CONESTOGA-ROVERS
& ASSOCIATES

5900 Hollis Street, Suite A, Emeryville, California 94608
Telephone: 510-420-0700 Facsimile: 510-420-9170
www.CRAworld.com



July 25, 2008

Ms. Barbara Jakub
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: **Groundwater Monitoring Report – Second Quarter 2008**
1137-1167 65th Street, Oakland, California 94608
CRA Project No. 521000
Fuel Leak Case No. RO0000082

Dear Ms. Jakub:

On behalf of the Mr. John Nady (Nady), Conestoga-Rovers & Associates, Inc. (CRA) is submitting this *Groundwater Monitoring Report –Second Quarter 2008.* Presented in this report is a summary of the field activities and results from the second quarter 2008 groundwater monitoring event. In addition, this report contains recommendations for third quarter 2008 activities.

If you have any questions, please call me at (510) 420-3307.

Sincerely,
**Conestoga-Rovers & Associates, Inc.**

Mark Jonas, P.G.
Senior Project Manager

Attachment: Groundwater Monitoring Report – Second Quarter 2008

cc: Mr. Frederic Schrag, 6701 Shellmound Street, Emeryville, California 94608 (1 copy + PDF via e-mail)

To the best of my knowledge, I have no argument or disagreement with the contents of this report.

Nady Trust U/D/T dated 1/21/1997

John Nady, trustee

2Q08 Nady QMR 521000.doc

CONESTOGA-ROVERS
& ASSOCIATES

# GROUNDWATER MONITORING REPORT – SECOND QUARTER 2008

**1137-1167 65th Street**
**Oakland, California 94608**
**CRA Project No. 521000**
**Fuel Leak Case No. RO0000082**

**July 25, 2008**

*Prepared for Submittal to:*

Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

*Prepared by:*

Conestoga-Rovers & Associates, Inc.
5900 Hollis Street, Suite A
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John A. Miller
Staff Geologist

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CONESTOGA-ROVERS
& ASSOCIATES

# GROUNDWATER MONITORING REPORT – SECOND QUARTER 2008

**1137-1167 65th Street**
**Oakland, California 94608**
**CRA Project No. 521000**
**Fuel Leak Case No. RO0000082**

**July 25, 2008**

## INTRODUCTION

This report describes the second quarter 2008 groundwater monitoring activities performed at 1137-1167 65th Street, Oakland, California (Figure 1). This groundwater monitoring event was conducted at the direction of the Alameda County Health Care Services Agency, Environmental Health Division (ACEH). This report presents a summary of the monitoring activities and results from the second quarter 2008 monitoring event. In addition, this report contains recommendations for third quarter 2008 activities.

## MONITORING ACTIVITIES

CRA coordinated with Muskan Environmental Sampling (MES) to perform quarterly groundwater monitoring activities at the site. On June 9, 2008, MES measured groundwater levels in all thirteen monitoring wells and collected groundwater samples from nine of the thirteen wells. As recommended in the *Groundwater Monitoring Report – Fourth Quarter 2005* and approved by Mr. Barney Chan of ACEH, the sampling and analysis are as follows:

- Total petroleum hydrocarbons as diesel (TPHd), gasoline (TPHg), motor oil (TPHmo), and stoddard solvent (TPHss), and benzene, toluene, ethylbenzene, and total xylenes (BTEX) are analyzed in groundwater samples collected from monitoring wells MW-1A, MW-2A, MW-3A, MW-4A, MW-6A, MW-7A, and MW-6B.

- Halogenated volatile organic compounds (HVOCs) are analyzed in groundwater samples collected from monitoring wells MW-1A, MW-3A, MW-6A, MW-7A, MW-1B, MW-6B, and MW-6C.

- It is not necessary to analyze groundwater samples for methyl tertiary butyl ether (MTBE).

- Monitoring wells MW-4B, MW-5B, MW-1C, and MW-4C are no longer sampled.

***Water Level Measurements:*** Depth to groundwater measurements were recorded to the nearest 0.01-foot, relative to a previously established reference elevation. Measurements were collected using an electric, conductance-actuated well sounder. Copies of the field data sheets are included as Appendix A. The groundwater level measurement data are summarized in Table 2.

***Groundwater Sampling:*** MES collected groundwater samples from wells MW-1A, MW-2A, MW-3A, MW-4A, MW-6A, MW-7A, MW-1B, MW-6B, and MW-6C.

Prior to sampling, the wells were purged to remove standing water in the well casing and annulus to promote inflow of representative groundwater from the surrounding formation. Each well was purged using a new disposable bailer, pre-cleaned poly vinyl chloride (PVC) bailer, or disposable tubing with a check valve. Field measurements of pH, specific conductance, and temperature of purged groundwater were measured after extraction of each successive casing volume. Casing volumes were calculated based on well diameter and height of the water column. Typically, purging continued until at least three casing volumes are extracted and consecutive pH, specific conductance, and temperature measurements appeared to stabilize. Water quality field measurements, purge volumes and sample collection data were recorded on field sampling data forms (Appendix A).

To minimize the potential for cross-contamination, groundwater monitoring equipment was decontaminated prior to being used in the first monitoring well and between successive wells. Groundwater samples were collected from each of the wells using clean disposable bailers or disposable tubing with a check valve. The samples were decanted from the bailers into 1-liter (L) amber glass containers and/or 40-milliliter (mL) glass volatile organic analysis (VOA) vials, both supplied by McCampbell Analytical, Inc. (McCampbell) of Pittsburg, California. Sample containers were labeled and placed in a cooler chilled with water-based ice, for temporary storage and transport. A chain-of-custody record was maintained (Appendix B).

Groundwater samples were analyzed for TPHd, TPHmo, TPHss, and TPHg by modified United States Environmental Protection Agency (EPA) Method SW8015C. BTEX were analyzed by EPA Method SW8021B. Samples were also analyzed for HVOCs by EPA Method SW8260B, but only reported for the EPA Method 8010 basic target list. Samples marked for TPHd and TPHmo analysis were subjected to silica gel cleanup prior to analysis. The laboratory analytical report is included in Appendix B. Analytical results are summarized on Figures 2, 3, and 4 and presented in Tables 2 and 3.

***Waste Disposal:*** Approximately 47 gallons of purge water was generated during this quarter's monitoring event. This waste water is stored in sealed Department of Transportation (DOT) approved 55 gallon drums and temporarily left on site for eventual transport and disposal.

## RESULTS

***Groundwater Flow Direction and Gradient:*** Depth-to-water measurements collected from thirteen wells on June 9, 2008 ranged from 3.22 to 9.42 feet (ft) below top of casing (TOC). Groundwater elevations were calculated by subtracting the depth-to-water measurements from the surveyed TOC elevations. The groundwater elevations for A, B, and C water-bearing zones were each plotted and contoured on Figures 2, 3, and 4, respectively. The A-zone is defined as the first encountered groundwater bearing zone from approximately 3.5 feet below ground surface (ft bgs) to 12 ft bgs. A-zone monitoring wells are MW-1A, MW-2A, MW-3A, MW-4A, MW-6A, and MW-7A. The groundwater flow direction in the A-zone was southwest with a gradient of approximately 0.03 feet per foot (ft/ft) (Figure 2). The B-zone is defined as the second encountered groundwater bearing zone from approximately 13 ft bgs to 24 ft bgs. B-zone monitoring wells are MW-1B, MW-4B, MW-5B, and MW-6B. The groundwater flow direction in the B-zone was southwest with a gradient of approximately 0.03 ft/ft (Figure 3). The C-zone is defined as the third encountered groundwater bearing zone from approximately 25 ft bgs to 46 ft bgs. C-zone monitoring wells are MW-1C, MW-4C, and MW-6C. The groundwater flow direction in the C-zone was west-southwest with a gradient of approximately 0.007 ft/ft (Figure 4). Rose diagrams depicting historical groundwater flow directions for the A, B, and C-zones are presented on the figures. The groundwater flow direction and gradient in the A-zone, B-zone, and C-zone are generally consistent with historical results. Depth-to-water and groundwater elevation data are presented in Tables 2 and 3.

***Chemicals Detected in A-Zone Groundwater:*** During this monitoring event, groundwater samples from A-zone monitoring wells MW-1A, MW-2A, MW-3A, MW-4A, MW-6A, and MW-7A were analyzed for petroleum hydrocarbons. Groundwater from A-zone monitoring wells MW-1A, MW-3A, MW-6A, and MW-7A were analyzed for HVOCs.

Petroleum hydrocarbons were detected in all six A-zone monitoring wells sampled. TPHd concentrations ranged from 66 micrograms per liter (µg/L) to 150,000 µg/L. The highest TPHd concentration was detected in MW-7A. TPHg concentrations ranged from 180 µg/L to 35,000 µg/L with the highest concentration detected in MW-7A. TPHmo was only detected at or above the laboratory reporting limit in well MW-6A at 290µg/L. TPHss concentrations ranged from 180 µg/L to 68,000 µg/L. The highest TPHss was detected in well MW-7A.

Toluene was detected in well MW-4A at a concentration of 0.94 µg/L. Ethylbenzene was detected in well MW-1A at a concentration of 3.4 µg/L. Xylenes concentrations ranged from 1.5 µg/L to 8.1 µg/L. The highest xylene concentration was detected in well MW-1A. No benzene was detected in any of the A-zone wells.

HVOCs were detected in all four of the A-zone monitoring wells sampled. The HVOC detections were as follows:

- Tetrachloroethene (PCE), Trichloroethene (TCE), , cis-1,2-Dichloroethene (cis-1,2-DCE), trans-1,2-Dichloroethene (trans-1,2-DCE), 1,1-Dichloroethane (1,1-DCA), and Vinyl Chloride concentrations were detected in well MW-1A at a concentration of 11 µg/L, 9.0 µg/L, 11 µg/L, 1.1 µg/L, 1.8 µg/L, and 2.4 µg/L, respectively.

- 1,2-Dichlorobenzene, chlorobenzene, and 1,4 dichlorobenzene were the only HVOCs detected within well MW-3A at concentrations of 22 µg/L, 98 µg/L, and 6.2 µg/L, respectively.

- No other HVOCs were detected in A-zone wells. A-zone groundwater analytical data and water level data are presented in Tables 2 and 3, and summarized on Figure 2.

***Chemicals Detected in B-Zone Groundwater:*** During the second quarter 2008, groundwater samples from B-zone monitoring well MW-6B were analyzed for petroleum hydrocarbons by EPA Methods SW8015C and SW8021B, and wells MW-1B and MW-6B were analyzed for HVOCs.

- TPHd, TPHg, and TPHss were detected in well MW-6B at concentrations of 81,000 µg/L, 9,500 µg/L, and 20,000 µg/L, respectively.

- No benzene, toluene, ethylbenzene, or xylenes were detected at or above the laboratory detection limits for well MW-6B.

- The following HVOCs were detected in well MW-1B: 11.0 µg/L cis-1,2-DCE, 8.9 µg/L1,1-DCA, and 5.3 µg/L 1,2-DCA.

- Within well MW-6B, the only HVOCs detected were chloroethane and cis-1,2-Dichloroethene, at concentrations of 1.8 µg/L and 2.5 µg/L. B-zone groundwater analytical data and water level data are presented in Tables 2 and 3, and summarized on Figure 3.

***Chemicals Detected in C-Zone Groundwater:*** No C-zone wells were sampled for petroleum hydrocarbons. Only C-zone well MW-6C was sampled and analyzed for HVOCs.

- The following HVOCs were detected in well MW-6C: 4.5 µg/L PCE, 5.5 µg/L TCE, 23 µg/L cis-1,2-DCE, 0.72 µg/L trans-1,2-DCE, 0.71 µg/L 1,1-DCA, and 3.5 µg/L vinyl chloride.

- No other HVOCs were detected in well MW-6C. C-zone groundwater analytical data and water level data are presented in Tables 2 and 3, and summarized on Figure 4.

## GEOTRACKER SUBMITTALS

CRA uploaded second quarter 2008 groundwater depth data, analytical results, and this report to the State's GeoTracker database on behalf of Nady.

## RECOMMENDED THIRD QUARTER 2008 ACTIVITIES

### Groundwater Monitoring

A quarterly groundwater monitoring event will occur during the third quarter 2008. If the July 1, 2008 *Groundwater Monitoring Work Plan* is approved by ACEH, we will perform the scope of work as presented in this Work Plan. If this Work Plan is not approved, the following scope of work will be maintained:

> Monitoring activities shall include gauging groundwater depths in the thirteen site monitoring wells to determine groundwater flow patterns. Groundwater sampling and analysis shall include monitoring wells MW-1A, MW-2A, MW-3A, MW-4A, MW-6A, MW-7A, and MW-6B for petroleum hydrocarbons (TPHg, TPHd, TPHmo, TPHss, and BTEX) and wells MW-1A, MW-3A, MW-6A, MW-7A, MW-1B, MW-6B, and MW-6C for (8010 basic target list) HVOCs.

A report will be prepared detailing the activities and findings of the third quarter 2008 event to be submitted to ACEH. Groundwater analytical, well gauging data and groundwater monitoring report will

be uploaded to GeoTracker. The third quarter 2008 groundwater monitoring report will be submitted via ACEH's file transfer protocol (ftp) site and notification will be sent to Ms. Jakub by e-mail.

### Modification of Groundwater Monitoring

On July 1, 2008, a *Groundwater Monitoring Work Plan* was submitted to ACEH for consideration. As soon as we receive approval from ACEH, we can implement the scope of work.

### Site Characterization

On July 1, 2008, an *Additional Site Characterization Work Plan* was submitted to ACEH for consideration. As soon as we receive approval from ACEH, we can implement the scope of work.

## ATTACHMENTS

Figure 1 – Vicinity Map
Figure 2 – Groundwater Flow and Chemical Concentrations – A Zone
Figure 3 – Groundwater Flow and Chemical Concentrations – B Zone
Figure 4 – Groundwater Flow and Chemical Concentrations – C Zone

Table 1 – Well Construction Details
Table 2 – Monitoring Well Groundwater Analytical Results: Petroleum Hydrocarbons
Table 3 – Monitoring Well Groundwater Analytical Results: Halogenated Volatile Organic Compounds

Appendix A – Field Data Sheets
Appendix B – Laboratory Analytical Report

12/19/02

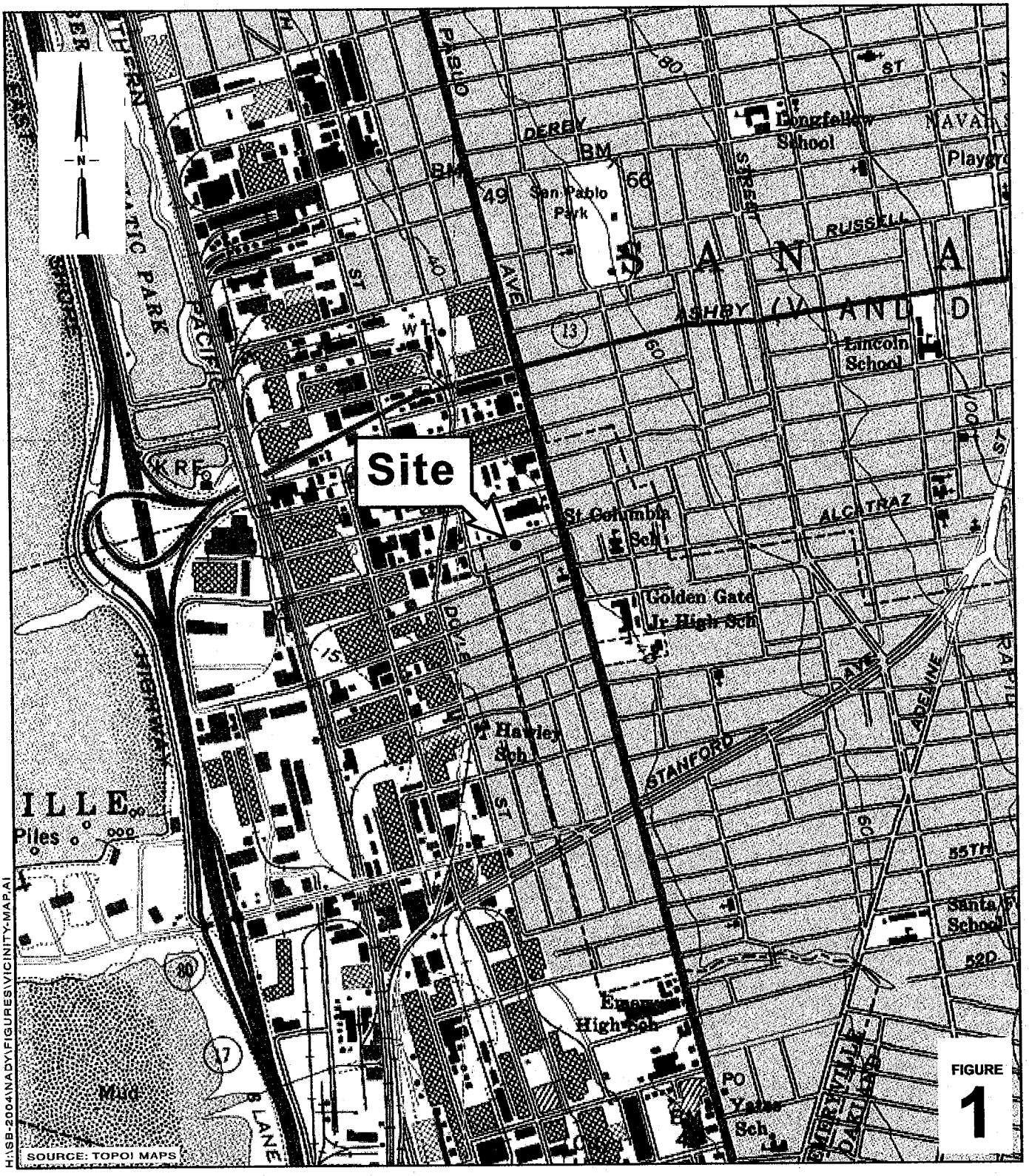


FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

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# Vicinity Map

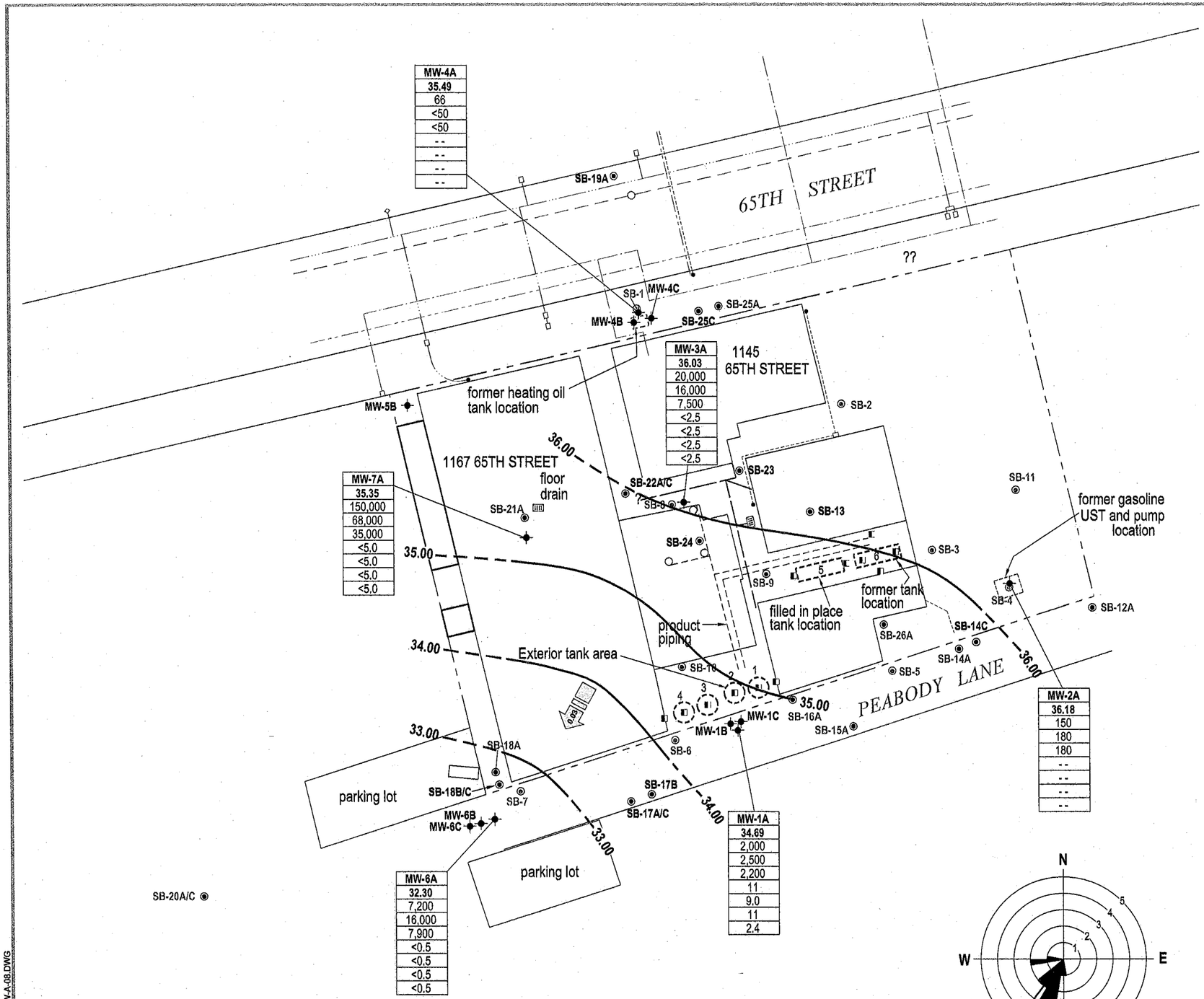
1137 - 1167 65th Street

Oakland, California

07/21/08

# Groundwater Flow and Chemical Concentrations - A Zone

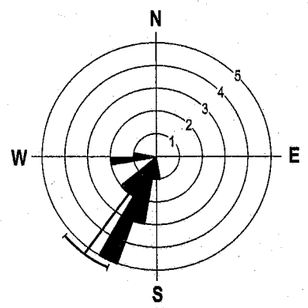
June 9, 2008




## EXPLANATION

- MW-1A — CRA monitoring well location
- SB-12 — CRA soil boring location
- SB-1 — CRA soil boring/temporary well location
- SCI soil sample location
- 1 — Former tank location and tank nomenclature
- Product piping
- Product piping stub-ups
- Electrical line
- Storm drain
- Sanitary sewer line
- Water line
- Gas line
- Communications line
- 36.00 — Groundwater elevation contour line in feet above mean sea level (MSL), dashed where inferred
- 0.02 — Groundwater flow direction and gradient
- -- Not analyzed

| Well ID | Monitoring Well Designation |
|---|---|
| ELEV. | Groundwater elevation in feet above mean sea level (MSL) |
| TPHd | Concentrations in groundwater in micrograms per liter (µg/L) |
| TPHss | |
| TPHg | |
| PCE | |
| TCE | |
| cis-1,2-DCE | |
| Vinyl Chloride | |




Groundwater Flow Direction

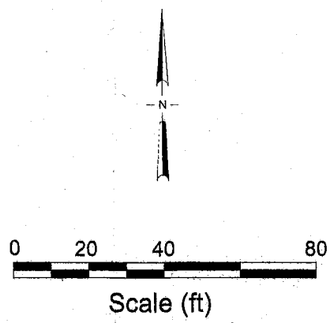



FIGURE **2**

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1137 - 1167 65th Street
Oakland, California

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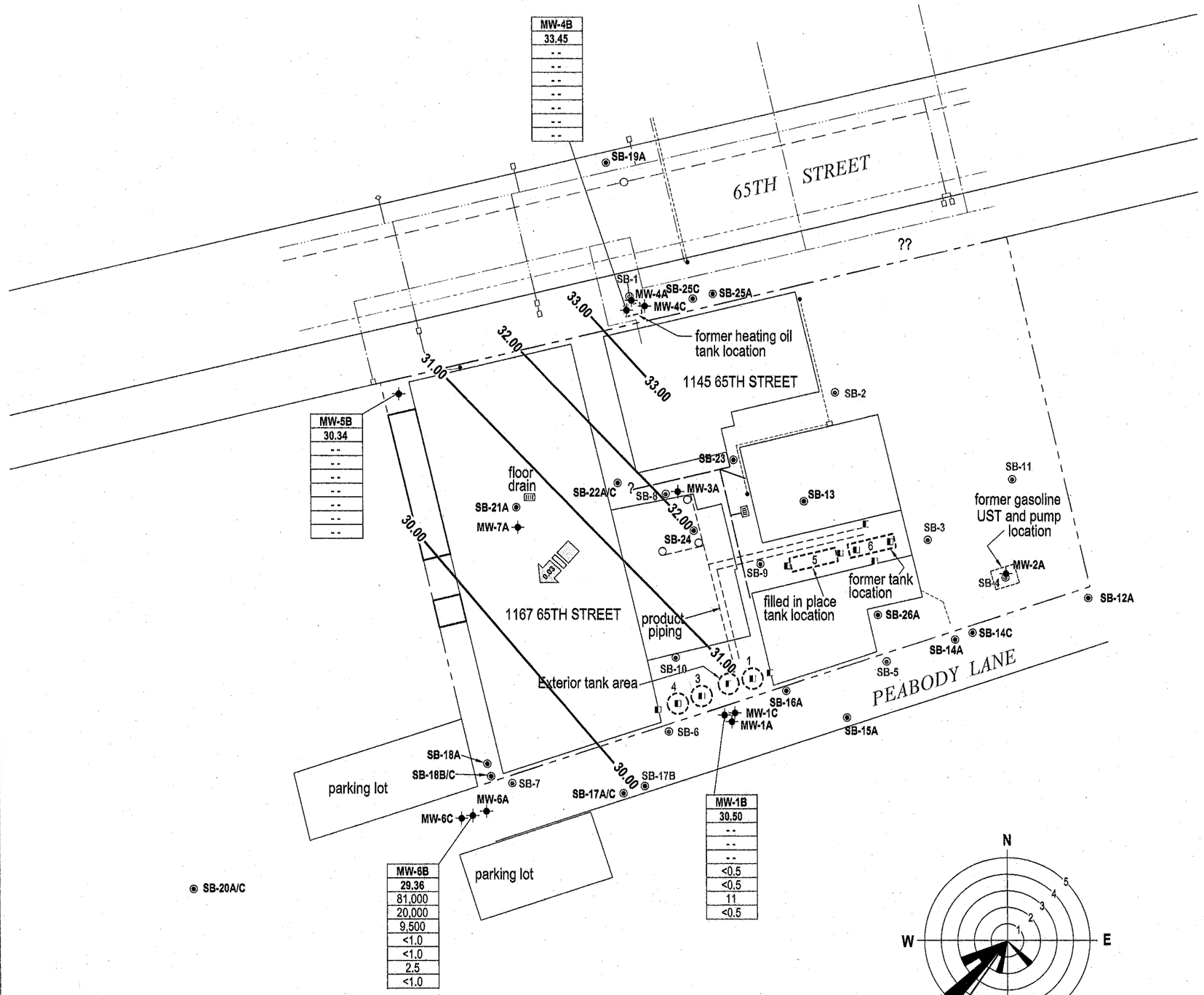
07/21/08

# Groundwater Flow and Chemical Concentrations - B Zone

June 9, 2008




## EXPLANATION

- MW-1A — CRA monitoring well location
- SB-12 — CRA soil boring location
- SB-1 — CRA soil boring/temporary well location
- SCI soil sample location
- 1 — Former tank location and tank nomenclature
- Product piping
- Product piping stub-ups
- Electrical line
- Storm drain
- Sanitary sewer line
- Water line
- Gas line
- Communications line
- 32.00 — Groundwater elevation contour line in feet above mean sea level (MSL)
- 0.017 — Groundwater flow direction and gradient
- -- Not analyzed

| Well ID | Monitoring Well Designation |
|---|---|
| ELEV. | Groundwater elevation in feet above mean sea level (MSL) |
| TPHd | Concentrations in groundwater in micrograms per liter |
| TPHss | |
| TPHg | |
| PCE | |
| TCE | |
| cis-1,2-DCE | |
| Vinyl Chloride | |

CONESTOGA-ROVERS & ASSOCIATES

1137 - 1167 65th Street
Oakland, California

FIGURE
**3**

H:\NADY\FIGURES\2008\2QGW-B-08.DWG

07/21/08

# Groundwater Flow and Chemical Concentrations - C Zone

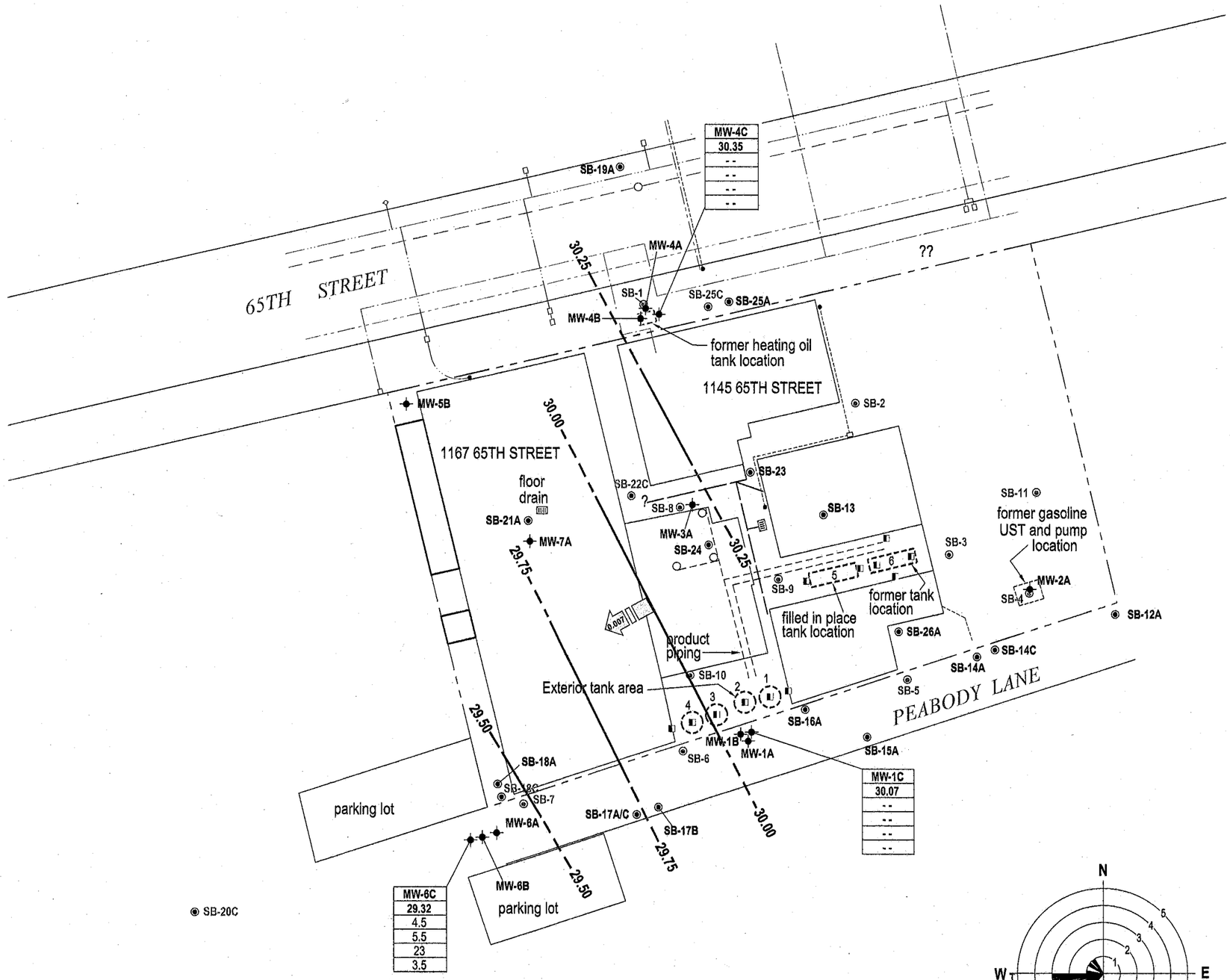
June 9, 2008

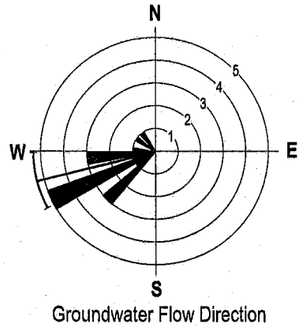
## EXPLANATION

- MW-1A — CRA monitoring well location
- SB-12 — CRA soil boring location
- SB-1 — CRA soil boring/temporary well location
- SCI soil sample location
- 1 — Former tank location and tank nomenclature
- Product piping
- Product piping stub-ups
- Electrical line
- Storm drain
- Sanitary sewer line
- Water line
- Gas line
- Communications line
- 32.00 — Groundwater elevation contour line in feet above mean sea level (MSL)
- 0.007 — Groundwater flow direction and gradient
- -- Not analyzed

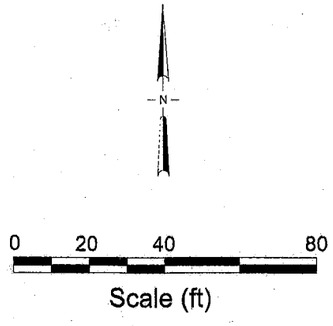
| Well ID |
|---|
| ELEV. |
| PCE |
| TCE |
| cis-1,2-DCE |
| Vinyl Chloride |

Monitoring Well Designation
Groundwater elevation in feet above mean sea level (MSL)
Concentrations in groundwater in micrograms per liter




Groundwater Flow Direction




FIGURE

**4**

CONESTOGA-ROVERS & ASSOCIATES

1137 - 1167 65th Street
Oakland, California

H:\NAD\FIGURES\2008\2QGW-C-08.DWG

**Table 1. Well Construction Details** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID | Date Installed | Borehole Depth (ft) | Borehole Diameter (inches) | Casing Diameter (in) | Screen Interval (ft bgs) | Screen Size (in) | Filter Pack (ft bgs) | Bentonite Seal (ft bgs) | Cement Seal (ft bgs) | TOC Elevation (ft msl) | First Water (ft bgs) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A-Zone Monitoring Wells | | | | | | | | | | | |
| MW-1A | 5/10/2004 | 14.5 | 8 | 2 | 4.5 - 14.5 | 0.010 | 3.5 - 14.5 | 2.5 - 3.5 | 0 - 2.5 | 39.64 | 7.0 |
| MW-2A | 5/11/2004 | 12.0 | 10 | 4 | 3.0 - 12.0 | 0.020 | 2.5 - 3.0 | 1.0 - 2.5 | 0 - 1.0 | 40.72 | 4.5 |
| MW-3A | 5/7/2004 | 16.0 | 8 | 2 | 3.5 - 14.0 | 0.010 | 3.0 - 3.5 | 2.0 - 3.0 | 0 - 2.0 | 40.88 | 4.0 |
| MW-4A | 5/18/2004 | 16.0 | 8 | 2 | 3.0 - 13.0 | 0.010 | 2.5 - 13.0 | 1.5 - 2.5 | 0 - 1.5 | 38.71 | NA |
| MW-6A | 5/11/2004 | 14.5 | 8 | 2 | 4.5 - 14.5 | 0.010 | 3.5 - 14.5 | 1.5 - 3.5 | 0 - 1.5 | 37.98 | 12.0 |
| MW-7A | 5/7/2004 | 10.0 | 6.5 | 1 | 5.0 - 10.0 | 0.010 | 4.0 - 10.0 | 3.0 - 4.0 | 0 - 3.0 | 40.58 | 6.0 |
| B-Zone Monitoring Wells | | | | | | | | | | | |
| MW-1B | 5/12/2004 | 20.0 | 8 | 2 | 16.5 - 20.0 | 0.010 | 15.5 - 20.0 | 13.0 - 15.5 | 0 - 13.0 | 39.50 | 7.0 |
| MW-4B | 5/18/2004 | 24.0 | 8 | 2 | 17.0 - 21.0 | 0.010 | 16.0 - 21.0 | 12.0 - 14.0<br>21.0 - 24.0 | 0 - 12.0 | 38.54 | 3.5 |
| MW-5B | 5/18/2004 | 24.0 | 8 | 2 | 15.0 - 24.0 | 0.010 | 14.0 - 24.0 | 12.0 - 14.0 | 0 - 12.0 | 38.98 | NA |
| MW-6B | 5/12/2004 | 24.5 | 8 | 2 | 17.0 - 22.0 | 0.010 | 16.0 - 22.0 | 14.0 - 16.0<br>22.0 - 24.5 | 0 - 14.0 | 37.66 | 15.5 |
| C-Zone Monitoring Wells | | | | | | | | | | | |
| MW-1C | 5/10/2004 | 40.0 | 8 | 2 | 25.0 - 34.0 | 0.010 | 24.0 - 34.0 | 22.0 - 24.0<br>34.0 - 40.0 | 0 - 22.0 | 39.49 | 7.0 |
| MW-4C | 5/17/2004 | 40.0 | 8 | 2 | 27.0 - 32.0 | 0.010 | 26.0 - 27.0 | 24.0 - 26.0<br>32.0 - 40.0 | 0 - 24.0 | 38.50 | 12.0 |
| MW-6C | 5/11/2004 | 39.5 | 8 | 2 | 26.5 - 34.0 | 0.010 | 25.5 - 34.0 | 23.0 - 25.0<br>34.0 - 39.5 | 0 - 23.0 | 37.59 | 15.0 |

**Abbreviations / Notes**

ft = feet

in = inches

ft bgs = feet below grade surface

ft msl = feet above mean sea level

TOC = top of casing

**Table 2. Monitoring Well Groundwater Analytical Results: Petroleum Hydrocarbons** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID (TOC) | Date Sampled | Groundwater Zone | Groundwater Elevation (ft msl) | Depth to Water (ft) | TPHd | TPHg | TPHmo | TPHss | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← µg/L → | | | | | | | | | |
| MW-1A | 6/3/2004 | Zone A | 35.14 | 4.50 | 1,300 | 1,400 | 260 | 2,500 | ND<0.5 | ND<0.5 | 2.0 | 11 | ND<5.0 | |
| *39.64* | 11/23/2004 | | 36.54 | 3.10 | 1,400 | 2,300 | ND<250 | 2,800 | 0.64 | ND<0.5 | 2.5 | 9.7 | 6.8 | a,b,c |
| | 3/14/2005 | | 37.02 | 2.62 | 3,200 | 4,800 | ND<250 | 6,000 | 0.68 | ND<0.5 | 2.0 | 6.8 | ND<5.0 | d,e |
| | 6/15/2005 | | 35.14 | 4.50 | 2,500 | 2,800 | ND<250 | 3,400 | ND<2.5 | ND<2.5 | ND<2.5 | 5.9 | ND<25 | a,b,h,i,c |
| | 9/19/2005 | | 33.14 | 6.50 | 2,800 | 4,100 | ND<250 | 6,000 | ND<1.0 | ND<1.0 | 3.3 | 6.2 | ND<10 | a,b,i,c |
| | 12/12/2005 | | 35.14 | 4.50 | 2,500 | 2,600 | ND<250 | 3,100 | ND<1.7 | ND<1.7 | 2.7 | 6.5 | ND<17 | a,b,c,h,i |
| | 3/13/2006 | | 37.74 | 1.90 | 2,300 | 2,000 | ND<250 | 2,400 | 0.51 | ND<0.5 | 1.9 | 3.5 | -- | a,b,c,i |
| | 6/19/2006 | | 35.94 | 3.70 | 2,600 | 2,200 | ND<250 | 3,500 | 0.52 | ND<0.5 | 2.9 | 6.7 | -- | m,b,c |
| | 9/20/2006 | | 34.19 | 5.45 | 2,400 | 2,200 | ND<250 | 2,400 | ND<2.5 | ND<2.5 | 3.0 | 9.7 | -- | a,b,c,i |
| | 12/20/2006 | | 37.02 | 2.62 | 1,900 | 1,300 | ND<250 | 1,400 | 0.52 | ND<0.5 | 2.9 | 7.6 | -- | a,e,h |
| | 3/29/2007 | | 37.04 | 2.60 | 1,200 | 1,800 | ND<250 | 2,100 | ND<0.5 | ND<0.5 | 2.2 | 6.4 | ND<5.0 | a,b,c |
| | 6/11/2007 | | 35.72 | 3.92 | 2,200 | 3,200 | ND<250 | 2,200 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | -- | a,b,c |
| | 9/7/2007 | | 33.90 | 5.74 | 1,800 | 2,300 | ND<250 | 1,700 | ND<0.5 | ND<0.5 | 2.2 | 4.6 | ND<5.0 | a,b,c |
| | 12/12/2007 | | 36.53 | 3.11 | 2,500 | 3,100 | ND<250 | 3,400 | ND<5.0 | ND<5.0 | ND<5.0 | 12 | ND<50 | a,c |
| | 3/7/2008 | | 37.23 | 2.41 | 1,700 | 2,200 | ND<250 | 1,600 | ND<0.5 | ND<0.5 | 2.3 | 8.9 | -- | a,c |
| | **6/9/2008** | | **34.69** | **4.95** | **2,000** | **2,200** | **ND<250** | **2,500** | **ND<2.5** | **ND<2.5** | **3.4** | **8.1** | **ND<25** | **a,b,c,i** |
| MW-2A | 6/3/2004 | Zone A | 36.48 | 4.24 | 2,900 | 1,700 | ND<250 | 3,500 | ND<0.5 | 3.5 | 4.9 | 5.1 | ND<5.0 | |
| *40.72* | 11/23/2004 | | 37.83 | 2.89 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 3/14/2005 | | 39.02 | 1.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | 560 | 360 | 450 | 260 | ND<0.5 | 2.5 | ND<0.5 | ND<0.5 | ND<5.0 | e,d,g,i |
| | 6/15/2005 | | 37.91 | 2.81 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/16/2005 | | -- | -- | 470 | 480 | 330 | 430 | ND<0.5 | 2.9 | ND<0.5 | ND<0.5 | ND<5.0 | a,b,i,g,e |
| | 9/19/2005 | | 35.46 | 5.26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | 2,100 | 960 | 870 | 960 | ND<0.5 | 4.7 | 2.9 | ND<0.5 | ND<5.0 | e,g,b,i,l |
| | 12/12/2005 | | 37.66 | 3.06 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | 700 | 670 | 470 | 510 | ND<0.5 | 5.9 | ND<0.5 | ND<0.5 | ND<5.0 | a,b,e,g,i |
| | 3/13/2006 | | 40.33 | 0.39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/14/2006 | | -- | -- | 81 | 100 | ND<250 | 81 | ND<0.5 | 1.5 | ND<0.5 | ND<0.5 | -- | a,b,c,i |
| | 6/19/2006 | | 37.31 | 3.41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/20/2006 | | -- | -- | 530 | 270 | 420 | 180 | ND<0.5 | 1.7 | ND<0.5 | ND<0.5 | -- | e,g,i,l |
| | 9/20/2006 | | 34.65 | 6.07 | 800 | 1,700 | 730 | 1,700 | ND<2.5 | 5.5 | ND<2.5 | ND<2.5 | -- | a,b,d,e,g,i |
| | 12/20/2006 | | 38.57 | 2.15 | 190 | 94 | 300 | 61 | ND<0.5 | 1.5 | ND<0.5 | ND<0.5 | -- | e,g,m,n |
| | 3/29/2007 | | 38.22 | 2.50 | 200 | 260 | ND<250 | 240 | ND<0.5 | 2.7 | ND<0.5 | ND<0.5 | ND<5.0 | a,b,c |
| | 6/11/2007 | | 37.14 | 3.58 | 200 | 180 | ND<250 | 94 | ND<0.5 | 1.7 | ND<0.5 | ND<0.5 | -- | a,b,c,i |
| | 9/7/2007 | | 35.04 | 5.68 | 190 | 240 | ND<250 | 180 | ND<0.5 | 0.98 | ND<0.5 | ND<0.5 | ND<5.0 | a,b,c,i |
| | 12/12/2007 | | 37.82 | 2.90 | 220 | 190 | 360 | 140 | ND<0.5 | 2.9 | ND<0.5 | ND<0.5 | ND<5.0 | a,b,g,e |
| | 3/7/2008 | | 38.79 | 1.93 | 90 | 100 | ND<250 | ND<50 | ND<0.5 | 1.2 | ND<0.5 | ND<0.5 | -- | e,b |
| | **6/9/2008** | | **36.18** | **4.54** | **150** | **180** | **ND<250** | **180** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<5.0** | **a,b,e,i** |
| MW-3A | 6/3/2004 | Zone A | 36.56 | 4.32 | 90,000 | 4,800 | 6,000 | 12,000 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<50 | |
| *40.88* | 11/23/2004 | | 37.89 | 2.99 | 22,000 | 3,800 | ND<2,500 | 5,700 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<50 | a,c,d |
| | 3/14/2005 | | 37.28 | 3.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | 37,000 | 2,400 | ND<2,500 | 3,500 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<17 | e,d,i |
| | 6/15/2005 | | 36.78 | 4.10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/16/2005 | | -- | -- | 15,000 | 2,100 | ND<1,200 | 3,300 | ND<1.7 | ND<1.7 | ND<1.7 | 2.4 | ND<17 | a,c,d,h,i |

**Table 2. Monitoring Well Groundwater Analytical Results: Petroleum Hydrocarbons** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID (TOC) | Date Sampled | Groundwater Zone | Groundwater Elevation (ft msl) | Depth to Water (ft) | TPHd | TPHg | TPHmo | TPHss | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← µg/L → | | | | | | | | | |
| MW-3A | 9/19/2005 | | 35.93 | 4.95 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| *(cont.)* | 9/20/2005 | | -- | -- | 55,000 | 4,700 | ND<5,000 | 8,000 | ND<1.0 | ND<1.0 | 2.6 | 6.8 | ND<10 | a,b,c,d,i |
| | 12/12/2005 | | 36.72 | 4.16 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | 34,000 | 1,100 | ND<12,000 | 1,600 | ND<1.7 | ND<1.7 | ND<1.7 | 2.3 | ND<17 | a,b,c,d,h,i |
| | 3/13/2006 | | 37.42 | 3.46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/14/2006 | | -- | -- | 21,000 | 2,200 | 1,600 | 3,300 | ND<0.5 | ND<0.5 | 1.1 | ND<0.5 | -- | a,c,d,g,h |
| | 6/19/2006 | | 36.48 | 4.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/20/2006 | | -- | -- | 19,000 | 8,000 | 1,000 | 16,000 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | -- | c,d,g,h,m |
| | 9/20/2006 | | 35.78 | 5.10 | 13,000 | 2,500 | 1,300 | 3,300 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | -- | a,c,d,g,h,i |
| | 12/20/2006 | | 36.78 | 4.10 | 15,000 | 2,600 | 670 | 3,500 | ND<2.5 | ND<2.5 | ND<2.5 | 7.6 | -- | e,g,h,n |
| | 3/29/2007 | | 36.82 | 4.06 | 21,000 | 2,600 | 940 | 3,400 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<50 | a,c,d,h |
| | 6/11/2007 | | 36.52 | 4.36 | 13,000 | 5,200 | 730 | 3,500 | ND<10 | ND<10 | ND<10 | ND<10 | -- | a,d,h |
| | 9/7/2007 | | 35.98 | 4.90 | 36,000 | 11,000 | 1,600 | 15,000 | ND<10 | ND<10 | ND<10 | ND<10 | ND<100 | a,c,d,h |
| | 12/12/2007 | | 36.54 | 4.34 | 41,000 | 9,500 | ND<2,500 | 13,000 | ND<5.0 | 7.1 | ND<5.0 | 32 | ND<50 | a,c,h, |
| | 3/7/2008 | | 36.87 | 4.01 | 26,000 | 3,200 | 1,200 | 2,800 | ND<2.5 | ND<2.5 | ND<2.5 | 2.5 | -- | a,h,c |
| | **6/9/2008** | | **36.03** | **4.85** | **20,000** | **7,500** | **ND<1,200** | **16,000** | **ND<25** | **ND<25** | **ND<25** | **ND<25** | **ND<250** | **a,c,h,i** |
| MW-4A | 6/3/2004 | Zone A | 36.26 | 2.45 | 270 | ND<50 | 440 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| *38.71* | 11/23/2004 | | 37.13 | 1.58 | 73 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | d |
| | 3/14/2005 | | 36.66 | 2.05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | 210 | ND<50 | 300 | ND<50 | 0.91 | 1.7 | ND<0.5 | 1.9 | ND<5.0 | g,d,f,i |
| | 6/15/2005 | | 36.38 | 2.33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/16/2005 | | -- | -- | 99 | 59 | ND<250 | 75 | 1.0 | 1.9 | ND<0.5 | 2.1 | ND<5.0 | j,d,f |
| | 9/19/2005 | | 35.01 | 3.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | 87 | ND<50 | ND<250 | ND<50 | 1.2 | 2.1 | 0.51 | 2.4 | ND<5.0 | d,f |
| | 12/12/2005 | | 36.39 | 2.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | 71 | ND<50 | ND<250 | ND<50 | 0.67 | 1.4 | ND<0.5 | 1.9 | ND<5.0 | d,f,i |
| | 3/13/2006 | | 36.75 | 1.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/14/2006 | | -- | -- | 68 | ND<50 | ND<250 | ND<50 | 0.60 | 1.3 | ND<0.5 | 1.8 | -- | d,f |
| | 6/19/2006 | | 36.15 | 2.56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/20/2006 | | -- | -- | 72 | ND<50 | ND<250 | ND<50 | 0.53 | 1.1 | ND<0.5 | 1.6 | -- | f |
| | 9/20/2006 | | 35.10 | 3.61 | 160 | 110 | ND<250 | 88 | 1.2 | 2.5 | 0.61 | 3.9 | -- | a,d,f,i |
| | 12/20/2006 | | 36.39 | 2.32 | 97 | ND<50 | ND<250 | ND<50 | 0.99 | 2.1 | 0.52 | 2.9 | -- | f |
| | 3/29/2007 | | 36.46 | 2.25 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | 0.93 | ND<0.5 | 1.3 | ND<5.0 | |
| | 6/11/2007 | | 36.14 | 2.57 | 66 | ND<50 | ND<250 | ND<50 | ND<0.5 | 0.92 | ND<0.5 | 1.6 | -- | d,f |
| | 9/7/2007 | | 35.34 | 3.37 | 78 | ND<50 | ND<250 | ND<50 | 0.74 | 1.3 | ND<0.5 | 1.9 | ND<5.0 | f |
| | 12/12/2007 | | 36.25 | 2.46 | 68 | 86 | ND<250 | 62 | 0.62 | 1.8 | ND<0.5 | 2.4 | ND<5.0 | j,d,f |
| | 3/7/2008 | | 36.46 | 2.25 | 71 | ND<50 | ND<250 | ND<50 | ND<0.5 | 1.0 | ND<0.5 | 1.5 | -- | l,f |
| | **6/9/2008** | | **35.49** | **3.22** | **66** | **ND<50** | **ND<250** | **ND<50** | **ND<0.5** | **0.94** | **ND<0.5** | **1.5** | **ND<5.0** | **d,f** |
| MW-6A | 6/3/2004 | Zone A | 31.98 | 6.00 | 3,500 | 970 | 340 | 2,400 | ND<0.5 | ND<0.5 | ND<0.5 | 2.1 | ND<5.0 | |
| *37.98* | 11/23/2004 | | 33.13 | 4.85 | 1,400 | 1,900 | ND<250 | 3,000 | ND<0.5 | ND<0.5 | ND<0.5 | 3.0 | ND<5.0 | a,c |
| | 3/14/2005 | | 35.03 | 2.95 | 5,900 | 2,900 | ND<250 | 2,600 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<50 | e,d,i |
| | 6/15/2005 | | 33.28 | 4.70 | 6,100 | 2,200 | ND<250 | 3,400 | ND<0.5 | ND<0.5 | 0.60 | 4.4 | ND<10 | a,i,c,d |
| | 9/19/2005 | | 32.07 | 5.91 | 2,600 | 2,200 | ND<250 | 3,900 | ND<1.0 | ND<1.0 | 1.4 | 7.6 | ND<10 | a,b,c |
| | 12/12/2005 | | 33.12 | 4.86 | 4,600 | 2,900 | ND<250 | 4,500 | ND<0.5 | ND<0.5 | 1.6 | 8.9 | ND<5.0 | a,c,h,i |

**Table 2. Monitoring Well Groundwater Analytical Results: Petroleum Hydrocarbons** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID (TOC) | Date Sampled | Groundwater Zone | Groundwater Elevation (ft msl) | Depth to Water (ft) | TPHd | TPHg | TPHmo | TPHss | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← | | | | µg/L | | | | → | |
| MW-6A | 3/13/2006 | | 36.05 | 1.93 | 4,300 | 1,900 | ND<250 | 3,000 | ND<0.5 | ND<0.5 | ND<0.5 | 4.3 | -- | a,c,d,h |
| *(cont.)* | 6/19/2006 | | 32.59 | 5.39 | 7,800 | 2,300 | 260 | 4,600 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | -- | c,g,h,m |
| | 9/20/2006 | | 31.96 | 6.02 | 2,600 | 960 | ND<250 | 1,200 | ND<2.5 | ND<2.5 | ND<2.5 | ND<2.5 | -- | a,c,i |
| | 12/20/2006 | | 33.57 | 4.41 | 4,100 | 2,400 | ND<250 | 3,200 | ND<5.0 | ND<5.0 | ND<5.0 | 8.1 | -- | e,h,n |
| | 3/29/2007 | | 33.67 | 4.31 | 2,900 | 2,200 | ND<250 | 2,700 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<50 | a,c |
| | 6/11/2007 | | 32.95 | 5.03 | 6,400 | 4,300 | ND<250 | 3,700 | ND<0.5 | ND<0.5 | 2.1 | 9.5 | -- | a,c |
| | 9/7/2007 | | 32.32 | 5.66 | 5,800 | 1,600 | ND<250 | 1,400 | ND<1.0 | ND<1.0 | ND<1.0 | 3.1 | ND<10 | a,b,c,d,h |
| | 12/12/2007 | | 33.50 | 4.48 | 9,600 | 3,300 | ND<250 | 4,400 | ND<5.0 | ND<5.0 | ND<5.0 | 8.4 | ND<50 | a,c,d |
| | 3/7/2008 | | 34.30 | 3.68 | 6,200 | 4,100 | 280 | 3,700 | ND<2.5 | ND<2.5 | ND<2.5 | 6.9 | -- | a,h,c |
| | **6/9/2008** | | **32.30** | **5.68** | **7,200** | **7,900** | **290** | **16,000** | **ND<10** | **ND<10** | **ND<10** | **ND<10** | **ND<100** | **a,c,h,i** |
| MW-7A | 6/3/2004 | Zone A | 36.08 | 4.50 | -- | 3,900 | -- | 9,900 | ND<5.0 | ND<5.0 | ND<5.0 | 6.6 | ND<50 | |
| *40.58* | 11/23/2004 | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/14/2005 | | 37.03 | 3.55 | 14,000 | 3,900 | 620 | 3,700 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<50 | c,d,h |
| | 6/15/2005 | | 36.41 | 4.17 | 24,000 | 2,500 | ND<1,200 | 3,900 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<50 | a,c,d,h,i |
| | 9/19/2005 | | 35.25 | 5.33 | 43,000 | 7,000 | ND<5,000 | 13,000 | ND<10 | ND<10 | ND<10 | ND<10 | ND<100 | a,c,i |
| | 12/12/2005 | | 36.15 | 4.43 | 10,000 | 1,700 | ND<1,200 | 2,500 | ND<1.0 | ND<1.0 | 1.4 | 2.4 | ND<10 | a,c,d,h,i |
| | 3/13/2006 | | 36.76 | 3.82 | 31,000 | 1,600 | 1,100 | 2,300 | ND<0.5 | ND<0.5 | 0.93 | 9.1 | -- | a,c,d,g,h,i |
| | 6/19/2006 | | 35.78 | 4.80 | 36,000 | 26,000 | 1,300 | 44,000 | ND<5.0 | ND<5.0 | 10 | ND<5.0 | -- | c,d,g,h,i,m |
| | 9/20/2006 | | 35.03 | 5.55 | 36,000 | 49,000 | ND<5,000 | 69,000 | ND<50 | ND<50 | ND<50 | ND<50 | -- | a,c,h,i |
| | 12/20/2006 | | 36.35 | 4.23 | 14,000 | 38,000 | ND<1,200 | 53,000 | ND<50 | ND<50 | ND<50 | 150 | -- | e,h,n |
| | 3/29/2007 | | 36.06 | 4.52 | 34,000 | 4,100 | 890 | 5,600 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<50 | a,h,c,d |
| | 6/11/2007 | | 36.02 | 4.56 | 32,000 | 3,800 | ND<1,200 | 3,400 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | -- | a,c,d,h,i |
| | 9/7/2007 | | 35.18 | 5.40 | 57,000 | 21,000 | ND<2,500 | 19,000 | ND<10 | ND<10 | ND<10 | 54 | ND<100 | a,b,c,d,h |
| | 12/12/2007 | | 35.96 | 4.62 | 45,000 | 13,000 | 1,400 | 16,000 | ND<25 | ND<25 | ND<25 | ND<25 | ND<250 | a,c,d |
| | 3/7/2008 | | 36.28 | 4.30 | 56,000 | 3,800 | 1,600 | 3,500 | ND<2.5 | ND<2.5 | ND<2.5 | 3.7 | -- | a,h,i,c |
| | **6/9/2008** | | **35.35** | **5.23** | **150,000** | **35,000** | **ND<12,000** | **68,000** | **ND<25** | **ND<25** | **ND<25** | **ND<25** | **ND<250** | **a,c,h,i** |
| MW-1B | 6/3/2004 | Zone B | 25.10 | 14.40 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| *39.50* | 11/23/2004 | | 26.24 | 13.26 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 3/14/2005 | | 33.97 | 5.53 | 52 | ND<50 | ND<250 | ND<50 | 0.60 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | d,i |
| | 6/15/2005 | | 31.87 | 7.63 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 9/19/2005 | | 30.35 | 9.15 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 12/12/2005 | | 30.39 | 9.11 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 3/13/2006 | | 32.15 | 7.35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 22.99 | 16.51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 30.32 | 9.18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 31.60 | 7.90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 24.63 | 14.87 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 26.39 | 13.11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 28.42 | 11.08 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 30.60 | 8.90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 32.48 | 7.02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **30.50** | **9.00** | -- | -- | -- | -- | -- | -- | -- | -- | -- | |

**Table 2. Monitoring Well Groundwater Analytical Results: Petroleum Hydrocarbons** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID *(TOC)* | Date Sampled | Groundwater Zone | Groundwater Elevation *(ft msl)* | Depth to Water *(ft)* | TPHd | TPHg | TPHmo | TPHss | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← µg/L → | | | | | | | | | |
| MW-4B | 6/3/2004 | Zone B | 33.52 | 5.02 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| *38.54* | 11/23/2004 | | 34.65 | 3.89 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 3/14/2005 | | 34.78 | 3.76 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 6/15/2005 | | 33.98 | 4.56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/16/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 9/19/2005 | | 32.57 | 5.97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 12/12/2005 | | 33.65 | 4.89 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 3/13/2006 | | 34.61 | 3.93 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 33.86 | 4.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 32.58 | 5.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 33.92 | 4.62 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 33.96 | 4.58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 34.03 | 4.51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 33.22 | 5.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 33.85 | 4.69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 34.58 | 3.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **33.45** | **5.09** | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-5B | 6/3/2004 | Zone B | 30.16 | 8.82 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| *38.98* | 11/23/2004 | | 31.32 | 7.66 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 3/14/2005 | | 32.71 | 6.27 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 6/15/2005 | | 31.20 | 7.78 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 9/19/2005 | | 28.68 | 10.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 12/12/2005 | | 30.65 | 8.33 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 3/13/2006 | | 32.87 | 6.11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 30.97 | 8.01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 29.68 | 9.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 31.21 | 7.77 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 31.40 | 7.58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 31.02 | 7.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 30.02 | 8.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 30.88 | 8.10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 32.55 | 6.43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **30.34** | **8.64** | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-6B | 6/3/2004 | Zone B | 29.36 | 8.30 | 2,300 | 1,100 | ND<250 | 2,900 | ND<0.5 | ND<0.5 | ND<0.5 | 1.4 | ND<5.0 | |
| *37.66* | 11/23/2004 | | 30.53 | 7.13 | 280 | 500 | ND<250 | 700 | ND<0.5 | ND<0.5 | ND<0.5 | 1.6 | ND<5.0 | a,c |
| | 3/14/2005 | | 31.86 | 5.80 | 5,200 | 1,300 | 340 | 1,200 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | e,d,i |
| | 6/15/2005 | | 30.17 | 7.49 | 1,700 | 900 | ND<250 | 1,300 | ND<0.5 | ND<0.5 | ND<0.5 | 1.9 | ND<5.0 | a,c |
| | 9/19/2005 | | 28.83 | 8.83 | 2,700 | 1,200 | ND<250 | 2,000 | 1.0 | 1.4 | ND<1.0 | 5.0 | ND<20 | a,b,c |
| | 12/12/2005 | | 29.85 | 7.81 | 4,100 | 840 | ND<250 | 1,200 | ND<0.5 | ND<0.5 | ND<0.5 | 3.3 | ND<5.0 | a,c,h,i |

**Table 2. Monitoring Well Groundwater Analytical Results: Petroleum Hydrocarbons** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID (TOC) | Date Sampled | Groundwater Zone | Groundwater Elevation (ft msl) | Depth to Water (ft) | TPHd | TPHg | TPHmo | TPHss | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← | | | | µg/L | | | | → | |
| MW-6B | 3/13/2006 | | 32.31 | 5.35 | 6,900 | 1,400 | 270 | 2,000 | ND<0.5 | ND<0.5 | ND<0.5 | 4.7 | -- | a,c,d,h,i |
| *(cont.)* | 6/19/2006 | | 29.88 | 7.78 | 7,700 | 1,700 | 310 | 3,300 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | -- | c,g,h,m |
| | 9/20/2006 | | 28.78 | 8.88 | 16,000 | 3,200 | 740 | 4,200 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | -- | a,c,d,g,h,i |
| | 12/20/2006 | | 30.34 | 7.32 | 16,000 | 55,000 | ND<1,200 | 77,000 | ND<50 | ND<50 | ND<50 | 130 | -- | e,g,h,n |
| | 3/29/2007 | | 30.44 | 7.22 | 24,000 | 3,400 | 650 | 4,300 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<50 | a,h,c,d |
| | 6/11/2007 | | 29.93 | 7.73 | 29,000 | 2,600 | ND<1,200 | 2,100 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | -- | a,c,d,h |
| | 9/7/2007 | | 28.95 | 8.71 | 32,000 | 4,500 | ND<1,200 | 3,800 | ND<5.0 | ND<5.0 | ND<5.0 | 11 | ND<50 | a,b,c,d,h |
| | 12/12/2007 | | 30.00 | 7.66 | 36,000 | 12,000 | 1,000 | 15,000 | ND<25 | ND<25 | ND<25 | ND<25 | ND<250 | a,h,c,d |
| | 3/7/2008 | | 31.70 | 5.96 | 27,000 | 3,100 | 1,100 | 2,700 | ND<2.5 | ND<2.5 | ND<2.5 | 6.1 | -- | a,h,k |
| | **6/9/2008** | | **29.36** | **8.30** | **81,000** | **9,500** | **ND<5,000** | **20,000** | **ND<25** | **ND<25** | **ND<25** | **ND<25** | **ND<250** | **a,c,h** |
| MW-1C | 6/3/2004 | Zone C | 30.07 | 9.42 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| *39.49* | 11/23/2004 | | 31.30 | 8.19 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 3/14/2005 | | 32.58 | 6.91 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | f |
| | 6/15/2005 | | 30.89 | 8.60 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 9/19/2005 | | 29.19 | 10.30 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 12/12/2005 | | 30.54 | 8.95 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 3/13/2006 | | 32.99 | 6.50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 30.66 | 8.83 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 29.53 | 9.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 31.13 | 8.36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 31.19 | 8.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 30.63 | 8.86 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 29.60 | 9.89 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 30.61 | 8.88 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 32.46 | 7.03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **30.07** | **9.42** | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-4C | 6/3/2004 | Zone C | 30.10 | 8.40 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| *38.50* | 11/23/2004 | | 31.31 | 7.19 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 3/14/2005 | | 33.15 | 5.35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 6/15/2005 | | 30.85 | 7.65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/16/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 9/19/2005 | | 25.97 | 12.53 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 12/12/2005 | | 30.00 | 8.50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | i |
| | 3/13/2006 | | 31.18 | 7.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 30.90 | 7.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 29.91 | 8.59 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 31.21 | 7.29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 31.29 | 7.21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 30.93 | 7.57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 30.20 | 8.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 31.10 | 7.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |

**Table 2. Monitoring Well Groundwater Analytical Results: Petroleum Hydrocarbons** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID *(TOC)* | Date Sampled | Groundwater Zone | Groundwater Elevation *(ft msl)* | Depth to Water *(ft)* | TPHd | TPHg | TPHmo | TPHss | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← µg/L → | | | | | | | | | |
| MW-4C | 3/7/2008 | | 32.25 | 6.25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| *(cont.)* | **6/9/2008** | | **30.35** | **8.15** | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-6C | 6/3/2004 | Zone C | 27.89 | 9.70 | 240 | 160 | ND<250 | 340 | ND<0.5 | ND<0.5 | ND<0.5 | 1.1 | ND<5.0 | |
| *37.59* | 11/23/2004 | | 29.21 | 8.38 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 3/14/2005 | | 31.79 | 5.80 | 60 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | d |
| | 6/15/2005 | | 30.14 | 7.45 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 9/19/2005 | | 28.79 | 8.80 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 12/12/2005 | | 29.81 | 7.78 | ND<50 | ND<50 | ND<250 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | |
| | 3/13/2006 | | 32.09 | 5.50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 29.84 | 7.75 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 28.74 | 8.85 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 30.29 | 7.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 30.39 | 7.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 29.86 | 7.73 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 28.92 | 8.67 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 29.94 | 7.65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 31.63 | 5.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **29.32** | **8.27** | -- | -- | -- | -- | -- | -- | -- | -- | -- | |

**Abbreviations:**

mg/L = micrograms per liter - approximately equal to parts per billion = ppb

*(TOC)* = Top of casing elevation in feet above mean sea level (msl)

ft = measured in feet

TPHd = Total petroleum hydrocarbons as diesel by EPA Method SW8015C with silica gel cleanup.

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method SW8015C.

TPHmo = Total petroleum hydrocarbons as motor oil by EPA Method SW8015C with silica gel cleanup.

TPHss = Total petroleum hydrocarbons as stoddard solvent by EPA Method SW8015C.

Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW8021B.

MTBE = Methyl tertiary-butyl ether by EPA Method SW8021B (EPA Method SW8260B).

-- = Not available, not applicable, not analyzed, not measured

**Notes:**

a = TPH pattern that does not appear to be derived from gasoline (stoddard solvent/mineral spirit?).

b = No recognizable pattern.

c = Stoddard solvent/mineral spirit.

d = Diesel range compounds are significant; no recognizable pattern.

e = Gasoline range compounds are significant.

f = One to a few isolated peaks present

g = Oil range compounds are significant.

h = Lighter than water immiscible sheen/product is present.

i = Liquid sample contains greater than ~1 vol. % sediment.

j = Unmodified or weakly modified gasoline is significant

k = TPHg range non-target isolated peaks subtracted out of the TPHg concentration

l = Heavier gasoline compounds are significant (aged gasoline?)

m = Strongly aged gasoline or diesel range compounds are significant

n = Diesel range compounds are significant

## Table 3. Monitoring Well Groundwater Analytical Results: Halogenated Volatile Organic Compounds - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID (TOC) | Date Sampled | Groundwater Zone | Groundwater Elevation (ft amsl) | Depth to Water (ft) | Chloroethane | Chloroform | 1,1,2,2-Tetrachloroethane | (PCE) Tetrachloroethene | (TCE) Trichloroethene | 1,2-Dichlorobenzene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | 1,1-Dichloroethane | 1,2-Dichloroethane | Vinyl Chloride | Notes/Other VOCs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← | | | | | µg/L | | | | | → | |
| MW-1A | 6/3/2004 | **Zone A** | 35.14 | 4.50 | ND<2.5 | ND<2.5 | ND<2.5 | 55 | 16 | ND<2.5 | 36 | ND<2.5 | ND<2.5 | ND<2.5 | 6.3 | |
| *39.64* | 11/23/2004 | | 36.54 | 3.10 | ND<1.0 | ND<1.0 | ND<1.0 | 38 | 11 | ND<1.0 | 51 | 2.4 | 2.8 | ND<1.0 | 9.5 | |
| | 3/14/2005 | | 37.02 | 2.62 | ND<1.0 | ND<1.0 | ND<1.0 | 42 | 12 | 2.0 | 32 | 2.2 | 2.4 | ND<1.0 | 8.0 | |
| | 6/15/2005 | | 35.14 | 4.50 | ND<1.0 | ND<1.0 | ND<1.0 | 62 | 19 | 2.6 | 24 | 2.4 | 3.0 | ND<1.0 | 10 | h,i |
| | 9/19/2005 | | 33.14 | 6.50 | ND<1.2 | ND<1.2 | ND<1.2 | 55 | 18 | 2.3 | 28 | 2.0 | 2.6 | ND<1.2 | 9.4 | i |
| | 12/12/2005 | | 35.14 | 4.50 | ND<1.0 | ND<1.0 | 16 | 60 | 17 | 2.0 | 22 | 2.3 | 2.5 | ND<1.0 | 12 | h,i |
| | 3/13/2006 | | 37.74 | 1.90 | ND<1.2 | ND<1.2 | 14 | 30 | 17 | ND<1.2 | 16 | 1.4 | 2.0 | ND<1.2 | 4.0 | i |
| | 6/19/2006 | | 35.94 | 3.70 | ND<0.5 | ND<0.5 | ND<0.5 | 33 | 9.0 | ND<0.5 | 15 | 1.1 | 1.8 | ND<0.5 | 3.2 | |
| | 9/20/2006 | | 34.19 | 5.45 | ND<0.5 | ND<0.5 | ND<0.5 | 34 | 15 | ND<0.5 | 21 | 1.6 | 2.3 | ND<0.5 | 5.4 | i |
| | 12/20/2006 | | 37.02 | 2.62 | ND<0.5 | ND<0.5 | ND<0.5 | 27 | 15 | ND<0.5 | 16 | 1.3 | 1.7 | ND<0.5 | 5.2 | |
| | 3/29/2007 | | 37.04 | 2.60 | ND<0.5 | ND<0.5 | ND<0.5 | 29 | 16 | ND<0.5 | 13 | 1.2 | 1.4 | ND<0.5 | ND<0.5 | |
| | 6/11/2007 | | 35.72 | 3.92 | ND<0.5 | ND<0.5 | ND<0.5 | 26 | 17 | ND<0.5 | 13 | 1.6 | 1.9 | ND<0.5 | 2.3 | |
| | 9/7/2007 | | 33.90 | 5.74 | ND<0.5 | ND<0.5 | ND<0.5 | 25 | 15 | ND<0.5 | 17 | 1.4 | 2.0 | ND<0.5 | 2.3 | |
| | 12/12/2007 | | 36.53 | 3.11 | ND<0.5 | ND<0.5 | ND<0.5 | 15 | 10 | ND<0.5 | 14 | 1.2 | 2.1 | ND<0.5 | 1.5 | |
| | 3/7/2008 | | 37.23 | 2.41 | ND<0.5 | ND<0.5 | 17 | 9.0 | 9.3 | 1.3 | 13 | 1.2 | 1.7 | ND<0.5 | 1.7 | |
| | **6/9/2008** | | **34.69** | **4.95** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **11** | **9.0** | **ND<0.5** | **11** | **1.1** | **1.8** | **ND<0.5** | **2.4** | i |
| MW-2A | 6/3/2004 | **Zone A** | 36.48 | 4.24 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| *40.72* | 11/23/2004 | | 37.83 | 2.89 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 3/14/2005 | | 39.02 | 1.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 6/15/2005 | | 37.91 | 2.81 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/16/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 9/19/2005 | | 35.46 | 5.26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 12/12/2005 | | 37.66 | 3.06 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 3/13/2006 | | 40.33 | 0.39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 37.31 | 3.41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 34.65 | 6.07 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 38.57 | 2.15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 38.22 | 2.50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 37.14 | 3.58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 35.04 | 5.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 37.82 | 2.90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 38.79 | 1.93 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **36.18** | **4.54** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-3A | 6/3/2004 | **Zone A** | 36.56 | 4.32 | ND<50 | ND<50 | ND<50 | ND<50 | ND<50 | ND<50 | ND<50 | ND<50 | ND<50 | ND<50 | ND<50 | a |
| *40.88* | 11/23/2004 | | 37.89 | 2.99 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | |
| | 3/14/2005 | | 37.28 | 3.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | 43 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | j, i, 1,3-dichlorobenzene (1.2) 1,4-dichlorobenzene (5.7) |
| | 6/15/2005 | | 36.78 | 4.10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/16/2005 | | -- | -- | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | 52 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | h,i, 1,3-dichlorobenzene (1.5) 1,4-dichlorobenzene (8.3) |
| | 9/19/2005 | | 35.93 | 4.95 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | 51 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | i, 1,4-dichlorobenzene (7.6) 1,3- dichlorobenzene (1.4) |
| | 12/12/2005 | | 36.72 | 4.16 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | ND<1.0 | ND<1.0 | 26 | ND<1.0 | ND<1.0 | 43 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | h,i, 1,4-dichlorobenzene (7.2) |
| | 3/13/2006 | | 37.42 | 3.46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/14/2006 | | -- | -- | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | i, chlorobenzene (3.7) 1;4-dichlorobenzene (7.2) |
| | 6/19/2006 | | 36.48 | 4.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |

**Table 3. Monitoring Well Groundwater Analytical Results: Halogenated Volatile Organic Compounds** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID (TOC) | Date Sampled | Groundwater Zone | Groundwater Elevation (ft amsl) | Depth to Water (ft) | Chloroethane | Chloroform | 1,1,2,2-Tetrachloroethane | (PCE) Tetrachloroethene | (TCE) Trichloroethene | 1,2-Dichlorobenzene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | 1,1-Dichloroethane | 1,2-Dichloroethane | Vinyl Chloride | Notes/Other VOCs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← µg/L → | | | | | | | | | | | |
| MW-3A (cont.) | 6/20/2006 | | -- | -- | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | h, chlorobenzene (9.8) 1,4-dichlorobenzene (7.3) |
| | 9/20/2006 | | 35.78 | 5.10 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | h,i, chlorobenzene (31) |
| | 12/20/2006 | | 36.78 | 4.10 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | h, chlorobenzene (31) 1,4-dichlorobenzene (5.6) |
| | 3/29/2007 | | 36.82 | 4.06 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | chlorobenzene (55) 1,4- dichlorobenzene (6.0) |
| | 6/11/2007 | | 36.52 | 4.36 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | h, chlorobenzene (68) |
| | 9/7/2007 | | 35.98 | 4.90 | ND<2.5 | ND<2.5 | ND<2.5 | ND<2.5 | ND<2.5 | ND<2.5 | ND<2.5 | ND<2.5 | ND<2.5 | ND<2.5 | ND<2.5 | h, chlorobenzene (82) |
| | 12/12/2007 | | 36.54 | 4.34 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | ND<1.7 | h, chlorobenzene (72) 1,4- dichlorobenzene (5.6) |
| | 3/7/2008 | | 36.87 | 4.01 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | 19 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | h, chlorobenzene (74) |
| | **6/9/2008** | | **36.03** | **4.85** | **ND<2.5** | **ND<2.5** | **ND<2.5** | **ND<2.5** | **ND<2.5** | **22** | **ND<2.5** | **ND<2.5** | **ND<2.5** | **ND<2.5** | **ND<2.5** | **h,i, chlorobenzene (98) 1,4 dichlorobenzene (6.2)** |
| MW-4A | 6/3/2004 | **Zone A** | 36.26 | 2.45 | ND<0.5 | ND<0.5 | ND<0.5 | 1.7 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| *38.71* | 11/23/2004 | | 37.13 | 1.58 | ND<0.5 | ND<0.5 | ND<0.5 | 1.9 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 3/14/2005 | | 36.66 | 2.05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | 1.1 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 6/15/2005 | | 36.38 | 2.33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/16/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | 1.4 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 9/19/2005 | | 35.01 | 3.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | 1.3 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 12/12/2005 | | 36.39 | 2.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | 2.0 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 3/13/2006 | | 36.75 | 1.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 36.15 | 2.56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 35.10 | 3.61 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 36.39 | 2.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 36.46 | 2.25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 36.14 | 2.57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 35.34 | 3.37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 36.25 | 2.46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 36.46 | 2.25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **35.49** | **3.22** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-6A | 6/3/2004 | **Zone A** | 31.98 | 6.00 | 4.7 | 0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.8 | 2.1 | ND<0.5 | 6.7 | |
| *37.98* | 11/23/2004 | | 33.13 | 4.85 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 3/14/2005 | | 35.03 | 2.95 | 0.61 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 6/15/2005 | | 33.28 | 4.70 | 6.9 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 3.3 | ND<0.5 | 2.5 | 1.5 | ND<0.5 | 3.2 | i, 1,4-dichlorobenzene (0.60) |
| | 9/19/2005 | | 32.07 | 5.91 | 21 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 2.6 | ND<0.5 | 6.7 | 4.7 | 0.59 | 5.0 | |
| | 12/12/2005 | | 33.12 | 4.86 | 13 | ND<0.5 | 8.7 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.1 | 0.82 | ND<0.5 | ND<0.5 | h,i |
| | 3/13/2006 | | 36.05 | 1.93 | 1.7 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h |
| | 6/19/2006 | | 32.59 | 5.39 | 9.4 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.0 | 1.1 | ND<0.5 | 1.3 | h |
| | 9/20/2006 | | 31.96 | 6.02 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.6 | 1.9 | 0.57 | ND<0.5 | i |
| | 12/20/2006 | | 33.57 | 4.41 | 12 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h |
| | 3/29/2007 | | 33.67 | 4.31 | 8.0 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 0.69 | 0.71 | ND<0.5 | ND<0.5 | |
| | 6/11/2007 | | 32.95 | 5.03 | 9.8 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | |
| | 9/7/2007 | | 32.32 | 5.66 | 24 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h |
| | 12/12/2007 | | 33.50 | 4.48 | 4.1 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 3/7/2008 | | 34.30 | 3.68 | 1.0 | ND<0.5 | 9.5 | ND<0.5 | ND<0.5 | 2.4 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h |
| | **6/9/2008** | | **32.30** | **5.68** | **11** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **h,i** |
| MW-7A | 6/3/2004 | **Zone A** | 36.08 | 4.50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 2.0 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| *40.58* | 11/23/2004 | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |

**Table 3. Monitoring Well Groundwater Analytical Results: Halogenated Volatile Organic Compounds** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID (TOC) | Date Sampled | Groundwater Zone | Groundwater Elevation (ft amsl) | Depth to Water (ft) | Chloroethane | Chloroform | 1,1,2,2-Tetrachloroethane | (PCE) Tetrachloroethene | (TCE) Trichloroethene | 1,2-Dichlorobenzene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | 1,1-Dichloroethane | 1,2-Dichloroethane | Vinyl Chloride | Notes/Other VOCs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← | | | | | µg/L | | | | | → | |
| MW-7A | 3/14/2005 | | 37.03 | 3.55 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 2.6 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h |
| *(cont.)* | 6/15/2005 | | 36.41 | 4.17 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.8 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h,i |
| | 9/19/2005 | | 35.25 | 5.33 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.6 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 12/12/2005 | | 36.15 | 4.43 | ND<0.5 | ND<0.5 | 21 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h,i |
| | 3/13/2006 | | 36.76 | 3.82 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h,i |
| | 6/19/2006 | | 35.78 | 4.80 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h,i |
| | 9/20/2006 | | 35.03 | 5.55 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h,i |
| | 12/20/2006 | | 36.35 | 4.23 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h |
| | 3/29/2007 | | 36.06 | 4.52 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | ND<1.0 | |
| | 6/11/2007 | | 36.02 | 4.56 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | j,h,i |
| | 9/7/2007 | | 35.18 | 5.40 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h |
| | 12/12/2007 | | 35.96 | 4.62 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | chlorobenzene (0.70) |
| | 3/7/2008 | | 36.28 | 4.30 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 2.6 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h,i |
| | **6/9/2008** | | **35.35** | **5.23** | **ND<5.0** | **ND<5.0** | **ND<5.0** | **ND<5.0** | **ND<5.0** | **ND<5.0** | **ND<5.0** | **ND<5.0** | **ND<5.0** | **ND<5.0** | **ND<5.0** | **j,h,i** |
| MW-1B | 6/3/2004 | **Zone B** | 25.10 | 14.40 | ND<0.5 | 8.3 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 3.9 | ND<0.5 | 8.1 | 7.9 | ND<0.5 | |
| *39.50* | 11/23/2004 | | 26.24 | 13.26 | ND<0.5 | 6.2 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 2.5 | ND<0.5 | 8.4 | 8.8 | ND<0.5 | |
| | 3/14/2005 | | 33.97 | 5.53 | 1.1 | 1.9 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 3.8 | ND<0.5 | 5.2 | 12 | ND<0.5 | i |
| | 6/15/2005 | | 31.87 | 7.63 | ND<0.5 | 1.3 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 3.3 | ND<0.5 | 8.8 | 9.9 | ND<0.5 | i |
| | 9/19/2005 | | 30.35 | 9.15 | 0.98 | 0.87 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 3.0 | ND<0.5 | 7.1 | 11 | ND<0.5 | i |
| | 12/12/2005 | | 30.39 | 9.11 | 1.5 | 0.75 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 3.7 | ND<0.5 | 7.0 | 12 | ND<0.5 | i |
| | 3/13/2006 | | 32.15 | 7.35 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 6.1 | ND<0.5 | 6.8 | 5.2 | ND<0.5 | i |
| | 6/19/2006 | | 22.99 | 16.51 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 7.0 | ND<0.5 | 7.8 | 6.2 | ND<0.5 | |
| | 9/20/2006 | | 30.32 | 9.18 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 9.9 | ND<0.5 | 11 | 10 | ND<0.5 | i |
| | 12/20/2006 | | 31.60 | 7.90 | 2.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 9.9 | ND<0.5 | 7.7 | 7.8 | ND<0.5 | |
| | 3/29/2007 | | 24.63 | 14.87 | 1.6 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 9.0 | ND<0.5 | 9.7 | 8.7 | ND<0.5 | |
| | 6/11/2007 | | 26.39 | 13.11 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 8.5 | ND<0.5 | 8.0 | 6.5 | ND<0.5 | i |
| | 9/7/2007 | | 28.42 | 11.08 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 9.8 | ND<0.5 | 8.6 | 7.0 | ND<0.5 | |
| | 12/12/2007 | | 30.60 | 8.90 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 11 | ND<0.5 | 7.2 | 7.5 | ND<0.5 | |
| | 3/7/2008 | | 32.48 | 7.02 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 7.5 | ND<0.5 | 8.8 | 5.6 | ND<0.5 | |
| | **6/9/2008** | | **30.50** | **9.00** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **11** | **ND<0.5** | **8.9** | **5.3** | **ND<0.5** | i |
| MW-4B | 6/3/2004 | **Zone B** | 33.52 | 5.02 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| *38.54* | 11/23/2004 | | 34.65 | 3.89 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 3/14/2005 | | 34.78 | 3.76 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 6/15/2005 | | 33.98 | 4.56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/16/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 9/19/2005 | | 32.57 | 5.97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 12/12/2005 | | 33.65 | 4.89 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 3/13/2006 | | 34.61 | 3.93 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 33.86 | 4.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 32.58 | 5.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 33.92 | 4.62 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 33.96 | 4.58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 34.03 | 4.51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | i |
| | 9/7/2007 | | 33.22 | 5.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 33.85 | 4.69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 34.58 | 3.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **33.45** | **5.09** | **--** | **--** | **--** | **--** | **--** | **--** | **--** | **--** | **--** | **--** | **--** | |
| MW-5B | 6/3/2004 | **Zone B** | 30.16 | 8.82 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| *38.98* | 11/23/2004 | | 31.32 | 7.66 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |

**Table 3. Monitoring Well Groundwater Analytical Results: Halogenated Volatile Organic Compounds** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID (TOC) | Date Sampled | Groundwater Zone | Groundwater Elevation (ft amsl) | Depth to Water (ft) | Chloroethane | Chloroform | 1,1,2,2-Tetrachloroethane | (PCE) Tetrachloroethene | (TCE) Trichloroethene | 1,2-Dichlorobenzene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | 1,1-Dichloroethane | 1,2-Dichloroethane | Vinyl Chloride | Notes/Other VOCs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← µg/L → | | | | | | | | | | | |
| MW-5B | 3/14/2005 | | 32.71 | 6.27 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| *(cont.)* | 3/15/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 6/15/2005 | | 31.20 | 7.78 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 9/19/2005 | | 28.68 | 10.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 12/12/2005 | | 30.65 | 8.33 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 3/13/2006 | | 32.87 | 6.11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 30.97 | 8.01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 29.68 | 9.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 31.21 | 7.77 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 31.40 | 7.58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 31.02 | 7.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 30.02 | 8.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 30.88 | 8.10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 32.55 | 6.43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **30.34** | **8.64** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-6B | 6/3/2004 | **Zone B** | 29.36 | 8.30 | 0.65 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| *37.66* | 11/23/2004 | | 30.53 | 7.13 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 0.89 | ND<0.5 | ND<0.5 | |
| | 3/14/2005 | | 31.86 | 5.80 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.1 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 3.5 | i |
| | 6/15/2005 | | 30.17 | 7.49 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.4 | ND<0.5 | ND<0.5 | 0.66 | ND<0.5 | 0.55 | |
| | 9/19/2005 | | 28.83 | 8.83 | 1.4 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.0 | 1.2 | ND<0.5 | 1.1 | ND<0.5 | 1.1 | |
| | 12/12/2005 | | 29.85 | 7.81 | 2.3 | ND<0.5 | 11 | ND<0.5 | ND<0.5 | ND<0.5 | 1.3 | ND<0.5 | 1.3 | ND<0.5 | ND<0.5 | h,i |
| | 3/13/2006 | | 32.31 | 5.35 | 0.73 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | h |
| | 6/19/2006 | | 29.88 | 7.78 | 0.91 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 0.52 | ND<0.5 | ND<0.5 | h |
| | 9/20/2006 | | 28.78 | 8.88 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | j,h,i |
| | 12/20/2006 | | 30.34 | 7.32 | 2.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.2 | ND<0.5 | 0.69 | ND<0.5 | ND<0.5 | h |
| | 3/29/2007 | | 30.44 | 7.22 | 1.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 0.76 | ND<0.5 | ND<0.5 | |
| | 6/11/2007 | | 29.93 | 7.73 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | ND<5.0 | j,h |
| | 9/7/2007 | | 28.95 | 8.71 | 1.3 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.9 | ND<0.5 | 0.66 | ND<0.5 | ND<0.5 | h |
| | 12/12/2007 | | 30.00 | 7.66 | 0.77 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.4 | ND<0.5 | 0.62 | ND<0.5 | ND<0.5 | h |
| | 3/7/2008 | | 31.70 | 5.96 | 1.1 | ND<0.5 | 16 | ND<0.5 | ND<0.5 | 1.2 | 1.0 | ND<0.5 | 0.58 | ND<0.5 | ND<0.5 | h |
| | **6/9/2008** | | **29.36** | **8.30** | **1.8** | **ND<1.0** | **ND<1.0** | **ND<1.0** | **ND<1.0** | **ND<1.0** | **2.5** | **ND<1.0** | **ND<1.0** | **ND<1.0** | **ND<1.0** | **h** |
| MW-1C | 6/3/2004 | **Zone C** | 30.07 | 9.42 | ND<0.5 | 0.57 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| *39.49* | 11/23/2004 | | 31.30 | 8.19 | ND<0.5 | 0.56 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 3/14/2005 | | 32.58 | 6.91 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 6/15/2005 | | 30.89 | 8.60 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 9/19/2005 | | 29.19 | 10.30 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 12/12/2005 | | 30.54 | 8.95 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 3/13/2006 | | 32.99 | 6.50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 30.66 | 8.83 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 29.53 | 9.96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 31.13 | 8.36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 31.19 | 8.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 30.63 | 8.86 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 29.60 | 9.89 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 30.61 | 8.88 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 32.46 | 7.03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **30.07** | **9.42** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-4C | 6/3/2004 | **Zone C** | 30.10 | 8.40 | ND<0.5 | 0.84 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| *38.50* | 11/23/2004 | | 31.31 | 7.19 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 3/14/2005 | | 33.15 | 5.35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/15/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |

**Table 3. Monitoring Well Groundwater Analytical Results: Halogenated Volatile Organic Compounds** - John Nady, 1137-1167 65th Street, Oakland, California

| Well ID (TOC) | Date Sampled | Groundwater Zone | Groundwater Elevation (ft amsl) | Depth to Water (ft) | Chloroethane | Chloroform | 1,1,2,2-Tetrachloroethane | (PCE) Tetrachloroethene | (TCE) Trichloroethene | 1,2-Dichlorobenzene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | 1,1-Dichloroethane | 1,2-Dichloroethane | Vinyl Chloride | Notes/Other VOCs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← µg/L → | | | | | | | | | | | |
| MW-4C | 6/15/2005 | | 30.85 | 7.65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| (cont.) | 6/16/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 9/19/2005 | | 25.97 | 12.53 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 12/12/2005 | | 30.00 | 8.50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/13/2005 | | -- | -- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | i |
| | 3/13/2006 | | 31.18 | 7.32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/19/2006 | | 30.90 | 7.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/20/2006 | | 29.91 | 8.59 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/20/2006 | | 31.21 | 7.29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/29/2007 | | 31.29 | 7.21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 6/11/2007 | | 30.93 | 7.57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 9/7/2007 | | 30.20 | 8.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 12/12/2007 | | 31.10 | 7.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | 3/7/2008 | | 32.25 | 6.25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | **6/9/2008** | | **30.35** | **8.15** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-6C | 6/3/2004 | **Zone C** | 27.89 | 9.70 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 2.8 | ND<0.5 | 0.61 | ND<0.5 | ND<0.5 | |
| *37.59* | 11/23/2004 | | 29.21 | 8.38 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | |
| | 3/14/2005 | | 31.79 | 5.80 | ND<0.5 | ND<0.5 | ND<0.5 | 1.8 | 1.9 | ND<0.5 | 12 | ND<0.5 | 1.1 | ND<0.5 | 2.3 | |
| | 6/15/2005 | | 30.14 | 7.45 | ND<0.5 | ND<0.5 | ND<0.5 | 3.1 | 3.1 | ND<0.5 | 20 | 0.64 | 1.4 | ND<0.5 | 5.7 | |
| | 9/19/2005 | | 28.79 | 8.80 | ND<0.5 | ND<0.5 | ND<0.5 | 2.9 | 3.0 | ND<0.5 | 18 | 0.57 | 1.3 | ND<0.5 | 6.8 | |
| | 12/12/2005 | | 29.81 | 7.78 | 0.66 | ND<0.5 | ND<0.5 | 3.2 | 3.0 | ND<0.5 | 19 | 0.61 | 1.4 | ND<0.5 | 10 | |
| | 3/13/2006 | | 32.09 | 5.50 | ND<0.5 | ND<0.5 | ND<0.5 | 3.2 | 3.9 | ND<0.5 | 26 | 0.61 | 0.95 | ND<0.5 | 5.1 | |
| | 6/19/2006 | | 29.84 | 7.75 | ND<0.5 | ND<0.5 | ND<0.5 | 4.0 | 3.4 | ND<0.5 | 32 | 0.78 | 0.96 | ND<0.5 | 11 | |
| | 9/20/2006 | | 28.74 | 8.85 | ND<0.5 | ND<0.5 | ND<0.5 | 3.7 | 4.6 | ND<0.5 | 23 | 0.76 | 1.0 | ND<0.5 | 9.4 | i |
| | 12/20/2006 | | 30.29 | 7.30 | ND<0.5 | ND<0.5 | ND<0.5 | 4.1 | 4.6 | ND<0.5 | 36 | 0.88 | 0.92 | ND<0.5 | 13 | |
| | 3/29/2007 | | 30.39 | 7.20 | ND<0.5 | ND<0.5 | ND<0.5 | 6.0 | 6.4 | ND<0.5 | 35 | 1.2 | 1.1 | ND<0.5 | 5.3 | |
| | 6/11/2007 | | 29.86 | 7.73 | ND<0.5 | ND<0.5 | ND<0.5 | 6.1 | 6.4 | ND<0.5 | 26 | 0.99 | 0.85 | ND<0.5 | 4.0 | |
| | 9/7/2007 | | 28.92 | 8.67 | ND<0.5 | ND<0.5 | ND<0.5 | 7.0 | 6.9 | ND<0.5 | 32 | 0.99 | 0.90 | ND<0.5 | 4.2 | |
| | 12/12/2007 | | 29.94 | 7.65 | ND<0.5 | ND<0.5 | ND<0.5 | 5.0 | 5.2 | ND<0.5 | 29 | 0.84 | 0.87 | ND<0.5 | 3.8 | |
| | 3/7/2008 | | 31.63 | 5.96 | ND<0.5 | ND<0.5 | ND<0.5 | 5.1 | 5.5 | ND<0.5 | 28 | 0.90 | 0.78 | ND<0.5 | 3.2 | |
| | **6/9/2008** | | **29.32** | **8.27** | **ND<0.5** | **ND<0.5** | **ND<0.5** | **4.5** | **5.5** | **ND<0.5** | **23** | **0.72** | **0.71** | **ND<0.5** | **3.5** | |

**Abbreviations:**

µg/L = micrograms per liter; approximately equal to parts per billion = ppb

*(TOC)* = Top of casing elevation in feet above mean sea level (msl)

ft = measured in feet

Halogenated Volatile Organic Compounds analyzed by EPA Method SW8260B, reported EPA Method 8010 basic target list.

ND<0.5 = Not Detected above detection limit cited.

-- = Not available, not applicable, not analyzed, not measured

**Notes:**

b = Sample diluted due to high organic content

h = lighter than water immiscible sheen/product is present

i = liquid sample that contains greater than ~1 vol. % sediment

j = sample diluted due to high organic content/matrix interference

CONESTOGA-ROVERS
& ASSOCIATES

# APPENDIX A

## Field Data Sheets

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL GAUGING SHEET

**Client:** Conestoga-Rovers and Associates

**Site Address:** 1137-1167 65th Street, Oakland, CA

**Date:** 6/9/2008 **Signature:**

| Well ID | Time | Depth to SPH | Depth to Water | SPH Thickness | Depth to Bottom | Comments |
|---|---|---|---|---|---|---|
| MW-1A | 8:45 | | 4.95 | | 14.40 | |
| MW-1B | 8:50 | | 9.00 | | 19.70 | |
| MW-1C | 8:55 | | 9.42 | | 34.55 | |
| MW-2A | 9:00 | | 4.54 | | 11.15 | |
| MW-3A | 9:05 | | 4.85 | | 13.85 | |
| MW-4A | 8:15 | | 3.22 | | 12.65 | |
| MW-4B | 8:20 | | 5.09 | | 20.75 | |
| MW-4C | 8:25 | | 8.15 | | 32.00 | |
| MW-5B | 8:10 | | 8.64 | | 23.06 | |
| MW-6A | 8:30 | | 5.68 | | 14.09 | |
| MW-6B | 8:35 | | 8.30 | | 22.00 | |

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL GAUGING SHEET

**Client:** Conestoga-Rovers and Associates

**Site Address:** 1137-1167 65th Street, Oakland, CA

**Date:** 6/9/2008 **Signature:**

| Well ID | Time | Depth to SPH | Depth to Water | SPH Thickness | Depth to Bottom | Comments |
|---|---|---|---|---|---|---|
| MW-6C | 8:40 | | 8.27 | | 33.80 | |
| MW-7A | 9:10 | | 5.23 | | 10.00 | |
| | | | | | | |
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MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL SAMPLING FORM

| | |
|---|---|
| **Date:** | 6/9/2008 |
| **Client:** | Conestoga-Rovers and Associates |
| **Site Address:** | 1137-1167 65th Street, Oakland, CA |
| Well ID: | MW-1A |
| Well Diameter: | 2" |
| Purging Device: | Disposable Bailer |
| Sampling Method: | Disposable Bailer |

| | | | |
|---|---|---|---|
| Total Well Depth: | 14.40 | **Fe=** | **mg/L** |
| Depth to Water: | 4.95 | **ORP=** | **mV** |
| Water Column Height: | 9.45 | **DO=** | **mg/L** |
| Gallons/ft: | 0.16 | | |
| 1 Casing Volume (gal): | 1.51 | **COMMENTS:** | |
| 3 Casing Volumes (gal): | 4.54 | very turbid, silty | |

| TIME: | CASING VOLUME (gal) | TEMP (Celsius) | pH | COND. (µS) |
|---|---|---|---|---|
| 12:55 | 1.5 | 21.6 | 8.42 | 239 |
| 1:00 | 3.0 | 21.1 | 8.49 | 229 |
| 1:05 | 4.5 | 21.5 | 8.50 | 230 |
| | | | | |
| | | | | |

| Sample ID: | Sample Date: | Sample Time: | Container Type | Preservative | Analytes | Method |
|---|---|---|---|---|---|---|
| MW-1A | 6/9/2008 | 1:10 | 40 ml VOA, 1 L Amber | HCl, ICE | TPHg/ss<br>BTEX<br>TPHd<br>TPHmo<br>HVOCs | 8015, with silica gel clean up<br>8020, 8010 |
| | | | | | | |
| | | | | | | |
| | | | | **Signature:** | | |

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL SAMPLING FORM

| | |
|---|---|
| **Date:** | 6/9/2008 |
| **Client:** | Conestoga-Rovers and Associates |
| **Site Address:** | 1137-1167 65th Street, Oakland, CA |
| Well ID: | MW-1B |
| Well Diameter: | 2" |
| Purging Device: | Disposable Bailer |
| Sampling Method: | Disposable Bailer |

| | | | |
|---|---|---|---|
| Total Well Depth: | 19.70 | **Fe=** | **mg/L** |
| Depth to Water: | 9.00 | **ORP=** | **mV** |
| Water Column Height: | 10.70 | **DO=** | **mg/L** |
| Gallons/ft: | 0.16 | | |
| 1 Casing Volume (gal): | 1.71 | | |
| 3 Casing Volumes (gal): | 5.14 | | |

**COMMENTS:**
very turbid, silty

| TIME: | CASING VOLUME (gal) | TEMP (Celsius) | pH | COND. (µS) |
|---|---|---|---|---|
| 11:45 | 1.7 | 19.9 | 6.59 | 1614 |
| 12:05 | 3.4 | 20.2 | 6.55 | 1610 |
| 12:30 | 5.1 | 20.0 | 6.57 | 1598 |
| | | | | |
| | | | | |

| Sample ID: | Sample Date: | Sample Time: | Container Type | Preservative | Analytes | Method |
|---|---|---|---|---|---|---|
| MW-1B | 6/9/2008 | 12:45 | 40 ml VOA | HCl, ICE | HVOCs | 8010 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Signature:**

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL SAMPLING FORM

| | |
|---|---|
| **Date:** | 6/9/2008 |
| **Client:** | Conestoga-Rovers and Associates |
| **Site Address:** | 1137-1167 65th Street, Oakland, CA |
| Well ID: | MW-2A |
| Well Diameter: | 4" |
| Purging Device: | 3" PVC Bailer |
| Sampling Method: | Disposable Bailer |

| | |
|---|---|
| Total Well Depth: | 11.15 |
| Depth to Water: | 4.54 |
| Water Column Height: | 6.61 |
| Gallons/ft: | 0.65 |
| 1 Casing Volume (gal): | 4.30 |
| 3 Casing Volumes (gal): | 12.89 |

| | |
|---|---|
| **Fe=** | **mg/L** |
| **ORP=** | **mV** |
| **DO=** | **mg/L** |

**COMMENTS:**
very turbid, very silty

| TIME: | CASING VOLUME (gal) | TEMP (Celsius) | pH | COND. (µS) |
|---|---|---|---|---|
| 1:50 | 4.3 | 20.4 | 8.90 | 289 |
| 1:55 | 8.6 | 20.7 | 8.82 | 298 |
| 2:00 | 12.9 | 20.5 | 8.81 | 298 |
| | | | | |
| | | | | |

| Sample ID: | Sample Date: | Sample Time: | Container Type | Preservative | Analytes | Method |
|---|---|---|---|---|---|---|
| MW-2A | 6/9/2008 | 2:05 | 40 ml VOA, 1 L Amber | HCl, ICE | TPHg/ss<br>BTEX<br>TPHd<br>TPHmo | 8015, with silica gel clean up<br>8020 |
| | | | | | | |
| | | | | | | |
| | | | | **Signature:** | | |

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL SAMPLING FORM

| | |
|---|---|
| **Date:** | 6/9/2008 |
| **Client:** | Conestoga-Rovers and Associates |
| **Site Address:** | 1137-1167 65th Street, Oakland, CA |
| Well ID: | MW-3A |
| Well Diameter: | 2" |
| Purging Device: | Disposable Bailer |
| Sampling Method: | Disposable Bailer |

| | | | |
|---|---|---|---|
| Total Well Depth: | 13.85 | **Fe=** | **mg/L** |
| Depth to Water: | 4.85 | **ORP=** | **mV** |
| Water Column Height: | 9.00 | **DO=** | **mg/L** |
| Gallons/ft: | 0.16 | | |
| 1 Casing Volume (gal): | 1.44 | | |
| 3 Casing Volumes (gal): | 4.32 | | |

**COMMENTS:**
very turbid, silty, light sheen

| TIME: | CASING VOLUME (gal) | TEMP (Celsius) | pH | COND. (µS) |
|---|---|---|---|---|
| 2:20 | 1.4 | 20.2 | 7.20 | 893 |
| 2:25 | 2.9 | 19.7 | 7.15 | 890 |
| 2:30 | 4.3 | 19.7 | 7.14 | 892 |
| | | | | |
| | | | | |

| Sample ID: | Sample Date: | Sample Time: | Container Type | Preservative | Analytes | Method |
|---|---|---|---|---|---|---|
| MW-3A | 6/9/2008 | 2:35 | 40 ml VOA, 1 L Amber | HCl, ICE | TPHg/ss<br>BTEX<br>TPHd<br>TPHmo<br>HVOCs | 8015, with silica gel clean up<br>8020, 8010 |
| | | | | | | |
| | | | | | | |
| | | | | **Signature:** | | |

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL SAMPLING FORM

| | |
|---|---|
| **Date:** | 6/9/2008 |
| **Client:** | Conestoga-Rovers and Associates |
| **Site Address:** | 1137-1167 65th Street, Oakland, CA |
| Well ID: | MW-4A |
| Well Diameter: | 2" |
| Purging Device: | Disposable Bailer |
| Sampling Method: | Disposable Bailer |

| | |
|---|---|
| Total Well Depth: | 12.65 |
| Depth to Water: | 3.22 |
| Water Column Height: | 9.43 |
| Gallons/ft: | 0.16 |
| 1 Casing Volume (gal): | 1.51 |
| 3 Casing Volumes (gal): | 4.53 |

| | |
|---|---|
| **Fe=** | **mg/L** |
| **ORP=** | **mV** |
| **DO=** | **mg/L** |

**COMMENTS:**
turbid

| TIME: | CASING VOLUME (gal) | TEMP (Celsius) | pH | COND. (µS) |
|---|---|---|---|---|
| 1:25 | 1.5 | 22.7 | 9.97 | 625 |
| 1:30 | 3.0 | 21.9 | 10.05 | 620 |
| 1:35 | 4.5 | 21.8 | 10.05 | 640 |
| | | | | |
| | | | | |

| Sample ID: | Sample Date: | Sample Time: | Container Type | Preservative | Analytes | Method |
|---|---|---|---|---|---|---|
| MW-4A | 6/9/2008 | 1:40 | 40 ml VOA, 1 L Amber | HCl, ICE | TPHg/ss<br>BTEX<br>TPHd<br>TPHmo | 8015, with silica gel clean up<br>8020 |
| | | | | | | |
| | | | | | | |
| | | | | **Signature:** | | |

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL SAMPLING FORM

| | |
|---|---|
| **Date:** | 6/9/2008 |
| **Client:** | Conestoga-Rovers and Associates |
| **Site Address:** | 1137-1167 65th Street, Oakland, CA |
| Well ID: | MW-6A |
| Well Diameter: | 2" |
| Purging Device: | Disposable Bailer |
| Sampling Method: | Disposable Bailer |

| | | | |
|---|---|---|---|
| Total Well Depth: | 14.09 | **Fe=** | **mg/L** |
| Depth to Water: | 5.68 | **ORP=** | **mV** |
| Water Column Height: | 8.41 | **DO=** | **mg/L** |
| Gallons/ft: | 0.16 | | |
| 1 Casing Volume (gal): | 1.35 | **COMMENTS:** very turbid, silty | |
| 3 Casing Volumes (gal): | 4.04 | | |

| TIME: | CASING VOLUME (gal) | TEMP (Celsius) | pH | COND. (µS) |
|---|---|---|---|---|
| 11:05 | 1.3 | 21.2 | 6.82 | 662 |
| 11:10 | 2.7 | 20.7 | 6.84 | 602 |
| 11:15 | 4.0 | 20.5 | 6.82 | 644 |
| | | | | |
| | | | | |

| Sample ID: | Sample Date: | Sample Time: | Container Type | Preservative | Analytes | Method |
|---|---|---|---|---|---|---|
| MW-6A | 6/9/2008 | 11:20 | 40 ml VOA, 1 L Amber | HCl, ICE | TPHg/ss<br>BTEX<br>TPHd<br>TPHmo<br>HVOCs | 8015, with silica gel clean up<br>8020, 8010 |
| | | | | | | |
| | | | | | | |
| | | | | **Signature:** | | |

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL SAMPLING FORM

| | |
|---|---|
| **Date:** | 6/9/2008 |
| **Client:** | Conestoga-Rovers and Associates |
| **Site Address:** | 1137-1167 65th Street, Oakland, CA |
| Well ID: | MW-6B |
| Well Diameter: | 2" |
| Purging Device: | Disposable Bailer |
| Sampling Method: | Disposable Bailer |

| | | | |
|---|---|---|---|
| Total Well Depth: | 22.00 | **Fe=** | **mg/L** |
| Depth to Water: | 8.30 | **ORP=** | **mV** |
| Water Column Height: | 13.70 | **DO=** | **mg/L** |
| Gallons/ft: | 0.16 | | |
| 1 Casing Volume (gal): | 2.19 | | |
| 3 Casing Volumes (gal): | 6.58 | | |

**COMMENTS:**
turbid

| TIME: | CASING VOLUME (gal) | TEMP (Celsius) | pH | COND. (µS) |
|---|---|---|---|---|
| 10:30 | 2.2 | 18.8 | 6.95 | 1044 |
| 10:35 | 4.4 | 18.6 | 6.99 | 1072 |
| 10:40 | 6.6 | 18.9 | 6.92 | 1061 |
| | | | | |
| | | | | |

| Sample ID: | Sample Date: | Sample Time: | Container Type | Preservative | Analytes | Method |
|---|---|---|---|---|---|---|
| MW-6B | 6/9/2008 | 10:45 | 40 ml VOA, 1 L Amber | HCl, ICE | TPHg/ss<br>BTEX<br>TPHd<br>TPHmo<br>HVOCs | 8015, with silica gel clean up<br>8020, 8010 |
| | | | | | | |
| | | | | | | |
| | | | | **Signature:** | | |

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL SAMPLING FORM

| | |
|---|---|
| **Date:** | 6/9/2008 |
| **Client:** | Conestoga-Rovers and Associates |
| **Site Address:** | 1137-1167 65th Street, Oakland, CA |
| Well ID: | MW-6C |
| Well Diameter: | 2" |
| Purging Device: | Disposable Bailer |
| Sampling Method: | Disposable Bailer |

| | | | |
|---|---|---|---|
| Total Well Depth: | 33.80 | **Fe=** | **mg/L** |
| Depth to Water: | 8.27 | **ORP=** | **mV** |
| Water Column Height: | 25.53 | **DO=** | **mg/L** |
| Gallons/ft: | 0.16 | | |
| 1 Casing Volume (gal): | 4.08 | **COMMENTS:** | |
| 3 Casing Volumes (gal): | 12.25 | | |

| TIME: | CASING VOLUME (gal) | TEMP (Celsius) | pH | COND. (µS) |
|---|---|---|---|---|
| 9:50 | 4.1 | 21.0 | 6.78 | 1009 |
| 10:00 | 8.2 | 20.0 | 6.72 | 1031 |
| 10:10 | 12.3 | 20.3 | 6.72 | 1038 |
| | | | | |
| | | | | |

| Sample ID: | Sample Date: | Sample Time: | Container Type | Preservative | Analytes | Method |
|---|---|---|---|---|---|---|
| MW-6C | 6/9/2008 | 10:15 | 40 ml VOA | HCl, ICE | HVOCs | 8010 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Signature:**

MUSKAN
ENVIRONMENTAL
SAMPLING

# WELL SAMPLING FORM

| | |
|---|---|
| **Date:** | 6/9/2008 |
| **Client:** | Conestoga-Rovers and Associates |
| **Site Address:** | 1137-1167 65th Street, Oakland, CA |
| Well ID: | MW-7A |
| Well Diameter: | 1" |
| Purging Device: | Check Valve Tubing |
| Sampling Method: | Disposable Bailer |

| | | | |
|---|---|---|---|
| Total Well Depth: | 10.00 | **Fe=** | **mg/L** |
| Depth to Water: | 5.23 | **ORP=** | **mV** |
| Water Column Height: | 4.77 | **DO=** | **mg/L** |
| Gallons/ft: | 0.04 | | |
| 1 Casing Volume (gal): | 0.19 | | |
| 3 Casing Volumes (gal): | 0.57 | | |

**COMMENTS:**
very turbid,very silty

| TIME: | CASING VOLUME (gal) | TEMP (Celsius) | pH | COND. (µS) |
|---|---|---|---|---|
| 9:15 | 0.2 | 18.6 | 6.71 | 941 |
| 9:20 | 0.4 | 17.7 | 6.69 | 947 |
| 9:25 | 0.6 | 17.9 | 6.66 | 950 |
| | | | | |
| | | | | |

| Sample ID: | Sample Date: | Sample Time: | Container Type | Preservative | Analytes | Method |
|---|---|---|---|---|---|---|
| MW-7A | 6/9/2008 | 9:30 | 40 ml VOA, 1 L Amber | HCl, ICE | TPHg/ss<br>BTEX<br>TPHd<br>TPHmo<br>HVOCs | 8015, with silica gel clean up<br>8020, 8010 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Signature:**

CONESTOGA-ROVERS
& ASSOCIATES

# APPENDIX B

## Laboratory Analytical Report

**McCampbell Analytical, Inc.**
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

| | | |
|---|---|---|
| Conestoga-Rovers & Associates | Client Project ID: #521000; John Nady | Date Sampled: 06/09/08 |
| 5900 Hollis St, Suite A | | Date Received: 06/09/08 |
| Emeryville, CA 94608 | Client Contact: Mark Jonas | Date Reported: 06/13/08 |
| | Client P.O.: | Date Completed: 06/13/08 |

**WorkOrder: 0806224**

June 13, 2008

Dear Mark:

Enclosed within are:

1) The results of the **9** analyzed samples from your project: **#521000; John Nady,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

0806224

# McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

# CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY
GeoTracker EDF ☒ PDF ☐ Excel ☐ Write On (DW) ☐

Report To: Mark Jonas
Company: Conestoga-Rovers & Associates
5900 Hollis St., Ste. A
Emeryville, CA
Tele: (510) 420-3307
Project #: 521000
Project Location: 1137-1167 65th St., Oakland, CA
Sampler Signature: Mustang Environmental Sampling LLC

Bill To: Conestoga-Rovers & Associates (pl)
E-Mail: mjonas@crawward.com
Fax: (510) 420-9170
Project Name: John Nady

| SAMPLE ID | LOCATION/ Field Point Name | SAMPLING Date | SAMPLING Time | # Containers | Type Containers | MATRIX Water | Soil | Air | Sludge | Other | METHOD PRESERVED ICE | HCL | $HNO_3$ | Other | MTBE / BTEX & TPH as Gas (602 / 8021 + 8015) | MTBE / BTEX ONLY (EPA 602 / 8021) | TPH as Diesel / Motor Oil (8015) w/ silica gel cleanup | Total Petroleum Oil & Grease (1664 / 5520 E/B&F) | Total Petroleum Hydrocarbons (418.1) | EPA 502.2 / 601 / 8010 / 8021 (HVOCs) | EPA 505/ 608 / 8081 (Cl Pesticides) | EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners | EPA 507 / 8141 (NP Pesticides) | EPA 515 / 8151 (Acidic Cl Herbicides) | EPA 524.2 / 624 / 8260 (VOCs) | EPA 525.2 / 625 / 8270 (SVOCs) | EPA 8270 SIM / 8310 (PAHs / PNAs) | CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) | TPHg (8015) & BTEX by 8021 | Other | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +1 MW-1A | | 6-9-08 | 1:10 | 2 | Amb VOA | | | | | | | | | | | | X | | | X | | | | | | | | | X | | | |
| +1 MW-1B | | | 12:45 | 4 | VOA | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| +1 MW-2A | | | 2:05 | 2 | Amb VOA | | | | | | | | | | | | X | | | | | | | | | | | | | X | | | |
| +1 MW-3A | | | 2:35 | 2 | Amb VOA | | | | | | | | | | | | X | | | X | | | | | | | | | X | | | |
| + MW-4A | | | 1:40 | 2 | Amb VOA | | | | | | | | | | | | X | | | | | | | | | | | | | X | | | |
| +1 MW-6A | | | 11:20 | 2 | Amb VOA | | | | | | | | | | | | X | | | X | | | | | | | | | X | | | |
| + MW-6B | | | 10:45 | 2 | Amb VOA | | | | | | | | | | | | X | | | X | | | | | | | | | X | | | |
| (+) MW-6C | | | 10:15 | 4 | VOA | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| +1 MW-7A | | | 9:30 | 2 | Amb VOA | | | | | | | | | | | | X | | | X | | | | | | | | | X | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Other: Filter Samples for Metals analysis: Yes / No

| Relinquished By: | Date: | Time: | Received By: |
|---|---|---|---|
| | 6/9/08 | 4:37pm | Mike Vecchi |
| Relinquished By: | Date: | Time: | Received By: |
| Relinquished By: | Date: | Time: | Received By: |

ICE/t° 3.2°C
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB MA ✓
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ✓

COMMENTS:

PRESERVATION VOAS O&G METALS OTHER (HCl) pH<2

**McCampbell Analytical, Inc.**
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD



**WorkOrder: 0806224** **ClientCode: CETE**

☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

**Report to:**
Mark Jonas
Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608
(510) 420-0700 FAX (510) 420-9170

Email: mjonas@CRAworld.com
cc:
PO:
ProjectNo: #521000; John Nady

**Bill to:**
Accounts Payable
Conestoga-Rovers & Associates
5900 Hollis St, Ste. A
Emeryville, CA 94608

**Requested TAT:** 5 days

***Date Received:*** 06/09/2008
***Date Printed:*** 06/09/2008

| Lab ID | Client ID | Matrix | Collection Date | Hold | Requested Tests (See legend below) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0806224-001 | MW-1A | Water | 6/9/2008 13:10 | ☐ | B | C | A | | | | | | | | | |
| 0806224-002 | MW-1B | Water | 6/9/2008 12:45 | ☐ | A | | | | | | | | | | | |
| 0806224-003 | MW-2A | Water | 6/9/2008 14:05 | ☐ | | B | A | | | | | | | | | |
| 0806224-004 | MW-3A | Water | 6/9/2008 14:35 | ☐ | C | B | A | | | | | | | | | |
| 0806224-005 | MW-4A | Water | 6/9/2008 13:40 | ☐ | | B | A | | | | | | | | | |
| 0806224-006 | MW-6A | Water | 6/9/2008 11:20 | ☐ | B | C | A | | | | | | | | | |
| 0806224-007 | MW-6B | Water | 6/9/2008 10:45 | ☐ | B | C | A | | | | | | | | | |
| 0806224-008 | MW-6C | Water | 6/9/2008 10:15 | ☐ | A | | | | | | | | | | | |
| 0806224-009 | MW-7A | Water | 6/9/2008 9:30 | ☐ | B | C | A | | | | | | | | | |

**Test Legend:**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 8010BMS_W | 2 | G-MBTEX_W | 3 | TPH(DMO)WSG_W | 4 | | 5 | |
| 6 | | 7 | | 8 | | 9 | | 10 | |
| 11 | | 12 | | | | | | | |

**Prepared by: Samantha Arbuckle**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

**McCampbell Analytical, Inc.**
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

# Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**
Date and Time Received: **6/9/2008 6:01:48 PM**

Project Name: **#521000; John Nady**
Checklist completed and reviewed by: Samantha Arbuckle

WorkOrder N°: **0806224** Matrix Water
Carrier: Client Drop-In

## Chain of Custody (COC) Information

| | | |
|---|---|---|
| Chain of custody present? | Yes ☑ | No ☐ |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ |
| Sample IDs noted by Client on COC? | Yes ☑ | No ☐ |
| Date and Time of collection noted by Client on COC? | Yes ☑ | No ☐ |
| Sampler's name noted on COC? | Yes ☑ | No ☐ |

## Sample Receipt Information

| | | | |
|---|---|---|---|
| Custody seals intact on shipping container/cooler? | Yes ☑ | No ☐ | NA ☐ |
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | |
| Samples in proper containers/bottles? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |

## Sample Preservation and Hold Time (HT) Information

| | | | |
|---|---|---|---|
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature | Cooler Temp: 3.2°C | | NA ☐ |
| Water - VOA vials have zero headspace / no bubbles? | Yes ☑ | No ☐ | No VOA vials submitted ☐ |
| Sample labels checked for correct preservation? | Yes ☑ | No ☐ | |
| TTLC Metal - pH acceptable upon receipt (pH<2)? | Yes ☐ | No ☐ | NA ☑ |

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

**McCampbell Analytical, Inc.**
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

| | | |
|---|---|---|
| Conestoga-Rovers & Associates | Client Project ID: #521000; John Nady | Date Sampled: 06/09/08 |
| | | Date Received: 06/09/08 |
| 5900 Hollis St, Suite A | Client Contact: Mark Jonas | Date Extracted: 06/10/08-06/11/08 |
| Emeryville, CA 94608 | Client P.O.: | Date Analyzed 06/10/08-06/11/08 |

**Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)***

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0806224

| Lab ID | 0806224-001B | 0806224-002A | 0806224-004C | 0806224-006B | Reporting Limit for DF =1 | |
|---|---|---|---|---|---|---|
| Client ID | MW-1A | MW-1B | MW-3A | MW-6A | | |
| Matrix | W | W | W | W | S | W |
| DF | 1 | 1 | 5 | 1 | | |
| **Compound** | **Concentration** | | | | µg/kg | µg/L |
| Bromodichloromethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Bromoform | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Bromomethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Carbon Tetrachloride | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Chlorobenzene | ND | ND | 98 | 0.53 | NA | 0.5 |
| Chloroethane | ND | ND | ND<2.5 | 11 | NA | 0.5 |
| Chloroform | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Chloromethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Dibromochloromethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| 1,2-Dibromoethane (EDB) | ND | ND | ND<2.5 | ND | NA | 0.5 |
| 1,2-Dichlorobenzene | ND | ND | 22 | ND | NA | 0.5 |
| 1,3-Dichlorobenzene | ND | ND | ND<2.5 | ND | NA | 0.5 |
| 1,4-Dichlorobenzene | ND | ND | 6.2 | ND | NA | 0.5 |
| Dichlorodifluoromethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| 1,1-Dichloroethane | 1.8 | 8.9 | ND<2.5 | ND | NA | 0.5 |
| 1,2-Dichloroethane (1,2-DCA) | ND | 5.3 | ND<2.5 | ND | NA | 0.5 |
| 1,1-Dichloroethene | ND | ND | ND<2.5 | ND | NA | 0.5 |
| cis-1,2-Dichloroethene | 11 | 11 | ND<2.5 | ND | NA | 0.5 |
| trans-1,2-Dichloroethene | 1.1 | ND | ND<2.5 | ND | NA | 0.5 |
| 1,2-Dichloropropane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| cis-1,3-Dichloropropene | ND | ND | ND<2.5 | ND | NA | 0.5 |
| trans-1,3-Dichloropropene | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Freon 113 | ND | ND | ND<50 | ND | NA | 10 |
| Methylene chloride | ND | ND | ND<2.5 | ND | NA | 0.5 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Tetrachloroethene | 11 | ND | ND<2.5 | ND | NA | 0.5 |
| 1,1,1-Trichloroethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| 1,1,2-Trichloroethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Trichloroethene | 9.0 | ND | ND<2.5 | ND | NA | 0.5 |
| Trichlorofluoromethane | ND | ND | ND<2.5 | ND | NA | 0.5 |
| Vinyl Chloride | 2.4 | ND | ND<2.5 | ND | NA | 0.5 |
| **Surrogate Recoveries (%)** | | | | | | |
| %SS1: | 102 | 97 | 99 | 101 | | |
| %SS2: | 85 | 100 | 100 | 96 | | |
| %SS3: | 107 | 105 | 99 | 86 | | |
| **Comments** | i | i | h,i | h,i | | |

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

| | | |
|---|---|---|
| Conestoga-Rovers & Associates | Client Project ID: #521000; John Nady | Date Sampled: 06/09/08 |
| | | Date Received: 06/09/08 |
| 5900 Hollis St, Suite A | Client Contact: Mark Jonas | Date Extracted: 06/10/08-06/11/08 |
| Emeryville, CA 94608 | Client P.O.: | Date Analyzed 06/10/08-06/11/08 |

## Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0806224

| Lab ID | 0806224-007B | 0806224-008A | 0806224-009B | | Reporting Limit for DF =1 | |
|---|---|---|---|---|---|---|
| Client ID | MW-6B | MW-6C | MW-7A | | | |
| Matrix | W | W | W | | S | W |
| DF | 2 | 1 | 10 | | | |
| **Compound** | **Concentration** | | | | µg/kg | µg/L |
| Bromodichloromethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Bromoform | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Bromomethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Carbon Tetrachloride | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Chlorobenzene | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Chloroethane | 1.8 | ND | ND<5.0 | | NA | 0.5 |
| Chloroform | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Chloromethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Dibromochloromethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| 1,2-Dibromoethane (EDB) | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| 1,2-Dichlorobenzene | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| 1,3-Dichlorobenzene | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| 1,4-Dichlorobenzene | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Dichlorodifluoromethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| 1,1-Dichloroethane | ND<1.0 | 0.71 | ND<5.0 | | NA | 0.5 |
| 1,2-Dichloroethane (1,2-DCA) | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| 1,1-Dichloroethene | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| cis-1,2-Dichloroethene | 2.5 | 23 | ND<5.0 | | NA | 0.5 |
| trans-1,2-Dichloroethene | ND<1.0 | 0.72 | ND<5.0 | | NA | 0.5 |
| 1,2-Dichloropropane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| cis-1,3-Dichloropropene | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| trans-1,3-Dichloropropene | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Freon 113 | ND<20 | ND | ND<100 | | NA | 10 |
| Methylene chloride | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| 1,1,1,2-Tetrachloroethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Tetrachloroethene | ND<1.0 | 4.5 | ND<5.0 | | NA | 0.5 |
| 1,1,1-Trichloroethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| 1,1,2-Trichloroethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Trichloroethene | ND<1.0 | 5.5 | ND<5.0 | | NA | 0.5 |
| Trichlorofluoromethane | ND<1.0 | ND | ND<5.0 | | NA | 0.5 |
| Vinyl Chloride | ND<1.0 | 3.5 | ND<5.0 | | NA | 0.5 |
| **Surrogate Recoveries (%)** | | | | | | |
| %SS1: | 97 | 97 | 99 | | | |
| %SS2: | 96 | 105 | 104 | | | |
| %SS3: | 85 | 112 | 91 | | | |
| **Comments** | h | | j,h,i | | | |

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

| | | |
|---|---|---|
| Conestoga-Rovers & Associates | Client Project ID: #521000; John Nady | Date Sampled: 06/09/08 |
| 5900 Hollis St, Suite A | | Date Received: 06/09/08 |
| Emeryville, CA 94608 | Client Contact: Mark Jonas | Date Extracted: 06/11/08 |
| | Client P.O.: | Date Analyzed 06/11/08 |

**Gasoline (C6-C12) & Stoddard Solvent (C9-C12) Range Volatile Hydrocarbons as Gasoline w/BTEX & MTBE***

Extraction Method: SW5030B Analytical Method: SW8021B/8015Cm Work Order: 0806224

| Lab ID | 0806224-001C | 0806224-003B | 0806224-004B | 0806224-005B | Reporting Limit for DF =1 | |
|---|---|---|---|---|---|---|
| Client ID | MW-1A | MW-2A | MW-3A | MW-4A | | |
| Matrix | W | W | W | W | | |
| DF | 5 | 1 | 50 | 1 | S | W |
| **Compound** | **Concentration** | | | | ug/kg | µg/L |
| TPH(g) | 2200 | 180 | 7500 | ND | NA | 50 |
| TPH(ss) | 2500 | 180 | 16,000 | ND | NA | 50 |
| MTBE | ND<25 | ND | ND<250 | ND | NA | 5.0 |
| Benzene | ND<2.5 | ND | ND<25 | ND | NA | 0.5 |
| Toluene | ND<2.5 | ND | ND<25 | 0.94 | NA | 0.5 |
| Ethylbenzene | 3.4 | ND | ND<25 | ND | NA | 0.5 |
| Xylenes | 8.1 | ND | ND<25 | 1.5 | NA | 0.5 |
| **Surrogate Recoveries (%)** | | | | | | |
| %SS: | 110 | 106 | 96 | 101 | | |
| **Comments** | e,m,i | e,m,i | e,h,i | | | |

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

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| | | |
|---|---|---|
| Conestoga-Rovers & Associates | Client Project ID: #521000; John Nady | Date Sampled: 06/09/08 |
| 5900 Hollis St, Suite A | | Date Received: 06/09/08 |
| Emeryville, CA 94608 | Client Contact: Mark Jonas | Date Extracted: 06/11/08 |
| | Client P.O.: | Date Analyzed 06/11/08 |

**Gasoline (C6-C12) & Stoddard Solvent (C9-C12) Range Volatile Hydrocarbons as Gasoline w/BTEX & MTBE***

Extraction Method: SW5030B Analytical Method: SW8021B/8015Cm Work Order: 0806224

| Lab ID | 0806224-006C | 0806224-007C | 0806224-009C | | Reporting Limit for DF =1 | |
|---|---|---|---|---|---|---|
| Client ID | MW-6A | MW-6B | MW-7A | | | |
| Matrix | W | W | W | | | |
| DF | 20 | 50 | 50 | | S | W |
| **Compound** | **Concentration** | | | | ug/kg | µg/L |
| TPH(g) | 7900 | 9500 | 35,000 | | NA | 50 |
| TPH(ss) | 16,000 | 20,000 | 68,000 | | NA | 50 |
| MTBE | ND<100 | ND<250 | ND<250 | | NA | 5.0 |
| Benzene | ND<10 | ND<25 | ND<25 | | NA | 0.5 |
| Toluene | ND<10 | ND<25 | ND<25 | | NA | 0.5 |
| Ethylbenzene | ND<10 | ND<25 | ND<25 | | NA | 0.5 |
| Xylenes | ND<10 | ND<25 | ND<25 | | NA | 0.5 |
| **Surrogate Recoveries (%)** | | | | | | |
| %SS: | 99 | 90 | 91 | | | |
| **Comments** | e,h,i | e,h | e,h,i | | | |

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

| | | |
|---|---|---|
| Conestoga-Rovers & Associates | Client Project ID: #521000; John Nady | Date Sampled: 06/09/08 |
| | | Date Received: 06/09/08 |
| 5900 Hollis St, Suite A | Client Contact: Mark Jonas | Date Extracted: 06/09/08 |
| Emeryville, CA 94608 | Client P.O.: | Date Analyzed: 06/10/08-06/13/08 |

**Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up***

Extraction method: SW3510C/3630C Analytical methods: SW8015C Work Order: 0806224

| Lab ID | Client ID | Matrix | TPH-Diesel (C10-C23) | TPH-Motor Oil (C18-C36) | DF | % SS |
|---|---|---|---|---|---|---|
| 0806224-001A | MW-1A | W | 2000,n,i | ND | 1 | 112 |
| 0806224-003A | MW-2A | W | 150,d,i | ND | 1 | 118 |
| 0806224-004A | MW-3A | W | 20,000,n,h,i | ND<1200 | 5 | 84 |
| 0806224-005A | MW-4A | W | 66,b,f | ND | 1 | 100 |
| 0806224-006A | MW-6A | W | 7200,n,h,i | 290 | 1 | 112 |
| 0806224-007A | MW-6B | W | 81,000,n,h | ND<5000 | 20 | 94 |
| 0806224-009A | MW-7A | W | 150,000,n,h,i | ND<12,000 | 50 | 103 |
| | | | | | | |
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| | | | | |
|---|---|---|---|---|
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | W | 50 | 250 | µg/L |
| | S | NA | NA | mg/Kg |

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

#) cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; &) low or no surrogate due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel (asphalt); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to matrix interference; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.

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# QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0806224

| EPA Method SW8260B | Extraction SW5030B | | | | BatchID: 36180 | | | | Spiked Sample ID: 0806215-010B | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Sample | Spiked | MS | MSD | MS-MSD | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | | | |
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | MS / MSD | RPD | LCS/LCSD | RPD |
| Chlorobenzene | ND | 10 | 106 | 108 | 2.79 | 95.2 | 95.2 | 0 | 70 - 130 | 30 | 70 - 130 | 30 |
| 1,2-Dibromoethane (EDB) | ND | 10 | 111 | 114 | 2.49 | 95.9 | 95 | 0.925 | 70 - 130 | 30 | 70 - 130 | 30 |
| 1,2-Dichloroethane (1,2-DCA) | ND | 10 | 108 | 115 | 5.59 | 108 | 108 | 0 | 70 - 130 | 30 | 70 - 130 | 30 |
| 1,1-Dichloroethene | ND | 10 | 82 | 82.4 | 0.475 | 90.7 | 88.6 | 2.39 | 70 - 130 | 30 | 70 - 130 | 30 |
| Trichloroethene | ND | 10 | 114 | 118 | 3.22 | 106 | 105 | 0.850 | 70 - 130 | 30 | 70 - 130 | 30 |
| %SS1: | 100 | 25 | 94 | 96 | 1.61 | 99 | 100 | 0.842 | 70 - 130 | 30 | 70 - 130 | 30 |
| %SS2: | 101 | 25 | 107 | 108 | 1.02 | 96 | 96 | 0 | 70 - 130 | 30 | 70 - 130 | 30 |
| %SS3: | 100 | 25 | 113 | 115 | 1.11 | 113 | 115 | 2.52 | 70 - 130 | 30 | 70 - 130 | 30 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 36180 SUMMARY

| Lab ID | Date Sampled | Date Extracted | Date Analyzed | Lab ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0806224-001B | 06/09/08 1:10 PM | 06/10/08 | 06/10/08 5:49 PM | 0806224-002A | 06/09/08 12:45 PM | 06/11/08 | 06/11/08 6:19 PM |
| 0806224-004C | 06/09/08 2:35 PM | 06/11/08 | 06/11/08 3:47 PM | 0806224-006B | 06/09/08 11:20 AM | 06/11/08 | 06/11/08 4:26 PM |
| 0806224-007B | 06/09/08 10:45 AM | 06/11/08 | 06/11/08 5:05 PM | 0806224-008A | 06/09/08 10:15 AM | 06/10/08 | 06/10/08 11:34 PM |
| 0806224-009B | 06/09/08 9:30 AM | 06/11/08 | 06/11/08 12:18 AM | | | | |

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

JR QA/QC Officer

**McCampbell Analytical, Inc.**
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Telephone: 877-252-9262 Fax: 925-252-9269

# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0806224

| EPA Method SW8021B/8015Cm | Extraction SW5030B | | | | BatchID: 36185 | | | Spiked Sample ID: 0806247-001B | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Sample | Spiked | MS | MSD | MS-MSD | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | | | |
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | MS / MSD | RPD | LCS/LCSD | RPD |
| TPH(btex)£ | ND | 60 | 98.8 | 93.9 | 5.11 | 87 | 90.4 | 3.91 | 70 - 130 | 20 | 70 - 130 | 20 |
| MTBE | ND | 10 | 100 | 97.5 | 2.93 | 78.2 | 84.1 | 7.18 | 70 - 130 | 20 | 70 - 130 | 20 |
| Benzene | ND | 10 | 97.5 | 95.2 | 2.39 | 82.8 | 84.6 | 2.16 | 70 - 130 | 20 | 70 - 130 | 20 |
| Toluene | ND | 10 | 94.7 | 93.9 | 0.852 | 82.7 | 84.7 | 2.38 | 70 - 130 | 20 | 70 - 130 | 20 |
| Ethylbenzene | ND | 10 | 101 | 97.6 | 3.11 | 83.9 | 85.6 | 2.01 | 70 - 130 | 20 | 70 - 130 | 20 |
| Xylenes | ND | 30 | 112 | 108 | 3.46 | 80.5 | 81.7 | 1.46 | 70 - 130 | 20 | 70 - 130 | 20 |
| %SS: | 96 | 10 | 95 | 98 | 3.07 | 97 | 98 | 1.63 | 70 - 130 | 20 | 70 - 130 | 20 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

## BATCH 36185 SUMMARY

| Lab ID | Date Sampled | Date Extracted | Date Analyzed | Lab ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0806224-001C | 06/09/08 1:10 PM | 06/11/08 | 06/11/08 5:34 PM | 0806224-003B | 06/09/08 2:05 PM | 06/11/08 | 06/11/08 6:05 PM |
| 0806224-004B | 06/09/08 2:35 PM | 06/11/08 | 06/11/08 7:07 AM | 0806224-005B | 06/09/08 1:40 PM | 06/11/08 | 06/11/08 2:22 PM |
| 0806224-006C | 06/09/08 11:20 AM | 06/11/08 | 06/11/08 8:14 AM | 0806224-007C | 06/09/08 10:45 AM | 06/11/08 | 06/11/08 8:48 AM |
| 0806224-009C | 06/09/08 9:30 AM | 06/11/08 | 06/11/08 9:22 AM | | | | |

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

DHS ELAP Certification 1644

JR QA/QC Officer

**McCampbell Analytical, Inc.**
"When Quality Counts"

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# QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0806224

| EPA Method SW8015C | Extraction SW3510C/3630C | | | | BatchID: 36089 | | | Spiked Sample ID: N/A | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Sample | Spiked | MS | MSD | MS-MSD | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | | | |
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | MS / MSD | RPD | LCS/LCSD | RPD |
| TPH-Diesel (C10-C23) | N/A | 1000 | N/A | N/A | N/A | 98.4 | 101 | 2.23 | N/A | N/A | 70 - 130 | 30 |
| %SS: | N/A | 2500 | N/A | N/A | N/A | 107 | 109 | 2.04 | N/A | N/A | 70 - 130 | 30 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 36089 SUMMARY

| Lab ID | Date Sampled | Date Extracted | Date Analyzed | Lab ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0806224-001A | 06/09/08 1:10 PM | 06/09/08 | 06/11/08 11:42 PM | 0806224-003A | 06/09/08 2:05 PM | 06/09/08 | 06/12/08 12:49 AM |
| 0806224-004A | 06/09/08 2:35 PM | 06/09/08 | 06/13/08 12:25 PM | 0806224-005A | 06/09/08 1:40 PM | 06/09/08 | 06/12/08 4:09 AM |
| 0806224-006A | 06/09/08 11:20 AM | 06/09/08 | 06/11/08 12:11 AM | 0806224-007A | 06/09/08 10:45 AM | 06/09/08 | 06/11/08 2:29 AM |
| 0806224-009A | 06/09/08 9:30 AM | 06/09/08 | 06/11/08 10:25 PM | | | | |

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

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N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QA/QC Officer