 | <5.0 | <5.0 | <5.0 | <5.0 | 1,700 |
| 07/12/00 | 198.88 | 195.24 | 3.64 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | 187 |
| 10/05/00 | 198.88 | 194.06 | 4.82 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 |
| 01/05/01 | 198.88 | 195.17 | 3.71 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 1,800 |
| 04/05/01 | 198.88 | 192.94 | 5.94 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 5,500 |
| 08/20/01 | 198.88 | 193.18 | 5.70 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 2,000 |
| **11/26/01** | **198.88** | **193.55** | **5.33** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<1.5** | **990** |
| **MW-3** | | | | | | | | | |
| 04/04/96 | 199.10 | 195.22 | 3.88 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | ND |
| 11/01/96 | 199.10 | 194.91 | 4.19 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 01/06/97 | 199.10 | 195.29 | 3.81 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 04/14/97 | 199.10 | 194.93 | 4.17 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 07/17/97 | 199.10 | 194.92 | 4.18 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 10/29/97 | 199.10 | 193.90 | 5.20 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 02/04/98 | 199.10 | 194.71 | 4.39 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 04/03/98 | 199.10 | 195.78 | 3.32 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 07/29/98 | 199.10 | 189.24 | 9.86 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 10/26/98 | 199.10 | 193.59 | 5.51 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 01/18/99 | 199.10 | 194.68 | 4.42 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.0 |
| 04/15/99 | 199.10 | 194.54 | 4.56 | <50 | <0.5 | <0.5 | <0.5 | 1.16 | <5.0 |

# Table 1

## Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-8341
3530 MacArthur Boulevard
Oakland, California

| WELL ID/ DATE | TOC (ft.) | GWE (msl) | DTW (ft.) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) |
|---|---|---|---|---|---|---|---|---|---|
| **MW-3 (cont)** | | | | | | | | | |
| 07/22/99 | 199.10 | 192.45 | 6.65 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 3.94 |
| 10/13/99 | 199.10 | 193.79 | 5.31 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 6.55 |
| 01/21/00 | 199.10 | 193.18 | 5.92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 04/10/00 | 199.10 | 194.32 | 4.78 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| 07/12/00 | 199.10 | 193.86 | 5.24 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 |
| 10/05/00 | 199.10 | 195.17 | 3.93 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | 39.7 |
| 01/05/01 | 199.10 | 194.85 | 4.25 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 2.9 |
| 04/05/01 | 199.10 | 194.72 | 4.38 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| 08/20/01 | 199.10 | 194.35 | 4.75 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| **11/26/01** | **199.10** | **193.60** | **5.50** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<1.5** | **<2.5** |
| **TRIP BLANK** | | | | | | | | | |
| 11/01/96 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 01/06/97 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 04/14/97 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 07/17/97 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 10/29/97 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 02/04/98 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 04/03/98 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 07/29/98 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 10/26/98 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 01/18/99 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.0 |
| 04/15/99 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 |
| 07/22/99 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 10/13/99 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 01/21/00 | -- | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| 04/10/00 | -- | -- | -- | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| 07/12/00 | -- | -- | -- | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 |
| 10/05/00 | -- | -- | -- | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 |
| 01/05/01 | -- | -- | -- | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |

# Table 1

**Groundwater Monitoring Data and Analytical Results**

Chevron Service Station #9-8341

3530 MacArthur Boulevard

Oakland, California

| WELL ID/ DATE | TOC (ft.) | GWE (msl) | DTW (ft.) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) |
|---|---|---|---|---|---|---|---|---|---|
| **TRIP BLANK (cont)** | | | | | | | | | |
| 04/05/01 | -- | -- | -- | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| 08/20/01 | -- | -- | -- | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 |
| **QA** | | | | | | | | | |
| **11/26/01** | **--** | **--** | **--** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<1.5** | **<2.5** |

# Table 1

## Groundwater Monitoring Data and Analytical Results

Chevron Service Station #9-8341
3530 MacArthur Boulevard
Oakland, California

**EXPLANATIONS:**

Groundwater monitoring data and analytical results prior to April 10, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

| | | |
|---|---|---|
| TOC = Top of Casing | TPH-G = Total Petroleum Hydrocarbons as Gasoline | MTBE = Methyl tertiary butyl ether |
| (ft.) = Feet | B = Benzene | ND = Not Detected |
| GWE = Groundwater Elevation | T = Toluene | -- = Not Measured/Not Analyzed |
| (msl) = Mean Sea Level | E = Ethylbenzene | (ppb) = Parts per billion |
| DTW = Depth to Water | X = Xylenes | QA = Quality Assurance |

[1] Confirmation run.

[2] Chromatogram report indicates an unidentified hydrocarbon and gas.

[3] Chromatogram report indicates an unidentified hydrocarbon.

# STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

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

After water levels are collected and prior to sampling, 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/SAMPLING
# FIELD DATA SHEET

Client/ CHEVRON
Facility # 9-8341 Job#: 386346
Address: 3530 MacArthur Date: 11-26-01
City: Oakland, CA Sampler: T.C

Well ID MW-1 Well Condition: O.K
Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)
Total Depth 26.83 ft.
Depth to Water 4.82 ft.

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

22.01 X VF .17 = 3.7 X 3 (case volume) = Estimated Purge Volume: 11.5 (gal.)

Purge Equipment: Disposable Bailer / Bailer / (Stack) / Suction / Grundfos / Other:

Sampling Equipment: (Disposable Bailer) / Bailer / Pressure Bailer / Grab Sample / Other:

Starting Time: 1315 Weather Conditions: Pt. Cloudy
Sampling Time: 1328 Water Color: LGT. BROWN Odor: NO
Purging Flow Rate: 2.0 gpm. Sediment Description:
Did well de-water? NO If yes; Time: Volume: (gal.)

| Time | Volume (gal.) | pH | Conductivity µmhos/cm | Temperature °F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 1317 | 3.5 | 7.06 | 1322 | 68.9 | | | |
| 1319 | 7.0 | 6.81 | 1210 | 68.1 | | | |
| 1321 | 11.5 | 6.79 | 138 | 67.6 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-1 | 3xVOAs w/ HCl | Y | HCl | LANCASTER | TPH(G)/btex/mtbe |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS: REPLACED MASTER Lock 3910

9/97-fieldst.frm

# WELL MONITORING/SAMPLING
# FIELD DATA SHEET

Client/ CHEVRON
Facility # 9-8341 Job#: 386346
Address: 3530 MacArthur Date: 11-26-01
City: Oakland, CA Sampler: T-C

Well ID MW-2 Well Condition: O.k
Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)
Total Depth 33.01 ft.
Depth to Water 5.33 ft.

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

27.68 X VF .17 = 4.7 X 3 (case volume) = Estimated Purge Volume: 14.0 (gal.)

Purge Equipment: Disposable Bailer, Bailer, (Stack), Suction, Grundfos, Other:

Sampling Equipment: (Disposable Bailer), Bailer, Pressure Bailer, Grab Sample, Other:

Starting Time: 1420 Weather Conditions: Partly Cloudy
Sampling Time: 1434 Water Color: Lgt. Brown Odor:
Purging Flow Rate: 2.0 gpm. Sediment Description:
Did well de-water? no If yes; Time: Volume: (gal.)

| Time | Volume (gal.) | pH | Conductivity µmhos/cm | Temperature °F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 1422 | 4.5 | 7.01 | 1362 | 68.9 | | | |
| 1425 | 9.0 | 6.82 | 1341 | 68.1 | | | |
| 1428 | 14.0 | 6.84 | 1350 | 67.8 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-2 | 3 VOAs w/HCl | Y | HCl | LANCASTER | TPH(G)/btex/mtbe |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS:

# WELL MONITORING/SAMPLING
# FIELD DATA SHEET

Client/ CHEVRON
Facility # 9-8341 Job#: 386346
Address: 3530 MacArthur Date: 11-26-01
City: Oakland, CA Sampler: TC

Well ID: MW-3 Well Condition: o.k
Well Diameter: 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)
Total Depth: 32.21 ft.
Depth to Water: 5.50 ft.

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

26.71 X VF .17 = 4.5 X 3 (case volume) = Estimated Purge Volume: 13½ (gal.)

Purge Equipment: Disposable Bailer; Bailer; ~~Stack~~; Suction; Grundfos; Other: _____

Sampling Equipment: ~~Disposable Bailer~~; Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 1350
Sampling Time: 1402
Purging Flow Rate: — gpm.
Did well de-water? no

Weather Conditions: Partly - Cloudy
Water Color: Lt. Brown Odor: no
Sediment Description: _____
If yes; Time: _____ Volume: _____ (gal.)

| Time | Volume (gal.) | pH | Conductivity µmhos/cm | Temperature °F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 1352 | 4.5 | 7.04 | 1248 | 68.8 | | | |
| 1355 | 9.0 | 6.91 | 1289 | 68.6 | | | |
| 1357 | 13.5 | 6.82 | 1291 | 68.4 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-3 | 3 VOAs HCl | Y | HCl | LANCASTER | TPH(G)/btex/mtbe |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS: _____

# Chevron California Region Analysis Request/Chain of Custody

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Where quality is a science.

LLCA

For Lancaster Laboratories use only
Acct. #: 10905 Sample #: 3733968-71 SCR#:

Facility #: 9-8341 Job #386346 Global ID #T0600101790
Site Address: 3530 MACARTHUR, OAKLAND, CA
Chevron PM: Tom Bauhs Lead Consultant: Delta/G-R
Consultant/Office: G-R, Inc., 6747 Sierra Court, Dublin, Ca 94568
Consultant Prj. Mgr.: Deanna L. Harding (Deanna@grinc.com)
Consultant Phone #: 925-551-7555 Fax #: 925-551-7899
Sampler: Tony Cannarozzo
Service Order #: ☐ Non SAR:

**Analyses Requested**

**Preservation Codes**

**Preservative Codes**
H = HCl T = Thiosulfate
N = $HNO_3$ B = NaOH
S = $H_2SO_4$ O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy s on highest hit
☐ Run ____ oxy s on all hits

| Sample Identification | Date Collected | Time Collected | Grab | Composite | Matrix: Soil | Water (Potable ☐ NPDES ☐) | Oil ☐ Air ☐ | Total Number of Containers | BTEX + MTBE 8260 ☐ 8021 | TPH 8015 MOD GRO | TPH 8015 MOD DRO ☐ Silica Gel Cleanup | 8260 full scan | Oxygenates ___ | Lead 7420 ☐ 7421 ☐ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QA | 11/26/01 | — | | | | X | | 2 | X | X | | | | |
| MW-1 | ↓ | 1328 | X | | | X | | 3 | X | X | | | | |
| MW-2 | | 1434 | X | | | X | | 3 | X | X | | | | |
| MW-3 | | 1402 | X | | | X | | 3 | X | X | | | | |

**Comments / Remarks**

**Turnaround Time Requested (TAT)** (please circle)
STD. TAT 72 hour 48 hour
24 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

| | Date | Time | | Date | Time |
|---|---|---|---|---|---|
| Relinquished by: | 11/27/01 | 0934 | Received by: | 11/27/01 | 1400 |
| Relinquished by: | 11/27/01 | 1400 | Received by: | 11/27/01 | 1400 |
| Relinquished by: | | | Received by: | | |
| Relinquished by Commercial Carrier: UPS FedEx (Other) | | | Received by: | 11/28/01 | 0930 |
| Temperature Upon Receipt ____ C° | | | Custody Seals Intact? (Yes) No | | |

3460 Rev. 7/30/01

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

Lancaster Laboratories
Where quality is a science.

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

SAMPLE GROUP

The sample group for this submittal is 787874. Samples arrived at the laboratory on Wednesday, November 28, 2001. The PO# for this group is 99011184 and the release number is BAUHS.

| Client Description | | | Lancaster Labs Number |
|---|---|---|---|
| QA-T-011126 | NA | Water | 3733968 |
| MW-1-W-011126 | Grab | Water | 3733969 |
| MW-2-W-011126 | Grab | Water | 3733970 |
| MW-3-W-011126 | Grab | Water | 3733971 |

METHODOLOGY

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

1 COPY TO Delta C/O Gettler-Ryan Attn: Deanna L. Harding

Lancaster Laboratories
*Where quality is a science.*

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

Respectfully Submitted,

Michele M. Turner
Manager

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

MEMBER ACIL

Lancaster Laboratories
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**Lancaster Laboratories Sample No. WW 3733968**

Collected:11/26/2001 00:00

Account Number: 10905

Submitted: 11/28/2001 09:00
Reported: 12/06/2001 at 07:38
Discard: 01/06/2002
QA-T-011126 NA Water

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

Facility# 98341 Job# 386346 GRD
3530 MACARTHUR, OAKLAND T060101790 QA

| 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. CALIF. LUFT Gasoline Method | 1 | 11/30/2001 02:20 | Linda C. Pape | 1 |
| 08214 | BTEX, MTBE (8021) | SW-846 8021B | 1 | 11/30/2001 02:20 | Linda C. Pape | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 11/30/2001 02:20 | Linda C. Pape | n.a. |

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

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PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

# Analysis Report

Lancaster Laboratories
Where quality is a science.



**Lancaster Laboratories Sample No. WW 3733969**

Collected:11/26/2001 13:28 by TC

Account Number: 10905

Submitted: 11/28/2001 09:00
Reported: 12/06/2001 at 07:38
Discard: 01/06/2002
MW-1-W-011126 Grab Water

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

Facility# 98341 Job# 386346 GRD
3530 MACARTHUR, OAKLAND T060101790 MW-1

| 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. CALIF. LUFT Gasoline Method | 1 | 11/30/2001 11:06 | Melissa Mann | 1 |
| 08214 | BTEX, MTBE (8021) | SW-846 8021B | 1 | 11/30/2001 11:06 | Melissa Mann | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 11/30/2001 11:06 | Melissa Mann | n.a. |

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

# Analysis Report

Lancaster Laboratories
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**Lancaster Laboratories Sample No. WW 3733970**

Collected:11/26/2001 14:34 by TC

Account Number: 10905

Submitted: 11/28/2001 09:00
Reported: 12/06/2001 at 07:39
Discard: 01/06/2002
MW-2-W-011126 Grab Water

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

Facility# 98341 Job# 386346 GRD
3530 MACARTHUR, OAKLAND T060101790 MW-2

| 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 | 990. | 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. | | | | | |

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. CALIF. LUFT Gasoline Method | 1 | 11/30/2001 21:24 | Melissa Mann | 1 |
| 08214 | BTEX, MTBE (8021) | SW-846 8021B | 1 | 11/30/2001 11:41 | Melissa Mann | 5 |
| 08214 | BTEX, MTBE (8021) | SW-846 8021B | 1 | 11/30/2001 21:24 | Melissa Mann | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 11/30/2001 11:41 | Melissa Mann | n.a. |

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

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# Analysis Report

Lancaster Laboratories
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**Lancaster Laboratories Sample No. WW 3733971**

Collected:11/26/2001 14:02 by TC

Account Number: 10905

Submitted: 11/28/2001 09:00
Reported: 12/06/2001 at 07:39
Discard: 01/06/2002
MW-3-W-011126 Grab Water

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

Facility# 98341 Job# 386346 GRD
3530 MACARTHUR, OAKLAND T060101790 MW-3

| 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. CALIF. LUFT Gasoline Method | 1 | 11/30/2001 12:16 | Melissa Mann | 1 |
| 08214 | BTEX, MTBE (8021) | SW-846 8021B | 1 | 11/30/2001 12:16 | Melissa Mann | 1 |
| 01146 | GC VOA Water Prep | SW-846 5030B | 1 | 11/30/2001 12:16 | Melissa Mann | n.a. |

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

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# Quality Control Summary

Client Name: Chevron Products Company
Reported: 12/06/01 at 07:39 AM

Group Number: 787874

## Laboratory Compliance Quality Control

| Analysis Name | Blank Result | Blank MDL | Report Units | LCS %REC | LCSD %REC | LCS/LCSD Limits | RPD | RPD Max |
|---|---|---|---|---|---|---|---|---|
| Batch number: 01333A55 | Sample number(s): 3733968 | | | | | | | |
| Benzene | N.D. | 0.5 | ug/l | 104 | 104 | 80-118 | 0 | 30 |
| Toluene | N.D. | 0.5 | ug/l | 99 | 98 | 82-119 | 0 | 30 |
| Ethylbenzene | N.D. | 0.5 | ug/l | 105 | 106 | 81-119 | 1 | 30 |
| Total Xylenes | N.D. | 1.5 | ug/l | 109 | 110 | 82-120 | 1 | 30 |
| Methyl tert-Butyl Ether | N.D. | 2.5 | ug/l | 107 | 108 | 79-127 | 1 | 30 |
| TPH-GRO - Waters | N.D. | 50. | ug/l | 98 | 100 | 76-119 | 2 | 20 |
| Batch number: 01334A56 | Sample number(s): 3733969-3733971 | | | | | | | |
| Benzene | N.D. | 0.5 | ug/l | 109 | 109 | 80-118 | 0 | 30 |
| Toluene | N.D. | 0.5 | ug/l | 104 | 105 | 82-119 | 1 | 30 |
| Ethylbenzene | N.D. | 0.5 | ug/l | 102 | 103 | 81-119 | 0 | 30 |
| Total Xylenes | N.D. | 1.5 | ug/l | 103 | 104 | 82-120 | 1 | 30 |
| Methyl tert-Butyl Ether | N.D. | 2.5 | ug/l | 106 | 106 | 79-127 | 0 | 30 |
| TPH-GRO - Waters | N.D. | 50. | ug/l | 99 | 97 | 76-119 | 2 | 20 |

## 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: 01333A55 | Sample number(s): 3733968 | | | | | | | | |
| Benzene | 125 | | 66-140 | | | | | | |
| Toluene | 118 | | 72-138 | | | | | | |
| Ethylbenzene | 126 | | 71-138 | | | | | | |
| Total Xylenes | 130 | | 69-140 | | | | | | |
| Methyl tert-Butyl Ether | 121 | | 60-145 | | | | | | |
| TPH-GRO - Waters | 101 | | 74-132 | | | | | | |
| Batch number: 01334A56 | Sample number(s): 3733969-3733971 | | | | | | | | |
| Benzene | 109 | | 66-140 | | | | | | |
| Toluene | 107 | | 72-138 | | | | | | |
| Ethylbenzene | 108 | | 71-138 | | | | | | |
| Total Xylenes | 109 | | 69-140 | | | | | | |
| Methyl tert-Butyl Ether | 107 | | 60-145 | | | | | | |
| TPH-GRO - Waters | 103 | | 74-132 | | | | | | |

## Surrogate Quality Control

Analysis Name: TPH-GRO - Waters
Batch number: 01333A55

| | Trifluorotoluene-F | Trifluorotoluene-P |
|---|---|---|
| 3733968 | 94 | 105 |
| Blank | 95 | 106 |

*- 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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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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# Quality Control Summary

Client Name: Chevron Products Company
Group Number: 787874
Reported: 12/06/01 at 07:39 AM

## Surrogate Quality Control

| | | |
|---|---|---|
| LCS | 107 | 106 |
| LCSD | 110 | 105 |
| MS | 106 | 105 |
| Limits: | 65-137 | 72-134 |

FEB 0 8 2002

Analysis Name: TPH-GRO - Waters
Batch number: 01334A56

| | Trifluorotoluene-F | Trifluorotoluene-P |
|---|---|---|
| 3733969 | 91 | 98 |
| 3733970 | 91 | 100 |
| 3733971 | 93 | 99 |
| Blank | 92 | 98 |
| LCS | 103 | 98 |
| LCSD | 107 | 97 |
| MS | 112 | 99 |
| Limits: | 65-137 | 72-134 |

*- 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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