



**CONESTOGA-ROVERS  
& ASSOCIATES**

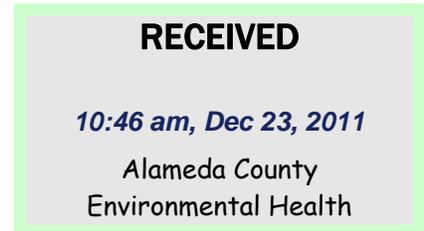
5900 Hollis Street, Suite A  
Emeryville, California 94608  
Telephone: (510) 420-0700 Fax: (510) 420-9170  
www.CRAworld.com

## TRANSMITTAL

DATE: Decmeber 22, 2011 REFERENCE NO.: 060727

PROJECT NAME: Former 76 Service Station 351644

TO: Barbara Jakub  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California



Please find enclosed:  Draft  Final  
 Originals  Other  
 Prints

Sent via:  Mail  Same Day Courier  
 Overnight Courier  Other Geotracker and ACEH ftp site.

QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

As Requested  For Review and Comment  
 For Your Use

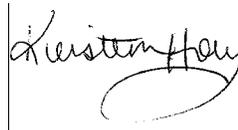
**COMMENTS:**

Please call Kiersten Hoey at 510-420-3347 with any questions or comments

Ms Roya Kambin (electronic copy)

Copy to: Ms. Barbara Bee Allen  
4567 Enterprise St  
Fremont, CA 94538

Completed by: Kiersten Hoey  
[Please Print]

Signed: 

Filing: **Correspondence File**



**Roya Kambin**  
Project Manager  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
6101 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 790-6270  
RKambin@Chevron.com

Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: Former 76 Service Station No. 351644  
66 MacArthur Boulevard  
Oakland, California

I accept the **Subsurface Investigation Report** dated December 22, 2011.

I agree with the conclusions and recommendations presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This **Subsurface Investigation Report** was prepared by Conestoga Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in black ink, appearing to read "Roya Kambin", with a large, stylized flourish at the end.

Roya Kambin  
Project Manager

Attachment: **Subsurface Investigation Report**



## **SUBSURFACE INVESTIGATION REPORT**

**76 PRODUCTS SERVICE STATION 1871 (UNION OIL 351644)  
66 MACARTHUR BOULEVARD  
(FORMERLY 96 MACARTHUR BOULEVARD)  
OAKLAND, CALIFORNIA  
ACHCS CASE NO. 0455**

**Prepared For:**

**Ms. Barbara Jakub  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502**

**DECEMBER 22, 2011**

**REF. NO. 060727 (4)**

This report is printed on recycled paper

**Prepared by:  
Conestoga-Rovers  
& Associates**

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## SUBSURFACE INVESTIGATION REPORT

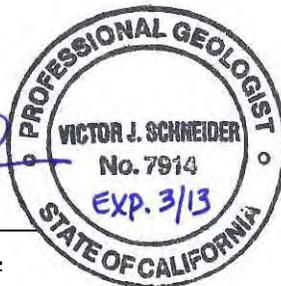
76 PRODUCTS SERVICE STATION 1871 (UNION OIL 351644)  
66 MACARTHUR BOULEVARD  
(FORMERLY 96 MACARTHUR BOULEVARD)  
OAKLAND, CALIFORNIA  
ACHCS CASE NO. 0455

---

**Kiersten Hoey**

---

**Jim Schneider, PG 7914**



**Prepared by:  
Conestoga-Rovers  
& Associates**

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**DECEMBER 22, 2011**

**REF. NO. 06727 (4)**

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TABLE OF CONTENTS

	<u>PAGE</u>
1.0 INTRODUCTION .....	1
1.1 SITE DESCRIPTION AND BACKGROUND .....	1
1.2 SITE GEOLOGY AND HYDROGEOLOGY .....	2
2.0 SUBSURFACE INVESTIGATION .....	2
2.1 RESULTS OF SUBSURFACE INVESTIGATION .....	4
2.2 SOIL ANALYTICAL RESULTS.....	5
3.0 DISCUSSION OF GROUNDWATER CONDITIONS.....	6
4.0 CONCLUSIONS AND RECOMMENDATIONS .....	6

LIST OF FIGURES  
(Following Text)

FIGURE 1	VICINITY MAP
FIGURE 2	SITE PLAN
FIGURE 3	EXPANDED SITE PLAN
FIGURE 4	MTBE CONCENTRATIONS IN GROUNDWATER – MAY 27, 2011

LIST OF TABLES  
(Following Text)

TABLE 1	SOIL ANALYTICAL TABLE
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LIST OF APPENDICES

APPENDIX A	REGULATORY CORRESPONDENCE
APPENDIX B	PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND REMEDIATION
APPENDIX C	DRILLING AND ENCROACHMENT PERMITS
APPENDIX D	BORING LOGS
APPENDIX E	CRA'S STANDARD OPERATING PROCEDURES FOR CPT BORINGS
APPENDIX F	LANCASTER LABORATORY ANALYTICAL REPORT
APPENDIX G	HISTORICAL GROUNDWATER DATA

## 1.0 INTRODUCTION

On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California (hereinafter "EMC"), Conestoga-Rovers & Associates (CRA) is pleased to submit this *Subsurface Investigation Report* for the 76 Products Service Station 1871 located at 66-96 MacArthur Blvd, Oakland, California. On October 25 and 26, 2011, CRA advanced offsite cone penetration testing (CPT) boring CPT-4, onsite boring CPT-1, and attempted to advance offsite borings CPT-2 and CPT-3 to further investigate the extent of dissolved methyl tertiary butyl ether (MTBE) west of the site. Work was completed as requested by Alameda County Environmental Health (ACEH), in accordance with Delta's February 16, 2009 *Work Plan for CPT Vertical and Lateral Stratigraphic and Plume Definition*, and as approved by the ACEH letter dated June 24, 2010 (Appendix A). Site background and investigation results are presented below.

### 1.1 SITE DESCRIPTION AND BACKGROUND

The site is a former 76 Products Service Station currently branded as a QuikStop Service Station located on the north corner of MacArthur Boulevard and Harrison Avenue in Oakland, California (Figure 1). The station facilities include a station building, two fuel underground storage tanks (USTs), four dispenser islands, and associated piping (Figure 2). Land use in the vicinity of the site is mixed residential and commercial with Interstate 580 and residences located to the west. A Former BP Service Station (RO0000456) currently branded as a 76 Products Service Station is located to the south (crossgradient).

Environmental investigations have been ongoing since 1992 when dispenser islands and product piping were upgraded. Since then, 11 monitoring wells have been installed (four have been subsequently destroyed), and 12 soil borings have been advanced (Figure 3). The used-oil UST, dispensers, and associated product piping have been replaced twice, and the fuel USTs have been replaced once. During the 1998 UST replacements, approximately 2,100 tons of soil was excavated and disposed offsite. In 2002, an ozone injection system and eight microsparge wells were installed and activated at the site. A summary of previous environmental investigations and remediation is included in Appendix B.

## 1.2 SITE GEOLOGY AND HYDROGEOLOGY

The site is located approximately 80 feet above mean seal level (amsl) in the East Bay Plain Subbasin of the Santa Clara Valley Groundwater Basin. The East Bay Plain is characterized by westward sloping alluvial fan deposits.<sup>1</sup> The cumulative aquifer thickness in the region is approximately 1,000 feet, consisting of unconsolidated sediments. Groundwater in this region has been designated beneficial for potential commercial, industrial and residential uses.<sup>2</sup>

Subsurface sediments consist of clay to approximately 5 to 7 feet below grade (fbg), underlain by a mixture of silt, silty sand, and poorly graded fine sand lenses to approximately 16 fbg. Clay and silt were encountered beneath these layers to the total explored depth of 60 fbg. Historic depths to groundwater have ranged between approximately 5 and 18 fbg and groundwater generally flows toward the southwest. The nearest surface water body is Glen Echo Creek approximately 1,000 feet northwest.

## 2.0 SUBSURFACE INVESTIGATION

On October 25 and 26, 2011, CRA advanced boring CPT-1 onsite, and CPT-4 southwest (downgradient) of the site on the southern shoulder of Harrison Street, beneath I-580 (Figures 2 and 3). Proposed offsite borings CPT-2 and CPT-3 were not completed. Borehole clearance in the area of proposed CPT-2 on the west side of Santa Clara Avenue failed after several attempts due refusal in fill material consisting of clay and large gravels. Without borehole clearance to confirm the absence of underground utilities, the boring could not be safely advanced. The area of proposed CPT-3 on the east side of Stanley Place was too steep for the CPT rig to operate safely. CRA's field activities are detailed below.

### *Permits*

Borings were drilled under Alameda County Public Works Agency permit #W2011-0524 and City of Oakland—Community and Economic Development Agency permit # X1100973/X1100974 (Appendix C).

- 
- 1 *California's Groundwater Bulletin 118*; The State of California Department of Water Resources; February 27, 2004.
  - 2 Table 2-2 Existing and Potential Beneficial Uses in Groundwater in Identified Basins; *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*; California Regional Water Quality Control Board-San Francisco Bay Region, January 18, 2007.

### ***Site Health and Safety Plan***

CRA performed all work under the guidelines set forth in a comprehensive site health and safety plan. The plan was reviewed and signed by all site workers and visitors and kept onsite at all times.

### ***Utility Clearance***

Per EMC and CRA safety procedures, each boring was hand cleared to 8 fbg using a hand auger to ensure no underground utilities were located beneath the boring locations.

### ***Geophysical Survey***

Prior to drilling, CRA contacted Underground Service Alert (USA) to mark any existing underground utilities at and surrounding the proposed soil boring locations. CRA also contracted Norcal Geophysical Consultants, Inc. of Cotati, California to locate underground utilities at and surrounding the proposed boring locations using a metal detector and ground penetrating radar (GPR) equipment.

### ***CRA Personnel***

CRA staff geologists directed all field work under the supervision of California Professional Geologist Jim Schneider (PG 7914).

### ***Drilling Company***

Gregg Drilling and Testing, Inc. of Martinez, California (C-57 #485165) advanced all borings.

### ***Drilling Method***

Borings CPT-1 and CPT-4 were advanced using CPT technology to a depth of 60 fbg. Soil samples were collected at 5-foot intervals from CPT-1 and were screened for volatile organic compounds using a photo-ionization detector (PID). The borings were backfilled with Portland neat cement (i.e. grout) using a tremmie pipe and capped with concrete to match existing grade. Boring specifications and soil types encountered are described on the CPT boring logs presented in Appendix D. CRA's Standard Operating Procedures for CPT borings are presented in Appendix E.

### ***Groundwater Sampling***

Grab-groundwater samples were attempted using a hydropunch in CPT-4 between 56 and 60 fbg and in CPT-1 between 17 and 21 fbg and 25 and 29 fbg, but no groundwater encountered at the attempted hydropunch intervals.

### *Soil Sampling*

Soil samples were collected from boring CPT-1 at 5 foot intervals to a maximum depth of 45 fbg by driving a modified California split-spoon sampler lined with steam-cleaned three 6-inch stainless steel tubes into undisturbed sediments. All samples were capped using Teflon tape and plastic caps, labeled, placed in an ice-filled cooler, and transported under chain-of-custody protocol to Lancaster Laboratories in Lancaster, Pennsylvania for analysis. No soil samples were collected from offsite boring CPT-4 based on its distance from the site, and because samples were previously collected from well MW-11, located adjacent to CPT-4.

### *Chemical Analyses*

Selected soil samples were analyzed by Lancaster Laboratories for the following:

- Total petroleum hydrocarbons as gasoline (TPHg) using EPA Method 8015 MOD
- Benzene, toluene, ethylbenzene, xylenes (BTEX), MTBE, tertiary-butyl alcohol (TBA), tertiary-amyl methyl ether (TAME), ethyl tertiary-butyl ether (ETBE), di-isopropyl ether (DIPE) and ethanol; and lead scavengers 1,2-dichloroethane (1,2-DCA) and 1,2-dibromoethane (EDB) using EPA Method 8260B.

Soil analytical results are presented in Table 1, and the laboratory report is included in Appendix F.

### *Waste Disposal*

Investigation derived waste was stored onsite in sealed and labeled California Department of Transportation-compliant 55-gallon drums. Waste was profiled for disposal and is scheduled for transportation to Filter Recycling in Rialto, California.

## **2.1 RESULTS OF SUBSURFACE INVESTIGATION**

A description of the materials encountered, and results of the soil samples collected from the borings are discussed below.

### *CPT-1*

CPT-1 was advanced on the southern corner of the site to a depth of 60 fbg. Soils encountered consisted of sandy silt, silt, clay, and silty sand (Appendix D). Soil samples were collected at 5-foot intervals to a maximum depth of 45 fbg. Based on the CPT log and soil samples, hydropunch grab-groundwater samples were attempted between at 17 and 21 fbg and between 25 and 29 fbg; however, after 45 minutes, no groundwater

entered the hydropunch at either depth. Based on historical soil data and PID readings soil samples collected at 20 and 30 fbg were submitted for analysis.

#### ***CPT-2***

Gregg Drilling made several attempts to clear the CPT-2 boring location (to ensure no underground utilities existed in the boring location) using a hand auger; however, refusal was met in clay and large gravel. The boring was not advanced.

#### ***CPT-3***

The advancement of boring CPT-3, proposed in the parking lane of Stanley Place approximately 500 feet southwest of the site, was deemed unsafe by the drilling crew. The crew attempted to safely set the CPT rig over the boring location; however, the grade of the street was too steep to level the rig and the CPT operator stopped work.

#### ***CPT-4***

CPT-4 was advanced southwest (downgradient) of the site, beneath I-580 on the south side of Harrison Street, to a total depth of 60 fbg. Soils encountered consisted of clay to 10 fbg underlain by silty sand, sandy silt, silt and clay. Based on the CPT log, a grab-groundwater sample using a hydropunch was attempted between 56 and 60 fbg. However, after 45 minutes, no groundwater entered the hydropunch. Due to the close proximity of well MW-11, screened 15 to 30 fbg, no shallower grab-groundwater sample was attempted. No soil samples were collected based on its distance from the site, and because samples were previously collected from well MW-11, located adjacent to CPT-4.

## **2.2 SOIL ANALYTICAL RESULTS**

Based on historical soil data and PID readings, soil samples collected from CPT-1 at 20 and 30 fbg were submitted for analysis. The results of the lab analysis summarized in Table 1 are discussed below. The laboratory report is included in Appendix F.

- No TPHg, toluene, ethylbenzene, or xylenes were detected at 20 fbg; however, 0.001 milligrams per kilogram (mg/kg) benzene and 0.016 mg/kg MTBE were detected. These concentrations are below soil leaching Environmental Screening Levels (ESLs).<sup>3</sup>
- No petroleum hydrocarbons were detected in the sample collected at 30 fbg, vertically defining hydrocarbons in soil.

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<sup>3</sup> San Francisco Bay Regional Water Quality Control Board's *Screening for Environmental Concern at Site with Contaminated Soil and Groundwater*, Interim Final November 2007 (Revised May 2008)

### 3.0 DISCUSSION OF GROUNDWATER CONDITIONS

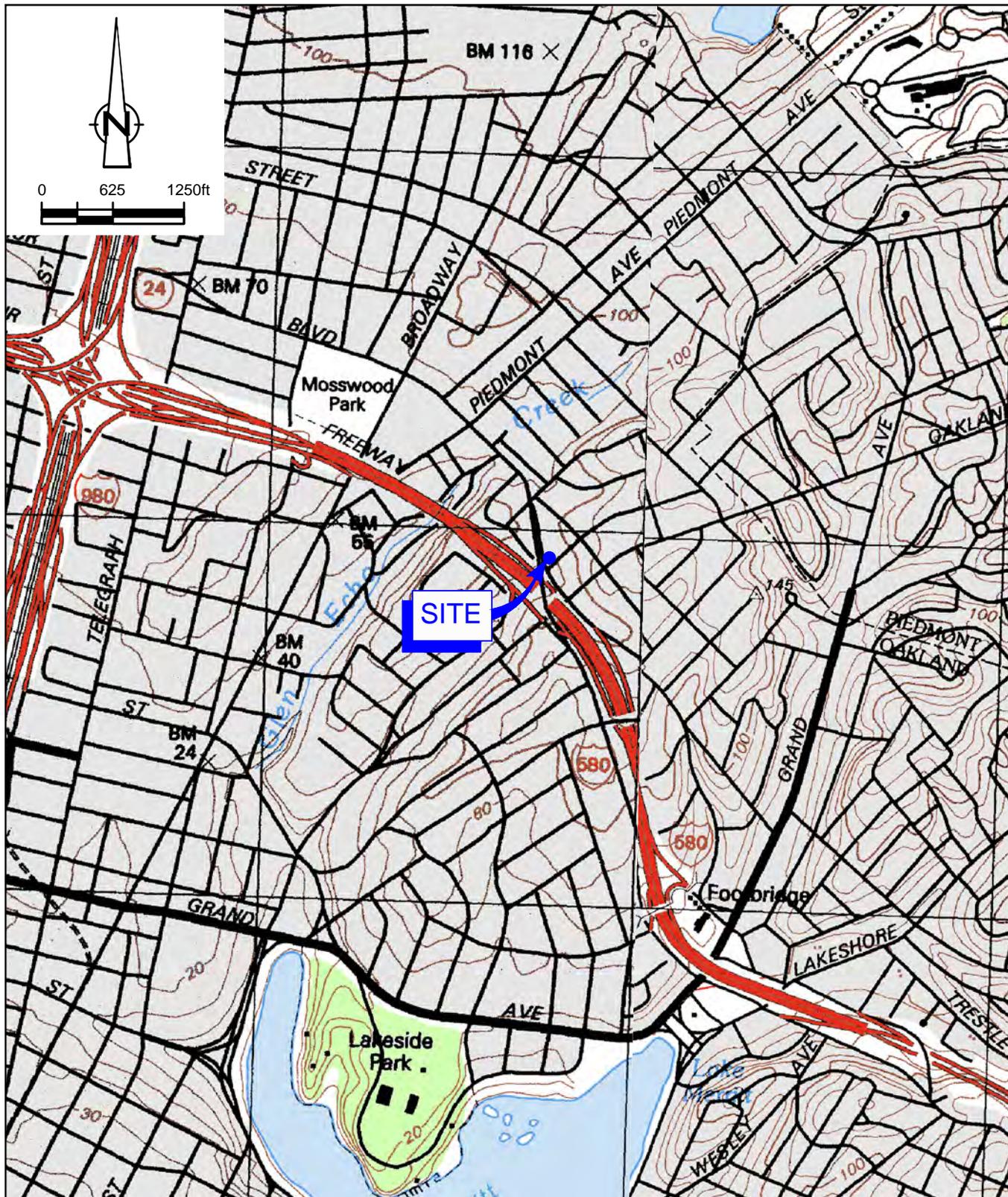
Dissolved MTBE concentrations detected during the most recent groundwater monitoring event on May 27, 2011 are presented on Figure 4. The highest MTBE concentration of 70 micrograms per liter ( $\mu\text{g}/\text{L}$ ) is detected in offsite boring MW-9, located west (crossgradient) of the site. Residual MTBE concentrations detected on and near the site are all below  $10 \mu\text{g}/\text{L}$  and no MTBE is detected in downgradient wells MW-10 and MW-11. Natural attenuation processes are likely degrading remaining residual dissolved MTBE. Historical groundwater data is included in Appendix G.

### 4.0 CONCLUSIONS AND RECOMMENDATIONS

- Soil samples collected from boring CPT-1 vertically define hydrocarbons in soil onsite.
- Although no groundwater samples were collected from offsite borings CPT-2, CPT-3, and CPT-4 to confirm the absence of MTBE in these areas, it is unlikely that dissolved MTBE is present given the distance from the site (between 200 and 500 feet), the minimal residual concentrations in MW-9, and no MTBE remaining in MW-10 and MW-11, located directly southwest (downgradient) of the site.

Based on the site conditions and the data presented above, on behalf of EMC, CRA recommends case closure. CRA will submit a formal Case Closure Request under separate cover.

## FIGURES



SOURCE: USGS QUADRANGLE MAPS: OAKLAND WEST, CA. & OAKLAND EAST, CA.

Figure 1  
 VICINITY MAP  
 76 SERVICE STATION #35-1644  
 96 MACARTHUR BOULEVARD  
 Oakland, California



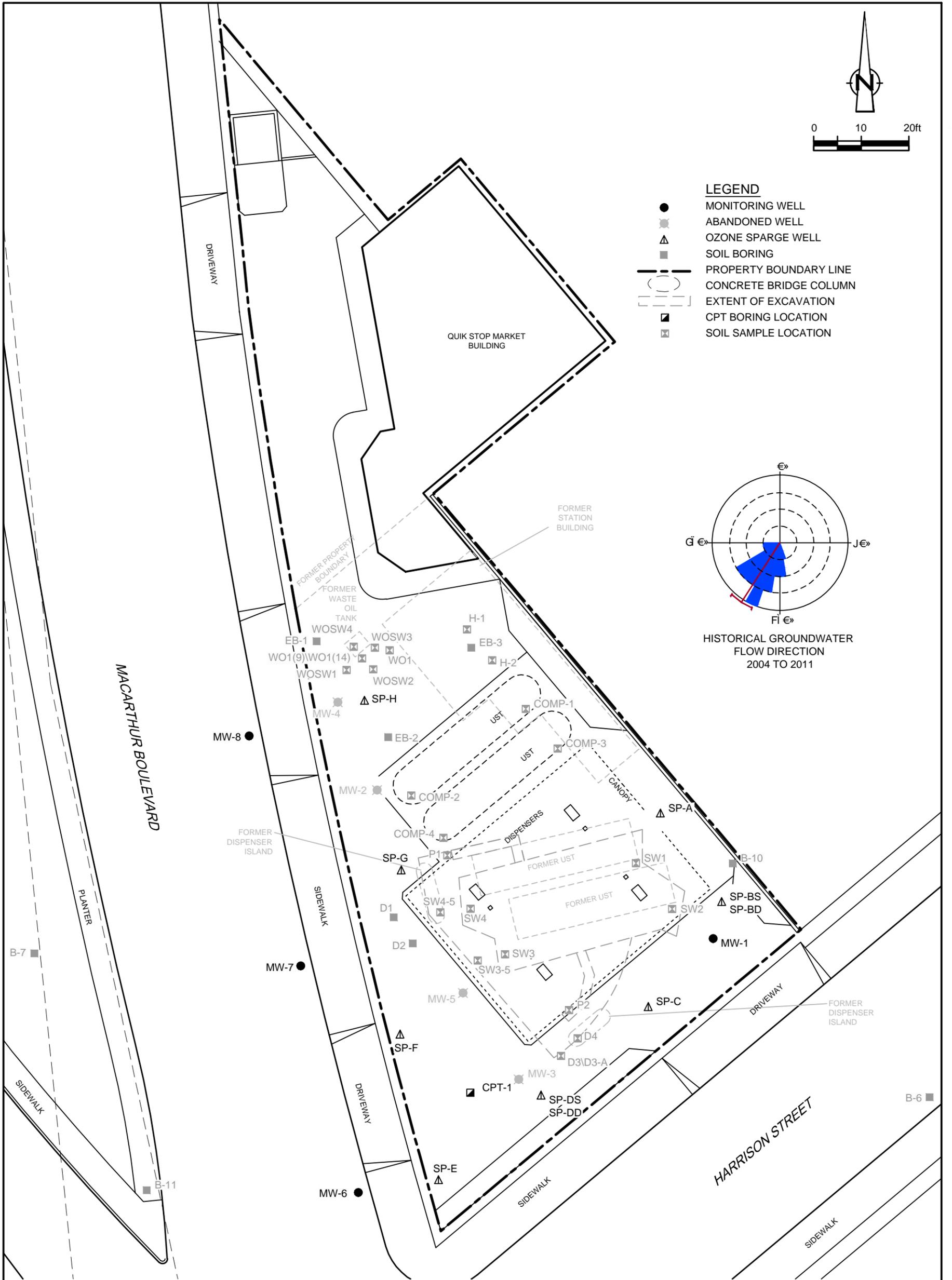
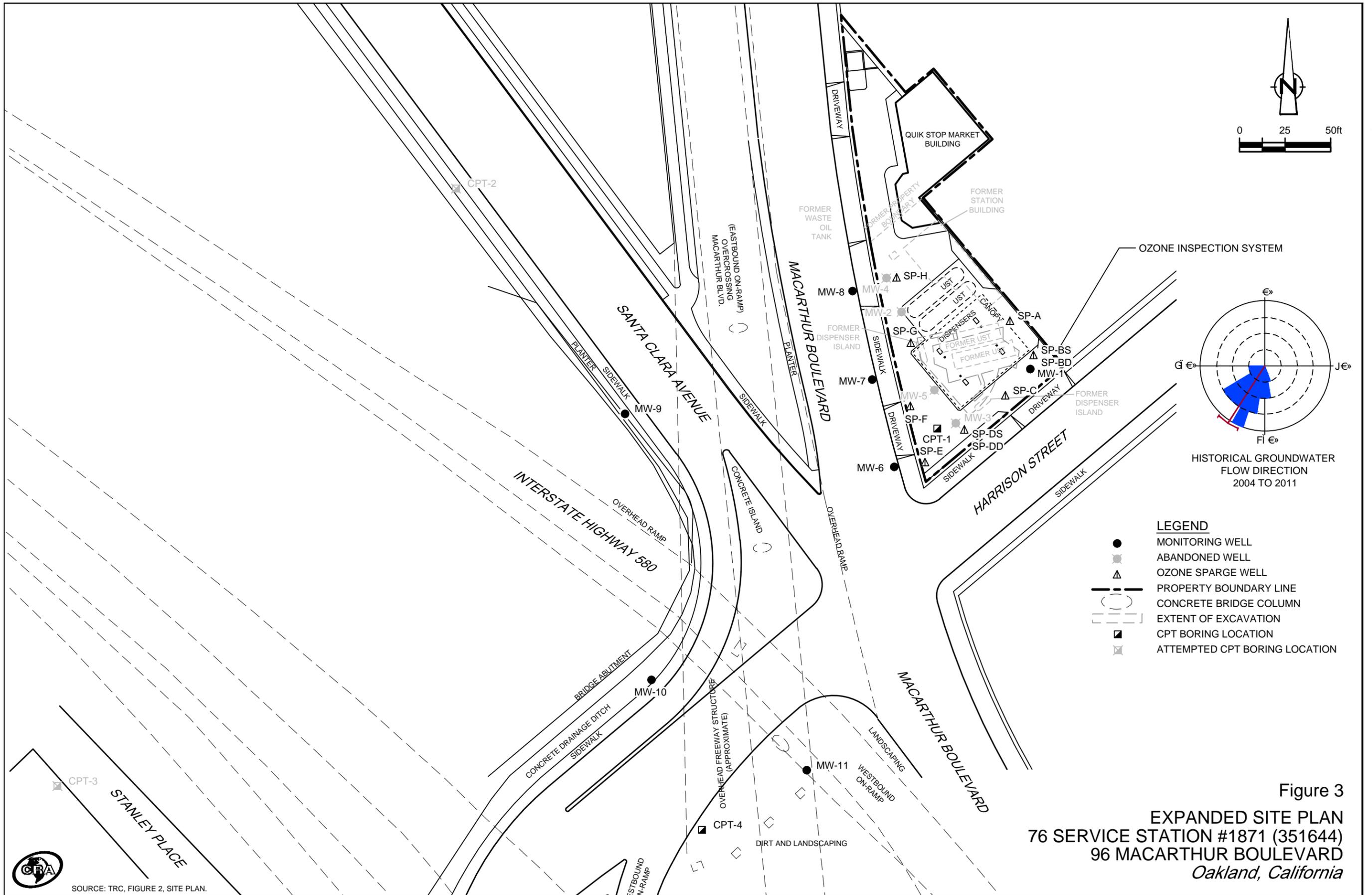


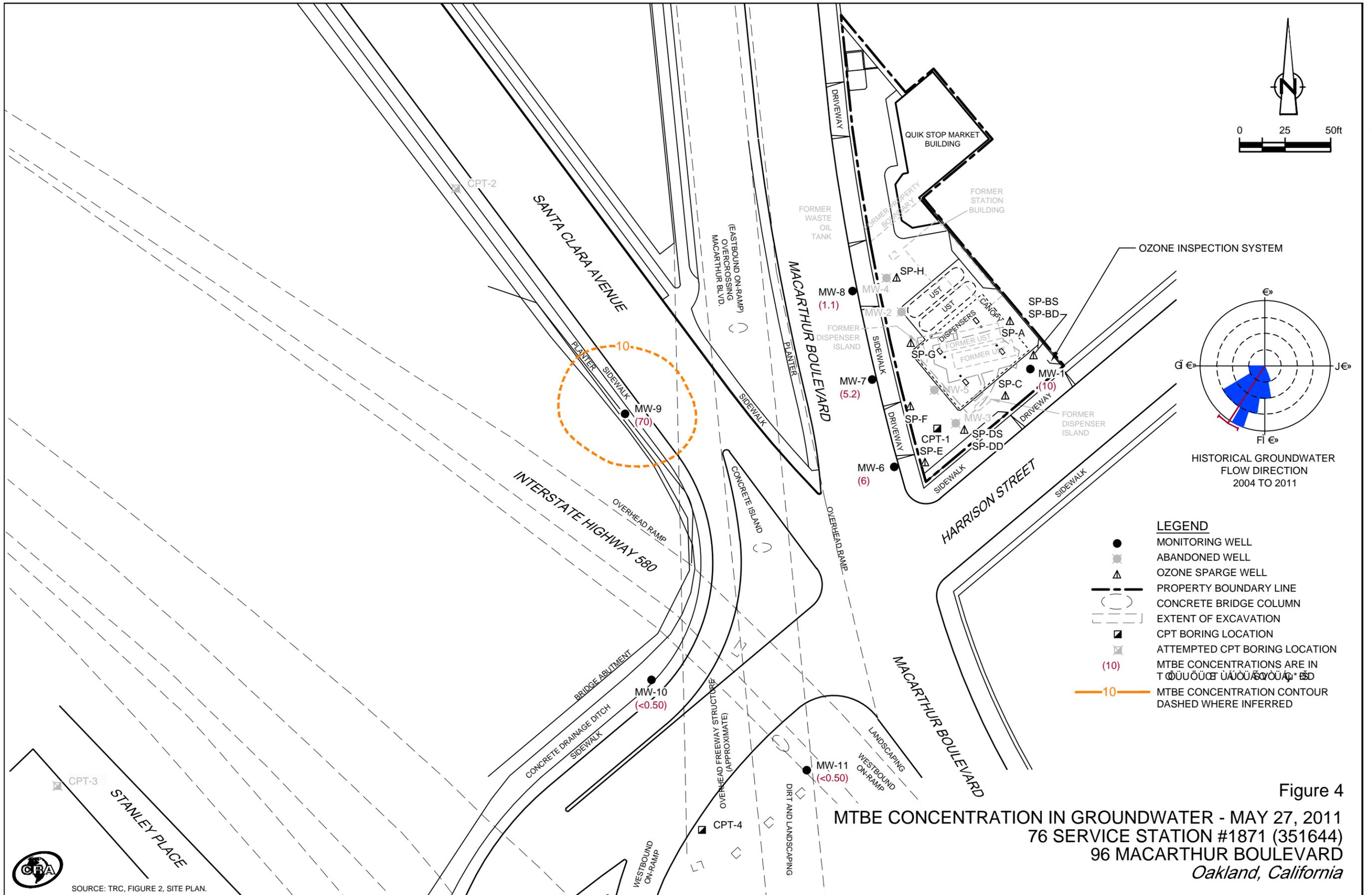
Figure 2  
 SITE PLAN  
 76 SERVICE STATION #1871 (351644)  
 96 MACARTHUR BOULEVARD  
 Oakland, California



SOURCE: TRC, FIGURE 2, SITE PLAN.



SOURCE: TRC, FIGURE 2, SITE PLAN.



SOURCE: TRC, FIGURE 2, SITE PLAN.

## TABLE

TABLE 1

SOIL ANALYTICAL DATA  
CHEVRON SERVICE STATION  
2101 UNIVERSITY AVE., EAST PALO ALTO CALIFORNIA

<i>Sample ID</i>	<i>Date</i>	<i>Depth (fbg)</i>	<i>TPHg</i>	<i>Benzene</i>	<i>Toluene</i>	<i>Ethyl-benzene</i>	<i>Total Xylenes</i>	<i>MTBE</i>	<i>Ethanol</i>	<i>TBA</i>	<i>DIPE</i>	<i>ETBE</i>	<i>TAME</i>	<i>1,2 DCA</i>	<i>EDB</i>
<i>ESL</i>															
<i>Table G: Soil Leaching (Drinking Water Resource)</i>			83	0.044	2.9	3.3	2.3	0.023	NE	110	NE	NE	NE	1.8	1.0
<i>Table K-3: Construction/Trench Worker Direct Exposure</i>			4,200	12	650	210	420	2,800	NE	320,000	NE	NE	NE	21	1.7
CPT-1-S-20	10/26/2011	20	<1.0	0.001	<0.001	<0.001	<0.001	0.016	<0.10	<0.021	<0.001	<0.001	<0.001	<0.001	<0.001
CPT-1-S-30	10/26/2011	30	<0.90	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.10	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

All results in mg/kg unless otherwise indicated.

fbg = feet below grade

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8015

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tert-Butyl alcohol

DIPE = Diisopropyl ether

ETBE = Tert-Butyl ethyl ether

TAME = Tert-Amyl methyl ether

1,2 DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane (Ethylene dibromide)

VOCs & Oxygenates analyzed by EPA Method 8260B

Total Lead analyzed by EPA Method 6010

ND = Not detected above laboratory reporting limits

<x = Not detected at reporting limit x

NE = No ESL

TABLE 1

SOIL ANALYTICAL DATA  
 CHEVRON SERVICE STATION  
 2101 UNIVERSITY AVE., EAST PALO ALTO CALIFORNIA

<i>Sample ID</i>	<i>Date</i>	<i>Depth (fbg)</i>	<i>TPHg</i>	<i>Benzene</i>	<i>Toluene</i>	<i>Ethyl-benzene</i>	<i>Total Xylenes</i>	<i>MTBE</i>	<i>Ethanol</i>	<i>TBA</i>	<i>DIPE</i>	<i>ETBE</i>	<i>TAME</i>	<i>1,2 DCA</i>	<i>EDB</i>
<i>ESL</i>															
<i>Table G: Soil Leaching (Drinking Water Resource)</i>			83	0.044	2.9	3.3	2.3	0.023	NE	110	NE	NE	NE	1.8	1.0
<i>Table K-3: Construction/Trench Worker Direct Exposure</i>			4,200	12	650	210	420	2,800	NE	320,000	NE	NE	NE	21	1.7
CPT-1-S-20	10/26/2011	20	<1.0	0.001	<0.001	<0.001	<0.001	0.016	<0.10	<0.021	<0.001	<0.001	<0.001	<0.001	<0.001

November 2007, updated May 2008 prepared by the California Regional Water Quality Control Board - San Francisco Bay Region

APPENDIX A  
REGULATORY CORRESPONDENCE



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

June 24, 2010

Eric Hettrick (*Sent via A-mail to: Eric.G.Hettrick@conocophillips.com*)  
Conoco Phillips  
76 Broadway Street  
Sacramento, CA 95818

Myong and Song Son  
100 MacArthur Blvd.  
Oakland, CA 94612

Subject: Work Plan Approval for Fuel Leak Case No. RO0000455 and GeoTracker Global ID T0600101493, Unocal #1871, 96 MacArthur Blvd., Oakland, CA 94621

Dear Mr. Hettrick and Mr. and Ms. Son:

Thank you for submitting the document entitled, *Work Plan for CPT Vertical and Lateral Stratigraphic and Plume Definition* dated February 16, 2009, which was prepared by Antea Group formerly Delta Consultants for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file including the above-mentioned report/work plan for the above-referenced site.

The proposed scope of work may be implemented provided that the modifications requested in the technical comments below are addressed and incorporated prior to field implementation. Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. However, ACEH requests a map of the proposed CPT borings be submitted prior to commencing field work.

#### **TECHNICAL COMMENTS**

1. **Soil and Groundwater Characterization** – The work plan proposes advancing CPT borings downgradient of MW-9 to determine if MTBE has migrated and using the results of the investigation to prepare cross-sections and a site conceptual model (SCM). The work plan states that four CPT borings will be advanced, one on-site and three off-site yet only one off-site boring is shown on the map. The on-site boring was proposed to help determine the vertical extent of contamination as well as to aid in preparing cross-sections for the site and thus determining any potential preferential pathways. Please submit a map showing the proposed location for the on-site CPT boring. Given the irregular flow direction at the site, ACEH would like you to advance three off-site CPT borings along Stanley Place since one boring may bypass the plume completely. Please submit the map by the due date requested below.

Mr. Hettrick and Mr. and Ms. Son  
RO0000255  
June 24, 2011, Page 2

2. **Remediation Evaluation** – Ozone injection has been occurring at the site since 2003. Please provide an evaluation of system effectiveness and any recommendations for system optimization in the report requested below.

### **TECHNICAL REPORT REQUEST**

Please submit technical reports to ACEH (Attention: Barbara Jakub), according to the following schedule:

- **July 8, 2011** – Revised CPT Boring Location Map
- **September 24, 2011** – Soil and Water Investigation Report w/ SCM
- **October 24, 2011** – Interim Remediation Results Report

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 639-1287 or send me an electronic mail message at [barbara.jakub@acgov.org](mailto:barbara.jakub@acgov.org).

Sincerely,



Barbara J. Jakub  
Hazardous Materials Specialist

Digitally signed by Barbara J. Jakub  
DN: cn=Barbara J. Jakub, o, ou,  
email=barbara.jakub@acgov.org,  
c=US  
Date: 2011.06.24 10:00:59 -07'00'

Enclosure: Responsible Party(ies) Legal Requirements/Obligations  
ACEH Electronic Report Upload (ftp) Instructions

cc: James Barnard, Antea Group, 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670  
(Sent via E-mail to: [James.Barnard@anteagroup.com](mailto:James.Barnard@anteagroup.com))  
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA  
94612-2032 (Sent via E-mail to: [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))  
Donna Drogos, ACEH (Sent via E-mail to: [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Barbara Jakub, ACEH (Sent via E-mail to: [barbara.jakub@acgov.org](mailto:barbara.jakub@acgov.org))  
GeoTracker  
File

# Attachment 1

## Responsible Party(ies) Legal Requirements/Obligations

### REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

### ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)).

### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

### AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>REVISION DATE:</b> July 20, 2010
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

## REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

## Submission Instructions

- 1) Obtain User Name and Password
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org)
  - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B

PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND REMEDIATION

**SUMMARY OF ENVIRONMENTAL INVESTIGATIONS AND REMEDIATION  
FORMER 76 SERVICE STATION 1871 (UNION OIL 351644)**

***1992 Dispenser and Piping Replacement***

In May 1992, Roux Associates (Roux) removed and replaced the dispenser islands and associated product piping and collected soil samples D1 through D4, and D3-A from beneath the dispenser. During the product piping and dispenser replacement, approximately 18 cubic yards of soil was removed and transferred to the Redwood Landfill facility for disposal. An Underground Storage Unauthorized Release report was filed on July 16, 1992.

***1992 Monitoring Well Installation***

In October 1992, Roux installed onsite 4-inch diameter groundwater monitoring wells MW-1 through MW-3. Hydrocarbons were only detected in soil from MW-3, but was detected in groundwater from all three wells. Details are presented in Roux's December 17, 1992 *Site Assessment Report*.

***1994 Used-Oil UST Removal***

In August 1994, Kaprealian Engineering Inc (KEI) removed a 280-gallon single-wall steel used-oil UST and replaced it with a 550-gallon double-walled steel UST. No holes or cracks were observed on the tank. Soil samples WO1 was collected a 9 feet below grade (fbg) from beneath the tank. Due to observed soil staining, soil was overexcavated to 14 fbg over an area of 9 feet by 8 feet. Soil sample WO1(14) was collected at the bottom of the excavation and samples WOSW1 through WOSW4 were collected on the sidewalls of the excavation at 9 fbg. Details are presented in KEI's September 13, 1994 *Soil Sampling Report*.

In February 1996, the Alameda County Department of Environmental Health (ACEH) approved Unocal's request to reduce the groundwater monitoring and sampling frequency from quarterly to semiannually.

***1996 Monitoring Well Installation***

In March 1996, KEI installed monitoring wells MW-4 and MW-5 and advanced exploratory borings EB1 and EB2. Details are presented in KEI's May 17, 1996 *Continuing Soil and Groundwater Investigation Report*.

***1998 Station Upgrade***

In May 1998, Gettler-Ryan, Inc (G-R) observed John's Excavating of Santa Rosa, California remove two 12,000-gallon double-wall steel gasoline USTs, one 550-gallon double-wall steel used-oil UST, two hydraulic lifts, two dispenser islands and associated single-wall product piping, and one service station building. No holes or cracks were observed in the tanks. G-R personnel collected soil samples SW1 through SW-4, SW3-5 and SW-4-5 from the gasoline UST

pit at 11 to 11.5 fbg, WO1 from the used-oil UST pit at 11 fbg, and P1 and P2 from beneath the dispensers at 4 fbg, and grab-groundwater samples Water-FT from the gasoline UST pit and Water-WO from the used-oil UST pit. A total of 1,252.78 tons of soil were removed from the site during demolition activities and transported to Forward Landfill for disposal. Details are presented in G-R's October 19, 1998 *Underground Storage Tank and Product Piping Removal Report*. Prior to the excavation for the new gasoline USTs, on August 2, 1999, Gettler-Ryan collected soil samples Comp-1 at 7 and 12 fbg, Comp-2 at 5 and 10 fbg, Comp-3 at 7 and 12 fbg, and Comp-4 at 8 and 12 fbg from potholes in the vicinity of the location of the new gasoline USTs for soil disposal characterization. On August 6, 1999, Gettler-Ryan excavated the new gasoline UST pit over an area of approximately 44 feet by 22 feet to a depth of 13 fbg. A total of 874.43 tons of soil were transported to Forward, Inc. in Manteca, California. Details are presented in Gettler-Ryan's September 3, 1999 Soil Sampling and Disposal Report.

#### ***1998 Well Destruction, Soil Boring, and RBCA***

In September 1998, G-R destroyed wells MW-2 through MW-5 that were damaged during site demolition activities and backfilled the boreholes with neat cement to grade. In addition, G-R advanced onsite soil boring EB-3 to a total depth of 16.5 fbg and collected soil and groundwater samples for development of a Risk Based Corrective Action (RBCA). The RBCA evaluation concluded that, since the site was scheduled for construction of a fuel dispensing facility covered with concrete and asphalt and no groundwater receptors were located within a 1/4 mile radius of the site, the potential threat to public health and environment was not of significant concern. The RBCA was submitted on February 25, 1999 and subsequently revised in documents dated April 6, 19, and 20, 1999. The RBCA evaluation was approved by the ACEH in a letter dated May 4, 1999.

#### ***1999 Monitoring Well and Boring Investigation***

In June 1999, G-R installed offsite monitoring wells MW-6 through MW-8, and advanced soil borings B-4 through B-12 on and near the site. Soil and groundwater samples were collected from all borings. Details are presented in G-R's August 6, 1999 *Limited Subsurface Investigation Report*.

#### ***2001 Monitoring Well Installation***

In December 2001, G-R installed offsite monitoring wells MW-9 through MW-11 in CalTrans right-of-way to delineate dissolved hydrocarbons downgradient of the site. Details are presented in G-R's May 16, 2002 *Offsite Subsurface Investigation Report*.

#### ***2002 Ozone System Installation***

In March 2002, G-R installed ozone microsparge wells SP-A, SP-BS/BD, SP-C, SP-DS/DD, SP-E, SP-F, SP-G and SP-H to depths ranging from 25 to 30 fbg. Wells SP-BS/BD and SP-DS/DD were constructed as dual completion wells. In April 2002, an ozone injection system was

installed and activated at the site. Details are presented in G-R's May 20, 2002 *Ozone Microsparge Well and System Installation Report*.

As of August 31, 2011 the ozone sparge system has operated a total of 46,111 hours.

***2007 Site Conceptual Model***

At the request of the ACEH, TRC submitted a Site Conceptual Model dated November 1, 2007.

APPENDIX C  
DRILLING AND ENCROACHMENT PERMITS

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone (510)670-6633 Fax:(510)782-1939

Application Approved on: 08/11/2011 By jamesy

Permit Numbers: W2011-0524  
Permits Valid from 10/25/2011 to 10/27/2011

Application Id: 1312477395967  
Site Location: 66 MacArthur Blvd, Oakland, CA 94612  
Project Start Date: 09/20/2011  
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org  
Extension Start Date: 10/25/2011  
Extension Count: 2

City of Project Site:Oakland  
Completion Date:09/23/2011  
Extension End Date: 10/27/2011  
Extended By: priest

Applicant: CRA Andrew Renshaw  
5900 Hollis St, Ste A, Emeryville, CA 94608  
Property Owner: Barbara Bee Allen  
66 MacArthur Blvd, Oakland, CA 94612  
Client: Chevron EMC  
6001 bollinger Canyon Rd , San Ramon, CA 94583

Phone: 510-420-3368

Phone: --

Phone: 510-842-1000

Receipt Number: WR2011-0245 Total Due: \$265 00  
Payer Name : Craig T Pelletier Total Amount Paid: \$265.00  
Paid By: VISA PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitoring Study 4 Boreholes  
Driller: Gregg · Lic #: 485165 - Method: CPT

Work Total: \$265.00

## Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2011-0524	08/11/2011	12/19/2011	4	3.00 in.	60.00 ft

## Specific Work Permit Conditions

- 1 Backfill bore hole by tremie with cement grout or cement grout/sand mixture Upper two-three feet replaced in kind or with compacted cuttings All cuttings remaining or unused shall be containerized and hauled off site The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death
- 4 Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 5 Copy of approved drilling permit must be on site at all times Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00

## Alameda County Public Works Agency - Water Resources Well Permit

6 Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

---

CITY OF OAKLAND • Community and Economic Development Agency

250 Frank H Ogawa Plaza, 2nd Floor. Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation No refund more than 180 days after expiration or final.

Appl# X1100973 Job Site 66 MACARTHUR BL Parcel# 010 0813-003 01

Descr Soil boring CPT-2 on Santa Clara Ave west side Permit Issued 09/07/11

No impact on traffic lane allowed CHEV-9-1644

Call PWA INSPECTION prior to start: 510-238-3651 4th FLOOR

Work Type EXCAVATION PRIVATE P

USA # Util Co Job # CHEV91644 Acctg#: Util Fund #:

Applcmt Phone# Lic# License Classes

Owner JELINEK BARBARA B TR

Contractor GREGG DRILLING & TESTING, INC X (925) 313-5800 485165 C57

Arch/Engr

Agent CRA WORLD/ A RENSHAW (510) 420-3368

Applic Addr 950 HOWE RD, MARTINEZ, CA , 94553

\$436.05 FEES TO BE PAID AT ISSUANCE	
\$71.00 Applic	\$309.00 Permit
\$.00 Process	\$36.10 Rec Mgmt
\$.00 Gen Plan	\$.00 Invstg
\$.00 Other	\$19.95 Tech Enh

JOB SITE

Permit Issued By \_\_\_\_\_ Date: \_\_\_\_\_

Finald By \_\_\_\_\_ Date: \_\_\_\_\_

ADDRESS:

DIST:

CITY OF OAKLAND

PAID 9-7-11

Applications for which no permit is issued within 180 days shall expire by limitation No refund more than 180 days after expiration or final

Permit No X1100973 Parcel #: 010 -0813-003-01  
Project Address: 66 MACARTHUR BL

Page 2 of 2

Licensed Contractors' Declaration

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect

Construction Lending Agency Declaration

I hereby affirm under penalty of perjury that there is a construction-lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code N/A under Lender implies No Lending Agency

Lender \_\_\_\_\_ Address \_\_\_\_\_

Workers' Compensation Declaration

I hereby affirm under penalty of perjury one of the following declarations:

[ ] I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

[ ] I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

CARRIER: \_\_\_\_\_ POLICY NO. \_\_\_\_\_

[ ] I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

I hereby affirm that the intended occupancy [ ] WILL [ ] WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

PRINT NAME

Signature [ ] Contractor, or [ ] Agent

Date

ADDRESS: \_\_\_\_\_  
DIST: \_\_\_\_\_

CITY OF OAKLAND • Community and Economic Development Agency

250 Frank H. Ogawa Plaza, 2nd Floor. Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Appl# X1100974 Job Site 66 MACARTHUR BL Parcel# 010 -0813-003-01

Descr Soil boring CPT 3 on Stanley Pl west side Permit Issued 09/07/11

No impact on traffic lane allowed CHEV-9 1644

Call PWA INSPECTION prior to start: 510-238-3651. 4th FLOOR.

Work Type EXCAVATION PRIVATE P

USA # Util Co Job # CHEV91644 Acctg#: Util Fund #:

Applicant Phone# Lic# License Classes

Owner JELINEK BARBARA B TR

Contractor GREGG DRILLING & TESTING, INC. X (925)313-5800 485165 C57

Arch/Engr

Agent CRA WORLD/ A RENSHAW (510)420-3368

Applic Addr 950 HOWE RD, MARTINEZ, CA , 94553

\$436.05 FEES TO BE PAID AT ISSUANCE	
\$71.00 Applic	\$309.00 Permit
\$.00 Process	\$36.10 Rec Mgmt
\$.00 Gen Plan	\$.00 Invstg
\$.00 Other	\$19.95 Tech Enh

JOB SITE

Permit Issued By [Signature] Date: \_\_\_\_\_

Finalized By \_\_\_\_\_ Date: \_\_\_\_\_

ADDRESS

DIST.

CITY OF OAKLAND

PAID 9-7-11 [Signature]

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final

Permit No X1100974 Parcel #: 010 -0813-003-01  
Project Address: 66 MACARTHUR BL

Page 2 of 2

Licensed Contractors' Declaration

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Construction Lending Agency Declaration

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code N/A under Lender implies No Lending Agency

Lender \_\_\_\_\_ Address \_\_\_\_\_

Workers' Compensation Declaration

I hereby affirm under penalty of perjury one of the following declarations:

[ ] I have and will maintain a certificate of consent to self insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

[ ] I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued

CARRIER: \_\_\_\_\_ POLICY NO. \_\_\_\_\_

[ ] I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

I hereby affirm that the intended occupancy [ ] WILL [ ] WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

PRINT NAME

Signature [ ] Contractor, or [ ] Agent

Date

ADDRESS:

DIST:

**CITY OF OAKLAND • Community and Economic Development Agency**

250 Frank H. Ogawa Plaza, 2nd Floor. Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Appl# OB110668                      Job Site    66    MACARTHUR BL                      Parcel# 010 -0813-003 01

Soil boring CPT-2 on Santa Clara & CPT 3 on Stanley Pl west    Permit Issued 09/07/11  
side    No impact on traffic lane allowed.    CHEV-9-1644  
No fee one parking space each loc ref: X1100973 0974.

## Display on Dashboard

Nbr of days: 2  
Effective: 09/28/11

Linear feet: 50  
Expiration: 09/29/11

SHORT TERM NON-METERED

	Applcmt	Phone#	Lic#	--License Classes--
Owner	JELINEK BARBARA B TR			
Contractor	GREGG DRILLING & TESTING, INC	X	(925)313 5800	485165 C57
Arch/Engr				
Agent	CRA WORLD/ A RENSHAW		(510)420 3368	
Applic Addr	950 HOWE RD, MARTINEZ, CA , 94553			

NO FEE PROJECT AT ISSUANCE

**JOB SITE**

## Display on Dashboard

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

Applicant: \_\_\_\_\_

Issued by: \_\_\_\_\_

CITY OF OAKLAND

**PAID**  
9-7-11 (mb)

ADDRESS

DIST

**ENCROACHMENT PERMIT**

TR-0120

Permit No. <b>0411-6SV1288</b>	
Dist/Co/Rte/PM 04-ALA-580- 44.08	
Date <b>August 23, 2011</b>	
Fee Paid <b>\$ 492.00</b>	Deposit \$
Performance Bond Amount (1) \$	Payment Bond Amount (2)
Bond Company	
Bond Number (1)	Bond Number (2)

In compliance with (*Check one*):

- Your application of July 26, 2010
- Utility Notice No \_\_\_\_\_ of \_\_\_\_\_
- Agreement No \_\_\_\_\_ of \_\_\_\_\_
- R/W Contract No. \_\_\_\_\_ of \_\_\_\_\_

TO:  Andrew Renshaw  
5900 Hollis St, Suite A  
Emeryville, CA 94608

Attn: Kiersten Hoey  
Phone: (510) 420-3347

*204 3885*

**PERMITTEE**

And subject to the following, **PERMISSION IS HEREBY GRANTED**

To perform boring for soil and water sampling, on Mac Arthur Blvd, State Highways 04-ALA-580, Post Mile 44.08, in the City of Oakland.

A minimum of one week prior to start of work under this permit, notice shall be given to, and approval of construction details, operations, public safety, and traffic control shall be obtained from State Representative Sunny "Surya" Mantravadi, (510) 715-9573, weekdays, between 7:30 AM and 4:00 PM.

All permitted work requires the permittee to apply for and obtain a work authorization number prior to start of work. See the attached "Encroachment Permit Project Work Scheduling Procedures" and the attached "Permit Project Work Scheduling Request Form" Additional time beyond the minimum seven days advanced notice required in the above paragraph may be required for obtaining the traffic control approval.

The following attachments are also included as part of this permit (*Check applicable*):

- Yes  No General Provisions
- Yes  No Utility Maintenance Provisions
- Yes  No Storm water Special Provisions
- Yes  No A Cal-OSHA permit required prior to beginning work:  
# \_\_\_\_\_

In addition to fee, the permittee will be billed actual costs for:

- Yes  No Review
- Yes  No Inspection
- Yes ----- Field Work

*(If any Caltrans effort expended)*

Yes  No The information in the environmental documentation has been reviewed and considered prior to approval of this permit.

This permit is void unless the work is completed before August 31, 2012.

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized. No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

PD

CC: SM, BK  
DTM -P. Chan,TMC J. Richardson

APPROVED

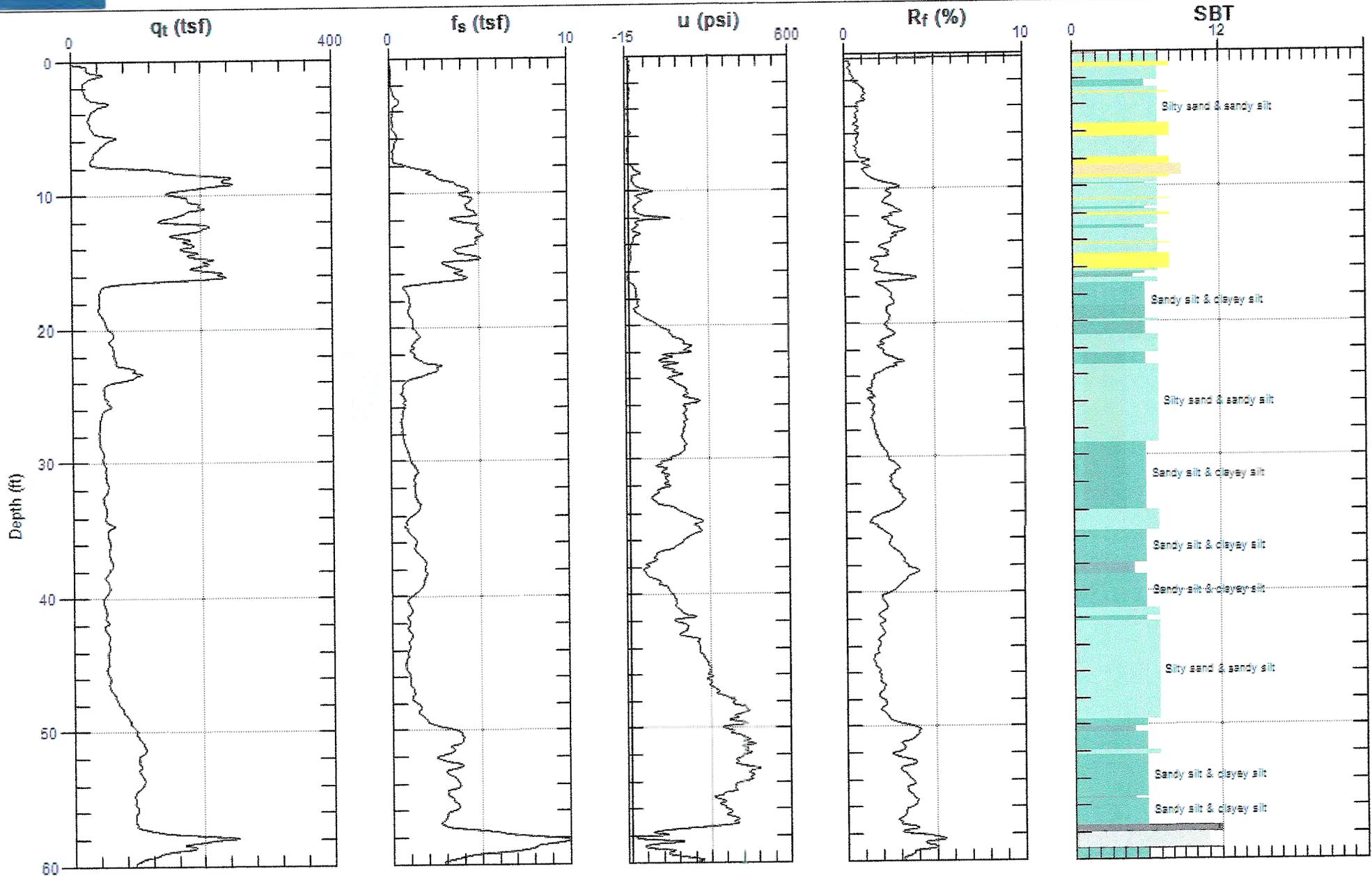
**BIJAN SARTIPI, District Director**

BY:

*Michael D. Condie*

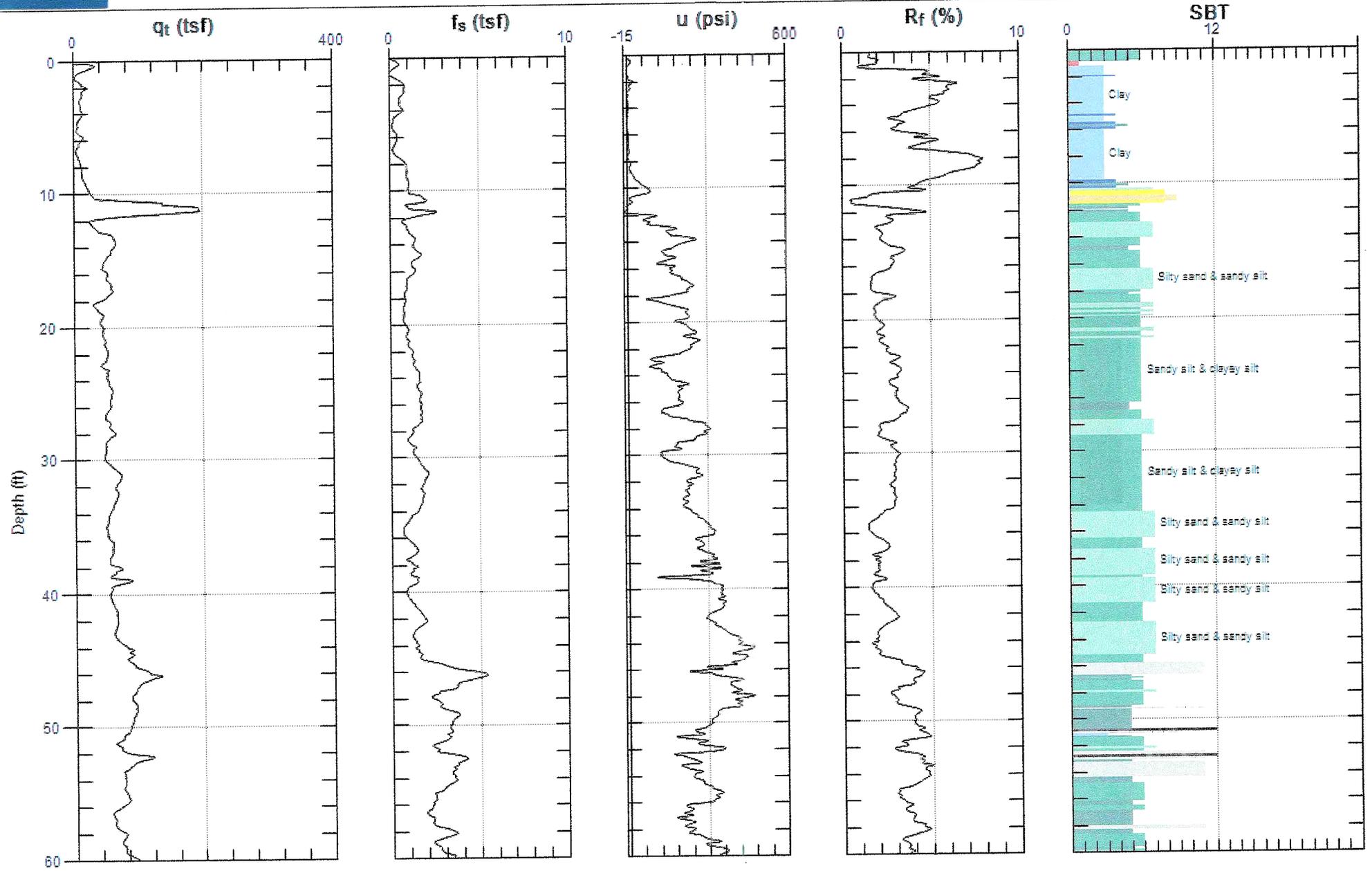
**MICHAEL D. CONDIE, District Permit Engineer**

APPENDIX D  
BORING LOGS



Max. Depth: 60.039 (ft)  
Avg. Interval: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)



Max. Depth: 60.039 (ft)  
Avg. Interval: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)



Conestoa-Rovers & Associates, Inc.  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

<b>CLIENT NAME</b>	<u>Chevron Environmental Management Company</u>	<b>BORING/WELL NAME</b>	<u>CPT-1</u>
<b>JOB/SITE NAME</b>	<u>76 Seervice Station 1871 (351644)</u>	<b>DRILLING STARTED</b>	<u>26-Oct-11</u>
<b>LOCATION</b>	<u>66-96 MacArthur Blvd, Oakland, CA</u>	<b>DRILLING COMPLETED</b>	<u>26-Oct-11</u>
<b>PROJECT NUMBER</b>	<u>060727</u>	<b>GROUND SURFACE ELEVATION</b>	<u>Not Surveyed</u>
<b>DRILLER</b>	<u>Gregg Drilling, C-57 #485165</u>	<b>TOP OF CASING ELEVATION</b>	<u>NA</u>
<b>DRILLING METHOD</b>	<u>CPT</u>	<b>SCREENED INTERVALS</b>	<u>NA</u>
<b>BORING DIAMETER</b>	<u>4-inches</u>	<b>DEPTH TO WATER (First Encountered)</b>	<u>NA</u>
<b>LOGGED BY</b>	<u>A. Renshaw</u>	<b>DEPTH TO WATER (Static)</b>	<u>NA</u>
<b>REVIEWED BY</b>	<u>J. Schneider, PG# 7914</u>		
<b>REMARKS</b>	<u>Hand augered to 8 fbg</u>		

CHEVRONPID I:\CHEVRON\0607-1060727-1066CCE4-10660727-GINT.GPJ DEFAULT.GDT 12/1/11

PID (ppm)	BLOW COUNTS	SAMPLE ID	Sample Type	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							<b>ASPHALT</b>	0.5	
							<b>Silty SAND:</b> light brown; damp; compact.		
				5	SM				
								8.0	
0		CPT-1-S-10		10	ML		<b>Sandy SILT:</b> light brown; moist; stiff; low plasticity.	9.5	
								10.5	
0		CPT-1-S-15		15	ML		<b>Sandy SILT:</b> brown; moist; stiff; low plasticity.	14.5	
								15.5	
0		CPT-1-S-20		20			<b>Sandy SILT:</b> light brown; moist; stiff; low plasticity.	19.5	

Continued Next Page





Conestoa-Rovers & Associates, Inc.  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

<b>CLIENT NAME</b>	<u>Chevron Environmental Management Company</u>	<b>BORING/WELL NAME</b>	<u>CPT-1</u>
<b>JOB/SITE NAME</b>	<u>76 Seervice Station 1871 (351644)</u>	<b>DRILLING STARTED</b>	<u>26-Oct-11</u>
<b>LOCATION</b>	<u>66-96 MacArthur Blvd, Oakland, CA</u>	<b>DRILLING COMPLETED</b>	<u>26-Oct-11</u>

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	Sample Type	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	GEOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		CPT-1 -S-45		45	ML		<u>Sandy SILT</u> : brown; dry; stiff; low plasticity.	44.5 45.5	
				50	ML		<u>SILT</u> : brown; moist; stiff; low plasticity.	49.5 50.5	
				55	ML		<u>SILT</u> : brown; moist; stiff; low plasticity.	54.5 55.5	
				60	ML		<u>SILT</u> : brown; moist; stiff; low plasticity.	59.5 60.0	
									Bottom of Boring @ 60 fbg

CHEVRONPID I:\CHEVRON\0607-1060727-1066CCE4-10660727-GINT.GPJ DEFAULT.GDT 12/1/11

APPENDIX E

CRA'S STANDARD OPERATING PROCEDURES FOR CPT BORINGS

## STANDARD FIELD PROCEDURES FOR CONE PENETROMETER TESTING SOIL BORING AND SAMPLING

This document presents standard field methods for drilling and sampling Cone Penetrometer Testing (CPT) soil borings. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Use of CPT for logging and soil and groundwater sampling requires separate borings. Typically an initial boring is advanced to estimate soil and groundwater characteristics as described below. To collect soil samples a separate boring must be advanced using a soil sampling device. If groundwater samples are collected, another separate boring must be advanced using a groundwater sampling device. Specific field procedures are summarized below.

### CONE PENETROMETER TESTING (CPT)

Cone Penetrometer Testing is performed by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). Cone Penetrometer Tests (CPT) are carried out by pushing an integrated electronic piezocone into the subsurface. The piezocone is pushed using a specially designed CPT rig with a force capacity of 20 to 25 tons. The piezocones are capable of recording the following parameters:

- Tip Resistance ( $Q_c$ )
- Sleeve Friction ( $F_s$ )
- Pore Water Pressure ( $U$ )
- Bulk Soil Resistivity ( $\rho$ ) - with an added module

A compression cone is used for each CPT sounding. Piezocones with rated load capacities of 5, 10 or 20 tons are used depending on soil conditions. The 5 and 10 ton cones have a tip area of 10 sq. cm. and a friction sleeve area of 150 sq. cm. The 20 ton cones have a tip area of 15 sq. cm. and a friction sleeve area of 250 sq. cm. A pore water pressure filter is located directly behind the cone tip. Each of the filters is saturated in glycerin under vacuum pressure prior to penetration. Pore Pressure Dissipation Tests (PPDT) are recorded at 5 second intervals during pauses in penetration. The equilibrium pore water pressure from the dissipation test can be used to identify the depth to groundwater.

The measured parameters are printed simultaneously on a printer and stored on a computer disk for future analysis. All CPTs are carried out in accordance with ASTM D-3441. A complete set of baseline readings is taken prior to each sounding to determine any zero load offsets.

The inferred stratigraphic profile at each CPT location is included on the plotted CPT logs. The stratigraphic interpretations are based on relationships between cone bearing ( $Q_c$ ) and friction ratio ( $R_f$ ). The friction ratio is a calculated parameter ( $F_s/Q_c$ ) used in conjunction with the cone bearing to identify the soil type. Generally, soft cohesive soils have low cone bearing pressures and high friction ratios. Cohesionless soils (sands) have high cone bearing pressures and low

friction ratios. The classification of soils is based on correlations developed by Robertson et al (1986). It is not always possible to clearly identify a soil type based on  $Q_c$  and  $R_f$  alone. Correlation with existing soils information and analysis of pore water pressure measurements should also be used in determining soil type.

CPT and sampling equipment are steam-cleaned or washed prior to work and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

After the CPT probes are removed, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

## **SOIL BORINGS**

### **Objectives**

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the ASTM D2488-06 Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (PG).

### **Soil Boring and Sampling**

Prior to drilling, the first 8 feet of the boring are cleared using an air or water knife and vacuum extraction or hand auger. This minimizes the potential for impacting utilities. Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

### **Sample Analysis**

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4° C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

### **Field Screening**

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

**Water Sampling**

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

**Grouting**

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

**Waste Handling and Disposal**

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

APPENDIX F

LANCASTER LABORATORY ANALYTICAL REPORT

## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ChevronTexaco  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

November 08, 2011

Project: 351644

Submittal Date: 10/28/2011  
Group Number: 1273678  
PO Number: 0015088789  
Release Number: KAMBIN  
State of Sample Origin: CAClient Sample DescriptionCPT-1-S-20-111026 NA Soil  
CPT-1-S-30-111026 NA SoilLancaster Labs (LLI) #6453283  
6453284

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC    Chevron  
COPY TO  
ELECTRONIC    CRA  
COPY TO

Attn: CRA EDD

Attn: Kiersten Hoey

Questions? Contact your Client Services Representative  
Natalie R Luciano at (717) 656-2300 Ext. 1881

Respectfully Submitted,



**Robin C. Runkle**  
**Senior Specialist**

**Sample Description:** CPT-1-S-20-111026 NA Soil  
 Facility# 351644 CRAW  
 66-96 MacArthur-Oakland T0600101493 CPT-1

LLI Sample # SW 6453283  
 LLI Group # 1273678  
 Account # 10880

**Project Name:** 351644

Collected: 10/26/2011 14:25 by AR

ChevronTexaco

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 10/28/2011 09:10

Reported: 11/08/2011 20:15

OC120

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			mg/kg	mg/kg	mg/kg	
10950	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.04
10950	Benzene	71-43-2	0.001	0.0005	0.005	1.04
10950	t-Butyl alcohol	75-65-0	N.D.	0.021	0.10	1.04
10950	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.005	1.04
10950	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.005	1.04
10950	Ethanol	64-17-5	N.D.	0.10	0.52	1.04
10950	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.04
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.04
10950	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.04
10950	Methyl Tertiary Butyl Ether	1634-04-4	0.016	0.0005	0.005	1.04
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.04
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.04
<b>GC Volatiles SW-846 8015B modified</b>			mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.18

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	VOCs 8260 BTEX + 8 Oxygenates	SW-846 8260B	1	B113051AA	11/01/2011 17:28	Chelsea B Eastep	1.04
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	201130126007	10/28/2011 16:13	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201130126007	10/28/2011 16:28	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201130126007	10/28/2011 16:28	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	11306A31A	11/02/2011 21:21	Laura M Krieger	25.18
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201130126007	10/28/2011 16:12	Christopher D Meeks	n.a.

\*=This limit was used in the evaluation of the final result



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** CPT-1-S-30-111026 NA Soil  
**Facility#** 351644 CRAW  
**66-96 MacArthur-Oakland T0600101493 CPT-1**

**LLI Sample #** SW 6453284  
**LLI Group #** 1273678  
**Account #** 10880

**Project Name:** 351644

Collected: 10/26/2011 15:22 by AR

ChevronTexaco

6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

Submitted: 10/28/2011 09:10

Reported: 11/08/2011 20:15

OC130

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>			mg/kg	mg/kg	mg/kg	
10950	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1
10950	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1
10950	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.005	1
10950	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.005	1
10950	Ethanol	64-17-5	N.D.	0.10	0.50	1
10950	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10950	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1
10950	Toluene	108-88-3	N.D.	0.001	0.005	1
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1
<b>GC Volatiles SW-846 8015B modified</b>			mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.9	0.9	23.3

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	VOCs 8260 BTEX + 8 Oxygenates	SW-846 8260B	1	B113051AA	11/01/2011 17:51	Chelsea B Eastep	1
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	201130126007	10/28/2011 16:17	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201130126007	10/28/2011 16:28	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201130126007	10/28/2011 16:28	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	11306A31A	11/02/2011 21:57	Laura M Krieger	23.3
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201130126007	10/28/2011 16:17	Christopher D Meeks	n.a.

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

 Client Name: ChevronTexaco  
 Reported: 11/08/11 at 08:15 PM

Group Number: 1273678

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: B113051AA	Sample number(s): 6453283-6453284								
t-Amyl methyl ether	N.D.	0.001	0.005	mg/kg	98		69-124		
Benzene	N.D.	0.0005	0.005	mg/kg	106		80-120		
t-Butyl alcohol	N.D.	0.020	0.10	mg/kg	94		71-122		
1,2-Dibromoethane	N.D.	0.001	0.005	mg/kg	109		80-120		
1,2-Dichloroethane	N.D.	0.001	0.005	mg/kg	106		71-129		
Ethanol	N.D.	0.10	0.50	mg/kg	103		47-157		
Ethyl t-butyl ether	N.D.	0.001	0.005	mg/kg	98		70-122		
Ethylbenzene	N.D.	0.001	0.005	mg/kg	106		80-120		
di-Isopropyl ether	N.D.	0.001	0.005	mg/kg	103		73-121		
Methyl Tertiary Butyl Ether	N.D.	0.0005	0.005	mg/kg	107		74-121		
Toluene	N.D.	0.001	0.005	mg/kg	108		80-120		
Xylene (Total)	N.D.	0.001	0.005	mg/kg	108		80-120		
Batch number: 11306A31A	Sample number(s): 6453283-6453284								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	98	97	67-119	1	30

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: B113051AA	Sample number(s): 6453283-6453284 UNSPK: P454427								
t-Amyl methyl ether	85	86	59-123	1	30				
Benzene	91	101	55-143	12	30				
t-Butyl alcohol	93	102	47-153	9	30				
1,2-Dibromoethane	82	93	54-129	13	30				
1,2-Dichloroethane	91	93	68-131	3	30				
Ethanol	120	118	33-192	1	30				
Ethyl t-butyl ether	90	93	58-124	4	30				
Ethylbenzene	66	91	44-141	32*	30				
di-Isopropyl ether	95	101	59-133	6	30				
Methyl Tertiary Butyl Ether	96	93	55-129	3	30				
Toluene	82	110	50-146	29	30				
Xylene (Total)	66	89	44-136	30	30				
Batch number: 11306A31A	Sample number(s): 6453283-6453284 UNSPK: P454608								
TPH-GRO N. CA soil C6-C12	2551	548 (2)	39-118	11	30				
	(2)								

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ChevronTexaco  
Reported: 11/08/11 at 08:15 PM

Group Number: 1273678

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs by 8260B - Solid

Batch number: B113051AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6453283	102	98	101	91
6453284	102	97	102	89
Blank	102	104	100	91
LCS	99	101	106	101
MS	101	101	108	100
MSD	99	94	118	87

Limits: 71-114      70-109      70-123      70-111

Analysis Name: TPH-GRO N. CA soil C6-C12

Batch number: 11306A31A

	Trifluorotoluene-F
6453283	99
6453284	100
Blank	114
LCS	114
LCSD	113
MS	165*
MSD	162*

Limits: 61-122

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

# Chevron California Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only  
 Acct. #: 10880 Sample #: 6453283-84 SCR#:

246057

102711-03 P.10F2

Facility #: 35-1644  
 Site Address: 66-96 MACARTHUR BLD, OAKLAND  
 Chevron PM: ROYA KAMBIN Lead Consultant: CRA  
 Consultant/Office: CRA EMERYVILLE  
 Consultant Prj. Mgr.: KIERSTEN HOEY  
 Consultant Phone #: 510 420 0700 Fax #: \_\_\_\_\_  
 Sampler: A RENSHAW  
 Service Order #: \_\_\_\_\_  Non SAR:

Analyses Requested									
Preservation Codes									
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BTEX + MTBE 8260 <input type="checkbox"/> 8021 <input type="checkbox"/> TPH 8015 MOD GRO <input type="checkbox"/> TPH 8015 MOD DRO <input type="checkbox"/> Silica Gel Cleanup 8260 full scan <input type="checkbox"/> Oxygenates <input checked="" type="checkbox"/> Lead 7420 <input type="checkbox"/> 7421 <input type="checkbox"/>									
HOLD									

Grp # 1273678

**Preservative Codes**  
 H = HCl      T = Thiosulfate  
 N = HNO<sub>3</sub>    B = NaOH  
 S = H<sub>2</sub>SO<sub>4</sub>   O = Other

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

**8021 MTBE Confirmation**  
 Confirm highest hit by 8260  
 Confirm all hits by 8260  
 Run \_\_\_ oxy's on highest hit  
 Run \_\_\_ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260	8021	TPH 8015 MOD GRO	TPH 8015 MOD DRO	Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420	7421	HOLD	
CPT-1	S		10	11/10/26	1343				1											X
CPT-1	S		15		1350				1											X
CPT-1	S		20		1425				1	X	X					X				X
CPT-1	S		25		1431				1											X
CPT-1	S		30		1522				1	X	X					X				X
CPT-1	S		35		1530				1											X
CPT-1	S		40		1618				1											X
CPT-1	S		45		1626				1											X

**Comments / Remarks**  
 email results to khoey@craworld.com  
 EBF to cmessinger@craworld.com + khoey@craworld.com

**Turnaround Time Requested (TAT) (please circle)**

STD. TAT: 24 hour, 72 hour, 48 hour, 4 day, 5 day

**Data Package Options (please circle if required)**

QC Summary: Type I - Full  
 Type VI (Raw Data):  Coelt Deliverable not needed  
 WIP (RWQCB)  
 Disk

Relinquished by:	Date: <u>27 OCT 11</u>	Time: <u>1530</u>	Received by: <u>Ch. Selger</u>	Date: <u>27 OCT 11</u>	Time: <u>1530</u>
Relinquished by: <u>Ch. Selger</u>	Date: <u>27 OCT 11</u>	Time: <u>1630</u>	Received by: <u>FEDEX</u>	Date:	Time:
Relinquished by: _____	Date:	Time:	Received by: _____	Date:	Time:
Relinquished by Commercial Carrier: UPS <u>FedEx</u> Other _____	Date:	Time:	Received by: <u>Brandt/Burly</u>	Date: <u>202811</u>	Time: <u>910</u>
Temperature Upon Receipt: <u>28-33 C°</u>	Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>ug</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>ml</b>	milliliter(s)	<b>l</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>ul</b>	microliter(s)
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>J</b>	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

## U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
<b>A</b> TIC is a possible aldol-condensation product	<b>B</b> Value is $<$ CRDL, but $\geq$ IDL
<b>B</b> Analyte was also detected in the blank	<b>E</b> Estimated due to interference
<b>C</b> Pesticide result confirmed by GC/MS	<b>M</b> Duplicate injection precision not met
<b>D</b> Compound quantitated on a diluted sample	<b>N</b> Spike sample not within control limits
<b>E</b> Concentration exceeds the calibration range of the instrument	<b>S</b> Method of standard additions (MSA) used for calculation
<b>N</b> Presumptive evidence of a compound (TICs only)	<b>U</b> Compound was not detected
<b>P</b> Concentration difference between primary and confirmation columns $>$ 25%	<b>W</b> Post digestion spike out of control limits
<b>U</b> Compound was not detected	<b>*</b> Duplicate analysis not within control limits
<b>X,Y,Z</b> Defined in case narrative	<b>+</b> Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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APPENDIX G  
HISTORICAL GROUNDWATER DATA

## TABLE KEY

### STANDARD ABBREVIATIONS

--	=	not analyzed, measured, or collected
LPH	=	liquid-phase hydrocarbons
µg/l	=	micrograms per liter (approx. equivalent to parts per billion, ppb)
mg/l	=	milligrams per liter (approx. equivalent to parts per million, ppm)
ND<	=	not detected at or above laboratory detection limit
TOC	=	top of casing (surveyed reference elevation)
D	=	duplicate
P	=	no-purge sample

### ANALYTES

DIPE	=	di-isopropyl ether
ETBE	=	ethyl tertiary butyl ether
MTBE	=	methyl tertiary butyl ether
PCB	=	polychlorinated biphenyls
PCE	=	tetrachloroethene
TBA	=	tertiary butyl alcohol
TCA	=	trichloroethane
TCE	=	trichloroethene
TPH-G	=	total petroleum hydrocarbons with gasoline distinction
TPH-G (GC/MS)	=	total petroleum hydrocarbons with gasoline distinction utilizing EPA Method 8260B
TPH-D	=	total petroleum hydrocarbons with diesel distinction
TRPH	=	total recoverable petroleum hydrocarbons
TAME	=	tertiary amyl methyl ether
1,2-DCA	=	1,2-dichloroethane (same as EDC, ethylene dichloride)

### NOTES

1. Elevations are in feet above mean sea level. Depths are in feet below surveyed top-of-casing.
2. Groundwater elevations for wells with LPH are calculated as: Surface Elevation – Measured Depth to Water + (Dp x LPH Thickness), where Dp is the density of the LPH, if known. A value of 0.75 is used for gasoline and when the density is not known. A value of 0.83 is used for diesel.
3. Wells with LPH are generally not sampled for laboratory analysis (see General Field Procedures).
4. Comments shown on tables are general. Additional explanations may be included in field notes and laboratory reports, both of which are included as part of this report.
5. A “J” flag indicates that a reported analytical result is an estimated concentration value between the method detection limit (MDL) and the practical quantification limit (PQL) specified by the laboratory.
6. Other laboratory flags (qualifiers) may have been reported. See the official laboratory report (attached) for a complete list of laboratory flags.
7. Concentration graphs based on tables (presented following Figures) show non-detect results prior to the Second Quarter 2000 plotted at fixed values for graphical display. Non-detect results reported since that time are plotted at reporting limits stated in the official laboratory report.
8. Prior to the 1st quarter 2010, the word “monitor” was used in table comments interchangeably with the word “gauge”. Starting in the 1<sup>st</sup> quarter 2010, the word “monitor” is used to include both “gauge” and “sample”.

### REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 1871 in October 2003. Historical data compiled prior to that time were provided by Gettler-Ryan Inc.



**Table 1**  
**CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**May 27, 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-1</b>				<b>(Screen Interval in feet: 9.5-24.5)</b>										
5/27/2011	90.21	13.75	0.00	76.46	1.08	--	1500	3.2	ND<2.5	86	14	--	10	
<b>MW-6</b>				<b>(Screen Interval in feet: 5.0-25.0)</b>										
5/27/2011	82.51	8.76	0.00	73.75	1.12	--	52	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.0	
<b>MW-7</b>				<b>(Screen Interval in feet: 5.0-25.0)</b>										
5/27/2011	83.80	8.73	0.00	75.07	4.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.2	
<b>MW-8</b>				<b>(Screen Interval in feet: 5.0-25.0)</b>										
5/27/2011	84.86	8.12	0.00	76.74	2.67	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.1	
<b>MW-9</b>				<b>(Screen Interval in feet:--)</b>										
5/27/2011	85.18	15.37	0.00	69.81	1.43	--	59	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	70	
<b>MW-10</b>				<b>(Screen Interval in feet:--)</b>										
5/27/2011	78.18	6.62	0.00	71.56	1.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-11</b>				<b>(Screen Interval in feet:--)</b>										
5/27/2011	80.44	15.60	0.00	64.84	-0.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

**Table 1 a**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	Post-purge Dissolved Oxygen (mg/l)	Post-purge ORP (mV)
<b>MW-1</b> 5/27/2011	ND<50	ND<1200	ND<2.5	ND<2.5	0.37	-19
<b>MW-6</b> 5/27/2011	ND<10	ND<250	ND<0.50	ND<0.50	0.61	199
<b>MW-7</b> 5/27/2011	ND<10	ND<250	ND<0.50	ND<0.50	0.48	145
<b>MW-8</b> 5/27/2011	ND<10	ND<250	ND<0.50	ND<0.50	0.48	209
<b>MW-9</b> 5/27/2011	ND<10	ND<250	ND<0.50	ND<0.50	1.51	95
<b>MW-10</b> 5/27/2011	ND<10	ND<250	ND<0.50	ND<0.50	1.52	192
<b>MW-11</b> 5/27/2011	ND<10	ND<250	ND<0.50	ND<0.50	3.11	205

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-1 (Screen Interval in feet: 9.5-24.5)</b>														
11/3/1992	--	--	--	--	--	260000	--	2300	4600	3700	17000	--	--	
1/25/1993	81.18	--	0.00	--	--	120000	--	2100	4600	4900	22000	--	--	
4/29/1993	81.18	13.71	0.00	67.47	--	100000	--	850	2000	4300	19000	--	--	
7/16/1993	81.18	14.51	0.00	66.67	-0.80	29000	--	590	560	980	4200	--	--	
10/19/1993	81.18	15.20	0.00	65.98	-0.69	67000	--	1400	2600	2900	5000	--	--	
1/20/1994	81.18	15.17	0.00	66.01	0.03	92000	--	1200	3000	3400	17000	--	--	
4/13/1994	81.18	14.44	0.00	66.74	0.73	51000	--	1000	2600	3200	15000	--	--	
7/13/1994	81.18	14.88	0.00	66.30	-0.44	35000	--	550	150	1400	5700	--	--	
10/10/1994	81.18	15.55	0.00	65.63	-0.67	52000	--	1000	810	3300	12000	--	--	
1/10/1995	81.18	12.44	0.00	68.74	3.11	810	--	16	18	59	250	--	--	
4/17/1995	81.18	12.68	0.00	68.50	-0.24	48000	--	880	530	2500	11000	--	--	
7/24/1995	81.18	13.97	0.00	67.21	-1.29	48000	--	1500	420	2700	9700	--	--	
10/23/1995	81.18	14.85	0.00	66.33	-0.88	47000	--	780	210	2100	11000	270	--	
1/18/1996	81.18	14.21	0.00	66.97	0.64	30000	--	1500	500	3500	13000	2400	--	
4/18/1996	86.24	13.40	0.00	72.84	5.87	66000	--	2700	2200	3100	13000	57000	--	
7/24/1996	86.24	14.15	0.00	72.09	-0.75	5600	--	2100	ND	160	160	24000	--	
10/24/1996	86.24	14.85	0.00	71.39	-0.70	110000	--	7500	8000	3300	14000	58000	--	
1/28/1997	86.24	11.25	0.00	74.99	3.60	94000	--	7700	19000	3100	15000	120000	--	
7/29/1997	86.24	14.67	0.00	71.57	-3.42	ND	--	ND	ND	ND	ND	70000	--	
1/14/1998	86.24	12.27	0.00	73.97	2.40	85000	--	6100	10000	3000	17000	110000	--	
7/1/1998	86.24	14.32	0.00	71.92	-2.05	110000	--	8700	12000	2700	15000	110000	--	
6/18/1999	86.24	13.93	0.00	72.31	0.39	49000	--	6900	6500	380	12000	72000	47000	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-1 continued</b>														
1/21/2000	86.24	15.05	0.00	71.19	-1.12	63700	--	5520	2000	2640	13100	57100	--	
7/10/2000	86.24	13.97	0.00	72.27	1.08	67800	--	9910	4120	3330	16100	67400	54000	
1/4/2001	86.24	14.92	0.00	71.32	-0.95	63900	--	6270	784	2670	12900	--	38100	
7/16/2001	86.24	14.32	0.00	71.92	0.60	66000	--	7100	330	2300	9800	36000	41000	
1/31/2002	86.99	13.54	0.00	73.45	1.53	42000	--	5800	1800	2000	8200	26000	26000	
4/11/2002	86.99	13.64	0.00	73.35	-0.10	58000	--	2900	1200	1800	10000	19000	--	
7/11/2002	86.99	13.96	0.00	73.03	-0.32	--	5900	330	ND<10	230	600	--	3400	
10/15/2002	86.99	14.71	0.00	72.28	-0.75	--	470	16	ND<2.5	14	16	--	390	
1/14/2003	86.99	12.77	0.00	74.22	1.94	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	49	
4/16/2003	86.99	13.18	0.00	73.81	-0.41	--	510	57	0.62	29	61	--	160	
7/16/2003	86.99	14.26	0.00	72.73	-1.08	--	27000	260	23	730	3200	--	1200	
10/2/2003	86.99	14.95	0.00	72.04	-0.69	--	45000	1400	32	2900	7600	--	3200	
1/7/2004	86.99	12.30	0.00	74.69	2.65	--	34000	690	41	1600	5200	--	2600	
4/2/2004	86.99	13.18	0.00	73.81	-0.88	--	350	1.8	ND<0.50	6.2	30	--	19	
7/29/2004	86.99	14.61	0.00	72.38	-1.43	--	41000	550	ND<20	2000	6100	--	1200	
11/24/2004	86.99	14.98	0.00	72.01	-0.37	--	55000	910	28	3100	11000	--	1600	
1/24/2005	86.99	12.98	0.00	74.01	2.00	--	24000	240	ND<20	1100	3600	--	1800	
6/23/2005	86.99	13.39	0.00	73.60	-0.41	--	24000	140	ND<25	1100	2900	--	600	
9/28/2005	86.99	14.63	0.00	72.36	-1.24	--	8200	22	0.97	290	660	--	320	
12/20/2005	86.99	11.42	0.00	75.57	3.21	--	10000	17	29	180	840	--	2400	
3/10/2006	86.99	10.98	0.00	76.01	0.44	--	10000	35	ND<5.0	470	1300	--	960	
6/23/2006	86.99	11.85	0.00	75.14	-0.87	--	11000	110	ND<5.0	610	1600	--	780	
9/27/2006	86.99	14.11	0.00	72.88	-2.26	--	8500	22	ND<10	270	740	--	460	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-1 continued</b>														
12/22/2006	86.99	13.66	0.00	73.33	0.45	--	7300	35	ND<5.0	370	850	--	210	
3/23/2007	86.99	13.25	0.00	73.74	0.41	--	8800	28	ND<2.5	440	910	--	170	
6/29/2007	86.99	13.47	0.00	73.52	-0.22	--	6300	16	ND<2.5	300	650	--	50	
9/28/2007	86.99	13.92	0.00	73.07	-0.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	1.2	
12/17/2007	86.99	14.57	0.00	72.42	-0.65	--	4700	ND<5.0	ND<5.0	71	160	--	18	
3/25/2008	86.99	13.56	0.00	73.43	1.01	--	7400	28	ND<2.5	430	540	--	170	
6/12/2008	86.99	14.07	0.00	72.92	-0.51	--	4900	6.4	ND<2.5	170	280	--	16	
9/25/2008	86.99	14.55	0.00	72.44	-0.48	--	2200	2.1	ND<0.50	72	110	--	11	
12/30/2008	86.99	14.16	0.00	72.83	0.39	--	3200	2.5	ND<0.50	100	150	--	8.3	
3/24/2009	86.99	12.76	0.00	74.23	1.40	--	3500	6.8	ND<0.50	140	140	--	28	
6/23/2009	86.99	13.88	0.00	73.11	-1.12	--	740	ND<2.5	ND<2.5	17	12	--	7.5	
12/16/2009	86.99	14.32	0.00	72.67	-0.44	--	4600	10	ND<1.0	270	140	--	52	
4/14/2010	86.99	12.12	0.00	74.87	2.20	--	1500	4.8	ND<1.0	100	36	--	20	
10/13/2010	90.21	14.83	0.00	75.38	0.51	--	4600	3.0	ND<0.50	180	73	--	5.6	
5/27/2011	90.21	13.75	0.00	76.46	1.08	--	1500	3.2	ND<2.5	86	14	--	10	
<b>MW-2 (Screen Interval in feet: --)</b>														
11/3/1992	76.61	--	--	--	--	140	--	2.2	ND	ND	2.0	--	--	
1/25/1993	76.61	--	--	--	--	2100	--	56	1.1	90	140	--	--	
4/29/1993	76.61	9.73	0.00	66.88	--	1500	--	290	ND	33	11	--	--	
7/16/1993	76.61	10.17	0.00	66.44	-0.44	510	--	17	0.60	3.2	2.5	--	--	
10/19/1993	76.61	11.18	0.00	65.43	-1.01	670	--	24	1.1	7.7	23	--	--	
1/20/1994	76.61	11.12	0.00	65.49	0.06	820	--	97	ND	12	ND	--	--	
4/13/1994	76.61	10.12	0.00	66.49	1.00	550	--	71	ND	5.1	1.3	--	--	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-2 continued</b>														
7/13/1994	76.61	10.86	0.00	65.75	-0.74	2000	--	490	ND	17	13	--	--	
10/10/1994	76.61	11.48	0.00	65.13	-0.62	2300	--	340	ND	25	ND	--	--	
1/10/1995	76.61	8.71	0.00	67.90	2.77	850	--	3.8	ND	8.5	1.3	--	--	
4/17/1995	76.61	8.90	0.00	67.71	-0.19	1300	--	4.7	ND	8.3	1.2	--	--	
7/24/1995	76.61	9.94	0.00	66.67	-1.04	960	--	20	ND	4.2	6.2	--	--	
10/23/1995	76.61	10.70	0.00	65.91	-0.76	ND	--	ND	ND	ND	ND	19	--	
1/18/1996	76.61	10.11	0.00	66.50	0.59	900	--	300	86	7.6	18	4300	--	
4/18/1996	81.66	9.27	0.00	72.39	5.89	18000	--	3600	680	890	4100	19000	--	
7/24/1996	81.66	10.02	0.00	71.64	-0.75	100000	--	13000	21000	2700	16000	120000	--	
10/24/1996	81.66	10.78	0.00	70.88	-0.76	800	--	110	17	11	20	20000	--	
1/28/1997	81.66	7.70	0.00	73.96	3.08	45000	--	2400	2900	2000	7600	29000	--	
7/29/1997	81.66	10.28	0.00	71.38	-2.58	ND	--	1.2	0.72	0.63	0.62	17000	--	
1/14/1998	81.66	8.63	0.00	73.03	1.65	14000	--	1000	150	790	3300	23000	--	
7/1/1998	81.66	9.53	0.00	72.13	-0.90	2700	--	100	ND	180	78	7100	--	
6/18/1999	--	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
<b>MW-3</b>														
(Screen Interval in feet: --)														
11/3/1992	77.48	--	--	--	--	2100	--	120	15	38	200	--	--	
1/25/1993	77.48	--	--	--	--	2300	--	80	1	55	52	--	--	
4/29/1993	77.48	11.37	0.00	66.11	--	4500	--	1700	ND	200	140	--	--	
7/16/1993	77.48	12.09	0.00	65.39	-0.72	4000	--	1100	28	52	70	--	--	
10/19/1993	77.48	12.69	0.00	64.79	-0.60	3800	--	42	ND	50	56	--	--	
1/20/1994	77.48	12.65	0.00	64.83	0.04	4200	--	11	ND	21	15	--	--	
4/13/1994	77.48	12.02	0.00	65.46	0.63	4200	--	210	ND	36	53	--	--	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-3 continued</b>														
7/13/1994	77.48	12.46	0.00	65.02	-0.44	1800	--	16	16	ND	21	--	--	
10/10/1994	77.48	12.98	0.00	64.50	-0.52	4300	--	11	ND	12	ND	--	--	
1/10/1995	77.48	10.42	0.00	67.06	2.56	310	--	4.6	ND	3.5	2.1	--	--	
4/17/1995	77.48	10.42	0.00	67.06	0.00	7800	--	ND	4.6	300	450	--	--	
7/24/1995	77.48	11.76	0.00	65.72	-1.34	3200	--	170	ND	22	16	--	--	
10/23/1995	77.48	12.50	0.00	64.98	-0.74	3900	--	55	ND	19	11	4500	--	
1/18/1996	77.48	11.79	0.00	65.69	0.71	2200	--	270	33	26	18	5500	--	
4/18/1996	82.55	11.30	0.00	71.25	5.56	6000	--	1800	ND	100	230	48000	--	
7/24/1996	82.55	12.17	0.00	70.38	-0.87	ND	--	2500	ND	ND	ND	71000	--	
10/24/1996	82.55	12.65	0.00	69.90	-0.48	3800	--	660	ND	15	ND	65000	--	
1/28/1997	82.55	9.50	0.00	73.05	3.15	4400	--	250	13	87	47	54000	--	
7/29/1997	82.55	11.99	0.00	70.56	-2.49	ND	--	3500	ND	220	ND	75000	--	
1/14/1998	82.55	10.30	0.00	72.25	1.69	ND	--	430	ND	100	380	37000	--	
7/1/1998	82.55	11.70	0.00	70.85	-1.40	ND	--	430	ND	ND	ND	45000	--	
6/18/1999	--	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
<b>MW-4</b>														
(Screen Interval in feet: --)														
4/18/1996	82.04	9.83	0.00	72.21	--	ND	--	630	ND	ND	ND	18000	--	
7/24/1996	82.04	10.47	0.00	71.57	-0.64	ND	--	ND	ND	ND	5.2	3900	--	
10/24/1996	82.04	11.14	0.00	70.90	-0.67	ND	--	ND	ND	ND	ND	6300	--	
1/28/1997	82.04	7.94	0.00	74.10	3.20	1200	--	490	ND	17	6.8	16000	--	
7/29/1997	82.04	10.86	0.00	71.18	-2.92	50	--	1.5	0.61	0.73	0.78	15000	--	
1/14/1998	82.04	8.73	0.00	73.31	2.13	ND	--	ND	ND	ND	ND	5200	--	
7/1/1998	82.04	10.51	0.00	71.53	-1.78	ND	--	ND	ND	ND	ND	640	--	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-4 continued</b>														
6/18/1999	82.04	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
<b>MW-5</b>														
(Screen Interval in feet: --)														
4/18/1996	81.80	9.65	0.00	72.15	--	31000	--	5500	1400	1700	8100	66000	--	
7/24/1996	81.80	10.80	0.00	71.00	-1.15	32000	--	6400	ND	1600	6100	120000	--	
10/24/1996	81.80	11.40	0.00	70.40	-0.60	17000	--	6900	ND	970	130	84000	--	
1/28/1997	81.80	7.76	0.00	74.04	3.64	19000	--	6100	62	82	310	160000	--	
7/29/1997	81.80	11.58	0.00	70.22	-3.82	ND	--	ND	ND	ND	ND	71000	--	
1/14/1998	81.80	9.08	0.00	72.72	2.50	ND	--	3600	ND	ND	ND	80000	--	
7/1/1998	81.80	11.25	0.00	70.55	-2.17	6400	--	2100	21	120	330	61000	--	
6/18/1999	81.80	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
<b>MW-6</b>														
(Screen Interval in feet: 5.0-25.0)														
6/18/1999	78.91	9.30	0.00	69.61	--	2100	--	21	29	ND	47	97000	71000	
1/21/2000	78.91	9.37	0.00	69.54	-0.07	1880	--	143	31.2	106	196	41200	48800	
7/10/2000	78.91	8.94	0.00	69.97	0.43	5710	--	869	209	301	1430	22200	19500	
1/4/2001	78.91	9.21	0.00	69.70	-0.27	ND	--	ND	ND	ND	ND	--	9510	
7/16/2001	78.91	9.42	0.00	69.49	-0.21	4800	--	200	21	150	440	29000	34000	
1/31/2002	78.91	8.50	0.00	70.41	0.92	12000	--	250	92	500	1500	26000	31000	
4/11/2002	79.67	9.08	0.00	70.59	0.18	3600	--	42	32	39	280	120000	--	
7/11/2002	79.67	9.70	0.00	69.97	-0.62	--	12000	ND<100	ND<100	ND<100	ND<200	--	15000	
10/15/2002	79.67	9.96	0.00	69.71	-0.26	--	1300	ND<10	ND<10	ND<10	ND<20	--	3200	
1/14/2003	79.67	8.31	0.00	71.36	1.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	120	
4/16/2003	79.67	8.21	0.00	71.46	0.10	--	270	ND<0.50	ND<0.50	ND<0.50	1.3	--	15	
7/16/2003	79.67	9.43	0.00	70.24	-1.22	--	290	39	0.60	ND<0.50	15	--	150	

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**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-6 continued</b>														
10/2/2003	79.67	9.92	0.00	69.75	-0.49	--	200	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	220	
1/7/2004	79.67	8.08	0.00	71.59	1.84	--	140	2.4	ND<1.0	8.6	13	--	86	
4/2/2004	79.67	8.63	0.00	71.04	-0.55	--	3200	ND<20	ND<20	ND<20	ND<40	--	5900	
7/29/2004	79.67	9.75	0.00	69.92	-1.12	--	170	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	160	
11/24/2004	79.67	9.59	0.00	70.08	0.16	--	80	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	45	
1/24/2005	79.67	8.33	0.00	71.34	1.26	--	100	1.1	ND<0.50	0.60	1.1	--	40	
6/23/2005	79.67	8.33	0.00	71.34	0.00	--	230	0.52	ND<0.50	3.6	9.6	--	200	
9/28/2005	79.67	9.56	0.00	70.11	-1.23	--	500	ND<0.50	ND<0.50	ND<0.50	1.2	--	980	
12/20/2005	79.67	7.82	0.00	71.85	1.74	--	640	0.79	ND<0.50	0.68	2.3	--	2400	
3/10/2006	79.67	6.83	0.00	72.84	0.99	--	970	1.2	ND<0.50	1.3	5.0	--	3600	
6/23/2006	79.67	8.13	0.00	71.54	-1.30	--	1700	ND<12	ND<12	ND<12	ND<25	--	1100	
9/27/2006	79.67	9.44	0.00	70.23	-1.31	--	ND<1200	ND<12	ND<12	ND<12	ND<12	--	620	
12/22/2006	79.67	8.60	0.00	71.07	0.84	--	9100	ND<10	ND<10	ND<10	ND<10	--	600	
3/23/2007	79.67	8.39	0.00	71.28	0.21	--	330	ND<0.50	ND<0.50	0.82	ND<0.50	--	680	
6/29/2007	79.67	9.02	0.00	70.65	-0.63	--	180	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	290	
9/28/2007	79.67	9.65	0.00	70.02	-0.63	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/17/2007	79.67	9.62	0.00	70.05	0.03	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	21	
3/25/2008	79.67	8.63	0.00	71.04	0.99	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	12	
6/12/2008	79.67	9.47	0.00	70.20	-0.84	--	84	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	17	
9/25/2008	79.67	9.95	0.00	69.72	-0.48	--	66	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	15	
12/30/2008	79.67	8.96	0.00	70.71	0.99	--	55	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	12	
3/24/2009	79.67	8.02	0.00	71.65	0.94	--	73	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	10	
6/23/2009	79.67	9.33	0.00	70.34	-1.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	9.0	

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**November 1992 Through May 2011**  
**76 Station 1871**

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<b>MW-6 continued</b>														
12/16/2009	79.67	9.39	0.00	70.28	-0.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.7	
4/14/2010	79.67	8.13	0.00	71.54	1.26	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.1	
10/13/2010	82.51	9.88	0.00	72.63	1.09	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.0	
5/27/2011	82.51	8.76	0.00	73.75	1.12	--	52	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.0	
<b>MW-7 (Screen Interval in feet: 5.0-25.0)</b>														
6/18/1999	79.92	8.70	0.00	71.22	--	ND	--	ND	ND	ND	ND	16000	13000	
1/21/2000	79.92	9.30	0.00	70.62	-0.60	ND	--	ND	ND	ND	ND	12300	18200	
7/10/2000	79.92	8.72	0.00	71.20	0.58	ND	--	ND	ND	ND	ND	16900	13800	
1/4/2001	79.92	9.17	0.00	70.75	-0.45	ND	--	ND	ND	ND	0.719	--	37.3	
7/16/2001	79.92	9.02	0.00	70.90	0.15	ND	--	ND	ND	ND	ND	7200	4700	
1/31/2002	79.92	7.91	0.00	72.01	1.11	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	8900	9900	
4/11/2002	80.67	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
7/11/2002	80.67	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
10/15/2002	80.67	9.81	0.00	70.86	--	--	ND<5000	ND<50	ND<50	ND<50	ND<100	--	12000	
1/14/2003	80.67	7.89	0.00	72.78	1.92	--	ND<25000	ND<250	ND<250	ND<250	ND<500	--	33000	
4/16/2003	80.67	8.04	0.00	72.63	-0.15	--	ND<25000	ND<250	ND<250	ND<250	ND<500	--	37000	
7/16/2003	80.67	9.19	0.00	71.48	-1.15	--	25000	ND<250	ND<250	ND<250	ND<500	--	38000	
10/2/2003	80.67	9.89	0.00	70.78	-0.70	--	17000	ND<100	ND<100	ND<100	ND<200	--	22000	
1/7/2004	80.67	7.27	0.00	73.40	2.62	--	ND<20000	ND<200	460	ND<200	540	--	19000	
4/2/2004	80.67	8.09	0.00	72.58	-0.82	--	3400	ND<20	ND<20	ND<20	ND<40	--	5100	
7/29/2004	80.67	9.40	0.00	71.27	-1.31	--	7400	ND<50	ND<50	ND<50	ND<100	--	11000	
11/24/2004	80.67	9.65	0.00	71.02	-0.25	--	6200	ND<50	ND<50	ND<50	ND<100	--	6800	
1/24/2005	80.67	7.92	0.00	72.75	1.73	--	ND<5000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	13000	

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<b>MW-7 continued</b>														
6/23/2005	80.67	8.56	0.00	72.11	-0.64	--	8700	ND<25	ND<25	ND<25	ND<50	--	12000	
9/28/2005	80.67	9.37	0.00	71.30	-0.81	--	1200	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5700	
12/20/2005	80.67	6.31	0.00	74.36	3.06	--	1100	0.90	ND<0.50	24	37	--	8200	
3/10/2006	80.67	5.84	0.00	74.83	0.47	--	1200	24	ND<0.50	3.6	ND<1.0	--	4700	
6/23/2006	80.67	6.83	0.00	73.84	-0.99	--	1800	21	ND<12	ND<12	ND<25	--	1500	
9/27/2006	80.67	8.95	0.00	71.72	-2.12	--	ND<1200	ND<12	ND<12	ND<12	ND<12	--	350	
12/22/2006	80.67	8.35	0.00	72.32	0.60	--	24000	ND<50	ND<50	ND<50	ND<50	--	190	
3/23/2007	80.67	8.01	0.00	72.66	0.34	--	85	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	92	
6/29/2007	80.67	--	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
9/28/2007	80.67	9.05	0.00	71.62	--	--	50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	37	
12/19/2007	80.67	9.23	0.00	71.44	-0.18	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.2	
3/25/2008	80.67	8.45	0.00	72.22	0.78	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	7.3	
6/12/2008	80.67	8.92	0.00	71.75	-0.47	--	52	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	9.4	
9/25/2008	80.67	9.55	0.00	71.12	-0.63	--	65	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	
12/30/2008	80.67	8.99	0.00	71.68	0.56	--	130	ND<0.50	ND<0.50	ND<0.50	1.1	--	5.7	
3/24/2009	80.67	7.73	0.00	72.94	1.26	--	98	0.50	ND<0.50	ND<0.50	ND<1.0	--	9.2	
6/23/2009	80.67	9.05	0.00	71.62	-1.32	--	290	1.2	ND<0.50	ND<0.50	ND<1.0	--	6.7	
12/16/2009	80.67	9.42	0.00	71.25	-0.37	--	150	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.7	
4/14/2010	80.67	7.87	0.00	72.80	1.55	--	60	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.7	
10/13/2010	80.67	10.13	0.00	70.54	-2.26	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.6	
5/27/2011	83.80	8.73	0.00	75.07	4.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.2	
<b>MW-8 (Screen Interval in feet: 5.0-25.0)</b>														
6/18/1999	80.96	9.10	0.00	71.86	--	ND	--	ND	ND	ND	ND	290	160	

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<b>MW-8 continued</b>														
1/21/2000	80.96	10.00	0.00	70.96	-0.90	ND	--	ND	ND	ND	1.09	224	221	
7/10/2000	80.96	7.94	0.00	73.02	2.06	ND	--	ND	ND	ND	ND	234	223	
1/4/2001	80.96	9.76	0.00	71.20	-1.82	3790	--	141	8.92	128	375	--	34200	
7/16/2001	80.96	9.15	0.00	71.81	0.61	ND	--	ND	ND	ND	ND	66	70	
1/31/2002	80.96	7.99	0.00	72.97	1.16	5900	--	86	ND<10	630	390	670	700	
4/11/2002	81.71	9.00	0.00	72.71	-0.26	250	--	2.0	ND<0.50	38	2.2	410	--	
7/11/2002	81.71	9.60	0.00	72.11	-0.60	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	120	
10/15/2002	81.71	10.60	0.00	71.11	-1.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	21	
1/14/2003	81.71	8.63	0.00	73.08	1.97	--	ND<250	2.6	ND<2.5	18	ND<5.0	--	430	
4/16/2003	81.71	8.98	0.00	72.73	-0.35	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	18	
7/16/2003	81.71	9.63	0.00	72.08	-0.65	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	140	
10/2/2003	81.71	10.41	0.00	71.30	-0.78	--	75	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	78	
1/7/2004	81.71	8.21	0.00	73.50	2.20	--	ND<5000	ND<50	ND<50	ND<50	340	--	3700	
4/2/2004	81.71	8.51	0.00	73.20	-0.30	--	3000	ND<20	ND<20	ND<20	ND<40	--	5200	
7/29/2004	81.71	9.78	0.00	71.93	-1.27	--	3200	ND<25	ND<25	ND<25	ND<50	--	5500	
11/24/2004	81.71	10.19	0.00	71.52	-0.41	--	2100	ND<10	ND<10	ND<10	ND<20	--	2400	
1/24/2005	81.71	8.49	0.00	73.22	1.70	--	ND<2500	4.0	0.52	ND<0.50	29	--	1800	
6/23/2005	81.71	8.34	0.00	73.37	0.15	--	490	ND<0.50	ND<0.50	1.5	ND<1.0	--	980	
9/28/2005	81.71	9.61	0.00	72.10	-1.27	--	270	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	520	
12/20/2005	81.71	7.35	0.00	74.36	2.26	--	2700	ND<0.50	ND<0.50	78	82	--	86	
3/10/2006	81.71	6.63	0.00	75.08	0.72	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	51	
6/23/2006	81.71	6.56	0.00	75.15	0.07	--	3600	ND<0.50	ND<0.50	100	57	--	ND<0.50	
9/27/2006	81.71	9.64	0.00	72.07	-3.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	18	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-8 continued</b>														
12/22/2006	81.71	9.42	0.00	72.29	0.22	--	ND<50	ND<0.50	ND<0.50	ND<0.50	0.50	--	16	
3/23/2007	81.71	8.68	0.00	73.03	-0.74	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	12	
6/29/2007	81.71	9.10	0.00	72.61	-0.42	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	17	
9/28/2007	81.71	9.89	0.00	71.82	-0.79	--	99	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	21	
12/17/2007	81.71	9.81	0.00	71.90	0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	16	
3/25/2008	81.71	8.40	0.00	73.31	1.41	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	14	
6/12/2008	81.71	9.53	0.00	72.18	-1.13	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	14	
9/25/2008	81.71	10.24	0.00	71.47	-0.71	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	
12/30/2008	81.71	9.72	0.00	71.99	0.52	--	50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.7	
3/24/2009	81.71	8.43	0.00	73.28	1.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.4	
6/23/2009	81.71	9.63	0.00	72.08	-1.20	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.7	
12/16/2009	81.71	10.08	0.00	71.63	-0.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	
4/14/2010	81.71	8.28	0.00	73.43	1.80	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	
10/13/2010	84.86	10.79	0.00	74.07	0.64	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.0	
5/27/2011	84.86	8.12	0.00	76.74	2.67	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.1	
<b>MW-9 (Screen Interval in feet: --)</b>														
1/31/2002	82.07	14.72	0.00	67.35	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	680	910	
4/11/2002	82.07	14.85	0.00	67.22	-0.13	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	620	--	
7/11/2002	82.07	15.39	0.00	66.68	-0.54	--	580	ND<5.0	ND<5.0	ND<5.0	ND<10	--	580	
10/15/2002	82.07	16.16	0.00	65.91	-0.77	--	570	ND<5.0	ND<5.0	ND<5.0	ND<10	--	1400	
1/14/2003	82.07	14.75	0.00	67.32	1.41	--	ND<200	ND<2.0	ND<2.0	ND<2.0	ND<4.0	--	220	
4/16/2003	82.07	14.51	0.00	67.56	0.24	--	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<10	--	860	
7/16/2003	82.07	15.54	0.00	66.53	-1.03	--	ND<2500	ND<25	ND<25	ND<25	ND<50	--	1300	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-9 continued</b>														
10/2/2003	82.07	16.28	0.00	65.79	-0.74	--	820	ND<5.0	ND<5.0	ND<5.0	ND<10	--	990	
1/7/2004	82.07	14.65	0.00	67.42	1.63	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	1200	
4/2/2004	82.07	15.08	0.00	66.99	-0.43	--	510	ND<5.0	ND<5.0	ND<5.0	ND<10	--	850	
7/29/2004	82.07	15.81	0.00	66.26	-0.73	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	1300	
11/24/2004	82.07	16.25	0.00	65.82	-0.44	--	1100	ND<5.0	ND<5.0	ND<5.0	ND<10	--	1300	
1/24/2005	82.07	14.96	0.00	67.11	1.29	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2300	
6/23/2005	82.07	14.40	0.00	67.67	0.56	--	1500	ND<5.0	ND<5.0	ND<5.0	ND<10	--	2000	
9/28/2005	82.07	15.67	0.00	66.40	-1.27	--	ND<2500	ND<25	ND<25	ND<25	ND<50	--	2400	
12/20/2005	82.07	14.61	0.00	67.46	1.06	--	560	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2800	
3/10/2006	82.07	13.39	0.00	68.68	1.22	--	1100	ND<5.0	ND<5.0	ND<5.0	ND<10	--	2100	
6/23/2006	82.07	13.68	0.00	68.39	-0.29	--	1700	ND<12	ND<12	ND<12	ND<25	--	1700	
9/27/2006	82.07	14.83	0.00	67.24	-1.15	--	ND<1200	ND<12	ND<12	ND<12	ND<12	--	1400	
12/22/2006	82.07	14.75	0.00	67.32	0.08	--	680	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	1100	
3/23/2007	82.07	14.52	0.00	67.55	0.23	--	240	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	660	
6/29/2007	82.07	14.89	0.00	67.18	-0.37	--	210	ND<0.50	ND<0.50	ND<0.50	0.52	--	410	
9/28/2007	82.07	15.48	0.00	66.59	-0.59	--	390	ND<2.5	ND<2.5	ND<2.5	ND<2.5	--	430	
12/17/2007	82.07	15.72	0.00	66.35	-0.24	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	480	
3/25/2008	82.07	14.91	0.00	67.16	0.81	--	250	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	340	
6/12/2008	82.07	15.70	0.00	66.37	-0.79	--	180	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	270	
9/25/2008	82.07	16.48	0.00	65.59	-0.78	--	170	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	320	
12/30/2008	82.07	16.16	0.00	65.91	0.32	--	160	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	230	
3/24/2009	82.07	15.23	0.00	66.84	0.93	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	180	
6/23/2009	82.07	15.95	0.00	66.12	-0.72	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	190	

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**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-9 continued</b>														
12/16/2009	82.07	16.47	0.00	65.60	-0.52	--	86	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	130	
4/14/2010	82.07	14.68	0.00	67.39	1.79	--	100	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	160	
10/13/2010	85.18	16.80	0.00	68.38	0.99	--	63	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	160	
5/27/2011	85.18	15.37	0.00	69.81	1.43	--	59	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	70	
<b>MW-10 (Screen Interval in feet: -)</b>														
1/31/2002	74.98	8.02	0.00	66.96	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	1.2	
4/11/2002	74.98	7.60	0.00	67.38	0.42	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
7/11/2002	74.98	8.91	0.00	66.07	-1.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.1	
10/15/2002	74.98	11.49	0.00	63.49	-2.58	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/14/2003	74.98	8.47	0.00	66.51	3.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/16/2003	74.98	7.92	0.00	67.06	0.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
7/16/2003	74.98	7.03	0.00	67.95	0.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/2/2003	74.98	7.63	0.00	67.35	-0.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/7/2004	74.98	6.22	0.00	68.76	1.41	--	54	ND<0.50	ND<0.50	1.3	4.5	--	ND<2.0	
4/2/2004	74.98	7.49	0.00	67.49	-1.27	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.0	
7/29/2004	74.98	7.41	0.00	67.57	0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/24/2004	74.98	7.55	0.00	67.43	-0.14	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.5	
1/24/2005	74.98	6.40	0.00	68.58	1.15	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.71	
6/23/2005	74.98	6.46	0.00	68.52	-0.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/28/2005	74.98	7.52	0.00	67.46	-1.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/20/2005	74.98	6.04	0.00	68.94	1.48	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.57	
3/10/2006	74.98	5.86	0.00	69.12	0.18	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/23/2006	74.98	6.42	0.00	68.56	-0.56	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.50	

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<b>MW-10 continued</b>														
9/27/2006	74.98	6.92	0.00	68.06	-0.50	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	48	
12/22/2006	74.98	5.90	0.00	69.08	1.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	8.5	
3/23/2007	74.98	6.48	0.00	68.50	-0.58	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	0.54	
6/29/2007	74.98	6.78	0.00	68.20	-0.30	--	ND<50	ND<0.50	ND<0.50	0.76	1.6	--	5.6	
9/28/2007	74.98	7.24	0.00	67.74	-0.46	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	15	
12/17/2007	74.98	6.92	0.00	68.06	0.32	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	
3/25/2008	74.98	6.74	0.00	68.24	0.18	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.3	
6/12/2008	74.98	7.11	0.00	67.87	-0.37	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.6	
9/25/2008	74.98	7.70	0.00	67.28	-0.59	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.8	
12/30/2008	74.98	6.73	0.00	68.25	0.97	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.80	
3/24/2009	74.98	6.41	0.00	68.57	0.32	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/23/2009	74.98	7.07	0.00	67.91	-0.66	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.60	
12/16/2009	74.98	6.59	0.00	68.39	0.48	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
4/14/2010	74.98	6.16	0.00	68.82	0.43	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/13/2010	78.18	7.64	0.00	70.54	1.72	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.58	
5/27/2011	78.18	6.62	0.00	71.56	1.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-11 (Screen Interval in feet: --)</b>														
1/31/2002	77.31	11.71	0.00	65.60	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<1.0	
4/11/2002	77.31	11.95	0.00	65.36	-0.24	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
7/11/2002	77.31	12.79	0.00	64.52	-0.84	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/15/2002	77.31	13.67	0.00	63.64	-0.88	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/14/2003	77.31	13.31	0.00	64.00	0.36	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/16/2003	77.31	14.08	0.00	63.23	-0.77	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	

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<b>MW-11 continued</b>														
7/16/2003	77.31	12.98	0.00	64.33	1.10	--	65	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/2/2003	77.31	12.96	0.00	64.35	0.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/7/2004	77.31	16.20	0.00	61.11	-3.24	--	63	ND<0.50	ND<0.50	0.68	2.2	--	ND<2.0	
4/2/2004	77.31	18.01	0.00	59.30	-1.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
7/29/2004	77.31	14.39	0.00	62.92	3.62	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/24/2004	77.31	16.72	0.00	60.59	-2.33	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
1/24/2005	77.31	17.44	0.00	59.87	-0.72	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/23/2005	77.31	12.37	0.00	64.94	5.07	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/28/2005	77.31	16.78	0.00	60.53	-4.41	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/20/2005	77.31	17.06	0.00	60.25	-0.28	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/10/2006	77.31	16.20	0.00	61.11	0.86	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/23/2006	77.31	12.65	0.00	64.66	3.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/27/2006	77.31	14.78	0.00	62.53	-2.13	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/22/2006	77.31	13.48	0.00	63.83	1.30	--	55	ND<0.50	ND<0.50	2.1	5.4	--	ND<0.50	
3/23/2007	77.31	13.78	0.00	63.53	-0.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
6/29/2007	77.31	15.58	0.00	61.73	-1.80	--	ND<50	ND<0.50	ND<0.50	ND<0.50	0.62	--	ND<0.50	
9/28/2007	77.31	16.02	0.00	61.29	-0.44	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/17/2007	77.31	15.75	0.00	61.56	0.27	--	ND<50	ND<0.50	ND<0.50	ND<0.50	1.0	--	ND<0.50	
3/25/2008	77.31	15.74	0.00	61.57	0.01	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/12/2008	77.31	13.87	0.00	63.44	1.87	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/25/2008	77.31	16.30	0.00	61.01	-2.43	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2008	77.31	15.82	0.00	61.49	0.48	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/24/2009	77.31	15.58	0.00	61.73	0.24	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**November 1992 Through May 2011**  
**76 Station 1871**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-11 continued</b>														
6/23/2009	77.31	13.98	0.00	63.33	1.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/16/2009	77.31	15.03	0.00	62.28	-1.05	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
4/14/2010	77.31	15.48	0.00	61.83	-0.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/13/2010	80.44	15.15	0.00	65.29	3.46	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
5/27/2011	80.44	15.60	0.00	64.84	-0.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled			Ethylene-	1,2-DCA					pH	Post-purge	Pre-purge	Pre-purge
	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	dibromide (EDB) (µg/l)	(EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	(lab) (pH)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-1</b>												
6/18/1999	--	ND	ND	ND	--	ND	ND	ND	--	--	--	--
7/16/2001	--	ND	ND	ND	--	ND	ND	ND	--	--	--	--
1/14/2003	--	ND<100	ND<500	ND<2.0	--	ND<2.0	ND<2.0	ND<2.0	--	--	--	--
7/16/2003	--	--	ND<10000	--	--	--	--	--	--	--	--	--
10/2/2003	--	--	ND<25000	--	--	--	--	--	--	25.1	45.7	80.1
1/7/2004	--	--	ND<20000	--	--	--	--	--	--	12.12	12.31	142
4/2/2004	--	--	ND<50	--	--	--	--	--	--	11.33	13.42	36
7/29/2004	--	--	ND<2000	--	--	--	--	--	--	5.37	5.51	-2
11/24/2004	--	--	ND<2000	--	--	--	--	--	6.58	3.08	4.73	-43
1/24/2005	--	--	ND<2000	--	--	--	--	--	--	14.3	17.0	100
6/23/2005	--	--	ND<50000	--	--	--	--	--	--	--	4.79	-103
9/28/2005	--	--	ND<1000	--	--	--	--	--	--	3.45	4.73	-91
12/20/2005	--	--	ND<250	--	--	--	--	--	--	4.16	2.76	-210
3/10/2006	--	--	ND<2500	--	--	--	--	--	--	1.45	1.64	-511
6/23/2006	--	--	ND<2500	--	--	--	--	--	--	--	4.31	-030
9/27/2006	--	--	ND<5000	--	--	--	--	--	--	4.50	4.72	-32
12/22/2006	--	--	ND<2500	--	--	--	--	--	--	6.80	2.35	-121
3/23/2007	--	--	ND<1200	--	--	--	--	--	--	3.22	3.45	-135
6/29/2007	--	--	ND<1200	--	--	--	--	--	--	6.64	7.11	-131
9/28/2007	--	--	ND<250	--	--	--	--	--	--	--	7.84	-167
12/17/2007	--	--	ND<2500	--	--	--	--	--	--	9.74	6.51	-63
3/25/2008	--	--	ND<1200	--	--	--	--	--	--	6.70	6.50	-60
6/12/2008	--	330	ND<1200	--	--	--	--	--	--	--	4.33	65
9/25/2008	--	740	ND<250	--	--	--	--	--	--	--	1.16	105
12/30/2008	--	400	ND<250	--	--	--	--	--	--	2.44	0.91	0

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-1 continued</b>												
3/24/2009	--	390	ND<250	--	--	--	--	--	--	1.60	1.31	-29
6/23/2009	--	500	ND<1200	--	--	--	--	--	--	--	0.86	-28
12/16/2009	--	ND<20	ND<500	--	--	--	--	--	--	0.66	--	--
4/14/2010	--	500	ND<500	--	--	--	--	--	--	2.48	--	--
10/13/2010	--	73	ND<250	ND<0.50	ND<0.50	--	--	--	--	2.00	--	--
5/27/2011	--	ND<50	ND<1200	ND<2.5	ND<2.5	--	--	--	--	0.37	--	--
<b>MW-4</b>												
4/18/1996	110	--	--	--	--	--	--	--	--	--	--	--
7/24/1996	ND	--	--	--	--	--	--	--	--	--	--	--
10/24/1996	ND	--	--	--	--	--	--	--	--	--	--	--
1/28/1997	210	--	--	--	--	--	--	--	--	--	--	--
7/29/1997	ND	--	--	--	--	--	--	--	--	--	--	--
1/14/1998	ND	--	--	--	--	--	--	--	--	--	--	--
7/1/1998	ND	--	--	--	--	--	--	--	--	--	--	--
<b>MW-6</b>												
6/18/1999	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--
7/16/2001	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--
7/11/2002	--	ND<1000	ND<5000	ND<100	ND<100	ND<200	ND<100	ND<100	--	--	--	--
1/14/2003	--	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--
7/16/2003	--	--	ND<500	--	--	--	--	--	--	--	--	--
10/2/2003	--	--	ND<1000	--	--	--	--	--	--	15.5	26.2	139
1/7/2004	--	--	ND<1000	--	--	--	--	--	--	12.63	14.29	-12
4/2/2004	--	--	ND<2000	--	--	--	--	--	--	12.63	12.72	9
7/29/2004	--	--	ND<100	--	--	--	--	--	--	4.74	4.79	-19
11/24/2004	--	--	ND<50	--	--	--	--	--	6.99	2.81	5.54	-29

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-6 continued</b>												
1/24/2005	--	--	ND<50	--	--	--	--	--	--	14.5	15.3	72
6/23/2005	--	--	ND<1000	--	--	--	--	--	--	1.86	1.73	70
9/28/2005	--	--	ND<1000	--	--	--	--	--	--	2.63	2.57	-74
12/20/2005	--	--	ND<250	--	--	--	--	--	--	1.52	2.30	-280
3/10/2006	--	--	ND<250	--	--	--	--	--	--	5.25	0.80	173
6/23/2006	--	--	ND<6200	--	--	--	--	--	--	--	3.39	-105
9/27/2006	--	--	ND<6200	--	--	--	--	--	--	2.54	3.01	-109
12/22/2006	--	--	ND<5000	--	--	--	--	--	--	1.22	4.03	-46
3/23/2007	--	--	ND<250	--	--	--	--	--	--	3.64	3.62	-101
6/29/2007	--	--	ND<250	--	--	--	--	--	--	8.49	6.78	171
9/28/2007	--	--	ND<250	--	--	--	--	--	--	8.36	8.40	167
12/17/2007	--	--	ND<250	--	--	--	--	--	--	10.19	9.38	-23
3/25/2008	--	--	ND<250	--	--	--	--	--	--	10.03	10.10	-20
6/12/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	0.80	30
9/25/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	1.05	118
12/30/2008	--	ND<10	ND<250	--	--	--	--	--	--	4.50	1.62	14
3/24/2009	--	ND<10	ND<250	--	--	--	--	--	--	1.79	1.87	104
6/23/2009	--	ND<10	ND<250	--	--	--	--	--	--	1.96	2.12	64
12/16/2009	--	ND<10	ND<250	--	--	--	--	--	--	1.55	--	--
4/14/2010	--	ND<10	ND<250	--	--	--	--	--	--	3.19	--	--
10/13/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	6.40	--	--
5/27/2011	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	0.61	--	--
<b>MW-7</b>												
6/18/1999	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--
7/16/2001	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-7 continued</b>												
1/14/2003	--	ND<50000	ND<250000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	--	--	--	--
7/16/2003	--	--	ND<250000	--	--	--	--	--	--	--	--	--
10/2/2003	--	--	ND<100000	--	--	--	--	--	--	24.3	28.2	109
1/7/2004	--	--	ND<200000	--	--	--	--	--	--	10.79	10.85	23
4/2/2004	--	--	ND<2000	--	--	--	--	--	--	12.41	11.32	24
7/29/2004	--	--	ND<5000	--	--	--	--	--	--	4.10	3.96	17
11/24/2004	--	--	ND<5000	--	--	--	--	--	6.60	1.99	3.29	-43
1/24/2005	--	--	ND<5000	--	--	--	--	--	--	17.2	14.5	71
6/23/2005	--	--	ND<50000	--	--	--	--	--	--	2.84	2.18	-37
9/28/2005	--	--	ND<1000	--	--	--	--	--	--	3.45	3.63	-81
12/20/2005	--	--	ND<250	--	--	--	--	--	--	2.04	2.03	-263
3/10/2006	--	--	ND<250	--	--	--	--	--	--	1.28	0.95	164
6/23/2006	--	--	ND<6200	--	--	--	--	--	--	--	3.95	-119
9/27/2006	--	--	ND<6200	--	--	--	--	--	--	3.16	3.98	-107
12/22/2006	--	--	ND<25000	--	--	--	--	--	--	2.25	2.03	-86
3/23/2007	--	--	ND<250	--	--	--	--	--	--	3.38	3.75	-49
9/28/2007	--	--	ND<250	--	--	--	--	--	--	8.16	7.96	30
12/19/2007	--	--	ND<250	--	--	--	--	--	--	6.70	6.72	-17
3/25/2008	--	--	ND<250	--	--	--	--	--	--	4.77	4.81	-30
6/12/2008	--	30	ND<250	--	--	--	--	--	--	--	3.96	55
9/25/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	1.11	115
12/30/2008	--	ND<10	ND<250	--	--	--	--	--	--	4.13	1.81	-14
3/24/2009	--	ND<10	ND<250	--	--	--	--	--	--	2.70	2.39	159
6/23/2009	--	16	ND<250	--	--	--	--	--	--	0.42	0.84	-8
12/16/2009	--	ND<10	ND<250	--	--	--	--	--	--	1.08	--	--

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-7 continued</b>												
4/14/2010	--	ND<10	ND<250	--	--	--	--	--	--	0.78	--	--
10/13/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	6.50	--	--
5/27/2011	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	0.48	--	--
<b>MW-8</b>												
6/18/1999	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--
7/16/2001	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--
1/14/2003	--	ND<500	ND<2500	ND<10	ND<10	ND<10	ND<10	ND<10	--	--	--	--
7/16/2003	--	--	ND<500	--	--	--	--	--	--	--	--	--
10/2/2003	--	--	ND<500	--	--	--	--	--	--	23.6	28.5	188
1/7/2004	--	--	ND<50000	--	--	--	--	--	--	9.94	13.13	-15
4/2/2004	--	--	ND<2000	--	--	--	--	--	--	13.37	12.82	-10
7/29/2004	--	--	ND<2500	--	--	--	--	--	--	3.68	3.73	18
11/24/2004	--	--	ND<1000	--	--	--	--	--	6.67	3.97	2.71	-36
1/24/2005	--	--	ND<2500	--	--	--	--	--	--	41.6	41.2	56
6/23/2005	--	--	ND<1000	--	--	--	--	--	--	2.05	2.13	58
9/28/2005	--	--	ND<1000	--	--	--	--	--	--	2.12	1.98	-40
12/20/2005	--	--	ND<250	--	--	--	--	--	--	2.02	3.72	-402
3/10/2006	--	--	ND<250	--	--	--	--	--	--	1.51	0.99	-182
6/23/2006	--	--	ND<250	--	--	--	--	--	--	--	2.81	-135
9/27/2006	--	--	ND<250	--	--	--	--	--	--	4.87	4.91	-155
12/22/2006	--	--	ND<250	--	--	--	--	--	--	1.80	2.40	16
3/23/2007	--	--	ND<250	--	--	--	--	--	--	3.52	3.90	25
6/29/2007	--	--	ND<250	--	--	--	--	--	--	5.35	5.29	98
9/28/2007	--	--	ND<250	--	--	--	--	--	--	7.18	7.24	16
12/17/2007	--	--	ND<250	--	--	--	--	--	--	6.95	5.26	26

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-8 continued</b>												
3/25/2008	--	--	ND<250	--	--	--	--	--	--	5.22	5.15	70
6/12/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	9.40	38
9/25/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	1.33	98
12/30/2008	--	ND<10	ND<250	--	--	--	--	--	--	1.78	2.19	11
3/24/2009	--	ND<10	ND<250	--	--	--	--	--	--	2.07	1.87	103
6/23/2009	--	ND<10	ND<250	--	--	--	--	--	--	0.55	0.90	73
12/16/2009	--	ND<10	ND<250	--	--	--	--	--	--	1.24	--	--
4/14/2010	--	ND<10	ND<250	--	--	--	--	--	--	0.92	--	--
10/13/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	0.70	--	--
5/27/2011	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	0.48	--	--
<b>MW-9</b>												
1/31/2002	--	ND<140	ND<3600	ND<7.1	ND<7.1	ND<7.1	ND<7.1	ND<7.1	--	--	--	--
1/14/2003	--	ND<400	ND<2000	ND<8.0	ND<8.0	ND<8.0	ND<8.0	ND<8.0	--	--	--	--
7/16/2003	--	--	ND<25000	--	--	--	--	--	--	--	--	--
10/2/2003	--	--	ND<5000	--	--	--	--	--	--	29.5	28.4	201
1/7/2004	--	--	ND<10000	--	--	--	--	--	--	10.45	12.00	9
4/2/2004	--	--	ND<500	--	--	--	--	--	--	16.37	13.21	12
7/29/2004	--	--	ND<1000	--	--	--	--	--	--	--	--	--
11/24/2004	--	--	ND<500	--	--	--	--	--	6.47	3.24	1.71	-68
1/24/2005	--	--	ND<1000	--	--	--	--	--	--	26.0	22.5	-45
6/23/2005	--	--	ND<10000	--	--	--	--	--	--	1.50	1.44	-136
9/28/2005	--	--	ND<50000	--	--	--	--	--	--	2.51	1.67	-94
12/20/2005	--	--	ND<250	--	--	--	--	--	--	5.05	4.67	-102
3/10/2006	--	--	ND<2500	--	--	--	--	--	--	2.82	2.13	160
6/23/2006	--	--	ND<6200	--	--	--	--	--	--	--	0.84	-65

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-9 continued</b>												
9/27/2006	--	--	ND<6200	--	--	--	--	--	--	0.68	0.75	-61
12/22/2006	--	--	ND<250	--	--	--	--	--	--	9.00	4.89	-44
3/23/2007	--	--	ND<250	--	--	--	--	--	--	6.85	5.33	-114
6/29/2007	--	--	ND<250	--	--	--	--	--	--	6.87	6.25	23
9/28/2007	--	--	ND<1200	--	--	--	--	--	--	7.17	7.04	30
12/17/2007	--	--	ND<250	--	--	--	--	--	--	5.05	4.81	-27
3/25/2008	--	--	ND<1200	--	--	--	--	--	--	6.55	6.67	-10
6/12/2008	--	250	ND<250	--	--	--	--	--	--	--	2.55	86
9/25/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	1.44	26
12/30/2008	--	21	ND<250	--	--	--	--	--	--	5.47	5.43	52
3/24/2009	--	24	ND<250	--	--	--	--	--	--	2.80	2.69	66
6/23/2009	--	14	ND<250	--	--	--	--	--	--	1.88	1.42	-20
12/16/2009	--	22	ND<250	--	--	--	--	--	--	0.99	--	--
4/14/2010	--	ND<10	ND<250	--	--	--	--	--	--	1.41	--	--
10/13/2010	--	11	ND<250	ND<0.50	ND<0.50	--	--	--	--	1.08	--	--
5/27/2011	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	1.51	--	--
<b>MW-10</b>												
1/31/2002	--	ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	--	--	--	--
1/14/2003	--	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--
7/16/2003	--	--	ND<500	--	--	--	--	--	--	--	--	--
10/2/2003	--	--	ND<500	--	--	--	--	--	--	24.8	25.7	192
1/7/2004	--	--	ND<500	--	--	--	--	--	--	10.04	11.62	35
4/2/2004	--	--	ND<50	--	--	--	--	--	--	11.91	12.02	42
7/29/2004	--	--	ND<50	--	--	--	--	--	--	4.81	4.83	83
11/24/2004	--	--	ND<50	--	--	--	--	--	6.89	2.59	3.07	-39

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-10 continued</b>												
1/24/2005	--	--	ND<50	--	--	--	--	--	--	27.5	25.5	87
6/23/2005	--	--	ND<1000	--	--	--	--	--	--	7.83	176	40
9/28/2005	--	--	ND<1000	--	--	--	--	--	--	6.95	2.37	-66
12/20/2005	--	--	ND<250	--	--	--	--	--	--	3.85	3.45	59
3/10/2006	--	--	ND<250	--	--	--	--	--	--	2.52	4.48	87
6/23/2006	--	--	ND<250	--	--	--	--	--	--	--	1.49	-68
9/27/2006	--	--	ND<250	--	--	--	--	--	--	1.79	1.55	-85
12/22/2006	--	--	ND<250	--	--	--	--	--	--	3.20	3.00	107
3/23/2007	--	--	ND<250	--	--	--	--	--	--	5.09	5.01	-60
6/29/2007	--	--	ND<250	--	--	--	--	--	--	9.12	6.27	165
9/28/2007	--	--	ND<250	--	--	--	--	--	--	8.34	8.21	124
12/17/2007	--	--	ND<250	--	--	--	--	--	--	4.97	4.46	-15
3/25/2008	--	--	ND<250	--	--	--	--	--	--	4.35	4.40	-10
6/12/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	1.42	75
9/25/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	52.15	94
12/30/2008	--	ND<10	ND<250	--	--	--	--	--	--	5.89	3.18	181
3/24/2009	--	ND<10	ND<250	--	--	--	--	--	--	4.37	4.07	144
6/23/2009	--	ND<10	ND<250	--	--	--	--	--	--	3.17	1.64	57
12/16/2009	--	ND<10	ND<250	--	--	--	--	--	--	3.31	--	--
4/14/2010	--	ND<10	ND<250	--	--	--	--	--	--	1.61	--	--
10/13/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	6.67	--	--
5/27/2011	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	1.52	--	--
<b>MW-11</b>												
1/31/2002	--	ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	--	--	--	--
1/14/2003	--	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-11 continued</b>												
7/16/2003	--	--	ND<500	--	--	--	--	--	--	--	--	--
10/2/2003	--	--	ND<500	--	--	--	--	--	--	33.7	23.2	202
1/7/2004	--	--	ND<500	--	--	--	--	--	--	11.69	13.82	99
4/2/2004	--	--	ND<50	--	--	--	--	--	--	11.94	14.08	-1
7/29/2004	--	--	ND<50	--	--	--	--	--	--	--	--	--
11/24/2004	--	--	ND<50	--	--	--	--	--	6.75	3.85	4.32	82
1/24/2005	--	--	ND<50	--	--	--	--	--	--	30.01	32.6	79
6/23/2005	--	--	ND<1000	--	--	--	--	--	--	2.17	2.16	76
9/28/2005	--	--	ND<1000	--	--	--	--	--	--	4.97	4.59	-4
12/20/2005	--	--	ND<250	--	--	--	--	--	--	5.16	4.77	35
3/10/2006	--	--	ND<250	--	--	--	--	--	--	5.11	9.99	68
6/23/2006	--	--	ND<250	--	--	--	--	--	--	--	7.74	-26
9/27/2006	--	--	ND<250	--	--	--	--	--	--	5.72	5.98	32
12/22/2006	--	--	ND<250	--	--	--	--	--	--	3.81	4.35	46
3/23/2007	--	--	ND<250	--	--	--	--	--	--	5.47	5.85	38
6/29/2007	--	--	ND<250	--	--	--	--	--	--	7.87	7.80	242
9/28/2007	--	--	ND<250	--	--	--	--	--	--	7.24	7.30	280
12/17/2007	--	--	ND<250	--	--	--	--	--	--	8.71	8.01	47
3/25/2008	--	--	ND<250	--	--	--	--	--	--	8.41	8.40	45
6/12/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	3.33	160
9/25/2008	--	ND<10	ND<250	--	--	--	--	--	--	--	4.28	115
12/30/2008	--	ND<10	ND<250	--	--	--	--	--	--	2.74	2.67	195
3/24/2009	--	ND<10	ND<250	--	--	--	--	--	--	2.27	2.20	185
6/23/2009	--	ND<10	ND<250	--	--	--	--	--	--	3.62	4.14	67
12/16/2009	--	ND<10	ND<250	--	--	--	--	--	--	4.62	--	--

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)
<b>MW-11 continued</b>												
4/14/2010	--	ND<10	ND<250	--	--	--	--	--	--	4.15	--	--
10/13/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	2.21	--	--
5/27/2011	--	ND<10	ND<250	ND<0.50	ND<0.50	--	--	--	--	3.11	--	--

**Table 2 b**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	Post-purge ORP (mV)
<b>MW-1</b>	
10/2/2003	21.0
1/7/2004	24
4/2/2004	34
7/29/2004	-4
11/24/2004	-39
1/24/2005	96
9/28/2005	-94
12/20/2005	-328
3/10/2006	-615
9/27/2006	-25
12/22/2006	-72
3/23/2007	-141
6/29/2007	-65
12/17/2007	-46
3/25/2008	-64
12/30/2008	-2
3/24/2009	-32
12/16/2009	38
4/14/2010	55
10/13/2010	-48
5/27/2011	-19
<b>MW-6</b>	
10/2/2003	175
1/7/2004	24
4/2/2004	23

**Table 2 b**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date  
Sampled    Post-purge  
                  ORP  
                  (mV)

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**MW-6 continued**

7/29/2004	-8
11/24/2004	-12
1/24/2005	70
6/23/2005	71
9/28/2005	-80
12/20/2005	-217
3/10/2006	224
9/27/2006	-104
12/22/2006	-67
3/23/2007	-92
6/29/2007	84
9/28/2007	154
12/17/2007	-14
3/25/2008	-18
12/30/2008	8
3/24/2009	91
6/23/2009	79
12/16/2009	116
4/14/2010	108
10/13/2010	129
5/27/2011	199

**MW-7**

10/2/2003	153
1/7/2004	5
4/2/2004	10

**Table 2 b**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	Post-purge ORP (mV)
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**MW-7 continued**

7/29/2004	18
11/24/2004	-24
1/24/2005	48
6/23/2005	-32
9/28/2005	-85
12/20/2005	-256
3/10/2006	-179
9/27/2006	-95
12/22/2006	-101
3/23/2007	-47
9/28/2007	26
12/19/2007	-13
3/25/2008	-34
12/30/2008	-19
3/24/2009	138
6/23/2009	-33
12/16/2009	118
4/14/2010	112
10/13/2010	44
5/27/2011	145

**MW-8**

10/2/2003	197
1/7/2004	21
4/2/2004	16
7/29/2004	30

**Table 2 b**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	Post-purge ORP (mV)
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**MW-8 continued**

11/24/2004	-20
1/24/2005	60
6/23/2005	56
9/28/2005	-26
12/20/2005	-326
3/10/2006	-181
9/27/2006	-139
12/22/2006	12
3/23/2007	22
6/29/2007	92
9/28/2007	22
12/17/2007	24
3/25/2008	77
12/30/2008	14
3/24/2009	109
6/23/2009	55
12/16/2009	75
4/14/2010	120
10/13/2010	92
5/27/2011	209

**MW-9**

10/2/2003	203
1/7/2004	27
4/2/2004	32
11/24/2004	-67

**Table 2 b**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	Post-purge ORP (mV)
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**MW-9 continued**

1/24/2005	-45
6/23/2005	-144
9/28/2005	-119
12/20/2005	-42
3/10/2006	161
9/27/2006	-43
12/22/2006	-70
3/23/2007	-82
6/29/2007	22
9/28/2007	30
12/17/2007	-35
3/25/2008	-14
12/30/2008	38
3/24/2009	58
6/23/2009	-30
12/16/2009	102
4/14/2010	49
10/13/2010	114
5/27/2011	95

**MW-10**

10/2/2003	213
1/7/2004	59
4/2/2004	45
7/29/2004	102
11/24/2004	-29

**Table 2 b**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	Post-purge ORP (mV)
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**MW-10 continued**

1/24/2005	84
6/23/2005	44
9/28/2005	-64
12/20/2005	58
3/10/2006	83
9/27/2006	-65
12/22/2006	85
6/29/2007	172
9/28/2007	126
12/17/2007	-2
3/25/2008	-12
12/30/2008	184
3/24/2009	160
6/23/2009	68
12/16/2009	118
4/14/2010	112
10/13/2010	147
5/27/2011	192

**MW-11**

10/2/2003	255
1/7/2004	103
4/2/2004	108
11/24/2004	143
1/24/2005	83
6/23/2005	82

**Table 2 b**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 1871**

Date Sampled	Post-purge ORP (mV)
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**MW-11 continued**

9/28/2005	-1
12/20/2005	070
3/10/2006	97
9/27/2006	40
12/22/2006	44
3/23/2007	34
6/29/2007	223
9/28/2007	244
12/17/2007	46
3/25/2008	44
12/30/2008	195
3/24/2009	190
6/23/2009	67
12/16/2009	160
4/14/2010	143
10/13/2010	133
5/27/2011	205