RECEIVED
By Alameda County Environmental Health at 10:56 am, Feb 04, 2013

Mr. Keith Nowell
Alameda County Environmental Health
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502-6577

Re: Former Exxon Station
5175 Broadway
Oakland, California
ACEH File No. 139
SFRWQCB Site No. 01-0958
UST Fund Claim No. 3406

Dear Mr. Nowell:

I, Mr. Ernie Nadel, have retained Pangea Environmental Services, Inc. (Pangea) as the environmental consultant for the project referenced above. Pangea is submitting the attached report on my behalf.

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

Sincerely,

Ernie Nadel
Rockridge Heights, LLC

January 31, 2013

VIA ALAMEDA COUNTY FTP SITE

Mr. Keith Nowell
Alameda County Environmental Health
1331 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: **Groundwater Monitoring and Remediation Report – Fourth Quarter 2012**
5175 Broadway Street, Oakland, California
ACEH Fuel Leak Case No. RO#0000139

Dear Mr. Nowell:

On behalf of Rockridge Heights LLC, Pangea Environmental Services, Inc., has prepared this *Groundwater Monitoring and Remediation Report — Fourth Quarter 2012.* The remediation system at the site was restarted for rebound testing on November 27, 2012 and operated for approximately two weeks following a 10-month shutdown period. Contaminant concentrations in groundwater in most site wells were significantly lower than concentrations detected during September 2012 monitoring. Importantly, no benzene was detected in groundwater above 100 µg/L this event.

Pangea also understands that the State Board staff are recommending case closure to their Executive Director. Accordingly, Pangea will await State Board direction before performing any additional corrective action. The following information supports the State Board staff recommendation for case closure: limited hydrocarbon removal during resumed DPE/AS operation for two weeks, low soil gas concentrations during post-remediation sampling in September 2012, and low hydrocarbon concentrations in groundwater from recent site data.

If you have any questions, please call me at (510) 435-8664.

Sincerely,
Pangea Environmental Services, Inc.

Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Groundwater Monitoring and Remediation Report – Fourth Quarter 2012*

cc: Rockridge Heights, LLC, C/O Ernie Nadel, 6100 Pinewood Road, Oakland, California 94611
SWRCB Geotracker (Electronic copy)

GROUNDWATER MONITORING AND REMEDIATION REPORT – FOURTH QUARTER 2012

5175 Broadway
Oakland, California

January 31, 2013

Prepared for:

Rockridge Heights, LLC
C/O Ernie Nadel
6100 Pinewood Road
Oakland, California 94611

Prepared by:

Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200
Oakland, California 94612

Written by:

REGISTERED PROFESSIONAL ENGINEER
ROBERT D. CLARK-RIDDELL
No. C 049629
Exp. 2014-SEPT
CIVIL
STATE OF CALIFORNIA

FOR

Morgan Gillies
Project Manager

Bob Clark-Riddell, P.E.
Principal Engineer

INTRODUCTION

On behalf of Rockridge Heights, LLC, Pangea Environmental Services, Inc. (Pangea) conducted groundwater monitoring and sampling during December 2012 at the subject site (Figure 1). The purpose of the monitoring and sampling is to evaluate dissolved contaminant concentrations and determine the groundwater flow direction. The remediation system at the site was restarted for rebound testing on November 27, 2012 and operated for approximately two weeks following a 10-month shutdown period. Contaminant concentrations in most site wells were significantly lower than concentrations detected during September 2012 monitoring.

SITE BACKGROUND

The subject property is located at 5175 Broadway Street, at the southwest corner of the intersection of Broadway and Coronado Avenue in Oakland, California in Alameda County (Figure 1). The site is approximately 0.6 miles south-southeast of Highway 24 and approximately 2.3 miles east of Interstate 80 and the San Francisco Bay. The property is relatively flat lying, with a slight slope to the south-southwest, and lies at an elevation of approximately 160 feet above mean sea level. Topographic relief in the area surrounding the site also slopes generally towards the south-southwest. The western site boundary is the top of an approximately 10 foot high retaining wall that separates the site from an adjacent apartment complex.

The property has been vacant since 1979 and was formerly occupied by an Exxon Service Station used for fuel sales and automobile repair. The site is approximately 13,200 square feet in area and the majority of the ground surface is paved with concrete and/or asphalt, although the former tank location is not paved. Land use to the west and northwest is residential, including apartment buildings and single family homes. Properties to the northeast, east and south of the site are commercial. The subject site and adjacent properties are shown on Figure 2.

Environmental compliance work commenced when the site USTs were removed in January 1990. Three 8,000-gallon steel single-walled USTs, associated piping, and a 500-gallon steel single-walled waste oil tank were removed. Tank Project Engineering, Inc. (TPE) conducted the tank removal and observed holes in all four tanks. Approximately 700 tons of contaminated soil was excavated during tank removal and was subsequently remediated and reused for onsite backfill by TPE. In April 1990, TPE installed and sampled monitoring wells MW-1, MW-2 and MW-3. In June 1991, Soil Tech Engineering (STE), subsequently renamed Environmental Soil Tech Consultants (ESTC), installed monitoring wells STMW-4 and STMW-5. Groundwater monitoring was conducted on the site intermittently until October 2002. Golden Gate Tank Removal (GGTR) performed additional assessment in January and February 2006. In June 2006, the property was purchased by Rockridge Heights, LLC. Pangea commenced quarterly groundwater monitoring at the site in July 2006. MTBE is not

considered to be a contaminant of concern because use of the site for fuel sales predates widespread use of MTBE in gasoline and because analytical results have not shown significant detections of MTBE.

In January and March 2007, Pangea installed twelve wells (MW-2C, MW-3A, MW-3C, MW-4A, MW-5A, MW-5B, MW-5C, MW-6A, MW-7B, MW-7C, MW-8A and MW-8C) and three offsite soil borings to help define the vertical and lateral extent of groundwater contamination. Pangea also abandoned four monitoring wells (MW-2, MW-3, STMW-4 and STMW-5) to reduce the risk of vertical contaminant migration and improve the quality of monitoring data. New wells installed at the site were categorized according to the depths of their screen intervals. Shallow (A-zone) wells have screen intervals of approximately 10 to 15 feet bgs, which generally straddle the top of the water table and are generally screened in surficial fill and alluvium. Intermediate-depth (B-zone) wells are screened at approximately 15 to 20 feet bgs, either in surficial strata or underlying fractured bedrock, while deep (C-zone) wells are generally screened at approximately 20 to 25 feet bgs and into fractured bedrock. Well MW-1 is screened across both the A-zone and B-zone.

In April 2007, Pangea performed a dual-phase extraction (DPE) pilot test to evaluate whether DPE is an appropriate remedial technology to remove residual hydrocarbons from beneath the site. In July 2007, Pangea submitted an Interim Remedial Action Plan for site corrective action.

In August 2007, Pangea installed three offsite monitoring wells (MW-9A, MW-9C and MW-10A) and conducted subslab vapor sampling in the commercial building located immediately south of the site. The purpose of the offsite well installation was to determine the downgradient extent of contaminant migration, and to help evaluate downgradient effects of any future onsite remediation. The purpose of the subslab vapor sampling was to determine whether vapor migrating from underlying groundwater had impacted soil vapor. Soil gas sampling was also conducted near the southern and western edge of the property. Soil gas sampling and offsite monitoring well installation is described in Pangea's *Soil Gas Sampling and Well Installation Report* dated October 23, 2007. Further subslab/soil gas sampling was conducted at the two adjacent properties in June 2008 and reported in Pangea's *Additional Soil Gas Sampling Report* dated July 14, 2008.

In a June 2009 letter, ACEH approved site remediation using dual-phase extraction (DPE) and air sparging (AS) techniques. Operation of the DPE system began on December 8, 2010 and operation of the AS system began on March 16, 2011. The DPE/AS system has been effective for site remediation. The DPE/AS system was shutdown for post-remediation monitoring on January 31, 2012. The DPE/AS system was restarted on November 27, 2012 and subsequently shutdown on December 11, 2012.

Post-remediation soil gas sampling was proposed in Pangea's *Revised Soil Gas Sampling Workplan* dated July 16, 2012 and *Addendum* dated August 6, 2012. As required, the Revised Workplan included an evaluation of potential vapor migration pathways between 5175 Broadway and the adjacent residential building at 5230

Coronado Avenue. Results of the soil gas sampling were summarized in Pangea's *Post Remediation Soil Gas Sampling Report* dated September 28, 2012.

GROUNDWATER MONITORING AND SAMPLING

On December 30 and 31, 2012, Pangea conducted groundwater monitoring and sampling at the site. The monitoring was performed approximately 19 days after the DPE/AS system was shutdown following two weeks of operation for rebound testing. To evaluate remedial effectiveness, Pangea sampled thirteen site wells in accordance with the groundwater monitoring program presented in July 2012. All program monitoring wells were gauged for depth-to-water and inspected for separate-phase hydrocarbons (SPH). To obtain water levels representative of the piezometric surface, technicians removed all well caps approximately one hour prior to measuring water levels.

Prior to sample collection, approximately three casing volumes of water were purged using disposable bailers, an electric submersible pump, or a clean PVC bailer (although fewer casing volumes were purged if the well dewatered). Prior to sampling, the dissolved oxygen (DO) concentration was measured in each well scheduled for sampling. DO was measured by lowering a downwell sensor to the approximate middle of the water column, and allowing the reading to stabilize during gentle height adjustment. During well purging, field technicians measured the pH, temperature and conductivity of the water. A groundwater sample was collected from each well with a disposable bailer and decanted into the appropriate containers supplied by the analytical laboratory. Groundwater samples were labeled, placed in protective plastic bags, and stored on crushed ice at or below 4^{o} C. All samples were transported under chain-of-custody to the State-certified analytical laboratory. Purge water was stored onsite in DOT-approved 55-gallon drums. Groundwater monitoring field data sheets, including purge volumes and field parameter measurements, are presented in Appendix B.

MONITORING RESULTS

Current and historical groundwater elevation and analytical data are described below and summarized on Table 1, Figure 2 and Figure 3. To facilitate data evaluation, well construction details are summarized on Table 2. Groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015C with silica gel cleanup; total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015C; and benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. Samples were analyzed by McCampbell Analytical, Inc., of Pittsburg, California, a State-certified laboratory. The laboratory analytical report is included in Appendix C. Dissolved oxygen (DO) concentrations in site wells ranged from 0.55 mg/L (DPE-2) to 1.40 mg/L (MW-3A).

Groundwater Flow Direction

Based on depth-to-water data collected on December 30, 2012, shallow groundwater (A-zone) generally flows *southwestwards* to *southwards* beneath the site, as shown on Figure 2. The current inferred flow direction in shallow groundwater is generally consistent with previous monitoring results.

Groundwater flow in deep groundwater (C-zone) is generally *southwestwards* to *southwards* beneath the site, as shown on Figure 3. Generally, the elevation of the piezometric surface for C-zone wells is lower than elevations for A-zone wells, indicating that a downward gradient is present.

Hydrocarbon Distribution in Groundwater

Current Distribution: Key current analytical data for shallow and deep groundwater is summarized on Figures 2 and 3, respectively. The dramatic contaminant reduction in site wells achieved by site remediation is illustrated on Figures 5 and 6. After remediation system shutdown in January 2012 contaminant concentrations partially rebounded, and then decreased again following two weeks of remediation system operation in late November and early December 2012. This monitoring event was performed 19 days after remediation system shutdown on December 11, 2012.

This quarter the maximum TPHg concentration detected was 1,600 µg/L (well DPE-6), which is within the historic range for this well. This quarter the maximum benzene concentration detected was 27 µg/L (well MW-3A), which is the second lowest concentration ever detected in this well. The maximum TPHd concentration detected this quarter was 540 µg/L, in well DPE-6, which is a *historic low* for this well. No measurable thickness of separate-phase hydrocarbons (SPH) was observed in any monitoring wells this quarter. As shown on Figures 5 and 6, hydrocarbon concentrations were generally within historic ranges and trends in most site wells, while select wells remain 'non detect' or near *historic low* concentrations. Significant concentration reduction and lack of SPH is attributed to DPE and AS remediation at the site.

Historic Distribution: Shallow (A-zone) groundwater contained petroleum hydrocarbons at elevated concentrations in two primary areas near the former UST excavation: a northern area in the vicinity of well MW-4A, and a southwestern area in the vicinity of wells MW-3A and MW-8A. Prior shallow grab groundwater sampling data also indicates that the southern area of contamination extended to the southern site boundary in the vicinity of wells MW-7B and MW-7C. The non-detect concentrations of hydrocarbons in wells MW-9A and MW-10A indicate that any offsite migration of petroleum hydrocarbons in shallow groundwater is minimal. The historic distribution of hydrocarbons in A-zone groundwater was presumably due to plume migration radially away from the excavation area, likely caused by mounding of groundwater within the uncapped former UST excavation during the rainy season.

Contaminant distribution in deeper groundwater differed from the distribution of hydrocarbons in shallow groundwater. Elevated contaminant concentrations within deeper groundwater (B-zone and C-zone) were present in the vicinity of wells MW-3C, MW-7B and MW-7C in the central and southern portions of the site. Site remediation has improved site conditions. Well screen intervals for shallow and deep wells are summarized on Table 2.

Fuel Oxygenate Distribution in Groundwater

No MTBE was detected above reporting limits in any samples obtained from site monitoring wells this monitoring event. MTBE is not a contaminant of concern at this site both due to the lack of detections, and because the USTs were removed in 1990 prior to widespread use of MTBE as a fuel oxygenate.

REMEDIATION SYSTEM SUMMARY

Dual Phase Extraction/Air Sparging System

The dual phase extraction (DPE) remediation system simultaneously extracts groundwater and soil vapor from site remediation wells. The remediation system layout is shown on Figure 4. Extraction and treatment is performed using a 25 hp liquid ring vacuum pump with a 400 cubic foot per minute (cfm) electric catalytic oxidizer. To maximize groundwater depression, a “stinger” (vacuum tube inserted below the water table) is used to both depress the water table and extract soil vapor in each of the 10 remediation wells (DPE-1 through DPE-6 and MW-3A, MW-4A, MW-7B and MW-8A). Extracted vapors are routed through an air/water separator and then treated by the electric catalytic oxidizer. The treated vapor is discharged to the atmosphere in accordance with Bay Area Air Quality Management District (BAAQMD) requirements. Groundwater captured within the air/water separator is pumped through two 200-lb canisters of granular activated carbon plumbed in series. The treated groundwater is discharged into the sewer in accordance with East Bay Municipal Utility District’s (EBMUD) requirements.

The air sparging (AS) system consists of a 5 hp Ingersoll-Rand rotary-screw air compressor capable of injecting 16 cfm of air and reaching pressures of 125 psig. Injection into the seven air sparge wells (AS-1, MW-1, MW-2C, MW-3C, MW-5B, MW-7C and MW-8C) is controlled by timer-activated solenoid valves and individual valves on the well flow meters. The remediation system layout is shown on Figure 4.

Operation and Performance

DPE and AS system operation commenced on December 8, 2010 and March 16, 2011, respectively. The DPE system was initially operated to target elevated impact within the northern portion of the site (wells DPE-1, MW-3A, MW-4A and MW-8A). After initial contaminant mass removal rates decreased, DPE remediation was

focused on the southern portion of the site, and AS was commenced soon thereafter. AS was initiated on wells MW-2C and MW-3C near the center of the site, and later expanded to include well MW-7C and well MW-8C. System operation and performance data is summarized on Tables 3 and 4. Pangea periodically optimizes hydrocarbon removal by checking influent vapor concentrations within individual wells. The DPE system was shutdown on January 31, 2012 pending agency and client direction. The DPE/AS system was restarted on November 27, 2012 and operated until December 11, 2012 for a two week rebound test. The system is currently shutdown pending regulatory review.

As of December 11, 2012, the DPE system operated for a total of about 7,187 hours (approximately 299 days). During the rebound test operation period of November 27 to December 11, 2012, the DPE system operated for a total of 331 hours (approximately 14 days). As of December 11, 2012, the vapor-phase portion of the DPE system removed a total of approximately 1,388 lbs TPHg and 9.3 lbs benzene. The groundwater portion of the DPE system removed a total of approximately 0.27 lbs TPHg and 0.006 lbs benzene. During the two week rebound period approximately 38 additional lbs of vapor-phase TPHg were removed. Vapor-phase benzene removal during the two week rebound period was approximately 0.11 lbs, while aqueous phase TPHg and benzene removal during the rebound period was negligible. Additional hydrocarbon removal is provided by biodegradation stimulated by oxygenation from DPE/AS processes.

The DPE/AS system is monitored in accordance with air permit requirements of the *Permit to Operate* issued by the Bay Area Air Quality Management District (BAAQMD) and groundwater discharge requirements of the *Wastewater Discharge Permit* issued by East Bay Municipal Utility District.

OTHER SITE ACTIVITY

Regulatory Oversight and Case Closure

Pangea understands that the State Board staff are recommending case closure to their Executive Director. Accordingly, Pangea will await State Board direction before performing any additional corrective action. The following information supports the State Board staff recommendation for case closure: limited hydrocarbon removal during resumed DPE/AS operation for two weeks, low soil gas concentrations during post-remediation sampling in September 2012, and low hydrocarbon concentrations in groundwater from recent site data.

Electronic Reporting

This report will be uploaded to the Alameda County FTP site. The report, laboratory data, and other applicable information will also be uploaded to the State Water Resource Control Board's Geotracker database. As requested, report hard copies will no longer be provided to the local agencies.

ATTACHMENTS

Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contour and Hydrocarbon Concentration Map (Shallow)
Figure 3 – Groundwater Elevation Contour and Hydrocarbon Concentration Map (Deep)
Figure 4 – Remediation System Layout
Figure 5 – TPHg and Benzene Concentration Trends in Shallow Groundwater
Figure 6 – TPHg and Benzene Concentration Trends in Deep Groundwater

Table 1 – Groundwater Analytical Data
Table 2 – Well Construction Details
Table 3 – SVE System Performance Data
Table 4 – GWE System Performance Data

Appendix A – Groundwater Monitoring Program
Appendix B – Groundwater Monitoring Field Data Sheets
Appendix C – Laboratory Analytical Reports

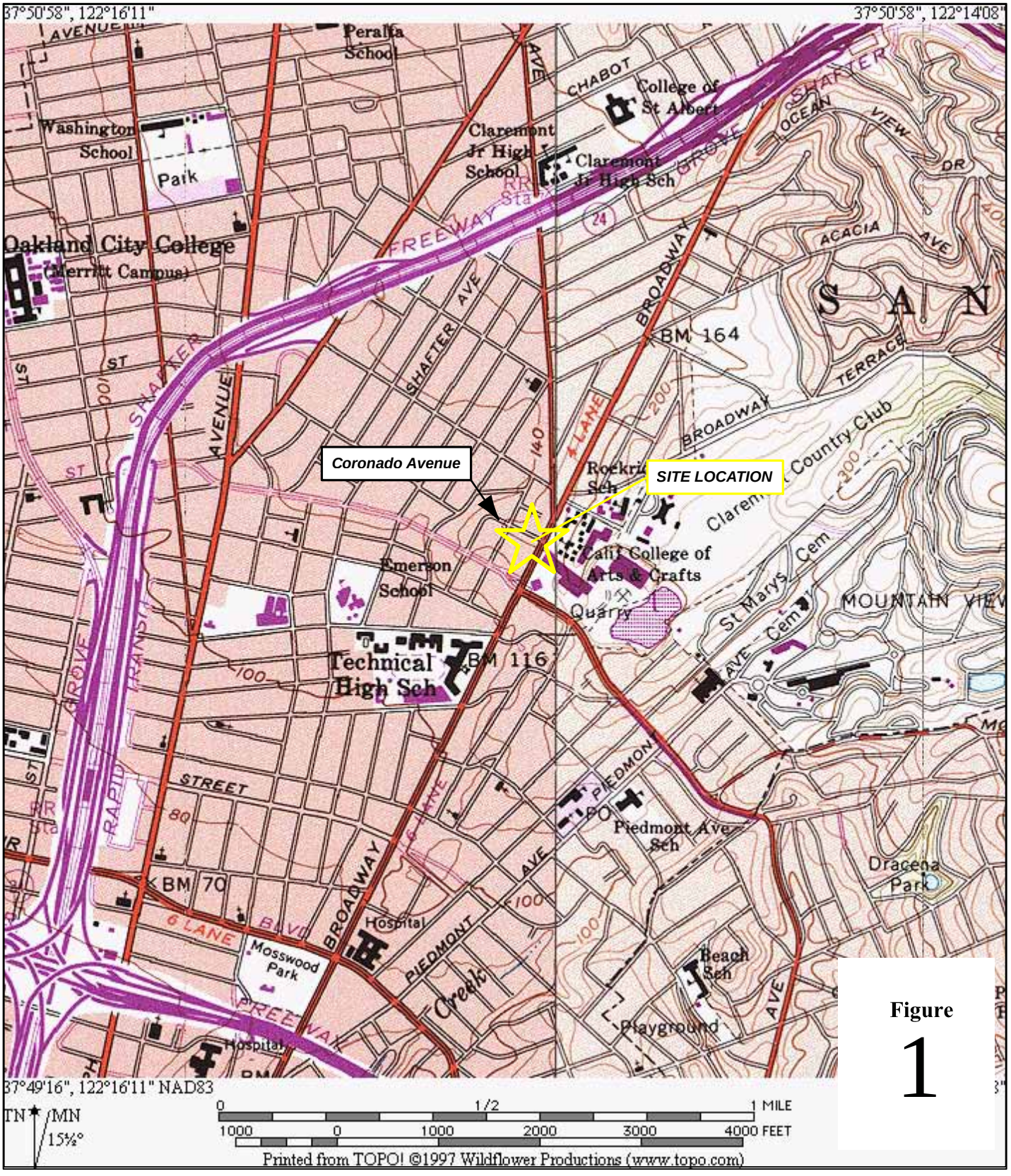


Figure 1

Former Exxon Station
5175 Broadway
Oakland, California

PANGEA

Site Location Map

FeinerBroadway site loc.ai 8/30/06

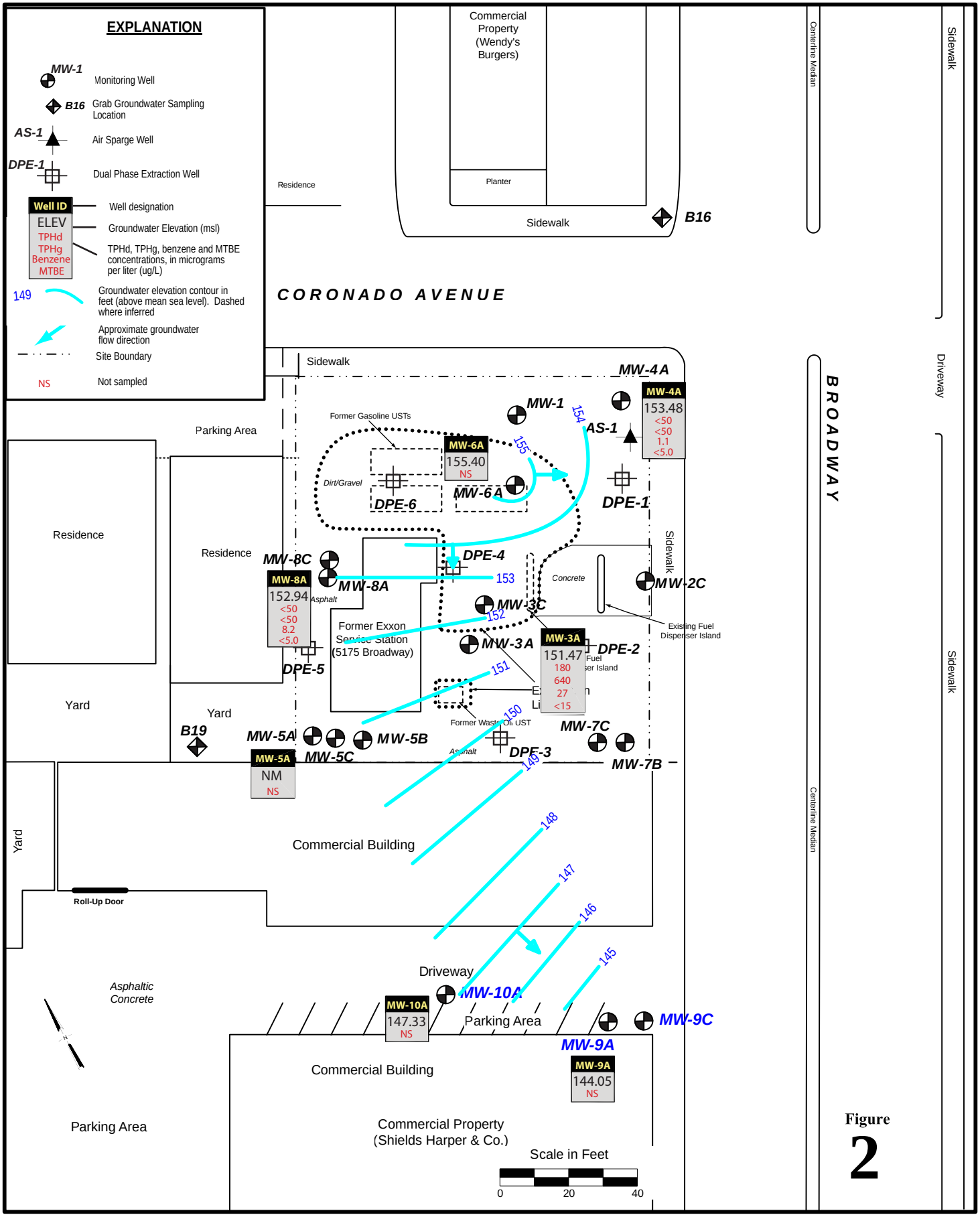


Figure 2

Former Exxon Station
5175 Broadway
Oakland, California

Groundwater Elevation Contour and Hydrocarbon Concentration Map (Shallow)
December 30-31, 2012

PANGEA

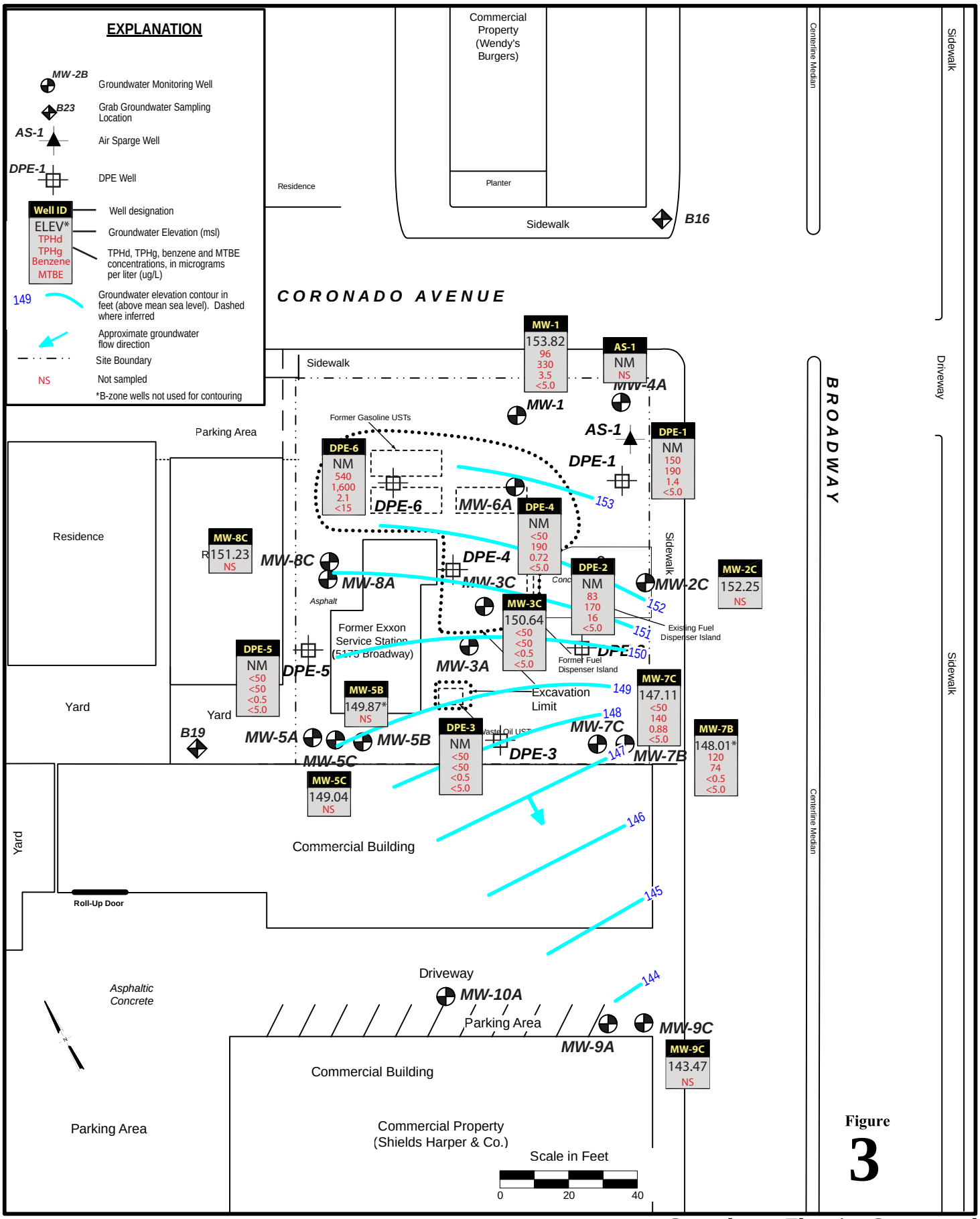


Figure
3

Former Exxon Station
5175 Broadway
Oakland, California

Groundwater Elevation Contour and Hydrocarbon Concentration Map (Deep)

December 30-31, 2012

PANGEA

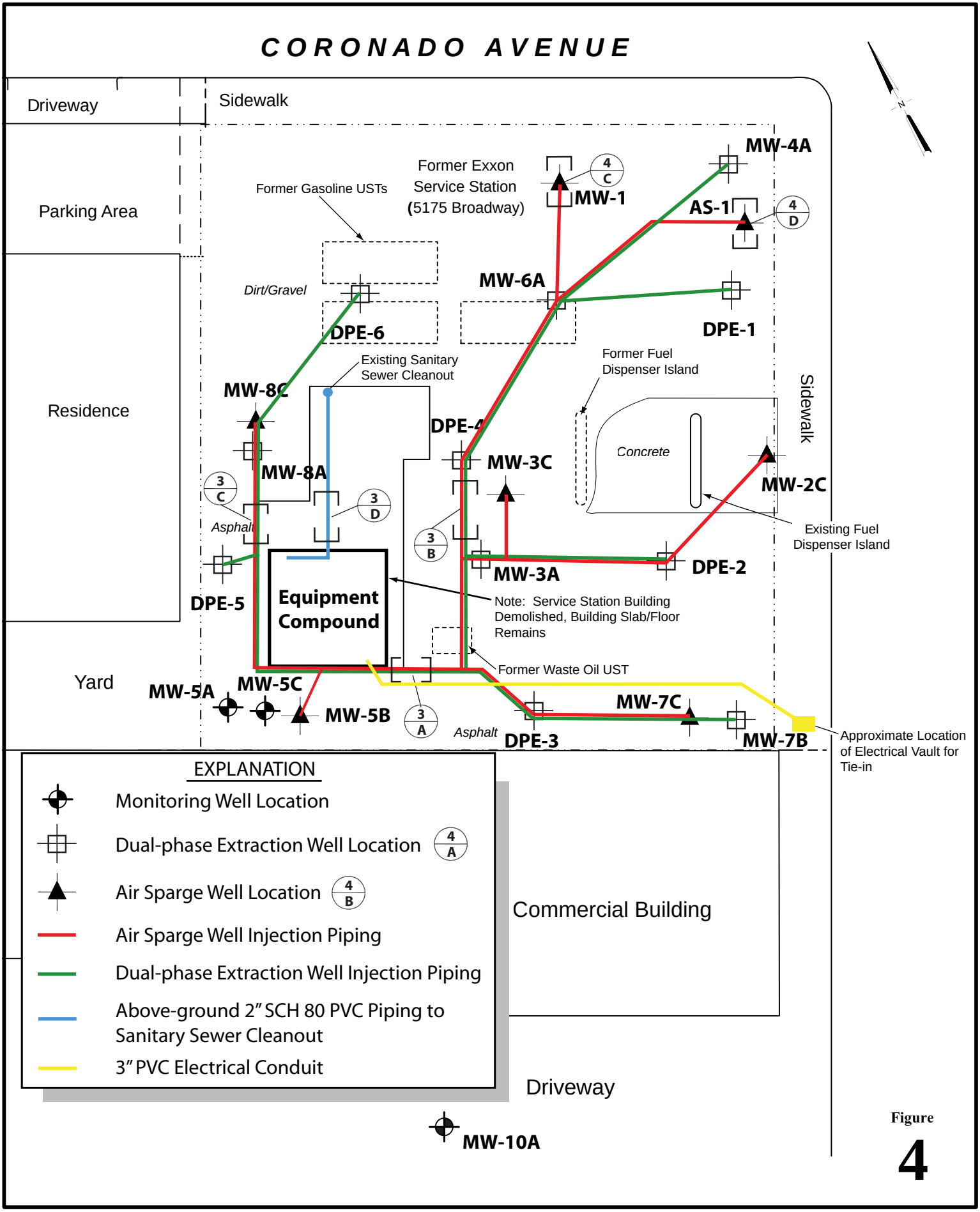
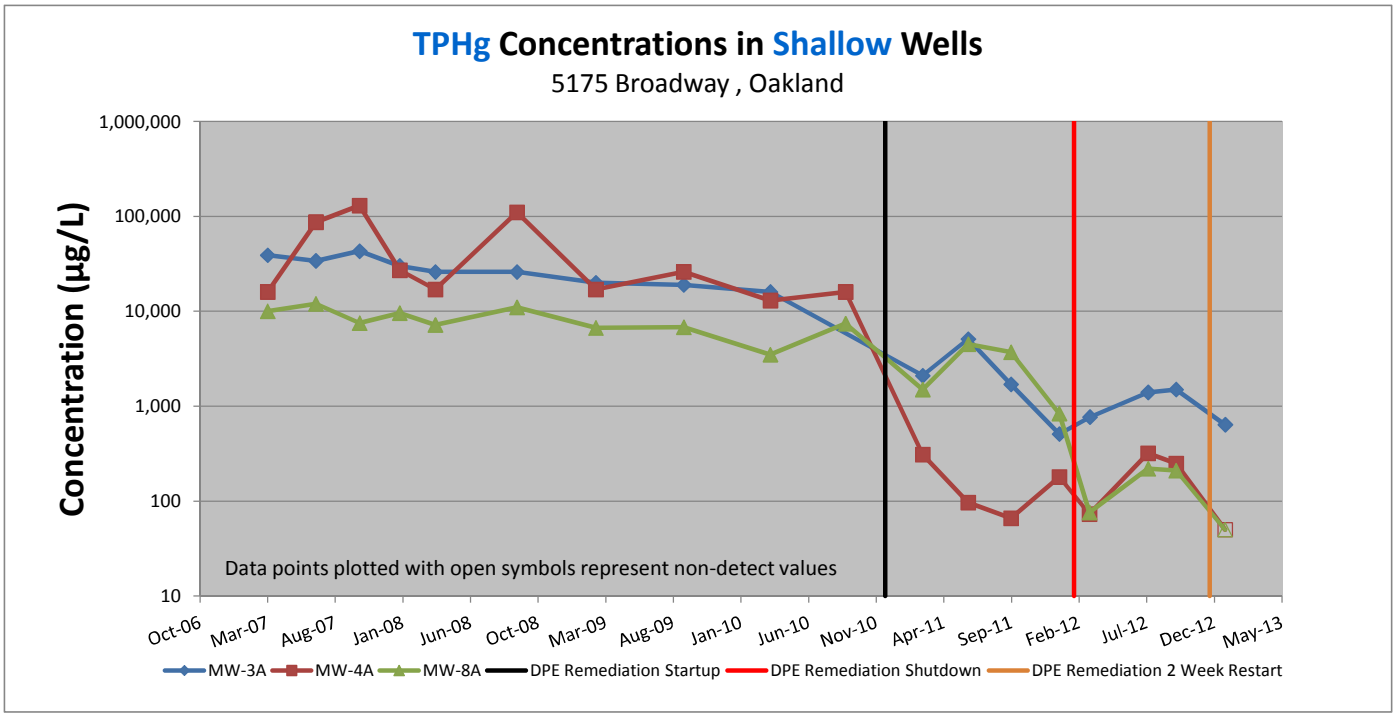


Figure
4

Former Exxon Station
5175 Broadway
Oakland, California

PANGEA

Remediation System Layout



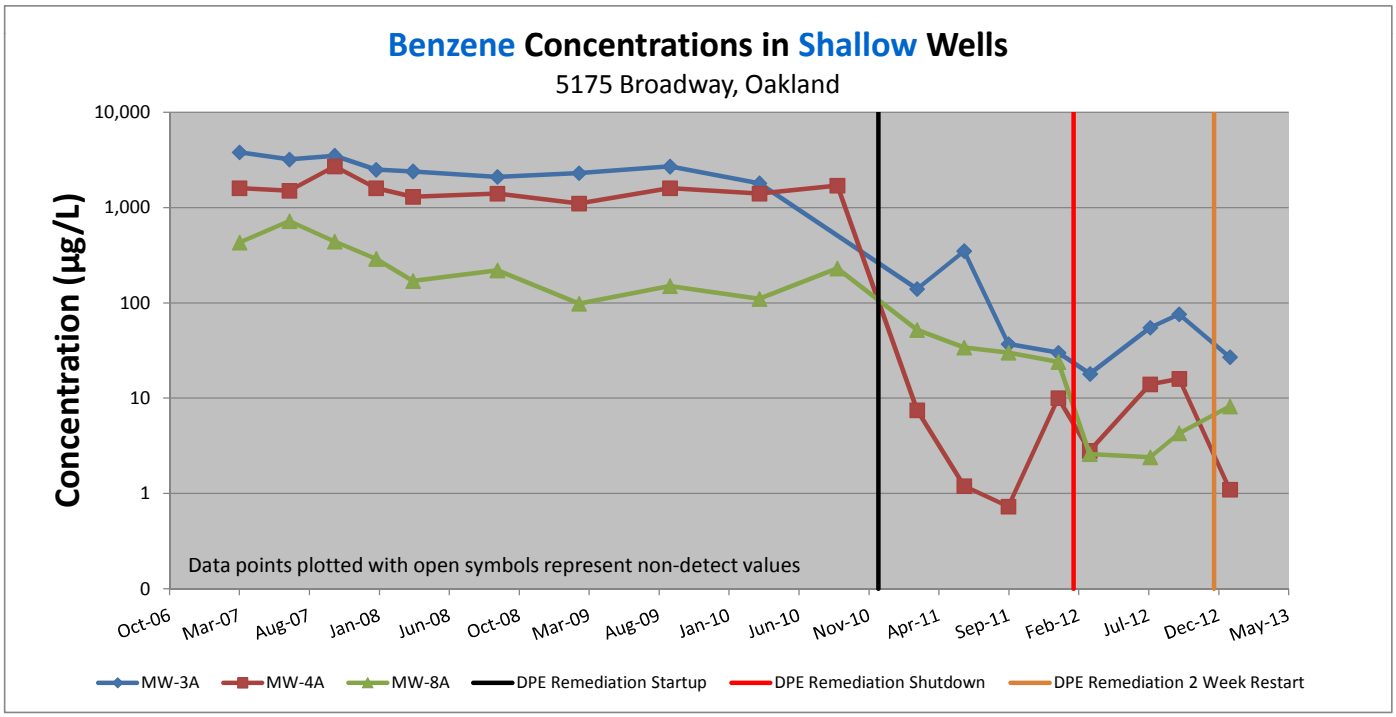
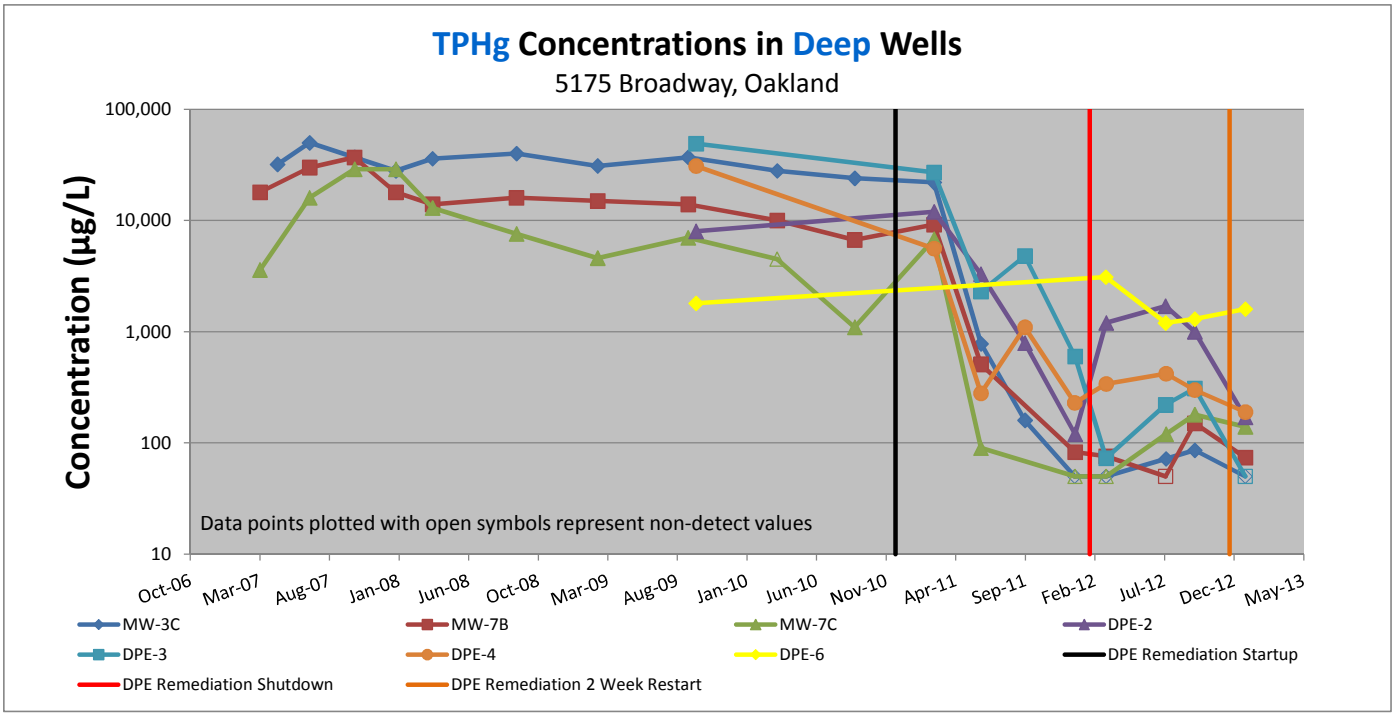


Figure 5. TPHg and Benzene Concentration Trends in Shallow Groundwater



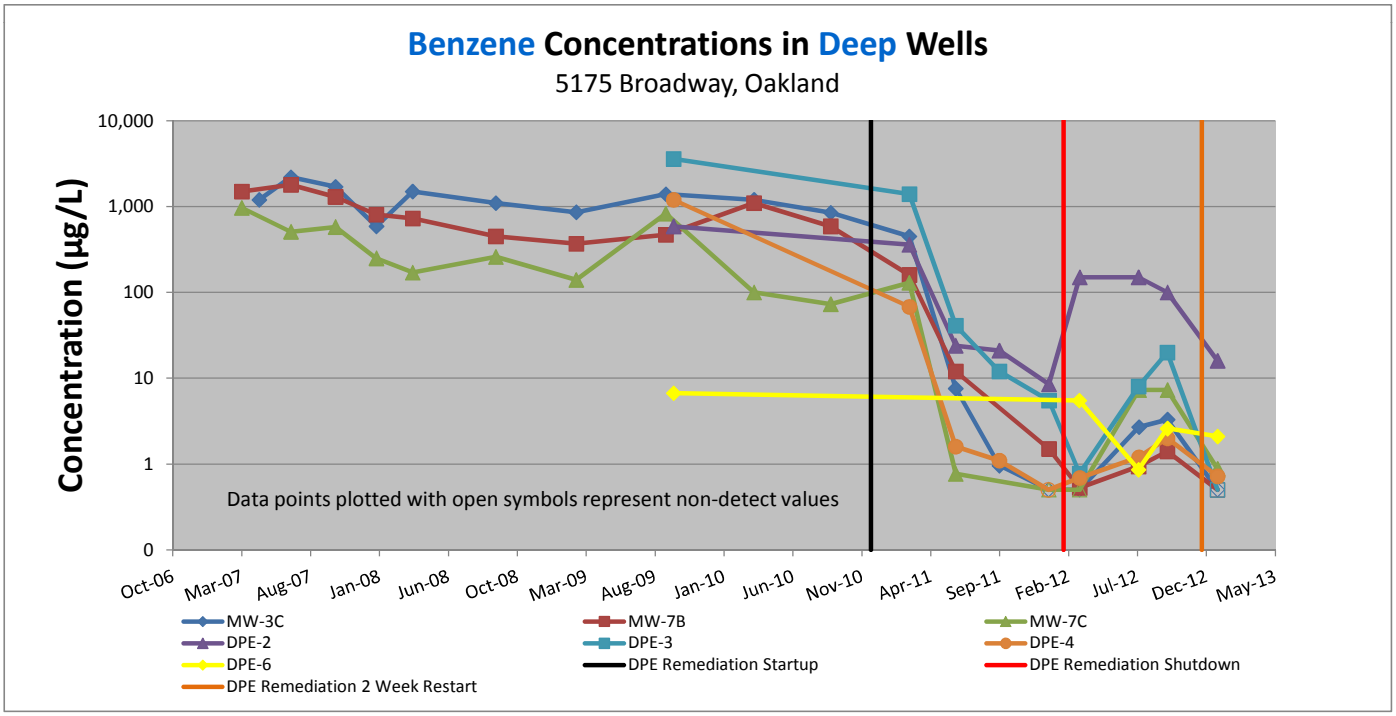


Figure 6. TPHg and Benzene Concentration Trends in Deep Groundwater

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					← µg/L →									
SHALLOW WELLS														
MW-3A	03/09/07	--	152.20	9.35	4,500	39,000	3,800	220	830	2,800	<500	--	--	--
(161.55)	03/26/07	--	152.33	9.22	--	--	--	--	--	--	--	--	--	--
(161.57)	06/24/07	--	151.61	9.94	11,000	34,000	3,200	330	990	3,200	<250	--	--	--
	09/29/07	--	150.21	11.36	11,000	43,000	3,500	150	730	2,200	<1,000	--	--	--
	12/27/07	--	150.20	11.37	8,700	30,000	2,500	24	520	930	<100	--	--	--
	03/15/08	--	152.27	9.30	10,000	26,000	2,400	110	700	1,200	<250	--	--	--
	09/12/08	--	149.57	12.00	9,000	26,000	2,100	29	560	280	<100	--	--	--
	03/06/09	--	152.66	8.91	6,500	20,000	2,300	59	740	410	<180	--	--	--
	09/17/09	--	149.47	12.10	6,900	19,000	2,700	33	660	110	<250	--	--	--
	03/28/10	--	152.50	9.07	4,300	16,000	1,800	38	220	340	<100	--	--	--
	09/11/10	--	149.44	12.13					Insufficent water to sample					
	03/01/11	--	150.01	11.56	2,200	2,100	140	10	37	97	<10	--	--	--
	06/10/11	--	151.89	9.68	1,400	5,100	350	140	110	490	<80	--	--	--
	09/13/11	--	150.95	10.62	400	1,700	37	38	17	110	<15	--	--	0.36
	12/29/11	--	149.34	12.23	410	510	30	1.0	2.1	24	<5.0	--	--	0.83
	03/06/12	--	151.30	10.27	360	770	18	1.5	5.7	23	<5.0	--	--	0.23
	07/13/12	--	152.55	9.02	620	1,400	55	2.3	23	10	<10	--	--	0.15
	09/13/12	--	151.43	10.14	550	1,500	76	2.2	18	5.7	<17	--	--	3.16
	12/31/12	**--**	**151.47**	**10.10**	**180**	**640**	**27**	**1.3**	**5.7**	**7.4**	**<15**	**--**	**--**	**1.40**
MW-4A	03/09/07	--	152.88	9.56	3,600	16,000	1,600	36	37	150	<250	--	--	--
(162.44)	03/26/07	--	152.56	9.88	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	152.02	10.42	110,000	87,000	1,500	59	290	800	<500	--	--	--
	09/29/07	--	151.33	11.11	170,000	130,000	2,700	69	400	1,400	<240	--	--	--
	12/27/07	--	152.33	10.11	19,000	27,000	1,600	31	100	320	<90	--	--	--
	03/15/08	--	152.51	9.93	38,000	17,000	1,300	<50	120	380	<500	--	--	--
	09/12/08	--	151.72	10.72	120,000	110,000	1,400	<50	210	660	<500	--	--	--
	03/06/09	--	153.84	8.60	32,000	17,000	1,100	15	<10	190	<100	--	--	--
	09/17/09	--	151.44	11.00	25,000	26,000	1,600	63	140	320	<350	--	--	--
	03/28/10	--	152.69	9.75	9,200	13,000	1,400	29	16	160	<100	--	--	--
	09/11/10	--	151.34	11.10	23,000	16,000	1,700	43	140	330	<250	--	--	--
	03/01/11	--	148.94	13.50	270	310	7.5	1.0	<0.5	7.7	<5.0	--	--	--
	06/10/11	--	152.32	10.12	110	97	1.2	<0.5	<0.5	1.7	<5.0	--	--	--
	09/13/11	--	148.27	14.17	130	66	0.73	<0.5	<0.5	<0.5	<5.0	--	--	0.48
	12/29/11	--	151.29	11.15	200	180	10	<0.5	<0.5	<0.5	<5.0	--	--	0.83
	03/05/12	--	152.64	9.80	<50	73	2.8	<0.5	<0.5	<0.5	<5.0	--	--	0.25
	07/13/12	--	151.59	10.85	170	320	14	0.85	2.0	1.9	<5.0	--	--	0.30
	09/13/12	--	150.90	11.54	130	250	16	<0.5	1.3	1.6	<5.0	--	--	1.29
	12/31/12	**--**	**153.48**	**8.96**	**<50**	**<50**	**1.1**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**0.65**

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
MW-5A	03/09/07	--	150.40	10.42	56	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
(160.82)	03/26/07	--	150.00	10.82	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	148.94	11.88	<50	180	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	147.86	12.96	--	--	--	--	--	--	--	--	--	--
	12/27/07	--	148.40	12.42	--	--	--	--	--	--	--	--	--	--
	03/15/08	--	149.96	10.86	<50	180	0.91	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	147.50	13.32					Insufficent water to sample					
	03/06/09	--	151.33	9.49	230	460	2.0	3.0	0.68	1.9	<5.0	--	--	--
	09/17/09	--	148.02	12.80					Insufficent water to sample					
	03/28/10	--	150.30	10.52	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---
	09/11/10	--	147.72	13.10					Insufficent water to sample					
	03/01/11	--	150.98	9.84	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	06/10/11	--	149.95	10.87	--	--	--	--	--	--	--	--	--	--
	09/13/11	--	148.30	12.52	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.36
	12/29/11							Well Dry						
	07/13/12	--	149.70	11.12	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.27
MW-6A	03/09/07	--	154.91	6.67	380	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
(161.58)	03/26/07	--	154.41	7.17	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	153.79	7.79	590	140	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	152.84	8.74	540	52	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	12/27/07	--	154.27	7.31	170	94	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	154.42	7.16	150	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	152.92	8.66	510	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	155.76	5.82	110	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	--	152.89	8.69	280	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/28/10	--	154.55	7.03	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/11/10	--	152.99	8.59	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/01/11	--	154.57	7.01	67	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	06/10/11	--	154.11	7.47	--	--	--	--	--	--	--	--	--	--
	09/13/11	--	151.67	9.91	74	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.23
	12/29/11	--	151.96	9.62	--	--	--	--	--	--	--	--	--	--
	07/13/12	--	153.35	8.23	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.13
	09/12/12	--	152.04	9.54	--	--	--	--	--	--	--	--	--	--
	12/30/12	**--**	**155.40**	**6.18**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-8A	03/09/07	--	152.05	9.52	4,200	10,000	430	18	<10	88	<100	--	--	--
(161.57)	03/26/07	--	151.74	9.83	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	151.40	10.17	17,000	12,000	720	500	230	880	<300	--	--	--
	09/29/07	--	150.64	10.95	5,300	7,500	440	67	26	240	<90	--	--	--
(161.59)	12/27/07	--	152.00	9.59	13,000	9,600	290	100	90	360	<100	--	--	--
	03/15/08	--	152.00	9.59	7,500	7,200	170	28	270	110	<100	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←			µg/L					→	
MW-8A	09/12/08	--	150.27	11.32	9,900	11,000	220	31	110	180	<50	--	--	--
(cont.)	03/06/09	--	153.01	8.58	5,500	6,700	98	17	57	63	<50	--	--	--
	09/17/09	--	150.83	10.76	5,200	6,800	150	19	10	35	<25	--	--	--
	03/28/10	--	151.86	9.73	2,600	3,500	110	7.2	<1.7	19	<17	--	--	--
	09/11/10	--	150.43	11.16	4,800	7,400	230	25	15	40	<90	--	--	--
	03/01/11	--	152.80	8.79	1,000	1,500	52	3.5	24	11	<10	--	--	--
	06/10/11	--	151.80	9.79	5,100	4,500	34	11	42	240	<50	--	--	--
	09/13/11	--	150.69	10.90	7,400	3,700	30	4.3	12	99	<10	--	--	0.23
	12/29/11	--	148.06	13.53	3,400	840	24	2.5	2.6	16	<5.0	--	--	0.51
	03/05/12	--	152.39	9.20	<50	76	2.6	<0.5	<0.5	<0.5	<5.0	--	--	0.48
	07/13/12	--	151.54	10.05	440	220	2.4	<0.5	<0.5	<0.5	<5.0	--	--	0.19
	09/13/12	--	148.89	12.70	1,900	210	4.3	0.65	1.4	2.7	<5.0	--	--	0.61
	12/31/12	**--**	**152.94**	**8.65**	**<50**	**<50**	**8.2**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**0.57**
MW-9A	09/29/07	--	142.76	12.61	86	<50	2.6	<0.5	<0.5	<0.5	<5.0	--	--	--
(155.37)	12/27/07	--	143.51	11.86	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	143.35	12.02	<50	<50	0.85	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	142.60	12.77	<50	<50	1.2	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	144.18	11.19	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	--	142.91	12.46	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/28/10	--	143.49	11.88	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/11/10	--	142.71	12.66	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/01/11	--	143.86	11.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	06/10/11	--	143.63	11.74	--	--	--	--	--	--	--	--	--	--
	09/13/11	--	142.79	12.58	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.42
	12/29/11							Well Inaccessible						
	07/12/12	--	143.06	12.31	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.71
	09/12/12	--	142.77	12.60	--	--	--	--	--	--	--	--	--	--
	12/30/12	**--**	**144.05**	**11.32**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-10A	09/29/07	--	144.35	10.53	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
(154.88)	12/27/07	--	145.50	9.38	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	145.96	8.92	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	143.82	11.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	147.45	7.43	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	--	144.11	10.77	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/28/10	--	146.25	8.63	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/11/10	--	144.19	10.69	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/01/11	--	147.12	7.76	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	06/10/11	--	146.11	8.77	--	--	--	--	--	--	--	--	--	--
	09/13/11	--	144.21	10.67	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.42
	12/29/11							Well Inaccessible						

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
MW-10A	07/12/12	--	144.80	10.08	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	3.34
(cont.)	09/12/12	--	143.76	11.12	--	--	--	--	--	--	--	--	--	--
	12/30/12	**--**	**147.33**	**7.55**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
DEEP WELLS														
MW-1	04/30/89	--	--	--	--	200	18	5	2	12	--	--	--	--
(97.71)	05/17/90	--	88.45	9.26	--	--	--	--	--	--	--	--	--	--
	09/26/90	--	87.79	9.92	--	1,300	55	31	120	100	--	--	--	--
	01/14/91	--	88.17	9.54	--	3,100	350	83	86	130	--	--	--	--
(102.04)	07/03/91	--	92.62	9.42	--	580	32	41	40	55	--	--	--	--
	11/11/91	--	92.59	9.45	--	330	20	2	2	11	--	--	--	--
(101.83)	03/04/92	--	93.90	7.93	--	810	11	5	10	23	--	--	--	--
	06/02/92	--	92.85	8.98	--	2,200	93	32	40	120	--	--	--	--
	09/28/92	--	92.54	9.29	--	2,900	24	78	19	37	--	--	--	--
	01/11/93	--	94.27	7.56	--	1,700	5.7	6	11	28	--	--	--	--
	08/15/94	--	92.64	9.19	--	2,000	120	3	6	16	--	--	--	--
(97.50)	11/07/96	--	88.77	8.73	270	1,200	3	1.1	1.5	3.8	<0.5	--	--	--
	02/12/97	--	89.58	7.92	<50	1,800	13	5.7	4.8	17	<0.5	--	--	--
	06/16/97	--	88.46	9.04	<50	330	27	<0.5	<0.5	1.2	<0.5	--	--	--
	09/30/97	--	89.94	7.56	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
(97.50)	01/27/98	--	89.54	7.96	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/24/98	--	89.52	7.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/17/98	--	88.52	8.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	11/16/98	--	88.60	8.90	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	02/16/99	--	88.86	8.64	<50	110	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	05/17/99	--	89.00	8.50	--	280	1.1	0.6	<0.5	<0.5	<0.5	--	--	--
	08/17/99	--	88.26	9.24	86	790	5.6	4.3	4.5	11	<5.0	--	--	--
	11/17/99	--	87.06	10.44	--	1,300	3.6	1.9	2.7	6.6	<1.0	--	--	--
	02/17/00	--	89.02	8.48	--	580	1.1	2.3	3.6	4.9	<5.0	--	--	--
	05/17/00	--	89.26	8.24	--	1,500	130	6.8	6.1	<5.0	<5.0	--	--	--
	08/17/00	--	88.73	8.77	--	550	160	<25	<25	<25	<25	--	--	--
	11/15/00	--	88.46	9.04	--	130	<5.0	<5.0	<5.0	<5.0	<5.0	--	--	--
	02/16/01	--	89.90	7.60	--	400	26	<5.0	<5.0	<5.0	<5.0	--	--	--
	01/11/02	--	89.42	8.08	160	600	74	53	14	52	110	--	--	--
(161.03)	07/01/02	--	152.01	9.02	280	670	25	<5.0	<5.0	<5.0	<5.0	--	--	--
	10/04/02	--	151.29	9.74	520	1,800	130	7.8	8.1	14	<5.0	--	--	--
	07/28/06	--	151.93	9.10	86	250	42	1.7	1.4	3.1	<1.0	51	1.5	0.21
	10/16/06	--	151.98	9.05	110	390	16	<0.5	1.5	2.2	<0.5	41	1.6	0.17
(161.10)	01/09/07	--	152.90	8.20	160	530	21	1.7	2.8	5.1	--	--	--	0.22
	03/26/07	--	152.84	8.26	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	152.12	8.98	220	500	24	1.1	2.2	4.2	<5.0	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					← µg/L →									
MW-1	09/29/07	--	151.44	9.66	180	540	19	1.2	2.3	5.3	<5.0	--	--	--
(cont.)	12/27/07	--	152.60	8.50	200	290	10	0.65	1.2	3.0	<5.0	--	--	--
	03/15/08	--	152.72	8.38	340	680	24	1.1	1.9	2.9	<10	--	--	--
	09/12/08	--	151.86	9.24	320	1,000	13	<0.5	0.61	1.4	<5.0	--	--	--
	03/06/09	--	154.40	6.70	2,700	2,500	28	3.2	4.8	10	<17	--	--	--
	09/17/09	--	151.67	9.43	170	300	4.4	<0.5	<0.5	2.3	<5.0	--	--	--
	03/28/10	--	153.05	8.05	290	1,000	16	1.2	1.1	4.2	<5.0	--	--	--
	09/11/10	--	151.50	9.60	190	270	6.9	<0.5	0.75	2.1	<5.0	--	--	--
	03/01/11	--	152.61	8.49	1,600	940	<0.5	<0.5	0.55	2.0	<5.0	--	--	--
	06/10/11	--	152.89	8.21	1,900	1,500	2.4	<0.5	0.84	7.9	<5.0	--	--	--
	09/13/11	--	150.96	10.14	320	1,400	<0.5	<0.5	<0.5	6.3	<5.0	--	--	0.66
	12/29/11	--	151.76	9.34	3,100	950	2.1	<0.5	<0.5	2.9	<5.0	--	--	0.53
	03/05/12	--	153.05	8.05	340	660	21	2.4	1.7	2.1	<5.0	--	--	0.27
	07/13/12	--	151.80	9.30	220	260	14	0.85	<0.5	1.1	<5.0	--	--	0.15
	09/13/12	--	151.19	9.91	370	1,600	8.8	0.82	3.1	1.6	<5.0	--	--	1.42
	12/31/12	**--**	**153.82**	**7.28**	**96**	**330**	**3.5**	**<0.5**	**0.95**	**1.2**	**<5.0**	**--**	**--**	**1.02**
MW-2C	03/09/07	--	152.24	8.41	140	450	40	9.3	2.9	16	<10	--	--	--
(160.65)	03/26/07	--	151.93	8.72	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	151.21	9.44	160	440	30	1.8	5.9	7.4	<5.0	--	--	--
	09/29/07	--	150.45	10.20	120	200	13	<0.5	<0.5	2.0	<5.0	--	--	--
	12/27/07	--	151.42	9.23	83	190	13	0.83	<0.5	1.9	<5.0	--	--	--
	03/15/08	--	151.83	8.82	120	250	24	2.2	5.2	4.5	<5.0	--	--	--
	09/12/08	--	150.73	9.92	<50	130	7.1	<0.5	1.2	0.83	<5.0	--	--	--
	03/06/09	--	153.21	7.44	95	180	8.0	1.1	1.5	2.8	<5.0	--	--	--
	09/17/09	--	150.57	10.08	<50	64	4.3	<0.5	0.62	0.88	<5.0	--	--	--
	03/28/10	--	152.02	8.63	<50	94	4.6	<0.5	0.77	1.2	<5.0	--	--	--
	09/11/10	--	150.31	10.34	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/01/11	--	146.88	13.77	66	670	9.9	<0.5	0.92	0.58	<5.0	--	--	--
	06/10/11	--	150.19	10.46	--	--	--	--	--	--	--	--	--	--
	09/13/11	--	140.39	20.26	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	3.24
	12/29/11	--	149.21	11.44	--	--	--	--	--	--	--	--	--	--
	07/13/12	--	150.39	10.26	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.27
	09/12/12	--	149.72	10.93	--	--	--	--	--	--	--	--	--	--
	12/30/12	**--**	**152.25**	**8.40**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-3C	03/26/07	--	151.15	10.64	--	--	--	--	--	--	--	--	--	--
(161.79)	04/16/07	--	150.87	10.92	36,000	32,000	1,200	710	600	1,900	<500	--	--	--
	06/24/07	--	149.43	12.36	200,000	50,000	2,200	4,100	860	6,100	<500	--	--	--
	09/29/07	--	148.33	13.46	48,000	37,000	1,700	3,300	830	4,800	<1,000	--	--	--
	12/27/07	--	149.79	12.00	29,000	28,000	590	900	630	2,000	<500	--	--	--
	03/15/08	--	150.70	11.09	21,000	36,000	1,500	2,400	570	3,700	<500	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
MW-3C	09/12/08	--	148.37	13.42	11,000	40,000	1,100	1,200	600	3,000	<500	--	--	--
(cont.)	03/06/09	--	152.04	9.75	13,000	31,000	860	420	540	2,200	<500	--	--	--
	09/17/09	--	148.59	13.20	14,000	37,000	1,400	690	400	4,300	<1,200	--	--	--
	03/28/10	--	151.15	10.64	10,000	28,000	1,200	540	750	3,200	<150	--	--	--
	09/11/10	--	148.48	13.31	13,000	24,000	850	390	550	3,100	<1,000	--	--	--
	03/01/11	--	148.27	13.52	19,000	22,000	450	110	600	1,500	<300	--	--	--
	06/10/11	--	147.89	13.90	530	780	7.6	3.4	2.7	16	<5.0	--	--	--
	09/13/11	--	139.35	22.44	130	160	0.96	0.51	<0.5	0.99	<5.0	--	--	3.32
	12/29/11	--	146.25	15.54	<50	<50	<0.5	<0.5	<0.5	0.90	<5.0	--	--	0.62
	03/06/12	--	149.82	11.97	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	4.78
	07/13/12	--	149.18	12.61	<50	72	2.7	0.50	0.87	1.2	<5.0	--	--	0.17
	09/13/12	--	147.95	13.84	78	86	3.3	<0.5	<0.5	0.80	<5.0	--	--	2.90
	12/31/12	**--**	**150.64**	**11.15**	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**1.14**
MW-5B	03/09/07	--	146.42	15.08	59	140	1.3	0.77	<0.5	1.6	<5.0	--	--	--
(161.50)	03/26/07	--	148.88	12.62	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	147.98	13.52	53	52	1.1	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	146.60	14.90	<50	<50	0.95	<0.5	<0.5	<0.5	<5.0	--	--	--
	12/27/07	--	148.41	13.09	<50	58	1.4	<0.5	0.60	<0.5	<5.0	--	--	--
	03/15/08	--	148.95	12.55	<50	61	2.6	1.1	1.1	3.0	<5.0	--	--	--
	09/12/08	--	146.35	15.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	150.36	11.14	<50	67	2.0	1.4	1.3	3.3	<5.0	--	--	--
	09/17/09	--	146.94	14.56	<50	58	0.66	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/28/10	--	149.38	12.12	<50	110	2.7	0.78	<0.5	1.6	<5.0	--	--	--
	09/11/10	--	145.55	15.95	<50	110	0.56	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/01/11	--	149.53	11.97	97	120	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	06/10/11	--	148.26	13.24	--	--	--	--	--	--	--	--	--	--
	09/13/11	--	147.08	14.42	<50	550	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.33
	12/29/11	--	146.36	15.14	--	--	--	--	--	--	--	--	--	--
	07/13/12	--	147.80	13.70	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.16
	09/12/12	--	146.40	15.10	--	--	--	--	--	--	--	--	--	--
	12/30/12	**--**	**149.87**	**11.63**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-5C	03/09/07	--	148.12	12.91	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
(161.03)	03/26/07	--	148.41	12.62	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	147.58	13.45	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	146.41	14.62	66	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	12/27/07	--	148.10	12.93	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	148.48	12.55	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	146.04	14.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	149.73	11.30	<50	<50	0.52	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	--	146.60	14.43	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					← µg/L →									
MW-5C	03/28/10	--	148.68	12.35	<50	<50	1.3	<0.5	<0.5	<0.5	<5.0	--	--	--
(cont.)	09/11/10	--	146.22	14.81	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/01/11	--	148.95	12.08	66	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	06/10/11	--	147.51	13.52	--	--	--	--	--	--	--	--	--	--
	09/13/11	--	146.31	14.72	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.27
	12/29/11	--	146.13	14.90	--	--	--	--	--	--	--	--	--	--
	07/13/12	--	147.13	13.90	<50	<50	2.3	<0.5	<0.5	<0.5	<5.0	--	--	0.54
	09/12/12	--	145.22	15.81	--	--	--	--	--	--	--	--	--	--
	12/30/12	**--**	**149.04**	**11.99**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-7B	03/09/07	--	147.97	11.18	930	18,000	1,500	1,600	140	1,800	<600	--	--	--
(159.15)	03/26/07	--	148.10	11.05	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	147.54	11.61	40,000	30,000	1,800	2,400	240	2,800	<700	--	--	--
(159.02)	09/29/07	--	146.91	12.11	16,000	37,000	1,300	1,500	180	2,700	<500	--	--	--
	12/27/07	--	147.37	11.65	7,700	18,000	810	880	38	1,600	<50	--	--	--
	03/15/08	--	147.66	11.36	7,900	14,000	730	820	110	1,200	<250	--	--	--
	09/12/08	--	146.87	12.15	27,000	16,000	450	340	19	1,300	<120	--	--	--
	03/06/09	--	147.90	11.12	15,000	15,000	370	270	13	1,000	<150	--	--	--
	09/17/09	--	146.94	12.08	10,000	14,000	470	330	44	1,100	<170	--	--	--
	03/28/10	--	148.17	10.85	2,300	10,000	1,100	750	46	1,100	<300	--	--	--
	09/11/10	--	146.81	12.21	2,900	6,700	590	260	84	550	<210	--	--	--
	03/01/11	--	147.28	11.74	31,000	9,200	160	96	53	510	<50	--	--	--
	06/10/11	--	145.90	13.12	780	510	12	5.5	1.4	28	<5.0	--	--	--
	09/13/11							Well Dry						
	12/30/11	--	145.49	13.53	95	83	1.5	0.67	<0.5	2.3	<5.0	--	--	0.61
	03/06/12	--	147.76	11.26	400	76	0.53	1.2	<0.5	1.8	<5.0	--	--	0.52
	07/12/12	--	147.80	11.22	<50	<50	0.94	<0.5	<0.5	0.78	<5.0	--	--	0.62
	09/13/12	--	146.62	12.4	400	150	1.4	1.3	<0.5	3.2	<5.0	--	--	1.90
	12/31/12	**--**	**148.01**	**11.01**	**120**	**74**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**0.77**
MW-7C	03/09/07	--	145.44	13.09	190	3,600	970	100	12	90	<120	--	--	--
(158.53)	03/26/07	--	147.53	11.00	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	146.65	11.88	7,100	16,000	510	520	190	1,300	<100	--	--	--
	09/29/07	--	146.21	12.32	11,000	29,000	580	1,400	600	4,800	<1,000	--	--	--
	12/27/07	--	146.74	11.79	56,000	29,000	250	410	430	3,300	<50	--	--	--
	03/15/08	--	147.45	11.08	7,000	13,000	170	58	170	1,300	<100	--	--	--
	09/12/08	--	146.02	12.51	2,600	7,600	260	38	76	330	<50	--	--	--
	03/06/09	--	147.65	10.88	1,900	4,600	140	21	15	93	<15	--	--	--
	09/17/09	--	146.23	12.30	2,200	7,000	830	38	23	90	<100	--	--	--
	03/28/10	--	147.32	11.21	940	4,500	<100	79	2.0	59	66	--	--	--
	09/11/10	--	145.77	12.76	350	1,100	73	3.6	2.0	5.2	<15	--	--	--
	03/01/11	--	146.11	12.42	1,400	6,800	130	9.6	3.1	8.0	<10	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←			µg/L					→	
MW-7C	06/10/11	--	143.45	15.08	190	90	0.77	1.1	<0.5	1.1	<5.0	--	--	--
(cont.)	09/13/11							Well Dry						
	12/30/11	--	143.02	15.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.59
	03/06/12	--	146.65	11.88	100	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.47
	07/13/12	--	146.58	11.95	<50	120	7.3	<0.5	<0.5	<0.5	<5.0	--	--	0.61
	09/13/12	--	145.73	12.80	62	180	7.3	<0.5	<0.5	<0.5	<5.0	--	--	2.17
	12/31/12	**--**	**147.11**	**11.42**	**<50**	**140**	**0.88**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**1.24**
MW-8C	03/09/07	--	149.18	12.15	<50	150	9.8	1.3	2.0	3.9	<5.0	--	--	--
(161.33)	03/26/07	--	149.56	11.77	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	148.96	12.37	<50	<50	0.57	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	148.35	12.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	12/27/07	--	149.84	11.49	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	149.94	11.39	<50	110	6.0	1.7	2.4	2.4	<5.0	--	--	--
	09/12/08	--	148.18	13.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	151.25	10.08	<50	<50	2.1	<0.5	0.87	0.76	<5.0	--	--	--
	09/17/09	--	148.63	12.70	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/28/10	--	149.94	11.39	<50	84	6.6	0.89	2.9	2.7	<5.0	--	--	--
	09/11/10	--	148.33	13.00	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/01/11	--	150.45	10.88	65	280	16	3.7	7.9	6.2	<10	--	--	--
	06/10/11	--	149.56	11.77	<50	110	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/13/11	--	146.53	14.80	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	3.07
	12/29/11	--	149.12	12.21	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	3.97
	07/13/12	--	149.28	12.05	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.51
	09/12/12	--	148.20	13.13	--	--	--	--	--	--	--	--	--	--
	12/30/12	**--**	**151.23**	**10.10**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-9C	09/29/07	--	142.67	12.27	390	68	2.2	0.88	<0.5	<0.5	<5.0	--	--	--
(154.94)	12/27/07	--	143.40	11.54	<50	<50	0.84	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	143.98	10.96	<50	<50	0.55	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	142.53	12.41	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	144.09	10.85	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	--	142.84	12.10	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/28/10	--	143.34	11.60	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/11/10	--	139.13	15.81	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/01/11	--	143.74	11.20	480	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	06/10/11	--	142.48	12.46	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/13/11	--	142.11	12.83	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	12/29/11							Well Inaccessible						
	07/12/12	--	142.99	11.95	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.63
	09/12/12	--	142.13	12.81	--	--	--	--	--	--	--	--	--	--
	12/30/12	**--**	**143.47**	**11.47**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					← µg/L →									
REMEDIATION WELLS														
AS-1	10/04/09	--	--	11.38	--	<50	3.6	<0.5	<0.5	<0.5	<5.0	--	--	--
	07/13/12	--	--	10.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.87
DPE-1	10/04/09	--	--	10.38	--	1,600	210	4.4	5.1	34	<35	--	--	--
	03/05/12	--	--	9.12	230	360	9.2	<0.5	<0.5	2.1	<5.0	--	--	0.23
	07/12/12	--	--	10.08	290	300	11	<0.5	1.0	1.4	<5.0	--	--	0.95
	09/13/12	--	--	10.78	440	250	5.5	<0.5	<0.5	<0.5	<5.0	--	--	1.86
	12/31/12	**--**	**--**	**8.41**	**150**	**190**	**1.4**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**1.02**
DPE-2	10/04/09	--	--	11.33	--	8,000	590	220	92	760	<250	--	--	--
	03/01/11	--	--	16.10	14,000	12,000	360	130	96	1,700	<50	--	--	--
	06/10/11	--	--	12.41	3,100	3,300	24	40	16	340	<10	--	--	--
	09/13/11	--	--	9.68	290	790	21	7.0	2.3	44	<30	--	--	0.34
	12/30/11	--	--	13.38	94	120	8.5	0.65	<0.5	4.6	<5.0	--	--	0.59
	03/06/12	--	--	9.22	160	1,200	150	10	12	80	<35	--	--	0.13
	07/12/12	--	--	10.50	480	1,700	150	8.2	25	43	<20	--	--	0.99
	09/13/12	--	--	11.70	690	1,000	100	6.4	16	28	<15	--	--	0.94
	12/31/12	**--**	**--**	**8.80**	**83**	**170**	**16**	**0.71**	**0.72**	**5.2**	**<5.0**	**--**	**--**	**0.55**
DPE-3	10/04/09	--	--	11.85	--	49,000	3,600	4,400	1,300	6,500	<2,500	--	--	--
	03/01/11	--	--	11.37	51,000	27,000	1,400	810	870	3,300	<700	--	--	--
	06/10/11	--	--	15.34	1,100	2,300	41	19	16	130	<15	--	--	--
	09/13/11	--	--	17.91	25,000	4,800	12	13	9.1	180	<15	--	--	0.33
	12/30/11	--	--	14.76	450	600	5.5	2.0	0.90	15	<5.0	--	--	0.51
	03/06/12	--	--	10.57	<50	73	0.78	<0.5	<0.5	3.7	<5.0	--	--	0.45
	07/12/12	--	--	11.00	350	220	8.0	0.71	1.9	2.9	<5.0	--	--	0.48
	09/13/12	--	--	12.60	370	310	20	1.20	3.8	4.1	<5.0	--	--	1.12
	12/31/12	**--**	**--**	**9.46**	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**0.71**
DPE-4	10/04/09	--	--	11.50	--	31,000	1,200	2,900	530	4,700	<1,200	--	--	--
	03/01/11	--	--	13.88	5,100	5,600	68	100	42	350	<50	--	--	--
	06/10/11	--	--	11.07	280	280	1.6	4.2	2.5	25	<5.0	--	--	--
	09/13/11	--	--	15.71	930	1,100	1.1	3.4	2.4	58	<5.0	--	--	0.29
	12/30/11	--	--	12.22	240	230	<0.5	1.9	0.84	17	<5.0	--	--	--
	03/06/12	--	--	10.55	190	340	0.69	1.9	1.1	23	<5.0	--	--	0.19
	07/13/12	--	--	12.26	520	420	1.2	1.1	1.0	12	<5.0	--	--	0.15
	09/13/12	--	--	11.92	1,100	300	2.0	1.2	1.2	11	<5.0	--	--	3.60
	12/31/12	**--**	**--**	**9.83**	**<50**	**190**	**0.72**	**0.86**	**0.62**	**11**	**<5.0**	**--**	**--**	**1.21**

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					← µg/L →									
DPE-5	10/04/09	--	--	14.46	--	2,900	78	71	29	260	<50	--	--	--
	03/05/12	--	--	10.87	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.43
	07/12/12	--	--	13.35	<50	69	1.7	<0.5	<0.5	<0.5	<5.0	--	--	0.56
	09/13/12	--	--	14.70	130	190	4.3	<0.5	0.78	<0.5	<5.0	--	--	2.82
	12/31/12	**--**	**--**	**9.42**	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**1.07**
DPE-6	10/04/09	--	--	11.05	--	1,800	6.7	5.2	2.6	34	<5.0	--	--	--
	03/05/12	--	--	9.43	970	3,100	5.5	3.4	5.7	5.8	<30	--	--	0.18
	07/12/12	--	--	10.45	920	1,200	0.86	2.4	2.2	2.2	<5.0	--	--	0.46
	09/13/12	--	--	11.40	780	1,300	2.6	1.5	2.9	2.5	<5.0	--	--	1.59
	12/31/12	**--**	**--**	**8.25**	**540**	**1,600**	**2.1**	**2.4**	**4.6**	**2.5**	**<15**	**--**	**--**	**1.09**
DESTROYED WELLS														
MW-2	04/30/89	--	--	--	--	230	39	18	5	23	--	--	--	--
(97.78)	05/17/90	--	87.78	10.00	--	--	--	--	--	--	--	--	--	--
	09/29/90	--	86.95	10.83	--	850	970	5	25	47	--	--	--	--
MW-2 (cont.)	01/14/91	--	87.15	10.63	--	3,100	30	52	24	34	--	--	--	--
(102.02)	07/03/91	--	91.94	10.08	--	1,590	30	52	24	34	--	--	--	--
	11/11/91	--	91.81	10.21	--	960	320	15	4	29	--	--	--	--
	03/04/92	--	93.32	8.70	--	1,500	9.5	8.4	9.8	22	--	--	--	--
	06/02/92	--	92.50	9.52	--	2,800	84	41	59	95	--	--	--	--
	09/28/92	--	91.93	10.09	--	1,600	47	20	47	97	--	--	--	--
	01/11/93	--	93.50	8.52	--	2,500	8.6	10	17	32	--	--	--	--
(97.49)	08/15/94	--	87.58	9.91	--	6,000	450	60	100	95	--	--	--	--
	11/07/96	--	87.47	10.02	780	4,200	25	4.9	8.1	14	<0.5	--	--	--
	02/12/97	--	88.58	8.91	5,700	1,800	16	3.1	3.4	8.8	<0.5	--	--	--
	06/16/97	--	87.74	9.75	<50	2,500	22	5.1	7.8	11	<0.5	--	--	--
	09/30/97	--	89.60	7.89	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	01/27/98	--	89.11	8.38	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/24/98	--	88.81	8.68	1,400	2,100	18	6.5	4.8	21	<0.5	--	--	--
	08/17/98	--	87.75	9.74	<50	2,900	5.1	4.5	5.8	17	<0.5	--	--	--
	11/16/98	--	87.35	10.14	<50	1,400	2.1	1.9	2.3	4.8	<0.5	--	--	--
	02/16/99	--	88.57	8.92	<50	1,600	82	16	<2.5	40	59	--	--	--
	05/17/99	--	88.23	9.26	--	8,200	43	73	140	100	<250	--	--	--
	08/17/99	--	87.45	10.04	260	2,900	20	81	17	38	<5.0	--	--	--
	11/17/99	--	85.97	11.52	<50	2,600	7	3.7	5.3	12.9	<1.0	--	--	--
	02/17/00	--	87.99	9.50	--	1,700	3.2	6.8	11	12.3	<5.0	--	--	--
	05/17/00	--	88.65	8.84	--	3,800	450	65	110	80	<25	--	--	--
	08/17/00	--	88.99	8.50	--	4,300	440	<50	78	<50	<50	--	--	--
	11/15/00	--	87.55	9.94	--	5,800	320	41	78	64	<25	--	--	--
	02/16/01	--	88.97	8.52	--	2,200	110	20	38	33	<5.0	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←			µg/L					→	
MW-2 (cont.)	01/11/02	--	88.67	8.82	620	3,100	280	86	84	110	<50	--	--	--
(160.98)	07/01/02	--	151.34	9.64	940	2,600	300	29	45	27	<10	--	--	--
	10/04/02	--	150.46	10.52	390	4,000	440	66	140	120	<25	--	--	--
	07/28/06	--	150.96	10.02	340	1,300	150	9.9	6	18	<0.5	3.6	<0.5	0.17
	10/16/06	--	150.45	10.53	76	150	16	1.0	3.5	2.2	<0.5	1.2	<0.5	0.19
	01/09/07	--	151.65	9.33	84	210	27	2.6	8.1	6.8	--	--	--	0.14
	01/25/07	--					Well Destroyed							
MW-3	04/30/90	--	--	--	--	56,000	3,600	8,600	1,300	7,200	--	--	--	--
(98.14)	05/17/90	--	85.72	12.42	--	--	--	--	--	--	--	--	--	--
	09/26/90	--	84.64	13.50	--	54,000	5,100	420	1,600	8,000	--	--	--	--
	01/14/91	--	85.56	12.58	--	35,000	2,600	6,600	1,500	5,700	--	--	--	--
(102.46)	07/03/91	--	90.38	12.08	--	33,000	4,120	4,300	1,400	4,800	--	--	--	--
	11/11/91	--	90.17	12.29	--	57,000	3,900	8,400	2,100	14,000	--	--	--	--
(102.18)	03/04/92	--	91.92	10.26	--	57,000	720	870	81	3,100	--	--	--	--
(97.94)	06/02/92	--	86.54	11.40	--	50,000	240	240	220	740	--	--	--	--
	09/28/92	--	85.30	12.64	--	64,000	110	93	97	250	--	--	--	--
	01/11/93	--	87.84	10.10	--	68,000	210	280	360	990	--	--	--	--
	08/15/94	--	85.74	12.20	--	50,000	870	1,200	1,300	3,000	--	--	--	--
	11/07/96	--	85.54	12.40	470	68,000	33	27	63	120	<0.5	--	--	--
	02/12/97	--	87.71	10.23	3,500	25,000	39	43	15	91	<0.5	--	--	--
	06/16/97	--	86.15	11.79	<50	9,700	26	29	45	81	<0.5	--	--	--
	09/30/97	--	88.54	9.40	1,600	6,000	43	36	12	11	<0.5	--	--	--
	01/27/98	--	88.14	9.80	560	380	5.7	4.1	1.7	9.1	<0.5	--	--	--
	04/24/98	--	88.04	9.90	680	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/17/98	--	86.48	11.46	<50	16,000	200	18	31	82	<0.5	--	--	--
	11/16/98	--	85.54	12.40	<50	68,000	86	54	69	130	<0.5	--	--	--
	02/16/99	--	87.22	10.72	<50	33,000	270	110	<5.0	770	170	--	--	--
	05/17/99	--	87.40	10.54	--	72,000	280	230	320	890	<250	--	--	--
	08/17/99	--	85.99	11.95	1,800	20,000	51	41	61	130	<5.0	--	--	--
	11/17/99	--	84.34	13.60	--	1,700	39	22	31	84	<1.0	--	--	--
	02/17/00	--	87.26	10.68	--	8,800	16	39	74	90	<5.0	--	--	--
	05/17/00	--	87.69	10.25	--	22,000	300	260	410	940	<5.0	--	--	--
	08/17/00	--	86.10	11.84	--	15,000	230	140	470	750	<50	--	--	--
	11/15/00	--	86.12	11.82	--	12,000	250	210	390	700	<25	--	--	--
	02/16/01	--	88.26	9.68	--	7,400	40	72	700	250	<25	--	--	--
	01/11/02	--	88.36	9.58	1,900	9,300	230	200	290	580	<25	--	--	--
(161.43)	07/01/02	--	150.29	11.14	5,200	13,000	230	220	450	890	<13	--	--	--
	10/04/02	--	148.61	12.82	4,900	11,000	280	170	450	730	<25	--	--	--
	07/28/06	--		Not Sampled - Unable to locate well										
	10/16/06	--		Not Sampled - Unable to locate well										
	01/09/07	--		Not Sampled - Unable to locate well										

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←			µg/L					→	
MW-3	01/22/07	--	149.81	11.62	93,000	34,000	770	250	760	2,000	<1,000	--	--	--
(cont.)	03/16/07	--					Well Destroyed							
STMW-4	07/03/91	--	92.58	11.00	--	3,100	610	62	39	150	--	--	--	--
(103.58)	11/11/91	--	92.50	11.08	--	3,600	990	15	2.6	180	--	--	--	--
(101.08)	03/04/92	--	91.64	9.44	--	5,000	35	20	22	71	--	--	--	--
(98.80)	06/02/92	--	88.48	10.32	--	13,000	140	45	63	210	--	--	--	--
	09/28/92	--	88.04	10.76	--	40,000	35	20	48	110	--	--	--	--
	01/11/93	--	89.52	9.28	--	24,000	26	88	92	280	--	--	--	--
	08/15/94	--	88.26	10.54	--	9,000	500	34	46	130	--	--	--	--
	11/07/96	--	88.43	10.37	180	13,000	40	2.9	7.8	19	<0.5	--	--	--
	02/12/97	--	89.44	9.36	5,700	5,300	95	5.3	5.9	18	<0.5	--	--	--
	06/16/97	--	88.40	10.40	<50	5,300	37	6.2	1.7	11	<0.5	--	--	--
	09/30/97	--	90.30	8.50	<50	2,700	42	7.7	5.7	26	<0.5	--	--	--
	01/27/98	--	89.90	8.90	300	3,000	60	17	12	49	<0.5	--	--	--
	04/24/98	--	89.30	9.50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/17/98	--	88.44	10.36	<50	29,000	36	24	59	160	<0.5	--	--	--
	11/16/98	--	88.24	10.56	<50	13,000	26	21	20	41	--	--	--	--
	02/16/99	--	89.16	9.64	<50	32,000	660	16	16	150	<100	--	--	--
	05/17/99	--	88.84	9.96	--	13,000	1600	30	45	78	<250	--	--	--
	08/17/99	--	88.16	10.64	990	12,000	260	22	33	72	<5.0	--	--	--
	11/17/99	--	86.78	12.02	--	7,900	21	12	17	40	<1.0	--	--	--
	02/17/00	--	89.48	9.32	--	4,900	8.9	21	38	50	<5.0	--	--	--
	05/17/00	--	89.15	9.65	--	9,600	840	<50	61	<50	<50	--	--	--
	08/17/00	--	88.46	10.34	--	5,100	680	<50	62	<50	<50	--	--	--
	11/15/00	--	88.28	10.52	--	3,900	640	<25	26	27	<25	--	--	--
	02/16/01	--	89.60	9.20	--	5,700	560	<25	<25	<25	<25	--	--	--
	01/11/02	--	89.22	9.58	930	4,900	560	59	25	<25	<250	--	--	--
(162.13)	07/01/02	--	151.85	10.28	6,700	6,700	470	18	32	45	<13	--	--	--
	10/04/02	--	151.05	11.08	2,900	13,000	590	26	65	110	<25	--	--	--
	07/28/06	0.04	151.53	10.60	39,000	25,000	960	21	73	130	<5.0	65	<5.0	0.22
	10/16/06	0.06	151.30	10.83	14,000	14,000	790	28	81	130	<5.0	30	<5.0	0.26
	01/09/07	0.03	152.20	9.93			Not Sampled - SPH							0.24
	01/26/07						Well Destroyed							0.24
STMW-5	07/03/91	--	88.70	13.29	--	690	99	81	19	98	--	--	--	--
(101.99)	11/11/91	--	87.99	14.00	--	410	61	2.4	1.4	20	--	--	--	--
(101.36)	03/04/92	--	89.56	11.80	--	460	13	6.5	11	18	--	--	--	--
	06/02/92	--	88.30	13.06	--	1,800	27	20	21	43	--	--	--	--
	09/28/92	--	87.32	14.04	--	1,500	14	6.1	18	22	--	--	--	--
	01/11/93	--	89.75	11.61	--	800	1.8	3	3.1	9.4	--	--	--	--
	08/15/94	--	87.51	13.85	--	3,000	320	62	34	220	--	--	--	--
(97.14)	11/07/96	--	83.47	13.67	330	1,200	11	1.7	4.4	13	<0.5	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
STMW-5	02/17/97	--	85.07	12.07	3,700	1,000	11	17	1.7	9.7	<0.5	--	--	--
(cont.)	06/19/97	--	83.81	13.33	2,300	950	7.4	1	1	7.2	<0.5	--	--	--
	09/30/97	--	85.90	11.24	1,100	710	5.8	4	1	1	<0.5	--	--	--
	01/27/98	--	85.50	11.64	1,100	340	2	1.8	1.6	8.2	<0.5	--	--	--
	04/24/98	--	85.30	11.84	<50	3,300	12	9.4	8.5	37	<0.5	--	--	--
	08/17/98	--	83.94	13.20	<50	5,300	26	17	14	39	<0.5	--	--	--
	11/16/98	--	83.40	13.74	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	02/16/99	--	84.92	12.22	<50	950	150	3.8	1.4	14	11	--	--	--
	05/17/99	--	84.56	12.58	--	2,800	67	9.4	<2.5	16	30	--	--	--
	08/17/99	--	83.66	13.48	230	2,800	18	17	18	36	<5.0	--	--	--
	11/17/99	--	82.26	14.88	--	1,600	3.9	2.3	3.2	7.5	<1.0	--	--	--
	02/17/00	--	84.58	12.56	--	770	1.5	3.2	5.8	7	<5.0	--	--	--
	05/17/00	--	85.06	12.08	--	4,500	<25	<25	<25	<25	<25	--	--	--
	08/17/00	--	83.58	13.56	--	2,900	170	64	100	250	<10	--	--	--
	11/15/00	--	83.86	13.28	--	2,100	120	24	40	54	<5.0	--	--	--
	02/16/01	--	85.54	11.60	--	850	58	9.8	9.4	18	<5.0	--	--	--
	01/11/02	--	85.42	11.72	<50	920	76	16	16	28	13	--	--	--
(160.65)	07/01/02	--	147.51	13.14	1,500	4,300	71	14	14	36	<5.0	--	--	--
	10/04/02	--	146.13	14.52	60	1,400	71	17	26	35	<5.0	--	--	--
	07/28/06	--	147.30	13.35	370	700	22	4.3	1.2	6.6	<0.5	<0.5	<0.5	0.24
	10/16/06	--	146.91	13.74	240	590	14	1.6	1.3	3.2	<0.5	<0.5	<0.5	0.21
	01/09/07	--	148.19	12.46	180	390	30	3.2	1.8	3.2	--	--	--	0.17
	01/18/07						Well Destroyed							
GRAB GROUNDWATER SAMPLING - 2007														
B-18	01/23/07	--	--	7.1	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
B-19	03/19/07	--	--	4	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
GRAB GROUNDWATER SAMPLING - 2006														
B1-W	02/01/06	--	--	9.5	<84	710	(0.52)	(0.59)	(<0.50)	(0.66)	<1.0	<5.0	<0.50	--
B3-W	02/08/06	--	--	9.63	<280	23,000	(3,300)	(660)	(170)	(910)	<50	380	<25	--
B4-W	02/08/06	--	--	8.24	--	9,700	(320)	(13)	(200)	(180)	<20	1,300	12	--
B5-W	02/08/06	--	--	6.96	--	10,000	(150)	(11)	(210)	(190)	<10	<50	<5.0	--
B6-W	02/06/06	--	--	12.1	--	5,600	(3.9)	(3.1)	(54)	(61)	<5.0	<25	<2.5	--
B7-W	02/08/06	--	--	11.72	--	8,000	(2,200)	(300)	(240)	(830)	<20	<100	53	--
B8-W	02/08/06	--	--	9.97	--	18,000	(330)	(53)	(440)	(1,200)	<20	<100	11	--
B10-W	02/06/06	--	--	13.3	--	6,800	(<5.0)	(5.7)	(170)	(69)	<10	<50	<5.0	--
B11-W	02/10/06	--	--	14.3	--	230,000	(13,000)	(19,000)	(960)	(20,000)	<200	<1,000	150	--
B12-W	02/03/06	--	--	7.92	--	460	(1.6)	(2.1)	(1.6)	(3.5)	<1.0	<5.0	0.62	--
B13-W	02/03/06	--	--	11.67	<60	1,700	(12)	(9.4)	(18)	(22)	<5.0	<25	<2.5	--
B14-W	02/06/06	--	--	13.1	--	38,000	(410)	(25)	(290)	(95)	<50	<250	<25	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					← µg/L →									
B15-W	02/01/06	--	--	8.75	<620	2,700	(3.2)	(2.7)	(22)	(4.3)	<5.0	<25	<2.5	--

Abbreviations:

µg/L = Micrograms per liter - approximately equal to parts per billion = ppb.

mg/L = Milligrams per liter - approximately equal to parts per million = ppm.

SPH = Separate-phase hydrocarbons encountered in well (value in parentheses is thickness in feet).

Groundwater elevation is calculated according to the relationship: groundwater elevation = TOC (elevation) - (depth to water) + (0.8)(SPH thickness).

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015Cm.

TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015C.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8021B.

MTBE = Methyl tertiary-butyl ether by EPA Method 8021B. (Concentrations in parentheses are by EPA Method 8260B).

DIPE = Diisopropyl ether by EPA Method 8260B.

1,2-DCA = 1,2-Dichloroethane by EPA Method 8260B.

Table 2 – Well Use and Construction Details–5175 Broadway, Oakland, CA

Well ID	Total Depth of Well (feet bgs)	Screened Interval (ft bgs)	Well Casing Nominal Diameter (inches)	Sand & Slot Size
DPE – Existing Wells				
MW-3A (DPE)	14	9-14	2	#2/12 – 0.01 Slot
MW-4A (DPE)	15	8-15	2	#2/12 – 0.01 Slot
MW-6A (DPE)	17	8-17	2	#2/12 – 0.01 Slot
MW-7B (DPE)	18.5	15.5-18.5	2	#2/12 – 0.01 Slot
MW-8A (DPE)	15	8-15	2	#2/12 – 0.01 Slot
DPE – New Wells				
DPE 1 – DPE 6	19 – 20	10-13/19-20	2	#2/12 – 0.01 Slot
AIR SPARGING – Existing Wells				
MW-1 (AS)	23	13-23	4	8x20 – 0.02 Slot
MW-2C (AS)	23	18-23	2	#2/12 – 0.01 Slot
MW-3C (AS)	27	22-27	2	#2/12 – 0.01 Slot
MW-5B (AS)	20	17-20	2	#2/12 – 0.01 Slot
MW-7C (AS)	25	20-25	2	#2/12 – 0.01 Slot
MW-8C (AS)	25	20-25	2	#2/12 – 0.01 Slot
AIR SPARGING –New Well				
AS-1	20	16-20	1	#2/12 – 0.01 Slot
GROUNDWATER MONITORING ONLY				
MW-5A	14	10-14	2	#2/12 – 0.01 Slot
MW-5C	27	22-27	2	#2/12 – 0.01 Slot
MW-9A	15.5	7.5-15.5	2	#2/12 – 0.01 Slot
MW-9C	21	17-21	2	#2/12 – 0.01 Slot
MW-10A	18	8-18	2	#2/12 – 0.01 Slot

bgs = below ground surface

Pangea

Table 3. SVE (DPE) Performance Data - 5175 Broadway, Oakland, CA

Date	Wells	Oxidizer Hr Meter Reading (hours)	Interval Time (days)	System Vapor Flow Rate (cfm)	Applied Vacuum ("Hg)	Lab Sample ID	Influent TPHg Data (ppmv)	Influent Benzene Data (ppmv)	Influent OVA Reading (ppmv)	Removal: SVE TPHg Removal Rate (lbs/day)	Removal: SVE Benzene Removal Rate (lbs/day)	Removal: Cumulative SVE TPHg Removal (lbs)	Removal: Cumulative SVE Benzene Removal (lbs)	Emission Reporting: Effluent TPHg Lab)	Effluent Lab (ppmv)	TPHg Abatement Efficiency (lbs/day)	Benzene Abatement Efficiency (lbs/day)	Benzene Emission Rate (lbs/day)	Cumulative Vapor Flow (cf)	Notes
12/08/10	DPE-1, MW-3A, 4A, 8A	5040.8	0.0	65	22	INF-V	**1,300**	**6.4**	1,270	27.1	0.12	0.0	0	---	---	---	---	---	0	Startup Test
12/10/10	DPE-1, MW-3A, 4A, 8A	5051.8	0.5	65	22	---	900	5.7	916	18.8	0.11	8.6	0.05	---	---	---	---	---	42,900	Off. Start.
12/13/10	DPE-1, MW-3A, 4A, 8A	5120.8	2.9	93	20	INF-V	**430**	**1.7**	---	12.8	0.05	45.5	0.18	< **7.0**	< **0.077**	> **98.4**	> **95.5**	**0.002**	427,920	On.
12/22/10	DPE-1, MW-3A, 4A, 8A	5337.2	9.0	125	17	INF-V	**460**	**5.2**	758	18.4	0.19	211.8	1.89	---	---	---	---	---	2,050,920	On. Shutdown due to noise. Restart 12/29.
01/07/11	DPE-1, 4	5585.0	10.3	31	25	INF-V	**640**	**6.1**	1,000	6.4	0.06	277.5	2.46	---	---	---	---	---	2,511,828	Shutdown 1/14 due to noise. Restart 1/19.
02/02/11	DPE-1, 4	6019.4	18.1	31	18	INF-V	**1,200**	**6.1**	1,168	11.9	0.06	493.6	3.45	---	---	---	---	---	3,319,812	Off on arrival, restart. Add oil.
02/22/11	DPE-1, 2, 4, MW-4A	6490.1	19.6	30	18	INF-V	**370**	**1.8**	632	3.6	0.02	563.4	3.76	---	---	---	---	---	4,167,072	On. Add oil.
02/28/11	DPE-1, 2, 4, MW-4A	6633.6	6.0	30	26	---	370	1.8	---	3.6	0.02	584.7	3.85	---	---	---	---	---	4,425,372	On. Shutdown for GWM and restarted.
03/09/11	DPE-1, 2, 4, MW-4A	6797.1	6.8	86	18	INF-V	**77**	**0.12**	54	2.1	0.00	599.2	3.87	---	---	---	---	---	5,269,032	On.
03/15/11	DPE-1, 2, 4, MW-4A	6940.7	6.0	31	21	---	77	0.12	63	0.8	0.00	603.8	3.88	---	---	---	---	---	5,536,128	On.
03/16/11	DPE-2, 3, 4, MW-7B	6966.5	1.1	31	22	---	160	0.12	200	1.6	0.00	605.5	3.88	---	---	---	---	---	5,584,116	On.
03/21/11	DPE-2, 3, 4, MW-7B	7081.1	4.8	53	23	INF-V	**420**	**4.8**	760	7.1	0.07	639.6	4.23	---	---	---	---	---	5,948,544	Start Air Sparging (AS)
03/31/11	DPE-2, 3, 4, MW-7B	7131.3	2.1	98	26	---	350	3.5	603	11.0	0.10	662.6	4.57	---	---	---	---	---	6,243,720	Off. Install additional soundproofing. Restart.
04/06/11	DPE-2, 3, 4, MW-7B	7272.9	5.9	77	24	---	350	3.5	---	8.6	0.08	713.6	4.86	---	---	---	---	---	6,897,912	On. Optimize.
04/12/11	DPE-2, 3, 4, MW-7B	7293.0	0.8	73	17	---	350	3.5	---	8.2	0.07	720.5	5.07	---	---	---	---	---	6,985,950	Off on arrival, restart.
04/26/11	DPE-2, 3, 4, MW-7B, 8A	7626.9	13.9	130	20	INF-V	**240**	**2.5**	259	10.0	0.09	859.7	6.26	---	---	---	---	---	9,590,370	On.
05/04/11	DPE-2, 3, 4, MW-7B, 8A	7818.0	8.0	110	18	---	200	2.0	213	7.1	0.06	915.9	6.77	---	---	---	---	---	10,851,630	Off on arrival, restart.
05/24/11	DPE-2, 3, 4, MW-7B, 8A	8278.0	19.2	104	18	INF-V	**160**	**0.97**	235	5.3	0.03	1018.3	7.33	< **7.0**	< **0.077**	> **95.6**	> **92.1**	**0.002**	13,722,030	On. Add oil.
06/02/11	DPE-1,2,3,4, MW-4A,7B,8A	8488.2	8.8	90	18	---	100	0.50	130	2.9	0.01	1043.5	7.44	---	---	---	---	---	14,857,110	On.
06/06/11	DPE-1,2,3,4, MW-4A,7B,8A	8529.1	1.7	90	18	---	100	0.50	130	2.9	0.01	1048.5	7.47	---	---	---	---	---	15,077,970	Off on arrival. AS shutdown. Off on departure.
06/27/11	DPE-1,2,3,4, MW-4A,7B,8A	8661.0	5.5	90	18	---	100	0.50	130	2.9	0.01	1064.3	7.54	---	---	---	---	---	15,790,230	Off on arrival, blown fuse. Off on departure.
07/11/11	DPE-1,2,3,4, MW-4A,7B,8A	8730.7	2.9	90	18	---	90	0.40	116	2.6	0.01	1071.9	7.57	---	---	---	---	---	16,166,610	Off on arrival, overheating, restart.
07/18/11	DPE-1, 2, 3, MW-4A, 7B, 8A	8874.8	6.0	90	18	---	90	0.40	116	2.6	0.01	1087.5	7.63	---	---	---	---	---	16,944,750	Off on arrival, overheating, restart.
07/19/11	DPE-1, 2, 3, MW-4A, 7B, 8A	8876.3	0.1	87	19	---	100	0.50	127	2.8	0.01	1087.7	7.63	---	---	---	---	---	16,952,580	Off on arrival, overheating, restart.
07/21/11	DPE-1, 2, 3, MW-4A, 7B, 8A	8903.6	1.1	82	22	---	100	0.50	132	2.6	0.01	1090.7	7.65	---	---	---	---	---	17,087,060	Off on arrival, restart.
07/26/11	DPE-1, 3, 4, MW-4A, 7B	9020.9	4.9	75	19	---	100	0.50	117	2.4	0.01	1102.5	7.70	---	---	---	---	---	17,617,725	On.
07/28/11	DPE-1, 3, 4, MW-4A, 7B	9069.3	2.0	76	18	---	100	0.50	123	2.4	0.01	1107.4	7.72	---	---	---	---	---	17,839,010	On.
08/08/11	DPE-1, 3, 4, MW-4A, 7B	9216.3	6.1	79	19	---	100	0.50	131	2.5	0.01	1122.9	7.79	---	---	---	---	---	18,533,849	Off on arrival, restart.
08/18/11	DPE-1, 3, 4, MW-4A, 7B	9457.8	10.1	79	21	---	100	0.50	119	2.5	0.01	1148.4	7.91	---	---	---	---	---	19,678,559	On.
08/31/11	DPE-1, 3, 4, MW-4A, 7B	9579.9	5.1	97	15	---	50	0.50	53	1.6	0.01	1156.3	7.98	---	---	---	---	---	20,392,478	Off on arrival, overheating, restart.
09/22/11	DPE-1, 3, 4, MW-4A, 7B	9843.7	11.0	97	14	---	25	0.50	25	0.8	0.01	1164.9	8.13	---	---	---	---	---	21,927,794	Off on arrival, restart.
09/26/11	DPE-4, 5, MW-8A	9863.5	0.8	101	20	INF-V	**450**	**1.9**	427	14.5	0.06	1176.9	8.18	---	---	---	---	---	22,047,331	Off on arrival, restart.
10/05/11	DPE-3, MW-7B, 8A	10063.0	8.3	98	18	---	100	0.50	72	3.1	0.01	1202.9	8.30	---	---	---	---	---	23,215,842	On.
10/11/11	DPE-3, MW-7B, 8A	10065.2	0.1	91	19	---	70	0.50	58	2.0	0.01	1203.1	8.30	---	---	---	---	---	23,227,882	Off on arrival, restart.
10/18/11	DPE-3, MW-7B, 8A	10115.6	2.1	93	22	---	100	0.50	79	3.0	0.01	1209.4	8.33	---	---	---	---	---	23,509,749	Off on arrival, restart.
11/02/11	DPE-3, MW-7B, 8A	10473.7	14.9	89	21	---	150	1.0	117	4.3	0.03	1273.5	8.72	---	---	---	---	---	25,428,878	On.
11/15/11	DPE-3, MW-7B, 8A	10525.4	2.2	86	18	---	100	0.50	106	2.8	0.01	1279.5	8.74	---	---	---	---	---	25,696,364	Off on arrival, restart.
11/22/11	DPE-3, MW-7B, 8A	10690.3	6.9	76	18	---	100	0.50	---	2.4	0.01	1296.2	8.82	---	---	---	---	---	26,448,308	On.
11/23/11	DPE-3, 4, 5, MW-8A	10717.5	1.1	83	18	---	30	0.50	39	0.8	0.01	1297.1	8.83	---	---	---	---	---	26,583,764	On.
11/29/11	DPE-3, 4, 5, MW-8A	10855.9	5.8	83	16	---	60	0.50	63	1.6	0.01	1306.4	8.90	---	---	---	---	---	27,272,996	On.
12/08/11	DPE-3, 4, 5, MW-8A	11075.6	9.2	76	18	---	40	0.50	49	1.0	0.01	1315.3	9.00	---	---	---	---	---	28,277,464	On.
12/16/11	DPE-3, 4, 5, MW-8A	11263.7	7.8	77	18	---	60	0.50	61	1.5	0.01	1326.9	9.09	---	---	---	---	---	29,145,358	On.
12/22/11	DPE-3, 4, 5, MW-8A	11383.5	5.0	77	18	---	60	0.50	---	1.5	0.01	1334.3	9.15	---	---	---	---	---	29,698,834	Off. Leave off for QM event on 12/29.
01/03/12	DPE-3, 4, 5, MW-8A	11384.7	0.1	71	17	---	100	0.50	163	2.3	0.01	1334.4	9.15	---	---	---	---	---	29,703,962	Off. Restart.
01/04/12	DPE-3, 4, 5, MW-8A	11410.4	1.1	68	18	INF-V	**32**	**<0.077**	43	0.7	0.00	1335.2	9.15	---	---	---	---	---	29,809,173	On.
01/16/12	DPE-4, 5, MW-3A	11699.5	12.0	78	17	---	30	<0.077	38	0.8	0.00	1344.2	9.15	---	---	---	---	---	31,165,803	On.

Pangea

Table 3. SVE (DPE) Performance Data - 5175 Broadway, Oakland, CA

										Removal				Emission Reporting						
Date	Wells	Oxidizer Hr Meter Reading (hours)	Interval Time (days)	System Vapor Flow Rate (cfm)	Applied Vacuum ("Hg)	Lab Sample ID	Influent TPHg Data (ppmv)	Influent Benzene Data (ppmv)	Influent OVA Reading (ppmv)	SVE TPHg Removal Rate (lbs/day)	SVE Benzene Removal Rate (lbs/day)	Cumulative SVE TPHg Removal (lbs)	Cumulative SVE Benzene Removal (lbs)	Effluent TPHg Lab)	Effluent Lab (ppmv)	TPHg Abatement Efficiency (lbs/day)	Benzene Abatement Efficiency (lbs/day)	Benzene Emission Rate (lbs/day)	Cumulative Vapor Flow (cf)	Notes
01/31/12	DPE-4, 5, MW-3A	11896.6	8.2	78	17	---	30	<0.077	31	0.8	0.00	1350.4	9.15	---	---	---	---	---	32,090,715	On. System Shutdown.
11/28/12	DPE-4, 5, MW-3A, 4A, 8A	11913.8	0.7	111	17	INF-V	**200**	**0.58**	182	**7.1**	**0.02**	1355.5	9.16	---	---	---	---	---	32,205,267	On. Restarted DPE&AS 11/27 for rebound test. No ra
11/29/12	DPE-2, MW-3A, 4A, 8A	11939.9	1.1	119	17	INF-V	**150**	**0.40**	134	**5.7**	**0.01**	1361.8	9.18	---	---	---	---	---	32,391,621	On.Target residual impact.Turn on DPE-2,off DPE-4,
11/30/12	DPE-2, MW-3A, 4A, 8A	11961.8	0.9	102	18	---	150	0.50	161	**4.9**	**0.01**	1366.2	9.19	---	---	---	---	---	32,525,649	On. Target same wells. Rain[1].
12/04/12	DPE-2, MW-3A, 4A, 8A	12064.0	4.3	88	20	---	60	0.20	67	**1.7**	**0.01**	1373.4	9.21	---	---	---	---	---	33,065,265	On. Target same wells. Rain[1].
12/07/12	DPE-2, MW-3A, 4A, 8A	12132.7	2.9	79	21	---	120	0.40	125	**3.0**	**0.01**	1382.1	9.24	---	---	---	---	---	33,390,903	On. Target same wells. Rain[1].
12/11/12	DPE-2, MW-3A, 4A, 8A	12227.4	3.9	86	20	---	55	0.20	61	**1.5**	**0.01**	1388.1	9.26	---	---	---	---	---	33,879,555	On. No rain since 12/7. Stop rebound test & shutdown

Notes:

1 = Winter 2012 rain total ~2.8" in Oct and Nov 2012 before rebound test start of 11/27. Dry for ~week before test with first 2 days of test. But 3.46" rain from 11/29 to 12/3, and 0.88" on 12/6. No rain 12/7-12/11. Oakland airport data.

ALL = Wells DPE-1 through DPE-6, MW-3A, MW-4A, MW-7B and MW-8A

NA = not analyzed; NM = not measured; --- = not available

System data estimated when specific data not available.

cfm = actual cubic feet (cf) per minute based on anemometer readings (from vacuum side of vacuum pump during SVE). Flow rate is estimated on select days when anemometer measurements are anomalous (anemometer repair was required 2nd Qtr 2011).

ppmv = parts per million on volume to volume basis. Actual lab data shown in **bold.** Lab data estimated for dates without lab data to allow mass removal calculation.

lbs = Pounds

"Hg = Inches of mercury vacuum

SVE = Soil Vapor Extraction

OVA = Organic Vapor Analyzer (Horiba Model MEXA 324JU)

TPHg and Benzene Removal Rates = For dates where no laboratory analytical data was collected, the lab data is estimated based on prior lab data and OVA readings to calculate period and cumulative mass removal.

Hydrocarbon Removal/Emission Rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

Rate = lab concentration (ppmv) x system flowrate (scfm) x (1lb-mole/386 ft^3) x molecular weight (86 lb/lb-mole for TPH-Gas hexane) x 1440 min/day x 1/1,000,000.

Table 4. GWE (DPE) System Performance Summary - 5175 Broadway, Oakland, California

Well ID	Date	Totalizer Reading[1] (gallons)	Interval Flow Volume (gallons)	Interval Duration (days)	Average Flow Rate (gpm)	**TPHg** Concentration (ug/L)	**Benzene** Concentration (ug/L)	**MTBE** Concentration (ug/L)	TPHg Removed (Lbs)	Benzene Removed (Lbs)	MTBE Removed (Lbs)	Comments
System	12/08/10	0	0	0	--	---	---	---	0.000	0.000	0.000	System startup testing, water not discharged to sewer yet.
Influent	12/10/10	248	248	2	0.09	---	---	---	0.000	0.000	0.000	Off; restart.
	12/14/10	1,120	872	4	0.15	**300**	**4.6**	**ND (<5.0)**	0.002	0.000	0.000	Startup water sampling of influent (12/14)
	12/22/10	3,585	2,465	8	0.21	---	---	---	0.006	0.000	0.000	On. Shutdown due to noise, restarted 12/29.
	01/07/11	7,622	4,037	16	0.18	---	---	---	0.010	0.000	0.000	On. System off 1/14 due to noise, restart 1/19.
	02/02/11	16,840	9,218	26	0.25	**1,300**	**52**	**ND (<10)**	0.100	0.004	0.000	Off on arrival; add oil and restart.
	02/22/11	25,427	8,587	20	0.30	**680**	**8.4**	**ND (<5.0)**	0.049	0.001	0.000	On. Add more oil.
	02/28/11	28,855	3,428	6	0.40	---	---	---	0.019	0.000	0.000	On. Shutdown for GWM and restarted.
	03/09/11	31,981	3,126	9	0.24	---	---	---	0.018	0.000	0.000	On.
	03/15/11	34,398	2,417	6	0.28	---	---	---	0.014	0.000	0.000	On.
	03/16/11	34,961	563	1	0.39	---	---	---	0.003	0.000	0.000	On.
	03/31/11	36,763	1,802	15	0.08	---	---	---	0.010	0.000	0.000	Off. Add more soundproffing and restart.
	04/06/11	39,571	2,808	6	0.33	---	---	---	0.016	0.000	0.000	On.
	04/12/11	39,671	100	6	0.01	**240**	**4.8**	**ND (<5.0)**	0.000	0.000	0.000	See NOTE below.
	04/26/11	41,195	1,524	14	0.08	---	---	---	0.003	0.000	0.000	On.
	05/04/11	41,703	508	8	0.04	---	---	---	0.001	0.000	0.000	Off. Pump overheating. Restart
	05/24/11	42,965	1,262	20	0.04	**66**	**0.92**	**ND (<5.0)**	0.001	0.000	0.000	Off. Restart
	06/02/11	43,908	943	9	0.07	---	---	---	0.001	0.000	0.000	On.
	06/06/11	47,392	3,484	4	0.60	---	---	---	0.002	0.000	0.000	Off on arrival; restart. Off on departure
	07/13/11	48,851	1,459	37	0.03	---	---	---	0.001	0.000	0.000	Off on arrival; restart.
	07/21/11	51,271	2,420	8	0.21	---	---	---	0.001	0.000	0.000	Off. Restart.
	07/26/11	53,411	2,140	5	0.30	**68**	**0.51**	**ND (<5.0)**	0.001	0.000	0.000	On.
	07/28/11	54,069	658	2	0.23	---	---	---	0.000	0.000	0.000	On.
	08/08/11	55,829	1,760	11	0.11	---	---	---	0.001	0.000	0.000	Off. Restart.
	08/18/11	60,036	4,207	10	0.29	---	---	---	0.002	0.000	0.000	On.
	08/31/11	61,771	1,735	13	0.09	---	---	---	0.001	0.000	0.000	Off. Restart.
	09/22/11	65,179	3,408	22	0.11	---	---	---	0.002	0.000	0.000	Off. Restart.
	09/26/11	65,389	210	4	0.04	---	---	---	0.000	0.000	0.000	Off. Restart.
	10/05/11	65,650	261	9	0.02	---	---	---	0.000	0.000	0.000	On.
	10/11/11	65,743	93	6	0.01	---	---	---	0.000	0.000	0.000	Off. Restart.
	10/18/11	65,881	138	7	0.01	---	---	---	0.000	0.000	0.000	Off. Restart.
	11/02/11	66,589	708	15	0.03	---	---	---	0.000	0.000	0.000	On.
	11/15/11	66,684	95	13	0.01	---	---	---	0.000	0.000	0.000	Off on arrival, restart.
	11/22/11	67,082	398	7	0.04	---	---	---	0.000	0.000	0.000	On.
	11/23/11	67,161	79	1	0.05	---	---	---	0.000	0.000	0.000	On.
	11/29/11	67,810	649	6	0.08	---	---	---	0.000	0.000	0.000	On.
	12/08/11	68,695	885	9	0.07	---	---	---	0.001	0.000	0.000	On.
	12/16/11	69,431	736	8	0.06	---	---	---	0.000	0.000	0.000	On.
	12/22/11	69,481	50	6	0.01	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	0.000	0.000	0.000	Off. Leave off for QM event 12/29.
	01/03/12	69,841	360	12	0.02	---	---	---	0.000	0.000	0.000	Off. Restart.
	01/04/12	70,027	186	1	0.13	---	---	---	0.000	0.000	0.000	On.
	01/16/12	71,127	1,100	12	0.06	---	---	---	0.000	0.000	0.000	On.
	01/31/12	72,634	1,507	15	0.07	---	---	---	0.000	0.000	0.000	On. System shutdown.
	11/28/12	72,918	284	1	0.20	**130**	**1.8**	**ND (<5.0)**	0.000	0.000	0.000	On. System restarted for rebound test on 11/27.
	11/29/12	73,107	188	1	0.13	---	---	---	0.000	0.000	0.000	On.
	11/30/12	73,295	189	1	0.13	---	---	---	0.000	0.000	0.000	On.
	12/04/12	76,799	3,504	4	0.61	---	---	---	0.004	0.000	0.000	On.
	12/07/12	77,981	1,182	3	0.27	---	---	---	0.001	0.000	0.000	On.
	12/11/12	79,201	1,220	4	0.21	---	---	---	0.001	0.000	0.000	On. System shutdown.
									0.273	**0.006**	**0.000**	**Total Cumulative Removal (Lbs)**
System	04/12/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	See NOTE below.
Midpoint	05/24/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	
	07/26/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	
	12/22/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	

Table 4. GWE (DPE) System Performance Summary - 5175 Broadway, Oakland, California

Well ID	Date	Totalizer Reading[1] (gallons)	Interval Flow Volume (gallons)	Interval Duration (days)	Average Flow Rate (gpm)	**TPHg** Concentration (ug/L)	**Benzene** Concentration (ug/L)	**MTBE** Concentration (ug/L)	TPHg Removed (Lbs)	Benzene Removed (Lbs)	MTBE Removed (Lbs)	Comments
System	12/08/10	---	---	---	---	---	---	---	---	---	---	
Effluent	12/14/10	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	Startup water sampling of effluent (12/14)
	02/22/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	
	05/24/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	
	07/26/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	
	12/22/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	

Discharge Limits (ug/L):	***5***	***5***	***5***	***5***
	Benzene	***Toluene***	***Ethylbenzene***	***Total Xylenes***

ABBREVIATIONS AND NOTES:

NOTE = Based on previous and subsequent analytical results Pangea switched the 4/12/11 analyltical results for System Influent and Midpoint. Pangea suspects that the samples were accidently switched by the lab or mislabeled by the technician.

1 = Initial totalizer reading was 23,559. Therefore, shown reading above 0 is actual reading minus 23,559. The 12/10/10 reading of 23,807 less 23,559 equals 248 gallons discharged.

gpm = Gallons per minute

TPHd = Total Petroleum Hydrocarbon as Diesel analyzed by EPA Method 8015B with silica gel cleanup

TPHg = Total Petroleum Hydrocarbon as Gasoline analyzed by EPA Method 8015B

Benzene analyzed by EPA Method 8021B

MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021 Cm

Toulene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8015B

-- = not measured/not available

* Estimated contaminant mass calculated by multiplying average concentration detected during period (Table 1) by volume of extracted groundwater. Uses most recent lab data.

**Unless noted Toulene, Ethylbenzene and Total Xylenes non-detect (<0.5)

APPENDIX A

Groundwater Monitoring Program

Table A. Quarterly Groundwater Monitoring Program for Post-Remediation Verification

Rockridge Heights, 5175 Broadway, Oakland, CA

Well ID	Well Type	Screened Interval (ft bgs)	Well Location for Monitoring	Casing Diam. (in)	Gauge Frequency	Sample Frequency[1]
Shallow Wells						
MW-3A	Mon + DPE	9-14	Downgradient (Onsite)	2	Q	**Q**
MW-4A	Mon + DPE	8-15	NE Corner, Upgradient (Onsite)	2	Q	**Q**
MW-5A	Mon	10-14	SW Corner, Downgradient (Onsite)	2	--	--
MW-6A	Mon + DPE	8-17	Source Area, Upgradient (Onsite)	2	Q	A
MW-8A	Mon + DPE	8-15	W Boundary, Downgradient (Onsite)	2	Q	**Q**
MW-9A	Mon	7.5-15.5	Downgradient (Offsite)	2	Q	A
MW-10A	Mon	7.5-15.5	Downgradient (Offsite)	2	Q	A
Deep Wells						
MW-1	Mon + AS	13-23	N Boundary, Upgradient (Onsite)	4	Q	**Q**
MW-2C	Mon + AS	18-23	E Boundary, Downgradient (Onsite)	2	Q	A
MW-3C	Mon + AS	22-27	Source Area, Downgradient (Onsite)	2	Q	**Q**
MW-5B	Mon + AS	17-20	SW Corner, Downgradient (Onsite)	2	Q	A
MW-5C	Mon	22-27	SW Corner, Downgradient (Onsite)	2	Q	A
MW-7B	Mon + DPE	15.5-18.5	SE Corner, Downgradient (Onsite)	2	Q	**Q**
MW-7C	Mon + AS	20-25	SE Corner, Downgradient (Onsite)	2	Q	**Q**
MW-8C	Mon + AS	20-25	W Boundary, Crossgradient (Onsite)	2	Q	A
MW-9C	Mon	17-21	Downgradient (Offsite)	2	Q	A
AS-1	AS	16-20	NE Corner, Upgradient (Onsite)	1	---	---
DPE-1	DPE	9-19	NE Corner, Upgradient (Onsite)	4	Q	**Q**
DPE-2	DPE	9-19	E Boundary, Downgradient (Onsite)	4	Q	**Q**
DPE-3	DPE	10-20	S Boundary, Downgradient (Onsite)	4	Q	**Q**
DPE-4	DPE	13-18	Source Area, Downgradient (Onsite)	4	Q	**Q**
DPE-5	DPE	9-19	W Boundary, Crossgradient (Onsite)	4	Q	**Q**
DPE-6	DPE	14-19	Source Area (Onsite)	4	Q	**Q**

Notes and Abbreviations:

1= Sample Analytes: Total Petroleum Hydrocarbons as Gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8015Cm/8021B and Total Petroleum Hydrocarbons as Diesel (TPHd) by EPA Method 8015C with silica gel clean-up.

Q = Quarterly (Typically March, June, September and December)

A = Annually (Historically September but performed in July for 2012)

Mon = Groundwater Monitoring Well

N, S, W, E = Cardinal directions North, South, West, East and other directions (e.g., Northeast = NE)

DPE = Dual Phase Extraction Well

AS = Air Sparge Well

APPENDIX B

Groundwater Monitoring Field Data Sheets

Pangea
ENVIRONMENTAL SERVICES, INC.

Well Gauging Data Sheet

Project Task #: 1145.001 224				Project Name: Feiner - 5175 Broadway			
Address: 5175 Broadway, Oakland, CA						Date: 12/30/12	
Name: Sanjiv Gill				Signature:			
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
MW-1	4"	08:07			7.28	22.78	TOC
MW-2C	2"	07:59			8.40	23.38	
MW-3A	2"	08:14			10.10	13.82	
MW-3C	2"	08:11			11.15	26.54	
MW-4A	2"	08:03			8.96	14.65	
MW-5B	2"	07:53			11.63	19.20	
MW-5C	2"	07:50			11.99	26.70	
MW-6A	2"	08:34			6.18	14.69	
MW-7B	2"	08:22			11.01	18.17	
MW-7C	2"	08:19			11.42	24.01	
MW-8A	2"	08:40			8.65	14.55	*

Comments:

Pangea
ENVIRONMENTAL SERVICES, INC.

Well Gauging Data Sheet

Project.Task #:1145.001 224				Project Name:Feiner - 5175 Broadway			
Address: 5175 Broadway, Oakland, CA						Date. 12/30/12	
Name: Sanjiv Gill				Signature:			
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
MW-8C	2"	08:37			10.10	22.79	TOC
MW-9A	2"	07:39			11.32	15.14	
MW-9C	2"	07:35			11.47	20.43	
MW-10A	2"	07:43			7.55	17.96	
DPE-1	4"	08:44			8.41	19.29	
DPE-2	4"	08:48			8.80	19.18	
DPE-3	4"	08:25			9.46	19.34	
DPE-4	4"	08:58			9.83	16.72	
DPE-5	4"	08:30			9.42	19.20	
DPE-6	4"	08:53			8.25	19.73	X

Comments:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-1

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 22.78	Depth to Product:
Depth to Water (DTW): 7.28	Product Thickness:
Water Column Height: 15.50	1 Casing Volume: 10.07 gallons
Reference Point: TOC	3 Casing Volumes: 30.21 gallons

Purging Device: Disposable Bailer ~~3" PVC Bailer~~, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
10:10	18.1	7.29	942				10	
12/30/12 10:20	18.3	7.24	955				20	
10:30	18.3	7.21	970				30	

Comments: YSI 550A DO meter — pre purge DO = 1.02 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-1	Sample Time: 05:30
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MU-3A

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 13.82	Depth to Product:
Depth to Water (DTW): 10.10	Product Thickness:
Water Column Height: 3.72	1 Casing Volume: 0.59 gallons
Reference Point: TOC	3 Casing Volumes: 1.18 gallons

Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12/30/12 11:30	19.0	7.41	1270				0.5	
11:33		Dewatered					.7	

Comments: YSI 550A DO meter — pre purge DO = 1.40 mg/l

post purge DO = mg/l

very silty, turbid

Sample ID: MW-3A	Sample Time: 06:00
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-3C

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.47; radius² * 0.163
Total Depth (TD): 26.54	Depth to Product:
Depth to Water (DTW): 11.15	Product Thickness:
Water Column Height: 15.39	1 Casing Volume: 2.46 gallons
Reference Point: TOC	3 Casing Volumes: 7.38 gallons

Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
11:00	18.6	7.51	1023				2.5	
11:05	18.9	7.53	1025				5.0	
11:10	18.9	7.54	1027				7.0	

12/30/12

Comments: YSI 550A DO meter — pre purge DO = 1.14 mg/l

post purge DO = mg/l

very turbid

Sample ID: MW-3C	Sample Time: 05:50
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-4A

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: [redacted] 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 14.65	Depth to Product:
Depth to Water (DTW): 8.96	Product Thickness:
Water Column Height: 5.69	1 Casing Volume: 0.91 gallons
Reference Point: TOC	3 Casing Volumes: 2.73 gallons
Purging Device: (Disposable Bailer) 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12/30/12 10:45	19.3	7.49	1023				1.0	
10:46		Dewatered					1.5	

Comments: YSI 550A DO meter — pre purge DO = 0.65 mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: MW-4A	Sample Time: 06:20
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-7B

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 18.17	Depth to Product:
Depth to Water (DTW): 11.01	Product Thickness:
Water Column Height: 7.16	1 Casing Volume: 1.14 gallons
Reference Point: TOC	3 Casing Volumes: 3.42 gallons
Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12/30/12 09:40	18.9	7.40	759				1.0	
09:42		Dewatered					1.5	

Comments: YSI 550A DO meter — pre purge DO = 0.77 mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: MW-7B	Sample Time: 05:20
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-7C

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 24.01	Depth to Product:
Depth to Water (DTW): 11.42	Product Thickness:
Water Column Height: 12.59	1 Casing Volume: 2.01 gallons
Reference Point: TOC	3 Casing Volumes: 6.03 gallons

Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12/30/12 09:25	18.7	7.49	1127				2.0	
09:28	Dewatered @ 3 gallons						~~3.0~~	

Comments: YSI 550A DO meter — pre purge DO = 1.24 mg/l

post purge DO = mg/l

very turbid silty

Sample ID: MW-7C	Sample Time: 05:10
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-8A

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius² * 0.163
Total Depth (TD): 14.55	Depth to Product:
Depth to Water (DTW): 8.65	Product Thickness:
Water Column Height: 5.90	1 Casing Volume: 0.94 gallons
Reference Point: TOC	3 Casing Volumes: 2.82 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12/30/12 11:50	18.4	7.02	1591				1.0	
11:52		Dewatered					1.5	

Comments: YSI 550A DO meter — pre purge DO = 0.57 mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: MW-8A	Sample Time: 07:10
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: DPE-1

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 19.29	Depth to Product:
Depth to Water (DTW): 8.41	Product Thickness:
Water Column Height: 10.88	1 Casing Volume: 7.07 gallons
Reference Point: TOC	3 Casing Volumes: 21.21 gallons
Purging Device: Disposable Bailer, (3" PVC Bailer), Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12/30/12 12:05	19.5	7.41	1017				7	
12:07		Dewatered					9	

Comments: YSI 550A DO meter — pre purge DO = 1.02 mg/l

post purge DO = mg/l

very turbid

Sample ID: DPE-1	Sample Time: 06:10
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: DPE-2

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 19.18	Depth to Product:
Depth to Water (DTW): 8.80	Product Thickness:
Water Column Height: 10.38	1 Casing Volume: 6.74 gallons
Reference Point: TOC	3 Casing Volumes: 20.22 gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
13:10	18.7	7.20	945				7.0	
13:15		Dewatered					9.0	

12/30/12

Comments: YSI 550A DO meter — pre purge DO = 0.55 mg/l

post purge DO = mg/l

very turbid

Sample ID: DPE-2	Sample Time: 06:50
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: DPE-3

Project Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 19.34	Depth to Product:
Depth to Water (DTW): 9.46	Product Thickness:
Water Column Height: 9.88	1 Casing Volume: 6.42 gallons
Reference Point: TOC	3 Casing Volumes: 19.26 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

12/30/12

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12:50	18.2	7.59	1310				6.5	
12:55		Dewatered					8.0	

Comments: YSI 550A DO meter — pre purge DO = 0.71 mg/l

post purge DO = mg/l

very turbid

Sample ID: DPE-3	Sample Time: 06:40
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: DPE-4

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 16.72	Depth to Product:
Depth to Water (DTW): 9.83	Product Thickness:
Water Column Height: 6.89	1 Casing Volume: 4.47 gallons
Reference Point: TOC	3 Casing Volumes: 13.41 gallons

Purging Device: Disposable Bailer, (3" PVC Bailer), Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
13:55	18.0	7.52	1095				4.5	
12/30/12 14:00		Dewatered					7.5	

Comments: YSI 550A DO meter — pre purge DO = 1.21 mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: DPE-4	Sample Time: 07:00
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: DPE-5

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 4"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius² * 0.163
Total Depth (TD): 19.20	Depth to Product:
Depth to Water (DTW): 9.42	Product Thickness:
Water Column Height: 9.78	1 Casing Volume: 6.35 gallons
Reference Point: TOC	3 Casing Volumes: 19.05 gallons

Purging Device: Disposable Bailer, (3" PVC Bailer), Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12/30/12 12:25	18.1	7.04	1536				6.0	
12:30		Dewatered					7.0	

Comments: YSI 550A DO meter — pre purge DO = 1.07 mg/l

post purge DO = mg/l

turbid

Sample ID: DPE-5	Sample Time: 05:40
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: DPE-6

Project.Task #: 1145.001 224	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway, Oakland, CA	
Date: 12/30/12	Weather: Sunny
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 19.73	Depth to Product:
Depth to Water (DTW): 8.25	Product Thickness:
Water Column Height: 11.48	1 Casing Volume: 7.46 gallons
Reference Point: TOC	3 Casing Volumes: 22.38 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
13:35	18.5	7.21	1302				7.5	
13:40		Dewatered					9.0	

12/30/12

Comments: YSI 550A DO meter — pre purge DO = 1.09 mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: DPE-6	Sample Time: 06:30
Laboratory: McCampbell Analytical, INC.	Sample Date: 12/31/12
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

APPENDIX C

Laboratory Analytical Report

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

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1145.001 233-4th Qtr 2012; Rockridge Heights-5175	Date Sampled: 12/31/12
		Date Received: 12/31/12
	Client Contact: Tina De La Fuente	Date Reported: 01/08/13
	Client P.O.:	Date Completed: 01/07/13

WorkOrder: 1212729

January 08, 2013

Dear Tina:

Enclosed within are:

1) The results of the **13** analyzed samples from your project: **#1145.001 233-4th Qtr 2012; Rockridge Heights-51**
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.

McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

121729

CHAIN OF CUSTODY RECORD pg 1 of 2

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

GeoTracker EDF ☒ PDF ☒ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐; Claim #_____

Report To: Tina de la Fuente Bill To: Pangea Environmental Services

Company: Pangea Environmental Services
1710 Franklin St., Ste 200
Oakland, CA

E-Mail: tdelafuente@pangeaenv.com

Tele: (510) 836-3700 Fax: (510) 836-3709

Project #: 1145.001 233-4th Qtr 2012 GW/M Project Name: Rockridge Heights-5175 Broadway

Project Location: 5175 Broadway Oakland, CA Purchase Order#

Sampler Signature: Muskan Environmental Sampling

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea \ Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other	BTEX & TPH as Gas (8021/ 8015 or 8260) / MTBE	TPH as Diesel (8015) with silica gel	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	MTBE / BTEX ONLY (EPA 8260/ 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; 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)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis
MW-1		12/31/12	05:30	5	X								X			X	X															
MW-3A			06:00																													
MW-3C			05:50																													
MW-4A			06:20																													
MW-7B			05:20																													
MW-7C			05:10																													
MW-8A			07:10																													
DPE-1			06:10																													
DPE-2			06:50																													
DPE-3			06:40																													
DPE-4			07:00																													

Analysis Request

**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:
	12/31/12	10:15	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/T 0.3
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

COMMENTS:

VOAS O&G METALS OTHER HAZARDOUS:
PRESERVATION_____ pH<2_____

McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

PB 2012

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

GeoTracker EDF ☒ PDF ☒ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐; Claim #_____

Report To: Tina dela Fuente **Bill To:** Pangea Environmental Services

Company: Pangea Environmental Services

1710 Franklin St, Oakland, CA

E-Mail: tdelafuente@pangeaenv.com

Tele: (510) 836-3700 **Fax:** (510) 836-3709

Project #: 1145.001 233-WM Qtr 2012 GW/M **Project Name:** Rockridge Heights 5175 Broadway

Project Location: 5175 Broadway, Oakland, CA **Purchase Order#**

Sampler Signature: MAS Kean Environmental Sampling

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea \ Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other
DPE-5		12/31/12	05:40	5	X								X		
DPE-6			06:30	4	X								X		

Analysis Request

BTEX & TPH as Gas (8021/ 8015 or 8260) / MTBE	TPH as Diesel (8015) with silica gel cleanup	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	MTBE / BTEX ONLY (EPA 8260/ 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; 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)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis				
X	X																			
X	X																			

****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:
	12/31/12	10:15	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t°_____ COMMENTS:

GOOD CONDITION_____

HEAD SPACE ABSENT_____

DECHLORINATED IN LAB_____

APPROPRIATE CONTAINERS_____

PRESERVED IN LAB_____

VOAS O&G METALS OTHER HAZARDOUS:

PRESERVATION_____ pH<2_____

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1212729 **ClientCode: PEO**

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

Report to:
Tina De La Fuente
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX: (510) 836-3709

Email: tdelafuente@pangeaenv.com
cc:
PO:
ProjectNo: #1145.001 233-4th Qtr 2012; Rockridge Heights-5175 Broadway

Bill to:
Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT: 5 days

Date Received: **12/31/2012**
Date Printed: **12/31/2012**

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
1212729-001	MW-1	Water	12/31/2012 5:30	☐	A	A	B									
1212729-002	MW-3A	Water	12/31/2012 6:00	☐	A		B									
1212729-003	MW-3C	Water	12/31/2012 5:50	☐	A		B									
1212729-004	MW-4A	Water	12/31/2012 6:20	☐	A		B									
1212729-005	MW-7B	Water	12/31/2012 5:20	☐	A		B									
1212729-006	MW-7C	Water	12/31/2012 5:10	☐	A		B									
1212729-007	MW-8A	Water	12/31/2012 7:10	☐	A		B									
1212729-008	DPE-1	Water	12/31/2012 6:10	☐	A		B									
1212729-009	DPE-2	Water	12/31/2012 6:50	☐	A		B									
1212729-010	DPE-3	Water	12/31/2012 6:40	☐	A		B									
1212729-011	DPE-4	Water	12/31/2012 7:00	☐	A		B									
1212729-012	DPE-5	Water	12/31/2012 5:40	☐	A		B									
1212729-013	DPE-6	Water	12/31/2012 6:30	☐	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: Zoraida Cortez

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.

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

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.** Date and Time Received: **12/31/2012 11:37:22 AM**

Project Name: **#1145.001 233-4th Qtr 2012; Rockridge Heights-5175 Broad** LogIn Reviewed by: Zoraida Cortez

WorkOrder N°: **1212729** 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: 0.3°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:

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

Pangea Environmental Svcs., Inc.	Client Project ID: #1145.001 233-4th Qtr 2012; Rockridge Heights-5175	Date Sampled: 12/31/12
		Date Received: 12/31/12
1710 Franklin Street, Ste. 200	Client Contact: Tina De La Fuente	Date Extracted: 01/03/13-01/05/13
Oakland, CA 94612	Client P.O.:	Date Analyzed: 01/03/13-01/05/13

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1212729

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	330	ND	3.5	ND	0.95	1.2	1	99	d9
002A	MW-3A	W	640	ND<15	27	1.3	5.7	7.4	1	96	d1
003A	MW-3C	W	ND	ND	ND	ND	ND	ND	1	97	
004A	MW-4A	W	ND	ND	1.1	ND	ND	ND	1	94	
005A	MW-7B	W	74	ND	ND	ND	ND	ND	1	88	d7
006A	MW-7C	W	140	ND	0.88	ND	ND	ND	1	100	d6
007A	MW-8A	W	ND	ND	8.2	ND	ND	ND	1	103	
008A	DPE-1	W	190	ND	1.4	ND	ND	ND	1	88	d7
009A	DPE-2	W	170	ND	16	0.71	0.72	5.2	1	117	d1
010A	DPE-3	W	ND	ND	ND	ND	ND	ND	1	94	
011A	DPE-4	W	190	ND	0.72	0.86	0.62	11	1	116	d1
012A	DPE-5	W	ND	ND	ND	ND	ND	ND	1	94	
013A	DPE-6	W	1600	ND<15	2.1	2.4	4.6	2.5	1	---#	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
d6) one to a few isolated non-target peaks present in the TPH(g) chromatogram
d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9) no recognizable pattern

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

Pangea Environmental Svcs., Inc.	Client Project ID: #1145.001 233-4th Qtr 2012; Rockridge Heights-5175	Date Sampled: 12/31/12
		Date Received: 12/31/12
1710 Franklin Street, Ste. 200	Client Contact: Tina De La Fuente	Date Extracted 12/31/12
Oakland, CA 94612	Client P.O.:	Date Analyzed 01/03/13-01/05/13

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 1212729

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1212729-001B	MW-1	W	96	1	103	e11
1212729-002B	MW-3A	W	180	1	82	e4
1212729-003B	MW-3C	W	ND	1	95	
1212729-004B	MW-4A	W	ND	1	103	
1212729-005B	MW-7B	W	120	1	88	e2
1212729-006B	MW-7C	W	ND	1	114	
1212729-007B	MW-8A	W	ND	1	120	
1212729-008B	DPE-1	W	150	1	80	e4
1212729-009B	DPE-2	W	83	1	117	e4
1212729-010B	DPE-3	W	ND	1	94	
1212729-011B	DPE-4	W	ND	1	117	
1212729-012B	DPE-5	W	ND	1	89	
1212729-013B	DPE-6	W	540	1	70	e4

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.
e11) stoddard solvent/mineral spirit (?)

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 73641 | WorkOrder: 1212729

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	109	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	105	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 73641 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212729-001B	12/31/12 5:30 AM	12/31/12	01/05/13 10:10 AM	1212729-002B	12/31/12 6:00 AM	12/31/12	01/03/13 9:11 AM
1212729-003B	12/31/12 5:50 AM	12/31/12	01/04/13 7:15 AM	1212729-004B	12/31/12 6:20 AM	12/31/12	01/04/13 1:35 AM
1212729-005B	12/31/12 5:20 AM	12/31/12	01/04/13 3:56 AM	1212729-006B	12/31/12 5:10 AM	12/31/12	01/03/13 10:14 PM
1212729-007B	12/31/12 7:10 AM	12/31/12	01/04/13 9:40 PM	1212729-008B	12/31/12 6:10 AM	12/31/12	01/03/13 8:00 AM
1212729-009B	12/31/12 6:50 AM	12/31/12	01/03/13 9:06 PM	1212729-010B	12/31/12 6:40 AM	12/31/12	01/04/13 2:45 AM
1212729-011B	12/31/12 7:00 AM	12/31/12	01/03/13 11:22 PM	1212729-012B	12/31/12 5:40 AM	12/31/12	01/04/13 5:03 AM
1212729-013B	12/31/12 6:30 AM	12/31/12	01/04/13 6:09 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.

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

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 73692 | WorkOrder: 1212729

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1212707-003A**

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	95.5	112	16.1	113	70 - 130	20	70 - 130
MTBE	ND	10	80.7	92.8	13.3	105	70 - 130	20	70 - 130
Benzene	ND	10	89.1	105	16.1	112	70 - 130	20	70 - 130
Toluene	ND	10	88.9	104	15.4	112	70 - 130	20	70 - 130
Ethylbenzene	ND	10	93.7	109	15.3	113	70 - 130	20	70 - 130
Xylenes	ND	30	96.6	111	13.7	115	70 - 130	20	70 - 130
%SS:	93	10	93	93	0	98	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 73692 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212729-001A	12/31/12 5:30 AM	01/03/13	01/03/13 5:52 AM	1212729-003A	12/31/12 5:50 AM	01/03/13	01/03/13 6:22 AM
1212729-004A	12/31/12 6:20 AM	01/03/13	01/03/13 6:51 AM	1212729-006A	12/31/12 5:10 AM	01/03/13	01/03/13 10:46 PM
1212729-007A	12/31/12 7:10 AM	01/03/13	01/03/13 7:50 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

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 73717 | WorkOrder: 1212729

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1212729-010A**

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	110	111	0.922	113	70 - 130	20	70 - 130
MTBE	ND	10	105	97.1	7.97	95	70 - 130	20	70 - 130
Benzene	ND	10	122	101	18.3	106	70 - 130	20	70 - 130
Toluene	ND	10	126	106	17.5	105	70 - 130	20	70 - 130
Ethylbenzene	ND	10	125	109	14.1	110	70 - 130	20	70 - 130
Xylenes	ND	30	128	113	12.8	111	70 - 130	20	70 - 130
%SS:	94	10	104	93	11.4	90	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 73717 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212729-002A	12/31/12 6:00 AM	01/04/13	01/04/13 7:14 PM	1212729-005A	12/31/12 5:20 AM	01/04/13	01/04/13 7:44 PM
1212729-008A	12/31/12 6:10 AM	01/04/13	01/04/13 8:13 PM	1212729-010A	12/31/12 6:40 AM	01/04/13	01/04/13 5:10 AM
1212729-013A	12/31/12 6:30 AM	01/04/13	01/04/13 9:13 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.

£ 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

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 73727 | WorkOrder: 1212729

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1212727-008A**

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	103	94	8.72	100	70 - 130	20	70 - 130
MTBE	ND	10	86.2	74.3	14.9	95.4	70 - 130	20	70 - 130
Benzene	ND	10	108	89.8	18.6	108	70 - 130	20	70 - 130
Toluene	ND	10	108	89.6	18.6	108	70 - 130	20	70 - 130
Ethylbenzene	ND	10	106	90.1	16.3	106	70 - 130	20	70 - 130
Xylenes	ND	30	104	90.1	14.3	106	70 - 130	20	70 - 130
%SS:	114	10	102	105	3.01	101	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 73727 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212729-009A	12/31/12 6:50 AM	01/04/13	01/04/13 2:06 AM	1212729-011A	12/31/12 7:00 AM	01/04/13	01/04/13 3:05 AM
1212729-012A	12/31/12 5:40 AM	01/05/13	01/05/13 5:36 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

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

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1145.001; Rockridge	Date Sampled: 11/28/12
		Date Received: 11/28/12
	Client Contact: Morgan Gillies	Date Reported: 12/03/12
	Client P.O.: 5157 Broadway	Date Completed: 12/03/12

WorkOrder: 1211771

December 04, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#1145.001; Rockridge,**
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.

McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
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 ☐ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☒; Claim #_____

Report To: Morgan Gillies Bill To: Pangea Environmental

Company: Pangea Environmental
1710 Franklin St. #200
Oakland, CA 94612 E-Mail: mgillies@pangeaenv.com

Tele: (510) 836-3700 Fax: ( )

Project #: 1175.001 Project Name: Rockridge

Project Location: 5175 Broadway, Oakland Purchase Order# 5175 Broadway

Sampler Signature:

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea \ Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other
INF-W	INF	11/28	1600	3	X								X		
INF-V	INF	11/28	1615	1						X					

Analysis Request

BTEX & TPH as Gas (8021/ 8015 or 8260) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	MTBE / BTEX ONLY (EPA 8260/ 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; 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)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis
X															
X															

**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: 11/28	Time: 1718	Received By:
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 16.0
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

COMMENTS:

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1211771 **ClientCode: PEO**

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

Report to:
Morgan Gillies
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX: (510) 836-3709

Email: mgillies@pangeaenv.com; tdelafuente@pa
cc:
PO: 5157 Broadway
ProjectNo: #1145.001; Rockridge

Bill to:
Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT: 5 days

Date Received: **11/28/2012**
Date Printed: **11/28/2012**

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
1211771-001	INF-W	Water	11/28/2012 16:00	☐		A	A									
1211771-002	INF-V	Air	11/28/2012 16:15	☐	A											

Test Legend:

1	G-MBTEX_AIR	2	G-MBTEX_W	3	PREDF REPORT	4		5	
6		7		8		9		10	
11		12							

The following SampID: 002A contains testgroup.

Prepared by: Jena Alfaro

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.

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

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **11/28/2012 6:15:44 PM**

Project Name: **#1145.001; Rockridge**
LogIn Reviewed by: Jena Alfaro

WorkOrder N°: **1211771** Matrix: Air/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: 16°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 ☑	

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

Comments:

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

Pangea Environmental Svcs., Inc.	Client Project ID: #1145.001; Rockridge	Date Sampled: 11/28/12
		Date Received: 11/28/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 11/29/12
Oakland, CA 94612	Client P.O.: 5157 Broadway	Date Analyzed: 11/29/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1211771

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
002A	INF-V	A	720	ND	1.9	1.7	ND	1.2	1	---#	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak; %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.
"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

Pangea Environmental Svcs., Inc.	Client Project ID: #1145.001; Rockridge	Date Sampled: 11/28/12
		Date Received: 11/28/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 11/29/12
Oakland, CA 94612	Client P.O.: 5157 Broadway	Date Analyzed: 11/29/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1211771

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
002A	INF-V	A	200	ND	0.58	0.44	ND	0.28	1	---#	d1

ppm (mg/L) to ppmv (ul/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak; %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.
"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

Pangea Environmental Svcs., Inc.	Client Project ID: #1145.001; Rockridge	Date Sampled: 11/28/12
		Date Received: 11/28/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 11/30/12
Oakland, CA 94612	Client P.O.: 5157 Broadway	Date Analyzed: 11/30/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1211771

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-W	W	130	ND	1.8	0.63	0.97	6.3	1	86	d7,d1,b6

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:
b6) lighter than water immiscible sheen/product is present
d1) weakly modified or unmodified gasoline is significant
d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air | QC Matrix: Water | BatchID: 72784 | WorkOrder: 1211771

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **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(btex)£	N/A	60	N/A	N/A	N/A	110	N/A	N/A	80 - 120
MTBE	N/A	10	N/A	N/A	N/A	93.8	N/A	N/A	80 - 120
Benzene	N/A	10	N/A	N/A	N/A	110	N/A	N/A	80 - 120
Toluene	N/A	10	N/A	N/A	N/A	111	N/A	N/A	80 - 120
Ethylbenzene	N/A	10	N/A	N/A	N/A	111	N/A	N/A	80 - 120
Xylenes	N/A	30	N/A	N/A	N/A	111	N/A	N/A	80 - 120
%SS:	N/A	10	N/A	N/A	N/A	103	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 72784 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211771-002A	11/28/12 4:15 PM	11/29/12	11/29/12 3:17 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 = 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

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 72842 | WorkOrder: 1211771

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1211749-001B**

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	106	114	7.68	108	70 - 130	20	80 - 120
MTBE	ND	10	93.9	110	15.5	91.1	70 - 130	20	80 - 120
Benzene	ND	10	103	114	10.8	101	70 - 130	20	80 - 120
Toluene	ND	10	106	116	8.66	103	70 - 130	20	80 - 120
Ethylbenzene	ND	10	106	118	10.8	104	70 - 130	20	80 - 120
Xylenes	ND	30	110	122	10.1	108	70 - 130	20	80 - 120
%SS:	92	10	90	92	2.11	93	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 72842 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211771-001A	11/28/12 4:00 PM	11/30/12	11/30/12 5:49 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

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

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #5175 Broadway; Rockridge Heights	Date Sampled: 11/29/12
		Date Received: 11/29/12
	Client Contact: Tina De La Fuente	Date Reported: 12/04/12
	Client P.O.:	Date Completed: 11/30/12

WorkOrder: 1211841

December 04, 2012

Dear Tina:

Enclosed within are:

1) The results of the **1** analyzed sample from your project: **#5175 Broadway; Rockridge Heights,**
2) QC data for the above sample, 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.

1211841

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd.
Pittsburg, CA 94565
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

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

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Tina de la Fuente Bill To: Pangea

Company: Pangea Environmental Services, Inc.

1710 Franklin Street, Suite 200, Oakland, CA 94612

E-Mail: tdelafuente@pangeaenv.com

Tele: (510) 836-3702 Fax: (510) 836-3709

Project #: 5175 Broadway Project Name: Rockridge Heights

Project Location: 5175 Broadway, Oakland, CA

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	Analysis Request: TPHd (8015) w/silica gel clean up	Other	Comments
INF-V	INF	11/29	1210	1	T			X							X			Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date:	Time:	Received By:
	11/29/12	1725	
Relinquished By:	Date:	Time:	Received By:
	11/29/12	1845	
Relinquished By:	Date:	Time:	Received By:

ICE/t° NA

GOOD CONDITION yes

HEAD SPACE ABSENT

DECHLORINATED IN LAB

APPROPRIATE CONTAINERS yes

PRESERVED IN LAB

COMMENTS:

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1211841 **ClientCode: PEO**

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

Report to:
Tina De La Fuente
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX: (510) 836-3709

Email: tdelafuente@pangeaenv.com
cc:
PO:
ProjectNo: #5175 Broadway; Rockridge Heights

Bill to:
Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT: 5 days

Date Received: **11/29/2012**
Date Printed: **11/29/2012**

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
1211841-001	INF-V	Air	11/29/2012 12:10	☐	A											

Test Legend:

1	G-MBTEX_AIR	2		3		4		5	
6		7		8		9		10	
11		12							

The following SampID: 001A contains testgroup.

Prepared by: Rosa 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.

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

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **11/29/2012 5:50:12 PM**

Project Name: **#5175 Broadway; Rockridge Heights**
LogIn Reviewed by: Rosa Venegas

WorkOrder N°: **1211841** Matrix: Air
Carrier: Rob Pringle (MAI Courier)

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:		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 ☑	

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

Comments:

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

Pangea Environmental Svcs., Inc.	Client Project ID: #5175 Broadway; Rockridge Heights	Date Sampled: 11/29/12
		Date Received: 11/29/12
1710 Franklin Street, Ste. 200	Client Contact: Tina De La Fuente	Date Extracted: 11/30/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 11/30/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1211841

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-V	A	550	ND	1.3	1.9	0.95	2.9	1	---#	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak; %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.
"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

Pangea Environmental Svcs., Inc.	Client Project ID: #5175 Broadway; Rockridge Heights	Date Sampled: 11/29/12
		Date Received: 11/29/12
1710 Franklin Street, Ste. 200	Client Contact: Tina De La Fuente	Date Extracted: 11/30/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 11/30/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1211841

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-V	A	150	ND	0.40	0.48	0.22	0.66	1	---#	d1

ppm (mg/L) to ppmv (ul/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak; %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.
"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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air | QC Matrix: Water | BatchID: 72843 | WorkOrder: 1211841

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **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(btex)£	N/A	60	N/A	N/A	N/A	98.9	N/A	N/A	80 - 120
MTBE	N/A	10	N/A	N/A	N/A	101	N/A	N/A	80 - 120
Benzene	N/A	10	N/A	N/A	N/A	117	N/A	N/A	80 - 120
Toluene	N/A	10	N/A	N/A	N/A	117	N/A	N/A	80 - 120
Ethylbenzene	N/A	10	N/A	N/A	N/A	115	N/A	N/A	80 - 120
Xylenes	N/A	30	N/A	N/A	N/A	115	N/A	N/A	80 - 120
%SS:	N/A	10	N/A	N/A	N/A	107	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 72843 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211841-001A	11/29/12 12:10 PM	11/30/12	11/30/12 4:29 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 = 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