With respect to:

Down-Groundwater Monitoring Report-First Half 2012
Dated 4/6/2012
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

3/30/12
Date

CONESTOGA-ROVERS & ASSOCIATES

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

TRANSMITTAL

DATE: April 6, 2012

REFERENCE NO.: 581000

PROJECT NAME: 800 Franklin Street, Oakland

TO: Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California
94502-6577

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other Geotracker and ACEH ftp uploads

QUANTITY	DESCRIPTION
1	Groundwater Monitoring Report – First Half 2012

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐ Review, Sign, and Return
- ☐

COMMENTS:
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

Completed by: Bryan A. Fong [Please Print]

Signed: Bryan A. Fong

Filing: **Correspondence File**

GROUNDWATER MONITORING REPORT – FIRST HALF 2012

CHIU PROPERTY
800 FRANKLIN STREET
OAKLAND, CALIFORNIA

AGENCY CASE NO. RO0000196

Prepared by:
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APRIL 6, 2012
REF. NO. 581000 (11)
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1.0 INTRODUCTION

On behalf of Mr. Tommy Chiu, Conestoga-Rovers & Associates (CRA) is submitting this *Groundwater Monitoring Report – First Half 2012*. This report presents a summary of First Half 2012 groundwater monitoring and sampling event activities, analytical results and activities anticipated to occur during the Second Half of 2012 at the subject site, located at 800 Franklin Street, Oakland, California (Figure 1). This groundwater monitoring event was conducted in accordance with guidelines issued by Alameda County Department of Environmental Health (ACEH).

1.1 SITE INFORMATION

Site Address	800 Franklin Street, Oakland
Site Use	Commercial Building
Client and Contact	Tommy Chiu
Consultant and Contact Person	CRA, Bryan A. Fong
Lead Agency and Contact	Alameda County Environmental Health, Jerry Wickham, P.G.
Agency Case No.	RO0000196

2.0 SITE ACTIVITIES AND RESULTS

2.1 CURRENT SAMPLING EVENT ACTIVITIES

On March 5, 2012, Muskan Environmental Sampling (MES) conducted groundwater monitoring and sampling activities at the subject site. MES measured water levels and collected groundwater samples from monitoring wells MW-1, MW-2, MW-3A, MW-4, MW-5 and MW-6 (Figure 2). Well construction details are provided in Table 1. CRA's standard field procedures are presented as Appendix A. The laboratory analytical report and sample chain-of-custody (COC) documents are presented as Appendix B, and 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. Groundwater elevation and depth data are presented in Table 2.

2.1.2 GROUNDWATER SAMPLING

MES collected groundwater samples from wells MW-1, MW-2, MW-3A, MW-4, MW-5 and MW-6. Field activities associated with groundwater sampling included low flow well purging, measuring groundwater parameters and sample collection. Field equipment was decontaminated before use and between each well.

Each well was purged prior to sampling by placing a clean intake tube of a peristaltic pump approximately 1 foot below the initial water level. 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, specific 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 and temperature measurements were relatively stable. Field measurements, purge volumes and sample collection data were recorded on field sampling data sheets, presented in 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 and 1-liter amber glass containers 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 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 of cross-contamination, 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 were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified Environmental Protection Agency (EPA) Method SW8015Bm. Samples were also analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) by EPA Method SW8021B. In addition, groundwater samples were analyzed for TPH as diesel (TPHd) by EPA Method SW8015B. Based on the lack of historical detections, chloroform and 1,2-dichloroethane (1,2-DCA) analyses have been eliminated from the monitoring program. The analyses were performed by McCampbell and the laboratory analytical report is included in Appendix B. Groundwater analytical results are summarized on Figure 2 and presented in Table 2.

2.2 CURRENT SAMPLING EVENT RESULTS

Groundwater Flow Direction	Northwest
Hydraulic Gradient	0.005
Groundwater Depth from Top of Casing in Monitoring Wells	22.32 to 23.16 feet
Were Measureable Separate Phase Hydrocarbons Observed	No

2.2.1 GROUNDWATER FLOW DIRECTION AND GRADIENT

Depth-to-water measurements collected on March 5, 2012 ranged from 22.32 to 23.16 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 site visit, groundwater flow direction was calculated toward the northwest at a low gradient of 0.005. Depth-to-water and groundwater elevation data for the site are summarized in Table 2 and presented on Figure 2.

2.2.2 GROUNDWATER ANALYTICAL RESULTS

Hydrocarbon concentrations were detected in three of the six wells sampled during the First Half 2012.

- TPHg was detected in wells MW-2, MW-3A, and MW-6 at concentrations ranging from 190 micrograms per liter (µg/L) in MW-6 to 49,000 µg/L in MW-3A. Benzene concentrations were also detected in wells MW-2, MW-3A and MW-6 at concentrations ranging from 38 µg/L in MW-6 to 4,400 µg/L in MW-3A. Toluene, ethylbenzene and xylenes were detected in wells MW-2, MW-3A, and MW-6 at varying concentrations. Laboratory analysis noted that the chromatographic pattern seen in these three wells suggests unmodified or weakly modified gasoline is significant in the samples.
- No MTBE was detected above laboratory reporting limits in any of the wells.
- Diesel-range hydrocarbons (TPHd) were detected in samples from wells MW-2, MW-3A and MW-6 at concentrations of 1,400, 1,500, and 65 µg/L, respectively. Laboratory analysis noted that the TPH chromatogram suggested gasoline range compounds were significant in these samples.

The analytical results are provided on Table 2. The laboratory analytical report and sample chain-of-custody (COC) documents are presented as Appendix B

2.2.3 GEOTRACKER SUBMITTAL

CRA uploaded relevant data from the First Half 2012 monitoring event to the GeoTracker database.

2.4 PROPOSED ACTIVITIES FOR THE SECOND 2012 SEMI-ANNUAL EVENT

The subject site will be monitored during the Second Half 2012. CRA will measure water levels and collect groundwater samples from wells MW-1 through MW-6. 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.

CRA is currently working to obtain an encroachment permit from the City of Oakland to implement the second phase activities of the *Down-Gradient Site Characterization Work Plan* previously submitted and approved by the ACEH. Once CRA acquires the encroachment permit the above referenced work plan will commence.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Bryan A. Fong

Robert Foss

Robert Foss, P.G.

FIGURES

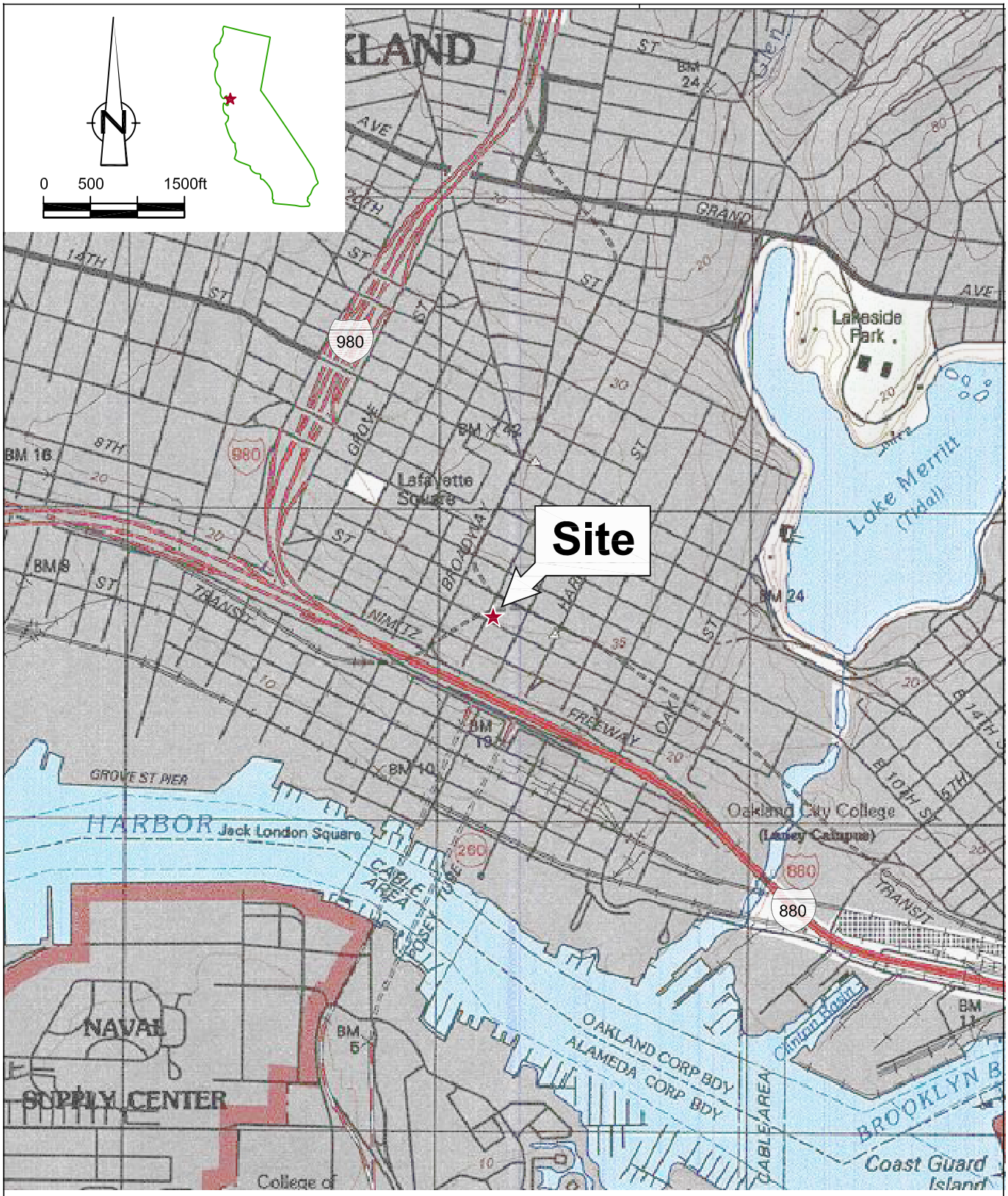

Figure 1

VICINITY MAP
CHIU PROPERTY
800 FRANKLIN STREET
Oakland, California

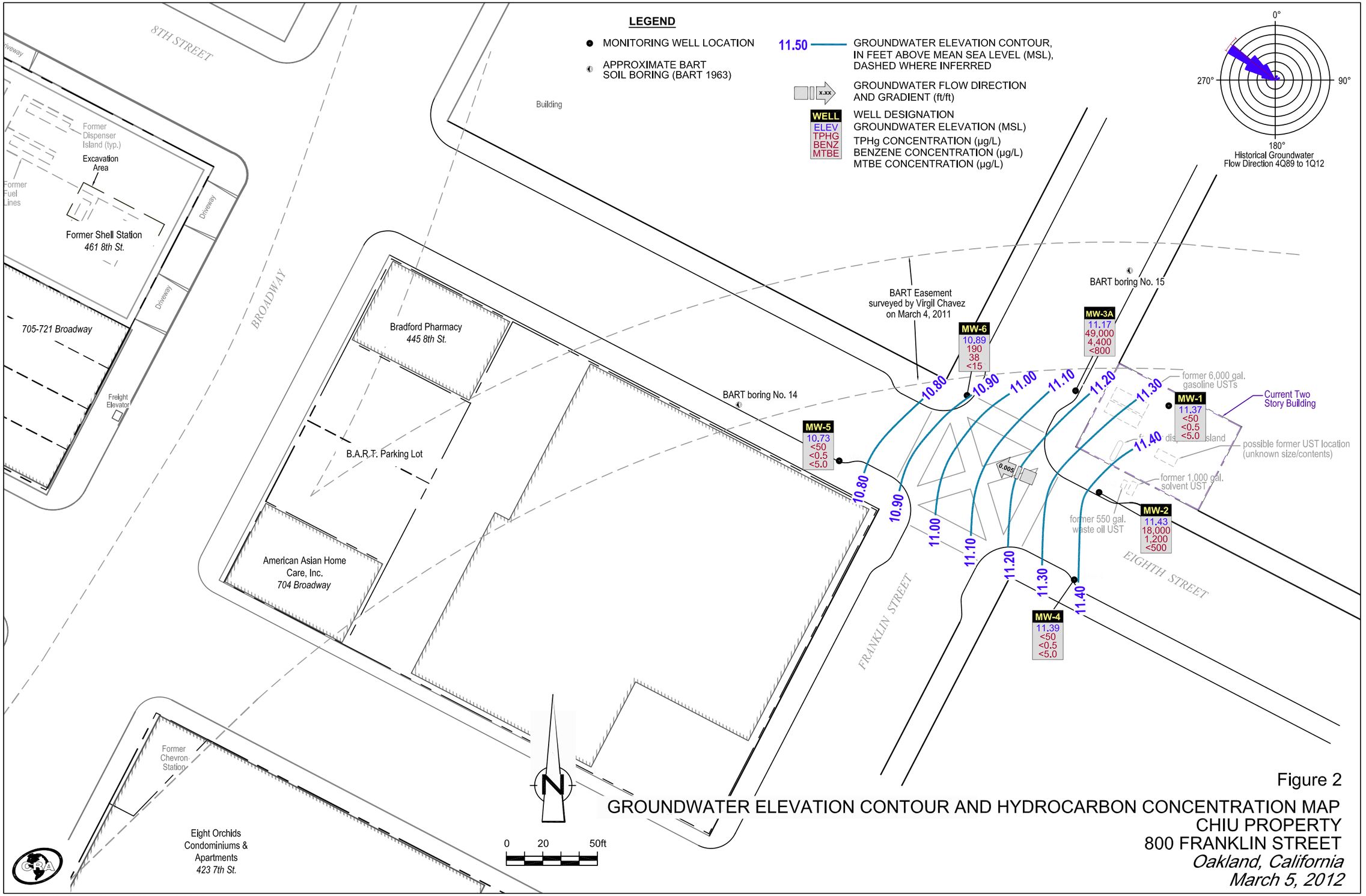

Figure 2

GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON CONCENTRATION MAP
CHIU PROPERTY
800 FRANKLIN STREET
Oakland, California
March 5, 2012

581000-2012(011)GN-EM002 APR 3/2012

TABLES

TABLE 1

WELL CONSTRUCTION DETAILS
CHIU PROPERTY
800 FRANKLIN STREET
OAKLAND, CALIFORNIA

Well ID	*Date Installed*	*Borehole Depth (ft)*	*Borehole Diameter (in)*	*Casing Diameter (in)*	*Screen Interval (ft bgs)*	*Screen Size (in)*	*Filter Pack (ft bgs)*	*Bentonite Seal (ft bgs)*	*Cement Seal (ft bgs)*	*TOC Elevation (ft msl)*
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
MW-3*	Installed: 1989 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

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 (feet msl)*	*TPHg*	*TPHd*	*TPHmo*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Chloroform*	*1,2-DCA*
				←					µg/L				→
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	--	--
	9/28/2004É	--	--	--	--	--	--	--	--	--	--	--	--
	12/21/2004	22.93	11.05	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/11/2005É	--	--	--	--	--	--	--	--	--	--	--	--
	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<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	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	2.3	ND<0.5	ND<0.5	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	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	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<0.5	0.65
	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
	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	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)	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
	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
	3/5/2012	**22.61**	**11.37**	**ND<50**	**ND<50**	**--**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<5.0**	**--**	**--**
MW-2	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	--	--	--

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 (feet msl)*	*TPHg*	*TPHd*	*TPHmo*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Chloroform*	*1,2-DCA*
				←					µg/L				→
MW-2 ***(cont.)***	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,i)	--	--	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**	**--**	**--**
MW-3	10/12/1989	24.02	10.21	87,000	--	4,500	3,200	8,800	ND	6,500	--	--	70.0
34.23	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	--	--	--	--	--	--	--	--	--	--

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 (feet msl)*	*TPHg*	*TPHd*	*TPHmo*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Chloroform*	*1,2-DCA*
				←					µg/L				→
MW-3 ***(cont.)***	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.*						
MW-3A	1/29/2007						***MW-3A replaces MW-3***						
34.16	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**	**--**	**--**
MW-4	10/31/1991	--	--	ND<50	--	--	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	--	--	--

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 (feet msl)*	*TPHg*	*TPHd*	*TPHmo*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Chloroform*	*1,2-DCA*
				←					µg/L				→
MW-4 ***(cont.)***	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<0.5	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<0.5	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<0.5	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<0.5	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<5.0**	**--**	**--**
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	--	--

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 (feet msl)*	*TPHg*	*TPHd*	*TPHmo*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Chloroform*	*1,2-DCA*
				←					µg/L				→
MW-5 *(cont.)*	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<0.5	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<0.5	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<0.5	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<0.5	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**	**--**	**--**
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**	**--**	**--**
Grab Groundwater													
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	--	--	--

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 (feet msl)*	*TPHg*	*TPHd*	*TPHmo*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Chloroform*	*1,2-DCA*
				←					*µg/L*				→

Abbreviations and Notes:

TOC Elevation = Top of well casing elevation measured in feet above mean sea level
msl = Above mean sea level
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
(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
ND<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

APPENDIX A

STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

Conestoga-Rovers & Associates

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. Conestoga-Rovers and Associate'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 according to low flow protocol using an aboveground peristaltic pump. Groundwater wells shall be purged at a low flow rate not to exceed 500 milliliters per minute (mL/min) until groundwater parameters of conductivity and/or dissolved oxygen have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall also be measured and recorded approximately every 3 to 5 minutes. 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 shall also be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after well parameters have stabilized at a low flow rate not to exceed 500 mL/min. Groundwater samples shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and Teflon lined tubing shall be used for sampling each well.

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.

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.

APPENDIX B

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 03/05/12
		Date Received: 03/05/12
5900 Hollis St, Suite A	Client Contact: Bryan Fong	Date Reported: 03/09/12
Emeryville, CA 94608	Client P.O.:	Date Completed: 03/08/12

WorkOrder: 1203118

March 09, 2012

Dear Bryan:

Enclosed within are:

1) The results of the **6** analyzed samples from your project: **#581000; Chiu,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

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

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

1203118

McCampbell Analytical, Inc.

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www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Brian Fong | Bill To: Conestoga-Rovers & Associates
Company: Conestoga-Rovers & Associates
5900 Hollis St., Ste. A
Emeryville, CA | E-Mail: bfong@craworld.com, tkirkan@craworld.com
Tele: (510) 420-3369 | Fax: (510) 420-9170
Project #: 581000 | Project Name: Chiu
Project Location: 800 Franklin St., Oakland, CA
Sampler Signature: Muskan Environmental Sampling

Analysis Request columns: BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE; TPH as Diesel (8015) with silica gel clean up; Total Petroleum Oil & Grease (1664 / 5520 E/B&F); Total Petroleum Hydrocarbons (418.1); EPA 502.2 / 601 / 8010 / 8021 (HVOCs); MTBE / BTEX ONLY (EPA 602 / 8021); EPA 505/ 608 / 8081 (Cl Pesticides); EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners; EPA 507 / 8141 (NP Pesticides); EPA 515 / 8151 (Acidic Cl Herbicides); EPA 524.2 / 624 / 8260 (VOCs); EPA 525.2 / 625 / 8270 (SVOCs); EPA 8270 SIM / 8310 (PAHs / PNAs); CAM 17 Metals (200.7 / 200.8 / 6010 / 6020); LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020); Lead (200.7 / 200.8 / 6010 / 6020)

Other: Filter sample for DISSOLVED metals analysis; confirm MTBE by 8260

Comments: **Indicate here if these samples are potentially dangerous to handle:

SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	Water	ICE	HCL	BTEX & TPH as Gas / MTBE	TPH as Diesel	confirm MTBE by 8260
MW-1		3/5/12	10:42	3 / 2	VOA / Amb	X	X	X	X	X	X
MW-2		↓	07:39	↓	↓	↓	↓	↓	↓	↓	↓
MW-3A		↓	06:31	↓	↓	↓	↓	↓	↓	↓	↓
MW-4		↓	02:55	↓	↓	↓	↓	↓	↓	↓	↓
MW-5		↓	04:09	↓	↓	↓	↓	↓	↓	↓	↓
MW-6		↓	05:26	↓	↓	↓	↓	↓	↓	↓	↓

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
[signature]	3/5/12	12:35	[signature]
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 4.6
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ____

PRESERVATION: VOAS ✓ O&G METALS pH<2 OTHER

COMMENTS:

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1203118 **ClientCode: CETE**

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

Report to:
Bryan Fong
Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608
(510) 420-3369 FAX: (510) 420-9170

Email: bfong@craworld.com
cc: tkirnan@craworld.com
PO:
ProjectNo: #581000; Chiu

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

Requested TAT: 5 days

Date Received: **03/05/2012**
Date Printed: **03/05/2012**

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
1203118-001	MW-1	Water	3/5/2012 10:42	☐	A	A	B									
1203118-002	MW-2	Water	3/5/2012 7:39	☐	A		B									
1203118-003	MW-3A	Water	3/5/2012 6:31	☐	A		B									
1203118-004	MW-4	Water	3/5/2012 2:55	☐	A		B									
1203118-005	MW-5	Water	3/5/2012 4:09	☐	A		B									
1203118-006	MW-6	Water	3/5/2012 5:26	☐	A		B									

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(D)WSG_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

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.

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**

Date and Time Received: **3/5/2012 12:51:28 PM**

Project Name: **#581000; Chiu**

Checklist completed and reviewed by: Maria Venegas

WorkOrder N°: **1203118** Matrix: Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 4.6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 03/05/12
		Date Received: 03/05/12
5900 Hollis St, Suite A	Client Contact: Bryan Fong	Date Extracted: 03/07/12-03/08/12
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/07/12-03/08/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1203118

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	ND	ND	ND	ND	ND	ND	1	104	
002A	MW-2	W	18,000	ND<500	1200	930	560	2100	100	105	d1
003A	MW-3A	W	49,000	ND<800	4400	2800	1900	8200	100	105	d1
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	104	
005A	MW-5	W	ND	ND	ND	ND	ND	ND	1	106	
006A	MW-6	W	190	ND<15	38	2.7	1.4	7.3	1	121	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
d1) weakly modified or unmodified gasoline is significant

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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http://www.mccampbell.com / E-mail: main@mccampbell.com

Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 03/05/12
		Date Received: 03/05/12
5900 Hollis St, Suite A	Client Contact: Bryan Fong	Date Extracted 03/05/12
Emeryville, CA 94608	Client P.O.:	Date Analyzed 03/05/12-03/07/12

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 1203118

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1203118-001B	MW-1	W	ND	1	94	
1203118-002B	MW-2	W	1400	1	94	e4
1203118-003B	MW-3A	W	1500	1	113	e4
1203118-004B	MW-4	W	ND	1	94	
1203118-005B	MW-5	W	ND	1	98	
1203118-006B	MW-6	W	65	1	93	e4,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 65440 | WorkOrder: 1203118

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1203091-005A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	76.7	76.3	0.540	74.9	70 - 130	20	70 - 130
MTBE	ND	10	108	113	5.33	111	70 - 130	20	70 - 130
Benzene	ND	10	93.4	99.3	6.17	96.5	70 - 130	20	70 - 130
Toluene	ND	10	96.7	103	6.19	100	70 - 130	20	70 - 130
Ethylbenzene	ND	10	101	109	6.86	106	70 - 130	20	70 - 130
Xylenes	ND	30	101	107	6.42	104	70 - 130	20	70 - 130
%SS:	103	10	88	88	0	88	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 65440 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203118-001A	03/05/12 10:42 AM	03/07/12	03/07/12 2:46 AM	1203118-002A	03/05/12 7:39 AM	03/07/12	03/07/12 6:25 AM
1203118-003A	03/05/12 6:31 AM	03/07/12	03/07/12 6:54 AM	1203118-004A	03/05/12 2:55 AM	03/07/12	03/07/12 3:16 AM
1203118-005A	03/05/12 4:09 AM	03/07/12	03/07/12 3:45 AM	1203118-006A	03/05/12 5:26 AM	03/08/12	03/08/12 3:37 AM

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 65464 | WorkOrder: 1203118

EPA Method: SW8015B **Extraction: SW3510C/3630C** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	104	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	90	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 65464 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203118-001B	03/05/12 10:42 AM	03/05/12	03/06/12 2:13 AM	1203118-002B	03/05/12 7:39 AM	03/05/12	03/05/12 11:59 PM
1203118-003B	03/05/12 6:31 AM	03/05/12	03/07/12 1:58 AM	1203118-004B	03/05/12 2:55 AM	03/05/12	03/05/12 9:45 PM
1203118-005B	03/05/12 4:09 AM	03/05/12	03/06/12 3:20 AM	1203118-006B	03/05/12 5:26 AM	03/05/12	03/05/12 10:52 PM

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

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

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

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

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

DHS ELAP Certification 1644

QA/QC Officer

APPENDIX C

FIELD DATA SHEETS

MUSKAN
ENVIRONMENTAL
SAMPLING

WELL GAUGING SHEET

Client: Conestoga-Rovers and Associates

PS 1 of 1

Site Address: 800 Franklin Street, Oakland, CA

Date: 3/5/2012 **Signature:**

Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-1	10:25		22.61		33.35	
MW-2	07:19		22.32		34.15	
MW-3A	06:14		22.99		34.25	
MW-4	02:38		22.34		33.59	
MW-5	03:49		22.94		34.60	
MW-6	05:06		23.16		32.89	

MUSKAN
ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/5/2012
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-1
Well Diameter:	2"
Purging Device:	Peristaltic Pump
Sampling Method:	Perstaltic Pump
Total Well Depth from top of casing:	33.35
Water level at the start of purge from top of casing:	22.60
Approximate depth of water intake on pump from top of casing:	27.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
10:26	100	--	--	--	--	--	22.60	—	
10:29	100	16.5	7.28	1406	19	0.82	22.64	67	
10:32	100	16.7	7.21	1431	15	0.76	22.65	61	
10:35	100	16.8	7.18	1433	15	0.76	22.66	54	
10:38	100	16.9	7.17	1435	13	0.74	22.66	56	
10:41	100	16.9	7.16	1436	13	0.74	22.67	59	
									total purge volume = 1500 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-1	3/5/12	10:42	40 mL VOA, 1L Amber Glass	HCl	TPHd, TPHg, BTEX, MTBE	8015, 8021

Signature:

MUSKAN
ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/5/2012
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-2
Well Diameter:	2"
Purging Device:	Peristaltic Pump
Sampling Method:	Perstaltic Pump
Total Well Depth from top of casing:	34.15
Water level at the start of purge from top of casing:	22.33
Approximate depth of water intake on pump from top of casing:	27.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
07:20	100	--	--	--	--	--	22.33	—	
07:23	100	17.6	7.18	1629	-22	1.11	22.35	40	
07:26	100	17.9	7.22	1511	-16	0.74	22.36	36	
07:29	100	18.1	7.24	1427	-8	0.62	22.38	41	
07:32	100	18.3	7.26	1415	-6	0.61	22.38	32	
07:35	100	18.3	7.26	1414	-4	0.61	22.39	35	
07:38	100	18.4	7.26	1413	-4	0.61	22.39	31	
									total purge volume = 1800 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-2	3/5/12	07:39	40 mL VOA, 1L Amber Glass	HCl	TPHd, TPHg, BTEX, MTBE	8015, 8021

Signature:

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ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/5/2012
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-3A
Well Diameter:	4"
Purging Device:	Peristaltic Pump
Sampling Method:	Perstaltic Pump
Total Well Depth from top of casing:	34.25
Water level at the start of purge from top of casing:	22.99
Approximate depth of water intake on pump from top of casing:	27.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
06:15	100	--	--	--	--	--	22.99	—	
06:18	100	17.5	7.05	1190	-104	0.94	23.02	24	fine black flake
06:21	100	17.7	7.02	1071	-96	0.81	23.02	19	
06:24	100	18.1	6.98	1060	-94	0.73	23.04	22	
06:27	100	18.3	6.97	1058	-94	0.71	23.06	21	
06:30	100	18.3	6.97	1057	-92	0.70	23.06	20	
									total purge volume = 1500 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-3A	3/5/12	06:31	40 mL VOA, 1L Amber Glass	HCl	TPHd, TPHg, BTEX, MTBE	8015, 8021

Signature: NS

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ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/5/2012
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-4
Well Diameter:	2"
Purging Device:	Peristaltic Pump
Sampling Method:	Perstaltic Pump
Total Well Depth from top of casing:	33.59
Water level at the start of purge from top of casing:	22.34
Approximate depth of water intake on pump from top of casing:	27.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
02:39	100	--	--	--	--	--	22.34	—	
02:42	100	17.9	6.85	920	109	1.04	22.35	19	
02:45	100	18.1	6.81	894	81	1.11	22.37	27	
02:48	100	18.1	6.79	880	67	1.11	22.37	31	
02:51	100	18.1	6.77	876	63	1.12	22.37	31	
02:54	100	18.1	6.77	876	63	1.14	22.38	34	
									total purge volume = 1500 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-4	3/5/12	02:55	40 mL VOA, 1L Amber Glass	HCl	TPHd, TPHg, BTEX, MTBE	8015, 8021

Signature: [signature]

MUSKAN
ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/5/2012
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-5
Well Diameter:	2"
Purging Device:	Peristaltic Pump
Sampling Method:	Perstaltic Pump
Total Well Depth from top of casing:	34.60
Water level at the start of purge from top of casing:	22.94
Approximate depth of water intake on pump from top of casing:	27.10

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
03:50	100	--	--	--	--	--	22.94	—	
03:53	100	16.7	7.72	408	-21	1.65	22.96	19	
03:56	100	16.9	7.51	415	-16	1.41	23.01	21	
03:59	100	17.4	7.40	459	-13	1.29	23.01	24	
04:02	100	17.6	7.38	476	-8	1.21	23.03	26	
04:05	100	17.7	7.36	477	-8	1.21	23.04	26	
04:08	100	17.9	7.36	478	-8	1.20	23.05	27	
									total purge volume = 1800 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-5	3/5/12	04:09	40 mL VOA, 1L Amber Glass	HCl	TPHd, TPHg, BTEX, MTBE	8015, 8021

Signature:

MUSKAN
ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/5/2012
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-6
Well Diameter:	2"
Purging Device:	Peristaltic Pump
Sampling Method:	Perstaltic Pump
Total Well Depth from top of casing:	32.89
Water level at the start of purge from top of casing:	23.16
Approximate depth of water intake on pump from top of casing:	27.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
05:07	100	--	--	--	--	--	23.16	—	
05:10	100	16.7	6.99	1570	-24	1.05	23.19	62	
05:13	100	17.2	6.92	1618	-18	0.92	23.19	41	
05:16	100	17.4	6.87	1656	-16	0.89	23.21	43	
05:19	100	17.6	6.87	1659	-14	0.84	23.22	46	
05:22	100	17.7	6.87	1661	-14	0.83	23.22	44	
05:25	100	17.7	6.87	1662	-12	0.83	23.22	42	
									total purge volume = 1800 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-6	3/5/12	05:26	40 mL VOA, 1L Amber Glass	HCl	TPHd, TPHg, BTEX, MTBE	8015, 8021

Signature: