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3:13 pm, Oct 08, 2008

Alameda County
Environmental Health



76 Broadway Sacramento, California 95818

September 19, 2008

Barbara Jakub Alameda County Health Agency 1131 Harbor Bay parkway, Suite250 Alameda, California 94502-577

Re:

Quarterly Summary Report—Third Quarter 2008 Former 76 Service Station # 7124 10151 International Blvd. Oakland, CA

Dear Ms. Jakub:

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please call me at (916) 558-7666.

Sincerely,

Terry L. Grayson Site Manager

Risk Management & Remediation



#### **Stantec Consulting Corporation** 3017 Kilgore Road Suite 100 Rancho Cordova CA 95670

Tel: (916) 861-0400 Fax: (916) 861-0430

> Quarterly Summary Report - Third Quarter 2008 Former 76 Service Station No. 7124 10151 International Boulevard Oakland, California

> > **Stantec Project No.:** 77CP.01634.41.0303

Submitted to:
Ms. Barbara Jakub
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Oakland, California 94502

(Sent Via Electronic Upload to Alameda ftp)

Submitted by:
Stantec Consulting Corporation
3017 Kilgore Road, Suite 100
Rancho Cordova, California 95670
916-861-0400

Prepared on behalf of:
ConocoPhillips Company
Mr. Terry Grayson
Site Manager
76 Broadway Sacramento, California 95818

**September 19, 2008** 

**Quarterly Summary Report - Third Quarter 2008** September 19, 2008

#### INTRODUCTION

On behalf of ConocoPhillips, Stantec Consulting Corporation (Stantec), is forwarding the quarterly summary report for the site located at 10151 International Boulevard, in Oakland, California.

#### SITE DESCRIPTION

The site is currently an active Royal Gasoline Station located on the northwest corner of the intersection of International Boulevard and 102nd Avenue in Oakland, California. Site facilities include three underground storage tanks (USTs) and associated piping and fuel dispensers. A detailed site plan is included in TRC's *Quarterly Monitoring Report July through September 2008* dated July 28, 2008 (Attachment 1).

#### SITE GEOLOGY AND HYDROGEOLOGY

As shown in the United States Geological Survey Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California, prepared in 2000, the site is underlain by Holocene-aged natural levee deposits, which overlay Holocene-aged alluvial fan and fluvial deposits. Based on assessment activities performed by Stantec in September 2008, the subsurface generally consists of silty sands to depths of 5 to 7 feet bgs, with a clay layer generally being encountered beneath the sand layer to depths of 12 to 15 feet bgs. Below this clay layer, the subsurface generally consists of interbedded silt and clay layers with occasional sand layers with thicknesses of up to three feet being observed. Copies of the bore logs will be included in a report documenting the recent assessment activities which will be issued by October 31, 2008.

As outlined in the California Department of Water Resources 2003 *California Groundwater: Bulletin 118*, the site lies within the East Bay Plain Subbasin of the Santa Clara Valley Groundwater Basin. The East Bay Plain Subbasin is a northwest trending alluvial plain of Quaternary Age bounded on the north by San Pablo Bay, on the east by the contact with Franciscan Basement rock, on the south by the Niles Cone Groundwater Basin. The East Bay Plain Subbasin extends beneath San Francisco Bay to the west.

#### PREVIOUS ASSESSMENT

On March 22, 2000, SECOR supervised the removal and replacement of product lines and dispensers by Balch Petroleum of Milpitas, California. Soil samples collected from beneath the dispensers and product lines revealed the presence of total petroleum hydrocarbons as gasoline (TPHg) at a maximum concentration of 6,200 milligrams per kilogram (mg/kg), methyl tertiary butyl ether (MTBE) up to120 mg/kg, and benzene up to 7.4 mg/kg. Excavation and sampling activities were observed and approved by Inspector Gomez of the City of Oakland Fire Services Agency.

On March 27, 2000, SECOR observed the over-excavation of approximately 60 cubic yards of soil from the beneath those portions of the dispensers and product lines where soil samples with elevated concentrations of petroleum hydrocarbons were located. Areas measuring approximately 8-10 feet long by 8-10 feet wide were over-excavated to an approximate depth of

#### **Quarterly Summary Report - Third Quarter 2008**

September 19, 2008

8 feet below ground surface (bgs) in each of these areas. Additional over-excavation in these areas was not possible due to their proximity to the footings of the service station canopy. TPHg was detected in two of the three samples at a concentration of 108 mg/kg; benzene was detected in one of the three samples at 0.162 mg/kg; and MTBE was detected in all three samples at maximum concentrations of up to 43.8 mg/kg. Lead was not detected at or above laboratory reporting limits in any samples.

During February 2002, SECOR supervised the installation of four on-site groundwater monitoring wells. Prior to well installation, all borings were advanced to 26.5 feet bgs, and subsurface soil samples were collected every five feet. Soil samples were analyzed for gasoline range organics (GRO), benzene, toluene, ethylbenzene, total xylenes (BTEX), and fuel oxygenates via EPA Method 8260B. The maximum reported concentrations were 42 mg/kg GRO, 0.36 mg/kg ethylbenzene, 0.26 mg/kg xylenes, and 1.2 mg/kg MTBE.

#### **SENSITIVE RECEPTORS**

During the third quarter of 2004, SECOR completed a ½-mile radius agency receptor survey and obtained an Environmental Data Resources Incorportated (EDR) radius map for the site. The agency survey identified two industrial supply wells, three cathodic protection wells, and two wells of unknown type within the search radius. The survey also identified twelve wells of unknown type that could not be located precisely because the available records did not include this information. These wells may or may not be located within the search radius. The EDR radius map did not identify any water supply wells within the search radius, but did identify two water supply wells within one mile of the site. Stantec is in the process of performing an updated sensitive receptor survey, including a review of California Department of Water Resources Well Completion Reports. A revised sensitive receptor discussion will be included in the report documenting recent site assessment activities, which will be issued by October 31, 2008.

#### **MONITORING AND SAMPLING**

The site has been monitored and sampled since the third quarter 2002. Currently, four wells are monitored quarterly (MW-1 through MW-4). Samples are analyzed for TPHg, BTEX, and the fuel oxygenates tert-butyl alcohol (TBA), MTBE, di-isopropyl ether (DIPE), ethyl tert-butyl ether (EtbE), tert-amyl methyl ether (TAME), and ethanol, as well as, ethylene di-bromide (EDB) by EPA Method 8260B.

#### DISCUSSION

During the third quarter 2008, depth to groundwater ranged between 16.70 and 18.55 feet below top of casing (toc). Historical groundwater depths have been reported between 15.11 and 18.02 feet below toc. The direction of groundwater flow was toward the west at a gradient of 0.01 foot/foot (Attachment 1). Historically, groundwater gradient flows to the west, southwest, and south, with a westerly gradient being the predominant direction.

#### **Quarterly Summary Report - Third Quarter 2008**

September 19, 2008

The highest concentrations of TPHg and MTBE continue to be detected in on-site well MW-3 (historical highs of 130,000  $\mu$ g/L and 10,000  $\mu$ g/L, respectively, observed in 2003). This quarter, the maximum concentrations of TPHg and MTBE were reported in well MW-3 at 1,200  $\mu$ g/L, and 91  $\mu$ g/L, respectively (Attachment 1). The downgradient/crossgradient extent of the dissolved plume remains undefined by the existing monitoring well network.

#### **CHARACTERIZATION STATUS**

None of the groundwater samples collected during the third quarter 2008 quarterly sampling event showed detectable levels of any BTEX components. The highest concentrations of residual TPHg and/or MTBE contamination are localized in the northeastern area of the site in the vicinity of MW-3. The extent of dissolved contamination is undefined in the downgradient (northwest) direction, but MTBE concentrations continue declining, and variable TBA levels in MW-4 may indicate active degradation of MTBE.

#### **REMEDIATION STATUS**

Currently, there is no active remediation at this site.

#### **CURRENT ASSESSMENT ACTIVITIES**

Stantec submitted a *Work Plan for Additional Site Assessment*, dated May 21, 2008 to the ACEHS. In a June 5, 2008 letter from the ACEHS, a work plan addendum proposing confirmation and delineation soil borings prior to well installation activities was requested. Stantec submitted a *Work Plan Addendum for Additional Site Assessment*, dated July 7, 2008 to the ACEHS. In a July 31, 2008 letter from the ACEHS, Stantec's *Work Plan Addendum for Additional Site Assessment* was deemed acceptable with several revisions.

Between September 3 and 5, 2008, Stantec staff were onsite to supervise the advancement of seven direct-push soil borings. A report documenting the site assessment activites will be prepared and submitted by October 31, 2008.

#### RECENT SUBMITTALS/CORRESPONDENCE

Submitted – Work Plan Addendum for Additional Site Assessment, dated July 7, 2008.

Submitted – Quarterly Summary and Monitoring Report – Second Quarter 2008, dated July 21, 2008.

Received – ACEHS correspondence dated July 31, 2008.

#### **Quarterly Summary Report - Third Quarter 2008**

September 19, 2008

#### WASTE DISPOSAL SUMMARY

The volume of purged groundwater generated and disposed of during the quarterly groundwater monitoring event is documented in TRC's *Quarterly Monitoring Report*, *July through September 2008*, dated July 28, 2008 (Attachment 1).

#### THIS QUARTER ACTIVITIES (Third Quarter 2008)

- 1. TRC performed quarterly groundwater monitoring and sampling event.
- 2. Stantec prepared and submitted a Work Plan Addendum for Additional Site Assessment.
- 3. Stantec performed additional site assessment activities.

#### **NEXT QUARTER ACTIVITIES (Fourth Quarter 2008)**

- 1. TRC to perform coordinated groundwater monitoring and sampling event.
- 2. Stantec to prepare and submit quarterly summary and monitoring report.
- 3. Stantec to prepare and submit a site assessment report.

#### **LIMITATIONS**

This report presents our understanding of existing conditions at the subject site located at 10151 International Boulevard, Oakland, California. Evaluations of the geologic conditions at the site for the purposes of this investigation are inherently limited due to the number of observation points. There are no representations, warranties, or guarantees that the points selected for sampling are representative of the entire site. Data from this report reflects the conditions at specific locations at a specific point in time. Stantec assumes no responsibility for work reported or performed by other consultants or contractors. Stantec makes no warranties or guarantees for the groundwater monitoring report (Attachment 1) prepared by TRC. No other interpretation, representations, warranties, guarantees, express or implied, are included or intended in the report findings.

Sincerely,

**Stantec Consulting Corporation** 

Benjamin Chevlen P.G. Associate Geologist

BENJAMIN
CHEVLEN
No. 8471
Exp. 06/30/10

#### Attachments:

CC:

Attachment 1 - TRC's Quarterly Monitoring Report – July through September 2008 dated July 28, 2008.

Mr. Terry Grayson, ConocoPhillips (via electronic upload to Livelink only)

## ATTACHMENT 1 TRC'S QUARTERLY MONITORING REPORT JULY THROUGH SEPTEMBER 2008

Quarterly Summary Report – Third Quarter 2008 Former 76 Station 7124 10151 International Boulevard Oakland, California





21 Technology Drive Irvine, CA 92618

949.727.9336 PHONE 949.727.7399 FAX

www.TRCsolutions.com

DATE:

July 28, 2008

TO:

ConocoPhillips Company

76 Broadway

Sacramento, CA 95818

ATTN:

MR BILL BORGH

SITE:

**76 STATION 7124** 

10151 INTERNATIONAL BOULEVARD

OAKLAND, CALIFORNIA

RE:

QUARTERLY MONITORING REPORT

JULY THROUGH SEPTEMBER 2008

Dear Mr. Borgh:

Please find enclosed our Quarterly Monitoring Report for 76 Station 7124, located at 10151 International Boulevard, Oakland, California If you have any questions regarding this report, please call us at (949) 727-9336.

Sincerely,

**TRC** 

Anju Farfan

Groundwater Program Operations Manager

CC: Mr. Ben Chevlen, Stantec, Inc (2 copies)

Enclosures

200400/7124R20QMS.doc

#### QUARTERLY MONITORING REPORT JULY THROUGH SEPTEMBER 2008

76 STATION 7124 10151 International Boulevard Oakland, California

Prepared For:

Mr. Bill Borgh CONOCOPHILLIPS COMPANY 76 Broadway Sacramento, California 95818

By:

Senior Project Geologist, Irvine Operations

Date: 7/28/06



No PG3531

	LIST OF ATTACHMENTS
Summary Sheet	Summary of Gauging and Sampling Activities
Tables	Table Key
	Contents of Tables
	Table 1: Current Fluid Levels and Selected Analytical Results
	Table 1a: Additional Current Analytical Results
	Table 2: Historic Fluid Levels and Selected Analytical Results
hed	Table 2a: Additional Historic Analytical Results
Figures	Figure 1: Vicinity Map
	Figure 2: Groundwater Elevation Contour Map
	Figure 2A: Groundwater Flow Direction Rose Diagram
	Figure 3: Dissolved-Phase TPH-G (GC/MS) Concentration Map
	Figure 4: Dissolved-Phase Benzene Concentration Map
~~	Figure 5: Dissolved-Phase MTBE Concentration Map
Graphs	Groundwater Elevations vs. Time
	MTBE 8260B Concentrations vs. Time
Field Activities	General Field Procedures
	Field Monitoring Data Sheet – 07/02/08
	Groundwater Sampling Field Notes – 07/02/08
Laboratory	Official Laboratory Reports
Reports	Quality Control Reports
	Chain of Custody Records
Statements	Purge Water Disposal
	Limitations

# Summary of Gauging and Sampling Activities July 2008 through September 2008 76 Station 7124 10151 International Boulevard Oakland, CA

Project Coordinator: Telephone:	Bill Borgh 916-558-7612				g Contractor: <i>TRC</i> <b>Christina Carrillo</b>
Date(s) of Gauging/Sa	ampling Event: <b>07/</b>	02/0	8	-	
Sample Points					
Groundwater wells: Purging method: <b>Sul</b> Purge water disposal: Other Sample Points:	bmersible pump Veolia/Rodeo Un			gauged: 4	4 Points sampled: 4
Liquid Phase Hydro	carbons (LPH)				
Sample Points with LF LPH removal frequence Treatment or disposal	cy: <b>n/a</b>		. , .	/a thod: <b>n/</b>	a
Hydrogeologic Para	ameters				
Depth to groundwater Average groundwater Average change in gro Interpreted groundwa Current event: 0 Previous event: 0	elevation (relative to oundwater elevation oter gradient and flov	o avail since v direc	able local datu previous event ction:	m): <b>20.</b> 0	
Selected Laborator	y Results				
Sample Points with de Maximum reported	etected <b>Benzene:</b> I benzene concentra	<b>0</b> tion:	Sample Point n/a	ts above 1	MCL (1.0 μg/l): <b>n/a</b>
Sample Points with Sample Points with	TPH-G by GC/MS MTBE 8260B	3 3	Maximum: Maximum:	-	g/l (MW-3) (MW-3)
Notes:					

## **TABLES**

#### TABLE KEY

#### STANDARD ABBREVIATIONS

-- not analyzed, measured, or collected

LPH = liquid-phase hydrocarbons Trace = less than 0 01 foot of LPH in well

ug/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)

#### **ANALYTES**

BTEX = benzene, toluene, ethylbenzene, and (total) xylenes

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

IPH-D = total petroleum hydrocarbons with diesel distinction

TRPH = total recoverable petroleum hydrocarbons

TAME = tertiary amyl methyl ether 1,1-DCA = 1,1-dichloroethane

1,2-DCA = 1,2-dichloroethane (same as EDC, ethylene dichloride)

1,1-DCE = 1,1-dichloroethene

1,2-DCE = 1,2-dichloroethene (cis- and trans-)

#### **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.
- 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. Groundwater vs. Time graphs may be corrected for apparent level changes due to resurvey

#### REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 7124 in October 2003 Historical data compiled prior to that time were provided by Gettler-Ryan Inc.

#### Contents of Tables 1 and 2 Site: 76 Station 7124

Current E	vent													
Table 1	Well/ Date	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
Table 1a	Well/ Date	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME						
Historic D	ata													
Table 2	Well/ Date	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
Table 2a	Well/ Date	ТВА	Ethanol (8015B)	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME					

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 2, 2008
76 Station 7124

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation		TPH-G (GC/MS)	Benzene	Toluene	-	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	
<b>MW-1</b> 07/02/03	8 37.37	16.70	0.00	20.67	-0.53		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
<b>MW-2</b> 07/02/08	8 37.87	17.94	0.00	19.93	-0.48		75	ND<0.50	ND<0.50	ND<0.50	ND<1.0	en se	2.4	
MW-3 07/02/08	8 37.72	17.84	0.00	19.88	-0.54		1200	ND<0.50	ND<0.50	ND<0.50	ND<1.0	u.	91	
<b>MW-4</b> 07/02/08	8 38.36	18.55	0.00	19.81	-0.45		340	ND<0.50	ND<0.50	ND<0.50	ND<1.0		3.3	

Table 1 a
ADDITIONAL CURRENT ANALYTICAL RESULTS
76 Station 7124

Date Sampled	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
<b>MW-1</b> 07/02/08	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
<b>MW-2</b> 07/02/08	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
<b>MW-3</b> 07/02/08	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
<b>MW-4</b> 07/02/08	15	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
April 2002 Through July 2008
76 Station 7124

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	(μg/l)	
MW-1														
04/08/0	02 37.37	14.27	0.00	23.10		ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	ND<2.0	
07/28/0	2 37.37	15.88	0.00	21.49	-1.61		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
11/03/0	)2 37.37	16.75	0.00	20.62	-0.87		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
01/24/0	37.37	13.94	0.00	23.43	2.81		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
04/02/0	37.37	14.99	0.00	22.38	-1.05		460	ND<0.50	ND<0.50	ND<0.50	ND<1.0	~~	ND<2.0	
07/01/0	37.37	15.48	0.00	21.89	-0.49		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
10/02/0	37.37	16.68	0.00	20.69	-1.20		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
01/09/0	37.37	13.79	0.00	23.58	2.89		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	***	ND<2	
04/26/0	)4 37.37	15.21	0.00	22.16	-1.42		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
07/22/0	37.37	16.43	0.00	20.94	-1.22		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
10/29/0	37.37	16.14	0.00	21.23	0.29		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
01/12/0	37.37	12.83	0.00	24.54	3.31	~~	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
06/20/0	37.37	14.38	0.00	22.99	-1.55		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
09/23/0	37.37	15.92	0.00	21.45	-1.54		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
12/13/0	37.37	16.09	0.00	21.28	-0.17		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
03/24/0	6 37.37	11.85	0.00	25.52	4.24		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
05/30/0	6 37.37	13.30	0.00	24.07	-1.45		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
08/22/0	6 37.37	15.11	0.00	22.26	-1.81		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
10/31/0	6 37.37	16.11	0.00	21.26	-1.00		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
01/12/0	7 37.37	15.55	0.00	21.82	0.56		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
04/04/0	7 37.37	15.31	0.00	22.06	0.24		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
07/05/0	7 37.37	16.21	0.00	21.16	-0.90		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
10/01/0	7 37.37	17.13	0.00	20.24	-0.92		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	

Page 1 of 5

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
April 2002 Through July 2008
76 Station 7124

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	$(\mu g/l)$	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	
MW-1	continued													
01/11/0	8 37.37	14.48	0.00	22.89	2.65		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
04/04/0	8 37.37	16.17	0.00	21.20	-1.69		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	Gauged on 5-22-08
07/02/0	8 37.37	16.70	0.00	20.67	-0.53	MH	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-2														
04/08/0	2 37.87	15.86	0.00	22.01		4400		ND<2.5	ND<2.5	6.4	ND<2.5	380	490	
07/28/0	2 37.87	17.28	0.00	20.59	-1.42		3200	ND<2.5	ND<2.5	ND<2.5	ND<5.0		170	
11/03/0	2 37.87	18.03	0.00	19.84	-0.75		3800	ND<5.0	ND<5.0	ND<5.0	ND<10		72	
01/24/0	3 37.87	15.59	0.00	22.28	2.44		410	ND<2.5	ND<2.5	ND<2.5	ND<5.0		490	
04/02/0	3 37.87	16.50	0.00	21.37	-0.91		1000	ND<5.0	ND<5.0	ND<5.0	ND<10		180	
07/01/0	3 37.87	16.94	0.00	20.93	-0.44		1900	ND<2.5	ND<2.5	ND<2.5	ND<5.0		120	
10/02/0	3 37.87	17.93	0.00	19.94	-0.99	75	6900	ND<0.50	ND<0.50	ND<0.50	ND<1.0		32	
01/09/0	4 37.87	15.42	0.00	22.45	2.51		1000	ND<2.5	ND<2.5	ND<2.5	ND<5.0		300	
04/26/0	4 37.87											~~		Covered with asphalt
07/22/0	4 37.87													Covered with asphalt
10/29/0	4 37.87		0.00											Well is paved over.
01/12/0	5 37.87													Well was paved over.
06/20/0	5 37.87	15.94	0.00	21.93			120	ND<0.50	ND<0.50	ND<0.50	ND<1.0		46	
09/23/0	5 37.87	17.29	0.00	20.58	-1.35		120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	<b>W</b> L	10	
12/13/0	5 37.87	17.41	0.00	20.46	-0.12	-	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		11	
03/24/0	6 37.87	13.77	0.00	24.10	3.64		190	ND<0.50	ND<0.50	ND<0.50	ND<1.0		15	
05/30/0	6 37.87	15.16	0.00	22.71	-1.39		120	ND<0.50	ND<0.50	ND<0.50	ND<1.0		6.6	
08/22/0	6 37.87	16.49	0.00	21.38	-1.33		81	ND<0.50	ND<0.50	ND<0.50	ND<0.50		3.0	
10/31/0	6 37.87	17.15	0.00	20.72	-0.66		93	ND<0.50	ND<0.50	ND<0.50	ND<0.50		2.0	
01/12/0	7 37.87	17.07	0.00	20.80	0.08		230	ND<0.50	ND<0.50	ND<0.50	ND<0.50		4.3	
7124								Page 2	2 of 5					

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
April 2002 Through July 2008
76 Station 7124

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	
MW-2	continued										*******			
04/04/0	7 37.87	17.84	0.00	20.03	-0.77		110	ND<0.50	ND<0.50	ND<0.50	ND<0.50		2.5	
07/05/0	37.87	17.51	0.00	20.36	0.33		150	ND<0.50	ND<0.50	ND<0.50	ND<0.50		2.6	
10/01/0	37.87	18.25	0.00	19.62	-0.74		160	ND<0.50	ND<0.50	ND<0.50	ND<0.50		2.0	
01/11/0	37.87	16.80	0.00	21.07	1.45		130	ND<0.50	ND<0.50	ND<0.50	ND<1.0		7.7	
05/22/0	8 37.87	17.46	0.00	20.41	-0.66		140	ND<0.50	ND<0.50	ND<0.50	ND<1.0		4.2	Gauged and sampled on 5-22-08
07/02/0	8 37.87	17.94	0.00	19.93	-0.48		75	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2.4	
MW-3														
04/08/0	2 37.72	15.86	0.00	21.86		8700		65	ND<25	400	ND<25	6500	8300	
07/28/0	2 37.72	17.22	0.00	20.50	-1.36		4500	ND<25	ND<25	ND<25	ND<50		1100	
11/03/0	2 37.72	17.90	0.00	19.82	-0.68		25000	ND<5.0	ND<5.0	25	ND<10		470	
01/24/0	3 37.72	15.57	0.00	22,15	2.33		6000	ND<25	ND<25	94	ND<50		10000	
04/02/0	3 37.72	16.45	0.00	21.27	-0.88		130000	ND<100	ND<100	ND<100	ND<200		4400	
07/01/0	3 37.72	16.88	0.00	20.84	-0.43		9400	ND<10	ND<10	ND<10	ND<20		2200	
10/02/0	3 37.72	17.85	0.00	19.87	-0.97		73000	ND<50	ND<50	ND<50	ND<100		460	
01/09/0	4 37.72	15.31	0.00	22.41	2.54		8700	ND<25	ND<25	98	ND<50		3800	
04/26/0	4 37.72	16.62	0.00	21.10	-1.31		6700	ND<25	ND<25	ND<25	ND<50		3900	
07/22/0	4 37.72	17.62	0.00	20.10	-1.00		13000	ND<25	ND<25	ND<25	ND<50		980	
10/29/0	4 37.72	17.29	0.00	20.43	0.33		4600	ND<5.0	ND<5.0	13	ND<10		640	
01/12/0	5 37.72	14.64	0.00	23.08	2.65		6100	0.88	0.99	30	2.2		6900	
06/20/0	5 37.72	15.91	0.00	21.81	-1.27		1900	ND<0.50	0.21J	0.52	0.46J		960	
09/23/0	5 37.72	17.20	0.00	20.52	-1.29		2400	ND<0.50	ND<0.50	ND<0.50	ND<1.0		160	
12/13/0	5 37.72	17.32	0.00	20.40	-0.12		2100	ND<2.5	ND<2.5	ND<2.5	ND<5.0		340	
03/24/0	6 37.72	13.86	0.00	23.86	3.46		2200	ND<5.0	ND<5.0	ND<5.0	ND<10		970	

Page 3 of 5

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
April 2002 Through July 2008
76 Station 7124

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(μg/l)	(µg/l)	$(\mu g/l)$	(μg/l)	(μg/l)	(μg/l)	(μg/l)	
MW-3	continued													
05/30/0	)6 37.72	15.69	0.00	22.03	-1.83		1500	ND<12	ND<12	ND<12	ND<25		760	
08/22/0	)6 37.72	16.51	0.00	21.21	-0.82		1900	ND<0.50	ND<0.50	ND<0.50	ND<0.50		160	
10/31/0	)6 37.72	17.36	0.00	20.36	-0.85		2200	ND<0.50	ND<0.50	ND<0.50	ND<0.50		58	
01/12/0	7 37.72	16.85	0.00	20.87	0.51		2600	ND<0.50	ND<0.50	ND<0.50	ND<0.50		680	
04/04/0	7 37.72	16.62	0.00	21.10	0.23		1700	ND<0.50	ND<0.50	ND<0.50	ND<0.50		650	
07/05/0	7 37.72	17.42	0.00	20.30	-0.80		2400	ND<0.50	ND<0.50	ND<0.50	ND<0.50		160	
10/01/0	7 37.72	18.16	0.00	19.56	-0.74		1700	ND<1.0	ND<1.0	ND<1.0	ND<1.0		87	
01/11/0	8 37.72	15.84	0.00	21.88	2.32		2200	ND<0.50	ND<0.50	1.6	ND<1.0		1300	
04/04/0	)8 37.72	17.30	0.00	20.42	-1.46		1600	ND<1.0	ND<1.0	ND<1.0	ND<2.0		470	Gauged on 5-22-08
07/02/0	)8 37.72	17.84	0.00	19.88	-0.54		1200	ND<0.50	ND<0.50	ND<0.50	ND<1.0		91	
MW-4														
04/08/0	38.36	16.59	0.00	21.77		13000		ND<5.0	ND<5.0	28	ND<5.0	790	980	
07/28/0	38.36	17.93	0.00	20.43	-1.34		18000	ND<2.5	ND<2.5	ND<2.5	ND<5.0		170	
11/03/0	38.36	18.66	0.00	19.70	-0.73		220	ND<0.50	ND<0.50	ND<0.50	ND<1.0		5.7	
01/24/0	38.36	16.27	0.00	22.09	2.39		ND<1000	ND<10	ND<10	ND<10	ND<20		1000	
04/02/0		17.19	0.00	21.17	-0.92		130000	ND<100	ND<100	ND<100	ND<200		ND<400	
07/01/0		17.61	0.00	20.75	-0.42		15000	ND<2.5	ND<2.5	ND<2.5	ND<5.0		170	
10/02/0		18.58	0.00	19.78	-0.97		7100	ND<10	ND<10	ND<10	ND<20		70	
01/09/0		16.15	0.00	22.21	2.43		18000	ND<10	ND<10	ND<10	ND<20		530	
04/26/0		17.20	0.00	21.16	-1.05		6500	ND<10	ND<10	ND<10	ND<20		240	
07/22/0		18.34	0.00	20.02	-1.14		18000	ND<10	ND<10	ND<10	ND<20		48	
10/29/0		18.13	0.00	20.23	0.21		2700	ND<2.5	ND<2.5	ND<2.5	ND<5.0		76	
01/12/0		15.22	0.00	23.14	2.91		1300	ND<0.50	ND<0.50	ND<0.50	ND<1.0		620	
06/20/0	38.36	16.63	0.00	21.73	-1.41		980	ND<0.50	ND<0.50	ND<0.50	ND<1.0		110	
7124								Page 4	4 of 5					

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
April 2002 Through July 2008
76 Station 7124

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
Micros	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	
MW-4	continued													
09/23/0	38.36	17.93	0.00	20.43	-1.30		1500	ND<0.50	ND<0.50	ND<0.50	ND<1.0		34	
12/13/0	38.36	18.04	0.00	20.32	-0.11		3900	ND<0.50	ND<0.50	ND<0.50	ND<1.0		36	
03/24/0	6 38.36	14.48	0.00	23.88	3.56		1500	ND<12	ND<12	ND<12	ND<25		200	
05/30/0	6 38.36	15.79	0.00	22.57	-1.31		1200	ND<2.5	ND<2.5	ND<2.5	ND<5.0		130	
08/22/0	6 38.36	17.26	0.00	21.10	-1.47		980	ND<0.50	ND<0.50	ND<0.50	ND<0.50		33	
10/31/0	6 38.36	18.08	0.00	20.28	-0.82		1300	ND<0.50	ND<0.50	ND<0.50	ND<0.50		10	
01/12/0	7 38.36	17.57	0.00	20.79	0.51		820	ND<0.50	ND<0.50	ND<0.50	ND<0.50		28	
04/04/0	7 38.36	17.40	0.00	20.96	0.17		460	ND<0.50	ND<0.50	ND<0.50	ND<0.50		41	
07/05/0	7 38.36	18.02	0.00	20.34	-0.62		920	ND<0.50	ND<0.50	ND<0.50	ND<0.50		7.0	
10/01/0	7 38.36	18.89	0.00	19.47	-0.87		560	ND<0.50	ND<0.50	ND<0.50	ND<0.50		3.0	
01/11/0	8 38.36	16.56	0.00	21.80	2.33		340	ND<0.50	ND<0.50	ND<0.50	ND<1.0		21	
05/22/0	8 38.36	18.10	0.00	20.26	-1.54		520	ND<0.50	ND<0.50	ND<0.50	ND<1.0		5.6	Gauged and sampled on 5-22- 08
07/02/0	8 38.36	18.55	0.00	19.81	-0.45		340	ND<0.50	ND<0.50	ND<0.50	ND<1.0		3.3	

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 7124

Date Sampled	TBA	Ethanol (8015B)	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(μg/l)	(mg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)
MW-1								
07/28/02	ND<100	ND<500		ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/03/02	ND<100	ND<500		ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
01/24/03	ND<100	ND<500		ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
04/02/03	ND<100	ND<500		ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
07/01/03	ND<100	ND<500		ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
10/02/03	ND<100		ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
01/09/04	ND<100	~~	ND<500	ND<2	ND<2.0	ND<2	ND<2	ND<2
04/26/04	ND<5.0		ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
07/22/04	ND<5.0		ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
10/29/04	ND<5.0		ND<50	ND<0,50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
01/12/05	ND<5.0		ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
06/20/05	ND<10		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
09/23/05	ND<10		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/13/05	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/24/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
05/30/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
08/22/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
10/31/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
01/12/07	ND<10		ND<250	ND<0,50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
04/04/07	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
07/05/07	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
10/01/07	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
01/11/08	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
04/04/08	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
07/02/08	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

MW-2

7124

Table 2 a ADDITIONAL HISTORIC ANALYTICAL RESULTS 76 Station 7124

Date Sampled	TBA	Ethanoi (8015B)	Ethanol (8260B)	Ethylene- dibromide		DIPE	ETBE	TAME				
	(μg/l)	(mg/l)	(µg/l)	(EDB) (μg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)				
MW-2 c		(***,8/,*/	(48/1)	(116/1)	(48/1)	(145/1)	(μg/1)	(με/1)	 · · ·	76.84	 1844.7	
04/08/02	ND<2000	ND<10000		ND<40	ND<40	ND<40	ND<40	ND<40				
07/28/02	ND<500	ND<2500		ND<10	ND<10	ND<10	ND<10	ND<10				
11/03/02	ND<1000	ND<5000		ND<20	ND<20	ND<20	ND<20	ND<20				
01/24/03	ND<500	ND<2500		ND<10	ND<10	ND<10	ND<10	ND<10				
04/02/03	ND<1000	ND<5000		ND<20	ND<20	ND<20	ND<20	ND<20				
07/01/03	ND<500	ND<2500		ND<10	ND<10	ND<10	ND<10	ND<10				
10/02/03	ND<100		ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0				
01/09/04	ND<500		ND<2500	ND<10	ND<10	ND<10	ND<10	ND<10				
06/20/05	25		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
09/23/05	ND<10		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
12/13/05	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
03/24/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
05/30/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
08/22/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
10/31/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
01/12/07	ND<10	44114	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
04/04/07	ND<10	AN 144	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
07/05/07	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
10/01/07	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
01/11/08	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
05/22/08	ND<10	-	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
07/02/08	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				
MW-3												
10/02/03	ND<10000		ND<50000	ND<200	ND<200	ND<200	ND<200	ND<200				
01/09/04	ND<5000		ND<25000	ND<100	ND<100	ND<100	ND<100	ND<100				
04/26/04	ND<250		ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25				
7124							Page 2	2 of 4				

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 7124

Date Sampled	TBA	Ethanol (8015B)	Ethanol (8260B)	Ethylene- dibromide	1,2-DCA (EDC)	DIPE	ETBE	TAME
				(EDB)				
	(μg/l)	(mg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	continued							
07/22/04			ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25
10/29/04			ND<500	ND<5.0	ND<5.0	ND<10	ND<5.0	ND<5.0
01/12/05			ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25
06/20/05	39		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.31J
09/23/05	ND<10		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/13/05	ND<50		ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
03/24/06	ND<100		ND<2500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
05/30/06	ND<250		ND<6200	ND<12	ND<12	ND<12	ND<12	ND<12
08/22/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0:50	ND<0.50	ND<0.50
10/31/06	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
01/12/07	43		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
04/04/07	130	***	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
07/05/07	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
10/01/07	ND<20		ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
01/11/08	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
04/04/08	ND<20		ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
07/02/08	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3.6337. 4								
<b>MW-4</b> 04/08/02	ND<5000	ND<25000		ND<100	ND<100	ND<100	ND<100	ND<100
	ND<500	ND<2500		ND<100	ND<100	ND<100	ND<100	ND<100
11/03/02		ND<500		ND<2.0	ND<2.0	ND<10 ND<2.0	ND<10 ND<2.0	ND<10 ND<2.0
01/24/03		ND<10000		ND<40	ND<2.0 ND<40			
04/02/03		ND<100000				ND<40	ND<40	ND<40
07/01/03		ND<2500			ND<400	ND<400	ND<400	ND<400
			 ND<10000	ND<10	ND<10	ND<10	ND<10	ND<10
10/02/03			ND<10000	ND<40	ND<40	ND<40	ND<40	ND<40
01/09/04	ND~2000		ND<10000	ND<40	ND<40	ND<40	ND<40	ND<40

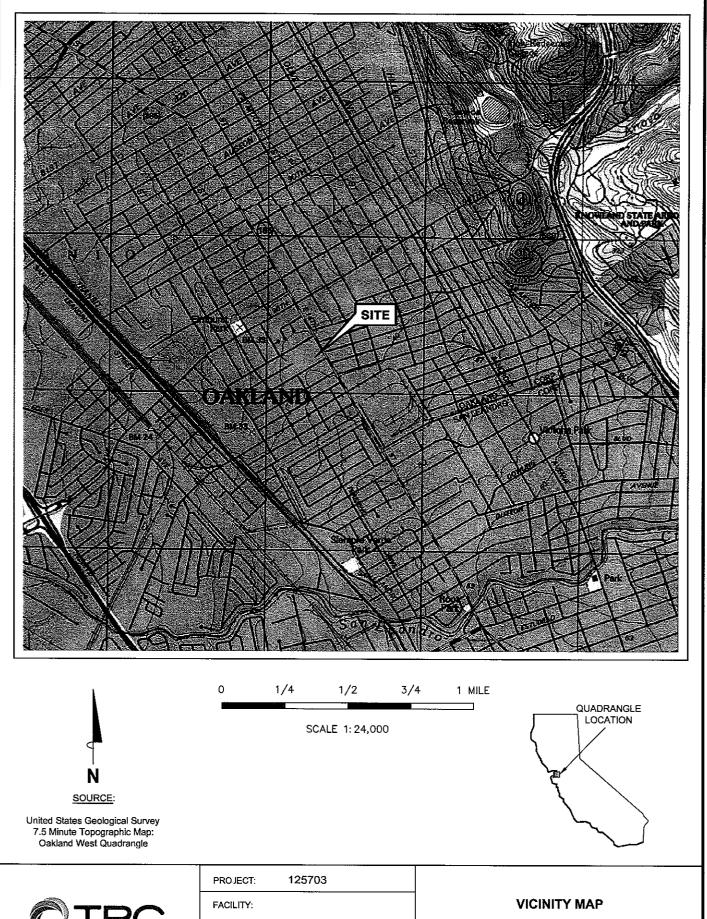
Page 3 of 4

7124

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 7124

Date Sampled	TBA	Ethanol (8015B)	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ЕТВЕ	TAME
	(μg/l)	(mg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)
	continued							
04/26/04	430		ND<1000	ND<10	ND<10	ND<20	ND<10	ND<10
07/22/04	ND<100		ND<1000	ND<10	ND<10	ND<20	ND<10	ND<10
10/29/04	63		ND<250	ND<2.5	ND<2.5	ND<5.0	ND<2.5	ND<2.5
01/12/05	1300	~-	ND<250	ND<10	ND<2.5	ND<5.0	ND<2.5	ND<2.5
06/20/05	580		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
09/23/05	92		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/13/05	50		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/24/06	1900		ND<6200	ND<12	ND<12	ND<12	ND<12	ND<12
05/30/06	ND<50		ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
08/22/06	150		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
10/31/06	43		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
01/12/07	72		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
04/04/07	260		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
07/05/07	18		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
10/01/07	ND<10		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
01/11/08	140		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
05/22/08	52		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
07/02/08	15		ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

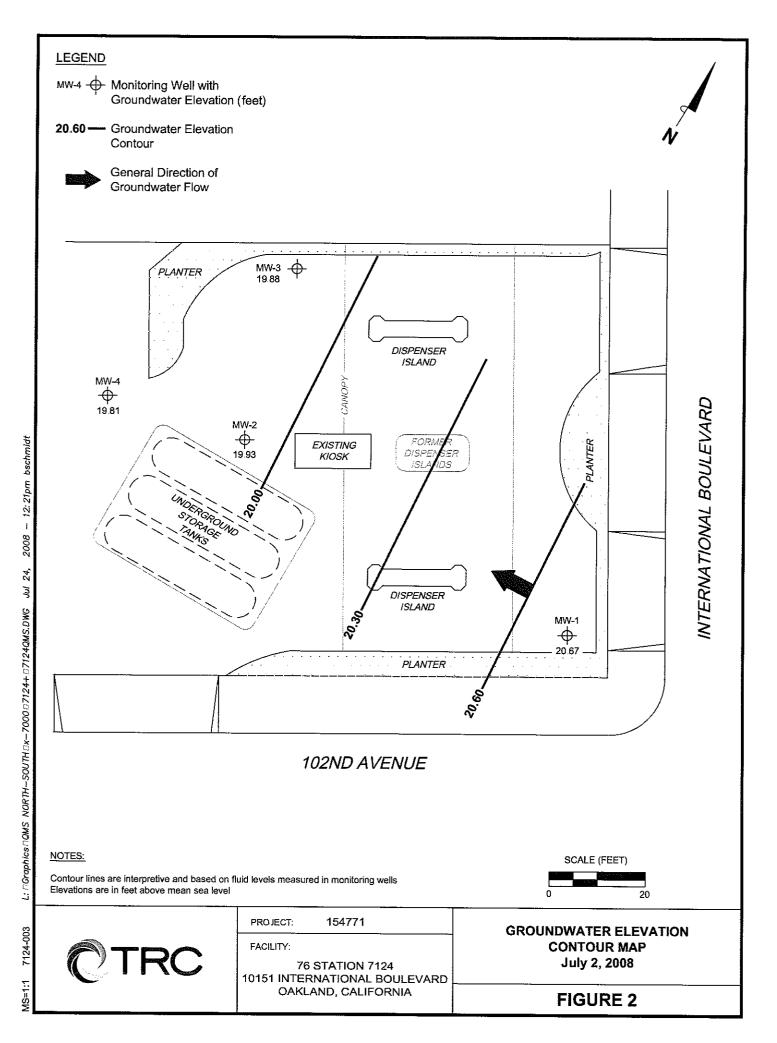
## **FIGURES**

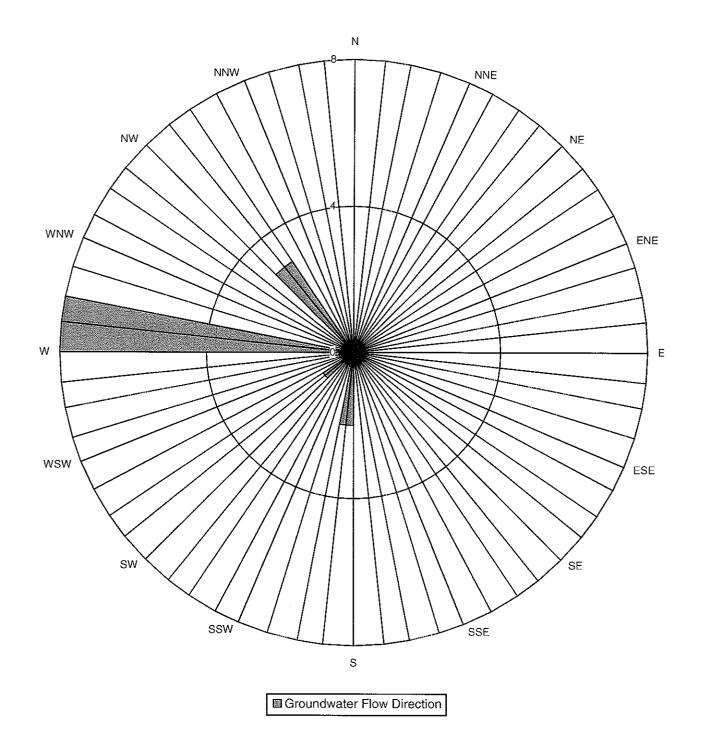




76 STATION 7124 10151 INTERNATIONAL BOULEVARD OAKLAND, CALIFORNIA

FIGURE 1





#### **LEGEND**

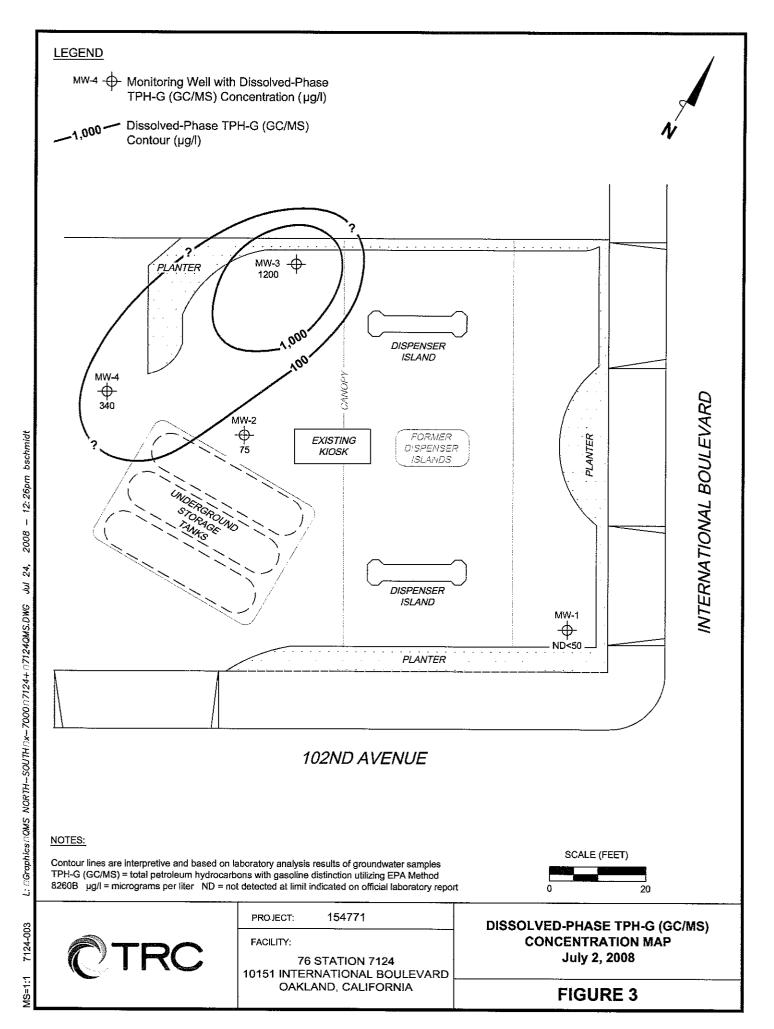
Concentric Circles Represent Quarterly Monitoring Events Conducted Since Fourth Quarter 2003. PROJECT: 154771

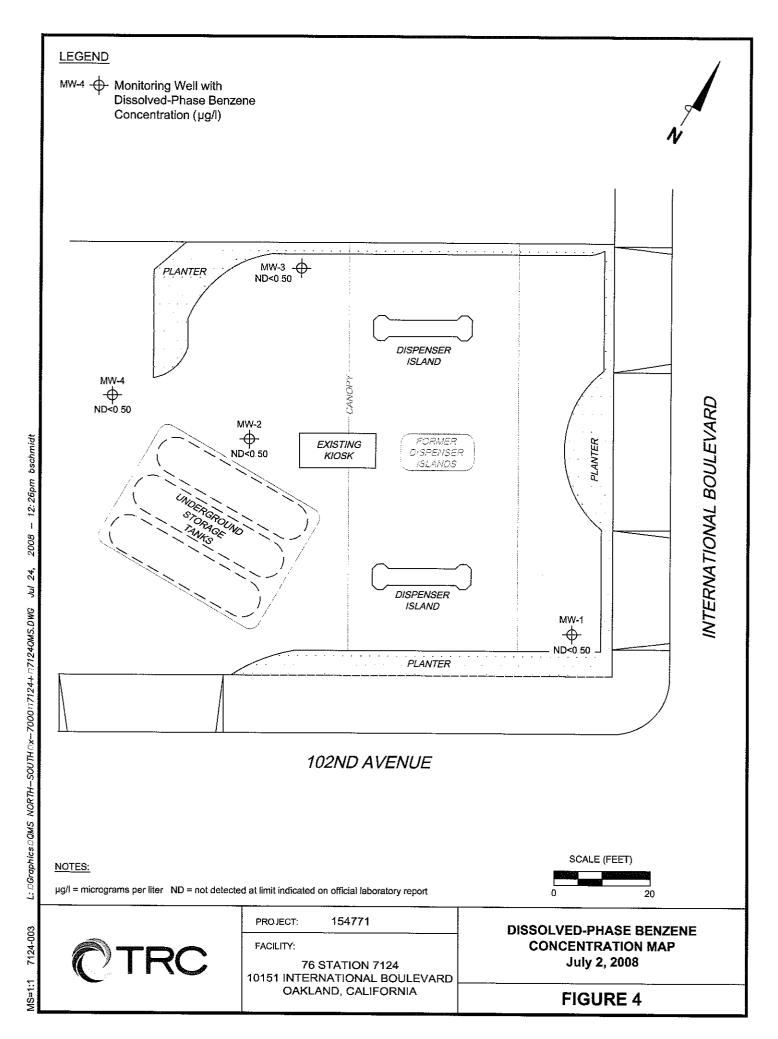
HISTORICAL GROUNDWATER FLOW DIRECTION

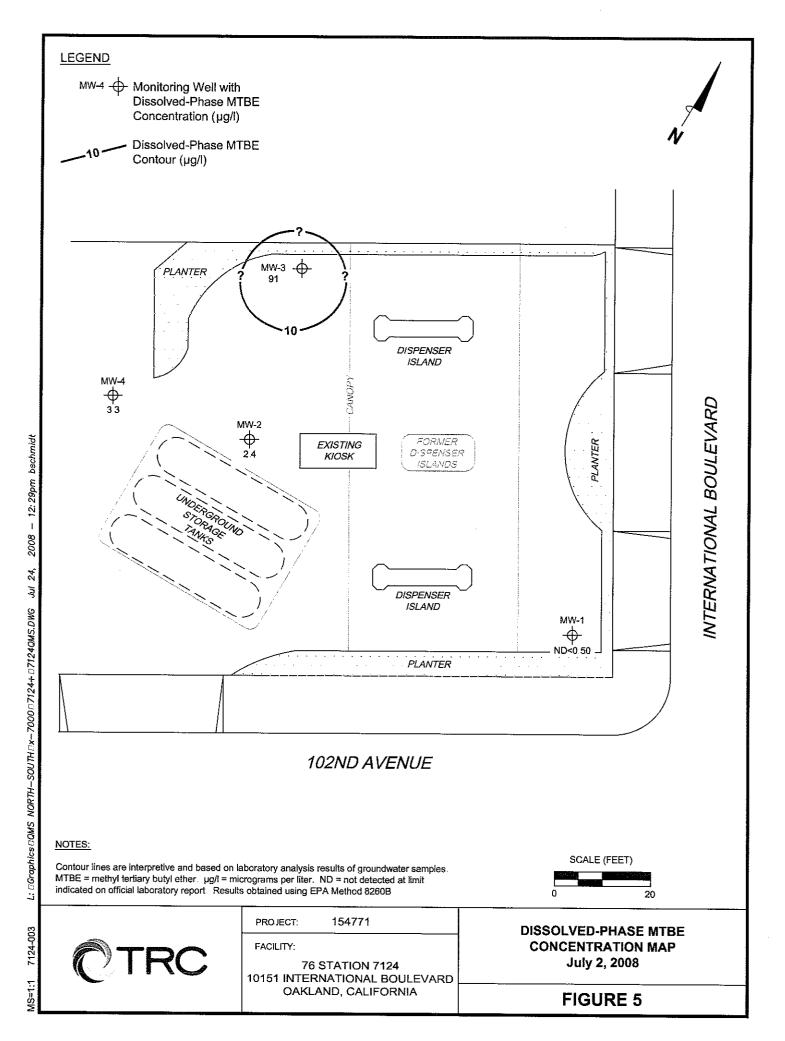


76 STATION 7124 10151 INTERNATIONAL BOULEVARD OAKLAND, CALIFORNIA

**FIGURE 2A** 

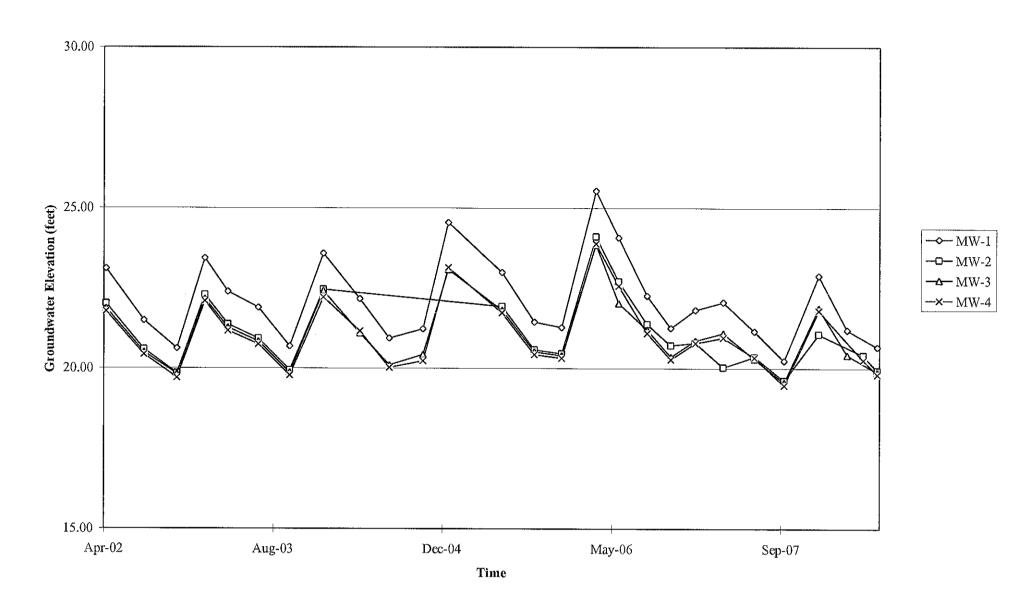






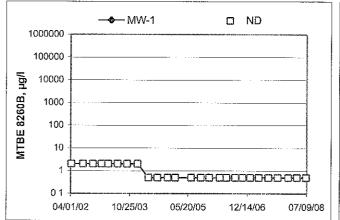
## **GRAPHS**

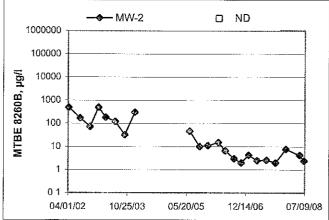
### Groundwater Elevations vs. Time 76 Station 7124

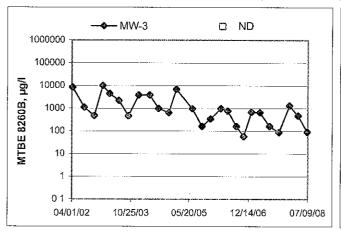


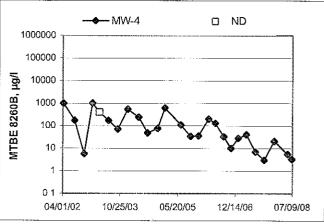
Elevations may have been corrected for apparent changes due to resurvey

#### MTBE 8260B Concentrations vs Time 76 Station 7124









### GENERAL FIELD PROCEDURES

### Groundwater Monitoring and Sampling Assignments

For each site, TRC technicians are provided with a Technical Service Request (TSR) that specifies activities required to complete the groundwater monitoring and sampling assignment for the site. TSRs are based on client directives, instructions from the primary environmental consultant for the site, regulatory requirements, and TRC's previous experience with the site.

#### Fluid Level Measurements

Initial site activities include determination of well locations based on a site map provided with the TSR. Well boxes are opened and caps are removed. Indications of well or well box damage or of pressure buildup in the well are noted.

Fluid levels in each well are measured using a coated cloth tape equipped with an electronic interface probe, which distinguishes between liquid phase hydrocarbon (LPH) and water. The depth to LPH (if it is present), to water, and to the bottom of the well are measured from the top of the well casing (surveyors mark or notch if present) to the nearest 0.01 foot. Unless otherwise instructed, a well with less than 0.67 foot between the measured top of water and the measured bottom of the well casing is considered dry, and is not sampled. If the well contains 0.67 foot or more of water, an attempt is made to bail and/or sample as specified on the TSR.

Wells that are found to contain LPH are not purged or sampled Instead, one casing volume of fluid is bailed from the well and the well is re-sealed Bailed fluids are placed in a container separate from normal purge water, and properly disposed.

### Purging and Groundwater Parameter Measurement

TSR instructions may specify that a well not be purged (no-purge sampling), be purged using low-flow methods, or be purged using conventional pump and/or bail methods. Conventional purging generally consists of pumping or bailing until a minimum of three casing volumes of water have been removed or until the well has been pumped dry Pumping is generally accomplished using submersible electric or pneumatic diaphragm pumps

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurements are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate Groundwater parameters specified by the TSR are measured continuously until they become stable in general accordance with EPA guidelines

Purge water is generally collected in labeled drums for disposal. Drums may be left on site for disposal by others, or transported to a collection location for eventual transfer to a licensed treatment or recycling facility. In some cases, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

### **Groundwater Sample Collection**

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled

Samples are collected by lowering a new, disposable, ½-inch to 4-inch polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular car e is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps

After filling, all containers are labeled with project number (or site number), well designation, sample date, sample time, and the sampler's initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

### Sequence of Gauging, Purging and Sampling

The sequence in which monitoring activities are conducted is specified on the TSR. In general, wells are gauged beginning with the least affected well and ending with the well that has the highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected to the most-affected well.

#### Decontamination

In order to reduce the possibility of cross contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging, and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liqui-nox and water and rinsing twice. The final rinse is in deionized water.

### **Exceptions**

Additional tasks or non-standard procedures, if any, that may be requested or required for a particular site, and noted on the site TSR, are documented in field notes on the following pages

3/7/08 version

## **FIELD MONITORING DATA SHEET**

Technician: Ricky H	Job #/Task #: 154771/120	Date: 7/02/02
Site # 7/24	Project Manager A Collins	Page 1 of

Well#	тос	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
mw-1	V	1204		16.70			1523	4/13
mw-2	V	1209	25.17	17.94		_	1312	411
mw-4	V	1213	24.89	18.55			1337	4K
mw-3	$\checkmark$	1219	25/1	17.84	-		1406	4
-					<u>.</u>	"	1,1= 0	
				<u> </u>				
			*					
				-				
						· · · · · · · · · · · · · · · · · · ·		
FIELD DATA	COMPLE	ETE 🗻	QA/QC	د	- coc	1 WI	ELL BOX CO	ONDITION SHEETS 👢
	-					7.1		V
MANIFEST		DRUM IN	VENTOR'	()	TRAFFIC (	CONTROL		



## GROUNDWATER SAMPLING, FJELD NOTES

Technician: Ricky A

Site: 7124 Project No : 1	54771 Date: 7/02/08
Well No. mw-1	Purge Method: 5 w 6
Depth to Water (feet): 16.70  Total Depth (feet) 24.79  Water Column (feet): 4.09  80% Recharge Depth(feet): 18.32	Depth to Product (feet):  LPH & Water Recovered (gallons):  Casing Diameter (Inches):  1 Well Volume (gallons):

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	D.O. (mg/L)	ORP	Turbidity
1240			6	554,8	20.8	7.76			
			12	548.3	20.8	7.18			
	1248		18	549.8	21.3	6.86			
01-1	T: O-		7.1						
Stat	ic at Time Sa		lota	al Gallons Pu	rgea	4	Sample こうろ	Ime	
	17.05			10		1 (	<u> </u>		
Comments	:								

Well No. <u> </u>	Purge Method:
Depth to Water (feet): 17.94	Depth to Product (feet):
Total Depth (feet) 25.17	LPH & Water Recovered (gallons):
Water Column (feet): 7.23	LPH & Water Recovered (gallons):  Casing Diameter (Inches):  (J'')
80% Recharge Depth(feet): 19-39	1 Well Volume (gallons): 5

Time Start	Timė Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F, 🖒	pН	D <sub>.</sub> O (mg/L)	ORP	Turbidity
1364			2	580.1	23.3	6.62			
			i O	577.4	72.4	6.39			
	1309		15	581.1	52.0	6.32			
								_	
Stat	ic at Time S	ampled	Tota	I Gallons Pur	ged		Sample	Time	•
	18.15		15			17	315		
Comments	<b>5</b> ;								



### **GROUNDWATER SAMPLING FIELD NOTES**

Project No: 154771 Date: 7/02/08

Well No.
Purge Method:

Depth to Water (feet):
18.55

Depth to Product (feet):
Depth to Product (feet):

Total Depth (feet)
24.87

Water Column (feet):
6.34

Casing Diameter (Inches):
4"

80% Recharge Depth(feet):
19.82

1 Well Volume (gallons):
5

Site: 7/24

Start	Stop	Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,Ø)	pН	D.O (mg/L)	ORP	Turbidity
1324			5	587.2	22.7	6.58			
			10	597.2	21.4	6.36			
	1331		15	600.4	21.6	6.28			
	,								
Static	at Time Sa	mpled	Tota	al Gallons Pu	rged	<u> </u>	Sample	Time	
18	1.82		•	15		13	37		
comments:					· · · · · · · · · · · · · · · · · · ·				

Well No.
Purge Method:
Sub

Depth to Water (feet): 17.84 Depth to Product (feet):

Total Depth (feet) 25.1( LPH & Water Recovered (gallons):

Water Column (feet): 7.27 Casing Diameter (Inches): 4"

80% Recharge Depth(feet): 19.29 1 Well Volume (gallons): 5

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рH	D O (mg/L)	ORP	Turbidity
1353			5	620.8	20.8	6.76			
			10	616.9	26.2	6.38			
	1400		15	637.9	20.2	6.21			
Stat	ic at Time S	ampled	Tota	<u>l</u> al Gallons Pu	rged	<u> </u>	Sample	Time	<u> </u>
	18.0	21		15		17	do		
Comments	<b>&gt;:</b>							•	
	<b>y</b> .	. 17							·



Date of Report: 07/11/2008

Anju Farfan

TRC 21 Technology Drive Irvine, CA 92618

RE: 7124

BC Work Order: 0808613

Enclosed are the results of analyses for samples received by the laboratory on 7/3/2008. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Client Service Rep

**Authorized Signature** 

Project: 7124

Project Number: [none]
Project Manager: Anju Farfan

Reported: 07/11/2008 11:18

## **Laboratory / Client Sample Cross Reference**

Laboratory	Client Sample Informat	ion			
0808613-01	COC Number:		Receive Date:	07/03/2008 20:25	Delivery Work Order:
	Project Number:	7124	Sampling Date:	07/02/2008 12:53	Global ID: T0600173591
	Sampling Location:	MW-1	Sample Depth:		Matrix: W
	Sampling Point:	MW-1	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI	·		Cooler ID:
0808613-02	COC Number:		Receive Date:	07/03/2008 20:25	Delivery Work Order:
	Project Number:	7124	Sampling Date:	07/02/2008 13:15	Global ID: T0600173591
	Sampling Location:	MW-2	Sample Depth:		Matrix: W
	Sampling Point:	MW-2	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI			Cooler ID:
0808613-03	COC Number:		Receive Date:	07/03/2008 20:25	Delivery Work Order:
	Project Number:	7124	Sampling Date:	07/02/2008 13:37	Global ID: T0600173591
	Sampling Location:	MW-4	Sample Depth:		Matrix: W
	Sampling Point:	MW-4	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI			Cooler ID:
0808613-04	COC Number:		Receive Date:	07/03/2008 20:25	Delivery Work Order:
	Project Number:	7124	Sampling Date:	07/02/2008 14:06	Global ID: T0600173591
	Sampling Location:	MW-3	Sample Depth:		Matrix: W
	Sampling Point:	MW-3	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI			Cooler ID:

Project: 7124

Project Number: [none]

Reported: 07/11/2008 11:18

Project Manager: Anju Farfan

BCL Sample ID: 0808613-01	Client Sam	ple Name	: 7124, MW-1, M\	V-1, 7/2/2008	12:53:00	PM						
					Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDI	_ Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
Ethylbenzene	ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
Toluene	ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
Total Xylenes	ND	ug/L	1.0	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
t-Butyl alcohol	ND	ug/L	10	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
Ethanol	ND	ug/L	250	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	7177
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281	ND	, q.,,,
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCI	.) EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281		
Toluene-d8 (Surrogate)	103	%	88 - 110 (LCL - UCI	.) EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281		
4-Bromofluorobenzene (Surrogate)	94.9	%	86 - 115 (LCL - UCI	.) EPA-8260	07/05/08	07/08/08 03:28	SDU	MS-V10	1	BRG0281		, , , , , , , , , , , , , , , , , , , ,

Project: 7124

Project Number: [none]
Project Manager: Anju Farfan

Reported: 07/11/2008 11:18

BCL Sample ID:	0808613-02	Client Samp	ole Name	7124, MW-2, MW	-2, 7/2/2008	1:15:00F	PM	-					
_						Prep	Run		Instru-		QC	МВ	Lab
Constituent		Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	
1,2-Dibromoethane		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	
1,2-Dichloroethane		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	T F.ALL.
Ethylbenzene		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	
Methyl t-butyl ether		2.4	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	
Toluene		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	
Total Xylenes		ND	ug/L	1.0	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	170207 300000
t-Amyl Methyl ether		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	THE PARTY OF THE P
t-Butyl alcohol		ND	ug/L	10	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	7/80-2
Diisopropyl ether		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	
Ethanol		ND	ug/L	250	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	
Ethyl t-butyl ether		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	
Total Purgeable Petrole Hydrocarbons	eum	75	ug/L	50	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281	ND	
1,2-Dichloroethane-d4	(Surrogate)	103	%	76 - 114 (LCL - UCL)	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281		~~~
Toluene-d8 (Surrogate	)	99.9	%	88 - 110 (LCL - UCL)	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281		TO TAKE A
4-Bromofluorobenzene	(Surrogate)	103	%	86 - 115 (LCL - UCL)	EPA-8260	07/05/08	07/08/08 03:45	SDU	MS-V10	1	BRG0281		

Project: 7124

Project Number: [none]
Project Manager: Anju Farfan

Reported: 07/11/2008 11:18

BCL Sample ID:	0808613-03	Client Sam	ple Name	7124, MW-4, MV	V-4, 7/2/2008	1:37:00	PM						
				***************************************		Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
1,2-Dibromoethane		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
1,2-Dichloroethane		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
Ethylbenzene		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
Methyl t-butyl ether		3.3	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
Toluene		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
Total Xylenes		ND	ug/L	1.0	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
t-Amyl Methyl ether		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
t-Butyl alcohol		15	ug/L	10	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
Diisopropyl ether		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
Ethanol		ND	ug/L	250	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
Ethyl t-butyl ether		ND .	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	
Total Purgeable Petro Hydrocarbons	eum	340	ug/L	50	EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281	ND	T-0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
1,2-Dichloroethane-d4	(Surrogate)	103	%	76 - 114 (LCL - UCL	) EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281		
Toluene-d8 (Surrogate	•)	102	%	88 - 110 (LCL - UCL	) EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281		
4-Bromofluorobenzene	(Surrogate)	102	%	86 - 115 (LCL - UCL	) EPA-8260	07/05/08	07/08/08 04:03	SDU	MS-V10	1	BRG0281		

Project: 7124

Project Number: [none]
Project Manager: Anju Farfan

Reported: 07/11/2008 11:18

BCL Sample ID: 0	808613-04	Client Samp	ole Name	7124, MW-3, MV	/-3, 7/2/2008	2:06:00F	PM						
						Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
1,2-Dibromoethane		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
1,2-Dichloroethane		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
Ethylbenzene		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
Methyl t-butyl ether		91	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
Toluene		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
Total Xylenes		ND	ug/L	1.0	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	The second of th
t-Amyl Methyl ether		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
t-Butyl alcohol		ND	ug/L	10	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	de del des series State : color senso sens : com con es en en es en es en en
Diisopropyl ether		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	The second section of the second section of the second section of the second section s
Ethanol		ND	ug/L	250	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
Ethyl t-butyl ether		ND	ug/L	0.50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
Total Purgeable Petroleu Hydrocarbons	m	1200	ug/L	50	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281	ND	
1,2-Dichloroethane-d4 (S	urrogate)	101	%	76 - 114 (LCL - UCL	) EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281		
Toluene-d8 (Surrogate)		103	%	88 - 110 (LCL - UCL	EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281		
4-Bromofluorobenzene (S	Surrogate)	108	%	86 - 115 (LCL - UCL	) EPA-8260	07/05/08	07/08/08 04:21	SDU	MS-V10	1	BRG0281		***************************************

Project: 7124

Project Number: [none]
Project Manager: Anju Farfan

Reported: 07/11/2008 11:18

# **Volatile Organic Analysis (EPA Method 8260)**

### **Quality Control Report - Precision & Accuracy**

	•		Source Sample ID			Spike Added	Units	Control Limits			
Constituent	Batch ID	QC Sample Type		Source Result	Result			RPD	Percent Recovery	RPD	Percent Recovery Lab Quals
Benzene	BRG0281	Matrix Spike	0807421-69	0	26.990	25.000	ug/L		108		70 - 130
		Matrix Spike Duplicat	e 0807421-69	0	25.650	25.000	ug/L	4.7	103	20	70 - 130
Toluene	BRG0281	Matrix Spike	0807421-69	0	25.120	25.000	ug/L		100		70 - 130
		Matrix Spike Duplicat	e 0807421-69	0	23.760	25.000	ug/L	5.1	95.0	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BRG0281	Matrix Spike	0807421-69	ND	9.7600	10.000	ug/L		97.6		76 - 114
		Matrix Spike Duplicat	e 0807421-69	ND	9.7300	10.000	ug/L		97.3		76 - 114
Toluene-d8 (Surrogate)	BRG0281	Matrix Spike	0807421-69	ND	10.010	10.000	ug/L		100		88 - 110
		Matrix Spike Duplicat	e 0807421-69	ND	9.9400	10.000	ug/L		99.4		88 - 110
4-Bromofluorobenzene (Surrogate)	BRG0281	Matrix Spike	0807421-69	ND	9.8600	10.000	ug/L		98.6		86 - 115
		Matrix Spike Duplicat	e 0807421-69	ND	10.010	10.000	ug/L		100		86 - 115

TRC
21 Technology Drive

Irvine, CA 92618

Project: 7124

Project Number: [none]
Project Manager: Anju Farfan

Reported: 07/11/2008 11:18

## **Volatile Organic Analysis (EPA Method 8260)**

### **Quality Control Report - Laboratory Control Sample**

		•		•		•						
										Control	Limits	
Constituent	Datah ID	OC Comple ID	OC Time	Dogulf	Spike	DOL	l luita	Percent	_	ercent	DDD	Lab Övele
Constituent	Batch ID	QC Sample ID	QC Type	Result	Level	PQL	Units	Recovery	RPD Re	covery	RPD	Lab Quals
Benzene	BRG0281	BRG0281-BS1	LCS	28.600	25.000	0.50	ug/L	114	7	0 - 130		
Toluene	BRG0281	BRG0281-BS1	LCS	27.080	25.000	0.50	ug/L	108	7	0 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BRG0281	BRG0281-BS1	LCS	9.7500	10.000		ug/L	97.5	7	6 - 114		
Toluene-d8 (Surrogate)	BRG0281	BRG0281-BS1	LCS	10.000	10.000	-	ug/L	100	8	8 - 110		
4-Bromofluorobenzene (Surrogate)	BRG0281	BRG0281-BS1	LCS	9.9800	10.000		ug/L	99.8	8	6 - 115		

Project: 7124

Project Number: [none]
Project Manager: Anju Farfan

Reported: 07/11/2008 11:18

## **Volatile Organic Analysis (EPA Method 8260)**

### **Quality Control Report - Method Blank Analysis**

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BRG0281	BRG0281-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BRG0281	BRG0281-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BRG0281	BRG0281-BLK1	ND	ug/L	0.50		
Ethylbenzene	BRG0281	BRG0281-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BRG0281	BRG0281-BLK1	ND	ug/L	0.50		
Toluene	BRG0281	BRG0281-BLK1	ND	ug/L	0.50		
Total Xylenes	BRG0281	BRG0281-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BRG0281	BRG0281-BLK1	ND	ug/L	0.50		· · · · · · · · · · · · · · · · · · ·
t-Butyl alcohol	BRG0281	BRG0281-BLK1	ND	ug/L	10		
Diisopropyl ether	BRG0281	BRG0281-BLK1	ND	ug/L	0.50		
Ethanol	BRG0281	BRG0281-BLK1	ND	ug/L	250	·	
Ethyl t-butyl ether	BRG0281	BRG0281-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BRG0281	BRG0281-BLK1	ND	ug/L	50	PP	
1,2-Dichloroethane-d4 (Surrogate)	BRG0281	BRG0281-BLK1	95.8	%	76 - 114 (L	.CL - UCL)	
Toluene-d8 (Surrogate)	BRG0281	BRG0281-BLK1	105	%	88 - 110 (L	.CL - UCL)	
4-Bromofluorobenzene (Surrogate)	BRG0281	BRG0281-BLK1	101	%	86 - 115 (L	.CL - UCL)	



Project: 7124 Reported: 07/11/2008 11:18

Project Number: [none]
Project Manager: Anju Farfan

#### **Notes And Definitions**

21 Technology Drive

Irvine, CA 92618

TRC

MDL Method Detection Limit

ND Analyte Not Detected at or above the reporting limit

PQL Practical Quantitation Limit
RPD Relative Percent Difference

BC LABORATORIES INC.			SAMPLE	RECEI	T FORM	l Re	v. No. 12	06/24/08	Page _	Of			
Submission#: 08-8613													
SHIPPING INFORMATION Federal Express  UPS Hand Delivery  Ice Chest  None  None  BC Lab Field Service  Other (Specify)  Box  Other (Specify)													
Refrigerant: Ice ☑ Blue Ice □ None □ Other □ Comments:													
Custody Seals Ice Chest D Containers D None Comments:													
All samples received? Yes 🗓 No 🗆 All samples containers intact? Yes 🖻 No 🗆 Description(s) match COC? Yes 🗑 No 🗆													
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PLASTIC BAG		[											
FERROUS IRON							,						
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Comments:
Sample Numbering Completed By:
A = Actual / C = Corrected

Date/Time: 7-3-08 ZIDLe

**BC LABORATORIES, INC.** 

4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918

### **CHAIN OF CUSTODY**

		68-8W				Ana	alysi	s Re	que	este	d			
Bill to: Conoco Phillips/ TRC  Address:  10151 International BLKD  Consultant Firm: TR  21 Technology Driv  Irvine, CA 92618-230  Attn: Anju Farfan							7.5. 37 36 37 37 37 37 37			10-38 Car 12-33 Section 1	/ 15 4 15 4 15 4 15 15 15 15 15 15 15 15 15 15 15 15 15			
				Ground- water (S)	Gas by 8015	77.00.5	ates	8260B			808	ested		
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O	akland	Workorder # 01634	1-4509118529	Waste-	y 8021E	0151	y 80 / 0x)	XYS	8260B	/MS	64	ne F		
State: CA	Zip:	Project #: 1547		water (SL)	E by	) 8	EL by	E/O	ا کو ح	GC		j j		
Conoco P	Phillips Mgr: $\mathcal{B}$ , $\mathcal{B}$ or $\mathcal{S}$ L	Sampler Name: 1	Picky	Sludge	MTE	ASI		MTB	Ď	G b	le Dc	uno		
Lab#	Sample Description	Field Point Name	Date & Time Sampled		BTEX/MTBE by	TPH GAS by 8015M	TPH DIESEL by 8015 8260 full list w/ oxygenates	BTEX/MTBE/OXYS BY	ETHANOL	TPH -G by GC/MS	EDB,	Turnaround Time Requested		
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f f	CHK BY DISTRIBUTED SUB-O													
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#### **STATEMENTS**

### **Purge Water Disposal**

Non-hazardous groundwater produced during purging and sampling of monitoring was accumulated at TRC's groundwater monitoring facility at Concord, California, for transportation by a licensed carrier, to the ConocoPhillips Refinery at Rodeo, California Disposal at the Rodeo facility was authorized by ConocoPhillips in accordance with "ESD Standard Operating Procedures – Water Quality and Compliance", as revised on February 7, 2003. Documentation of compliance with ConocoPhillips requirements is provided by an ESD Form R-149, which is on file at TRC's Concord Office. Purge water suspected of containing potentially hazardous material, such as liquid-phase hydrocarbons, was accumulated separately in a drum for transportation and disposal by others.

#### Limitations

The fluid level monitoring and groundwater sampling activities summarized in this report have been performed under the responsible charge of a California Registered Geologist or Registered Civil Engineer and have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, express or implied, is made regarding the conclusions and professional opinions presented in this report. The conclusions are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.