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Subject: Groundwater Monitoring Report – First Half 2016  
800 Franklin Street, Oakland, CA  
Fuel Leak Case No. RO0000196

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Should you have any questions regarding the contents of the document, please contact Bryan Fong at (510) 420-3369. Thank You.

Copy to: Ms. Anny Chiu

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With respect to:

***Groundwater Monitoring Report-First Half 2016***

Dated July 27, 2016

Fuel Leak Case No. RO0000196

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

Tommy Chiu  
Mr. Tommy Chiu

July 27, 2016  
Date



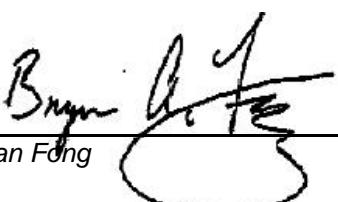
## Groundwater Monitoring Report - First Half 2016

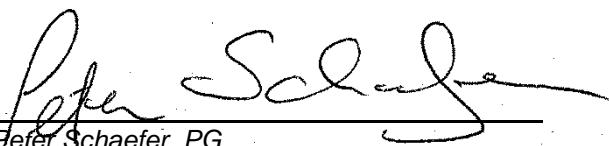
Chiu Property  
800 Franklin Street  
Oakland, California  
Agency Case No. RO0000196

# Groundwater Monitoring Report – First Half 2016

800 Franklin Street  
Oakland, California

Prepared for: Chen Tso "Tommy" Chiu

  
\_\_\_\_\_  
Bryan Fong

  
\_\_\_\_\_  
Peter Schaefer, PG



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- Appendix C Field Data Sheets
- Appendix D Trend Analysis Graphs

# 1. Introduction

On behalf of Mr. Tommy Chiu, GHD Services Inc. (GHD) is submitting this Groundwater Monitoring Report – First Half 2016 for the Chiu Property located at 800 Franklin Street in Oakland, California (see **Figure 1**). This report presents a summary of groundwater monitoring and sampling activities conducted during the First Half 2016, analytical results of samples collected during this event, and summarizes activities anticipated to occur during the second half of 2016. This groundwater monitoring event was conducted in accordance with directives issued by Alameda County Department of Environmental Health (ACEH).

## 1.1 Site Information

<b>Site Address</b>	800 Franklin Street, Oakland
<b>Site Use</b>	Commercial Building
<b>Client and Contact</b>	Tommy Chiu
<b>Consultant and Contact Person</b>	GHD, Bryan A. Fong
<b>Lead Agency and Contact</b>	ACEH, Kit Soo, P.G.
<b>Agency Case No.</b>	RO0000196

# 2. Site Activities and Results

## 2.1 Current Sampling Event Activities

On March 9, 2016, Confluence Environmental, Inc. (Confluence) conducted groundwater monitoring and sampling activities at the subject site. Water levels were measured in wells MW-1, MW-2, MW-3A, and MW-4 through MW-7, and groundwater samples were collected from monitoring wells MW-2, MW-3A, MW-6, and MW-7 (see **Figures 2 and 3**). Well construction details are provided in **Table 1**. GHD's *Standard Field Procedures for Groundwater Monitoring and Sampling* is presented as **Appendix A**. The laboratory analytical report and sample chain of custody (COC) documents are presented as **Appendix B**. Copies of the field data sheets are included as **Appendix C**.

### 2.1.1 Water Level Measurements

Depth-to-water measurements were recorded to the nearest 0.01-foot from the surveyed reference elevation on the top of the well casing (TOC). Measurements were collected using a conductance-actuated well sounder. Depth to groundwater and calculated groundwater elevation data are presented in **Table 2**.

### 2.1.2 Groundwater Sampling

Field activities associated with groundwater sampling included low-flow well purging, measuring groundwater parameters, and sample collection.

Each well was purged prior to sampling using the low-flow purging technique. Each well was purged using a peristaltic pump with minimal drawdown at a flow rate between 200 and 600 milliliters per minute. Depth to water was measured prior to, during, and at the termination of low-flow purging, and also immediately prior to sample collection. Temperature, pH, conductivity, oxygen reduction potential (ORP) and dissolved oxygen (DO) were measured initially and at regular volume intervals. Well purging continued until

consecutive pH, specific conductivity, DO, and temperature measurements were relatively stable. Field measurements, purge volumes, and sample collection data were recorded on field sampling data sheets, included as **Appendix C**.

Groundwater samples were collected from each well using the peristaltic pump. The samples were decanted into 40-milliliter (mL) glass volatile organic analysis (VOA) vials supplied by McCampbell Analytical, Inc. (McCampbell) of Pittsburg, California. Sample containers were labeled, sealed in a plastic bag, placed on ice in a chilled cooler, and transported under COC to McCampbell, a State-certified laboratory, for analysis. The COC used for this monitoring event is included in **Appendix B**.

#### 2.1.3 Equipment Decontamination

To minimize the potential for cross-contamination to occur, the groundwater monitoring equipment was decontaminated prior to being deployed in the first well, and again between each successive well. The tubing for the peristaltic pump was discarded after use at each well.

#### 2.1.4 Sample Analysis

Groundwater samples collected during the First Half event were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and TPH as diesel (TPHd) with silica gel clean-up by modified Environmental Protection Agency (EPA) Method SW8015Bm, and benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method SW8021B.

### 2.2 First Half 2016 Monitoring and Sampling Event Results

<b>Groundwater Flow Direction</b>	West-northwest
<b>Hydraulic Gradient</b>	0.005
<b>Measured Groundwater Depth from Top of Casing in Monitoring Wells</b>	22.55 to 23.53 feet
<b>Measureable Separate Phase Hydrocarbons</b>	None

#### 2.2.1 Groundwater Flow Direction and Gradient

Depth-to-water measurements collected on March 9, 2016 ranged from 22.55 to 23.53 feet below TOC. Groundwater elevations were calculated by subtracting the depth-to-water measurements from the surveyed TOC elevations. Groundwater elevations were plotted on a site plan and contoured. Based on depth-to-water data collected during the First Half 2016 monitoring event, groundwater flow direction was calculated toward the west-northwest at a gradient of 0.005. Depth-to-water and groundwater elevation data for the site are presented in **Table 2** and summarized on **Figure 2**.

#### 2.2.2 Groundwater Analytical Results

A summary of the hydrocarbon concentrations detected in groundwater samples during this event are detailed in the following table and benzene and MTBE data are presented on **Figure 2**.

Table A: Groundwater Analytical Data

<b>Well ID</b>	<b>TPHd (<math>\mu\text{g/L}</math>)</b>	<b>TPHg (<math>\mu\text{g/L}</math>)</b>	<b>Benzene (<math>\mu\text{g/L}</math>)</b>	<b>Toluene (<math>\mu\text{g/L}</math>)</b>	<b>Ethylbenzene (<math>\mu\text{g/L}</math>)</b>	<b>Total Xylenes (<math>\mu\text{g/L}</math>)</b>	<b>MTBE (<math>\mu\text{g/L}</math>)</b>
MW-1	NS	NS	NS	NS	NS	NS	NS
MW-2	2,500	29,000	2,000	1,500	1,400	3,800	<700
MW-3A	3,700	19,000	1,500	140	550	2,300	<500
MW-4	NS	NS	NS	NS	NS	NS	NS
MW-5	NS	NS	NS	NS	NS	NS	NS
MW-6	180	1,300	370	5.4	2.2	6.5	<45
MW-7	<50	<50	<0.50	<0.50	<0.50	<1.5	<5.0

µg/L Micrograms per liter  
 NS Not sampled  
 <n Indicates constituent was not detected at or above laboratory reporting limit

The laboratory notes that gasoline compounds are significant in the TPHd detections in wells MW-2, MW-3A, and MW-6 suggesting that the TPHd detections may be due to gasoline-range hydrocarbons.

Benzene concentrations detected within the monitoring well network continue to exhibit a stable to slight decreasing trend, with the exception of MW-6 (see **Appendix D**). Benzene concentrations detected in MW-6 continue to fluctuate, but appear to be stable. The benzene plume is fully-defined and continues to exhibit immobility (**Figure 3**). The TPHd, TPHg, toluene, ethylbenzene, and total xylenes plumes exceeding water quality objectives are similar or less in extent than the benzene plume and appear to be less than 160 feet in length. The complete compendium of analytical results is provided in **Table 2**. The laboratory analytical report and sample COC documents are presented as **Appendix B**

#### 2.2.3 GeoTracker Submittal

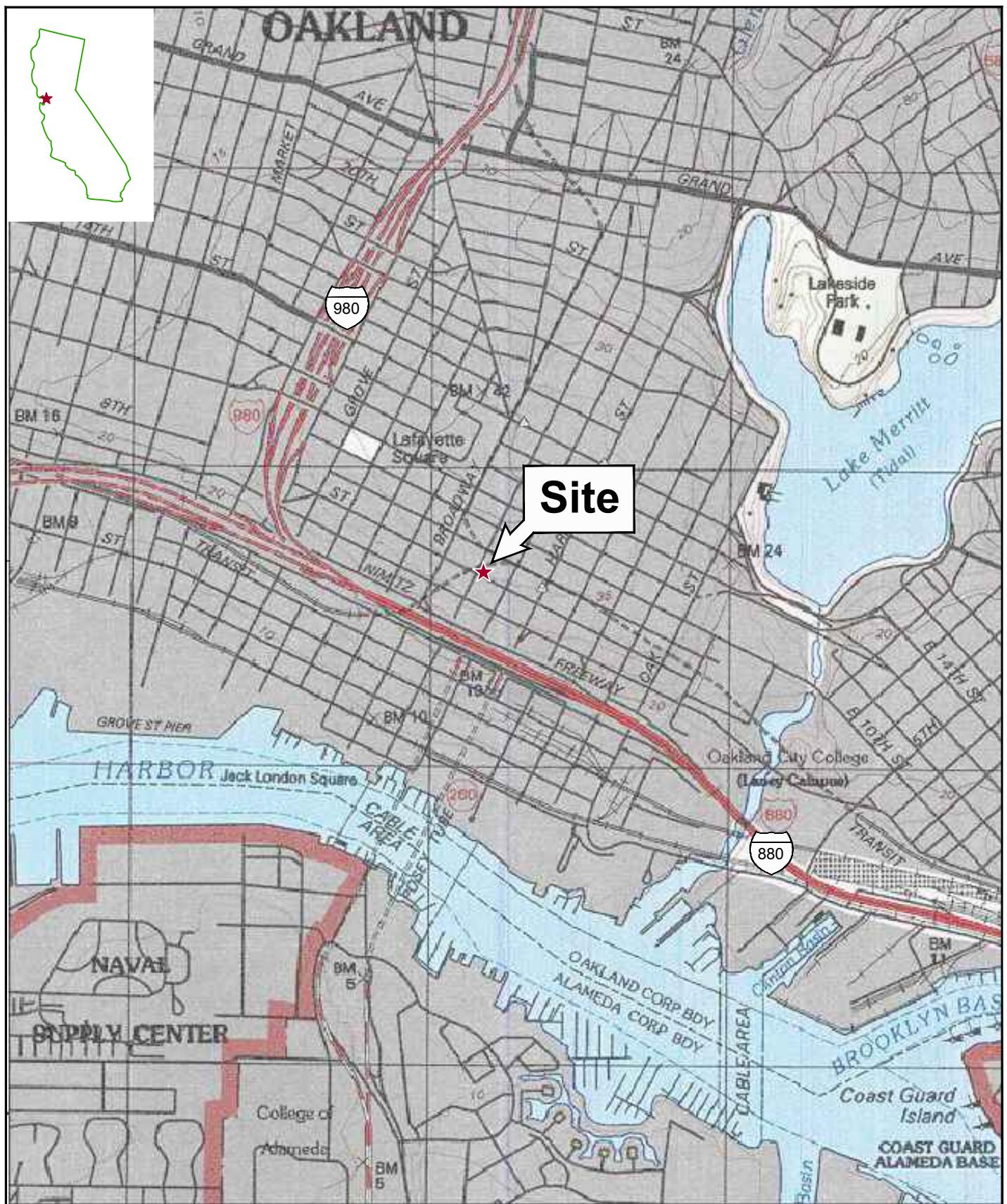
Data from the First Half 2016 monitoring event was uploaded to the GeoTracker database.

### 3. Proposed Activities for the Second Half 2016

Based on the site conceptual model and stable groundwater monitoring results the site appears to qualify for case closure under the California State Water Resources Control Board's (SWRCB's) *Low Threat Underground Storage Tank Closure Policy* (the Policy).

GHD plans to conduct one additional semi-annual groundwater monitoring event during the second half of 2016. Water levels will be gauged in all monitoring wells and groundwater samples will be collected from all wells to verify that groundwater conditions continue to remain consistent with historical data. The groundwater samples will be analyzed for TPHd with silica gel cleanup and TPHg by modified EPA Method SW8015Bm, and MTBE and BTEX by modified EPA Method SW8021B. The results from the second half 2016 groundwater monitoring and sampling will be included in a case closure request which will include a comprehensive conceptual site model.

# Figures

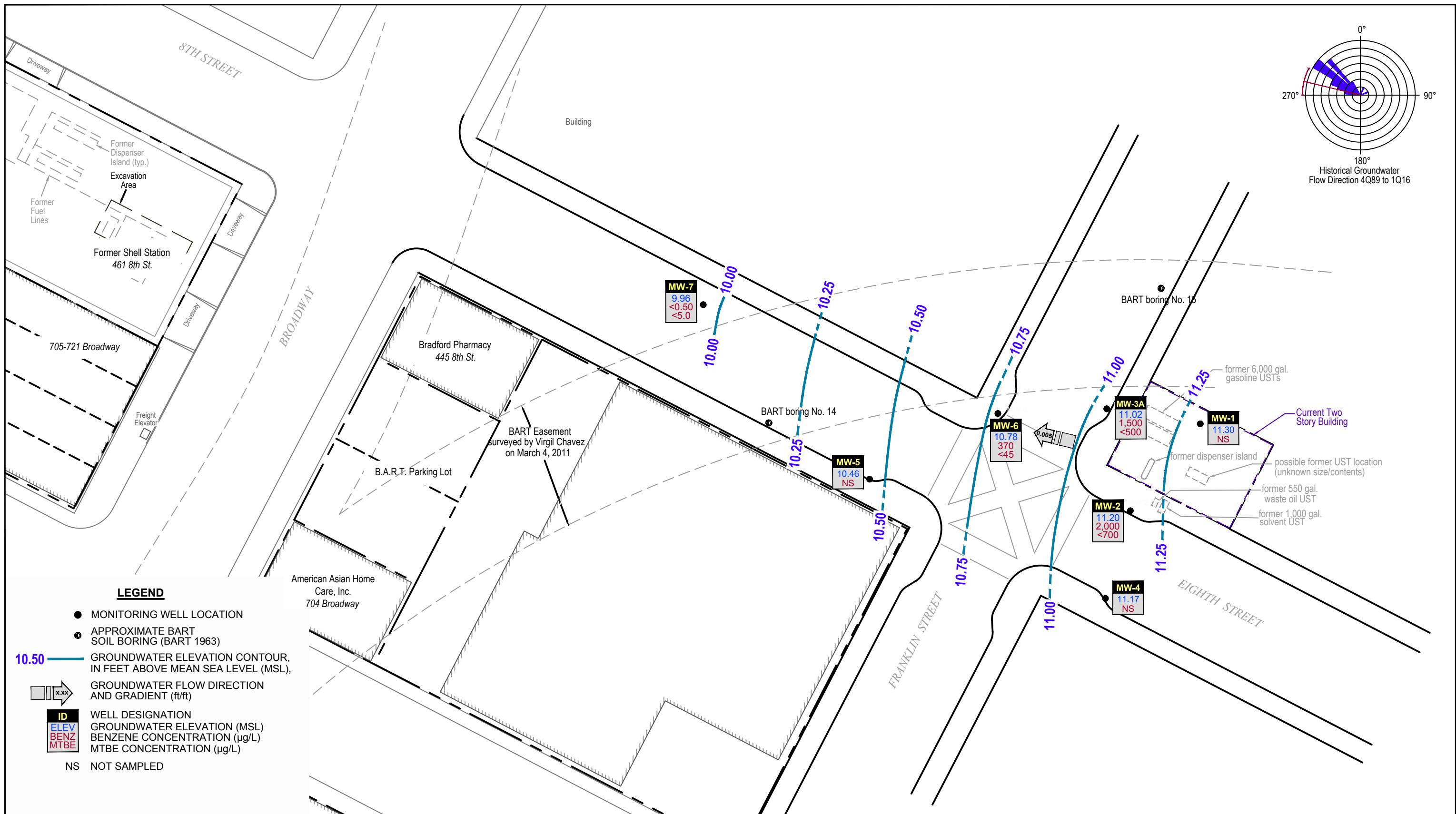


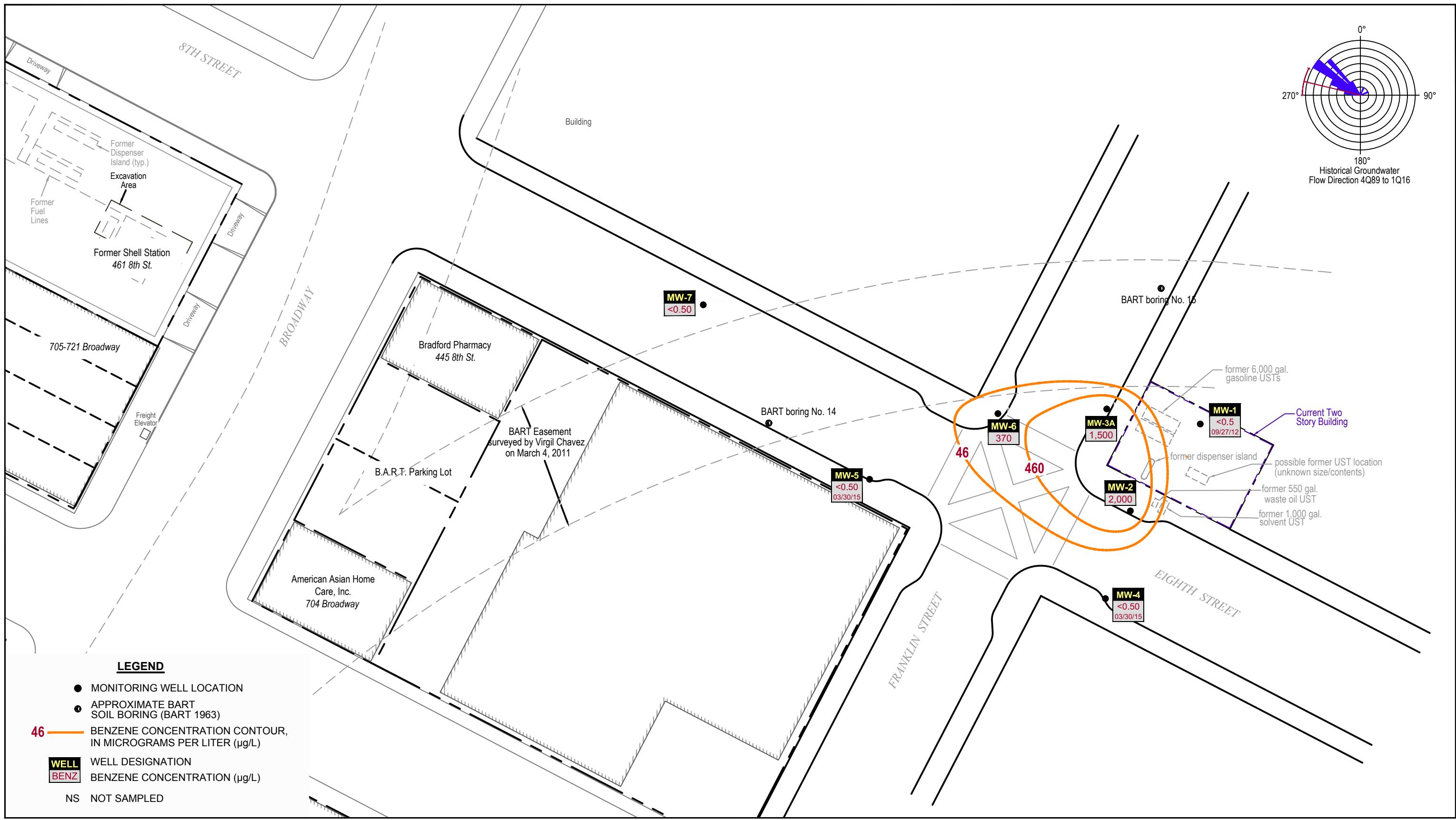
0 500 1500ft



### VICINITY MAP

Figure 1





## Tables

TABLE 1

Page 1 of 1

**WELL CONSTRUCTION DETAILS**  
**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
**OAKLAND, CALIFORNIA**

<b>Well ID</b>	<b>Date Installed</b>	<b>Borehole Depth (ft)</b>	<b>Borehole Diameter (in)</b>	<b>Casing Diameter (in)</b>	<b>Screen Interval (ft bgs)</b>	<b>Screen Size (in)</b>	<b>Filter Pack (ft bgs)</b>	<b>Bentonite Seal (ft bgs)</b>	<b>Cement Seal (ft bgs)</b>	<b>TOC Elevation (ft msl)</b>
MW-1	1989	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	16.0 - 18.0	0 - 16.0	33.42
MW-2	1989	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	16.0 - 18.0	0 - 16.0	33.66
	Installed: 1989									
MW-3*	Destroyed: 1/29/07	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	16.0 - 18.0	0 - 16.0	34.23
MW-3A	2/8/2007	35.0	10.0	4	20.0 - 35.0	0.010	19.0 - 35.0	17.0 - 19.0	0 - 17.0	34.16
MW-4	10/2/1991	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	-	0 - 18.0	33.64
MW-5	10/3/1991	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	-	0 - 18.0	33.56
MW-6	5/15/1997	35.0	8.0	2	14.5 - 36.25	0.010	14.5 - 36.25	12.5 - 14.5	0 - 12.5	33.98
MW-7	5/23/2012	35.0	8.0	2	18.0 - 35.0	0.010	16.0 - 35.0	14.0 - 16.0	0 - 14.0	33.49

**Abbreviations / Notes**

ft = feet

in = inches

ft bgs = feet below grade surface

ft msl = feet above mean sea level

TOC = top of casing

\* = Monitoring well MW-3 properly destroyed on January 29, 2007 by Cambria.

**TABLE 2**  
**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS**  
**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
**OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (ft msl)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
MW-1	10/12/1989	22.87	10.55	ND	--	--	ND	ND	ND	ND	--	0.8	8.6
33.42	10/31/1991	--	--	630	960	1,700	3.2	ND<0.5	ND<0.5	130	--	--	0.0098
34.89	10/21/1992	23.48	11.41	520	--	--	78	38	ND<0.5	120	--	--	ND
	2/25/1993	22.51	12.38	1,600	--	--	160	190	34	350	--	--	--
	4/27/1993	22.36	12.53	380	--	--	5.2	ND<0.5	ND<0.5	74	--	--	--
	10/7/1993	--	12.10	1,000	--	--	81	150	47	230	--	--	--
33.98	3/28/1994	--	11.91	460	--	--	14	25	14	39	--	--	--
	4/29/1994	--	--	--	--	--	--	--	--	--	--	--	--
	6/10/1994	--	11.66	--	--	--	--	--	--	--	--	--	--
	7/8/1994	--	11.62	--	--	--	--	--	--	--	--	--	--
	7/26/1994	--	11.48	--	--	--	--	--	--	--	--	--	--
	8/25/1994	--	11.47	--	--	--	--	--	--	--	--	--	--
	10/27/1994	22.51	11.47	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	1/6/1995	--	12.08	--	--	--	--	--	--	--	--	--	--
	2/1/1995	--	12.79	--	--	--	--	--	--	--	--	--	--
	3/29/1995	--	12.75	--	--	--	--	--	--	--	--	--	--
10/31/1995	--	12.48	1,400	--	--	--	15	38	49	510	19	--	--
5/21/1997	--	12.49	150	--	--	--	2.9	1.5	8.6	26	ND<5.0	--	--
8/10/2004	23.35	10.63	ND<50	--	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
9/28/2004	--	--	--	--	--	--	--	--	--	--	--	--	--
12/21/2004	22.93	11.05	ND<50	--	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
3/11/2005	--	--	--	--	--	--	--	--	--	--	--	--	--
6/16/2005	20.68	13.30	ND<50	--	--	--	0.64	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
9/1/2005	20.74	13.24	ND<50	--	--	--	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
12/16/2005	20.95	13.03	ND<50	--	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
3/10/2006	20.34	13.64	ND<50	--	--	--	0.60	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
9/15/2006	21.51	12.47	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	6.4	ND<0.5
3/8/2007	21.81	12.17	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	0.72	ND<0.5	ND<5.0	6.9	ND<0.5
9/17/2007	22.08	11.90	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	2.3	ND<0.5	ND<5.0	4.7	ND<0.5
3/4/2008	21.72	12.26	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	1.3	ND<0.5
9/3/2008	22.70	11.28	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	0.98	ND<0.5
3/4/2009	22.49	11.49	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	0.65	ND<0.5
9/8/2009	22.80	11.18	ND<50	ND<50	ND<250	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5	ND<0.5
3/19/2010	22.25	11.73	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	0.58
9/3/2010	22.51	11.47	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	1.2	ND<0.5
3/4/2011	22.10	11.88	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	ND<0.5
8/22/2011	22.23	11.75	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	ND<0.5
3/5/2012	22.61	11.37	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--
9/27/2012	22.31	11.67	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
3/25/2013	22.20	11.78	--	--	--	--	--	--	--	--	--	--	--
9/19/2013	22.84	11.14	--	--	--	--	--	--	--	--	--	--	--
3/13/2014	22.80	11.18	--	--	--	--	--	--	--	--	--	--	--
9/17/2014	← Well Inaccessible →												
3/30/2015	22.59	11.39	--	--	--	--	--	--	--	--	--	--	--
9/15/2015	23.19	10.79	--	--	--	--	--	--	--	--	--	--	--
3/9/2016	22.68	11.30	--	--	--	--	--	--	--	--	--	--	--

**TABLE 2**  
**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS**  
**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
**OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (ft msl)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE	Chloroform	1,2-DCA	
<b>MW-2</b>	10/12/1989	23.25	10.40	38,000	--	3,900	1,300	1,200	ND	4,700	--	--	--	
33.66	10/31/1991	--	--	10,000	1,500	--	1,800	1,200	270	960	--	--	0.17	
	11/6/1991	24.02	9.64	--	--	--	--	--	--	--	--	--	--	
	10/21/1992	22.42	11.24	270,000	--	--	9,700	4,500	9,600	56,000	--	--	15.4	
	2/25/1993	21.50	12.16	49,000	--	--	4,300	11,000	1,300	9,100	--	--	--	
	4/27/1993	21.26	12.40	39,000	--	--	1,400	4,000	220	5,200	--	--	--	
	10/7/1993	--	12.04	50,000	--	--	2,700	8,100	940	7,800	--	--	--	
	3/28/1994	--	11.88	20,000	--	--	360	1,300	220	1,800	--	--	--	
	4/29/1994	--	11.87	--	--	--	--	--	--	--	--	--	--	
	6/10/1994	--	11.44	--	--	--	--	--	--	--	--	--	--	
	7/8/1994	--	11.42	--	--	--	--	--	--	--	--	--	--	
	7/26/1994	--	11.22	--	--	--	--	--	--	--	--	--	--	
	8/25/1994	--	11.01	--	--	--	--	--	--	--	--	--	--	
	10/27/1994	22.66	11.00	21,000	--	--	1,200	3,700	600	4,300	--	--	--	
	1/6/1995	--	11.66	--	--	--	--	--	--	--	--	--	--	
	2/1/1995	--	12.21	--	--	--	--	--	--	--	--	--	--	
	3/29/1995	--	12.66	--	--	--	--	--	--	--	--	--	--	
	10/31/1995	--	11.51	45,000	--	--	3,100	8,800	1,200	8,400	810	--	--	
	5/21/1997	--	12.65	18,000	--	--	1,400	4,200	680	3,600	370	--	--	
	8/10/2004	21.03	12.63	47,000 (a)	--	--	4,200	4,900	1,400	6,000	ND<500	--	--	
	9/28/2004	22.95	10.71	--	--	--	--	--	--	--	--	--	--	
	12/21/2004	20.91	12.75	13,000 (a)	--	--	500	310	34	1600	ND<100	--	--	
	3/11/2005	11.35	22.31	32,000 (a)	--	--	970	2,400	890	4,200	ND<1,000	--	--	
	6/16/2005	20.50	13.16	43,000 (a,j)	--	--	1,500	3,400	1,200	5,400	ND<1,200	--	--	
	9/1/2005	20.60	13.06	20,000 (a)	--	--	640	1,700	460	2,200	ND<200	--	--	
	12/16/2005	20.83	12.83	32,000 (a,i)	--	--	1,000	3,100	760	3,800	ND<500	--	--	
	3/10/2006	20.05	13.61	20,000 (a)	--	--	460	1,900	440	2,400	ND<400	--	--	
	9/15/2006	21.31	12.35	43,000 (a)	3,100 (d)	ND<250	1,600	4,400	1,100	5,100	ND<500	16	ND<10	
	3/8/2007	21.62	12.04	30,000 (a,h)	4,600 (d,h)	ND<1,200	1,200	3,400	890	4,500	ND<500	ND<50	ND<50 (j,h)	
	9/17/2007	21.92	11.74	31,000 (a)	6,600 (d,b)	340	790	3,000	700	3,100	ND<100	ND<100	ND<100	
	3/4/2008	--	--	--	--	--	--	--	--	--	--	--	--	
	9/3/2008	22.50	11.16	46,000 (a)	5,100 (d)	370	1,700	8,600	1,400	7,500	ND<250	ND<250	ND<250	
	3/4/2009	22.25	11.41	56,000 (a)	13,000 (d)	1,100	1,500	5,300	990	4,500	ND<10	ND<10	ND<10	
	9/8/2009	22.60	11.06	42,000 (a)	11,000 (d)	1,200	1,400 (1,200)	5,200 (4,900)	970 (890)	5500 (4,900)	ND<100 (ND<100)	ND<0.5	ND<100	
33.75	3/19/2010 **	21.96	11.70	30,000 (a,h)	12,000 (d,h)	--	(1,000)	(3,500)	(980)	(4,500)	(ND<50)	ND<5.0	ND<5.0	
	9/3/2010	22.30	11.45	9,500 (a)	1,500 (d)	--	(320)	(290)	(140)	(970)	(ND<12)	ND<12	ND<12	
	3/4/2011	21.85	11.90	12,000 (a)	2,200 (d)	--	(610)	(430)	(290)	(1,400)	(ND<25)	ND<25	ND<25	
	8/22/2011	22.04	11.71	7,900 (a)	1,300 (d)	--	(320)	(270)	(170)	(1,400)	(ND<12)	ND<0.5	ND<12	
	3/5/2012	22.32	11.43	18,000(a)	1,400 (d)	--	1,200	930	560	2,100	ND<500	--	--	
	9/27/2012	22.16	11.59	6,300 (a)	690 (d)	--	410	290	130	830	ND<70	--	--	
	3/25/2013	22.01	11.74	9,200 (a)	900 (d)	--	820	440	280	1,200	ND<250	--	--	
	9/19/2013	22.68	11.07	20,000 (a)	2,300 (d)	--	1,900	2,200	630	3,100	ND<550	--	--	
	3/13/2014	22.65	11.10	15,000 (a)	1,400 (d)	--	1,400	1,800	550	1,700	ND<350	--	--	
	9/17/2014	23.94	9.81	42,000 (a)	1,900 (b,d)	--	2,300	5,200	1,300	5,700	ND<1,000	--	--	
	3/30/2015	22.49	11.26	29,000 (a)	1,700 (d)	--	2,100	2,400	1,200	3,300	ND<750 (e)	--	--	

**TABLE 2**  
**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS**  
**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
**OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (ft msl)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
<b>MW-2</b>	9/15/2015	23.09	10.66	35,000 (a)	2,200 (d)	--	2,400	4,600	1,700	6,500	ND<500	--	--
(cont.)	<b>3/9/2016</b>	<b>22.55</b>	<b>11.20</b>	<b>29,000 (a)</b>	<b>2,500 (d, k)</b>	--	<b>2,000</b>	<b>1,500</b>	<b>1,400</b>	<b>3,800</b>	<b>ND&lt;700 (e)</b>	--	--
<b>MW-3</b>	10/12/1989	24.02	10.21	87,000	--	4,500	3,200	8,800	ND	6,500	--	--	70.0
<b>34.23</b>	10/31/1991	--	--	310,000	25,000	--	9,300	25,000	5,600	27,000	--	--	0.058
	11/6/1991	23.52	10.71	--	--	--	--	--	--	--	--	--	--
	10/21/1992	23.32	10.91	22,000	--	--	10,000	4,300	790	2,100	--	--	ND
	2/25/1993	22.51	11.72	29,000	--	--	8,400	5,400	1,300	3,300	--	--	--
	4/27/1993	22.37	11.86	50,000	--	--	8,200	8,700	1,000	5,400	--	--	--
	10/7/1993	--	14.19	1,700	--	--	3,100	3,700	400	1,700	--	--	--
	3/28/1994	--	11.52	53,000	--	--	3,900	4,600	710	2,500	--	--	--
	4/29/1994	--	11.34	--	--	--	--	--	--	--	--	--	--
	6/10/1994	--	11.13	--	--	--	--	--	--	--	--	--	--
	7/8/1994	--	11.09	--	--	--	--	--	--	--	--	--	--
	7/26/1994	--	10.94	--	--	--	--	--	--	--	--	--	--
	8/25/1994	--	10.80	--	--	--	--	--	--	--	--	--	--
	10/27/1994	23.56	10.67	8,500	--	--	2,700	2,700	490	2,000	--	--	--
	1/6/1995	--	11.33	--	--	--	--	--	--	--	--	--	--
	2/1/1995	--	11.79	--	--	--	--	--	--	--	--	--	--
	3/29/1995	--	12.10	--	--	--	--	--	--	--	--	--	--
	10/31/1995	--	11.23	19,000	--	--	4,400	4,600	720	2,900	410	--	--
	5/21/1997	--	11.68	4,000	--	--	810	840	190	690	ND<100	--	--
	9/28/2004						Well is damaged. Unable to measure depth to water or collect sample.						
	12/21/2004						Well is damaged. Unable to measure depth to water or collect sample.						
	3/11/2005						Well is damaged. Unable to measure depth to water or collect sample.						
	6/16/2005						Well is damaged. Unable to measure depth to water or collect sample.						
	9/1/2005						Well is damaged. Unable to measure depth to water or collect sample.						
	12/16/2005						Well is damaged. Unable to measure depth to water or collect sample.						
	3/10/2006						Well is damaged. Unable to measure depth to water or collect sample.						
	9/15/2006						Well is damaged. Unable to measure depth to water or collect sample.						
	1/29/2007						Well properly destroyed by Cambria.						
<b>MW-3A</b>	1/29/2007						<b>MW-3A replaces MW-3</b>						
<b>34.16</b>	3/8/2007	22.42	11.74	30,000 (a,i)	1,700 (d,i)	ND<250	2,600	4,400	710	4,600	ND<1,000	ND<50	ND<50 (j)
	9/17/2007	22.65	11.51	9,800 (a)	980 (d)	ND<250	1,100	1,800	270	1,100	ND<25	ND<25	ND<25
	3/4/2008	22.31	11.85	21,000 (a,i)	1,700 (d,i)	ND<250	2,600	5,000	810	3,500	ND<50	ND<50	ND<50
	9/3/2008	23.11	11.05	13,000 (a)	880 (d)	ND<250	1,400	2,100	370	1,500	ND<50	ND<50	ND<50
	3/4/2009	22.98	11.18	12,000 (a)	810 (d)	ND<250	1,000	1,700	330	1,200	ND<5.0	7.9	7.2
	9/8/2009	23.25	10.91	8,900 (a)	780 (d)	ND<250	870 (830)	1300 (1,200)	260 (200)	1100 (880)	ND<25 (ND<25)	6.3	ND<25
	3/19/2010	22.79	11.37	16,000 (a)	1,700 (d)	--	(1,900)	(3,200)	(620)	(2,800)	(ND<50)	ND<5.0	10
	9/3/2010	23.02	11.14	35,000 (a)	1,600 (d)	--	(5,300)	(6,500)	(1,100)	(5,100)	(ND<120)	ND<120	ND<120
	3/4/2011	22.60	11.56	35,000 (a)	3,300 (d)	--	(5,000)	(6,400)	(1,900)	(8,800)	(ND<100)	ND<100	ND<100
	8/22/2011	22.71	11.45	42,000 (a)	2,700 (d)	--	(5,700)	(6,300)	(1,800)	(7,800)	(ND<120)	ND<0.5	ND<120
	3/5/2012	22.99	11.17	49,000(a)	1500 (d)	--	4,400	2,800	1,900	8,200	ND<800	--	--
	9/27/2012	22.85	11.31	51,000 (a)	3,200 (d)	--	5,100	4,000	2,000	8,300	ND<800	--	--
	3/25/2013	22.72	11.44	43,000 (a)	2,900 (d)	--	4,200	2,700	1,700	6,300	ND<250	--	--
	9/19/2013	23.30	10.86	31,000 (a)	3,100 (d)	--	3,200	2,100	1,500	6,200	ND<170	--	--

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**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
**OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (ft msl)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
<b>MW-3A</b>	3/13/2014	23.21	10.95	39,000 (a,k)	6,100 (b,d,l)	--	3,200	1,200	1,900	7,200	ND<200	--	--
<b>(cont.)</b>	9/17/2014	23.46	10.70	39,000 (a)	1,500 (d)	--	3,300	1,200	1,500	5,900	ND<1,000	--	--
	3/30/2015	23.05	11.11	22,000 (a)	1,800 (d)	--	2,500	730	800	3,300	ND<180 (e)	--	--
	9/15/2015	23.58	10.58	26,000 (a)	1,700 (d)	--	3,200	1,200	1,200	4,900	ND<500	--	--
	<b>3/9/2016</b>	<b>23.14</b>	<b>11.02</b>	<b>19,000 (a)</b>	<b>3,700 (d, k)</b>	--	<b>1,500</b>	<b>140</b>	<b>550</b>	<b>2,300</b>	<b>ND&lt;500</b>	--	--
<b>MW-4</b>	10/31/1991	--	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	2.6	ND
33.64	11/6/1991	23.32	10.32	--	--	--	--	--	--	--	--	--	--
	10/21/1992	22.10	11.54	410	--	--	3.1	29	6.8	47	--	--	ND
	2/25/1993	21.13	12.51	170	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	4/27/1993	20.74	12.90	100	--	--	ND<0.5	ND<0.5	ND<0.5	0.9	--	--	--
	10/7/1993	--	12.52	240	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	3/28/1994	--	12.34	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	4/29/1994	--	11.33	--	--	--	--	--	--	--	--	--	--
	6/10/1994	--	11.55	--	--	--	--	--	--	--	--	--	--
	7/8/1994	--	11.54	--	--	--	--	--	--	--	--	--	--
	7/26/1994	--	11.30	--	--	--	--	--	--	--	--	--	--
	8/25/1994	--	11.09	--	--	--	--	--	--	--	--	--	--
	10/27/1994	22.69	10.95	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	1/6/1995	--	11.70	--	--	--	--	--	--	--	--	--	--
	2/1/1995	--	12.34	--	--	--	--	--	--	--	--	--	--
	3/29/1995	--	12.76	--	--	--	--	--	--	--	--	--	--
	10/31/1995	--	11.61	80	--	--	ND<0.5	0.6	ND<0.5	1.0	ND<0.5	--	--
	5/21/1997	--	12.08	ND<50	--	--	11	120	27	180	ND<5.0	--	--
	9/28/2004	22.72	10.92	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/21/2004	20.65	12.99	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/11/2005	20.20	13.44	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	6/16/2005	20.38	13.26	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/1/2005	20.48	13.16	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/16/2005	20.78	12.86	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/10/2006	19.81	13.83	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/15/2006	21.16	12.48	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	28	ND<0.5
	3/8/2007	21.52	12.12	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	23	ND<0.5
	9/17/2007	21.84	11.80	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	18	ND<0.5
	3/4/2008	21.41	12.23	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	13	ND<0.5
	9/3/2008	22.50	11.14	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	12	ND<0.5
	3/4/2009	22.15	11.49	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	14	ND<0.5
	9/8/2009	22.56	11.08	ND<50	ND<50	ND<250	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	11	ND<0.5
33.73	3/19/2010 *	21.88	11.76	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	10	ND<0.5
	9/3/2010	22.21	11.52	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	ND<0.5
	3/4/2011	21.78	11.95	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	1.0	ND<0.5
	8/22/2011	21.92	11.81	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	ND<0.5
	3/5/2012	22.34	11.39	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
	9/27/2012	21.98	11.75	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
	3/25/2013	21.95	11.78	--	--	--	--	--	--	--	--	--	--
	9/19/2013	←	←	←	←	←	Inaccessible	←	←	←	←	←	→
	3/13/2014	22.62	11.11	--	--	--	--	--	--	--	--	--	--

TABLE 2

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**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
**OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (ft msl)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
MW-4	9/17/2014	22.99	10.74	--	--	--	--	--	--	--	--	--	--
(cont.)	3/30/2015	22.49	11.24	ND<50	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	--
	9/15/2015	22.12	11.61	--	--	--	--	--	--	--	--	--	--
	3/9/2016	22.56	11.17	--	--	--	--	--	--	--	--	--	--
MW-5	10/31/1991	--	--	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	1.1	--
33.51	11/6/1991	24.00	9.51	ND	--	--	ND	ND	ND	ND	--	--	--
	10/21/1992	23.24	10.27	840	--	--	17	120	39	180	--	--	--
33.56	2/25/1993	22.40	11.16	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	4/27/1993	22.15	11.41	260	--	--	53	19	1.2	2.4	--	--	--
	10/7/1993	--	11.06	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	3/28/1994	--	10.95	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	4/29/1994	--	10.91	--	--	--	--	--	--	--	--	--	--
	6/10/1994	--	10.68	--	--	--	--	--	--	--	--	--	--
	7/8/1994	--	10.60	--	--	--	--	--	--	--	--	--	--
	7/26/1994	--	10.45	--	--	--	--	--	--	--	--	--	--
	8/25/1994	--	10.28	--	--	--	--	--	--	--	--	--	--
	10/27/1994	23.50	10.06	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	1/6/1995	--	10.78	--	--	--	--	--	--	--	--	--	--
	2/1/1995	--	11.25	--	--	--	--	--	--	--	--	--	--
	3/29/1995	--	11.63	--	--	--	--	--	--	--	--	--	--
	10/31/1995	--	10.64	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
	5/21/1997	--	11.04	260	--	--	2.4	33	7.7	56	ND<5.0	--	--
	9/28/2004	23.70	9.86	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	1.5	ND<5.0	--	--
	12/21/2004	21.40	12.16	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/11/2005	21.40	12.16	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	6/16/2005	21.63	11.93	ND<50 (i)	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/1/2005	21.65	11.91	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/16/2005	21.94	11.62	ND<50 (i)	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/10/2006	21.11	12.45	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/15/2006	22.20	11.36	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	10	ND<0.5
	3/8/2007	22.44	11.12	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	18	ND<0.5
	9/17/2007	22.73	10.83	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	14	ND<0.5
	3/4/2008	22.32	11.24	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	19	ND<0.5
	9/3/2008	23.13	10.43	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	17	ND<0.5
	3/4/2009	22.95	10.61	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	14	ND<0.5
	9/8/2009	23.21	10.35	ND<50	ND<50	ND<250	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	ND<0.5 (ND<0.5)	11	ND<0.5
33.67	3/19/2010 *	22.72	10.84	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	14	ND<0.5
	9/3/2010	23.03	10.64	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	7.2	ND<0.5
	3/4/2011	22.60	11.07	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	3.4	ND<0.5
	8/22/2011	22.63	11.04	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	1.9	ND<0.5
	3/5/2012	22.94	10.73	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/27/2012	22.75	10.92	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/25/2013	22.73	10.94	--	--	--	--	--	--	--	--	--	--
	9/19/2013	23.34	10.33	--	--	--	--	--	--	--	--	--	--
	3/13/2014	23.32	10.35	--	--	--	--	--	--	--	--	--	--
	9/17/2014	23.57	10.10	--	--	--	--	--	--	--	--	--	--

**TABLE 2**  
**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS**  
**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
**OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (ft msl)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
MW-5	3/30/2015	23.10	10.57	ND<50	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	--
(cont.)	9/15/2015	23.62	10.05	--	--	--	--	--	--	--	--	--	--
	<b>3/9/2016</b>	<b>23.21</b>	<b>10.46</b>	--	--	--	--	--	--	--	--	--	--
MW-6	5/21/1997	--	11.26	760	--	--	2.5	1.7	ND<0.50	25	10	--	--
33.98	9/28/2004	24.00	9.98	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/21/2004	21.61	12.37	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/11/2005	21.60	12.38	340 (a)	--	--	1.9	2.6	0.68	0.61	ND<5.0	--	--
	6/16/2005	21.81	12.17	1,300 (a)	--	--	58	8.3	6.1	4.0	ND<25	--	--
	9/1/2005	21.82	12.16	1,900 (a)	--	--	150	19	18	76	ND<12	--	--
	12/16/2005	22.03	11.95	3,600 (a,i)	--	--	560	63	33	230	ND<50	--	--
	3/10/2006	21.46	12.52	2,200 (a)	--	--	240	10	20	87	ND<50	--	--
	9/15/2006	22.46	11.52	1,800 (a)	480 (d)	ND<250	10	6.7	9.9	42	ND<17	3.2	ND<0.5
	3/8/2007	22.64	11.34	4,300 (a)	890 (d)	ND<250	260	36	29	140	ND<60	ND<10	ND<10 (j)
	9/17/2007	22.88	11.10	7,000 (a)	970 (d)	ND<250	760	28	46	270	ND<10	ND<10	ND<10
	3/4/2008	22.51	11.47	400 (a)	74 (d)	ND<250	46	ND<1.0	1.0	6.0	ND<1.0	ND<1.0	ND<1.0
	9/3/2008	23.24	10.74	280 (a)	69 (d, b)	ND<250	2.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	3/4/2009	23.14	10.84	670 (a)	150 (d)	ND<250	68	13	ND<2.5	12	ND<2.5	ND<2.5	ND<2.5
	9/8/2009	23.38	10.60	8,000 (a)	1,400 (d)	ND<250	870 (770)	16 (ND<12)	34 (17)	1500 (1,200)	ND<12 (ND<12)	ND<0.5	ND<12
34.05	3/19/2010 *	22.93	11.05	8,900 (a)	1,200 (d)	--	(2,900)	(ND<100)	(ND<100)	(ND<100)	(ND<5.0)	ND<5.0	15
	9/3/2010	23.19	10.86	4,600 (a)	710 (d)	--	(1,500)	(33)	(35)	(79)	(ND<25)	ND<25	ND<25
	3/4/2011	22.78	11.27	3,700 (a)	410 (d)	--	(1,300)	(170)	(70)	(200)	(ND<25)	ND<25	ND<25
	8/22/2011	22.85	11.20	490 (a)	120 (b,d)	--	(190)	(ND<5.0)	(ND<5.0)	(ND<5.0)	(ND<5.0)	0.86	ND<5.0
	3/5/2012	23.16	10.89	190 (a)	65 (b,d)	--	38	2.7	1.4	7.3	ND<15	--	--
	9/27/2012	22.91	11.14	79 (a)	ND<50	--	11	ND<0.5	ND<0.5	0.90	ND<5.0	--	--
	3/25/2013	22.87	11.18	59 (a)	ND<50	--	12	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/19/2013	23.40	10.65	8,500 (a)	1,100 (d)	--	3,200	48	52	92	ND<250	--	--
	3/13/2014	23.36	10.69	2,300 (a)	140 (b,d)	--	900	3.1	11	16	ND<17	--	--
	9/17/2014	23.61	10.44	7,600 (a)	830 (d)	--	2,600	45.0	55	130	ND<100	--	--
	3/30/2015	23.19	10.86	850 (a)	93 (d)	--	260	2.7	7.8	12	ND<5.0	--	--
	9/15/2015	23.68	10.37	820 (a)	200 (d, m)	--	220	5.5	5.7	14	ND<10	--	--
	<b>3/9/2016</b>	<b>23.27</b>	<b>10.78</b>	<b>1,300 (a)</b>	<b>180 (d)</b>	--	<b>370</b>	<b>5.4</b>	<b>2.2</b>	<b>6.5</b>	<b>ND&lt;45 (e)</b>	--	--
MW-7	6/25/2012	22.98	10.51	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
33.49	9/27/2012	23.22	10.27	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/4/2012	23.46	10.03	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/25/2013	23.19	10.30	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/19/2013	23.65	9.84	ND<50	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	--
	3/13/2014	23.60	9.89	ND<50	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	--
	9/17/2014	23.73	9.76	ND<50	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	--
	3/30/2015	23.44	10.05	ND<50	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	--
	9/15/2015	23.81	9.68	ND<50	ND<50	--	ND<0.50	ND<0.50	ND<0.50	1.0	ND<5.0	--	--
	<b>3/9/2016</b>	<b>23.53</b>	<b>9.96</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	--	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;1.5</b>	<b>ND&lt;5.0</b>	--	--

TABLE 2

**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS**  
**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
**OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (ft msl)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
<i>Grab Groundwater</i>													
B-7	3/11/2011	--	--	ND<50 (i)	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
B-8	3/11/2011	--	--	ND<50 (i)	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
B-9	3/12/2011	--	--	ND<50 (i)	--	--	ND<0.5	3.0	ND<0.5	ND<0.5	--	--	--

**Abbreviations and Notes:**

TOC Elevation = Top of well casing elevation

ft msl = Feet above mean sea level

ft below TOC = Feet below top of casing

µg/L = Micrograms per liter

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

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

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

Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW8021B (SW8260B).

MTBE = Methyl tertiary-butyl ether by EPA Method SW8021B by (8260B)

Chloroform by EPA Method SW8260B.

1,2-DCA = 1,2-Dichloroethane by EPA Method SW8260B.

Sheen = A sheen was observed on the water's surface.

Field = Observed in the field.

Lab = Observed in analytical laboratory.

(a) = unmodified or weakly modified gasoline is significant

(b) = diesel range compounds are significant; no recognizable pattern

(d) = gasoline range compounds are significant

(e) = reporting limit for MTBE raised due to co-elution with non-target peaks

(h) = lighter than water immiscible sheen/product is present

(i) = liquid sample that contains ~1 vol. % sediment

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

(k) = surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.

(l) = oil range compounds are significant

(m) = Stoddard solvent/mineral spirit may be present

ND&lt;5.0 = Not detected above detection limit.

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

\* = Surveyed September 7, 2006; updated to table May 24, 2010

\*\* = Surveyed March 8, 2007; updated to table May 24, 2010

É = Unable to access well due to denial by current tenant

# Appendices

# Appendix A

## Standard Field Procedures for Groundwater Monitoring and Sampling

# GHD Services, Inc.

## STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. GHD Services, Inc.'s field procedures are summarized below.

### **Groundwater Elevation Monitoring**

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain non-aqueous phase liquid (NAPL) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of NAPL, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be measured last. In wells with a history of NAPL, the NAPL level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water.

### **Groundwater Purging and Sampling**

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of NAPL or floating NAPL globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no NAPL is present. Wells shall be purged either by hand using a disposal or PVC bailer or by using an aboveground pump (e.g. peristaltic or Wattera™) or down-hole pump (e.g. Grundfos™ or DC Purger pump).

Groundwater wells shall be purged approximately three to ten well-casing volumes (depending on the regulatory agency requirements) or until groundwater parameters of temperature, pH, and conductivity have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall be measured and recorded at least once per well casing volume removed. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, field parameters such as turbidity, dissolved oxygen (DO), and oxidation-

# GHD Services, Inc.

reduction potential (ORP) shall also be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after the well has been purged. If the well is slow to recharge, a sample shall be collected after the water column is allowed to recharge to 80% of the pre-purging static water level. If the well does not recover to 80% in 2 hours, a sample shall be collected once there is enough groundwater in the well. Groundwater samples shall be collected using clean disposable bailers or pumps (if an operating remediation system exists on site and the project manager approves of its use for sampling) and shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and disposable tubing or bailers shall be used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water. If a submersible pump with non-dedicated discharge tubing is used for groundwater purging, both the inside and outside of pump and discharge tubing shall be decontaminated as described above.

## **Sample Handling**

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. A copy of the COC shall be retained in the project file. Information on the COC shall consist of the project name and number; project location; sample numbers; sampler/recorder's signature; date and time of collection of each sample; sample type; analyses requested; name of person receiving the sample; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for cross-contamination, if requested by the project manager.

# GHD Services, Inc.

## **Waste Handling and Disposal**

Groundwater extracted during sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums and shall be labeled with the contents, date of generation, generator identification, and consultant contact. Extracted groundwater may be disposed offsite by a licensed waste handler or may be treated and discharged via an operating onsite groundwater extraction/treatment system.

I:\IR\ - MGT IR Group Info\SOPs\Groundwater Monitoring and Sampling SOP 07-2005.doc

# Appendix B

## McCampbell Analytical, Inc. – Laboratory Analytical Reports



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1603519

**Report Created for:** GHD

5900 Hollis St, Suite A  
Emeryville, CA 94608

**Project Contact:** Eric Chodoroff

**Project P.O.:**

**Project Name:** F1-160309; 800 Franklin St, Oakland

**Project Received:** 03/10/2016

Analytical Report reviewed & approved for release on 03/16/2016 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** GHD  
**Project:** F1-160309; 800 Franklin St, Oakland  
**WorkOrder:** 1603519

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Glossary of Terms & Qualifier Definitions

**Client:** GHD  
**Project:** F1-160309; 800 Franklin St, Oakland  
**WorkOrder:** 1603519

### Analytical Qualifiers

- c2 surrogate recovery outside of the control limits due to matrix interference.
- d1 weakly modified or unmodified gasoline is significant
- d17 Reporting limit for MTBE raised due to co-elution with non-target peaks.
- e4 gasoline range compounds are significant.



## Analytical Report

**Client:** GHD  
**Date Received:** 3/10/16 16:39  
**Date Prepared:** 3/11/16-3/12/16  
**Project:** F1-160309; 800 Franklin St, Oakland

**WorkOrder:** 1603519  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1603519-001A	Water	03/09/2016 08:10	GC3	117962

Analyses	Result	RL	DF	Date Analyzed
TPH(g)	1300	120	2.5	03/12/2016 12:57
MTBE	ND	45	2.5	03/12/2016 12:57
Benzene	370	1.2	2.5	03/12/2016 12:57
Toluene	5.4	1.2	2.5	03/12/2016 12:57
Ethylbenzene	2.2	1.2	2.5	03/12/2016 12:57
Xylenes	6.5	3.8	2.5	03/12/2016 12:57

Surrogates	REC (%)	Limits	
aaa-TFT	111	70-130	03/12/2016 12:57

Analyst(s): IA Analytical Comments: d1,d17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3A	1603519-002A	Water	03/09/2016 08:40	GC3	117962

Analyses	Result	RL	DF	Date Analyzed
TPH(g)	19,000	5000	100	03/11/2016 14:03
MTBE	ND	500	100	03/11/2016 14:03
Benzene	1500	50	100	03/11/2016 14:03
Toluene	140	50	100	03/11/2016 14:03
Ethylbenzene	550	50	100	03/11/2016 14:03
Xylenes	2300	150	100	03/11/2016 14:03

Surrogates	REC (%)	Limits	
aaa-TFT	97	70-130	03/11/2016 14:03

Analyst(s): IA Analytical Comments: d1

(Cont.)



## Analytical Report

**Client:** GHD  
**Date Received:** 3/10/16 16:39  
**Date Prepared:** 3/11/16-3/12/16  
**Project:** F1-160309; 800 Franklin St, Oakland

**WorkOrder:** 1603519  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1603519-003A	Water	03/09/2016 09:00	GC3	117962

Analyses	Result	RL	DF	Date Analyzed
TPH(g)	29,000	2500	50	03/11/2016 14:33
MTBE	ND	700	50	03/11/2016 14:33
Benzene	2000	25	50	03/11/2016 14:33
Toluene	1500	25	50	03/11/2016 14:33
Ethylbenzene	1400	25	50	03/11/2016 14:33
Xylenes	3800	75	50	03/11/2016 14:33

Surrogates	REC (%)	Limits	
aaa-TFT	112	70-130	03/11/2016 14:33

Analyst(s): IA Analytical Comments: d1,d17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1603519-004A	Water	03/09/2016 07:35	GC3	117962

Analyses	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	03/11/2016 22:02
MTBE	ND	5.0	1	03/11/2016 22:02
Benzene	ND	0.50	1	03/11/2016 22:02
Toluene	ND	0.50	1	03/11/2016 22:02
Ethylbenzene	ND	0.50	1	03/11/2016 22:02
Xylenes	ND	1.5	1	03/11/2016 22:02

Surrogates	REC (%)	Limits	
aaa-TFT	96	70-130	03/11/2016 22:02

Analyst(s): IA



## Analytical Report

**Client:** GHD  
**Date Received:** 3/10/16 16:39  
**Date Prepared:** 3/10/16  
**Project:** F1-160309; 800 Franklin St, Oakland

**WorkOrder:** 1603519  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1603519-001B	Water	03/09/2016 08:10	GC39B	117819

<u>Analyses</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	180	50	1	03/11/2016 19:27

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
C9	100	70-130	03/11/2016 19:27

Analyst(s): TK      Analytical Comments: e4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3A	1603519-002B	Water	03/09/2016 08:40	GC39B	117819

<u>Analyses</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	3700	50	1	03/11/2016 13:36

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
C26	102	70-130	03/11/2016 13:36

Analyst(s): TK      Analytical Comments: e4,c2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1603519-003B	Water	03/09/2016 09:00	GC39B	117819

<u>Analyses</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	2500	50	1	03/11/2016 12:18

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
C26	100	70-130	03/11/2016 12:18

Analyst(s): TK      Analytical Comments: e4,c2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1603519-004B	Water	03/09/2016 07:35	GC39A	117819

<u>Analyses</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	50	1	03/11/2016 00:41

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
C9	100	70-130	03/11/2016 00:41

Analyst(s): TK



## Quality Control Report

<b>Client:</b>	GHD	<b>WorkOrder:</b>	1603519
<b>Date Prepared:</b>	3/11/16	<b>BatchID:</b>	117962
<b>Date Analyzed:</b>	3/11/16	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC3	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	F1-160309; 800 Franklin St, Oakland	<b>Sample ID:</b>	MB/LCS-117962 1603460-001BMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	55.8	40	60	-	93	70-130
MTBE	ND	7.85	5.0	10	-	78	70-130
Benzene	ND	8.50	0.50	10	-	85	70-130
Toluene	ND	8.70	0.50	10	-	87	70-130
Ethylbenzene	ND	8.89	0.50	10	-	89	70-130
Xylenes	ND	27.0	1.5	30	-	90	70-130
<b>Surrogate Recovery</b>							
aaa-TFT	9.54	9.60		10	95	96	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	58.4	59.5	60	ND	97	99	70-130	1.80	20
MTBE	9.15	8.42	10	ND	91	84	70-130	8.24	20
Benzene	10.5	9.42	10	ND	105	94	70-130	10.9	20
Toluene	10.7	9.68	10	ND	107	97	70-130	9.77	20
Ethylbenzene	10.4	9.76	10	ND	104	98	70-130	6.28	20
Xylenes	30.8	29.5	30	ND	103	98	70-130	4.29	20
<b>Surrogate Recovery</b>									
aaa-TFT	10.8	9.71	10		108	97	70-130	10.6	20



## Quality Control Report

**Client:** GHD  
**Date Prepared:** 3/9/16  
**Date Analyzed:** 3/10/16  
**Instrument:** GC9a  
**Matrix:** Water  
**Project:** F1-160309; 800 Franklin St, Oakland

**WorkOrder:** 1603519  
**BatchID:** 117819  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-117819

### QC Report for SW8015B w/SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50			
TPH-Motor Oil (C18-C36)	ND	250			
<b>Surrogate Recovery</b>					
C9	575		625	92	65-122
Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC
TPH-Diesel (C10-C23)	1130	1160	1000	113	116
<b>Surrogate Recovery</b>					
C9	539	540	625	86	86
				65-122	0
					30



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1603519

ClientCode: CETE

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

## Report to:

Eric Chodoroff  
GHD  
5900 Hollis St, Suite A  
Emeryville, CA 94608  
(510) 420-0700    FAX: (510) 420-9170

Email: eric.chodoroff@ghd.com  
cc/3rd Party:  
PO:  
ProjectNo: F1-160309; 800 Franklin St, Oakland

## Bill to:

Jeffrey Cloud  
GHD  
5900 Hollis St, Ste. A  
Emeryville, CA 94608  
Jeffrey.Cloud@ghd.com

Requested TAT: 5 days;

Date Received: 03/10/2016  
Date Logged: 03/10/2016

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1603519-001	MW-6	Water	3/9/2016 8:10	<input type="checkbox"/>	A	B										
1603519-002	MW-3A	Water	3/9/2016 8:40	<input type="checkbox"/>	A	B										
1603519-003	MW-2	Water	3/9/2016 9:00	<input type="checkbox"/>	A	B										
1603519-004	MW-7	Water	3/9/2016 7:35	<input type="checkbox"/>	A	B										

Test Legend:

1	G-MBTEX_W
5	
9	

2	TPH(D)WSG_W
6	
10	

3	
7	
11	

4	
8	
12	

Prepared by: Alexandra Iniguez

## Comments:

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



## WORK ORDER SUMMARY

**Client Name:** GHD

**QC Level:** LEVEL 2

**Work Order:** 1603519

**Project:** F1-160309; 800 Franklin St, Oakland

**Client Contact:** Eric Chodoroff

**Date Logged:** 3/10/2016

**Comments:**

**Contact's Email:** eric.chodoroff@ghd.com

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1603519-001A	MW-6	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	3/9/2016 8:10	5 days	Present	<input type="checkbox"/>	
1603519-001B	MW-6	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	aVOA	<input type="checkbox"/>	3/9/2016 8:10	5 days	Present	<input type="checkbox"/>	
1603519-002A	MW-3A	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	3/9/2016 8:40	5 days	Present	<input type="checkbox"/>	
1603519-002B	MW-3A	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	aVOA	<input type="checkbox"/>	3/9/2016 8:40	5 days	Present	<input type="checkbox"/>	
1603519-003A	MW-2	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	3/9/2016 9:00	5 days	Present	<input type="checkbox"/>	
1603519-003B	MW-2	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	aVOA	<input type="checkbox"/>	3/9/2016 9:00	5 days	Present	<input type="checkbox"/>	
1603519-004A	MW-7	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	3/9/2016 7:35	5 days	Present	<input type="checkbox"/>	
1603519-004B	MW-7	Water	SW8015B (Diesel w/ S.G. Clean-Up)	2	aVOA	<input type="checkbox"/>	3/9/2016 7:35	5 days	Present	<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).  
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



Confluence Environmental, Inc.  
3308 El Camino Ave, Suite 300 #148  
Sacramento, CA 95821  
916-760-7641 - main  
916-473-8617 - fax  
www.confluence-env.com

1603519

# Chain of Custody

Page 1 of 1

Project Name: 800 Franklin St, Oakland

Job Number: F1-1603519

TAT: STANDARD  5 DAY  2 DAY  24 HOUR  OTHER:

Lab: McCampbell Address: 1534 Willow Pass Rd, Pittsburg, CA 94565 Contact: Phone/ Fax: 925-252-9262				Site Address: 800 Franklin St, Oakland California Global ID No.: T0600100050 Include EDF w/ Report: <u>Yes</u> <input type="checkbox"/> No Consultant / PM: GHD / Eric Chodoroff Phone / Fax: 510-385-0509				Confluence PM: Jason Brown Phone / Fax: 916-760-7641 / 916-473-8617 Confluence Log Code: CESC Report to: Bryan Fong & Eric Chodoroff Invoice to: GHD						
Sample ID	Time	Date	Matrix	Laboratory No.	Preservative				Requested Analysis				Notes and Comments	
					Soil/Solid	Water/Liquid	Air	No. of Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl		NaOH
MW-6	0810	3/19/16	X		4					✓	✓	✓		
MW-3A	0840		X		4					X	X	X		
MW-2	0900	↓	X		4					✓	✓	✓		
MW-7	0735	↓	X		4					✓	✓	✓		
Sampler's Name: <u>A. Feeney</u>					Relinquished By / Affiliation				Date	Time	Accepted By / Affiliation		Date	Time
Sampler's Company: Confluence Environmental					<u>RGL</u>				<u>3/10/16</u>	<u>12:15</u>	<u>RML</u>			
Shipment Date:									<u>3/10/16</u>	<u>1512</u>	<u>SS</u>		<u>3/10/16/1812</u>	
Shipment Method:														
Special Instructions: *Confirm MTBE by 8260														



## Sample Receipt Checklist

Client Name: **GHD**  
Project Name: **F1-160309; 800 Franklin St, Oakland**  
WorkOrder №: **1603519** Matrix: Water  
Carrier: Randy Glen (MAI Courier)

Date and Time Received: **3/10/2016 15:12**  
Date Logged: **3/10/2016**  
Received by: **Jena Alfaro**  
Logged by: **Alexandra Iniguez**

### Chain of Custody (COC) Information

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

### Sample Receipt Information

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

### Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes  No   
Sample/Temp Blank temperature Temp: 4.1°C NA   
Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
Sample labels checked for correct preservation? Yes  No   
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
Samples Received on Ice? Yes  No   
(Ice Type: WET ICE )

### UCMR3 Samples:

- Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

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

Comments:

## Appendix C Field Data Sheets



Confluence Environmental, Inc.  
3308 El Camino Ave, Suite 300 #148  
Sacramento, CA 95821  
916-760-7641 - main  
916-473-8617 - fax  
[www.confluence-env.com](http://www.confluence-env.com)

## Chain of Custody

Page 1 of 1

Project Name: 800 Franklin St, Oakland

Job Number: F1-160309

TAT: STANDARD  5 DAY  2 DAY  24 HOUR  OTHER:

Lab: McCampbell Address: 1534 Willow Pass Rd, Pittsburg, CA 94565 Contact: Phone/ Fax: 925-252-9262				Site Address: 800 Franklin St, Oakland California Global ID No.: T0600100050 Include EDF w/ Report: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Consultant / PM: GHD / Eric Chodoroff Phone / Fax: 510-385-0509				Confluence PM: Jason Brown Phone / Fax: 916-760-7641 / 916-473-8617 Confluence Log Code: CESC Report to: Bryan Fong & Eric Chodoroff Invoice to: GHD					
Sample ID	Time	Date	Matrix	Laboratory No.	No. of Containers	Preservative		Requested Analysis				Notes and Comments	
						Soil/Solid	Water/Liquid	Air	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl		NaOH
MW-6	0810	3/9/16	X		4								
MW-3A	0840	1	X		4								
MW-2	0900	1	X		4								
MW-7	0735	1	X		4								
Sampler's Name: <u>A. Feeney</u>				Relinquished By / Affiliation				Date	Time	Accepted By / Affiliation		Date	Time
Sampler's Company: Confluence Environmental				<u>J. L.</u>				3/10/16	12:15	<u>R. H.</u>			
Shipment Date:													
Shipment Method:													
Special Instructions: *Confirm MTBE by 8260													

## Meter Calibration Log

## **Well Maintenance Inspection Form**

Client: CRA

Site: Chiu Property

Date: 3/9/16

Job #: F1-16 0309

Technician: A. Feeney

Page 1 of 1

#### Notes:

Repair codes: **rt**=retap/ bolts added or replaced   **as**=annular seal repair,

## Water Level Measurements

Job Number: F1-160309

Date: 3/9/16

Client: CRA

Site: Chiw Property

## Purging And Sampling Data Sheet

<b>Job#:</b> F1-160309	<b>Sampler:</b> A Feeney	<b>Client:</b> CRA			
<b>Well ID:</b> MW - 2	<b>Date:</b> 3/9/16	<b>Site:</b> Chiu Property, Oakland			
<b>Well diam:</b> 1/4" 1" (2") 3" 4" 6" Other:	<b>DTW:</b> 22.55 <b>Total Depth:</b> 33.87				
<b>Purge equip:</b> ES - diam: disp bailer	Bladder teflon bailer	Peri	Waterra	Positive Air Displacement	Ext. System
other:					
<b>Tubing:</b>	OD:	New	Dedicated	NA	
<b>Purge method:</b>	3-5 Case Volume	Micro/Low-Flow	Extraction	Other:	
<b>Pump depth/ intake:</b> 28	<b>Multipliers:</b> 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163				
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)				

1 Volume = \_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_ (Total Purge)      80% =

Did well dewater? YES NO Total volume removed: 3.0 (gal / L)

Sample method: Disp Bailer       Ded. Tubing      New Tubing      Ext. Port      Other:

Sample date: 3/9/16      Sample time: 9:00      DTW at sample: 77.73

Sample ID: MW-2      Lab: McCampbell      Number of bottles: 4

Analysis: TRH, C, RTX, MTRE, TRBLD

Analysis: HHC, BTEX, MTBE, TPH-D

Equipment blank ID @ Field blank ID @

Duplicate ID: Pre-purge DO: Post purge DO:  
- st

Rez : Pre-purge ORP: Post purge ORP:

NAPL depth: Volume of NAPL: Volume removed: ml

## Purging And Sampling Data Sheet

<b>Job#:</b> F1-160309	<b>Sampler:</b> A Feeney	<b>Client:</b> CRA
<b>Well ID:</b> MW-3A	<b>Date:</b> 3/9/16	<b>Site:</b> Chiu Property, Oakland
<b>Well diam:</b> 1/4" 1" 2" 3" (4) 6" Other:	<b>DTW:</b> 23.14	<b>Total Depth:</b> 34.44
<b>Purge equip:</b> ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System disp bailer teflon bailer other:		
<b>Tubing:</b> OD: New Dedicated NA		
<b>Purge method:</b> 3-5 Case Volume Micro/Low-Flow Extraction Other:		
<b>Pump depth/ intake:</b> 28.29   <b>Multipliers:</b> 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163		
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

1 Volume = \_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_ (Total Purge)                          80% =

Did well dewater? YES NO Total volume removed: 3L (gal / L)

Sample method: Disp Bailer    Ded. Tubing    New Tubing    Ext. Port    Other:

Sample date: 3/9/16 Sample time: 0840 DTW at sample: 23.21

Sample ID: MW-3A      Lab: McCampbell      Number of bottles: 4

Analysis: TPH-G, BTEX, MTBE, TPH-D

Equipment blank ID @

Duplicate ID:	Pre-purge DO:	Post purge DO:
Fe2 <sup>+</sup> :	Pre-purge ORP:	Post purge ORP:
NAPL depth:	Volume of NAPL:	Volume removed: ml

## **Purging And Sampling Data Sheet**

5

<b>Job#:</b> F1-160309	<b>Sampler:</b> A Feeney	<b>Client:</b> CRA
<b>Well ID:</b> Mw-6	<b>Date:</b> 3/9/16	<b>Site:</b> Chiu Property, Oakland
<b>Well diam:</b> 1/4" 1" (2") 3" 4" 6" Other:	<b>DTW:</b> 23.27	<b>Total Depth:</b> 32.55
<b>Purge equip:</b> ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System disp bailer teflon bailer other:		
<b>Tubing:</b> OD: New Dedicated NA		
<b>Purge method:</b> 3-5 Case Volume Micro/Low-Flow Extraction Other:		
<b>Pump depth/ intake:</b> 27.91	<b>Multipliers:</b> 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

1 Volume = \_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_ (Total Purge)      80% = \_\_\_\_\_

Did well dewater? YES NO Total volume removed: 3.6 (gal/L)

Sample method: Disp Bailer    Ded. Tubing    New Tubing    Ext. Port    Other:

Sample date: 3/9/16 Sample time: 0810 DTW at sample: 23.51

Sample ID: MW-6 Lab: McCampbell Number of bottles: 4

Analysis: TPH-G, BTEX, MTBE, TPH-D

Equipment blank ID @

Duplicate ID:	Pre-purge DO:	Post purge DO:
Fe2 <sup>+</sup> :	Pre-purge ORP:	Post purge ORP:
NAPL depth:	Volume of NAPL:	Volume removed: ml

## **Purging And Sampling Data Sheet**

<b>Job#:</b> F1-160309	<b>Sampler:</b> A Feeney	<b>Client:</b> CRA
<b>Well ID:</b> MW-7	<b>Date:</b> 3/9/16	<b>Site:</b> Chiu Property, Oakland
<b>Well diam:</b> 1/4" 1" 2" 3" 4" 6" Other:	<b>DTW:</b> 23.53 <b>Total Depth:</b> 35.06	
<b>Purge equip:</b> ES - diam: disp bailer      Bladder teflon bailer      other:	Peri	Waterra      Positive Air Displacement      Ext. System
<b>Tubing:</b>	OD:	New      Dedicated      NA
<b>Purge method:</b> 3-5 Case Volume	Micro/Low-Flow	Extraction      Other:
<b>Pump depth/ intake:</b> 29.3	<b>Multipliers:</b> 1" = 0.04    2" = 0.16    3" = 0.37    4" = 0.65    5" = 1.02    6" = 1.47    Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume)		80% Recovery (TD - DTW X 0.20 + DTW)

1 Volume = \_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_ (Total Purge)      80% =

Did well dewater? YES NO Total volume removed: 3 (gal / 1)

Sample method: Disp Bailer      Ded. Tubing      New Tubing      Ext. Port      Other:

Sample date: 3/9/16 | Sample time: 0735 | DTW at sample: 23.55

Sample ID: MW-7 Lab: McCampbell Number of bottles: 4

Analysis: TPH-G RTEX-MTRF-TRULP

Analysis: H-H-C, BTEX, MTBE, TPH-D

Equipment blank ID @ Field blank ID @

Pre-purge DO: Post purge DO:

Rez : Pre-purge ORP: Post purge ORP:

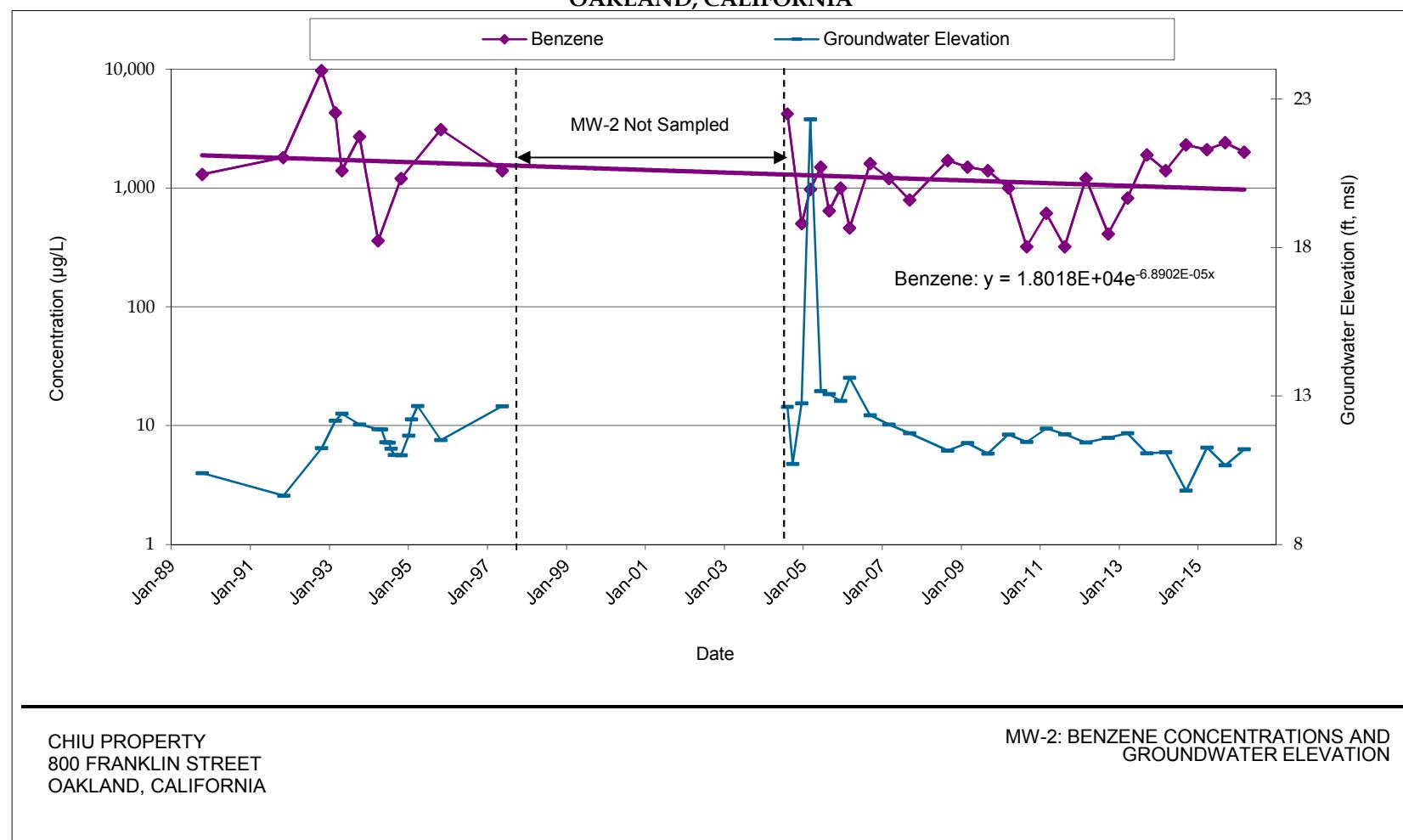
NAPL depth: \_\_\_\_\_ Volume of NAPL: \_\_\_\_\_ ml

## Appendix D

### Trend Analysis Graphs

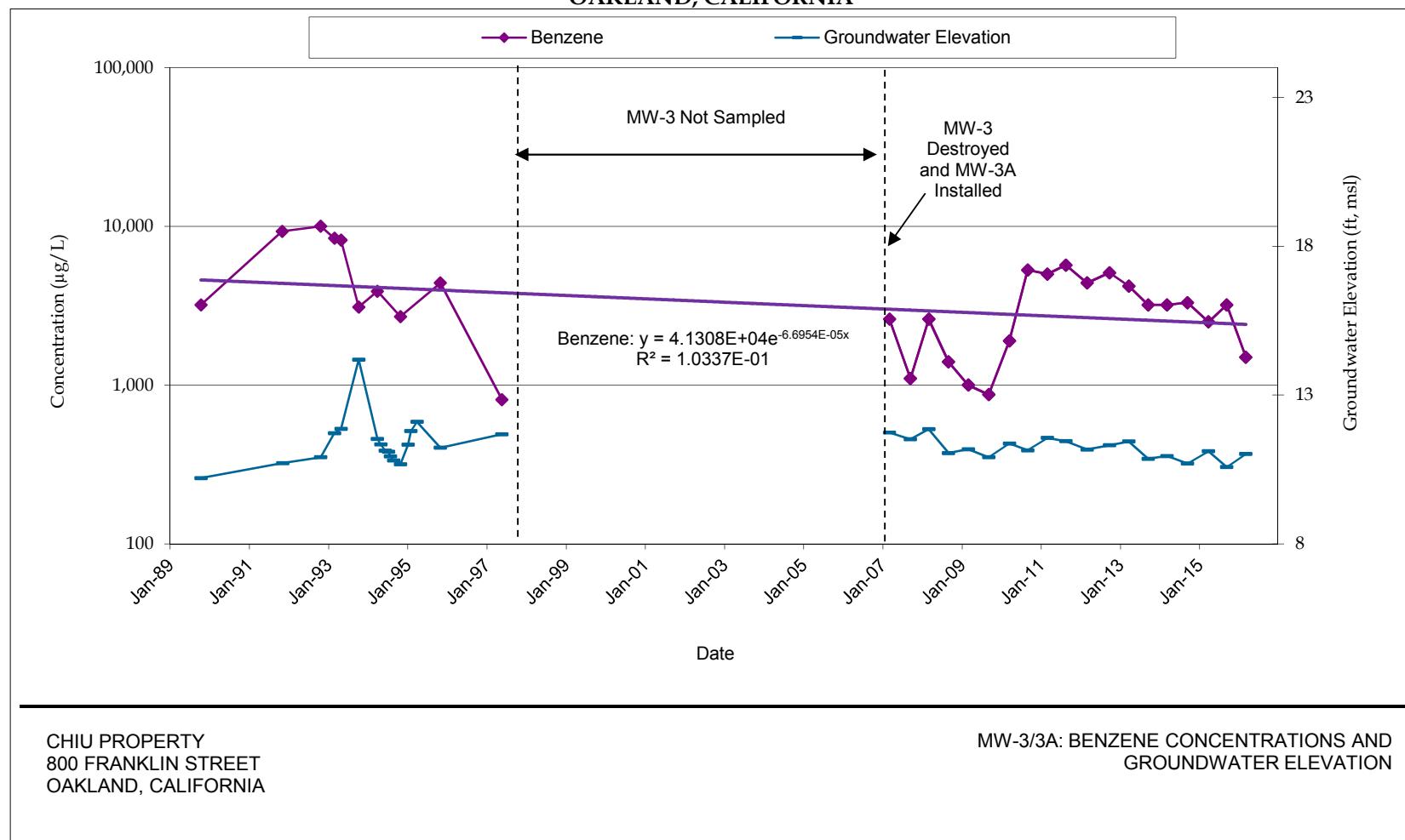
**APPENDIX D**  
**TREND ANALYSIS**  
**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
**OAKLAND, CALIFORNIA**

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**APPENDIX D**  
**TREND ANALYSIS**  
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**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
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