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By dehloptoxic at 1:29 pm, Jun 28, 2006



April 24, 2006

The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for  
Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF, LLC  
c/o Ms. Mary Schroeder, McMorgan & Company LLC  
One Bush Street, Suite 800  
San Francisco, California 94104

RE: First Quarter 2006 Groundwater Monitoring Report  
444 Hegenberger Loop, Oakland, California  
*ACC Project No. 6748-017-00*

Dear Ms. Schroeder:

Enclosed is the First Quarter Groundwater Monitoring Report describing the groundwater monitoring activities conducted for all monitoring wells at 444 Hegenberger Loop, Oakland, California. ACC recommends that you submit a copy of the report directly to the Alameda County Health Care Services Agency with your cover letter.

Mr. Barney Chan  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, California 94502

If you have any questions regarding the report, please contact me at (510) 638-8400, ext. 109.

Sincerely,

A handwritten signature in black ink that reads 'David R. DeMent'.

David R. DeMent, PG, REA II  
Environmental Division Manager

/trb:drd

Enclosures

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**FIRST QUARTER 2006 GROUNDWATER MONITORING REPORT**

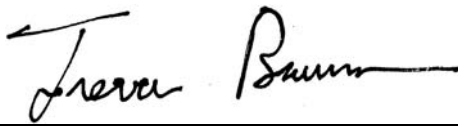
**444 Hegenberger Loop  
Oakland, California**


*ACC Project Number 6748-017-00*

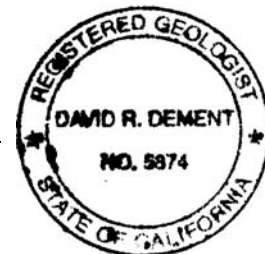
Prepared for:

The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for  
Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF, LLC  
c/o Ms. Mary Schroeder, McMorgan & Company LLC  
One Bush Street, Suite 800  
San Francisco, California 94104

April 24, 2006

Prepared By:   
Trevor Bausman  
Project Administrator

Reviewed By:   
David DeMent, PG, REA II  
Environmental Division Manager



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**FIRST QUARTER 2006  
GROUNDWATER MONITORING REPORT**

**444 Hegenberger Loop  
Oakland, California**

**1.0 INTRODUCTION**

This First Quarter 2006 Groundwater Monitoring Report was prepared by ACC Environmental Consultants, Inc., (ACC) at the request of McMorgan & Company LLC on behalf of The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF. Work was performed at the subject property located at 444 Hegenberger Loop, Oakland, California (Site). The project objectives were to: 1) measure the groundwater levels in each well and calculate the groundwater elevation, gradient, and flow direction; 2) obtain representative water samples from the seven existing groundwater monitoring wells and analyze the water samples for petroleum hydrocarbon constituents as gasoline and/or diesel; and 3) report the findings.

The general goal of this groundwater monitoring and sampling event was to determine current groundwater conditions, evaluate the changes in concentrations of constituents of concern, and obtain current groundwater quality data to further develop a Conceptual Site Model (CSM).

**2.0 BACKGROUND**

The Site is located at 444 Hegenberger Loop in the southeast corner of the intersection of Hegenberger Road and Hegenberger Loop. The rectangular lot is approximately 250 feet long by 200 feet wide and is approximately 9 feet above mean sea level.

The available data indicate that a series of subsurface investigations have been conducted at the Site since 1997. A site assessment in April 1997 indicated the presence of petroleum hydrocarbons in soils and groundwater beneath the Site but no reportable concentrations of methyl tertiary butyl ether (MTBE). A subsequent investigation conducted in July and October 1997 confirmed previous investigation findings and that no underground storage tanks (USTs) remained at the Site.

Tetra Tech EM Inc. (Tetra Tech) installed five 2-inch-diameter groundwater monitoring wells in November 1998. The five monitoring wells were screened from 5 to 20 feet below ground surface (bgs). Well MW-1 was subsequently destroyed in December 1999 and well MW-6 was installed in the estimated downgradient direction of the former waste oil tank. Well MW-6 was screened from 10 to 20 feet bgs. In December 2000, Tetra Tech installed offsite wells MW-7 and MW-8 estimated to be in the downgradient direction of the Site. Wells MW-7 and MW-8 were screened from 5 to 20 feet bgs. Groundwater monitoring was performed periodically from December 1998 to October 2001 in the existing wells.

Tetra Tech reported the findings of a Sensitive Receptor Survey in its March 8, 2001 *Fourth Quarter Groundwater Monitoring Report, December 2000*. According to the California Department of Water resources, 40 monitoring wells and two irrigation wells were located at 11 sites within the search distance. One irrigation well is reportedly located approximately 500 feet cross gradient from the Site and a second irrigation well is located approximately 2,800 feet crossgradient of the Site.

## **2.1 Subsurface Conditions**

Soil boring logs from wells MW-7 and MW-8, included in the March 8, 2001 *Fourth Quarter Groundwater Monitoring Report, December 2000*, indicate that clay and silty clay is present from the surface to the minimum depth of 11.5 feet bgs and sandy gravels and sands are present from approximately 12 to 15 feet bgs to 20.5 feet bgs, the total depth of the soil borings. Silty clays logged at 10 to 10.5 feet bgs are described as dry to moist, medium plasticity, and medium stiff. Sandy gravels logged from 15 to 16 feet bgs are described as saturated, coarse to fine grained sand, and fine to medium grained gravel.

The data summarized in the soil boring logs directly contradicts other conclusions presented in the March 8, 2001 *Fourth Quarter Groundwater Monitoring Report, December 2000*. In the *Subsurface Soil Conditions and Hydrology* section of the report, Tetra Tech states that “Groundwater is usually encountered within five feet bgs,” and in the *Preferential Pathways* section “the utility trenches may act as preferential pathways and could allow for movement of petroleum hydrocarbons to the north and west beyond the site.” Saturated permeable soils are not logged shallower than 12 feet bgs. Utility trenches in the vicinity of the Site likely exist no deeper than seven feet bgs, therefore, interception or preferential movement of groundwater along utility trenches is highly unlikely. Groundwater elevations are typically measured approximately 5 feet bgs in the monitoring wells due to semi-confined aquifer conditions.

## **3.0 GROUNDWATER MONITORING AND SAMPLING**

ACC conducted groundwater monitoring on February 9, 2006. Work at the Site included measuring depth to water, subjectively evaluating groundwater in the wells, purging and sampling the wells, and submitting the samples to a state-certified laboratory for analysis.

### **3.1 Groundwater Monitoring**

Before groundwater sampling, the depth to the surface of the water table was measured from the top of the polyvinyl chloride well casing using a Solinst water level meter. Well elevation data reported by Tetra Tech indicate the groundwater monitoring wells were resurveyed relative to mean sea level in December 2000. ACC measured depth to water using an electronic Solinst meter and the water level measurements were recorded to the nearest 0.01 foot. Information regarding well elevations and groundwater depths is summarized in Table 1.

**TABLE 1 - GROUNDWATER DEPTH INFORMATION**

| Well No. | Date Sampled | Well Elevation <sup>(1)</sup><br>(above MSL) | Depth to<br>Groundwater | Groundwater<br>Elevation |      |
|----------|--------------|--|-------------------------|--------------------------|------|
| MW-1     | 12/02/98     | 100.74                                       | 2.90                    | 97.84                    |      |
|          | 03/08/99     |  | 3.43                    | 97.31                    |      |
|          | 07/01/99     |  | 3.81                    | 96.93                    |      |
|          | 08/18/99     |  | 3.62                    | 97.12                    |      |
|          | 09/15/99     |  | 3.69                    | 97.05                    |      |
|          | 12/27/99     |  | 3.81                    | 96.93                    |      |
|          | 12/99        |  | Well Destroyed          | Well Destroyed           |      |
|          | MW-2         |  | 12/02/98                | 102.44                   | 4.61 |
| 03/08/99 |              | 5.16   | 97.28                   |                          |      |
| 07/01/99 |              | 5.91   | 96.53                   |                          |      |
| 08/18/99 |              | 5.53   | 96.91                   |                          |      |
| 09/15/99 |              | 5.55   | 96.89                   |                          |      |
| 12/27/99 |              | 5.55   | 96.89                   |                          |      |
| 03/24/00 |              | 5.44   | 97.00                   |                          |      |
| 06/09/00 |              | ---  | FP                      |                          |      |
| 12/14/00 |              | 9.05 <sup>(2)</sup>                          | 5.00                    |                          | 4.05 |
| 05/07/01 |              | 5.69   | 3.36                    |                          |      |
| 10/04/01 |              | 5.60   | 3.45                    |                          |      |
| 02/09/05 |              | 5.00   | 4.05                    |                          |      |
| 05/16/05 |              | 3.98   | 5.07                    |                          |      |
| 11/16/05 |              | 5.23   | 3.82                    |                          |      |
| 02/09/06 |              | 4.77   | 4.28                    |                          |      |
| MW-3     | 12/02/98     | 102.00                                       | 4.24                    | 97.76                    |      |
|          | 03/08/99     |  | 4.90                    | 97.10                    |      |
|          | 07/01/99     |  | 5.35                    | 96.65                    |      |
|          | 08/18/99     |  | 5.21                    | 96.79                    |      |
|          | 09/15/99     |  | 5.26                    | 96.74                    |      |
|          | 12/27/99     |  | 5.42                    | 96.58                    |      |
|          | 03/24/00     |  | 5.81                    | 96.19                    |      |
|          | 06/09/00     |  | 5.43                    | 96.57                    |      |
|          | 12/14/00     |  | 8.60 <sup>(2)</sup>     | 4.85                     | 3.75 |
|          | 05/07/01     |  | 5.37                    | 3.23                     |      |
|          | 10/04/01     |  | 5.27                    | 3.33                     |      |
|          | 02/09/05     |  | 4.45                    | 4.15                     |      |
|          | 05/16/05     |  | 3.81                    | 4.79                     |      |
|          | 11/16/05     |  | 4.90                    | 3.70                     |      |
|          | 02/09/06     |  | 4.41                    | 4.19                     |      |
| MW-4     | 12/02/98     | 100.00                                       | 2.20                    | 97.80                    |      |
|          | 03/08/99     |  | 2.80                    | 97.20                    |      |
|          | 07/01/99     |  | 5.23                    | 64.77                    |      |
|          | 08/18/99     |  | 5.00                    | 95.00                    |      |
|          | 09/15/99     |  | 4.99                    | 95.01                    |      |
|          | 12/27/99     |  | 5.23                    | 94.77                    |      |
|          | 03/24/00     |  | 5.39                    | 94.61                    |      |
|          | 06/09/00     |  | 5.24                    | 94.76                    |      |
|          | 12/14/00     |  | 8.50 <sup>(2)</sup>     | 4.60                     | 3.90 |
|          | 05/07/01     |  | 5.20                    | 3.30                     |      |
|          | 10/04/01     |  | 5.08                    | 3.42                     |      |

| Well No. | Date Sampled | Well Elevation <sup>(1)</sup><br>(above MSL) | Depth to<br>Groundwater | Groundwater<br>Elevation |      |
|----------|--------------|--|-------------------------|--------------------------|------|
|          | 02/09/05     |  | 4.45                    | 4.05                     |      |
|          | 05/16/05     |  | 3.98                    | 4.52                     |      |
|          | 11/16/05     |  | 4.72                    | 3.78                     |      |
|          | 02/09/06     |  | 4.24                    | 4.26                     |      |
| MW-5     | 12/02/98     | 102.22                                       | 4.59                    | 97.63                    |      |
|          | 03/08/99     |  | 5.20                    | 97.02                    |      |
|          | 07/01/99     |  | 5.59                    | 96.63                    |      |
|          | 08/18/99     |  | 5.37                    | 96.85                    |      |
|          | 09/15/99     |  | 5.55                    | 96.67                    |      |
|          | 12/27/99     |  | 5.48                    | 96.74                    |      |
|          | 03/24/00     |  | 6.02                    | 96.20                    |      |
|          | 06/09/00     |  | 5.59                    | 96.63                    |      |
|          | 12/14/00     |  | 8.84 <sup>(2)</sup>     | 5.10                     | 3.74 |
|          | 05/07/01     |  | 5.52                    | 3.32                     |      |
|          | 10/04/01     |  | 5.45                    | 3.39                     |      |
|          | 02/09/05     |  | 4.90                    | 3.94                     |      |
|          | 05/16/05     |  | 3.92                    | 4.92                     |      |
|          | 11/16/05     | 5.10   | 3.74                    |                          |      |
| 02/09/06 | 4.60         | 4.24   |                         |                          |      |
| MW-6     | 03/24/00     | 102.58                                       | 5.49                    | 97.09                    |      |
|          | 06/09/00     | 9.19 <sup>(2)</sup>                          | 5.87                    | 96.71                    |      |
|          | 12/14/00     |  | 5.13                    | 4.06                     |      |
|          | 05/07/01     |  | 5.89                    | 3.30                     |      |
|          | 10/04/01     |  | 5.71                    | 3.48                     |      |
|          | 02/09/05     |  | 5.20                    | 3.99                     |      |
|          | 05/16/05     |  | 3.98                    | 5.21                     |      |
|          | 11/16/05     |  | 5.34                    | 3.85                     |      |
| 02/09/06 | 4.92         | 4.27   |                         |                          |      |
| MW-7     | 12/14/00     | 8.10 <sup>(2)</sup>                          | 3.48                    | 4.62                     |      |
|          | 05/07/01     |  | 5.13                    | 2.97                     |      |
|          | 10/04/01     |  | 4.87                    | 3.23                     |      |
|          | 02/09/05     |  | 4.15                    | 3.95                     |      |
|          | 05/16/05     |  | 3.79                    | 4.31                     |      |
|          | 11/16/05     |  | 4.55                    | 3.55                     |      |
| 02/09/06 | 4.92         |  | 3.18                    |                          |      |
| MW-8     | 12/14/00     | 8.68 <sup>(2)</sup>                          | 5.10                    | 3.58                     |      |
|          | 05/07/01     |  | 5.74                    | 2.94                     |      |
|          | 10/04/01     |  | 5.52                    | 3.16                     |      |
|          | 02/09/05     |  | 4.80                    | 3.88                     |      |
|          | 05/16/05     |  | 3.41                    | 5.27                     |      |
|          | 11/16/05     |  | 5.28                    | 3.40                     |      |
| 02/09/06 | 4.58         |  | 4.10                    |                          |      |

Notes: All measurements in feet

<sup>(1)</sup>Well elevation measured to top of casing

<sup>(2)</sup>Well elevation relative to established City of Oakland Benchmark (feet above sea level)

### 3.2 Groundwater Gradient

The calculated groundwater flow direction and gradient, as determined from monitoring well data obtained on February 9, 2006, is illustrated on Figure 3. Generally, revised groundwater piezometric surface contours approximate historic values and groundwater flow direction trends west-northwest. The calculated groundwater gradient averaged 0.001 foot per foot to the northwest. Historical groundwater gradients and calculated flow directions are summarized in Table 2.

**TABLE 2 – GROUNDWATER GRADIENT AND FLOW DIRECTION**

| Date Monitored | Gradient (foot/foot)                             | Direction                                   |
|----------------|--|---|
| 12/02/98       | 0.00091  | West  |
| 03/08/99       | 0.00086  | Southwest                                   |
| 07/01/99       | 0.0011   | Southwest                                   |
| 08/18/99       | 0.0013   | West  |
| 09/15/99       | 0.04089 <sup>(1)</sup><br>0.00125 <sup>(5)</sup> | North <sup>(1)</sup><br>West                |
| 12/27/99       | 0.0010 <sup>(5)</sup><br>0.0489 <sup>(1)</sup>   | West <sup>(5)</sup><br>North <sup>(1)</sup> |
| 03/29/00       | 0.0469 <sup>(1)</sup><br>0.0131 <sup>(2)</sup>   | Northwest<br>West-Southwest                 |
| 06/09/00       | 0.03 <sup>(3)</sup><br>0.0011 <sup>(2)</sup>     | North<br>South-southwest                    |
| 12/14/00       | 0.003 <sup>(1)</sup><br>0.006 <sup>(4)</sup>     | North<br>North                              |
| 05/07/01       | 0.0014<br>0.0025 <sup>(6)</sup>                  | Northwest<br>Northwest                      |
| 10/04/01       | 0.0013<br>0.001 <sup>(6)</sup>                   | Northwest<br>Northwest                      |
| 02/09/05       | 0.001  | Southwest                                   |
| 05/16/05       | 0.004  | West-Northwest                              |
| 11/16/05       | 0.002  | Northwest                                   |
| 02/09/06       | 0.001 <sup>(7)</sup>                             | Northwest                                   |

- Notes:
- (1) Flow component from MW-2 to MW-4
  - (2) Flow component from MW-6 to area of MW-5
  - (3) Flow component from MW-2, MW-3, and MW-4 and from MW-6 to MW-4
  - (4) Flow component from MW-7 to MW-8
  - (5) Flow component among wells MW-2, MW-3, and MW-5
  - (6) Flow component from MW-3 to MW-7
  - (7) Flow component from MW-2 through MW-6 and MW-8

### 3.3 Groundwater Sampling

Before groundwater sampling, each well was purged using a disposable polyethylene bailer. Groundwater samples were collected after four well casing volumes of water were measured for temperature and dissolved oxygen (DO), and removed. Following purging, each well was



allowed to recharge before sampling. When recovery to 80 percent of the static water level was observed, a sample was collected for analysis. Groundwater conditions monitored during purging and sampling were recorded on monitoring well worksheets, included as Appendix 1.

Wells were sampled using disposable polyethylene bailers attached to a new rope for each well. From each monitoring well, approved, laboratory-supplied sample vials were filled to overflowing and sealed to eliminate trapped air in the vial. Once filled, sample vials were inverted and tapped to test for air bubbles. Sample containers were labeled with self adhesive, preprinted tags. The samples were stored in a pre-chilled, insulated container pending delivery to Curtis & Tompkins, a state-certified analytical laboratory, for analysis.

Water purged during the development and sampling of the monitoring wells was temporarily stored onsite in Department of Transportation approved 55-gallon drums pending laboratory analysis and proper disposal.

#### **4.0 RESULTS OF GROUNDWATER SAMPLING**

Groundwater samples collected from each well were submitted to Curtis & Tompkins following chain of custody protocol. All groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPHd) by EPA Method 3510/8015M, TPH as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and MTBE by EPA Method 8260B. A copy of the chain of custody record and laboratory analytical reports is included as Appendix 2. A summary of the groundwater results obtained from each monitoring well is presented in Table 3.

**TABLE 3 - GROUNDWATER SAMPLE ANALYTICAL RESULTS**

| Well No. | Date Sampled         | TPHd (µg/L)        | TPHg (µg/L)        | MTBE (µg/L) | Benzene (µg/L)     | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
|----------|----------------------|--------------------|--------------------|-------------|--------------------|----------------|---------------------|----------------------|
| MW-1     | 12/02/98             | < 50               | < 50               | ---         | <0.05              | <0.05          | <0.05               | <0.05                |
|          | 03/08/99             | 190                | < 50               | ---         | <0.3               | <0.3           | <0.3                | <0.3                 |
|          | 07/01/99             | < 50               | < 50               | ---         | <0.5               | <0.5           | <0.5                | <0.5                 |
|          | 08/18/99             | < 50               | 3,100              | ---         | <0.5               | 9.6            | 12                  | 12                   |
|          | 09/15/99             | < 50               | < 50               | ---         | <0.5               | <0.5           | <0.5                | <0.5                 |
|          | 12/27/99             | ---                | ---                | ---         | ---                | ---            | ---                 | ---                  |
|          | Destroyed            | ---                | ---                | ---         | ---                | ---            | ---                 | ---                  |
| MW-2     | 12/02/98             | 99                 | < 50               | ---         | 4.6                | 0.85           | 0.57                | 5                    |
|          | 03/08/99             | 210                | 180                | ---         | 200 <sup>(9)</sup> | 0.74           | 1.3                 | 2.3                  |
|          | 07/01/99             | < 50               | 1,100              | ---         | 190                | 13             | 33                  | 36                   |
|          | 08/18/99             | ---                | ---                | ---         | ---                | ---            | ---                 | ---                  |
|          | 09/15/99             | 100                | 990                | ---         | 330                | 9.7            | 11                  | 19                   |
|          | 12/27/99             | < 50               | 1,000              | ---         | 260                | 7.2            | 1.3                 | 10                   |
|          | 03/24/00             | 31,000             | 1,900              | ---         | 110                | 4.8            | 9.5                 | 12                   |
|          | 06/09/00             | ---                | ---                | ---         | ---                | ---            | ---                 | ---                  |
|          | 12/14/00             | 470                | 1,600              | < 2         | 450                | 18             | 61                  | 26                   |
|          | 05/07/01             | 300                | 950                | ---         | 120                | 5.8            | 8.5                 | 32                   |
|          | 10/04/01             | 170                | 370                | ---         | 55                 | 2.8            | 17                  | 4.2                  |
|          | 02/09/05             | < 50               | 160                | < 0.50      | 69                 | 1.2            | 1.3                 | < 1.0                |
|          | 05/16/05             | 140                | 650                | < 0.50      | 96                 | 4.7            | 15                  | 7.5                  |
|          | 11/16/05             | 160 <sup>(1)</sup> | 54 <sup>(1)</sup>  | < 0.50      | 19                 | < 0.5          | < 0.5               | < 0.5                |
| 02/09/06 | 230 <sup>(1)</sup>   | 250                | < 0.50             | 160         | 4.0                | 3.9            | 2.1                 |                      |
| MW-3     | 12/02/98             | 300                | 970                | ---         | 160                | 6.5            | 16                  | 9                    |
|          | 03/08/99             | 1,400              | 2,600              | ---         | 1,800              | 30             | 67                  | 26                   |
|          | 07/01/99             | 150                | 3,000              | ---         | 1                  | < 0.5          | 32                  | 36                   |
|          | 08/18/99             | ---                | ---                | ---         | ---                | ---            | ---                 | ---                  |
|          | 09/15/99             | 110                | 1,100              | ---         | 350                | 8.3            | 5.4                 | 10                   |
|          | 12/27/99             | 70                 | 560                | ---         | 170                | 2.1            | 7.6                 | 3.1                  |
|          | 03/24/00             | 1,000              | 8,400              | ---         | 4100               | 71             | 190                 | 75                   |
|          | 06/09/00             | 320                | 2,700              | ---         | 1,100              | 17             | 18                  | < 10                 |
|          | 12/14/00             | < 100              | 710                | < 0.5       | 140                | 2.2            | 3.3                 | 1.2                  |
|          | 05/07/01             | < 400              | 1,500              | ---         | 270                | 7.9            | 11                  | 5.6                  |
|          | 10/04/01             | < 50               | 140                | ---         | 45                 | < 0.3          | 1.3                 | < 0.6                |
|          | 02/09/05             | ---                | 7,700              | < 5.0       | 670                | 16             | 83                  | 36                   |
|          | 05/16/05             | ---                | 7,100              | < 5.0       | 1,200              | 20             | 110                 | 49                   |
|          | 11/16/05             | 55 <sup>(1)</sup>  | 270 <sup>(1)</sup> | < 0.5       | 30                 | 0.61           | < 0.5               | < 0.5                |
| 02/09/06 | 3,000 <sup>(1)</sup> | 3,700              | < 0.50             | 720         | 12                 | 50             | 29.9                |                      |
| MW-4     | 12/02/98             | 620                | < 50               | ---         | 1.1                | 0.37           | < 0.3               | 2                    |
|          | 03/08/99             | < 50               | 1,300              | ---         | 1,900              | 9.4            | 1.2                 | 11                   |
|          | 07/01/99             | < 50               | 610                | ---         | 120                | < 0.5          | < 0.5               | < 0.5                |
|          | 08/18/99             | ---                | ---                | ---         | ---                | ---            | ---                 | ---                  |
|          | 09/15/99             | 59                 | 830                | ---         | 320                | 6.5            | 1.7                 | < 2.0                |
|          | 12/27/99             | < 50               | 55                 | ---         | 5.8                | < 0.5          | < 0.5               | < 0.5                |
|          | 03/24/00             | 77                 | 430                | ---         | 240                | 3.3            | 0.98                | 1.5                  |
|          | 06/09/00             | < 50               | 220                | ---         | 91                 | 0.93           | < 0.5               | < 0.5                |
|          | 12/14/00             | < 50               | 96                 | < 0.5       | 15                 | < 0.5          | < 0.5               | < 0.5                |

| Well No.  | Date Sampled       | TPHd (µg/L)          | TPHg (µg/L)        | MTBE (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) |
|-----------|--------------------|----------------------|--------------------|-------------|----------------|----------------|---------------------|----------------------|
| MW-4 cont | 05/07/01           | < 100                | 380                | ---         | 130            | 2.5            | 1.7                 | 2.5                  |
|           | 10/04/01           | < 50                 | 76                 | ---         | 21             | <0.3           | <0.3                | <0.6                 |
|           | 02/09/05           | ---                  | 2,000              | <2.5        | 440            | 12             | 9.3                 | 7.6                  |
|           | 05/16/05           | ---                  | 2,400              | <2.5        | 610            | 16             | 11                  | 8.0                  |
|           | 11/16/05           | 520 <sup>(1)</sup>   | 490 <sup>(1)</sup> | <1.0        | 170            | 4.5            | 3.3                 | 2.3                  |
|           | 02/09/06           | 2,000 <sup>(1)</sup> | 1,500              | <1.0        | 630            | 16             | 10                  | 9.3                  |
| MW-5      | 12/02/98           | 620                  | < 50               | ---         | 1.1            | 0.37           | <0.3                | 2                    |
|           | 03/08/99           | < 50                 | 58                 | ---         | 23             | 0.31           | <0.3                | 1.8                  |
|           | 07/01/99           | 64                   | 1,900              | ---         | 160            | 10             | 13                  | 22                   |
|           | 08/18/99           | ---                  | ---                | ---         | ---            | ---            | ---                 | ---                  |
|           | 09/15/99           | < 50                 | 410                | ---         | 64             | 2.1            | 1.3                 | 2.7                  |
|           | 12/27/99           | < 50                 | 130                | ---         | 15             | 0.73           | <0.5                | <0.5                 |
|           | 03/24/00           | 460                  | 2,500              | ---         | 560            | 57             | 18                  | 87                   |
|           | 06/09/00           | 140                  | 2,600              | ---         | 770            | 63             | 15                  | 71                   |
|           | 12/14/00           | < 50                 | 220                | <0.5        | 17             | 0.63           | 1.7                 | 1.1                  |
|           | 05/07/01           | <200                 | 3,200              | ---         | 450            | 44             | 54                  | 66                   |
|           | 10/04/01           | < 50                 | < 50               | ---         | 3.6            | <0.3           | <0.3                | <0.6                 |
|           | 02/09/05           | 57                   | 1,100              | 0.58        | 160            | 14             | 50                  | 9.6                  |
|           | 05/16/05           | 340                  | 4,700              | < 10        | 730            | 79             | 340                 | 36                   |
|           | 11/16/05           | < 50                 | 120 <sup>(1)</sup> | 0.57        | 18             | <0.5           | <0.5                | <0.5                 |
| 02/09/06  | 100 <sup>(1)</sup> | 180                  | <0.50              | 33          | 2.2            | 2.1            | 1.8                 |                      |
| MW-6      | 03/24/00           | 470                  | 2,400              | ---         | 430            | 16             | 340                 | 73                   |
|           | 06/09/00           | < 50                 | 540                | ---         | 190            | 1.2            | 3.7                 | 4.5                  |
|           | 12/14/00           | < 50                 | < 50               | <0.5        | 0.51           | <0.5           | <0.5                | 0.94                 |
|           | 05/07/01           | < 50                 | < 50               | ---         | 4.4            | <0.5           | <0.5                | <0.5                 |
|           | 10/04/01           | < 50                 | < 50               | ---         | <0.3           | <0.3           | <0.3                | <0.6                 |
|           | 02/09/05           | < 50                 | < 50               | <0.50       | 0.94           | <0.50          | <0.50               | <1.0                 |
|           | 05/16/05           | < 50                 | < 50               | <0.50       | 0.55           | <0.50          | <0.50               | <1.0                 |
|           | 11/16/05           | 270                  | < 50               | <0.50       | <0.50          | <0.50          | <0.50               | <0.50                |
| 02/09/06  | 65 <sup>(1)</sup>  | < 50                 | <0.50              | 0.64        | <0.50          | <0.50          | <0.50               |                      |
| MW-7      | 12/14/00           | < 50                 | < 50               | <0.5        | <0.5           | <0.5           | <0.5                | <0.5                 |
|           | 05/07/01           | < 50                 | < 50               | ---         | <0.5           | <0.5           | <0.5                | <0.5                 |
|           | 10/04/01           | < 50                 | < 50               | ---         | <0.3           | <0.3           | <0.3                | <0.6                 |
|           | 02/09/05           | ---                  | < 50               | 0.55        | <0.50          | <0.50          | <0.50               | <1.0                 |
|           | 05/16/05           | ---                  | < 50               | <0.50       | <0.50          | <0.50          | <0.50               | <1.0                 |
|           | 11/16/05           | < 50                 | < 50               | <0.50       | <0.50          | <0.50          | <0.50               | <0.50                |
| 02/09/06  | 81 <sup>(1)</sup>  | < 50                 | <0.50              | <0.50       | <0.50          | <0.50          | <0.50               |                      |
| MW-8      | 12/14/00           | < 50                 | < 50               | 0.52        | <0.5           | <0.5           | <0.5                | <0.5                 |
|           | 05/07/01           | < 50                 | < 50               | ---         | <0.5           | <0.5           | <0.5                | <0.5                 |
|           | 10/04/01           | < 50                 | < 50               | ---         | <0.3           | <0.3           | <0.3                | <0.6                 |
|           | 02/09/05           | ---                  | < 50               | <0.50       | <0.50          | <0.50          | <0.50               | <1.0                 |
|           | 05/16/05           | ---                  | < 50               | <0.50       | <0.50          | <0.50          | <0.50               | <1.0                 |
|           | 11/16/05           | < 50                 | < 50               | <0.50       | <0.50          | <0.50          | <0.50               | <0.50                |
| 02/09/06  | 72 <sup>(1)</sup>  | < 50                 | <0.50              | <0.50       | <0.50          | <0.50          | <0.50               |                      |

Notes: ug/L = micrograms per liter (approximately equivalent to ppb)

--- = analysis not performed

Select data flags have been removed from the previously reported data table

<sup>(1)</sup> Chromatographic pattern does not resemble standard

## 5.0 DISCUSSION

Periodic groundwater monitoring and sampling was conducted from December 2000 to October 2001, and from February 2005 through February 2006. Measured groundwater elevations in wells MW-2 through MW-6 increased from the November 2005 event from 0.42 to 0.50 feet, while the measured groundwater elevation decreased 0.37 feet in well MW-7 and increased 0.70 feet in well MW-8. During this event, and including data from all wells except MW-7, the calculated groundwater flow direction was northwest at an average gradient of 0.001 foot per foot. These values are generally consistent with historical trends and should be expected based on local topography and surface water drainage pathways. ACC believes that tidal fluctuations, apparent in San Leandro Creek located approximately 200 feet west and northwest of the Site, are responsible for the variation in calculated groundwater flow direction and gradient based on groundwater elevations measured in the monitoring wells and their proximity to San Leandro Creek.

Reported TPHd concentrations increased slightly in wells MW-2 and MW-5 and increased in wells MW-3 and MW-4. Reported TPHd concentrations ranged from 100 micrograms per Liter ( $\mu\text{g/L}$ ) in onsite well MW-5 to 3,000  $\mu\text{g/L}$  in onsite well MW-3. TPHd-range petroleum hydrocarbons were reported for the first time just above the laboratory reporting limit in wells MW-7 and MW-8. Well MW-7 reported 81  $\mu\text{g/L}$  and well MW-8 reported 72  $\mu\text{g/L}$ . Chromatogram patterns indicate the TPHd concentrations reported in wells MW-6 through MW-8 do not resemble a diesel standard and appear to be one isolated peak.

Reported TPHg and BTEX concentrations also increased slightly in wells MW-2 and MW-5 and increased in wells MW-3 and MW-4. TPHg concentrations ranged from 1,500  $\mu\text{g/L}$  in well MW-4 to 3,700  $\mu\text{g/L}$  in well MW-3. Reported benzene concentrations ranged from 0.64  $\mu\text{g/L}$  in well MW-6 to 720  $\mu\text{g/L}$  in well MW-3. With the exception of 0.64  $\mu\text{g/L}$  benzene in well MW-6, TPHg, BTEX, and MTBE were not detected above their respective laboratory reporting limits in wells MW-6, MW-7, and MW-8. MTBE was not detected above its laboratory reporting limit in any of the groundwater monitoring wells and does not appear to be a constituent of concern.

In comparison to the November 2005 sampling event, TPHd, TPHg, and BTEX concentrations generally increased. As in previous groundwater sampling events, these changes in dissolved petroleum hydrocarbon concentrations appear to be due to changes in seasonal contact between groundwater and residual TPH sources in soil existing immediately above the water table. As anticipated and discussed in the November 2005 groundwater monitoring report, slight increases in measured groundwater elevation resulted in increased concentrations of dissolved constituents in groundwater in February 2006. Based on near record precipitation in the area, and the soil type reported in the saturated, first-encountered water-bearing zone, the increases in dissolved-phase petroleum hydrocarbons reported during this sampling event were expected and should be representative of the "worst-case" scenario. Periodic groundwater monitoring results obtained since December 1998 have demonstrated that a residual source of petroleum hydrocarbon impact to groundwater primarily exists in soil in the vicinity of monitoring wells MW-3, MW-4, and

MW-5. This soil residual impact to groundwater continues to fluctuate on a seasonal basis but is generally decreasing with time.

## **6.0 CONCLUSIONS**

Based on findings of this well monitoring and sampling event, and comparison to historical well monitoring and sampling data, ACC concludes the following:

- The calculated groundwater flow direction and gradient is generally consistent with historical trends and reflects the flat local topography and local surface drainage to San Francisco Bay;
- TPHd, TPHg, and BTEX concentrations generally increased but were consistent with the analytical results of previous sampling events conducted during this season of the calendar year, and reported concentrations do not indicate a significant soil source of petroleum hydrocarbon impact to groundwater;
- Consistent with previous sampling events, TPHg, BTEX, and MTBE were not reported in downgradient monitoring wells MW-7 and MW-8;
- Minor TPHd concentrations were reported in downgradient monitoring wells MW-7 and MW-8 but these diesel-range petroleum hydrocarbon concentrations are suspect and were flagged by the laboratory as not resembling the laboratory diesel standard;
- Natural attenuation processes are preferentially degrading BTEX and reported petroleum hydrocarbon concentrations indicate that no significant source of gasoline or diesel impact to groundwater is present; and
- TPHd, TPHg, and BTEX are the primary constituents of concern and any additional investigation or groundwater monitoring should target these analytes.

## **7.0 RECOMMENDATIONS**

Based on our review of historical site investigation findings and the results of recently completed groundwater monitoring, ACC recommends the following:

- Implement a Work Plan to conduct additional focused subsurface investigation to revise the Conceptual Site Model, fill apparent data gaps, and obtain current data about residual TPH concentrations in soil and groundwater to assess potential human health risk based on proposed Site use;
- Analyze groundwater samples from onsite well MW-6 and offsite well MW-8 for total dissolved solids and prepare all groundwater samples by silica gel cleanup prior to TPHd and TPHg analysis;

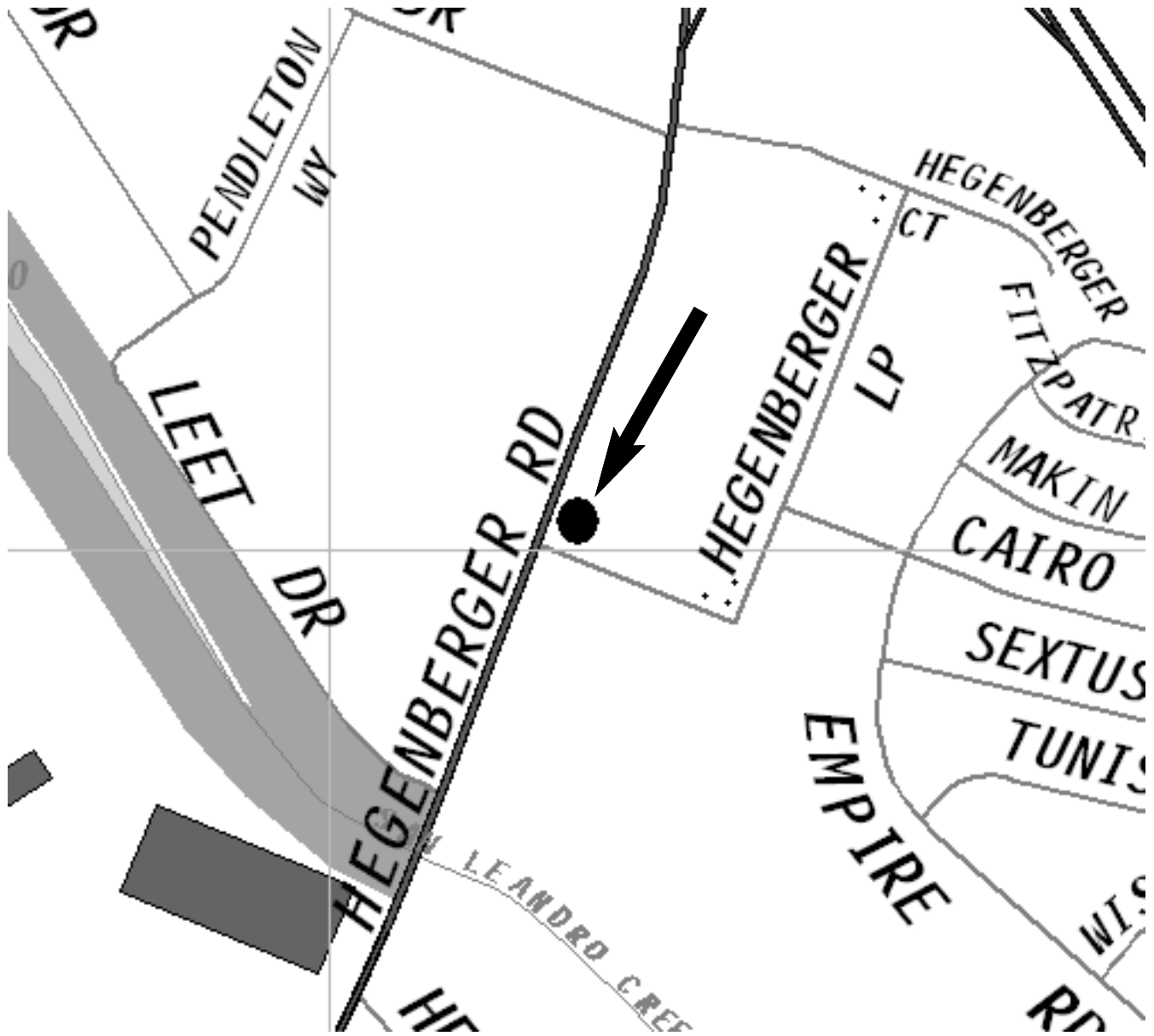
- As required by the lead regulatory agency, continue to perform periodic groundwater monitoring and sampling and ensure the Site is Geotracker compliant in anticipation of obtaining eventual regulatory Site closure.

## **8.0 LIMITATIONS**

The service performed by ACC has been conducted in a manner consistent with the levels of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made.

The conclusions presented in this report are professional opinions based on the indicated data described in this report and applicable regulations and guidelines currently in place. They are intended only for the purpose, site, and project indicated. Opinions and recommendations presented herein apply to site conditions existing at the time of our study.

ACC has included analytical results from a state-certified laboratory, which performs analyses according to procedures suggested by the U.S. Environmental Protection Agency and the State of California. ACC is not responsible for laboratory errors in procedure or result reporting.



Source: The Thomas Guide, Bay Area, 2004

Title: **Location Map**  
**444 Hegenberger Loop**  
**Oakland, California**

Figure Number: 1

Scale: None

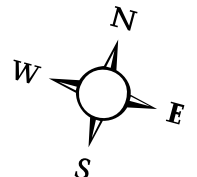
Project Number: 6748-017.00

Drawn By: ANW

Date: 01/09/06



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 Oakland, California 94621  
 (510) 638-8400 Fax: (510) 638-8404





MW-8

HEGENBERGER ROAD

MW-7

HEGENBERGER LOOP

MW-3

MW-4

former dispenser islands

MW-2

MW-6

MW-5

former UST areas

MW-1

(DESTROYED)

### Legend



Groundwater Monitoring Well Location

Title: **Site Plan**  
**444 Hegenberger Loop**  
**Oakland, California**

Figure Number: 2

Scale: 1" = 60'

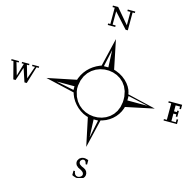
Project Number: 6748-017.00

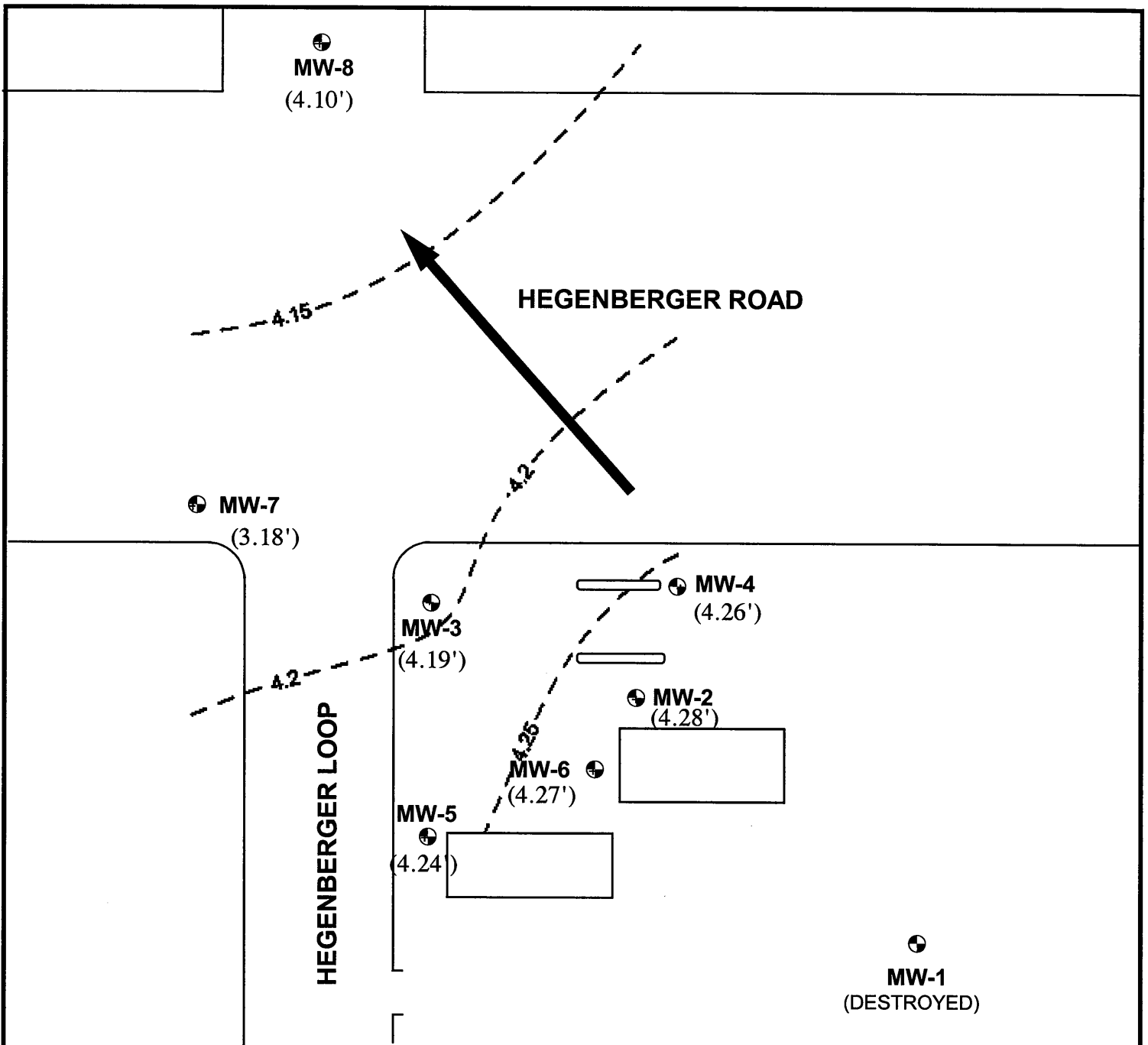
Drawn By: ANW

Date: 02/09/06



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Oakland, California 94621  
(510) 638-8400 Fax: (510) 638-8404





**Groundwater gradient based upon monitoring data collected on February 9, 2006 (excluding monitoring well MW-7 data)**

### Legend

- MW-8** (4.24') Groundwater Monitoring Well Location/ Groundwater Elevation Recorded in ft.
- Calculated Groundwater Elevation Contour
- Groundwater Flow Direction

Title: **Gradient Map**  
**444 Hegenberger Loop**  
**Oakland, California**

Figure Number: 3

Scale: 1" = 60'

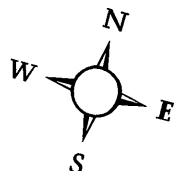
Project Number: 6748-017.00

Drawn By: DRD

Date: 03/23/06



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JOB NAME: \_\_\_\_\_ PURGE METHOD: *Manual Pump*  
 SITE ADDRESS: *444 HAGENBELGER LOOP* SAMPLED BY: *A.W.*  
 JOB #: *6748-01200* LABORATORY: *K-T*  
 DATE: *02-09-06* ANALYSIS: *TPH, TPH, BTEX, MTBS*  
 Onsite Drum Inventory SOIL: \_\_\_\_\_ MONITORING  DEVELOPING   
 EMPTY: WATER: *2 @ 100%* SAMPLING

|   | PURGE (Gal) | PURGE WATER READINGS |          |       |      |       |      | OBSERVATIONS  |
|---|-------------|----------------------|----------|-------|------|-------|------|---|
|   |             | pH                   | Temp.(C) | Cond. | Sal. | Turb. | D.O. |   |
| <b>WELL: MW-5</b><br>DEPTH OF BORING: <i>19.54</i><br>DEPTH TO WATER: <i>4.60</i><br>WATER COLUMN: <i>14.94</i><br>WELL DIAMETER: <i>2"</i><br>WELL VOLUME: <i>2.5</i><br>COMMENTS: _____ | <i>2.5</i>  |                      |          |       |      |       |      | <input type="checkbox"/> Froth<br><input type="checkbox"/> Sheen<br><input checked="" type="checkbox"/> Odor Type <i>Foul</i><br><input type="checkbox"/> Free Product<br>Amount _____ Type _____<br><input type="checkbox"/> Other |
| <b>WELL: MW-6</b><br>DEPTH OF BORING: <i>15.75</i><br>DEPTH TO WATER: <i>4.92</i><br>WATER COLUMN: <i>10.83</i><br>WELL DIAMETER: <i>2"</i><br>WELL VOLUME: <i>1.8</i><br>COMMENTS: _____ | <i>1.8</i>  |                      |          |       |      |       |      | <input type="checkbox"/> Froth<br><input type="checkbox"/> Sheen<br><input type="checkbox"/> Odor Type _____<br><input type="checkbox"/> Free Product<br>Amount _____ Type _____<br><input type="checkbox"/> Other                  |
| <b>WELL: MW-7</b><br>DEPTH OF BORING: <i>14.94</i><br>DEPTH TO WATER: <i>4.92</i><br>WATER COLUMN: <i>10.02</i><br>WELL DIAMETER: <i>2"</i><br>WELL VOLUME: <i>1.6</i><br>COMMENTS: _____ | <i>1.6</i>  |                      |          |       |      |       |      | <input type="checkbox"/> Froth<br><input type="checkbox"/> Sheen<br><input type="checkbox"/> Odor Type _____<br><input type="checkbox"/> Free Product<br>Amount _____ Type _____<br><input type="checkbox"/> Other                  |

**JOB NAME:** \_\_\_\_\_  
**PURGE METHOD:** *Municipal Basin*  
**SITE ADDRESS:** *444 Hagenberg Loop*  
**SAMPLED BY:** *A.W*  
**JOB #:** *6748-017-00*  
**LABORATORY:** *K+*  
**DATE:** *02-09-06*  
**ANALYSIS:** *TPH, TPh, BEX, MTBE*  
**One-Drum Inventory SOIL:** \_\_\_\_\_  
**EMPTY:** *WATER: 2 @ 100%*  
**MONITORING**  **DEVELOPING**   
**SAMPLING**

|  | PURGE VOL. | PURGE WATER READINGS |    |          |       |      |       | OBSERVATIONS   |
|--|------------|----------------------|----|----------|-------|------|-------|--|
|  |            | (Gal)                | pH | Temp.(C) | Cond. | Sal. | Turb. |  |
| <b>WELL:</b> <i>MW-8</i><br><b>DEPTH OF BORING:</b> <i>20.31</i><br><b>DEPTH TO WATER:</b> <i>4.58</i><br><b>WATER COLUMN:</b> <i>16.79</i><br><b>WELL DIAMETER:</b> <i>2"</i><br><b>WELL VOLUME:</b> <i>2.8</i><br><b>COMMENTS:</b> _____ | <i>2.8</i> |                      |    |          |       |      |       | <input type="checkbox"/> Froth<br><input type="checkbox"/> Sheen<br><input type="checkbox"/> Odor Type _____<br><input type="checkbox"/> Free Product<br>Amount _____ Type _____<br><input type="checkbox"/> Other |
| <b>WELL:</b> _____<br><b>DEPTH OF BORING:</b> _____<br><b>DEPTH TO WATER:</b> _____<br><b>WATER COLUMN:</b> _____<br><b>WELL DIAMETER:</b> _____<br><b>WELL VOLUME:</b> _____<br><b>COMMENTS:</b> _____                                    |            |                      |    |          |       |      |       | <input type="checkbox"/> Froth<br><input type="checkbox"/> Sheen<br><input type="checkbox"/> Odor Type _____<br><input type="checkbox"/> Free Product<br>Amount _____ Type _____<br><input type="checkbox"/> Other |
| <b>WELL:</b> _____<br><b>DEPTH OF BORING:</b> _____<br><b>DEPTH TO WATER:</b> _____<br><b>WATER COLUMN:</b> _____<br><b>WELL DIAMETER:</b> _____<br><b>WELL VOLUME:</b> _____<br><b>COMMENTS:</b> _____                                    |            |                      |    |          |       |      |       | <input type="checkbox"/> Froth<br><input type="checkbox"/> Sheen<br><input type="checkbox"/> Odor Type _____<br><input type="checkbox"/> Free Product<br>Amount _____ Type _____<br><input type="checkbox"/> Other |

### CASE NARRATIVE

Laboratory number: 184869  
Client: ACC Environmental Consultants  
Project: 6748-017.00  
Location: 444 Hegenberger Loop  
Request Date: 02/10/06  
Samples Received: 02/10/06

This hardcopy data package contains sample and QC results for seven water samples, requested for the above referenced project on 02/10/06. The samples were received cold and intact.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**

High recovery was observed for 1,2-dichloroethane in the BS for batch 110431; the associated RPD was within limits, and the high recovery was not associated with any reported results. No other analytical problems were encountered.



| Gasoline by GC/MS |                               |           |                      |
|-------------------|-------------------------------|-----------|----------------------|
| Lab #:            | 184869                        | Location: | 444 Hegenberger Loop |
| Client:           | ACC Environmental Consultants | Prep:     | EPA 5030B            |
| Project#:         | 6748-017.00                   | Analysis: | EPA 8260B            |
| Matrix:           | Water                         | Sampled:  | 02/09/06             |
| Units:            | ug/L                          | Received: | 02/10/06             |

Field ID: MW-4                      Lab ID: 184869-003  
 Type: SAMPLE                      Analyzed: 02/14/06

| Analyte         | Result | RL  | Diln Fac | Batch# |
|-----------------|--------|-----|----------|--------|
| Gasoline C7-C12 | 1,500  | 100 | 2.000    | 110402 |
| MTBE            | ND     | 1.0 | 2.000    | 110402 |
| Benzene         | 630    | 5.0 | 10.00    | 110431 |
| Toluene         | 16     | 1.0 | 2.000    | 110402 |
| Ethylbenzene    | 10     | 1.0 | 2.000    | 110402 |
| m,p-Xylenes     | 8.0    | 1.0 | 2.000    | 110402 |
| o-Xylene        | 1.3    | 1.0 | 2.000    | 110402 |

| Surrogate             | %REC | Limits | Diln Fac | Batch# |
|-----------------------|------|--------|----------|--------|
| Dibromofluoromethane  | 103  | 80-121 | 2.000    | 110402 |
| 1,2-Dichloroethane-d4 | 106  | 80-125 | 2.000    | 110402 |
| Toluene-d8            | 100  | 80-120 | 2.000    | 110402 |
| Bromofluorobenzene    | 105  | 80-124 | 2.000    | 110402 |

Field ID: MW-5                      Diln Fac: 1.000  
 Type: SAMPLE                      Batch#: 110402  
 Lab ID: 184869-004                Analyzed: 02/13/06

| Analyte         | Result | RL   |
|-----------------|--------|------|
| Gasoline C7-C12 | 180    | 50   |
| MTBE            | ND     | 0.50 |
| Benzene         | 33     | 0.50 |
| Toluene         | 2.2    | 0.50 |
| Ethylbenzene    | 2.1    | 0.50 |
| m,p-Xylenes     | 1.8    | 0.50 |
| o-Xylene        | ND     | 0.50 |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 99   | 80-121 |
| 1,2-Dichloroethane-d4 | 103  | 80-125 |
| Toluene-d8            | 102  | 80-120 |
| Bromofluorobenzene    | 113  | 80-124 |

ND= Not Detected  
 RL= Reporting Limit



| Gasoline by GC/MS |                               |           |                      |
|-------------------|-------------------------------|-----------|----------------------|
| Lab #:            | 184869                        | Location: | 444 Hegenberger Loop |
| Client:           | ACC Environmental Consultants | Prep:     | EPA 5030B            |
| Project#:         | 6748-017.00                   | Analysis: | EPA 8260B            |
| Matrix:           | Water                         | Sampled:  | 02/09/06             |
| Units:            | ug/L                          | Received: | 02/10/06             |

Field ID: MW-6                      Lab ID: 184869-005  
 Type: SAMPLE                      Diln Fac: 1.000

| Analyte         | Result | RL   | Batch# | Analyzed |
|-----------------|--------|------|--------|----------|
| Gasoline C7-C12 | ND     | 50   | 110402 | 02/13/06 |
| MTBE            | ND     | 0.50 | 110402 | 02/13/06 |
| Benzene         | 0.64   | 0.50 | 110431 | 02/14/06 |
| Toluene         | ND     | 0.50 | 110402 | 02/13/06 |
| Ethylbenzene    | ND     | 0.50 | 110402 | 02/13/06 |
| m,p-Xylenes     | ND     | 0.50 | 110402 | 02/13/06 |
| o-Xylene        | ND     | 0.50 | 110402 | 02/13/06 |

| Surrogate             | %REC | Limits | Batch# | Analyzed |
|-----------------------|------|--------|--------|----------|
| Dibromofluoromethane  | 100  | 80-121 | 110402 | 02/13/06 |
| 1,2-Dichloroethane-d4 | 105  | 80-125 | 110402 | 02/13/06 |
| Toluene-d8            | 102  | 80-120 | 110402 | 02/13/06 |
| Bromofluorobenzene    | 116  | 80-124 | 110402 | 02/13/06 |

Field ID: MW-7                      Diln Fac: 1.000  
 Type: SAMPLE                      Batch#: 110402  
 Lab ID: 184869-006                      Analyzed: 02/13/06

| Analyte         | Result | RL   |
|-----------------|--------|------|
| Gasoline C7-C12 | ND     | 50   |
| MTBE            | ND     | 0.50 |
| Benzene         | ND     | 0.50 |
| Toluene         | ND     | 0.50 |
| Ethylbenzene    | ND     | 0.50 |
| m,p-Xylenes     | ND     | 0.50 |
| o-Xylene        | ND     | 0.50 |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 98   | 80-121 |
| 1,2-Dichloroethane-d4 | 103  | 80-125 |
| Toluene-d8            | 102  | 80-120 |
| Bromofluorobenzene    | 114  | 80-124 |

ND= Not Detected  
 RL= Reporting Limit

| Gasoline by GC/MS |                               |           |                      |
|-------------------|-------------------------------|-----------|----------------------|
| Lab #:            | 184869                        | Location: | 444 Hegenberger Loop |
| Client:           | ACC Environmental Consultants | Prep:     | EPA 5030B            |
| Project#:         | 6748-017.00                   | Analysis: | EPA 8260B            |
| Matrix:           | Water                         | Sampled:  | 02/09/06             |
| Units:            | ug/L                          | Received: | 02/10/06             |

Field ID: MW-8                      Diln Fac: 1.000  
 Type: SAMPLE                      Batch#: 110402  
 Lab ID: 184869-007                Analyzed: 02/13/06

| Analyte         | Result | RL   |
|-----------------|--------|------|
| Gasoline C7-C12 | ND     | 50   |
| MTBE            | ND     | 0.50 |
| Benzene         | ND     | 0.50 |
| Toluene         | ND     | 0.50 |
| Ethylbenzene    | ND     | 0.50 |
| m,p-Xylenes     | ND     | 0.50 |
| o-Xylene        | ND     | 0.50 |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 99   | 80-121 |
| 1,2-Dichloroethane-d4 | 104  | 80-125 |
| Toluene-d8            | 101  | 80-120 |
| Bromofluorobenzene    | 116  | 80-124 |

Type: BLANK                              Batch#: 110402  
 Lab ID: QC327847                      Analyzed: 02/13/06  
 Diln Fac: 1.000

| Analyte         | Result | RL   |
|-----------------|--------|------|
| Gasoline C7-C12 | ND     | 50   |
| MTBE            | ND     | 0.50 |
| Benzene         | ND     | 0.50 |
| Toluene         | ND     | 0.50 |
| Ethylbenzene    | ND     | 0.50 |
| m,p-Xylenes     | ND     | 0.50 |
| o-Xylene        | ND     | 0.50 |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 100  | 80-121 |
| 1,2-Dichloroethane-d4 | 105  | 80-125 |
| Toluene-d8            | 101  | 80-120 |
| Bromofluorobenzene    | 115  | 80-124 |

ND= Not Detected  
 RL= Reporting Limit

| Gasoline by GC/MS |                               |           |                      |
|-------------------|-------------------------------|-----------|----------------------|
| Lab #:            | 184869                        | Location: | 444 Hegenberger Loop |
| Client:           | ACC Environmental Consultants | Prep:     | EPA 5030B            |
| Project#:         | 6748-017.00                   | Analysis: | EPA 8260B            |
| Matrix:           | Water                         | Sampled:  | 02/09/06             |
| Units:            | ug/L                          | Received: | 02/10/06             |

|           |          |           |          |
|-----------|----------|-----------|----------|
| Type:     | BLANK    | Batch#:   | 110431   |
| Lab ID:   | QC327947 | Analyzed: | 02/14/06 |
| Diln Fac: | 1.000    |           |          |

| Analyte         | Result | RL   |
|-----------------|--------|------|
| Gasoline C7-C12 | ND     | 50   |
| MTBE            | ND     | 0.50 |
| Benzene         | ND     | 0.50 |
| Toluene         | ND     | 0.50 |
| Ethylbenzene    | ND     | 0.50 |
| m, p-Xylenes    | ND     | 0.50 |
| o-Xylene        | ND     | 0.50 |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 80   | 80-121 |
| 1,2-Dichloroethane-d4 | 100  | 80-125 |
| Toluene-d8            | 91   | 80-120 |
| Bromofluorobenzene    | 96   | 80-124 |

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

| Gasoline by GC/MS |                               |           |                      |
|-------------------|-------------------------------|-----------|----------------------|
| Lab #:            | 184869                        | Location: | 444 Hegenberger Loop |
| Client:           | ACC Environmental Consultants | Prep:     | EPA 5030B            |
| Project#:         | 6748-017.00                   | Analysis: | EPA 8260B            |
| Matrix:           | Water                         | Batch#:   | 110402               |
| Units:            | ug/L                          | Analyzed: | 02/13/06             |
| Diln Fac:         | 1.000                         |           |                      |

Type: BS Lab ID: QC327843

| Analyte      | Spiked | Result | %REC | Limits |
|--------------|--------|--------|------|--------|
| MTBE         | 25.00  | 24.19  | 97   | 72-120 |
| Benzene      | 25.00  | 22.32  | 89   | 80-120 |
| Toluene      | 25.00  | 22.90  | 92   | 80-120 |
| Ethylbenzene | 25.00  | 22.21  | 89   | 80-120 |
| m,p-Xylenes  | 50.00  | 43.27  | 87   | 80-121 |
| o-Xylene     | 25.00  | 22.38  | 90   | 80-120 |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 99   | 80-121 |
| 1,2-Dichloroethane-d4 | 104  | 80-125 |
| Toluene-d8            | 101  | 80-120 |
| Bromofluorobenzene    | 105  | 80-124 |

Type: BSD Lab ID: QC327844

| Analyte      | Spiked | Result | %REC | Limits | RPD | Lim |
|--------------|--------|--------|------|--------|-----|-----|
| MTBE         | 25.00  | 24.22  | 97   | 72-120 | 0   | 20  |
| Benzene      | 25.00  | 23.15  | 93   | 80-120 | 4   | 20  |
| Toluene      | 25.00  | 23.19  | 93   | 80-120 | 1   | 20  |
| Ethylbenzene | 25.00  | 23.04  | 92   | 80-120 | 4   | 20  |
| m,p-Xylenes  | 50.00  | 44.42  | 89   | 80-121 | 3   | 20  |
| o-Xylene     | 25.00  | 23.20  | 93   | 80-120 | 4   | 20  |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 102  | 80-121 |
| 1,2-Dichloroethane-d4 | 106  | 80-125 |
| Toluene-d8            | 100  | 80-120 |
| Bromofluorobenzene    | 106  | 80-124 |

RPD= Relative Percent Difference

## Batch QC Report

| Gasoline by GC/MS |                               |           |                      |
|-------------------|-------------------------------|-----------|----------------------|
| Lab #:            | 184869                        | Location: | 444 Hegenberger Loop |
| Client:           | ACC Environmental Consultants | Prep:     | EPA 5030B            |
| Project#:         | 6748-017.00                   | Analysis: | EPA 8260B            |
| Matrix:           | Water                         | Batch#:   | 110402               |
| Units:            | ug/L                          | Analyzed: | 02/13/06             |
| Diln Fac:         | 1.000                         |           |                      |

Type: BS Lab ID: QC327845

| Analyte         | Spiked | Result | %REC | Limits |
|-----------------|--------|--------|------|--------|
| Gasoline C7-C12 | 1,000  | 935.6  | 94   | 70-130 |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 99   | 80-121 |
| 1,2-Dichloroethane-d4 | 107  | 80-125 |
| Toluene-d8            | 102  | 80-120 |
| Bromofluorobenzene    | 108  | 80-124 |

Type: BSD Lab ID: QC327846

| Analyte         | Spiked | Result | %REC | Limits | RPD | Lim |
|-----------------|--------|--------|------|--------|-----|-----|
| Gasoline C7-C12 | 1,000  | 972.5  | 97   | 70-130 | 4   | 20  |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 99   | 80-121 |
| 1,2-Dichloroethane-d4 | 104  | 80-125 |
| Toluene-d8            | 101  | 80-120 |
| Bromofluorobenzene    | 106  | 80-124 |

RPD= Relative Percent Difference



## Batch QC Report

| Gasoline by GC/MS |                               |           |                      |
|-------------------|-------------------------------|-----------|----------------------|
| Lab #:            | 184869                        | Location: | 444 Hegenberger Loop |
| Client:           | ACC Environmental Consultants | Prep:     | EPA 5030B            |
| Project#:         | 6748-017.00                   | Analysis: | EPA 8260B            |
| Matrix:           | Water                         | Batch#:   | 110431               |
| Units:            | ug/L                          | Analyzed: | 02/14/06             |
| Diln Fac:         | 1.000                         |           |                      |

Type: BS Lab ID: QC327945

| Analyte      | Spiked | Result | %REC | Limits |
|--------------|--------|--------|------|--------|
| MTBE         | 25.00  | 25.33  | 101  | 72-120 |
| Benzene      | 25.00  | 25.77  | 103  | 80-120 |
| Toluene      | 25.00  | 25.48  | 102  | 80-120 |
| Ethylbenzene | 25.00  | 25.71  | 103  | 80-120 |
| m,p-Xylenes  | 50.00  | 53.32  | 107  | 80-121 |
| o-Xylene     | 25.00  | 26.95  | 108  | 80-120 |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 94   | 80-121 |
| 1,2-Dichloroethane-d4 | 109  | 80-125 |
| Toluene-d8            | 94   | 80-120 |
| Bromofluorobenzene    | 94   | 80-124 |

Type: BSD Lab ID: QC327946

| Analyte      | Spiked | Result | %REC | Limits | RPD | Lim |
|--------------|--------|--------|------|--------|-----|-----|
| MTBE         | 25.00  | 23.84  | 95   | 72-120 | 6   | 20  |
| Benzene      | 25.00  | 23.68  | 95   | 80-120 | 8   | 20  |
| Toluene      | 25.00  | 23.20  | 93   | 80-120 | 9   | 20  |
| Ethylbenzene | 25.00  | 24.60  | 98   | 80-120 | 4   | 20  |
| m,p-Xylenes  | 50.00  | 51.50  | 103  | 80-121 | 3   | 20  |
| o-Xylene     | 25.00  | 25.39  | 102  | 80-120 | 6   | 20  |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 91   | 80-121 |
| 1,2-Dichloroethane-d4 | 105  | 80-125 |
| Toluene-d8            | 90   | 80-120 |
| Bromofluorobenzene    | 91   | 80-124 |

RPD= Relative Percent Difference

Batch QC Report

| Gasoline by GC/MS |                               |           |                      |
|-------------------|-------------------------------|-----------|----------------------|
| Lab #:            | 184869                        | Location: | 444 Hegenberger Loop |
| Client:           | ACC Environmental Consultants | Prep:     | EPA 5030B            |
| Project#:         | 6748-017.00                   | Analysis: | EPA 8260B            |
| Matrix:           | Water                         | Batch#:   | 110431               |
| Units:            | ug/L                          | Analyzed: | 02/14/06             |
| Diln Fac:         | 1.000                         |           |                      |

Type: BS Lab ID: QC327948

| Analyte         | Spiked | Result | %REC | Limits |
|-----------------|--------|--------|------|--------|
| Gasoline C7-C12 | 2,000  | 2,398  | 120  | 70-130 |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 87   | 80-121 |
| 1,2-Dichloroethane-d4 | 99   | 80-125 |
| Toluene-d8            | 91   | 80-120 |
| Bromofluorobenzene    | 90   | 80-124 |

Type: BSD Lab ID: QC327949

| Analyte         | Spiked | Result | %REC | Limits | RPD | Lim |
|-----------------|--------|--------|------|--------|-----|-----|
| Gasoline C7-C12 | 2,000  | 2,251  | 113  | 70-130 | 6   | 20  |

| Surrogate             | %REC | Limits |
|-----------------------|------|--------|
| Dibromofluoromethane  | 83   | 80-121 |
| 1,2-Dichloroethane-d4 | 95   | 80-125 |
| Toluene-d8            | 92   | 80-120 |
| Bromofluorobenzene    | 90   | 80-124 |

RPD= Relative Percent Difference

Data File: \\Gomsserver\VD\chem\MSV0R10.i\021306.b\BDD18TVH.D

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Client ID: DYNA P&T

Sample Info: S,184869-001

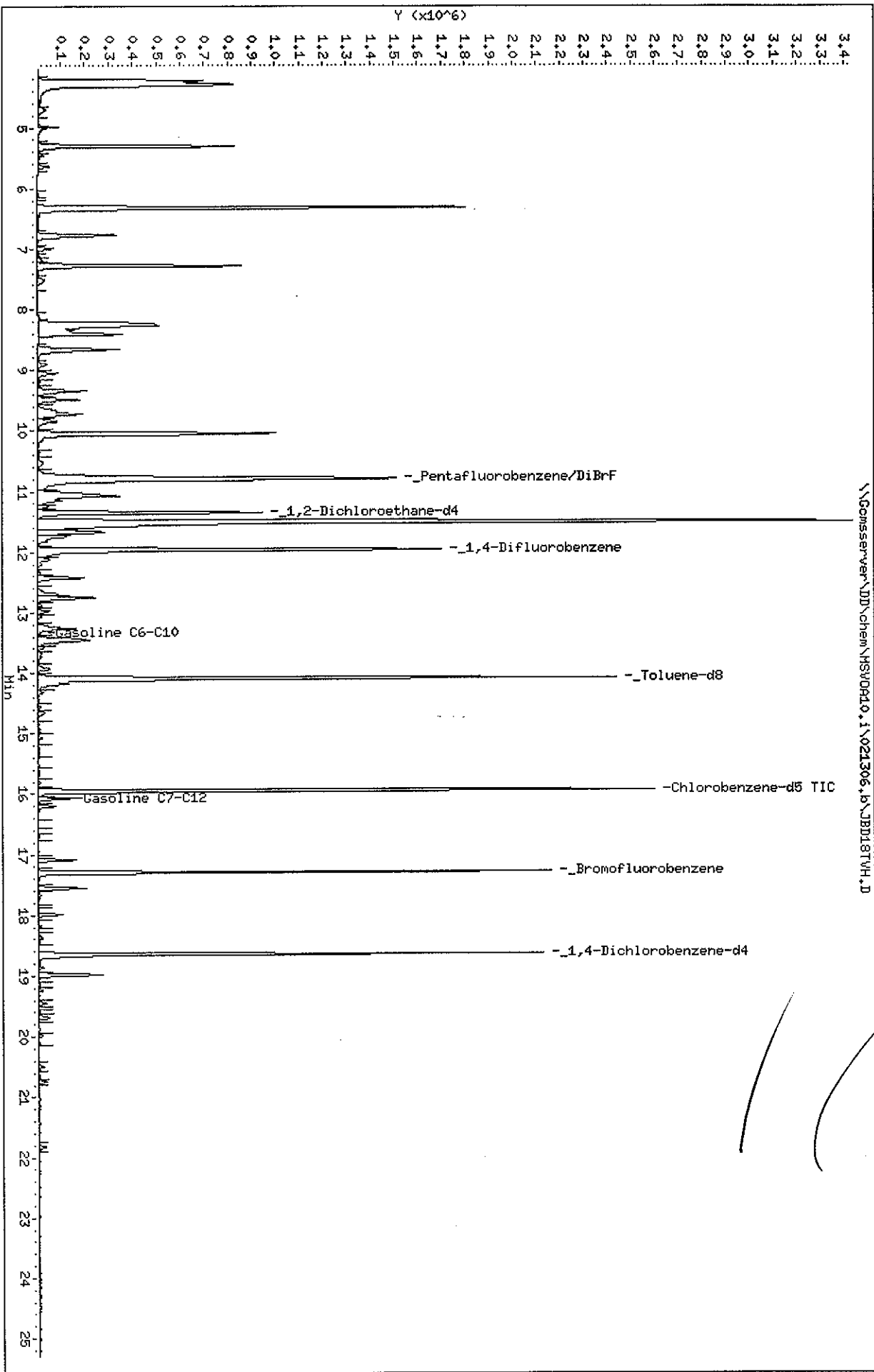
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Instrument: MSV0R10.i

Operator: VDC

Column diameter: 2.00

MM-2





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Date: 13-FEB-2006 20:12

Client ID: DYNA P&T

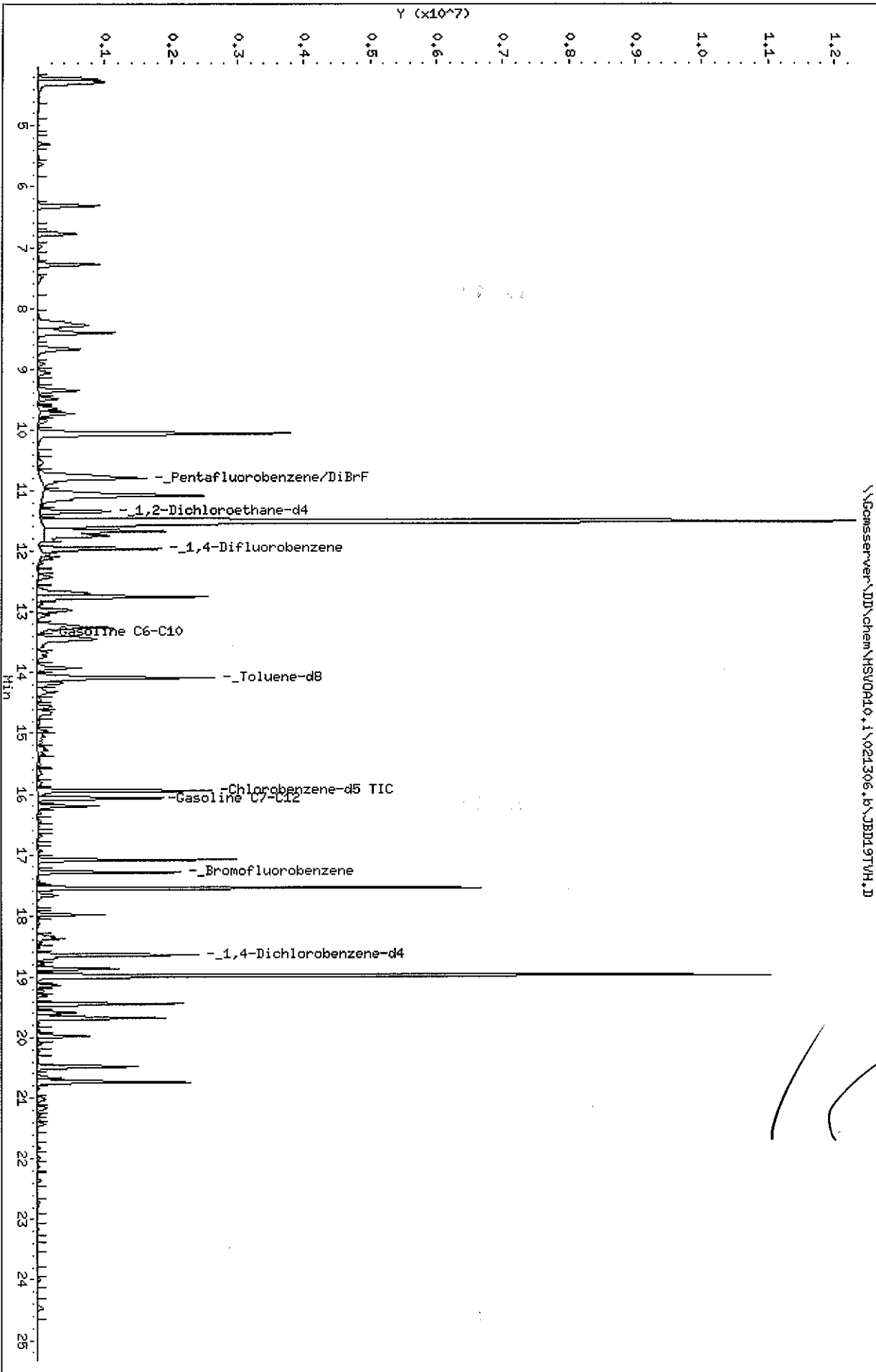
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Column phase:

Instrument: HSVDR10.i

Operator: VDC

Column diameter: 2.00



MW-3

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Date: 14-FEB-2006 03:11

Client ID: DYNA P&T

Sample Info: S\_184869-003

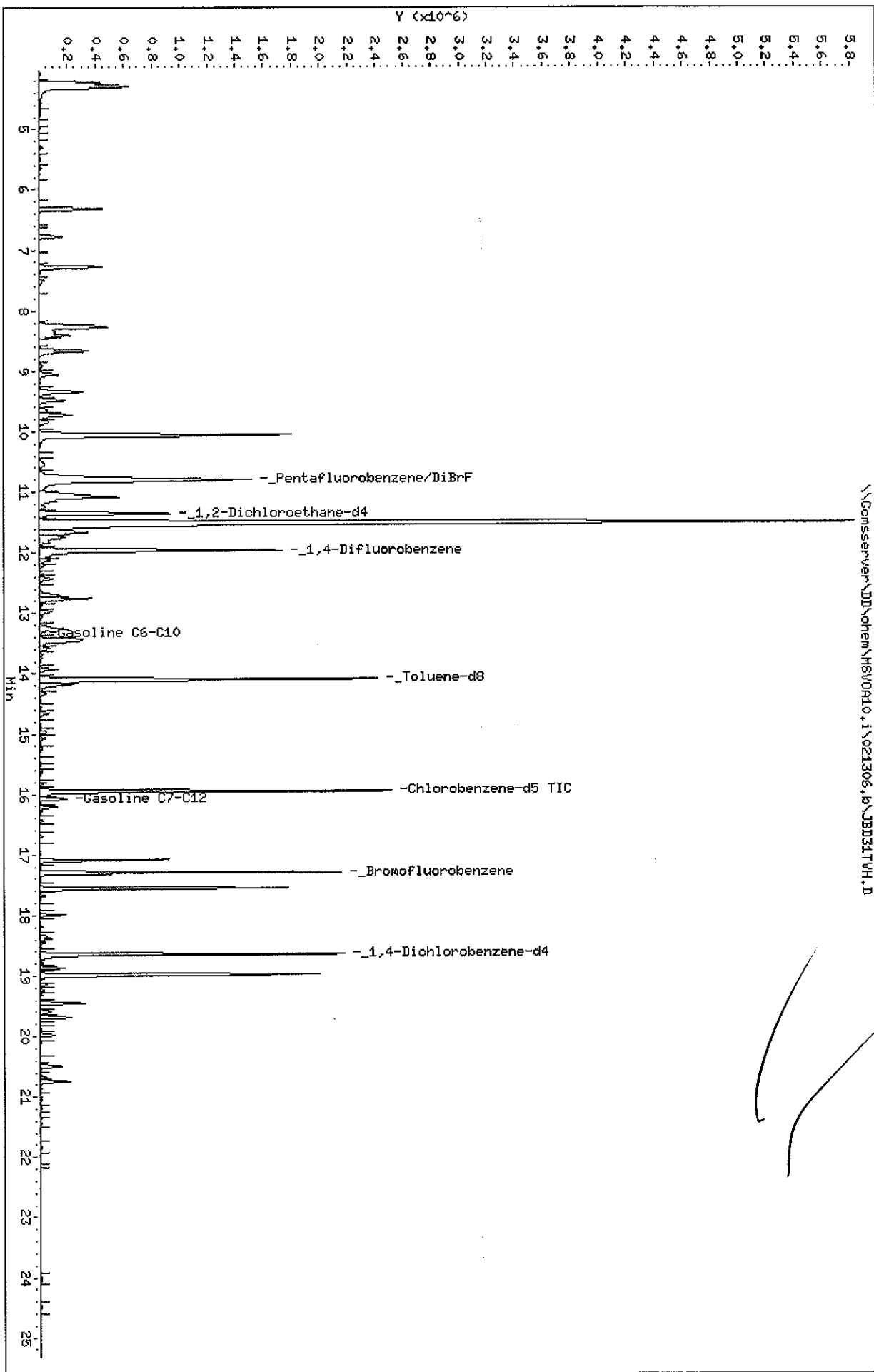
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Instrument: MSV0R10.i

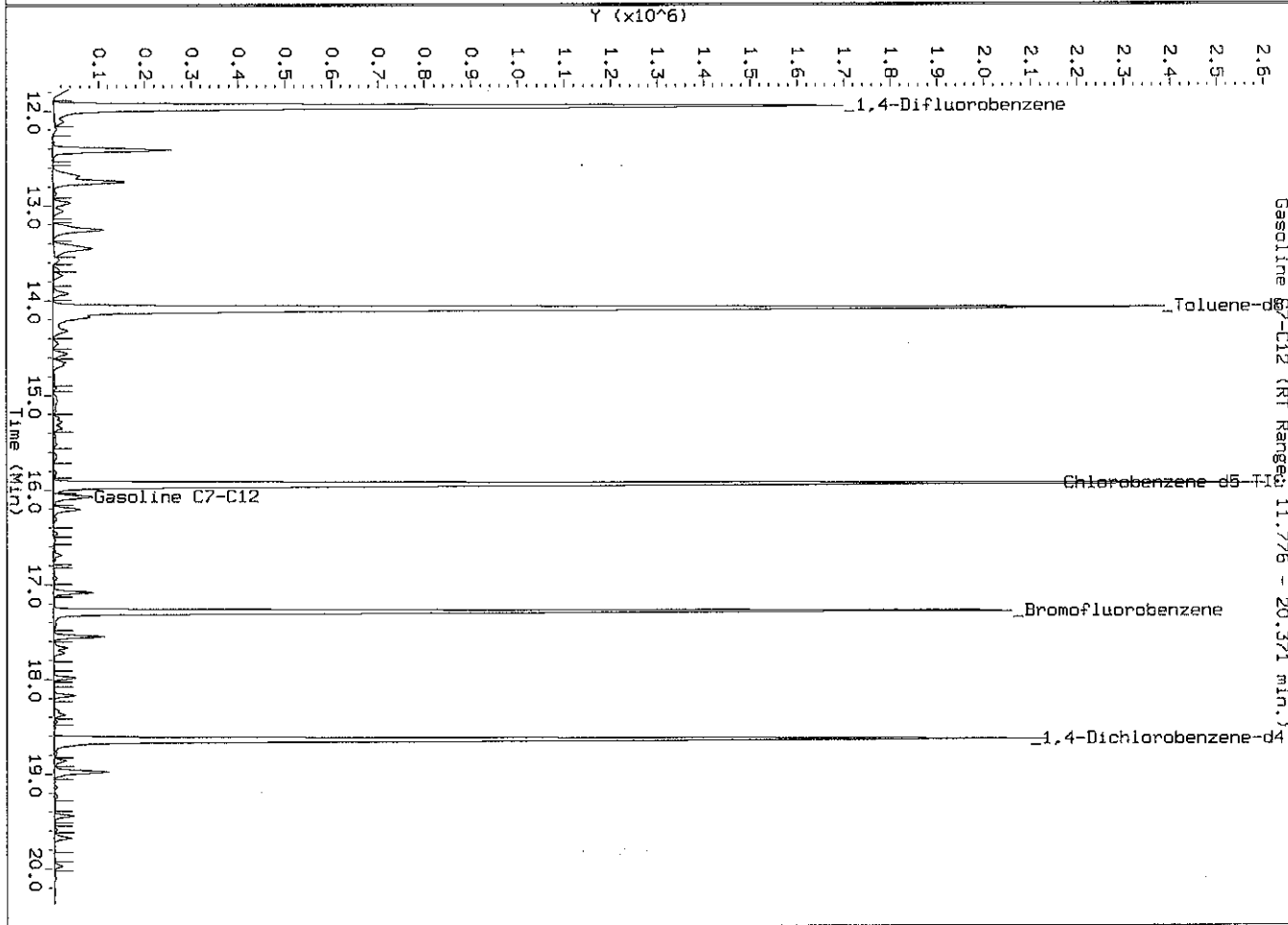
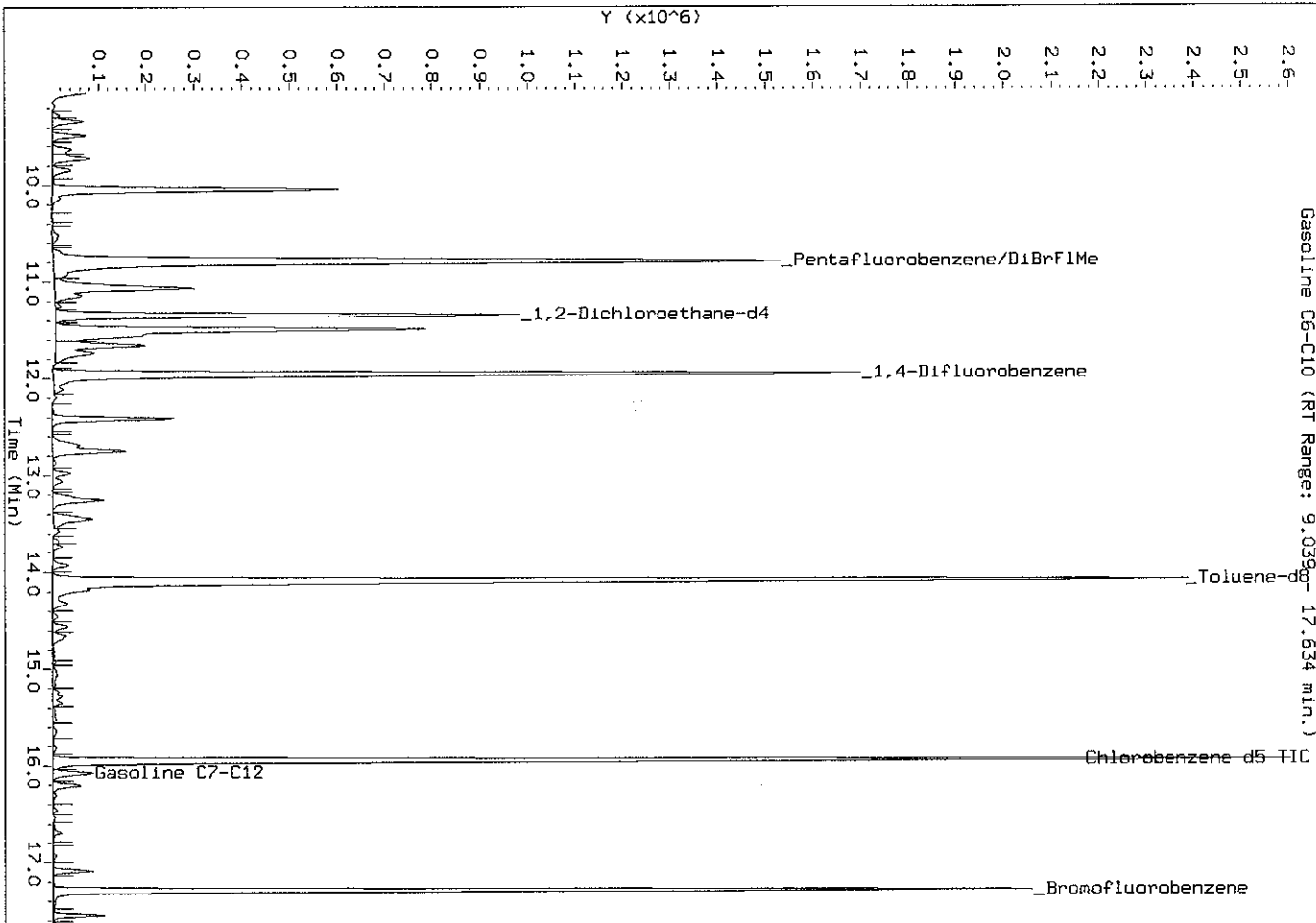
Operator: VDC

Column diameter: 2.00

MW-4



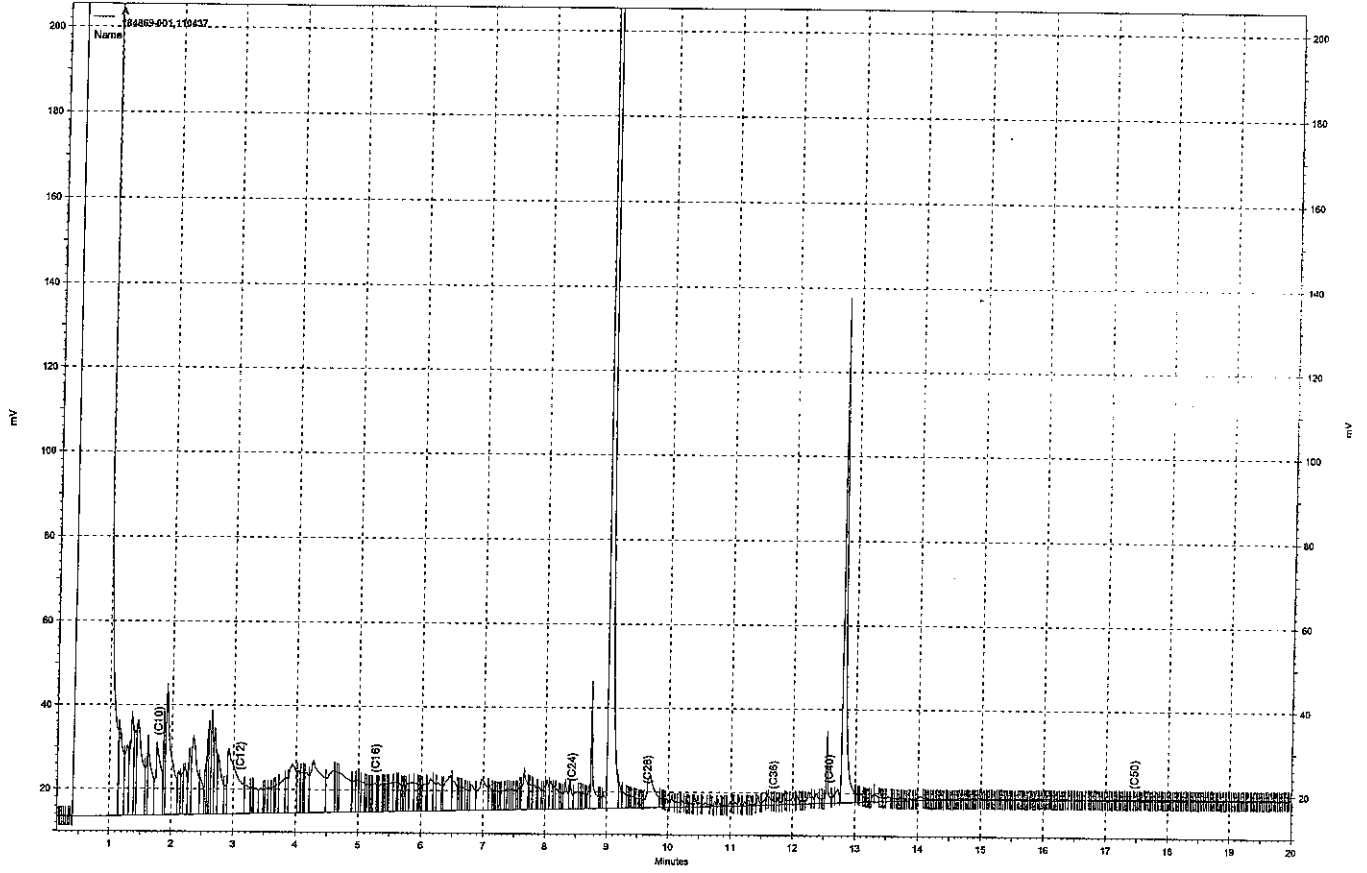




Gasoline



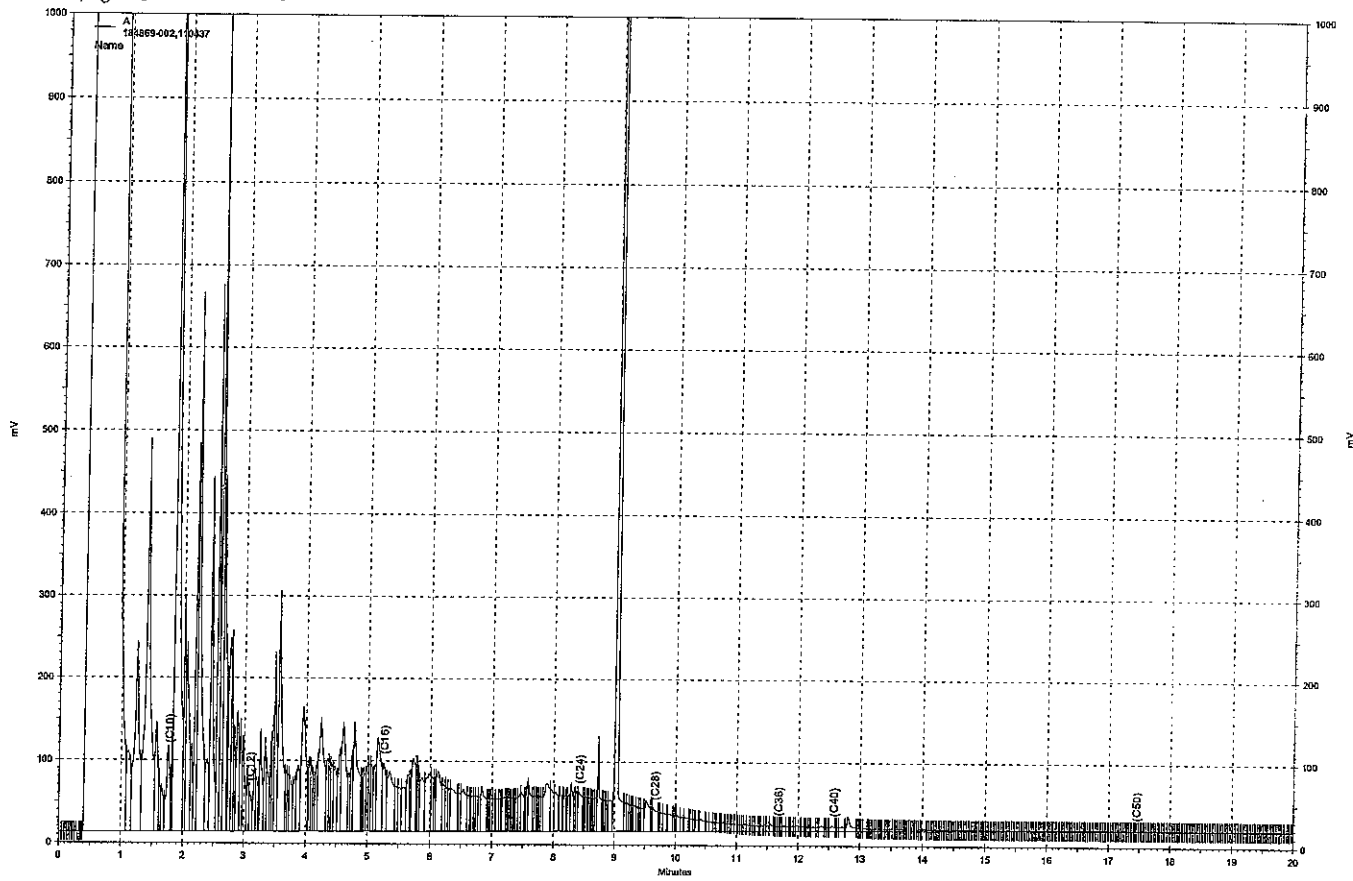
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MW-2

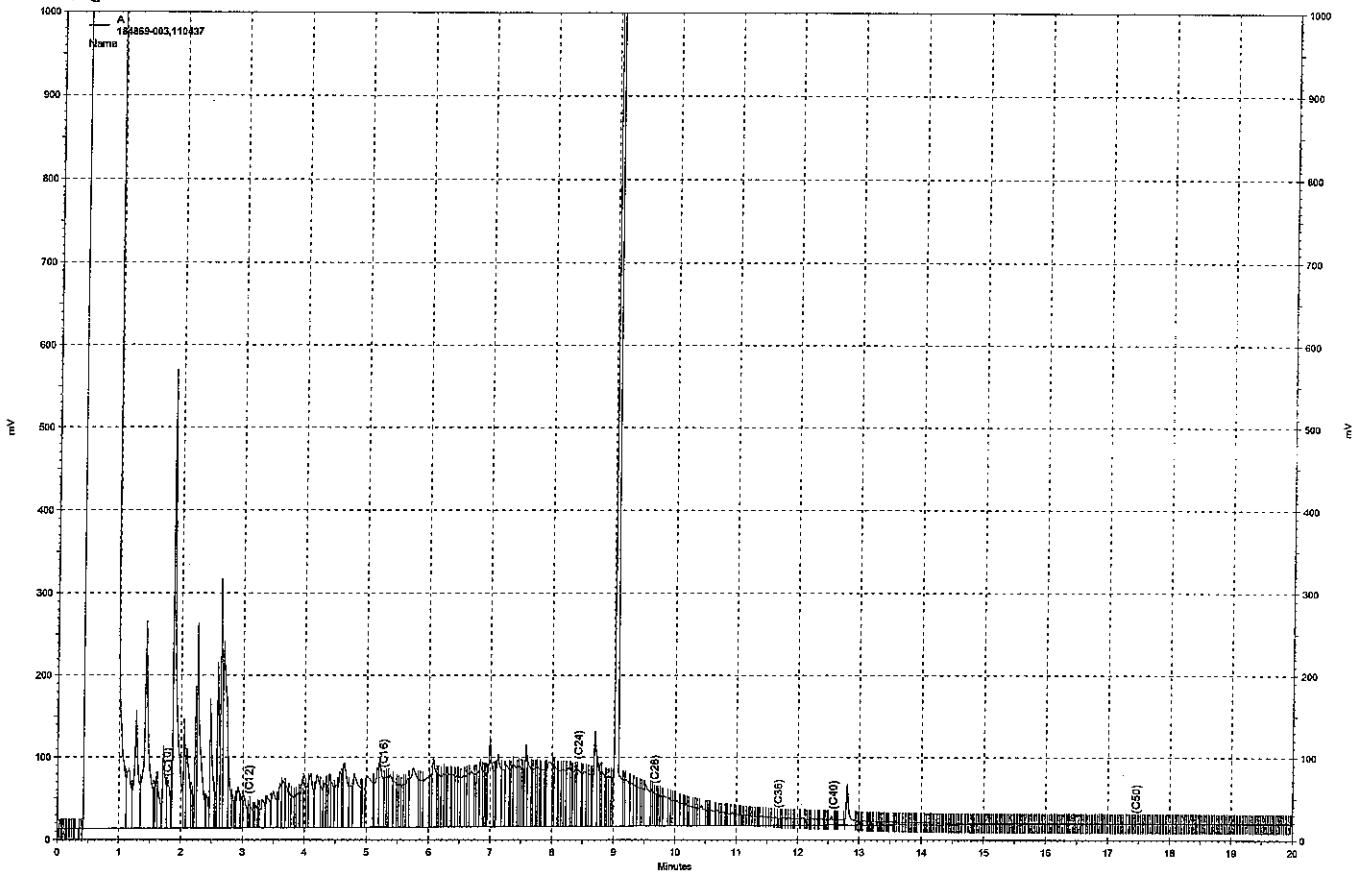
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MW-3

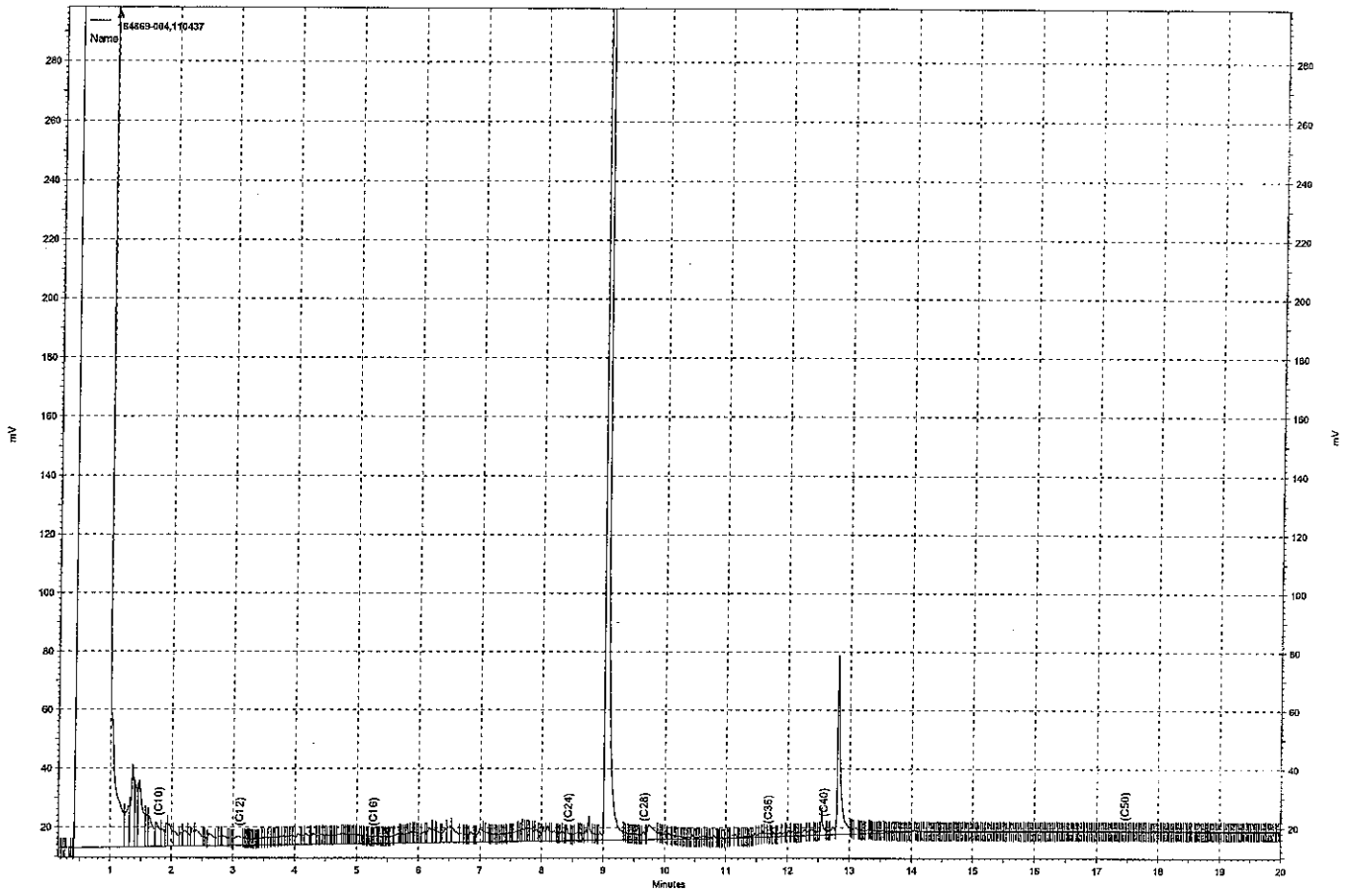
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MW-4



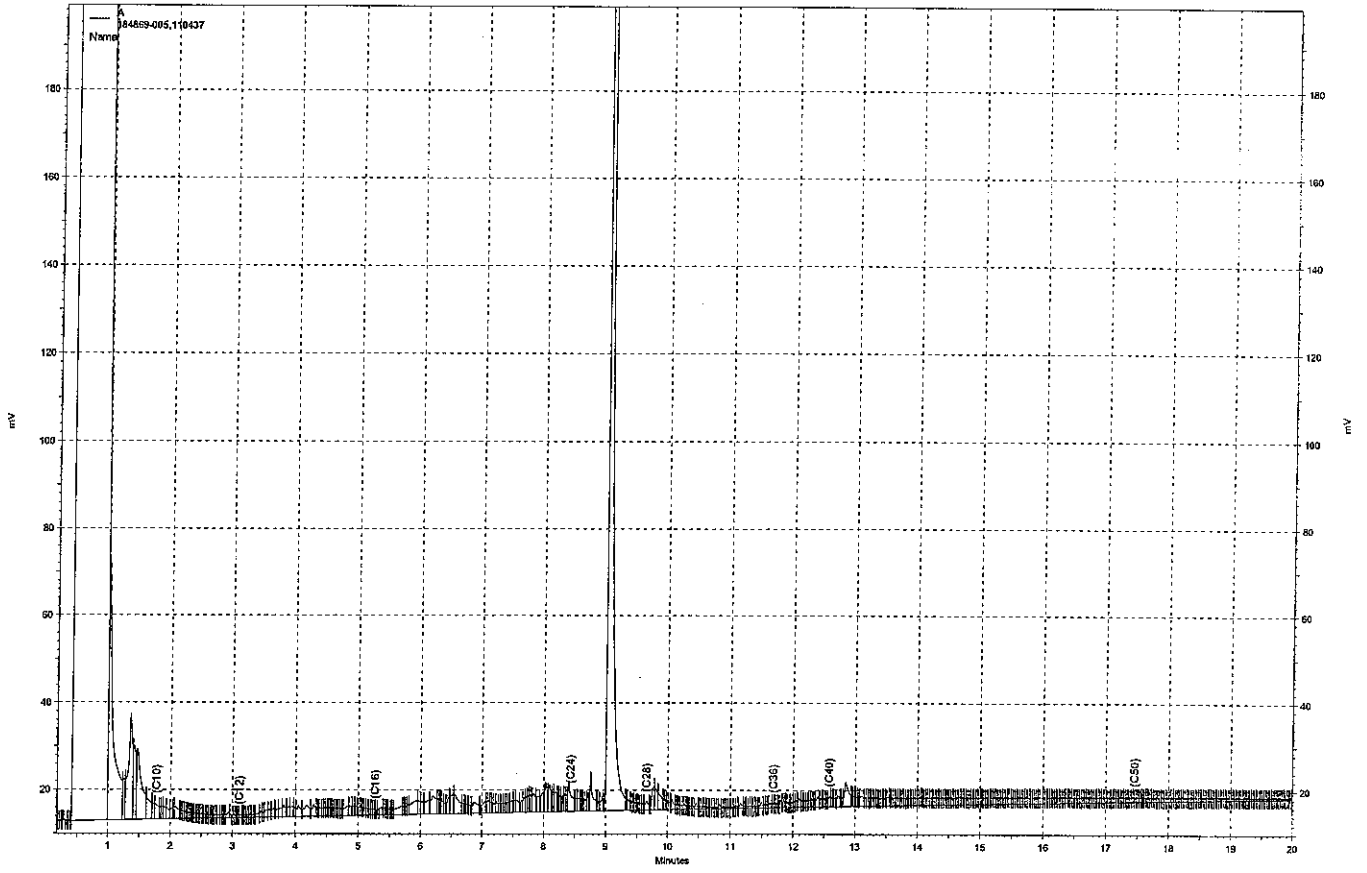


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MW-5



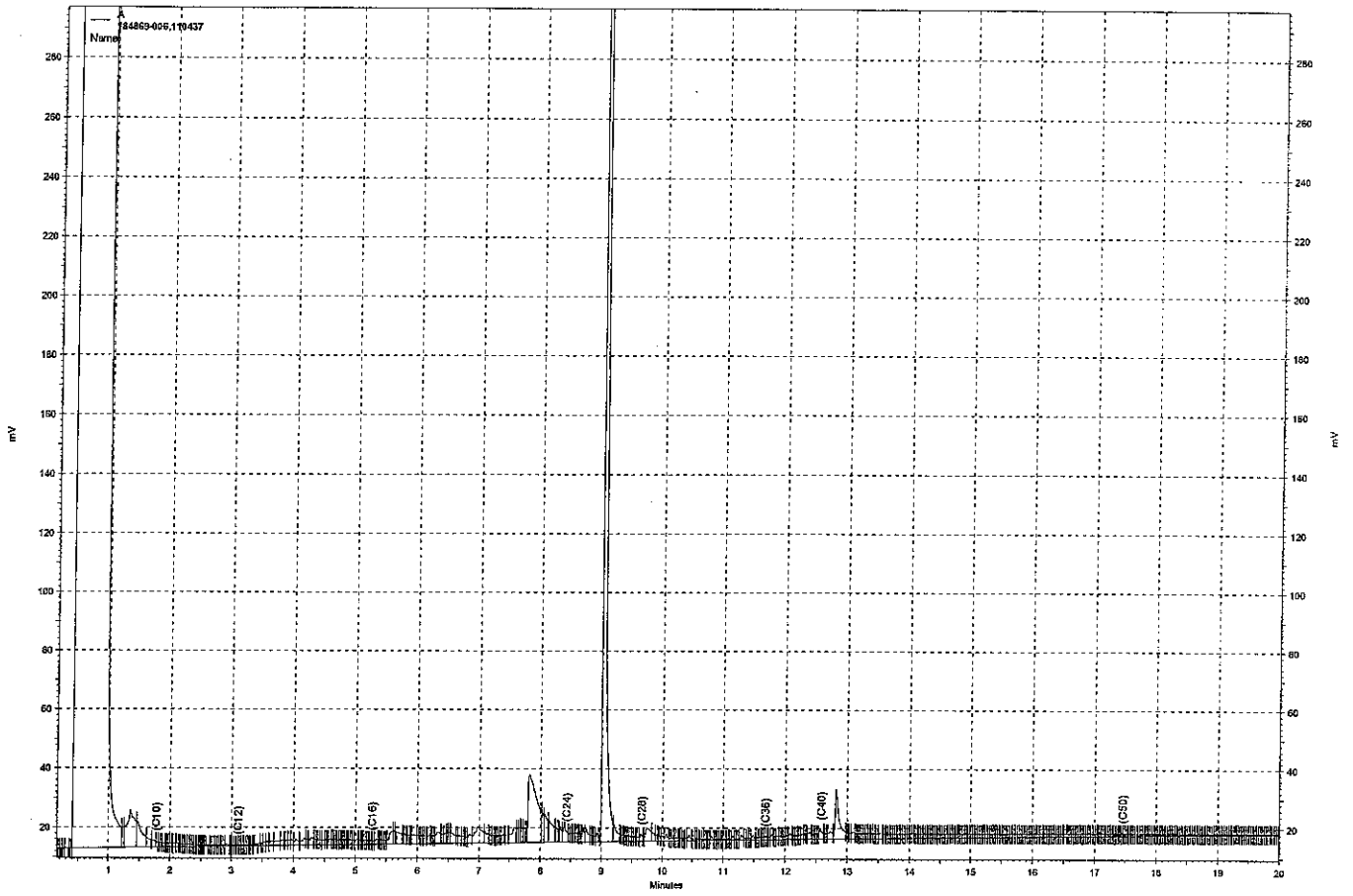
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MW-6

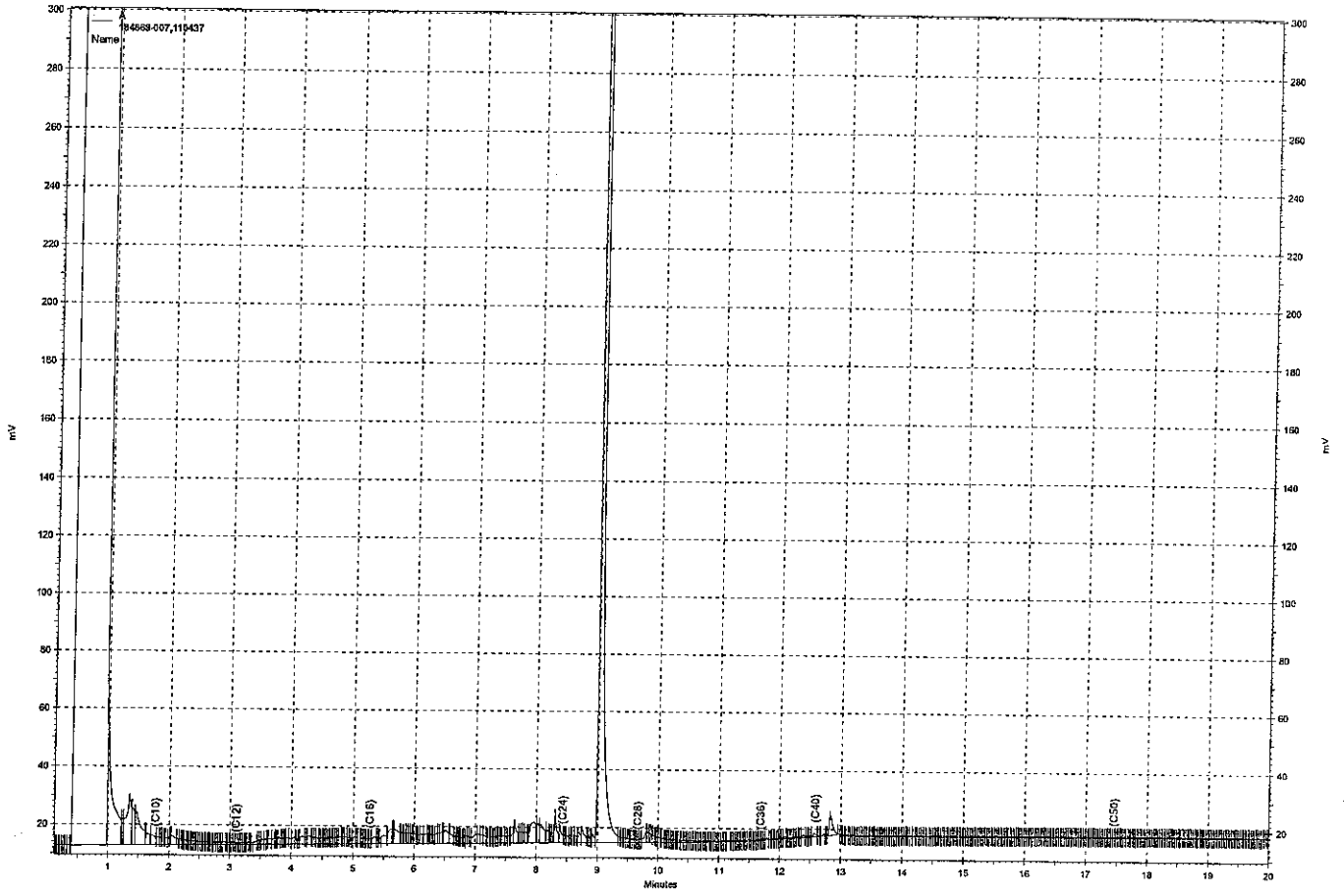
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MW-7

84869-007, 110437



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MW-8

Batch QC Report

Total Extractable Hydrocarbons

|           |                               |           |                      |
|-----------|-------------------------------|-----------|----------------------|
| Lab #:    | 184869                        | Location: | 444 Hegenberger Loop |
| Client:   | ACC Environmental Consultants | Prep:     | EPA 3520C            |
| Project#: | 6748-017.00                   | Analysis: | EPA 8015B            |
| Matrix:   | Water                         | Batch#:   | 110437               |
| Units:    | ug/L                          | Prepared: | 02/14/06             |
| Diln Fac: | 1.000                         | Analyzed: | 02/15/06             |

Type: BS Lab ID: QC327976

| Analyte        | Spiked | Result | %REC | Limits |
|----------------|--------|--------|------|--------|
| Diesel C10-C24 | 2,500  | 2,723  | 109  | 53-138 |
| Surrogate      | %REC   | Limits |      |        |
| Hexacosane     | 116    | 60-135 |      |        |

Type: BSD Lab ID: QC327977

| Analyte        | Spiked | Result | %REC | Limits | RPD | Lim |
|----------------|--------|--------|------|--------|-----|-----|
| Diesel C10-C24 | 2,500  | 2,547  | 102  | 53-138 | 7   | 36  |
| Surrogate      | %REC   | Limits |      |        |     |     |
| Hexacosane     | 112    | 60-135 |      |        |     |     |



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A N A L Y T I C A L   R E P O R T

Prepared for:

ACC Environmental Consultants  
7977 Capwell Drive  
Suite 100  
Oakland, CA 94621

Date: 17-FEB-06  
Lab Job Number: 184869  
Project ID: 6748-017.00  
Location: 444 Hegenberger Loop

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:   
Project Manager

Reviewed by:   
Operations Manager

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