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Alameda County  
Environmental Health

## **THIRD QUARTER 2008 QUARTERLY MONITORING REPORT**

Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, California 94608

**USTCF Claim #002192**

**Prepared For:**

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November 7, 2008



[www.westernresourcemgmt.com](http://www.westernresourcemgmt.com)

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## **1.0 INTRODUCTION**

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### **1.1 Project Description**

On behalf of the responsible party, Western Resource Management (WRM) has prepared this *Third Quarter 2008 Quarterly Monitoring Report* for submittal to the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) and Alameda County Health Care Services Agency (ACHSA). The scope of work conducted during this project complies with existing SRWQCB and ACHSA directive letters.

### **1.2 Site Location and Description**

The former City of Paris Cleaners is a former dry cleaning, laundry and dyeing operation currently owned by Mrs. Debra Runyon and located at 3516 Adeline St., Oakland, CA. The plant was in operation for over 40 years until the 1960's, but cleaning materials were not completely removed from the site until 1990. The site buildings remained vacant for a number of years following the closure of the dry cleaning operation and then were converted to residential and light commercial use.

The site lies at the southern corner of the intersection between 35<sup>th</sup> St. and Adeline St. at approximately 30 feet above mean sea level (msl) in the northwest portion of the City of Oakland, California. The site buildings currently house City of Paris Studios, a workshop for art, art restoration, collectibles and hobbies, as well as on-site living quarters. The current owner acquired the site in July 2000.

### **1.3 Site History and Previous Subsurface Investigations**

On October 4, 1990, three underground storage tanks (1 750-gallon and 2 1,000-gallon) were excavated and removed from the site by Semco Company of San Mateo. These UST were formerly used to store Stoddard Solvent for use in the dry cleaning operations at the site. Six soil samples were collected in conjunction with the UST removal.

On July 31 and August 1 and 2, 1991, Uriah Inc. (UES) performed a soil vapor survey at the site in an attempt to define the approximate boundaries of soil impacted by Stoddard Solvent. Soil vapors were found to be widely distributed across the site but, due to physical restrictions posed by site structures, sidewalks, etc., the full extent of the impacted soil could not be defined.

W.A. Craig was contracted to overexcavate the eastern portion of the tank pit on August 30, 1991. Approximately 44 cubic yards were excavated and placed in a cell for on-site bioremediation of the impacted soil. During the course of the overexcavation activities, an additional 250-gallon UST containing Stoddard Solvent was discovered. This UST was removed and disposed by W. A. Craig on October 31, 1991. An additional 15 cubic yards was overexcavated by W.A. Craig on January 27, 1992 and added to the on-site bioremediation cell.

W. A. Craig backfilled the tank pit with bioremediated soil and clean fill on April 21, 1992.

UES supervised the installation of three 30-foot ground water monitoring wells on-site on October 29 and 30, 1992. The wells were installed by Soils Exploration Services of Vacaville, California. Initial groundwater elevations in the wells ranged from 13 to 14 feet below grade. Groundwater samples from all three wells contained Total Petroleum Hydrocarbons, as

### Third Quarter 2008, Quarterly Monitoring Report

Former City of Paris Cleaners, 3516 Adeline Street, Oakland, California

Stoddard Solvent (TPH-SS), ranging from 630 parts per billion (ppb) in MW-2 to 11,000 ppb in MW-3. All other tested constituents were below laboratory detection limits.

On March 19, 1998, Dugan Associates of San Jose, California advanced six on and off-site soil borings to a total depth of 18 feet below grade. Five of the soil borings were advanced on the north side of 35<sup>th</sup> Street in the projected downgradient direction from the site (EB-2 through EB-6). One soil boring was advanced on-site to the northwest of the former UST location (EB-1). Three soil samples and one grab groundwater sample were collected from each soil boring. The groundwater sample from the on-site soil boring (EB-1) reported 270,000 ppb TPH-SS with one off-site groundwater sample (EB-5) reporting 780 ppb TPH-SS. All the other groundwater samples were below laboratory detection limits for all tested constituents. Soil samples at EB-1 contained 310 and 340 ppb of TPH-SS at 10 and 15 ft. below grade, respectively, and trace amounts of total xylenes and/or toluene.

By December 1999, the chemical suite of analytes that were monitored grew to include 1,2-Dichlorobenzene (DCB), 1,1-Dichloroethane, 2-methylnaphthalene and naphthalene. All these constituents were present in one or more wells. The groundwater gradient was also defined as trending to the north at 0.003 ft./ft.

In March 2002, in compliance with an ACHSA directive letter, WellTest, Inc. (formerly Dugan and Associates) redeveloped the three monitoring wells (by purging 10 well-volumes) and sampled the three wells pursuant to quarterly monitoring responsibilities. WellTest, Inc. also sampled the industrial well on-site. The analytical results of the sampling indicated up to 11,000 µg/L of TPH-SS in the sample from MW-1, no BTEX above laboratory detection limits, up to 31 µg/L MTBE in the sample from MW-3, 0.61 µg/L DCB in the sample from MW-1, and 130 µg/L Naphthalene in MW-1. The groundwater gradient was also defined to the southeast at 0.14 ft./ft., which appears to be an anomalously steep gradient for this site. This steep gradient may be a result of sediment blocking some or all of the screened section of one or more well. When Dugan redeveloped the wells in 2002, they appear to have adversely impacted the ability of the wells to adjust to changing water levels.

WRM assumed environmental consulting responsibilities for the site commencing in June 2007.



## 2.0 GROUNDWATER MONITORING, SAMPLING, AND ANALYSIS

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On August 12, 2008, to comply with quarterly groundwater monitoring requirements, WRM gauged and sampled on-site groundwater monitoring wells MW-1 through MW-3. An on-site industrial well (W-IND) was also monitored this quarter.

### 2.1 Groundwater Monitoring

Depth-to-groundwater was measured in the three monitoring wells using a water level meter capable of measurements to within 0.01 foot. The depth to the groundwater table ranged from 12.08 feet below ground surface (bgs) in MW-2 to 14.14 in MW-3. Groundwater surface elevations ranged from a high of 5.23 feet above mean sea level (msl) in MW-2 to a low of 3.3 feet above msl at MW-3. The direction of groundwater flow is to the northeast at a gradient of 0.095 feet per foot. A groundwater surface contour map is included as Figure 3 and groundwater elevation data are summarized in Table 1. Field data sheets for the groundwater monitoring are included as Appendix A.

### 2.2 Groundwater Sampling and Analysis

Following groundwater level measurements, the four wells were purged and sampled in accordance with the established sampling schedule. The monitoring wells were purged with a pump and dedicated disposable tubing until at least three well casing volumes had been removed and/or after groundwater temperature, pH and electrical conductivity values had stabilized. Groundwater was sampled from the monitoring wells using dedicated and disposable polyethylene bailers and laboratory-supplied containers. All sample containers were transported in an iced cooler with chain-of-custody documentation to Sparger Technology, Inc. (Sparger), of Rancho Cordova, California, a state certified analytical laboratory (ELAP Certification #1614).

Sparger analyzed each of the groundwater samples for Total Petroleum Hydrocarbons as Stoddard solvent (TPH-SS) by EPA Method 8015Cm, Total Petroleum Hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene and xylenes (BTEX), and oxygenate methyl tertiary butyl ether (MTBE) by EPA Method 8260B.

Maximum concentrations of dissolved TPH-SS and TPH-G were detected in the groundwater samples collected from MW-1, with concentrations of 4,000 and 12,000 µg/l, respectively. Groundwater samples collected from MW-2, and MW-3 reported lower TPH-SS concentrations of 2,200 and 1,900, respectively. Groundwater samples collected from MW-2, and MW-3 also reported lower TPH-G concentrations of 350 and 4,300, respectively. Dissolved MtBE was only detected in groundwater samples collected from MW-3 at 6.5 µg/l. Dissolved MtBE and BTEX were below minimum laboratory detection limits in MW-1 and MW-2, and BTEX were below minimum laboratory detection limits in MW-3. All tested analytes were below laboratory detection limits in W-IND.

The distribution of petroleum hydrocarbon compounds and fuel oxygenates in shallow groundwater is shown on Figure 4. The groundwater sample analytical results are summarized in Table 2 and the laboratory reports, notes, and comments are included in Appendix B.

### 3.0 CONCLUSIONS AND RECOMMENDATIONS

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There appears to be an upward trend in TPH-SS concentrations even with seasonal fluctuations taken into account, especially in the downgradient wells MW-1 and MW-3. However, this quarter's results show minimal decreases in groundwater samples collected from TPH-SS concentrations in wells MW-1 and W-IND and decreases in TPH-G concentrations in groundwater samples collected from MW-2 and W-IND, which is typically consistent with seasonal fluctuations observed since 2002.

Between May 23, 2008 and August 12, 2008, dissolved TPH-SS concentrations increased by 1,900 µg/l in MW-2 and by 1,000 µg/l in MW-3. Dissolved TPH-SS concentrations decreased by 200 µg/l in MW-1 and by at least 250 µg/l in W-IND. Dissolved TPH-G concentrations increased by at least 11,500 µg/l in MW-1 and by 1,300 µg/l in MW-3, and decreased by 750 µg/l in MW-2 and by at least 200 µg/l in W-IND. MTBE showed slight decreases in the samples collected from MW-2 and MW-3, and MtBE was only detected in groundwater samples collected from MW-3 at 6.5 µg/l. Benzene concentrations were non-detect in all groundwater samples this quarter.

The lateral extent of impacted groundwater continues to be concentrated in the vicinity of the former tank pit, concentrated in the northwest-southeast pattern between MW-1 and MW-2 and extending to the northeast as defined in previous off-site soil borings. The trend of constituents of concern in groundwater appears to indicate a residual soil source area remaining on the property. The groundwater plume remains undefined both down and cross gradient from the location of the former UST's at the site.

The anomalously steep gradient at the site indicates there may be issues with the wells resulting from the 2002 well redevelopment. WRM recommends re-surveying the wells to determine if the wells may have been disturbed during the well redevelopment process. Additional steps may include well swabbing and an additional redevelopment to clear out any sediment blockages.

WRM further recommends the use of the Hydrasleeve no-purge sampling method at the site to reduce due to concerns with dealing with and storing purge water at the site where young children live. Detailed documentation on the Hydrasleeve sampling protocols will be provided under separate cover.

## **4.0 REPORT DISTRIBUTION**

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Rancho Murieta, CA 95683

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Alameda CA, 94502

Ms. Cherie McCaulou  
San Francisco Bay Regional Water Quality Control Board  
1515 Clay St., Suite 1400  
Oakland, CA 94612

## 5.0 REMARKS AND SIGNATURE

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The interpretations and/or conclusions contained in this report represent our professional opinions and are based in part on information supplied by the client. These opinions are based on currently available information and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific site. Other than this, no warranty is implied or intended.

This report has been prepared solely for the use of Ms. Paulette Satterley. Any reliance on this report by third parties shall be at such parties' sole risk. The work described herein was performed under the direct supervision of the professional geologist, registered with the State of California, whose signature appears below.

We appreciate the opportunity to provide you with geologic, engineering and environmental consulting services and trust this report meets your needs. If you have any questions or concerns, please call us at (916) 729-1760.

Sincerely,

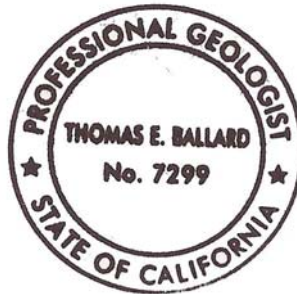
***Western Resource Management***



Martin A. Wills  
Project Manager



Thomas E. Ballard, P.G. #7299  
Senior Geologist

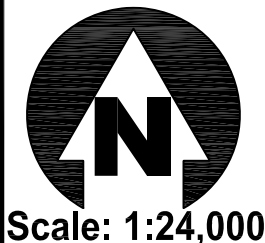


## FIGURES





**FIGURE 1**  
**SITE LOCATION MAP**  
 FORMER CITY OF PARIS CLEANERS  
 3516 ADELINE STREET  
 OAKLAND, CA



**Source:**  
 USGS West Oakland  
 Quadrangle Topographic Map  
 Report, 7.5 Minute Series  
 (topographic), dated 1993

PROJECT NO. City of Paris	DRAWN BY MML 03/07/08
FILE NO. Site Map	PREPARED BY TEB
REVISION NO. 2	REVIEWED BY



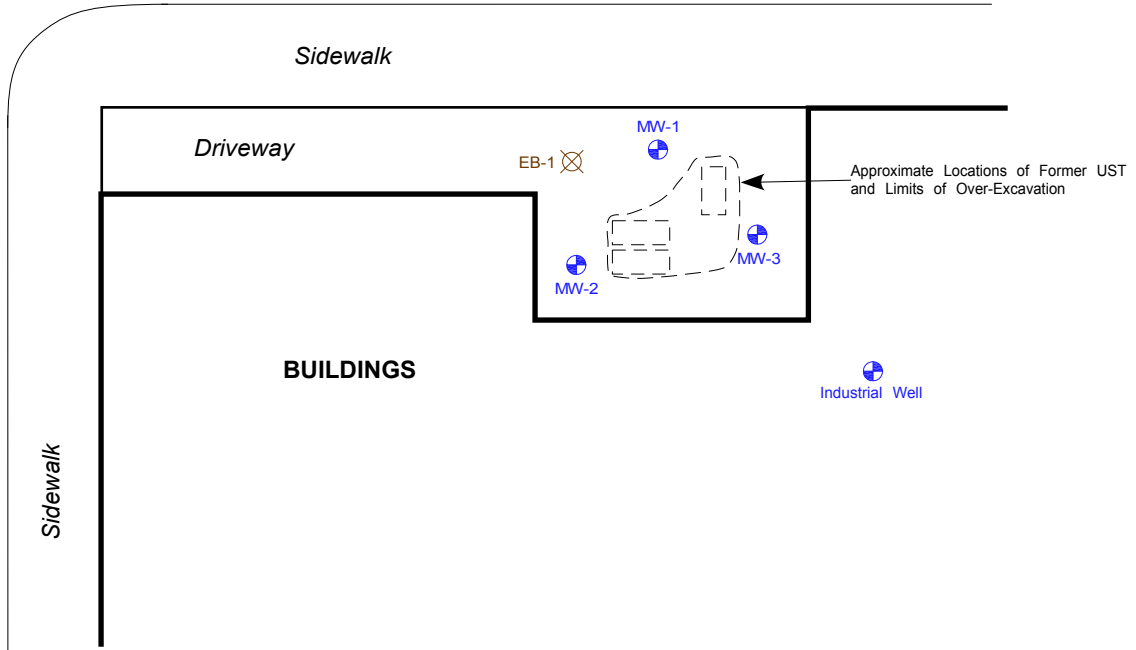


EB-2 EB-3 EB-4 EB-5 EB-6

⊗ ⊗ ⊗ ⊗ ⊗

35TH STREET

ADELINE STREET



**LEGEND**

- ⊗ EB-1 SOIL BORING (1998)
- ⊕ MW-1 GROUNDWATER MONITORING WELL

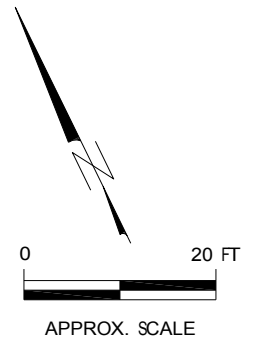


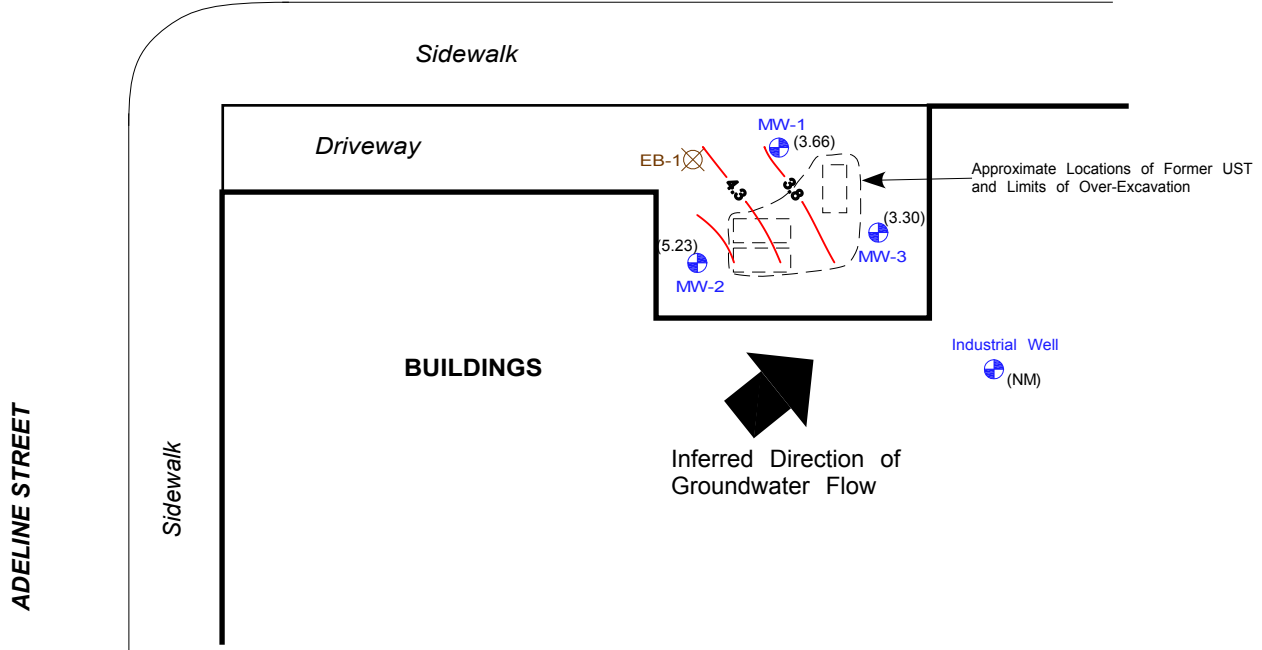
FIGURE 2  
SITE MAP  
FORMER CITY OF PARIS CLEANERS  
3516 ADELINE STREET  
OAKLAND, CA

PROJECT NO. 051074	DRAWN BY T.B. 03/06/08
FILE NO. City of Paris	PREPARED BY T.B.
REVISION NO. 1	REVIEWED BY



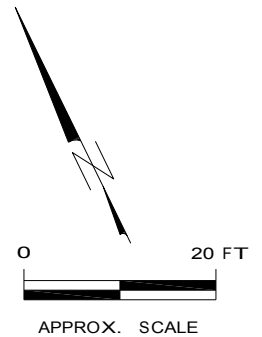
EB-2 EB-3 EB-4 EB-5 EB-6  
 ⊗ ⊗ ⊗ ⊗ ⊗

35TH STREET



**LEGEND**

- ⊗ EB-1 SOIL BORING (1998)
- ⊕ MW-1 GROUNDWATER MONITORING WELL
- GROUNDWATER CONTOUR
- (3.30) GROUNDWATER ELEVATION (FT AMSL)  
 NM = Not Measured



**FIGURE 3**  
**GROUNDWATER ELEVATIONS**  
**AUGUST 12, 2008**  
**FORMER CITY OF PARIS CLEANERS**  
**3516 ADELINE STREET**  
**OAKLAND, CA**

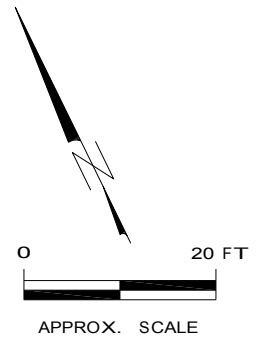
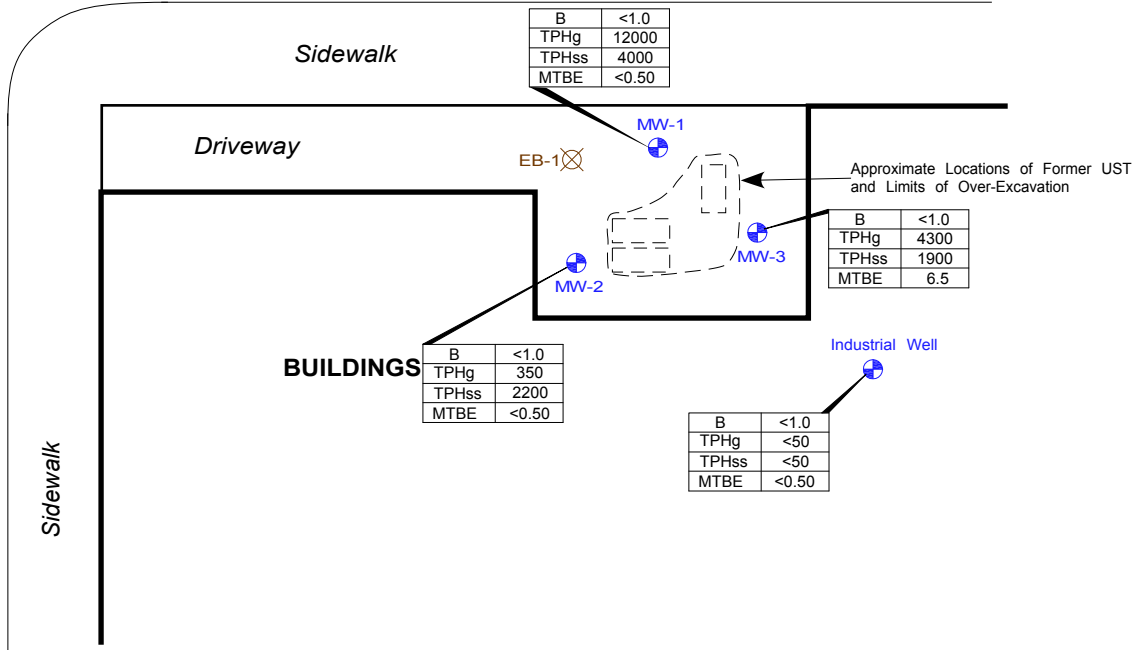
PROJECT NO. 051074	DRAWN BY T.B. 03/ 06/ 08
FILE NO. City of Paris	PREPARED BY T.B.
REVISION NO. 1	REVIEWED BY





35TH STREET

ADELINE STREET



**LEGEND**

⊗ EB-1 SOIL BORING (1998)

⊕ MW-1 GROUNDWATER MONITORING WELL

B	<1.0	BENZENE CONCENTRATION IN MICROGRAMS PER LITER (ug/ L)
TPHg	250	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE IN ug/ L
TPHss	300	TOTAL PETROLEUM HYDROCARBONS AS STODDARD SOLVENT IN ug/ L
MTBE	<0.50	METHYL TERTIARY BUTYL ETHER IN ug/ L

**Notes:**

Industrial well measured in 1995.  
Base Map Source: BT Associates (1995) for approximate locations of wells.

**FIGURE 4**  
GROUNDWATER ANALYTICAL DATA  
AUGUST 12, 2008  
FORMER CITY OF PARIS CLEANERS  
3516 ADELINE STREET  
OAKLAND, CA

PROJECT NO. 051074	DRAWN BY T.B. 03/ 06/ 08	
FILE NO. City of Paris	PREPARED BY T.B.	
REVISION NO. 1	REVIEWED BY	

## TABLES

SOURCE	Reference Elevation		SOURCE	Reference Elevation		SOURCE	Reference Elevation	
MW-1 ○	17.44		MW-2 △	17.31		MW-3 ●	17.44	
Dates	Water Depth	Water Elev.	Dates	Water Depth	Water Elev.	Dates	Water Depth	Water Elev.
03/22/2002	8.97	8.47	03/22/2002	8.82	8.49	03/22/2002	10.97	6.47
04/15/2003	9.23	8.21	04/15/2003	8.52	8.79	04/15/2003	8.31	9.13
03/26/2004	10.32	7.12	03/26/2004	9.32	7.99	03/26/2004	8.61	8.83
09/30/2004	11.53	5.91	09/30/2004	11.62	5.69	09/30/2004	11.1	6.34
09/09/2005	13.63	3.81	09/09/2005	12.75	4.56	09/09/2005	13.75	3.69
12/20/2007	11.51	5.93	12/20/2007	9.95	7.36	12/20/2007	10.79	6.65
05/23/2008	14.14	3.3	05/23/2008	12.46	4.85	05/23/2008	15.2	2.24
08/12/2008	13.78	3.66	08/12/2008	12.08	5.23	08/12/2008	14.14	3.3

NOTES:

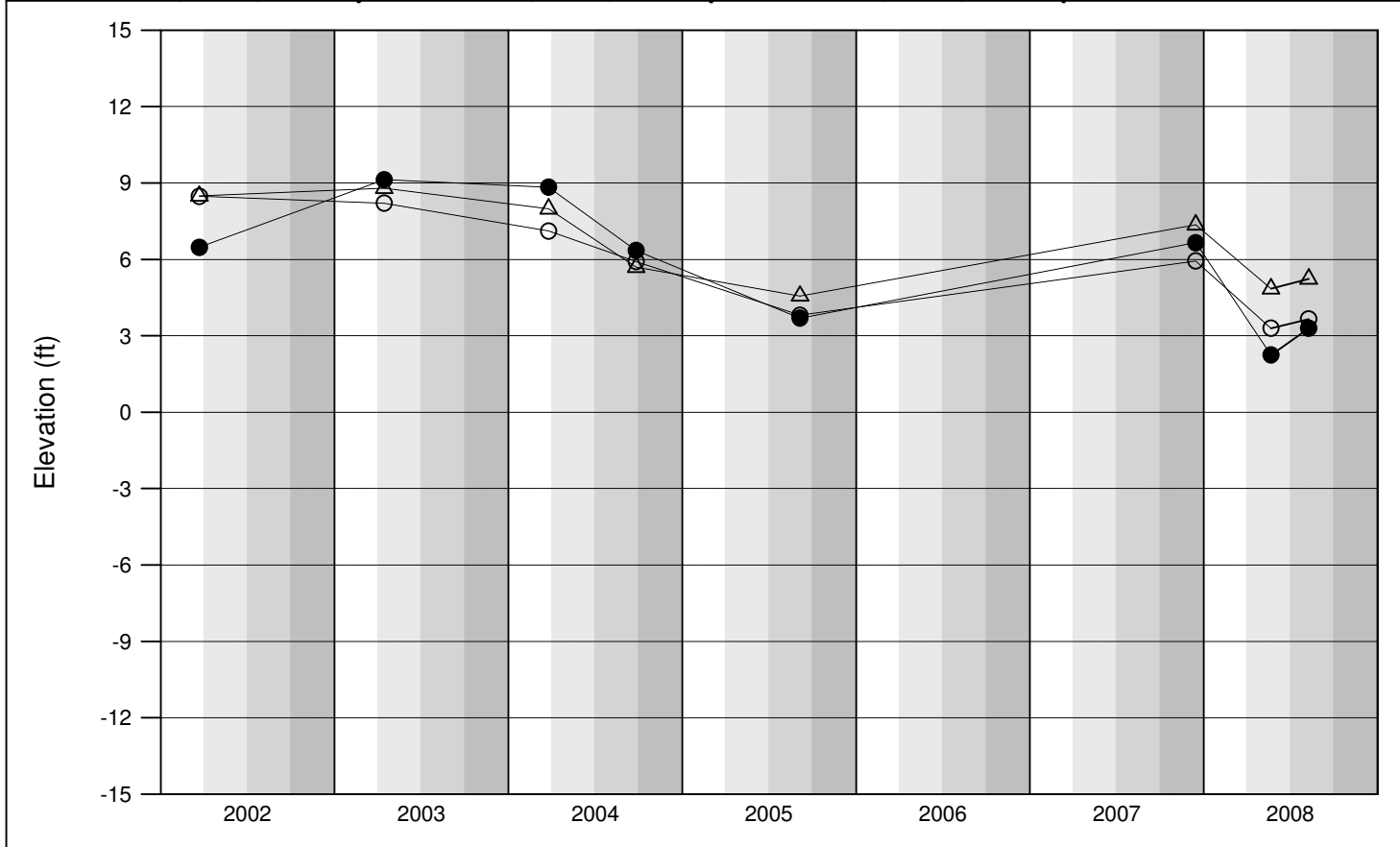


Table 1

Groundwater Elevation Data

Source Set 1 of 1

Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, CA 94608

Western Resource Management  
P.O. Box 8938  
Citrus Heights, CA

	TPH as Stoddard Solvent	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MCL:							
03/22/2002	11000	-	-	-	-	-	<5.0
04/15/2003	3900	-	<2.5	<2.5	<2.5	3	9
03/26/2004	30000	24000	<50	<50	<50	<50	<500
09/30/2004	3800	2600	<0.5	<0.5	<0.5	2.7	<5
09/09/2005	15000	11000	<5	<5	<5	15	<50
12/20/2007	45000	110000	20	50	20	100	<5
05/23/2008	4200	<500	<1.0	<1.0	<1.0	20	<0.50
08/12/2008	4000	12000	<1.0	<1.0	<1.0	<1.0	<0.50

SOURCE: MW-1

Sampling Dates:  
03/22/2002 - 08/12/2008

NOTES:

Table 2

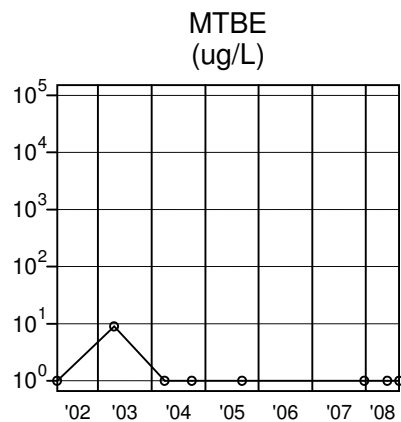
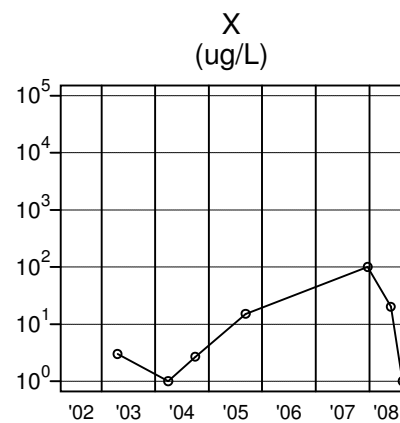
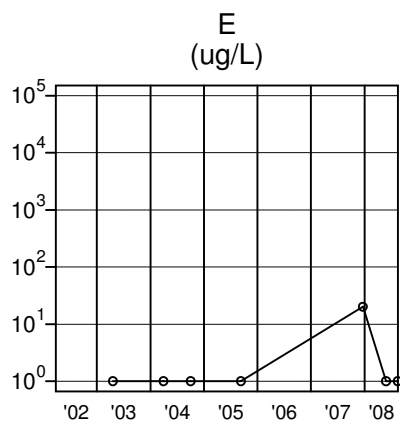
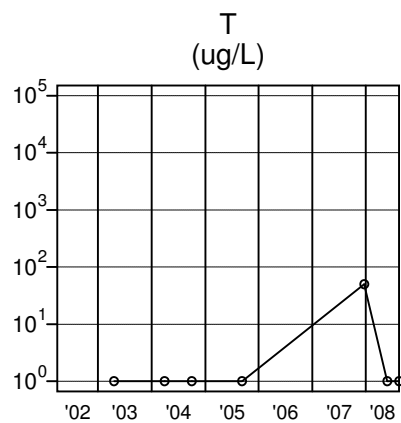
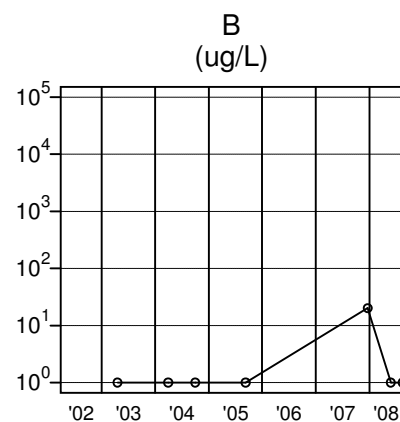
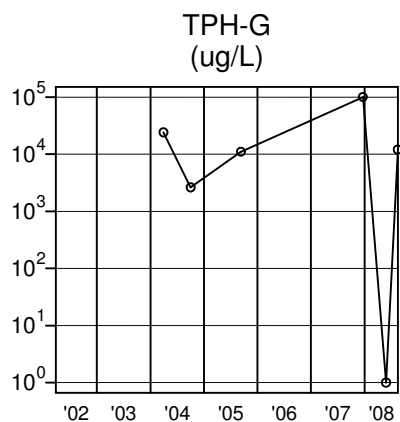
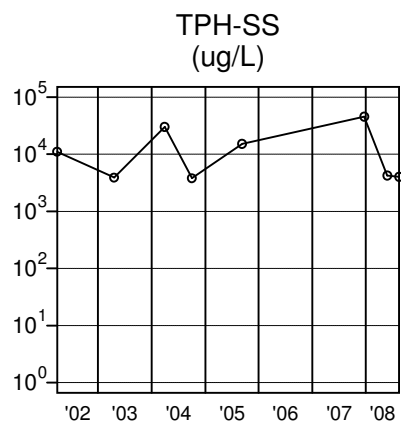
Petroleum Hydrocarbon  
Concentrations in  
Groundwater  
Source 1 of 4

Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, CA 94608

Western Resource Management  
P.O. Box 8938  
Citrus Heights, CA

SOURCE: MW-1

Sampling Dates:  
03/22/2002 - 08/12/2008



LEGEND:

PARAMETER

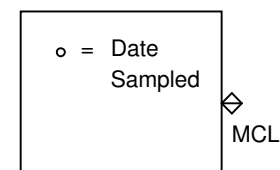


Table 2

Petroleum Hydrocarbon  
Concentrations in  
Groundwater  
Source 1 of 4, Graph

Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, CA 94608

Western Resource Management  
P.O. Box 8938  
Citrus Heights, CA

	TPH as Stoddard Solvent	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MCL:							
03/22/2002	170	13000	410	1000	210	1100	<5.0
04/15/2003	99	-	<0.5	<0.5	<0.5	0.76	10
03/26/2004	120	93	<0.5	<0.5	<0.5	0.76	5.4
09/30/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
09/09/2005	120	98	<0.5	<0.5	<0.5	<0.5	<5
12/20/2007	<50	3000	<1	1.6	<1	2.4	2.9
05/23/2008	300	1100	<1.0	<1.0	<1.0	<1.0	3.5
08/12/2008	2200	350	<1.0	<1.0	<1.0	<1.0	<0.50

SOURCE: MW-2

Sampling Dates:  
03/22/2002 - 08/12/2008

NOTES:

Table 2

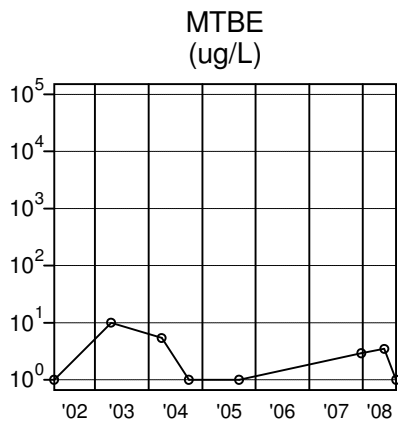
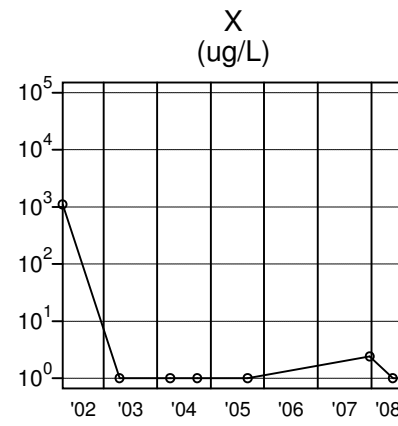
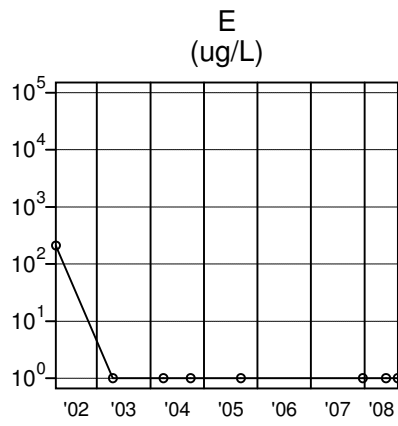
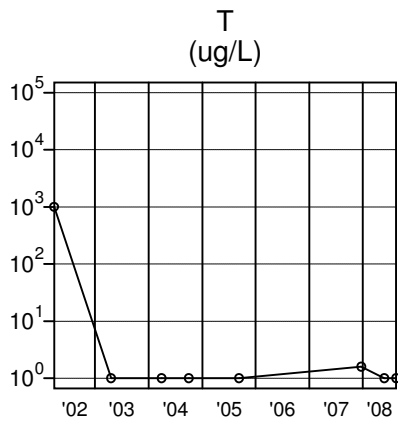
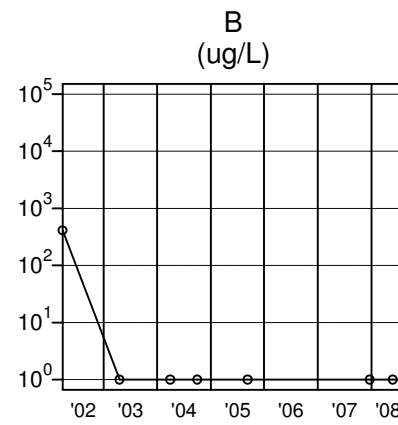
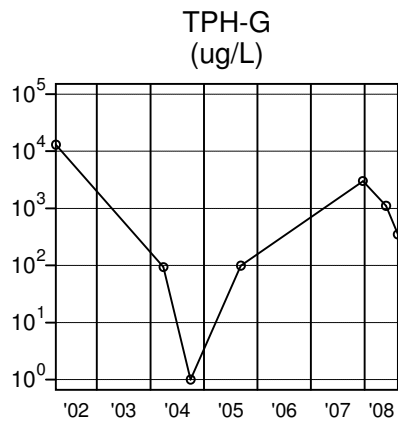
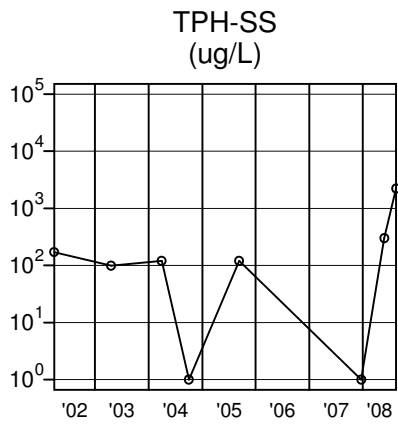
Petroleum Hydrocarbon  
Concentrations in  
Groundwater  
Source 2 of 4

Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, CA 94608

Western Resource Management  
P.O. Box 8938  
Citrus Heights, CA

SOURCE: MW-2

Sampling Dates:  
03/22/2002 - 08/12/2008



LEGEND:

PARAMETER

o = Date Sampled

◇ = MCL

Table 2

Petroleum Hydrocarbon  
Concentrations in  
Groundwater  
Source 2 of 4, Graph

Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, CA 94608

Western Resource Management  
P.O. Box 8938  
Citrus Heights, CA

	TPH as Stoddard Solvent	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MCL:							
03/22/2002	420	<50	<0.5	<0.5	<0.5	<0.5	31
04/15/2003	2700	-	<0.5	<0.5	<0.5	<0.5	40
03/26/2004	2700	1900	<1.7	<1.7	<1.7	4.3	<17
09/30/2004	3900	2600	<0.5	<0.5	<0.5	3.2	<10
09/09/2005	4000	2600	<0.5	<0.5	0.57	2.7	12
12/20/2007	18000	12000	<1	1.6	1.1	2.4	9.2
05/23/2008	900	3000	<1.0	<1.0	<1.0	<1.0	9.1
08/12/2008	1900	4300	<1.0	<1.0	<1.0	<1.0	6.5

SOURCE: MW-3

Sampling Dates:  
03/22/2002 - 08/12/2008

NOTES:

Table 2

Petroleum Hydrocarbon  
Concentrations in  
Groundwater  
Source 3 of 4

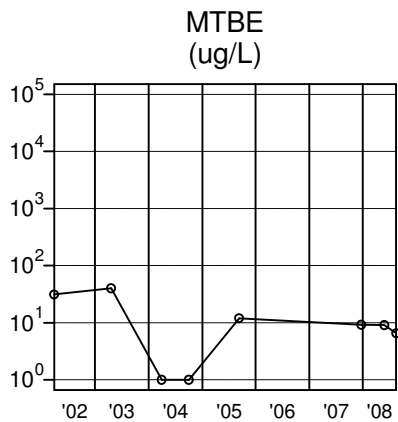
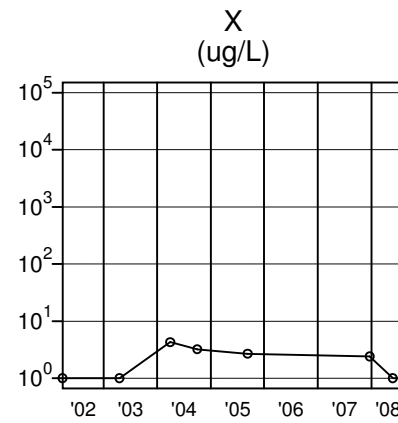
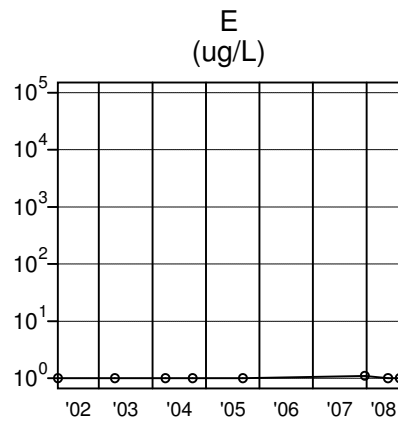
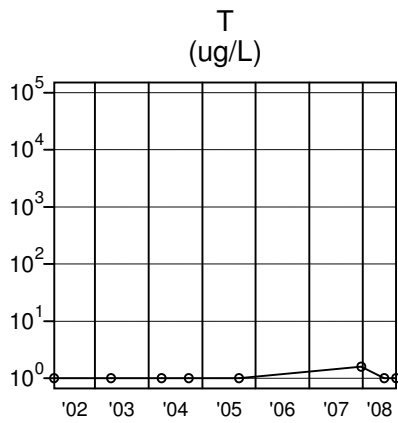
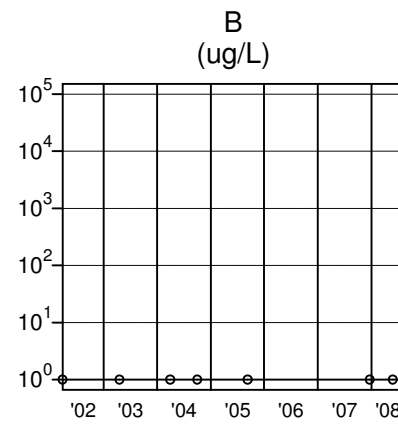
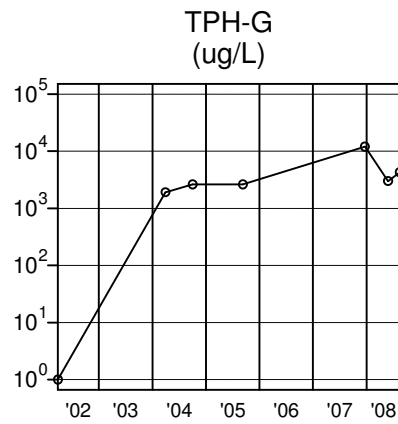
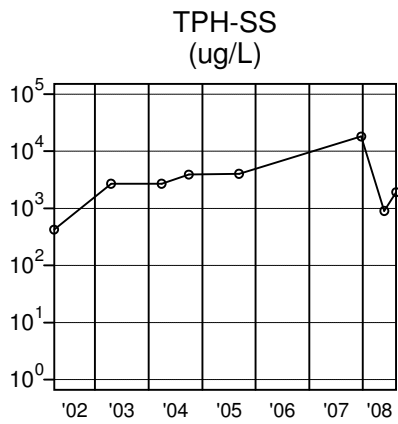
Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, CA 94608

Western Resource Management  
P.O. Box 8938  
Citrus Heights, CA



SOURCE: MW-3

Sampling Dates:  
03/22/2002 - 08/12/2008



LEGEND:

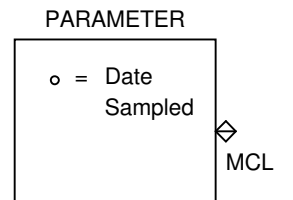


Table 2

Petroleum Hydrocarbon  
Concentrations in  
Groundwater  
Source 3 of 4, Graph

Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, CA 94608

Western Resource Management  
P.O. Box 8938  
Citrus Heights, CA

	TPH as Stoddard Solvent	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MCL:							
03/22/2002	<50	190	<0.5	<0.5	<0.5	0.80	<5.0
04/15/2003	-	-	-	-	-	-	-
03/26/2004	500	200	<0.5	<0.5	<0.5	<0.5	<5
09/30/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
09/09/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
12/20/2007	<50	500	<1	1	<1	2.2	<.50
05/23/2008	300	250	<1.0	3.7	<1.0	2.4	<0.50
08/12/2008	<50.0	<50.0	<1.0	<1.0	<1.0	<1.0	<0.50

SOURCE: W-IND

Sampling Dates:  
03/22/2002 - 08/12/2008

NOTES:

Table 2

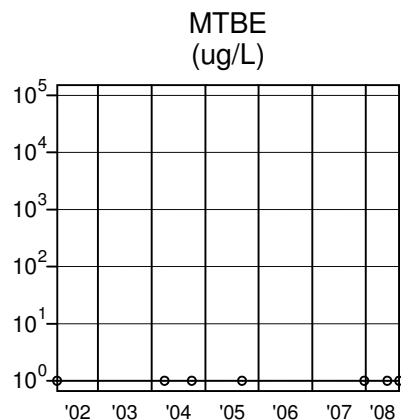
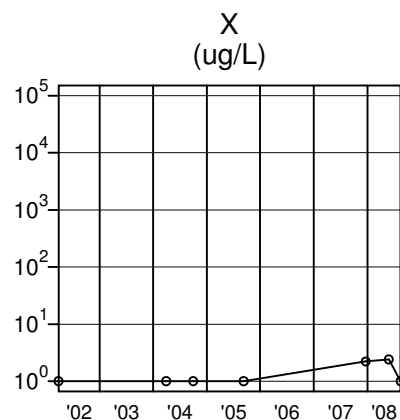
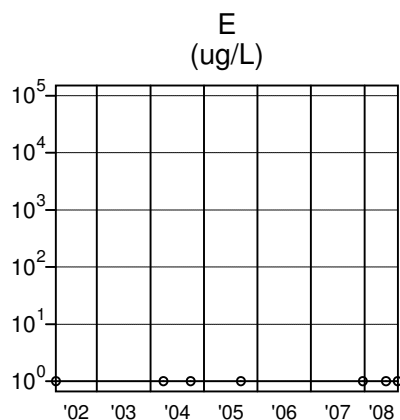
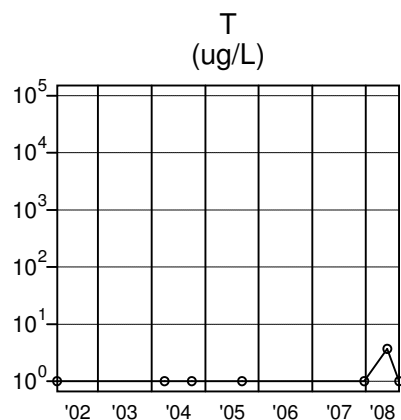
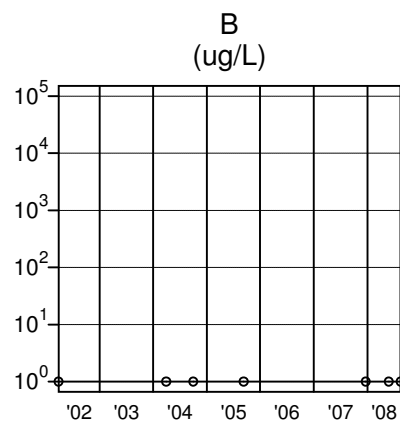
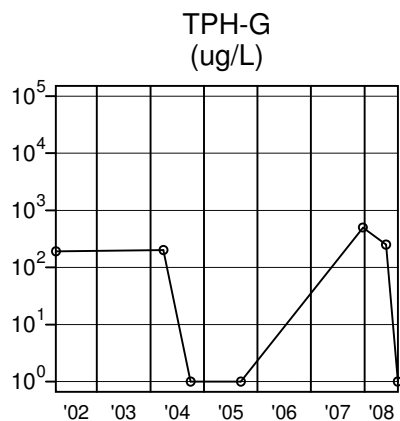
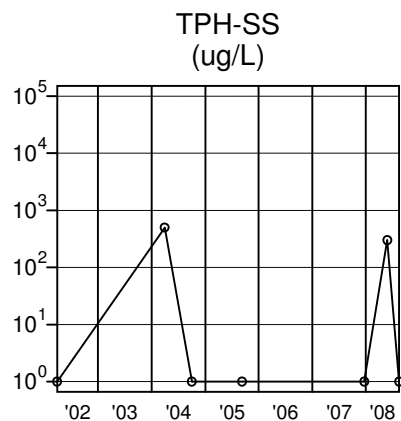
Petroleum Hydrocarbon  
Concentrations in  
Groundwater  
Source 4 of 4

Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, CA 94608

Western Resource Management  
P.O. Box 8938  
Citrus Heights, CA

SOURCE: W-IND

Sampling Dates:  
03/22/2002 - 08/12/2008



LEGEND:

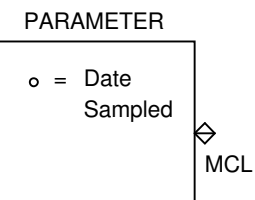


Table 2

Petroleum Hydrocarbon  
Concentrations in  
Groundwater  
Source 4 of 4, Graph

Former City of Paris Cleaners  
3516 Adeline Street  
Oakland, CA 94608

Western Resource Management  
P.O. Box 8938  
Citrus Heights, CA

**APPENDIX A**  
**FIELD DATA SHEETS**







**DOULOS ENVIRONMENTAL, INC.**

**SAMPLING INFORMATION SHEET**

Client: Western Resources Management

Sampling Date: 8/2/98

Site: Former City of Paris Cleaners

Project No.: \_\_\_\_\_

3516 Adeline Street

Well Designation: MW-1

Oakland, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in the well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 1  
 Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_  8" or 12" BK  8" Christy \_\_\_\_\_  
 12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_  
 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_  
 General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer \_\_\_\_\_  Centrifugal pump  
 Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_  
 Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 8:05 Time: 8:20 Calculated purge: 6.3  
 Depth of well: 27.07 Depth to water: 14.60 Actual purge: 7.0  
 Depth to water: 13.98

Start purge: 8:20 Sampling time: 8:45

Time	Temperature	E.C.	pH	Turbidity	Volume
8:21	19.4	1363	6.51		1
8:22	19.1	1399	6.49		2
8:23	19.1	1408	6.97		3

Sample appearance: cloudy Lock: NA

Equipment replaced: (check all that apply) Note condition of replaced item(s)  
 2" Locking Cap: \_\_\_\_\_ Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_  
 \_\_\_\_\_

Signature: \_\_\_\_\_



**DOULOS ENVIRONMENTAL, INC.**

**SAMPLING INFORMATION SHEET**

Client: Western Resources Management

Sampling Date: 8-12-08

Site: Former City of Paris Cleaners

Project No.: \_\_\_\_\_

3516 Adeline Street

Well Designation: MW-2

Oakland, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in the well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked?  NO  YES If no, see remarks  
 Height of well casing riser (in inches): 0  
 Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_  8" or 12" BK  8" Christy \_\_\_\_\_  
 12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_  
 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_  
 General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer \_\_\_\_\_  Centrifugal pump  
 Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_  
 Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 8:08 Time: 8:49 Calculated purge: 8.2  
 Depth of well: 29.36 Depth to water: 13.73 Actual purge: 8.5  
 Depth to water: 12.08

Start purge: 8:30 Sampling time: 8:50

Time	Temperature	E.C.	pH	Turbidity	Volume
831	19.9	16.49	7.21		1
832	19.2	16.54	7.17		2
833	19.2	16.63	7.09		3

Sample appearance: clear Lock: Master

Equipment replaced: (check all that apply) Note condition of replaced item(s)  
 2" Locking Cap: \_\_\_\_\_ Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_  
 \_\_\_\_\_

Signature: \_\_\_\_\_



**DOULOS ENVIRONMENTAL, INC.**

**SAMPLING INFORMATION SHEET**

Client: Western Resources Management

Sampling Date: 8-12-08

Site: Former City of Paris Cleaners

Project No.: \_\_\_\_\_

3516 Adeline Street

Well Designation: mw-3

Oakland, CA

Is setup of traffic control devices required?  NO  YES

time: \_\_\_\_\_ hours

Is there standing water in the well box?  NO  YES

Above TOC  Below TOC

Is top of casing cut level?  NO  YES

If no, see remarks

Is well cap sealed and locked?  NO  YES

If no, see remarks

Height of well casing riser (in inches): 1

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D  12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_

12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump

\_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer

\_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 8:08

Time: 9:18

Calculated purge: 7.3

Depth of well: 29.48

Depth to water: 14.97

Actual purge: 8.0

Depth to water: 14.14

Start purge: 8:57

Sampling time: 9:20

Time	Temperature	E.C.	pH	Turbidity	Volume
858	20.3	1671	6.91		1
859	20.1	1682	6.89		2
900	20.1	1694	6.63		3

Sample appearance: Clear

Lock: NA

Equipment replaced: (check all that apply)

Note condition of replaced item(s)

2" Locking Cap: \_\_\_\_\_

Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_

Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_

Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_  
 \_\_\_\_\_

Signature: \_\_\_\_\_



Client: Western Resources Management

Sampling Date: 8-12-01

Site: Former City of Paris Cleaners

Project No.: \_\_\_\_\_

3516 Adeline Street

Well Designation: W-IND

Oakland, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in the well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level?  NO YES If no, see remarks  
 Is well cap sealed and locked?  NO YES If no, see remarks  
 Height of well casing riser (in inches): 2  
 Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_  8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_  
 12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_  
 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_  
 General condition of wellhead assembly: Excellent \_\_\_\_\_ Good \_\_\_\_\_ Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump  
 Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_  
 Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 8:15 Time: 12:58 Calculated purge: 9.3  
 Depth of well: 32.85 Depth to water: 19.73 Actual purge: 9.5  
 Depth to water: 1342

Start purge: 9:30 Sampling time: 10:00

Time	Temperature	E.C.	pH	Turbidity	Volume
931	20.0	1101	7.71		
932	19.9	1084	7.68		
933	19.7	1073	7.64		

Sample appearance: \_\_\_\_\_ Lock: \_\_\_\_\_

Equipment replaced: (check all that apply) Note condition of replaced item(s)  
 2" Locking Cap: \_\_\_\_\_ Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_

**APPENDIX B**  
**LABORATORY REPORTS**

Tom Ballard  
Western Resource Management  
P.O. Box 8738  
Citrus Heights, CA 95621

---

Client	Western Resource Management
Workorder	18571 GMR_CityOfParis
Received	08/14/08

---

The samples were received in EPA specified containers. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

Sparger Technology, Inc. ID Suffix Keys - These descriptors will follow the Sparger Technology, Inc. ID numbers and help identify the specific sample and clarify the report.

- DUP - Matrix Duplicate
- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- LCS - Lab Control Sample
- LCSD - Lab Control Sample Duplicate
- RPD - Relative Percent Difference
- QC - Additional Quality Control
- DIL - Results from a diluted sample
- ND - None Detected
- RL - Reporting Limit

Note: In an effort to conserve paper, the results are printed on both sides of the paper.



---

Ray James  
Laboratory Director

Tom Ballard  
Western Resource Management  
P.O. Box 8738  
Citrus Heights, CA 95621

**Workorder** 18571

Enclosed are the results from samples received on August 14, 2008.

The requested analyses are listed below.

<b>SAMPLE</b>	<b>SAMPLE DESCRIPTION</b>	<b>DATE COLLECTED</b>	<b>TEST METHOD</b>
18571001	MW-1, Water	08/12/08	8015B TPHd 8015B TPHgas 8260B BTEX/FOCs
18571002	MW-2, Water	08/12/08	8015B TPHd 8015B TPHgas 8260B BTEX/FOCs
18571003	MW-3, Water	08/12/08	8015B TPHd 8015B TPHgas 8260B BTEX/FOCs
18571004	W-IND, Water	08/12/08	8015B TPHd 8015B TPHgas 8260B BTEX/FOCs

Test Certificate of Analysis

**Client ID** Western Resource Management  
**Workorder #** 18571

**Workorder ID** GMR\_CityOfParis

**Laboratory ID** 18571001  
**Sample ID** MW-1  
**Matrix** Water

**Sampled** 08/12/08  
**Received** 08/14/08  
**Reported** 08/25/08

**8015M DHS TPH LUFT**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Stoddard Solvent	8015B TPHd	08/19/08	08/20/08	4000	50.0	ug/L	1:1

**Laboratory ID** 18571001  
**Sample ID** MW-1  
**Matrix** Water

**Sampled** 08/12/08  
**Received** 08/14/08  
**Reported** 08/25/08

**8015M DHS TPH LUFT**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
TPHgas <sup>1</sup>	8015B TPHgas	08/13/08	08/13/08	12000	50	ug/L	1:1

Surrogates	Result	Recovery	Limits
Trifluorotoluene	18 ug/L	90 %	(65 - 135)

<sup>1</sup> - Non-typical TPH pattern present in gas range.

**Laboratory ID** 18571001  
**Sample ID** MW-1  
**Matrix** Water

**Sampled** 08/12/08  
**Received** 08/14/08  
**Reported** 08/25/08

**8260B Oxygenates**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOC	08/14/08	08/14/08	ND	0.50	ug/L	1:1
Benzene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1

Test Certificate of Analysis

Client ID Western Resource Management  
Workorder # 18571

Workorder ID GMR\_CityOfParis

Laboratory ID 18571001      Sampled 08/12/08  
Sample ID MW-1                Received 08/14/08  
Matrix Water                    Reported 08/25/08

8260B Oxygenates (continued)

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Toluene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Ethylbenzene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Xylene, Total	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1

**Surrogates**  
1,2-Dichloroethane-d4      Result 48 ug/L      Recovery 96 %      Limits (65 - 135)

Laboratory ID 18571002      Sampled 08/12/08  
Sample ID MW-2                Received 08/14/08  
Matrix Water                    Reported 08/25/08

8015M DHS TPH LUFT

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Stoddard Solvent	8015B TPHd	08/19/08	08/20/08	2200	50.0	ug/L	1:1

Laboratory ID 18571002      Sampled 08/12/08  
Sample ID MW-2                Received 08/14/08  
Matrix Water                    Reported 08/25/08

8015M DHS TPH LUFT

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
TPHgas <sup>1</sup>	8015B TPHgas	08/13/08	08/13/08	350	50	ug/L	1:1

1 - Non-typical TPH pattern present in gas range.

Test Certificate of Analysis

**Client ID** Western Resource Management  
**Workorder #** 18571  
**Laboratory ID** 18571002  
**Sample ID** MW-2  
**Matrix** Water

**Workorder ID** GMR\_CityOfParis  
**Sampled** 08/12/08  
**Received** 08/14/08  
**Reported** 08/25/08

**8015M DHS TPH LUFT - 8015B TPHgas (continued)**

Surrogates	Result	Recovery	Limits
Trifluorotoluene	6.8 ug/L	34 %	(65 - 135)

<b>Laboratory ID</b>	18571002	<b>Sampled</b>	08/12/08
<b>Sample ID</b>	MW-2	<b>Received</b>	08/14/08
<b>Matrix</b>	Water	<b>Reported</b>	08/25/08

**8260B Oxygenates**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOC	08/14/08	08/14/08	ND	0.50	ug/L	1:1
Benzene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Toluene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Ethylbenzene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Xylene, Total	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1

Surrogates	Result	Recovery	Limits
1,2-Dichloroethane-d4	48 ug/L	96 %	(65 - 135)

<b>Laboratory ID</b>	18571003	<b>Sampled</b>	08/12/08
<b>Sample ID</b>	MW-3	<b>Received</b>	08/14/08
<b>Matrix</b>	Water	<b>Reported</b>	08/25/08

**8015M DHS TPH LUFT**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Stoddard Solvent	8015B TPHd	08/19/08	08/20/08	1900	50.0	ug/L	1:1



Test Certificate of Analysis

Client ID Western Resource Management  
Workorder # 18571

Workorder ID GMR\_CityOfParis

Laboratory ID 18571003  
Sample ID MW-3  
Matrix Water

Sampled 08/12/08  
Received 08/14/08  
Reported 08/25/08

**8015M DHS TPH LUFT**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
TPHgas <sup>1</sup>	8015B TPHgas	08/13/08	08/13/08	4300	50	ug/L	1:1
<b>Surrogates</b>	<b>Result</b>	<b>Recovery</b>	<b>Limits</b>				
Trifluorotoluene	17 ug/L	85 %	(65 - 135)				

<sup>1</sup> - Non-typical TPH pattern present in gas range.

Laboratory ID 18571003  
Sample ID MW-3  
Matrix Water

Sampled 08/12/08  
Received 08/14/08  
Reported 08/25/08

**8260B Oxygenates**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
<b>Methyl-tert-butyl-ether</b>	<b>8260B BTEX/FOC</b>	<b>08/14/08</b>	<b>08/14/08</b>	<b>6.5</b>	<b>0.50</b>	<b>ug/L</b>	<b>1:1</b>
Benzene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Toluene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Ethylbenzene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Xylene, Total	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
<b>Surrogates</b>	<b>Result</b>	<b>Recovery</b>	<b>Limits</b>				
1,2-Dichloroethane-d4	49 ug/L	98 %	(65 - 135)				

Test Certificate of Analysis

Client ID Western Resource Management  
Workorder # 18571

Workorder ID GMR\_CityOfParis

Laboratory ID 18571004  
Sample ID W-IND  
Matrix Water

Sampled 08/12/08  
Received 08/14/08  
Reported 08/25/08

**8015M DHS TPH LUFT**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Stoddard Solvent	8015B TPHd	08/19/08	08/20/08	ND	50.0	ug/L	1:1

Laboratory ID 18571004  
Sample ID W-IND  
Matrix Water

Sampled 08/12/08  
Received 08/14/08  
Reported 08/25/08

**8015M DHS TPH LUFT**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
TPHgas	8015B TPHgas	08/13/08	08/13/08	ND	50	ug/L	1:1

Surrogates	Result	Recovery	Limits
Trifluorotoluene	14 ug/L	70 %	(65 - 135)

Laboratory ID 18571004  
Sample ID W-IND  
Matrix Water

Sampled 08/12/08  
Received 08/14/08  
Reported 08/25/08

**8260B Oxygenates**

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOC	08/14/08	08/14/08	ND	0.50	ug/L	1:1
Benzene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Toluene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Ethylbenzene	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Xylene, Total	8260B BTEX/FOC	08/14/08	08/14/08	ND	1.0	ug/L	1:1

Test Certificate of Analysis

**Client ID** Western Resource Management  
**Workorder #** 18571  
**Laboratory ID** 18571004  
**Sample ID** W-IND  
**Matrix** Water

**Workorder ID** GMR\_CityOfParis  
**Sampled** 08/12/08  
**Received** 08/14/08  
**Reported** 08/25/08

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**8260B Oxygenates - 8260B BTEX/FOCs (continued)**

Surrogates	Result	Recovery	Limits
1,2-Dichloroethane-d4	47 ug/L	94 %	(65 - 135)

**Method Blank Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87319  
**Sample ID** MB for HBN 351377 [VGXV/2945]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
TPHgas	8015B TPHgas	08/13/08	08/13/08	ND	50	ug/L	1:1
<b>Surrogates</b>	<b>Result</b>	<b>Recovery</b>	<b>Limits</b>				
Trifluorotoluene	20 ug/L	100 %	(70 - 130)				

**Lab Control Sample Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87320  
**Sample ID** LCS for HBN 351377 [VGXV/2945]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
TPHgas	8015B TPHgas	08/13/08	08/13/08	900	50	ug/L	1:1

**Lab Control Sample Duplicate Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87321  
**Sample ID** LCSD for HBN 351377 [VGXV/2945]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
TPHgas	8015B TPHgas	08/13/08	08/13/08	1000	50	ug/L	1:1

**Matrix Spike Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87322  
**Sample ID** MS for HBN 351377 [VGXV/2945]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
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**Matrix Spike Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87322  
**Sample ID** MS for HBN 351377 [VGXV/2945]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
(continued)							
TPHgas	8015B TPHgas	08/13/08	08/13/08	884	50	ug/L	1:1

**Matrix Spike Duplicate Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87323  
**Sample ID** MSD for HBN 351377 [VGXV/2945]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
TPHgas	8015B TPHgas	08/13/08	08/13/08	886	50	ug/L	1:1

**Method Blank Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87363  
**Sample ID** MB for HBN 351560 [VMXV/3037]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOCs	08/14/08	08/14/08	ND	0.50	ug/L	1:1
Benzene	8260B BTEX/FOCs	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Toluene	8260B BTEX/FOCs	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Ethylbenzene	8260B BTEX/FOCs	08/14/08	08/14/08	ND	1.0	ug/L	1:1
Xylene, Total	8260B BTEX/FOCs	08/14/08	08/14/08	ND	1.0	ug/L	1:1

Surrogates	Result	Recovery	Limits
1,2-Dichloroethane-d4	52 ug/L	104 %	(65 - 135)

**Lab Control Sample Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87364  
**Sample ID** LCS for HBN 351560 [VMXV/3037]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOCs	08/14/08	08/14/08	46	0.50	ug/L	1:1
Benzene	8260B BTEX/FOCs	08/14/08	08/14/08	46	1.0	ug/L	1:1
Toluene	8260B BTEX/FOCs	08/14/08	08/14/08	46	1.0	ug/L	1:1
Ethylbenzene	8260B BTEX/FOCs	08/14/08	08/14/08	51	1.0	ug/L	1:1
Xylene, Total	8260B BTEX/FOCs	08/14/08	08/14/08	154	1.0	ug/L	1:1

**Lab Control Sample Duplicate Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87365  
**Sample ID** LCSD for HBN 351560 [VMXV/3037]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOCs	08/14/08	08/14/08	46	0.50	ug/L	1:1
Benzene	8260B BTEX/FOCs	08/14/08	08/14/08	49	1.0	ug/L	1:1
Toluene	8260B BTEX/FOCs	08/14/08	08/14/08	49	1.0	ug/L	1:1
Ethylbenzene	8260B BTEX/FOCs	08/14/08	08/14/08	54	1.0	ug/L	1:1
Xylene, Total	8260B BTEX/FOCs	08/14/08	08/14/08	162	1.0	ug/L	1:1

**Matrix Spike Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87366  
**Sample ID** MS for HBN 351560 [VMXV/3037]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOCs	08/14/08	08/14/08	53	0.50	ug/L	1:1
Benzene	8260B BTEX/FOCs	08/14/08	08/14/08	42	1.0	ug/L	1:1
Toluene	8260B BTEX/FOCs	08/14/08	08/14/08	41	1.0	ug/L	1:1
Ethylbenzene	8260B BTEX/FOCs	08/14/08	08/14/08	46	1.0	ug/L	1:1

**Matrix Spike Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87366  
**Sample ID** MS for HBN 351560 [VMXV/3037]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
<i>(continued)</i>							
Xylene, Total	8260B BTEX/FOCs	08/14/08	08/14/08	137	1.0	ug/L	1:1

**Matrix Spike Duplicate Report**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**Laboratory ID** 87367  
**Sample ID** MSD for HBN 351560 [VMXV/3037]  
**Matrix** Water

Parameter	Method	Prep Date	Analyzed	Result	RL	Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOCs	08/14/08	08/14/08	66	0.50	ug/L	1:1
Benzene	8260B BTEX/FOCs	08/14/08	08/14/08	50	1.0	ug/L	1:1
Toluene	8260B BTEX/FOCs	08/14/08	08/14/08	50	1.0	ug/L	1:1
Ethylbenzene	8260B BTEX/FOCs	08/14/08	08/14/08	52	1.0	ug/L	1:1
Xylene, Total	8260B BTEX/FOCs	08/14/08	08/14/08	156	1.0	ug/L	1:1

QC SUMMARY

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**QC Batch** VGX 3065  
**Matrix** Water

**Original Samples** 18564001  
Matrix Spike [87322]  
Matrix Spike Duplicate [87323]

Parameter	Spike %Recovery	Spike Dup %Recovery	Recovery Limits	RPD	RPD Limits
TPHgas	88	89	(65-135)	1.1	(20 MAX)

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**QC Batch** VMX 3080  
**Matrix** Water

**Original Samples** 18564001  
Matrix Spike [87366]  
Matrix Spike Duplicate [87367]

Parameter	Spike %Recovery	Spike Dup %Recovery	Recovery Limits	RPD	RPD Limits
Methyl-tert-butyl-ether	66	92	(65-135)	33	(20 MAX)
Benzene	84	100	(65-135)	17	(20 MAX)
Toluene	82	100	(65-135)	20	(20 MAX)
Ethylbenzene	92	104	(65-135)	12	(20 MAX)
Xylene, Total	91	104	(65-135)	13	(20 MAX)

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**QC Batch** VGX 3065  
**Matrix** Water

**Samples** Lab Control Sample [87320]  
Lab Control Sample Duplicate [87321]

Parameter	Check %Recovery	Check Dup %Recovery	Recovery Limits	RPD	RPD Limits
TPHgas	90	100	(65-135)	11	(20 MAX)

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**QC Batch** VMX 3080  
**Matrix** Water

**Samples** Lab Control Sample [87364]  
Lab Control Sample Duplicate [87365]

Parameter	Check %Recovery	Check Dup %Recovery	Recovery Limits	RPD	RPD Limits
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**QC SUMMARY**

**Client ID** Western Resource Management  
**Workorder ID** GMR\_CityOfParis  
**QC Batch** VMX 3080  
**Matrix** Water

**Samples** Lab Control Sample [87364]  
 Lab Control Sample Duplicate [87365]  
 (continued)

<b>Parameter</b>	<b>Check %Recovery</b>	<b>Check Dup %Recovery</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limits</b>
Methyl-tert-butyl-ether	92	92	(65-135)	00	(20 MAX)
Benzene	92	98	(65-135)	6.3	(20 MAX)
Toluene	92	98	(65-135)	6.3	(20 MAX)
Ethylbenzene	102	108	(65-135)	5.7	(20 MAX)
Xylene, Total	103	108	(65-135)	4.7	(20 MAX)