Andy Saberi
1045 Airport Boulevard
South San Francisco, CA 94080

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Groundwater Monitoring and Remediation Report**
1230 14th Street, Oakland, California

Dear Mr. Wickham:

I, Mr. Andy Saberi, have retained Pangea Environmental Services, Inc. (Pangea) as an environmental consultant for the project referenced above. Pangea is submitting the attached *Groundwater Monitoring and Remediation 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.

If you have any questions, please call me at (650) 588-3088.

Sincerely,

Andy Saberi

September 25, 2012

VIA ALAMEDA COUNTY FTP SITE

Mr. Jerry Wickham
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Groundwater Monitoring and Remediation Report – First Half 2012**
Former Shell Service Station
1230 14th Street
Oakland, California
Fuel Leak Case No. RO0000433

Dear Mr. Wickham:

On behalf of property owner Andy Saberi, Pangea Environmental Services, Inc has prepared this *Groundwater Monitoring and Remediation Report – First Half 2012*. The report describes implementation of the approved pilot study for enhanced site remediation using a bio-organic catalyst (BOC). In response to your September 10, 2012 letter, this report presents groundwater monitoring data from the September 1, 2012 event performed to help demonstrate control of any hydrocarbon migration initiated by desorption affects of BOC.

Based on pilot test monitoring results, Pangea recommends expansion of BOC usage in general accordance with the Workplan but with slight modification described herein. Pangea respectfully requests quick agency approval of BOC expansion to allow more aggressive remediation during the end of the dry season, and to better use limited UST Cleanup funding this fiscal year. If you have any questions, please contact me at (510) 435-8664 or email briddell@pangeaenv.com.

Sincerely,
Pangea Environmental Services, Inc.

Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Groundwater Monitoring and Remediation Report – First Half 2012*

cc: Andy Saberi, 1045 Airport Blvd., South San Francisco, California 94080
Denis Brown, Shell Oil Products US, 20945 S. Wilmington Avenue, Carson, CA 90810-1039
SWRCB Geotracker (electronic copy)

GROUNDWATER MONITORING AND REMEDIATION REPORT – FIRST HALF 2012

Former Shell Service Station
1230 14th Street
Oakland, California
Fuel Leak Case No. RO0000433

September 25, 2012

Prepared for:

Andy Saberi
1045 Airport Boulevard
South San Francisco, California 94080

Prepared by:

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

Written by:

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

Morgan Gillies
Project Manager

Bob Clark-Riddell, P.E.
Principal Engineer

INTRODUCTION

On behalf of Andy Saberi, Pangea Environmental Services, Inc. (Pangea) conducted groundwater monitoring and sampling, and remediation system maintenance and sampling at the subject site (Figure 1). The purpose of the monitoring and sampling is to evaluate dissolved contaminant concentrations and groundwater flow direction. The purpose of the remediation is to remove residual petroleum hydrocarbon from site soil and groundwater. Current groundwater analytical results and elevation data are shown on Figure 2. Current and historical data are summarized on Table 1. Site remediation data are summarized on Tables 2 and 3.

The report also describes implementation of the approved pilot study for enhanced site remediation using a bio-organic catalyst (BOC). In response to your September 10, 2012 letter, this report presents groundwater monitoring data from the September 1, 2012 event performed to help demonstrate control of any hydrocarbon migration initiated by the desorption affects of BOC.

SITE BACKGROUND

The former Shell-branded service station is located at the northeast corner of 14th Street and Union Street in Oakland, California (Figure 1). Currently, an abandoned one-story station building and a pump-island canopy occupy the site, and much of the property is paved except for the former UST excavation. Land use in the surrounding area is currently residential to the north, south, and east, and is commercial/industrial to the west and southwest. The site topography is essentially flat.

Site History

According to prior reports, the current site building was constructed in 1958 and gas station operations at the site reportedly began in 1958 and ceased in 1993. Petroleum hydrocarbons were first discovered in site soil near the underground storage tanks (USTs) during the completion of three borings at the site in February 1991. Four gasoline USTs and one waste oil storage tank were removed from the site on August 24, 1993. The current property owner, Mr. Andy Saberi, purchased the property in the mid 1980s.

Previous Environmental Work

Previous environmental work has included site assessment, a sensitive receptor evaluation/well survey, risk evaluation, two rounds of feasibility testing (in 2000 and 2006), and several remedial actions. Remedial action included injection of oxygen releasing compound (ORC) into site wells in 1997, groundwater extraction (GWE) and dual-phase extraction (DPE) from 2002 to 2004 (performed with mobile equipment for approximately 11 separate days removing 6.0 lbs aqueous phase and 5.6 lbs vapor phase hydrocarbons), and

hydrogen peroxide injection into site wells in 2003. Groundwater monitoring has been performed at the site since 1996.

In January 2008, Pangea submitted a *Draft Corrective Action Plan and Pilot Test Work Plan* (Draft CAP/Test Workplan) as required by Alameda County Environmental Health (ACEH). In June 2008, with ACEH approval, Pangea installed new remediation test wells, repaired damaged remediation wells, and destroyed one remediation well, as detailed in the *Well Installation and Destruction Report* dated October 6, 2008. In early July 2008, Pangea conducted the approved pilot testing using the newly installed remediation test wells to determine whether SVE or DPE would most effectively remove contaminants and capture hydrocarbon vapors resulting from air sparging. In the *SVE/DPE Pilot Test Report* dated October 7, 2008, Pangea recommended DPE/AS as the most effective remedial approach for the site. In a letter dated October 29, 2008, ACEH approved implementation of DPE/AS remediation at the site. On June 15, 2009, the California UST Cleanup Fund completed a 5-year review of the claim and recommended implementation of site remediation. DPE remediation system operation started in April 2011 and AS system operation commenced in October 2011.

To enhance DPE/AS remedial effectiveness, Pangea began pilot testing bio-organic catalyst (BOC) injection in select site wells. The pilot testing was performed as detailed in the *Workplan for Enhanced Site Remediation* dated March 6, 2012, and as approved by the ACEH in a letter dated April 17, 2012. This report documents pilot testing procedures and monitoring results.

GROUNDWATER MONITORING AND SAMPLING

Routine groundwater monitoring for the first half 2012 was performed on June 30, 2012. Additional monitoring for evaluation of BOC pilot testing was performed on September 1, 2012. For the routine monitoring, eleven site wells were sampled according to the approved groundwater monitoring program shown on Table A in Appendix A. For the pilot test monitoring, seven key wells were sampled according to monitoring program on Table B in Appendix A. Site monitoring wells were gauged for depth-to-water and inspected for separate-phase hydrocarbons (SPH) prior to collection of groundwater samples. Well caps were removed from all monitoring wells and technicians allowed at least 15 minutes for water level equilibration before measuring depth to water. However, the remediation system was not shutdown until completion of depth to water measurements to help evaluate the groundwater capture area for the system.

Before well purging, the dissolved oxygen (DO) concentration was measured in each well. 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. Prior to sample collection, approximately three casing volumes of water were purged using disposable bailers, an electric submersible pump, check valve with tubing, a clean PVC bailer, or a peristaltic pump. During well purging, field technicians measured pH, temperature and

conductivity. 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°C. All samples were transported under chain-of-custody to the State-certified analytical laboratory. Purge water was pumped through the remediation system. Groundwater monitoring field data sheets, including purge volumes and field parameter measurements, are presented in Appendix B.

MONITORING RESULTS

Current and historical groundwater elevation data and analytical results are described below and summarized on Figure 2 and Table 1. For routine monitoring, groundwater samples were collected from wells MW-1 MW-2, MW-3, MW-4, MW-5R, MW-6, MW-7, VW/MW-2, VW/MW-4, AS-1, DP-1 and DP-5 in accordance with the approved groundwater monitoring program (Table A, Appendix A). For the BOC pilot study, groundwater samples were collected from site wells DP-1, DP-2, DP-4, DP-5, MW-1, MW-5R and MW-6 (Table B, Appendix A). Samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8015Cm/8021B. Samples were analyzed by McCampbell Analytical, Inc., of Pittsburg, California, a State-certified laboratory. The laboratory analytical report is included in Appendix C.

Groundwater Flow Direction

Based on depth-to-water data collected on June 30, 2012, groundwater appears to converge around the former USTs location, as shown on Figure 2. The inferred groundwater flow direction is different than previous monitoring events and suggests hydraulic capture within the hydrocarbon source area by the DPE system. Depth-to-water and groundwater elevation data are presented in Table 1. The groundwater elevation measurement from well AS-1 was not used for contouring due to an anomalous result.

Hydrocarbon Distribution in Groundwater during Routine Monitoring

No SPH was observed in any of the site wells. During the routine monitoring on June 30, 2012, the maximum TPHg (4,600 µg/L) and benzene (640 µg/L) concentrations were detected in wells DP-5 and VW/MW-4, respectively. Groundwater analytical data are summarized on Table 1 and on Figure 2. The estimated distribution of TPHg and benzene in groundwater from routine monitoring in June 2012 is shown on Figures 3 and 4, respectively.

In general, hydrocarbon concentrations in site wells on June 30, 2012 have decreased compared to the preceding monitoring event of December 2011. For example, significant decreases were observed in key well DP-1, where benzene decreased from 4,400 µg/L to 66 µg/L, and where TPHg decreased from 41,000 µg/L to

2,800 µg/L. Additionally, TPHg concentrations in source area well MW-5R decreased from 9,900 µg/L to 3,400 µg/L, while benzene concentrations decreased from 1,100 µg/L to 300 µg/L. These results suggest that the dual-phase extraction (DPE) and air sparging (AS) remediation system is cleaning up the site. However, TPHg concentrations in well VW/MW-4 increased (compared to the December 2011 results) from 460 µg/L to 3,400 µg/L, while benzene increased from 24 µg/L to 640 µg/L. The concentration increase in VW/MW-4 is presumably due to the shallower water table (about 11 ft depth and about 1.5 ft shallower than the December event), as concentrations in this well have been historically highest near this depth to water. This result suggests that additional remediation is merited to target the smear zone near this well. Future monitoring will evaluate if BOC addition in well VW/MW-4 will improve conditions near this well.

Fuel Oxygenate Distribution in Groundwater during Routine Monitoring

MTBE was not detected in any site wells this event. Historically, MTBE has been detected only sporadically in site wells. Since 2003, detected MTBE concentrations have been below the Maximum Contaminant Level (MCL) for drinking water of 13 µg/L, except for a concentration of 20 µg/L detected in well MW-5 in February 2008. This MTBE result could be a false positive result; EPA Method 8260 was not used to confirm the MTBE detected by EPA Method 8021B. MTBE is not a primary constituent of concern at this site due to limited and sporadic (and potentially false) MTBE detections. MTBE concentrations are shown in Table 1 and on Figure 2.

Hydrocarbon Distribution in Groundwater during BOC Pilot Testing

Results of monitoring for BOC pilot testing is described in the remediation section below.

REMEDIATION 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 7. The DPE system installed at the site consists of a 250 cfm electric catalytic oxidizer equipped with a 7.5 hp positive-displacement blower. 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 remediation wells (DP-1 through DP-5). 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 1,000-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 piston air compressor for injecting air into sparge wells AS-1 through AS-5. Air flow to the sparge wells is controlled by timer-activated solenoid valves and individual well flow meters. The air sparging system is enclosed within a small shed to help reduce noise from the compressor.

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.

Operation and Performance

The DPE remediation system was started up on April 27, 2011 but only operated for approximately three weeks in April/May 2011 and two weeks in December 2011 due to equipment issues and budget limitations from the UST Cleanup Fund. The AS system also only operated intermittently due to equipment malfunction. Following recent repair of the DPE/AS equipment, continuous operation of DPE/AS resumed on February 23, 2012. On March 16, 2012 the DPE/AS system was shutdown due to the DPE unit overheating. On June 15, 2012, continuous operation of the DPE/AS system resumed with a new DPE unit.

Operation and performance data for the vapor-phase and aqueous-phase portions of the DPE system are summarized on Tables 2 and 3, respectively. Tables 2 and 3 present system operation time, extraction flow rates, influent TPHg and benzene concentrations, and contaminant removal rates and cumulative mass removal. Air sparge system data is summarized on Table 4.

As of September 20, 2012, the DPE system operated for a total of approximately 97 days. Based on laboratory analytical and performance data, Pangea estimates that soil vapor removal rates during this reporting period peaked near 45.5 lbs/day TPHg and 0.66 lbs/day benzene (January 24, 2012). As of September 20, 2012, the vapor-phase portion of the DPE system removed a total of approximately 1,037 lbs TPHg and 17.7 lbs benzene. As of September 20, 2012, the groundwater portion of the DPE system has removed a total of approximately 2.1 lbs TPHg and 0.1 lbs benzene. As also mentioned below, no significant hydrocarbon removal was observed during monitoring of the vapor-phase and aqueous-phase of the DPE influent streams following the addition of BOC in site wells.

As of September 20, 2012, the AS system operated for a total of approximately 77 days. The focus of the air sparging system has been on wells AS-1, AS-2 and AS-4, located near the primary hydrocarbon source area in the middle of the site. As shown on Table 4, the flow rate to each well is typically approximately 2 cfm.

ENHANCED SITE REMEDIATION PILOT TEST

In July 2012, Pangea commenced the pilot study of bio-organic catalyst (BOC) addition to enhance hydrocarbon desorption and capture by the DPE/AS system. The BOC addition is also designed to expedite hydrocarbon biodegradation in conjunction with the hydrocarbon 'stripping' and groundwater oxygenation provided by the AS system. The BOC addition was performed in accordance with Pangea's *Workplan for Enhanced Site Remediation* (Workplan) dated March 6, 2012, and the agency approval letter of April 17, 2012.

BOC Addition and Initial Observations

On July 5 and 18, 2012, Pangea injected 2 gallons of BOC followed by 10 gallons of clean water into well VW/MW-4 and 1 gal BOC into each of wells AS-2 and AS-4. To help ensure BOC capture, DPE was performed on nearby source area remediation wells DP-1, DP-2, DP-4 and DP-5. After the July 5 injection event, no visible indication of BOC was observed in remediation system influent water during brief daily monitoring. After the July 18 injection event, visual evidence of BOC (bubbles) was first observed in remediation system influent water on July 20 (and was not observed on July 19). This observation suggests that the remediation system was able to capture added BOC.

The DPE system operated almost continuously during July 2012 to help optimize BOC capture. Following the July 5, 2012 addition of BOC, groundwater samples were collected on July 6 and July 10 from the influent groundwater (before the first carbon vessel) and analyzed for petroleum hydrocarbons. As shown on Table 3, no significant increase in hydrocarbon concentrations was observed in the influent DPE water after BOC use. Similarly, as shown on Table 2, no significant increase in hydrocarbon concentrations was observed in the influent soil vapor to the DPE system following the addition of BOC in site wells.

Dissolved oxygen (DO) concentrations in most site wells (DP-1, DP-2, DP-4, MW-1, MW-2, MW-3, MW-4, MW-5R, MW-6, MW-7 and VW/MW-2) have increased compared to historic DO concentrations. As shown on Table 1, DO concentrations in key wells DP-1 and MW-5R increased from 0.83 mg/L (December 2011) to 2.09 mg/L (September 2012), and 0.32 mg/L (December 2011) to 1.94 mg/L (September 2012), respectively. This data suggests that the AS system is effectively oxygenating site groundwater to help enhance natural attenuation of site contaminants.

Monthly Monitoring

To evaluate potential hydrocarbon migration after BOC addition, Pangea conducted groundwater sampling from select site wells DP-1, DP-2, DP-4, DP-5, MW-1, MW-5R and MW-6 on September 1, 2012. Before well purging, the dissolved oxygen (DO) concentration was measured in each well. Prior to sampling, three casing volumes of groundwater were removed from wells MW-1, MW-5R and MW-6. For active dual-phase

extraction wells DP-1, DP-2, DP-4 and DP-5, grab groundwater samples were collected from each well via a disposable bailer and no well purging. Samples were analyzed for TPHg, BTEX and MTBE by EPA Method 8015Cm/8021B. Field data sheets are included in Appendix B. Laboratory analytical data is summarized on Table 1 and the laboratory analytical report is included in Appendix C.

The estimated distribution of TPHg and benzene in groundwater from the BOC monitoring event on September 1, 2012, is shown on Figures 5 and 6, respectively. Groundwater analytical data are summarized on Table 1.

Groundwater monitoring results for downgradient wells MW-1 and MW-6 during the September 1, 2012 sampling event were similar to the previous monitoring event on June 30, 2012 (prior to BOC injection). This included very low hydrocarbon concentrations detected in well MW-1 and no hydrocarbons detected in well MW-6. This data suggests that BOC injection has *not* caused downgradient migration of hydrocarbons. Additionally, hydrocarbon concentrations in wells DP-2, DP-4 and MW-5R decreased significantly compared to previous routine monitoring results. The observed hydrocarbon concentration increase in wells DP-1 and DP-5 could be due to hydrocarbon desorption caused by the BOC and the resulting capture by DPE. Additional monitoring will help determine if the concentration increase could be the result of groundwater fluctuation or ongoing site remediation efforts.

No vapor-phase hydrocarbon concentrations have been observed in vapor monitoring point VMP-1, located immediately adjacent the nearby residence. VMP-1 was sampled for laboratory analysis using a Summa canister on December 23, 2011, and a Tedlar bag on February 28, 2012. A vapor sample from VMP-1 was also analyzed using a Horiba organic vapor analyzer on February 23, 2012. No hydrocarbons have been detected in any of the samples collected from VMP-1. The laboratory report for the February 28, 2012 sampling event is presented in Appendix C.

FUTURE SITE ACTIVITIES

Continued DPE/AS Remediation

Following the recent replacement of the DPE unit, continuous operation of DPE/AS resumed on June 15, 2012. Current DPE is focused on wells DP-1, DP-2, DP-4 and DP-5 to optimize hydrocarbon removal, to capture vapors created by air sparging, and to capture hydrocarbon desorption caused by injected BOC. Due to noise concerns, the air compressor is cycled intermittently between 9 am and 9 pm. Pangea plans to continue routine operation and maintenance of the DPE/AS system. Frequent site visits are planned to optimize DPE operation, especially following BOC addition. Due to budget limitations with the Cleanup Fund, Pangea plans to submit a budget change order to allow longer site remediation. Depending on the amount of the approved

budget, the DPE/AS remediation system may be turned off for the winter rainy season with potential resumed operation in the spring 2013.

Proposed Expansion of BOC Addition

Based on visual observation of BOC capture by the DPE system and the lack of downgradient hydrocarbon migration during the pilot study, Pangea proposes to expand BOC injection at this site. Pangea respectfully requests quick agency approval of BOC expansion to allow more aggressive remediation during the end of the dry season, and to better use limited UST Cleanup funding this fiscal year.

Pangea would continue to add BOC to the three pilot test wells: upgradient well VW/MW-4, upgradient well AS-4, and source area well AS-2. BOC addition would be expanded to upgradient well DP-4 and source area wells DP-1 and DP-5. A combination of BOC and water would be added to these wells. Following BOC addition to a given DP well, DPE in that well will be discontinued for 24 to 48 hours to allow desorption of hydrocarbons before resumed DPE. During this BOC activation time DPE will continue in downgradient wells DP-2 and any other DP well not used for BOC (except more distant DPE-3). Due to proximity to the downgradient property line and guard well MW-6, Pangea recommends delaying BOC addition to previously proposed expansion well DP-2 until later (if necessary).

Future Groundwater Monitoring

Groundwater monitoring is important for evaluating the effectiveness of dual-phase extraction and air sparging, and the implementation of the bio-organic catalyst (BOC) technology proposed in Pangea's *Workplan for Enhanced Site Remediation* dated March 6, 2012 and approved by the ACEH letter dated April 17, 2012. As detailed in the BOC workplan, Pangea will perform *monthly* groundwater sampling of seven select wells during BOC addition. Pangea will also sample well VW/MW-4 monthly to evaluate BOC effects on this key impacted site well. The revised groundwater monitoring program during active remediation and BOC use for the remainder of 2012 is shown on Table B in Appendix A (sampling of 8 wells). As shown on the schedule below, no monthly sampling is planned for October 2012 to await ACEH approval to resume BOC use at the site, with monthly sampling resumed for November and December 2012.

Groundwater monitoring in 2013 will depend on remedial effectiveness, the BOC implementation schedule, and available budget from the Cleanup Fund. At a minimum, Pangea anticipates performing quarterly groundwater monitoring of the eight key impacted/observation wells in March and June 2013 (Table B, Appendix A). If BOC implementation continues in 2013, monthly monitoring would be performed on these same eight wells. During the sampling event in the 2nd quarter (June) 2013, groundwater sampling is planned from *all* site wells to evaluate site conditions, as performed in June 2012.

Monitoring of BOC Use

In addition to the monthly groundwater sampling for hydrocarbons, Pangea plans to perform the following monitoring to further evaluate effects of BOC use at the site, consistent with the approved Workplan:

- Visual observation for BOC in influent groundwater of the DPE system on a daily basis for up to three days following each BOC addition.
- Periodic sampling of influent groundwater of the DPE system (before and shortly after BOC addition) to evaluate hydrocarbon recovery rate changes. The post-BOC injection samples will be collected approximately 48 hours after BOC addition or upon visual indication of BOC in the extracted groundwater.
- Analysis of select groundwater samples (from DPE influent and select monitoring wells) for non-ionic foaming agents using Standard Method SM5540BD (cobalt thiocyanate active substances [CTAS]) and for 2-propanol by EPA Method 8260 (significant compound in initial BOC product).
- Measurement of DO and ORP in key wells during monitoring sampling.
- Periodic monitoring of soil vapor concentrations in vapor monitoring point VMP-1.

Planned Remediation and Monitoring Schedule

Pangea plans the following schedule for continued enhanced remediation (DPE/AS/BOC) and associated groundwater monitoring:

- September 2012 – Continue DPE/AS
- Oct & Nov 2012 – Expand BOC Use with Agency Approval
- Nov & Dec 2012 – Monthly Groundwater Monitoring of BOC Addition for 8 Key Wells
- December 2012 – Possible Seasonal Shutdown of DPE/AS (if Rains Start and Limited Budget)
- March 2013 – Quarterly Monitoring of 8 Key Wells
- Spring 2013 – Anticipated Resumption of Site Remediation/BOC (if Merited and Available Budget)
- June 2013 – Groundwater Monitoring of All Site Wells (Annual Event)
- July 2014 – Resumed Site Remediation with New Fiscal Year Budget (if Necessary)

Electronic Reporting

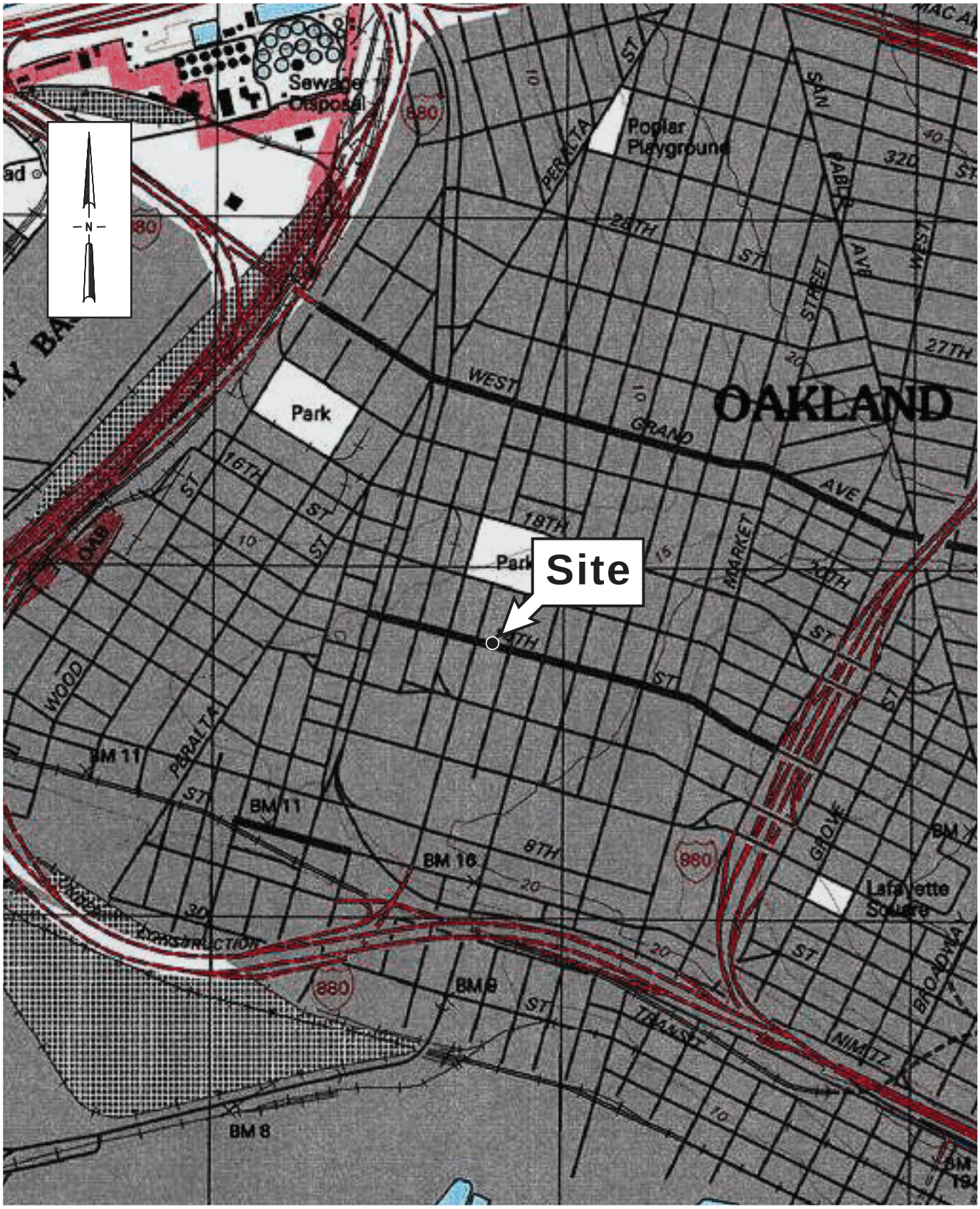
This report will be uploaded to the Alameda County FTP site. The report, laboratory data, and other applicable information will also be uploaded to the State Water Resource Control Board's Geotracker database. As requested, report hard copies will no longer be provided to the local agencies.

ATTACHMENTS

Figure 1 – Vicinity Map
Figure 2 – Groundwater Elevation and Hydrocarbon Concentration Map
Figure 3 – TPHg Distribution in Groundwater June 30, 2012
Figure 4 – Benzene Distribution in Groundwater June 30, 2012
Figure 5 – TPHg Distribution in Groundwater September 1, 2012
Figure 6 – Benzene Distribution in Groundwater September 1, 2012
Figure 7 – Remediation System Layout

Table 1 – Groundwater Elevation and Analytical Data
Table 2 – SVE Performance Data
Table 3 – GWE Performance Data
Table 4 – AS Performance Data

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



0 1/8 1/4 1/2 1

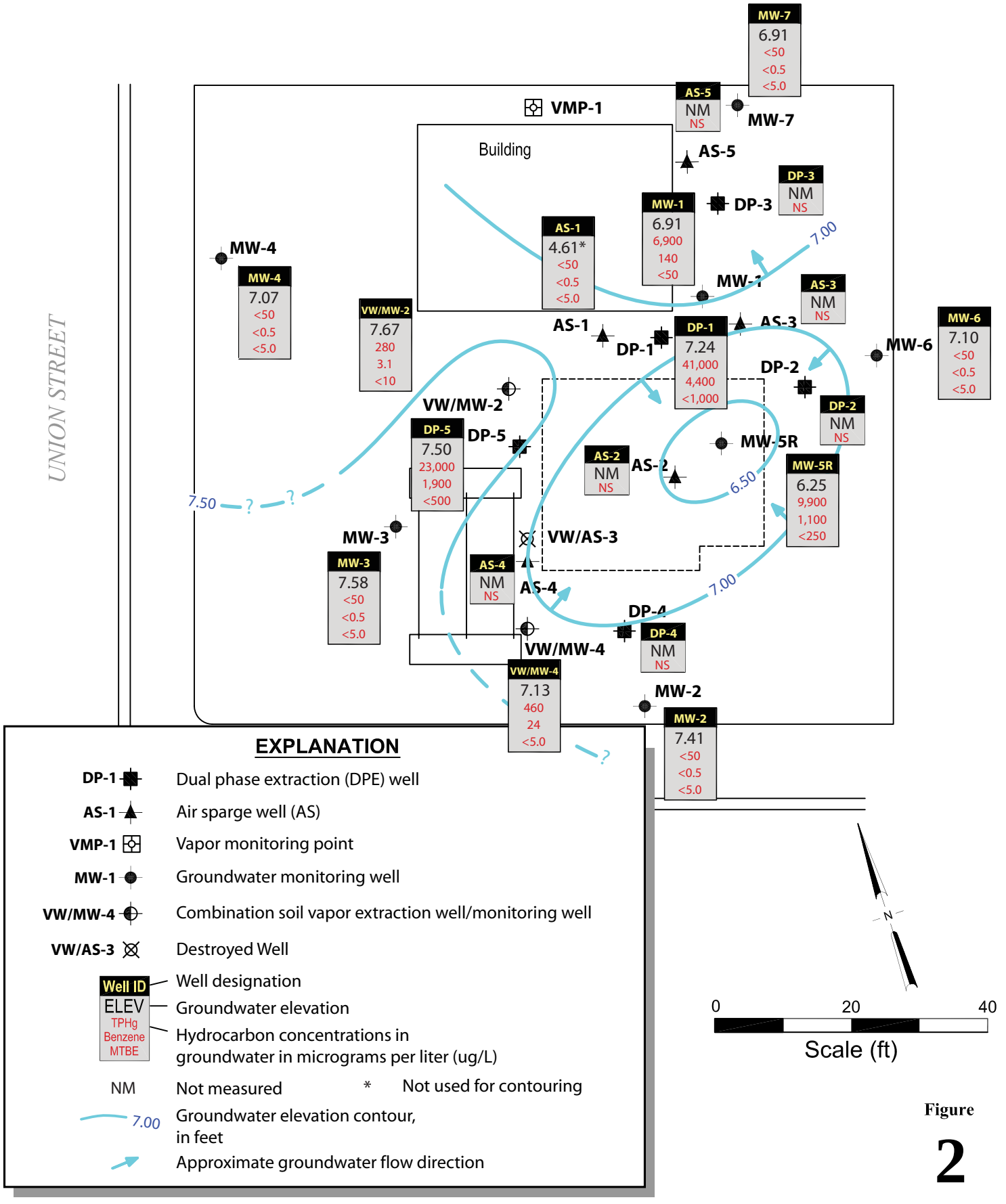
SCALE : 1" = 1/4 MILE

Figure 1

Former Shell Service Station
1230 14th Street
Oakland, California

PANGEA

Vicinity Map



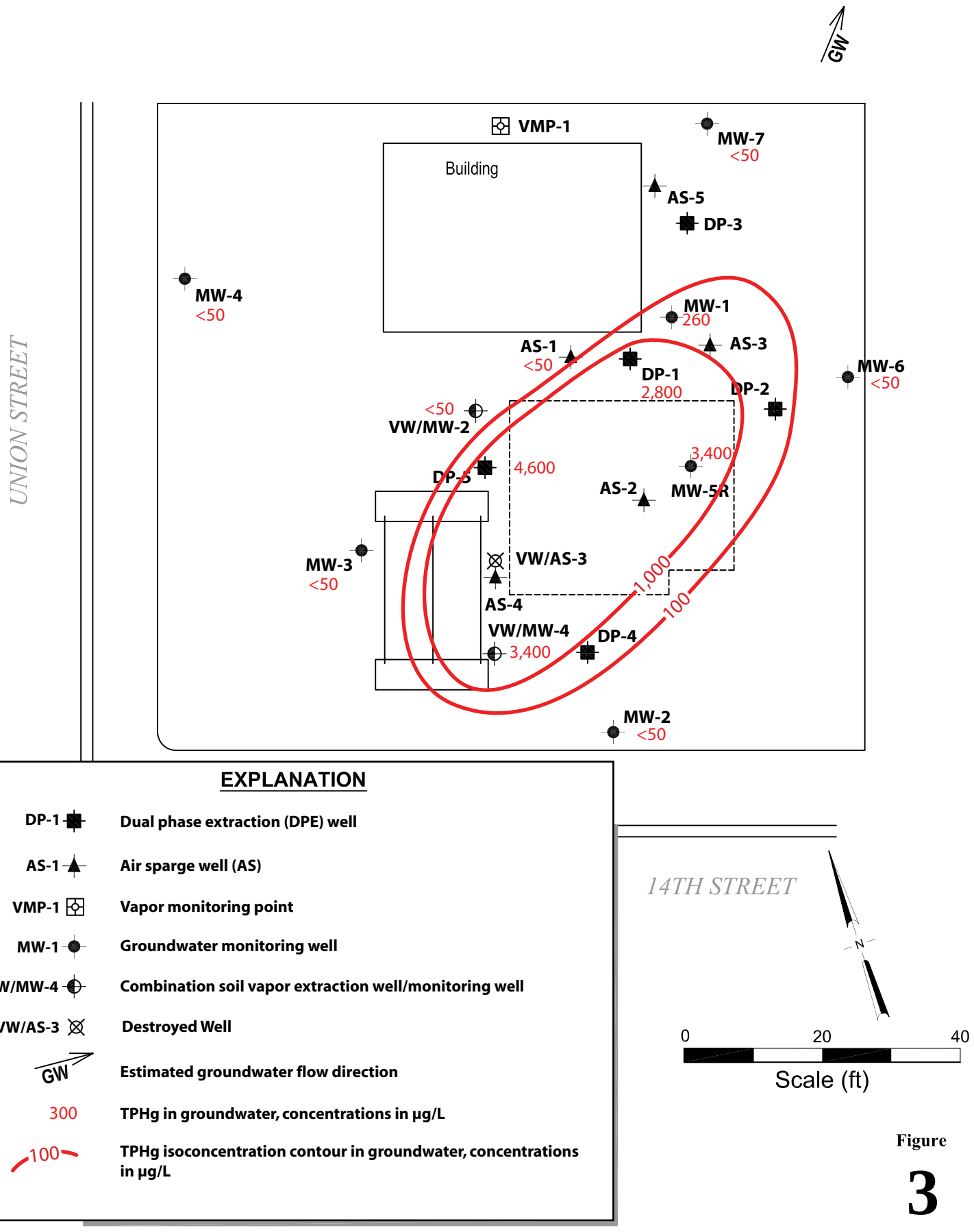
Figure

2

Former Shell Service Station
1230 14th Street
Oakland, California

PANGEA

Groundwater Elevation Contour and Hydrocarbon Concentration Map
June 30, 2012



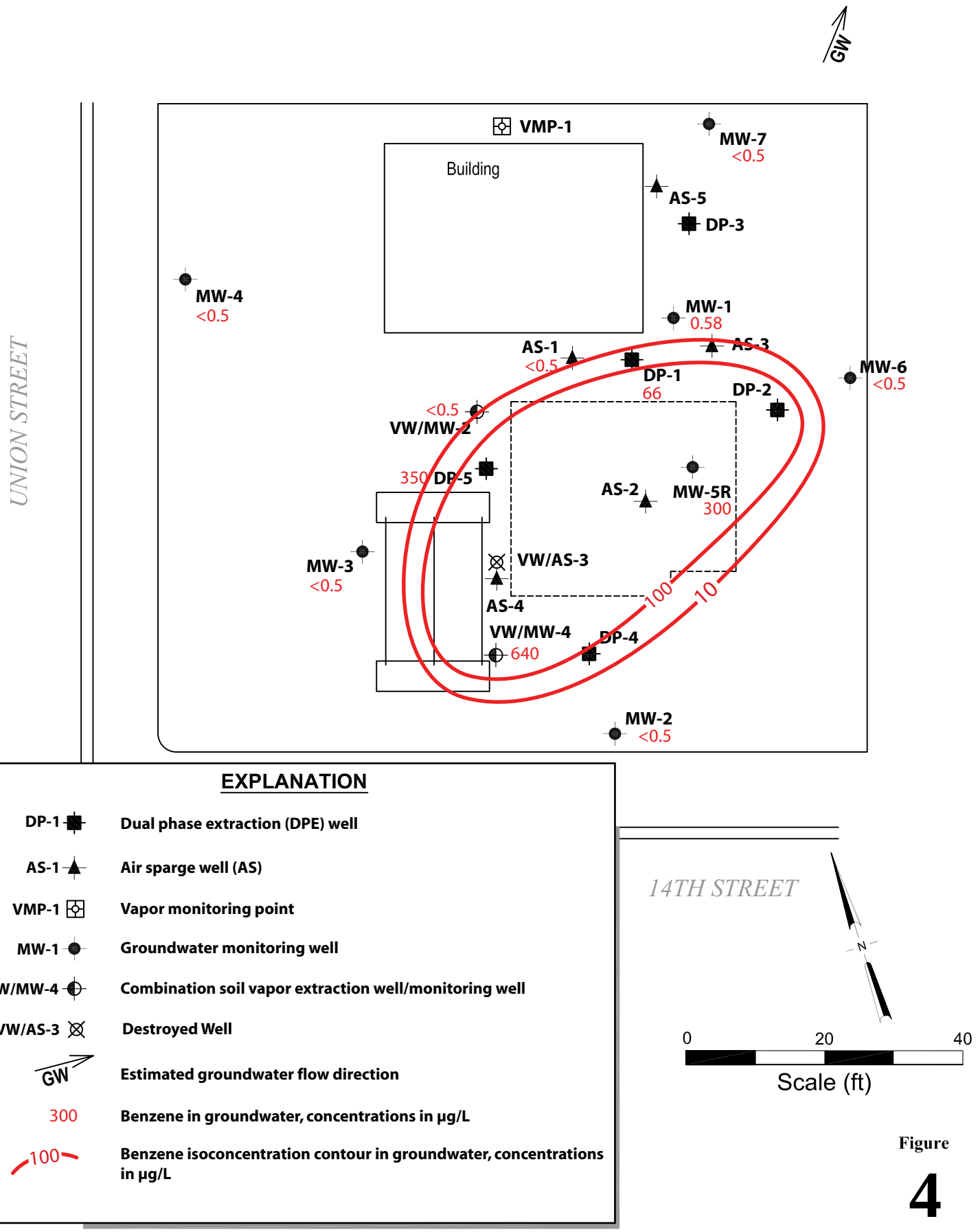
Figure

3

Former Shell Service Station
1230 14th Street
Oakland, California

PANGEA

TPHg Distribution in Groundwater
June 30, 2012



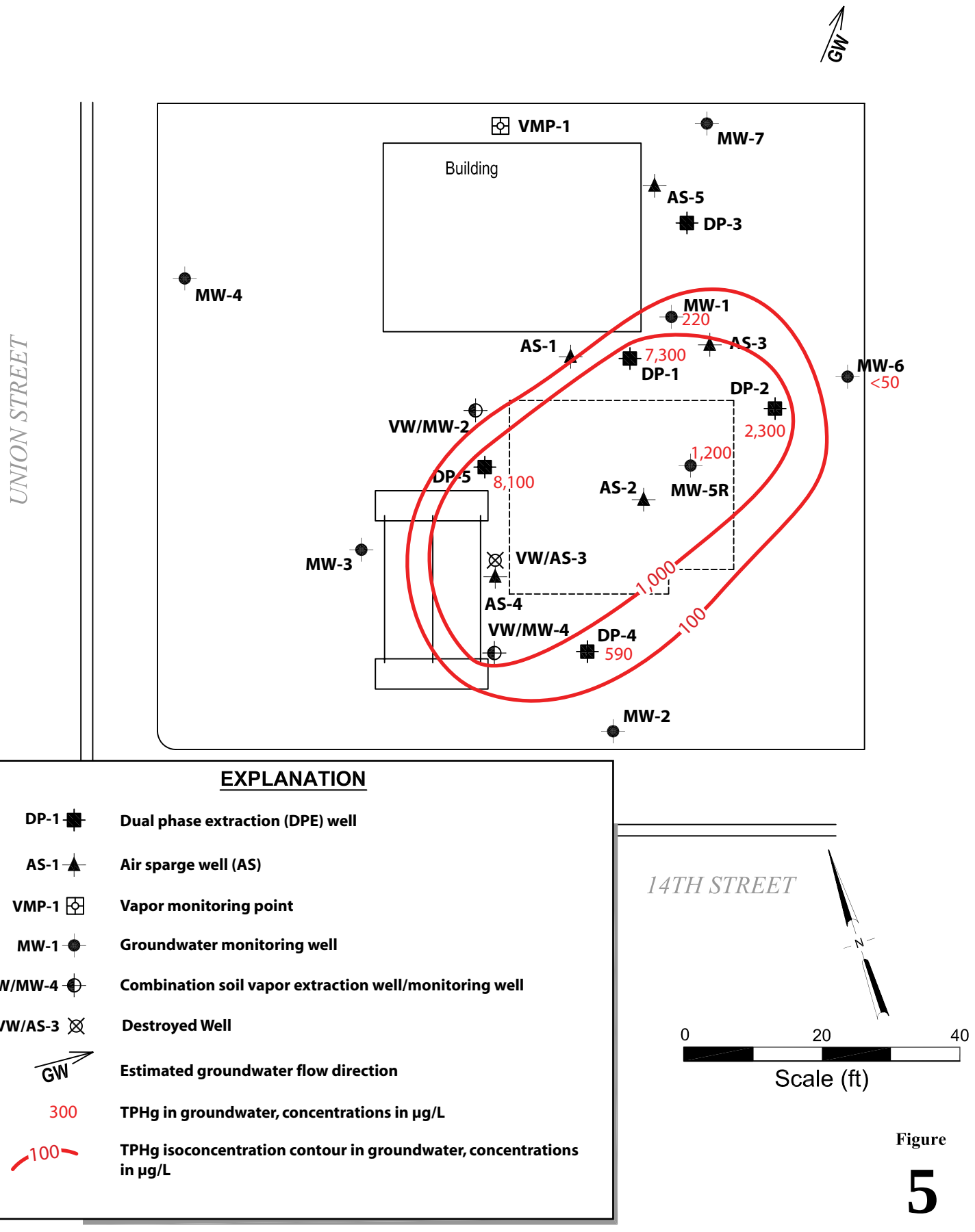
Figure

4

Former Shell Service Station
1230 14th Street
Oakland, California

PANGEA

Benzene Distribution in Groundwater
June 30, 2012



EXPLANATION

DP-1	Dual phase extraction (DPE) well
AS-1	Air sparge well (AS)
VMP-1	Vapor monitoring point
MW-1	Groundwater monitoring well
VW/MW-4	Combination soil vapor extraction well/monitoring well
VW/AS-3	Destroyed Well
GW	Estimated groundwater flow direction
300	TPHg in groundwater, concentrations in µg/L
100	TPHg isoconcentration contour in groundwater, concentrations in µg/L

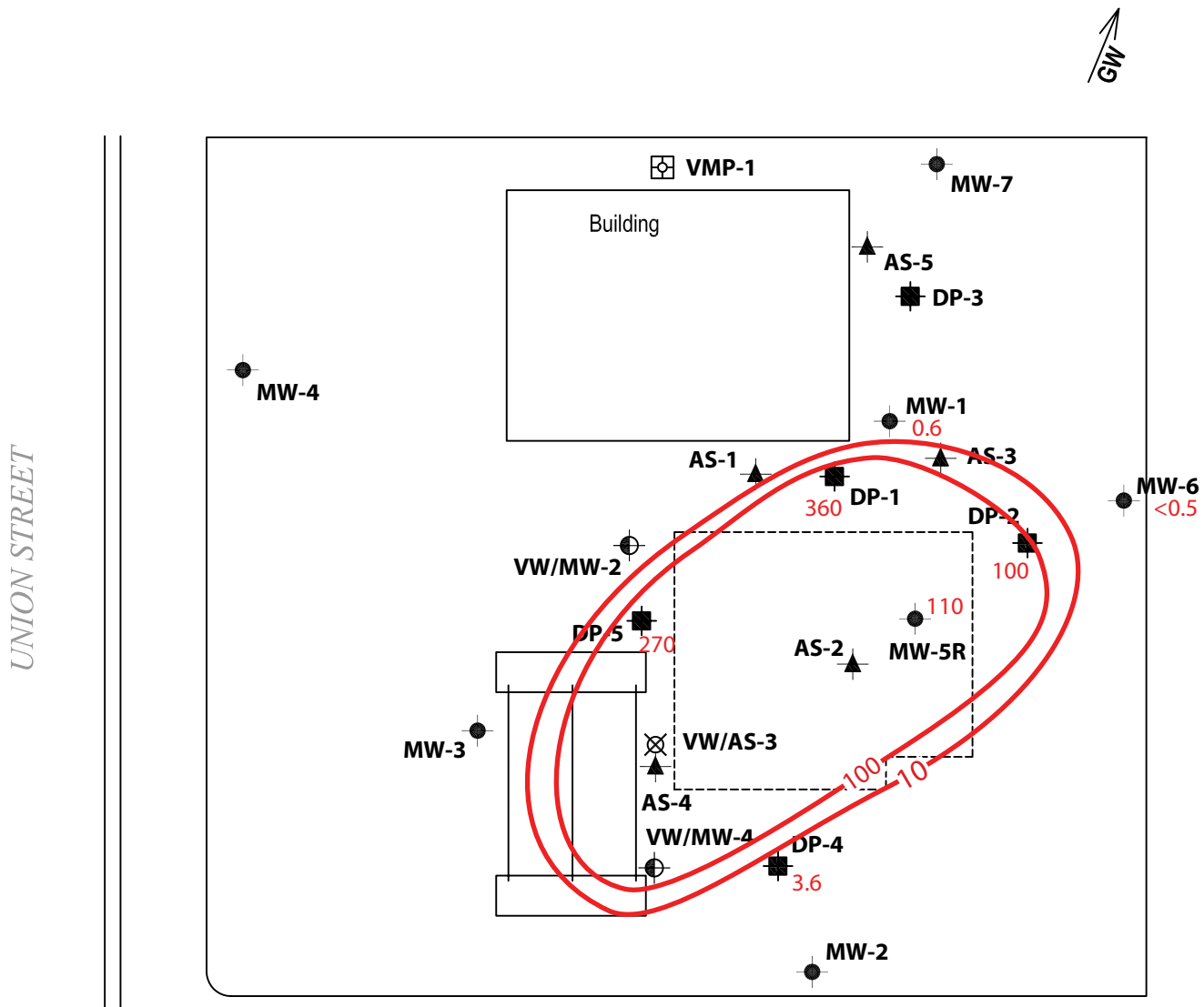
Figure

5

Former Shell Service Station
1230 14th Street
Oakland, California

PANGEA

TPHg Distribution in Groundwater
September 1, 2012



EXPLANATION

DP-1	Dual phase extraction (DPE) well
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VMP-1	Vapor monitoring point
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VW/MW-4	Combination soil vapor extraction well/monitoring well
VW/AS-3	Destroyed Well
GW	Estimated groundwater flow direction
300	Benzene in groundwater, concentrations in µg/L
100	Benzene isoconcentration contour in groundwater, concentrations in µg/L

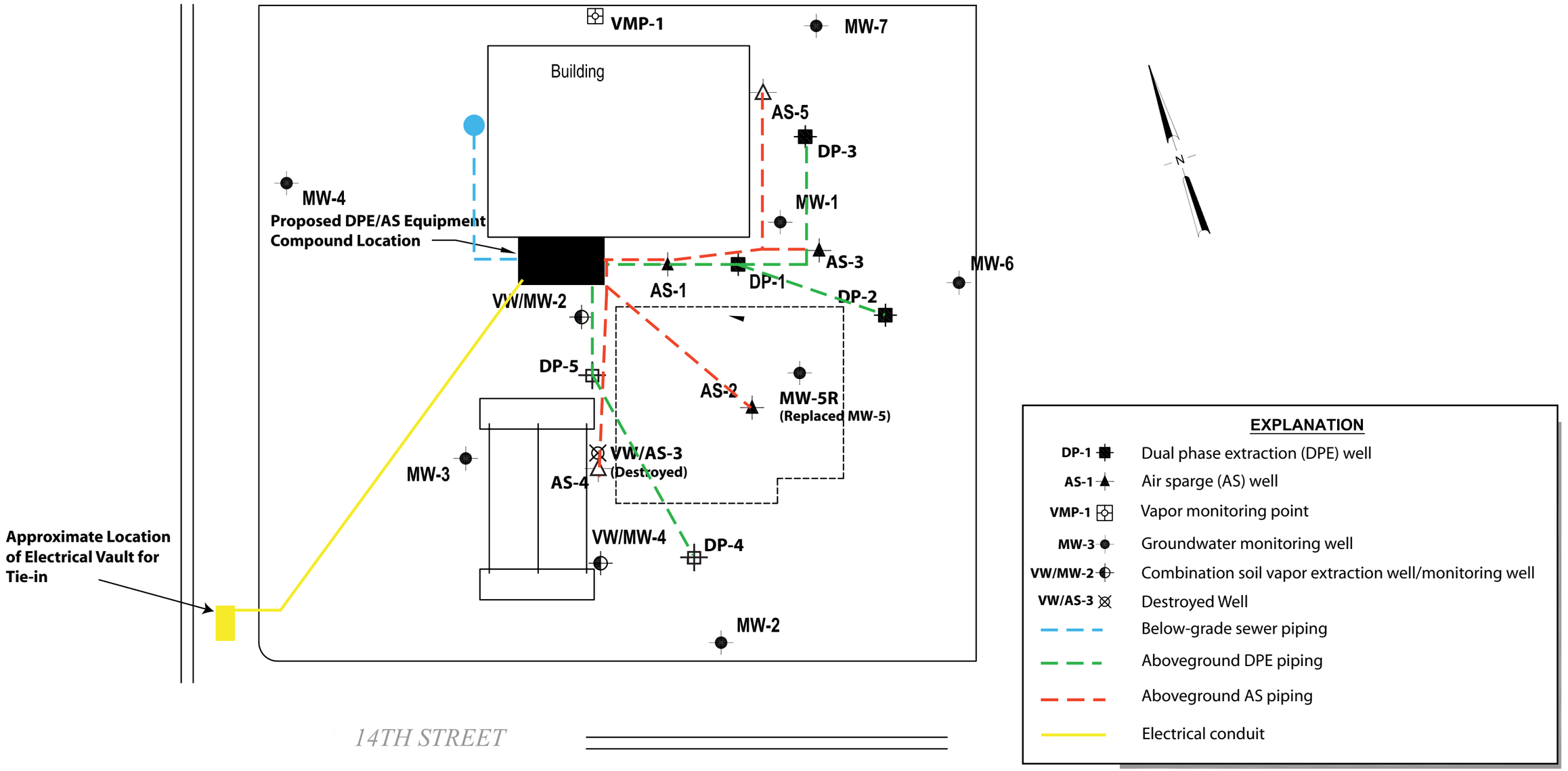
Figure

6

Former Shell Service Station
1230 14th Street
Oakland, California

PANGEA

Benzene Distribution in Groundwater
September 1, 2012



FIGURE

7

Former Shell Service Station
1230 14th Street
Oakland, California

PANGEA

Remediation System Layout

Pangea

Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
REMEDIATION WELLS										
AS-1	07/02/08	12.08	--	28,000	390	350	620	2,500	<500	--
	08/18/08	13.05	--	1,500	12	6.1	6.7	91	<17	1.94/2.41
	11/20/08	13.69	--	640	2.4	2.7	1.0	8.5	<5.0	2.51/2.91
	02/18/09	12.09	--	270	1.1	2.2	<0.5	<0.5	<5.0	2.94/2.99
	05/26/09	11.40	--	250	1.7	0.70	<0.5	3.5	<5.0	3.01/2.94
	11/23/09	13.38	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.94/2.65
	05/26/10	10.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.6/2.78
	12/30/10					Well Inaccessible				
19.69	05/23/11					Well Inaccessible				
	12/27/11	14.02	5.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.69/0.75
	06/30/12	**24.29**	**-4.60**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**
AS-2	07/02/08	11.98	--	9,600	380	620	170	1,000	<50	--
19.22										
AS-3	07/02/08	12.42	--	2,800	340	7.2	20	37	<50	--
19.5										
AS-4	04/16/10	8.82	---	31,000	1,300	330	400	6,600	<500	--
18.93										
AS-5	04/16/10	10.03	---	120	2.5	1.3	1.2	17	<5.0	--
19.99										
DP-1	07/03/08	12.43	--	34,000	5,100	1,800	1,300	4,900	<350	--
18.49	12/27/11	13.03	5.46	41,000	4,400	1,200	780	4,600	<1,000	0.83/0.91
	06/30/12	**11.25**	**7.24**	**2,800**	**66**	**41**	**43**	**420**	**<50**	**0.08**
	09/01/12	**13.63**	**4.86**	**7,300**	**360**	**180**	**68**	**1,700**	**<250**	**2.09**
DP-2	07/03/08	12.92	--	15,000	2,800	300	560	1,600	<150	--
19.04	12/27/11	13.57	5.47	9,100	820	46	320	790	<80	0.60/0.58
	09/01/12	**13.83**	**5.21**	**2,300**	**100**	**17**	**61**	**440**	**<50**	**1.17**
DP-3	07/02/08	13.21	--	14,000	4,400	100	720	150	<350	--
19.35	12/27/11	13.92	5.43	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.59/0.66
DP-4	04/16/10	8.95	--	4,700	300	45	260	570	<100	--
18.21	12/27/11	12.57	5.64	4,500	430	48	67	150	<300	0.79/0.80
	09/01/12	**12.26**	**5.95**	**590**	**3.6**	**15**	**2.6**	**140**	**<5.0**	**1.21**
DP-5	04/16/10	9.11	--	19,000	810	1,900	680	3,100	<350	--
18.36	12/27/11	12.78	5.58	2,300	1900	1,700	960	3,000	<500	0.66/0.63
	06/30/12	**10.85**	**7.51**	**4,600**	**350**	**240**	**83**	**470**	**<50**	**0.14**
	09/01/12	**13.51**	**4.85**	**8,100**	**270**	**910**	**180**	**1,700**	**<50**	**0.29**
GROUNDWATER AND/OR REMEDIATION WELLS										
MW-1	03/25/96	9.53	9.05	37,000	7,400	1,500	720	3,300	<500	--
18.58	06/21/96	10.72	7.86	35,000	9,900	460	340	3,500	890	--
	09/26/96	12.88	5.70	19,000	8,200	510	780	790	<250	--
	12/19/96	12.59	5.99	27,000	120	1,200	1,400	2,800	<100	--
	12/19/96	12.59	5.99	32,000	12,000	1,300	1,600	3,100	830	--
	03/25/97	11.10	7.48	39,000	13,000	1,600	840	3,100	730	1.2
	06/26/97	12.42	6.16	--	--	--	--	--	--	'--
	09/26/97	13.31	5.27	--	--	--	--	--	--	0.8
	12/05/97	12.65	5.93	--	--	--	--	--	--	0.3
	02/19/98	6.46	12.12	16,000	5,500	450	500	800	<500	2.4
	06/08/98	6.62	11.96	--	--	--	--	--	--	1.2

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Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(MW-1 cont'd)	08/25/98	11.83	6.75	--	--	--	--	--	--	2.8
	12/28/98	12.01	6.57	--	--	--	--	--	--	2.6
	03/26/99	9.15	9.43	--	--	--	--	--	--	2.2
	06/30/99	11.22	7.36	--	--	--	--	--	--	3.8
	09/30/99	11.89	6.69	--	--	--	--	--	--	3.0
	12/27/99	13.55	5.03	34,800	8,660	953	956	2,770	<1,000	2.4/2.1
	01/21/00	13.42	5.16	40,600	14,700	1,850	1,210	3,670	<500	2.8
	03/07/00	8.11	10.47	--	--	--	--	--	--	0.4
	04/17/00	9.78	8.80	--	--	--	--	--	--	3.0/3.4
	04/18/00	--	--	18,300	8,060	543	528	872	<50.0	--
	09/21/00	13.11	5.47	--	--	--	--	--	--	5.2
	10/17/00	12.61	5.97	15,800	6,720	435	587	887	351(<66.7)	1.2/0.8
	01/09/01	12.94	5.64	--	--	--	--	--	--	0.3
	04/27/01	10.73	7.85	1,400	650	28	58	48	(<10)	1.8/2.1
	07/03/01	12.00	6.58	--	--	--	--	--	--	1.8
	12/06/01	10.53	8.05	4,500	1,500	85	160	210	(<50)	2.5/2.9
	01/23/02	9.33	9.25	--	--	--	--	--	--	0.1
	04/17/02	10.49	8.09	230	12	<0.50	4.6	2.5	(<5.0)	6.3/5.3
	07/18/02	11.98	6.60	--	--	--	--	--	--	1.2
	11/11/02	13.00	5.58	12,000	2,600	240	470	640	(-8.5)	0.2/0.2
	01/16/03	9.68	8.90	--	--	--	--	--	--	4.4
	03/13/03	10.45	8.13	820	340	2.7	<2.0	3.2	(<20)	2.8/0.9
	04/23/03	10.32	8.26	900	550	19	49	49	(<50)	0.9/0.1
	05/13/03	10.28	8.30	740	510	18	43	46	(<50)	0.1/0.2
	06/13/03	11.16	7.42	<5,000	1,500	82	180	250	(<500)	0.3/0.8
	07/14/03	11.66	6.92	5,300	3,400	160	340	420	(<20)	0.6/0.3
	09/29/03	12.44	6.14	10,000	5,700	400	670	1,000	(<50)	0.6/0.7
	10/29/03	12.63	5.95	19,000	6,600	560	820	1,300	(26)	0.6/0.4
	01/05/04	10.17	8.41	380	140	7.1	6.2	16	(<1.0)	5.0/0.8
	04/01/04	9.57	9.01	79	0.59	<0.50	<0.50	<1.0	(<0.50)	4.6/1.2
	07/02/04	11.81	6.77	4,100	2,100	33	110	81	(<10)	0.6/0.5
	11/03/04	12.53	6.05	8,000	3,800	150	480	460	(<25)	1.45/2.1
	01/04/05	9.39	9.19	120	23	1.6	2.0	3.5	(<0.50)	4.21/2.82
	04/13/05	7.63	10.95	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	2.44/2.77
	07/13/05	10.85	7.73	930 e	400	6.1	<5.0	10	(<5.0)	0.84/0.66
	10/28/05	12.44	6.14	8,300	5,500	190	590	470	(<25)	0.2/0.2
	01/17/06	8.61	9.97	<50	2.2	1.1	1.4	4.8	(<0.50)	5.8/5.3
	02/23/06	9.60	8.98	--	18.1	2.22	1.89	4.50	--	--
	03/09/06	7.65	10.93	--	1.80	<0.500	<0.500	1.82	--	--
	04/21/06	6.35	12.23	<50.0	1.54	1.03	4.20	5.82	(<0.500)	--
	05/01/06	7.38	11.20	268	41.3	4.62	3.83	26.1	(<0.500)	0.27/0.36
	06/23/06	10.09	8.49	3,990	362	13.1	12.4	71.5	(<0.500)	--
	07/11/06	10.09	8.49	6,190	3,740	52.0	67.8	982	(<0.500)	--
	08/30/06	11.55	7.03	29,200	7,380	596	443	1,680	(4.45)	0.39/0.52
	09/29/06	11.97	6.61	76,100	9,300	859 i	1,290	2,820 i	(<5.00)	--
	10/13/06	12.08	6.50	49,500	7,580	770	1,030	2,860	(2.75)	--
	11/03/06	12.47	6.11	42,600	8,450	592	869	1,970	(2.69)	2.60/1.15
	12/26/06	11.80	6.78	19,000	4,600	360	640	1,300	(<5.0)	--
	01/11/07	11.84	6.74	23,000	6,000	320	780	1,100	(<25)	--
	01/30/07	12.18	6.40	3,700	890	74	170	220	(<25)	1.18/0.76
	03/01/07	10.74	7.84	2,600	670	32	41	180	(<10)	--
	04/26/07	10.90	7.68	12,000 k,l	2,800	220	400	560	(<20)	--
	06/01/07	11.49	7.09	15,000 k	3,900	380	670	1,010	(1.8)	0.31/0.43
	06/21/07	12.07	6.51	13,000 k	3,800	400	620	1,060	(<50)	--
	07/03/07	12.00	6.58	21,000 k	6,100	510	960	1,760	(<50)	--
	08/16/07	12.55	6.03	20,000 k	5,800	460	1,100	1,730	(<50)	0.3/0.2
	12/06/07	13.00	5.58	53,000	9,400	560	1,400	3,000	(<25)	--
	02/25/08	9.91	8.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.74

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(MW-1 cont'd)	05/26/08	11.90	6.68	9,300	2,200	67	140	130	<250	1.96/1.13
	08/18/08	12.82	5.76	15,000	3,300	110	380	430	<250	0.97/0.77
	11/20/08	13.46	5.12	18,000	4,700	190	770	910	<100	1.04/1.27
	02/18/09	11.77	6.81	2,200	54	8.7	45	76	<10	1.21/1.40
	05/26/09	11.18	7.40	750	31	7.1	3.5	23	<5.0	0.90/1.21
	11/23/09	13.15	5.43	6,300	2,100	53	170	180	<250	1.12/1.85
	05/26/10	10.74	7.84	550	96	6.2	3.1	14	<10	0.86/1.13
	12/30/10	10.53	8.05	280	40	4.6	2.8	17	<5.0	0.88/1.07
	05/23/11	10.21	8.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.68
	12/27/11	13.15	5.43	6,900	140	51	54	370	<50	1.03/1.13
	06/30/12	**11.67**	**6.91**	**260**	**0.58**	**0.99**	**3.4**	**13**	**<5.0**	**6.18**
	09/01/12	**13.56**	**5.02**	**220**	**0.60**	**1.0**	**7.8**	**13**	**<5.0**	**4.22**
MW-2	03/25/96	8.19	9.71	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
17.90	06/21/96	9.94	7.96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	09/26/96	12.15	5.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	12/19/96	11.70	6.20	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	03/25/97	9.25	8.65	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	06/26/97	11.36	6.54	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	09/26/97	12.56	5.34	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.1
	09/26/97	12.56	5.34	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.1
	12/05/97	11.15	6.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.7
	02/19/98	5.61	12.29	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.7
	06/08/98	5.58	12.32	<50	<0.30	<0.30	<0.30	<0.60	<10	3.2
	08/25/98	10.67	7.23	--	--	--	--	--	--	1.7
	12/28/98	11.65	6.25	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	0.4/0.8
	03/26/99	8.60	9.30	--	--	--	--	--	--	0.7
	06/30/99	10.30	7.60	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	2.3
	09/30/99	10.77	7.13	--	--	--	--	--	--	1.9
	12/27/99	12.21	5.69	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	0.7/0.7
	03/07/00	7.13	10.77	--	--	--	--	--	--	1.1
	04/17/00	8.35	9.55	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.8/1.8
	09/21/00	11.76	6.14	--	--	--	--	--	--	2.1
	10/17/00	11.80	6.10	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.9/0.6
	01/09/01	12.14	5.76	--	--	--	--	--	--	0.7
	04/27/01	9.85	8.05	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	1.1/0.9
	07/03/01	11.20	6.70	--	--	--	--	--	--	1.2
	12/06/01	10.77	7.13	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	3.9/2.1
	01/23/02	8.64	9.26	--	--	--	--	--	--	2.5
	04/17/02	9.61	8.29	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	3.5/5.2
	07/18/02	11.09	6.81	--	--	--	--	--	--	1.4
	11/11/02	12.16	5.74	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	0.2/0.3
	01/16/03	8.92	8.98	--	--	--	--	--	--	1.7
	03/13/03	9.60	8.30	--	--	--	--	--	--	1.1
	04/23/03	9.48	8.42	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.4/0.2
	05/13/03	9.45	8.45	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.5/0.3
	06/13/03	10.28	7.62	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.6/0.9
	07/14/03	10.67	7.23	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	0.5/.09
	09/29/03	11.58	6.32	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.9/1.3
	10/29/03	11.76	6.14	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	4.3/0.5
	01/05/04	9.36	8.54	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.2/0.8
	04/01/04	8.77	9.13	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	4.0/0.3
	07/02/04	11.04	6.86	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	0.4/0.3
	11/03/04	11.71	6.19	<50	<0.50	<0.50	<0.50	<1.0	(0.54)	6.4/1.40
	01/04/05	8.68	9.22	<50	<0.50	<0.50	<0.50	<1.0	(0.62)	4.41/2.88
	04/13/05	7.13	10.77	<50	<0.50	<0.50	<0.50	<0.50	(1.7)	0.71/0.23
	07/13/05	10.30	7.60	<50	<0.50	<0.50	<0.50	<1.0	(2.3)	0.90/0.33
	10/28/05	11.61	6.29	<50	<0.50	<0.50	<0.50	<1.0	(4.2)	0.4/0.1

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(MW-2 cont'd)	01/17/06	8.21	9.69	<50	<0.50	<0.50	<0.50	<0.50	(5.0)	0.8/0.2
	03/09/06	7.70	10.20	--	--	--	--	--	--	--
	04/21/06	5.83	12.07	--	--	--	--	--	--	--
	05/01/06	6.34	11.56	<50.0	<0.500	<0.500	<0.500	<0.500	(4.33)	0.52/0.18
	08/30/06	10.71	7.19	<50.0	<0.500	<0.500	<0.500	<0.500	(1.98)	0.51/1.04
	09/29/06	11.03	6.87	--	--	--	--	--	--	--
	11/03/06	11.62	6.28	<50.0	<0.500	<0.500	<0.500	<0.500	(3.08)	0.44/0.40
	01/30/07	11.30	6.60	<50	<0.50	<0.50	<0.50	<1.0	(2.9)	0.92/0.63
	06/01/07	10.52	7.38	<50 k	0.71	<1.0	0.20 m	0.39 m	(1.7)	0.71/0.56
	08/16/07	11.60	6.30	<50 k	<0.50	<1.0	<1.0	<1.0	(1.3)	0.5/0.2
	12/06/07	12.39	5.51	<50	0.97	<0.5	0.56	1.5	(0.99)	--
	02/25/08	9.15	8.75	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.82
	05/26/08	11.02	6.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.86/1.32
	08/18/08	11.97	5.93	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.45/1.12
	11/20/08	12.64	5.26	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.10/1.16
	02/18/09	11.14	6.76	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.98/1.11
	05/26/09	10.31	7.59	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.03/1.49
	11/23/09	12.32	5.58	--	--	--	--	--	--	--
	05/26/10	9.92	7.98	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.99/1.43
	12/30/10	9.80	8.10	--	--	--	--	--	--	--
	05/23/11	9.37	8.53	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.48
	12/27/11	12.31	5.59	--	--	--	--	--	--	--
	06/30/12	**10.49**	**7.41**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**3.46**
MW-3	03/25/96	8.47	9.71	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
18.18	06/21/96	10.40	7.78	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	09/26/96	12.45	5.73	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	12/19/96	12.14	6.04	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	03/25/97	9.54	8.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	06/26/97	11.66	6.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.6
	09/26/97	12.85	5.33	<50	<0.50	<050	<0.50	<0.50	<2.5	1.1
	12/05/97	11.44	6.74	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.6
	02/19/98	6.78	11.40	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.6
	06/08/98	6.82	11.36	<50	<0.30	<0.30	<0.30	<0.60	<10	3.8
	06/08/98	6.82	11.36	<50	<0.30	<0.30	<0.30	<0.60	<10	3.8
	08/25/98	11.09	7.09	--	--	--	--	--	--	1.2
	12/28/98	11.84	6.34	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	0.9/0.6
	03/26/99	8.57	9.61	--	--	--	--	--	--	0.8
	06/30/99	10.61	7.57	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	4.8
	09/30/99	11.53	6.65	--	--	--	--	--	--	1.4
	12/27/99	12.35	5.83	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	1.4/2.5
	03/07/00	7.36	10.82	--	--	--	--	--	--	5.8
	04/17/00	8.39	9.79	<50.0	<0.500	<0.500	<0.500	<0.500	19.3	6.5/5.1
	09/21/00	12.01	6.17	--	--	--	--	--	--	3.0
	10/17/00	12.10	6.08	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	2.0/1.0
	01/09/01	12.43	5.75	--	--	--	--	--	--	1.9
	04/27/01	10.10	8.08	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	2.3/2.4
	07/03/01	11.45	6.73	--	--	--	--	--	--	1.4
	12/06/01	11.07	7.11	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	2.8/3.9
	01/23/02	8.89	9.29	--	--	--	--	--	--	3.1
	04/17/02	9.92	8.26	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	3.7/3.2
	07/18/02	11.42	6.76	--	--	--	--	--	--	1.6
	11/11/02	12.44	5.74	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	0.3/0.4
	01/16/03	9.25	8.93	--	--	--	--	--	--	2.1
	03/13/03	9.84	8.34	--	--	--	--	--	--	1.2
	04/23/03	9.71	8.47	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.7/0.2
	05/13/03	9.70	8.48	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.6/0.2
	06/13/03	10.58	7.60	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.4/1.3

Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(MW-3 cont'd)	07/14/03	10.98	7.20	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	0.4/.03
	09/29/03	11.84	6.34	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.4/1.1
	10/29/03	12.05	6.13	58 b	<0.50	<0.50	<0.50	<1.0	(<0.50)	0.8/0.4
	01/05/04	9.70	8.48	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.3/0.7
	04/01/04	9.03	9.15	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.2/0.6
	07/02/04	11.15	7.03	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	0.7/0.5
	11/03/04	11.98	6.20	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.65/2.75
	01/04/05	8.98	9.20	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	3.21/1.87
	04/13/05	7.22	10.96	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	4.92/5.28
	07/13/05	10.30	7.88	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	0.30/0.40
	10/28/05	11.81	6.37	<50 f	<0.50	<0.50	<0.50	<1.0	(<0.50)	0.8/0.2
	01/17/06	8.17	10.01	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	3.1/2.0
	03/09/06	6.45	11.73	--	--	--	--	--	--	--
	04/21/06	5.96	12.22	--	--	--	--	--	--	--
	05/01/06	6.40	11.78	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500(<0.500)	0.68/0.42
	08/30/06	10.95	7.23	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500(<0.500)	3.53/3.14
	09/29/06	11.40	6.78	--	--	--	--	--	--	--
	11/03/06	11.91	6.27	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500(<0.500)	7.0/6.8
	01/30/07	11.55	6.63	<50	<0.50	<0.50	<0.50	<1.0	<0.50(<0.50)	1.45/1.10
	06/01/07	10.86	7.32	<50 k	0.34 m	<1.0	<1.0	<1.0	<1.0(<1.0)	0.62/0.56
	08/16/07	11.87	6.31	<50 k	<0.50	<1.0	<1.0	<1.0	<1.0(<1.0)	0.2/0.2
	12/06/07	14.43	3.75	<50	1.8	1.0	0.90	4.4	(<0.5)	--
	02/25/08	9.37	8.81	<50	<0.5	<0.5	<0.5	<0.5	<5.0	4.91
	05/26/08	11.31	6.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.79/2.01
	08/18/08	12.28	5.90	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.57/1.52
	11/20/08	12.84	5.34	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.24/1.68
	02/18/09	11.45	6.73	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.16/1.38
	05/26/09	10.62	7.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.21/1.40
	11/23/09	12.59	5.59	--	--	--	--	--	--	--
	05/26/10	10.17	8.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.29/1.38
	12/30/10	10.08	8.10	--	--	--	--	--	--	--
	05/23/11	9.63	8.55	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.52
	12/27/11	12.58	5.60	--	--	--	--	--	--	--
	06/30/12	**10.60**	**7.58**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**2.53**
MW-4	03/25/96	9.20	8.81	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
18.01	06/21/96	10.25	7.76	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	09/26/96	12.29	5.72	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	12/19/96	12.47	5.54	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	03/25/97	9.44	8.57	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	06/26/97	11.57	6.44	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.2
	06/26/97	11.57	6.44	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.2
	09/26/97	12.75	5.26	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.1
	12/05/97	11.37	6.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	12/05/97	11.37	6.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	02/19/98	5.59	12.42	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.5
	06/08/98	5.65	12.36	<50	<0.30	<0.30	<0.30	<0.60	<10	2.6
	08/25/98	10.98	7.03	--	--	--	--	--	--	2.4
	12/28/98	11.83	6.18	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	1.3/1.2
	03/26/99	8.40	9.61	--	--	--	--	--	--	1.9
	06/30/99	10.53	7.48	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	7.6
	09/30/99	11.03	6.98	--	--	--	--	--	--	2.6
	12/27/99	12.53	5.48	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	1.9/0.8
	03/07/00	7.00	11.01	--	--	--	--	--	--	6.5
	04/17/00	8.57	9.44	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	5.1/5.1
	09/21/00	12.05	5.96	--	--	--	--	--	--	3.0
	10/17/00	11.96	6.05	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	5.5/1.2
	01/09/01	12.33	5.68	--	--	--	--	--	--	2.1

Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(MW-4 cont'd)	04/27/01	9.96	8.05	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	5.3/3.8
	07/03/01	11.35	6.66	--	--	--	--	--	--	4.5
	12/06/01	10.99	7.02	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	10.23/6.5
	01/23/02	8.80	9.21	--	--	--	--	--	--	8.8
	04/17/02	9.75	8.26	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	7.0/5.1
	07/18/02	11.32	6.69	--	--	--	--	--	--	5.3
	11/11/02	12.36	5.65	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	3.6/2.0
	01/16/03	10.33	7.68	--	--	--	--	--	--	6.5
	03/13/03	10.06	7.95	--	--	--	--	--	--	6.5
	04/23/03	9.57	8.44	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	5.1/5.7
	05/13/03	9.55	8.46	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	2.0/2.5
	06/13/03	10.50	7.51	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	5.0/5.6
	07/14/03	10.86	7.15	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	3.9/4.2
	09/29/03	11.74	6.27	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.6/1.4
	10/29/03	11.95	6.06	58 b	<0.50	<0.50	<0.50	<1.0	(<0.50)	2.4/1.0
	01/05/04	10.35	7.66	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	7.4/7.5
	04/01/04	8.81	9.20	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	6.0/6.4
	07/02/04	11.10	6.91	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	0.8/0.6
	11/03/04	11.85	6.16	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.3/2.84
	01/04/05	9.06	8.95	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	7.12/6.37
	04/13/05	6.84	11.17	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	5.81/5.66
	07/13/05	10.20	7.81	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.87/3.75
	10/28/05	11.75	6.26	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.4/0.8
	01/17/06	8.00	10.01	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	6.4/6.2
	03/09/06	6.55	11.46	--	--	--	--	--	--	--
	04/21/06	5.45	12.56	--	--	--	--	--	--	--
	05/01/06	6.14	11.87	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.50)	1.09/0.72
	08/30/06	10.82	7.19	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.50)	4.31/4.35
	09/29/06	11.29	6.72	--	--	--	--	--	--	--
	11/03/06	11.81	6.20	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.50)	3.30/2.40
	01/30/07	11.45	6.56	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.67/0.94
	06/01/07	10.72	7.29	67 k	<0.50	<1.0	<1.0	<1.0	(<1.0)	0.93/0.81
	08/16/07	11.81	6.20	<50 k	<0.50	<1.0	<1.0	<1.0	(<1.0)	0.5/1.3
	12/06/07	12.34	5.67	<50	<0.5	<0.5	<0.5	<0.5	(<0.5)	--
	02/25/08	9.03	8.98	<50	<0.5	<0.5	<0.5	<0.5	<5.0	6.84
	05/26/08	11.23	6.78	<50	<0.5	<0.5	<0.5	<0.5	<5.0	6.59/5.22
	08/18/08	12.20	5.81	<50	<0.5	<0.5	<0.5	<0.5	<5.0	7.99/2.89
	11/20/08	12.83	5.18	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.51/3.18
	02/18/09	11.23	6.78	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.90/3.15
	05/26/09	10.47	7.54	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.78/2.85
	11/23/09	12.51	5.50	--	--	--	--	--	--	--
	05/26/10	10.05	7.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.49/2.12
	12/30/10	10.11	7.90	--	--	--	--	--	--	--
	05/23/11	9.49	8.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	4.13
	12/27/11	12.48	5.53	--	--	--	--	--	--	--
	06/30/12	**10.94**	**7.07**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**4.01**
MW-5	12/03/01	11.86	6.61	--	--	--	--	--	--	--
18.47	12/06/01	11.40	7.07	31,000	3,000	2,000	1,100	3,000	(<50)	3.1/3.2
	01/23/02	9.24	9.23	--	--	--	--	--	--	0.9
	04/17/02	10.35	8.12	33,000	3,800	2,400	1,300	4,400	(<200)	5.3/3.8
	07/18/02	11.82	6.65	--	--	--	--	--	--	0.8
	11/11/02	12.86	5.61	100,000	7,100	12,000	3,000	17,000	(5.10)	1.2/1.4
	01/16/03	9.57	8.90	--	--	--	--	--	--	0.0
	03/13/03	10.30	8.17	33,000	2,800	2,200	980	4,600	(<100)	0.5/0.3
	04/07/03	10.29	8.18	--	--	--	--	--	--	--
	04/23/03	10.15	8.32	33,000	2,900	3,100	960	5,800	(<250)	0.1/0.1
	05/13/03	10.12	8.35	30,000	2,600	1,500	850	4,500	(<250)	0.4/0.3

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Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(MW-5 cont'd)	06/13/03	11.00	7.47	33,000	3,400	2,300	1,000	4,400	(<500)	0.3/0.3
	07/14/03	11.39	7.08	41,000	5,100	3,500	1,400	5,100	(<50)	0.5/0.5
	09/29/03	12.24	6.23	59,000	6,600	4,200	1,500	6,500	(<50)	0.6/0.5
	10/29/03	12.45	6.02	45,000	6,800	3,500	1,500	6,400	(21)	0.5/0.3
	01/05/04	9.97	8.50	26,000	4,900	1,700	1,100	3,300	(<50)	0.9/1.2
	04/01/04	9.43	9.04	29,000	5,300	2,700	880	2,900	(<50)	0.3/1.0
	07/02/04	11.62	6.85	19,000	5,300	740	1,100	1,400	(<50)	0.4/0.5
	11/03/04	12.26	6.21	31,000	7,500	2,300	1,400	4,400	(<50)	2.5/1.9
	01/04/05	9.13	9.34	18,000	3,500	1,200	730	2,300	(<25)	0.44/1.64
	04/13/05	7.60	10.87	7,000	100	460	180	880	(<1.0)	0.17/0.45
	07/13/05	10.63	7.84	9,400	2,400	840	440	1,100	(<13)	0.13/0.27
	10/28/05	12.14	6.33	28,000	16,000	2,900	1,400	3,100	(<50)	0.3/1.3
	01/17/06	8.52	9.95	6,700	1,200	720	400	1,500	(1.3)	0.6/2.6
	02/23/06	9.22	9.25	--	4,630	1,470	709	2,310	--	--
	03/09/06	7.15	11.32	--	474	90.3	63.3	169	--	--
	04/21/06	5.82	12.65	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	05/01/06	7.23	11.24	779	6.77	41.1	20.0	130	(<0.500)	0.39/1.52
	06/23/06	10.06	8.41	22,600	2,830	557	469	1,210	(<0.500)	--
	07/11/06	10.06	8.41	31,100	3,880	2,080	857	3,700	(<0.500)	--
	08/30/06	11.32	7.15	28,200	4,840	1,320	705	2,430	(5.35)	0.47/3.64
	09/29/06	11.81	6.66	94,900	10,100	2,960	1,810	5,310 i	(7.20)	--
	10/13/06	12.01	6.46	48,200	7,710	1,360	1,250	3,460	(5.64)	--
	11/03/06	12.31	6.16	50,600	11,300	1,730	1,250	3,840	(<0.500)	0.60/4.10
	12/26/06	11.58	6.89	32,000	11,000	780	1,200	2,800	(<10)	--
	01/11/07	11.61	6.86	35,000	11,000	1,100	1,200	3,100	(<50)	--
	01/30/07	11.95	6.52	27,000	9,800	610	860	2,400	(<50)	0.87/0.62
	03/01/07	10.95	7.52	23,000	9,400	640	1,200	3,100	(<50)	--
	04/26/07	10.69	7.78	48,000 k,l	14,000	1,300	1,600	3,600	(<100)	--
	06/01/07	11.25	7.22	54,000 k	15,000	2,800	2,200	6,100	(<100)	0.44/0.87
	06/21/07	11.96	6.51	32,000 k	12,000	1,200	1,400	2,780	(<100)	--
	07/03/07	11.81	6.66	41,000 k	15,000	1,800	1,900	4,050	(<100)	--
	08/16/07	12.36	6.11	43,000 k,l	13,000	2,000	2,000	4,150	(<100)	0.6/0.1
	12/06/07	12.81	5.66	37,000	7,900	640	1,100	1,500	(<17)	--
	02/25/08	9.75	8.72	3,000	640	9.7	52	77	20	2.19
	05/26/08	11.69	6.78	39,000	9,600	1,100	1,400	2,400	<250	1.10/1.52
	06/27/08	MW-5 drilled out and replaced with MW-5R								
MW-5R	07/02/08	11.91	--	22,000	4,100	710	750	2,300	<250	--
	08/18/08	12.59	--	27,000	3,100	340	780	2,100	<100	0.57/3.23
	11/20/08	13.24	--	23,000	5,200	470	1,200	1,500	<250	0.83/2.50
	02/18/09	11.58	--	32,000	4,500	610	990	1,400	<500	1.04/2.11
	05/26/09	10.92	--	15,000	3,500	520	680	1,500	<200	0.85/1.05
	11/23/09	12.92	--	15,000	3,200	350	560	940	<250	0.98/2.30
	05/26/10	10.51	--	15,000	3,400	310	460	1,300	<350	0.88/0.95
	12/30/10	10.35	--	11,000	3,400	190	360	620	<250	0.89/1.02
18.40	05/23/11	9.98	8.42	7,000	1,000	49	320	190	<150	0.03
	12/27/11	12.92	5.48	9,900	1,100	160	480	740	<250	0.32/0.47
	06/30/12	**12.15**	**6.25**	**3,400**	**300**	**53**	**120**	**150**	**<25**	**2.30**
	09/01/12	**13.64**	**4.76**	**1,200**	**110**	**20**	**51**	**120**	**<10**	**1.94**
MW-6	12/03/01	12.19	6.65	--	--	--	--	--	--	--
18.84	12/06/01	11.70	7.14	76	5.7	3.8	1.4	7.0	(<5.0)	6.3/6.1
	01/23/02	9.57	9.27	--	--	--	--	--	--	8.7
	04/17/02	10.73	8.11	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	9.8/9.1
	07/18/02	12.27	6.57	--	--	--	--	--	--	1.7
	11/11/02	13.24	5.60	580	55	<0.50	<0.50	2.8	(<5.0)	0.3/0.6
	01/16/03	9.89	8.95	--	--	--	--	--	--	6.4
	03/13/03	10.66	8.18	--	--	--	--	--	--	5.5

Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(MW-6 cont'd)	04/23/03	10.57	8.27	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	3.7/4.4
	05/13/03	10.56	8.28	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	3.5/3.0
	06/13/03	11.48	7.36	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	2.7/3.1
	07/14/03	11.83	7.01	230 b	3.4	<0.50	<0.50	<1.0	(<0.50)	1.8/1.3
	09/29/03	12.70	6.14	910 b	46	<2.5	<2.5	<5.0	(<2.5)	1.1/1.0
	10/29/03	12.91	5.93	830	38	0.53	<0.50	3.3	(0.60)	1.2/0.9
	01/05/04	10.35	8.49	93	0.92	<0.50	<0.50	<1.0	(<0.50)	6.2/4.3
	04/01/04	9.80	9.04	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	3.5/3.4
	07/02/04	12.09	6.75	370	3.0	<0.50	<0.50	<1.0	(<0.50)	0.6/1.0
	11/03/04	12.84	6.00	540	22	0.73	<0.50	1.5	(0.82)	2.28/0.84
	01/04/05	9.55	9.29	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	6.71/5.16
	04/13/05	7.89	10.95	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	2.99/2.87
	07/13/05	11.13	7.71	170	6.2	1.1	<0.50	<1.0	(0.71)	0.10/1.32
	10/28/05	12.74	6.10	490	22	<0.50	<0.50	<1.0	(<0.50)	0.6/0.3
	01/17/06	8.80	10.04	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	5.3/4.9
	02/23/06	9.54	9.30	--	<0.500	<0.500	<0.500	<0.500	--	--
	03/09/06	7.25	11.59	--	<0.500	<0.500	<0.500	<0.500	--	--
	04/21/06	6.34	12.50	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	05/01/06	7.32	11.52	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	0.72/0.63
	06/23/06	10.12	8.72	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	07/11/06	10.12	8.72	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	08/30/06	11.79	7.05	<50.0	3.32	<0.500	<0.500	<0.500	(<0.500)	0.80/0.86
	09/29/06	12.32	6.52	<50.0	1.59	<0.500	<0.500	<0.500	(<0.500)	--
	10/13/06	12.38	6.46	934	3.14	<0.500	<0.500	<0.500	(<0.500)	--
	11/03/06	12.77	6.07	112	10.6	<0.500	<0.500	<0.500	(<0.500)	3.80/1.10
	12/26/06	12.05	6.79	690	62	<0.50	<0.50	4.5	(<0.50)	--
	01/11/07	12.12	6.72	660	11	<0.50	<0.50	2.3	(<0.50)	--
	01/30/07	12.44	6.40	310	1.5	<0.50	<0.50	<1.0	(<0.50)	1.47/0.81
	03/01/07	10.97	7.87	360	3.6	<0.50	<0.50	0.87	(<0.50)	--
	04/26/07	11.18	7.66	210 k	0.72	<1.0	<1.0	<1.0	(<1.0)	--
	06/01/07	11.72	7.12	640 k	3.1	<1.0	<1.0	0.27 m	(<1.0)	0.69/0.50
	06/21/07	12.22	6.62	390 k	3.0	<1.0	<1.0	0.17 m	(<1.0)	--
	07/03/07	12.22	6.62	360 k	3.0	<1.0	0.36 m	1.2	(<1.0)	--
	08/16/07	12.74	6.10	400 k,l	2.8	<1.0	<1.0	<1.0	(<1.0)	0.4/0.1
	12/06/07	13.24	5.60	130	<0.5	1.6	<0.5	<0.5	(<0.5)	--
	02/25/08	10.26	8.58	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.81
	05/26/08	12.20	6.64	<50	1.1	0.88	<0.5	<0.5	<5.0	6.77/6.59
	08/18/08	13.10	5.74	160	11	2.4	<0.5	0.57	<5.0	1.13/3.35
	11/20/08	13.73	5.11	120	1.1	1.7	<0.5	0.68	<5.0	0.98/2.11
	02/18/09	11.95	6.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.70/1.92
	05/26/09	11.46	7.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.72/1.65
	11/23/09	13.42	5.42	220	1.3	2.6	<0.5	1.0	<15	0.91/1.51
	05/26/10	11.04	7.80	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.82/1.49
	12/30/10	10.83	8.01	150	0.73	2.4	<0.5	<0.5	<5.0	1.02/2.19
	05/23/11	10.50	8.34	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.93
	12/27/11	13.42	5.42	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.58/0.64
	06/30/12	**11.74**	**7.10**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**1.47**
	09/01/12	**13.52**	**5.32**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**1.50**
MW-7	12/03/01	12.66	6.54	--	--	--	--	--	--	--
19.20	12/06/01	12.20	7.00	1,800	390	<2.0	6.2	<2.0	(<20)	3.9/3.8
	01/23/02	10.00	9.20	--	--	--	--	--	--	9.4
	04/17/02	11.21	7.99	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	8.8/7.3
	07/18/02	12.69	6.51	--	--	--	--	--	--	0.8
	11/11/02	13.69	5.51	3,000	190	<0.50	<0.50	4.3	(5.2)	0.4/0.8
	01/16/03	10.36	8.84	--	--	--	--	--	--	7.9
	03/13/03	11.16	8.04	--	--	--	--	--	--	5.2
	04/23/03	11.02	8.18	250	48	<0.50	<0.50	<1.0	(<5.0)	3.2/1.3

Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(MW-7 cont'd)	05/13/03	11.00	8.20	1,700	550	<2.5	<2.5	<5.0	(<25)	2.0/1.5
	06/13/03	11.90	7.30	1,500 b	470	<2.5	<2.5	<5.0	(<25)	1.8/1.6
	07/14/03	12.29	6.91	1300 b	1,200	<10	<10	<20	(<10)	0.4/0.2
	09/29/03	13.12	6.08	5,200	1,200	<10	<10	<20	(<10)	0.9/0.9
	10/29/03	13.34	5.86	4,800	1,100	<5.0	<5.0	<10	(8.9)	0.4/0.3
	01/05/04	10.85	8.35	53	6.7	<0.50	<0.50	<1.0	(<0.50)	1.4/2.3
	04/01/04	10.28	8.92	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	5.5/6.2
	07/02/04	12.48	6.72	8,100 d	3,400	<25	<25	<50	(<25)	0.8/0.8
	11/03/04	13.25	5.95	3,700	1,200	<5.0	<5.0	<10	(<5.0)	1.9/0.8
	01/04/05	10.02	9.18	<50	2.0	<0.50	<0.50	<1.0	(<0.50)	6.31/5.71
	04/13/05	8.46	10.74	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	5.87/5.89
	07/13/05	11.57	7.63	1,100	380	9.2	<2.5	37	(<2.5)	0.30/0.33
	10/28/05	13.15	6.05	5,100	2,900	<13	<13	<25	(<13)	0.6/0.9
	01/17/06	9.30	9.90	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	6.4/7.4
	02/23/06	10.03	9.17	--	<0.500	<0.500	<0.500	<0.500	--	--
	03/09/06	7.70	11.50	--	<0.500	<0.500	<0.500	<0.500	--	--
	04/21/06	6.66	12.54	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	05/01/06	7.72	11.48	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	0.67/0.98
	06/23/06	10.55	8.65	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	07/11/06	10.55	8.65	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	08/30/06	12.35	6.85	1,520	150	13.3	5.78	53.0	(0.640)	0.52/0.79
	09/29/06	12.66	6.54	2,420	384	1.80	<0.500	5.44	(0.850)	--
	10/13/06	12.85	6.35	5,980	549	0.540	0.680	11.7	(0.930)	--
	11/03/06	13.73	5.47	3,190	501	<0.500	<0.500	5.38	(0.560)	2.2/1.4
	12/26/06	12.51	6.69	4,600	570	<0.50	44	2.1	(<0.50)	--
	01/11/07	12.55	6.65	3,900	490	<2.5	46	<5.0	(<2.5)	--
	01/30/07	12.89	6.31	2,500	380	<2.5	40	<5.0	(<2.5)	1.37/0.90
	03/01/07	11.45	7.75	2,600	350	<2.5	35	3.5	(<2.5)	--
	04/26/07	11.62	7.58	2,300 k	290	<5.0	31	1.3 m	(<5.0)	--
	06/01/07	12.23	6.97	4,400 k	350	<2.0	19	<2.0	(1.1 m)	0.04/0.71
	06/21/07	12.67	6.53	2,600 k	260	<2.0	12	<2.0	(1.4 m)	--
	07/03/07	12.76	6.44	1,700 k	170	<1.0	7.7	0.86 m	(<1.0)	--
	08/16/07	13.20	6.00	1,900 k	44	<1.0	<1.0	<1.0	(<1.0)	0.5/1.1
	12/06/07	13.73	5.47	510	21	3.1	5.8	14	(1.2)	--
	02/25/08	10.65	8.55	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.11
	05/26/08	12.62	6.58	600	190	2.3	<0.5	<0.5	<35	1.31/3.52
	08/18/08	13.52	5.68	540	71	2.7	<0.5	0.85	<25	1.12/4.75
	11/20/08	14.14	5.06	160	2.2	1.3	<0.5	<0.5	<10	1.46/2.90
	02/18/09	12.48	6.72	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.08/2.70
	05/26/09	11.90	7.30	<50	2.8	0.60	<0.5	<0.5	<5.0	1.02/1.77
	11/23/09	13.85	5.35	230	3.8	3.5	<0.5	<0.5	<30	1.08/2.14
	05/26/10	11.46	7.74	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.88/1.61
	12/30/10	11.18	8.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.91/1.7
	05/23/11	8.98	10.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.91
	12/27/11	13.84	5.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.81/2.02
	06/30/12	**12.29**	**6.91**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**2.92**
VW/MW-2	03/25/96	9.04	9.26	13,000	900	920	180	1,500	<250	--
18.30	06/21/96	10.48	7.82	27,000	4,100	1,100	1,400	3,200	700	--
	09/26/96	12.52	5.78	27,000	5,300	1,900	980	2,200	<500	--
	09/26/96	12.52	5.78	29,000	5,800	2,200	1,100	2,500	<250	--
	12/19/96	12.42	5.88	50,000	6,200	5,100	1,700	5,600	590	--
	03/25/97	9.83	8.47	210	5.6	<0.50	0.52	<0.50	14	2.0
	03/25/97	9.83	8.47	250	1.7	0.58	0.51	<0.50	4.7	2.0
	06/26/97	12.43	5.87	--	--	--	--	--	--	'--
	09/26/97	12.98	5.32	--	--	--	--	--	--	0.9
	12/05/97	12.20	6.10	--	--	--	--	--	--	0.4
	02/19/98	5.83	12.47	<50	1.5	<0.50	<0.50	0.71	<2.5	3.6

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Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(VW/MW-2 cont'd)	06/08/98	5.80	12.50	--	--	--	--	--	--	1.0
	08/25/98	11.72	6.58	--	--	--	--	--	--	4.8
	12/28/98	11.69	6.61	--	--	--	--	--	--	2.7
	03/26/99	8.75	9.55	--	--	--	--	--	--	2.8
	06/30/99	10.72	7.58	--	--	--	--	--	--	4.7
	09/30/99	12.24	6.06	--	--	--	--	--	--	4.9
	12/27/99	13.92	4.38	13,500	1,330	1,310	490	1,400	<250	2.1/1.9
	01/21/00	13.26	5.04	12,100	2,200	1,080	429	1,120	<250	2.8
	03/07/00	7.87	10.43	--	--	--	--	--	--	3.7
	04/17/00	9.65	8.65	--	--	--	--	--	--	3.7/4.1
	04/18/00	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--
	09/21/00	12.75	5.55	--	--	--	--	--	--	6.2
	10/17/00	12.21	6.09	4,070	763	589	214	501	<50.0	0.8/0.7
	01/09/01	12.51	5.79	--	--	--	--	--	--	0.7
	04/27/01	10.21	8.09	80	5.7	<0.50	2.7	4.9	(<0.50)	2.3/2.8
	07/03/01	11.60	6.70	--	--	--	--	--	--	0.6
	12/06/01	11.15	7.15	160	1.7	1.0	1.8	4.6	(<5.0)	3.7/2.3
	01/23/02	9.07	9.23	--	--	--	--	--	--	0.5
	04/17/02	10.11	8.19	<50	2.1	<0.50	<0.50	<0.50	(<5.0)	4.9/4.4
	07/18/02	11.61	6.69	--	--	--	--	--	--	0.9
	11/11/02	12.63	5.67	15,000	1,300	1,300	680	1,800	(<5.0)	0.2/0.2
	01/16/03	9.35	8.95	--	--	--	--	--	--	0.4
	03/13/03	10.09	8.21	--	--	--	--	--	--	0.8
	04/07/03	10.09	8.21	--	--	--	--	--	--	--
	04/23/03	9.95	8.35	1,100	76	29	45	66	(<5.0)	0.8/0.3
	05/13/03	9.90	8.40	1,200	38	16	16	24	(<5.0)	0.2/0.2
	06/13/03	10.80	7.50	9,600	1,300	1,100	440	890	(<250)	0.2/0.5
	07/14/03	11.20	7.10	11,000	1,300	1,800	430	1,500	(<5.0)	0.5/0.5
	09/29/03	12.05	6.25	12,000	860	980	410	1,100	(<10)	0.4/0.4
	10/29/03	12.29	6.01	12,000	1,100	940	530	1,200	(<10)	0.7/0.3
	01/05/04	9.82	8.48	190 b	<0.50	<0.50	<0.50	<1.0	(<0.50)	2.8/1.8
	04/01/04	9.24	9.06	410	1.4	0.54	1.6	1.0	(<0.50)	1.7/0.1
	07/02/04	11.33	6.97	5,500	440	370	170	410	(<2.5)	0.5/0.4
	11/03/04	12.14	6.16	3,800	260	210	150	600	(<2.5)	0.9/1.4
	01/04/05	9.03	9.27	280	5.8	20	7.8	26	(<0.50)	1.66/2.66
	04/13/05	7.38	10.92	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	0.79/0.58
	07/13/05	10.45	7.85	350	19	9.3	9.8	14	(<0.50)	0.10/0.08
	10/28/05	11.98	6.32	3,400	440	350	150	320	(<2.5)	0.4/0.1
	01/17/06	8.34	9.96	700	3.1	5.1	7.7	66	(<0.50)	2.7/1.6
	02/23/06	9.42	8.88	--	97.9	17.2	40.0	80.6	--	--
	03/09/06	7.35	10.95	--	<0.500	29.2	57.8	486	--	--
	04/21/06	5.99	12.31	<50.0	<0.500	0.960	<0.500	2.71	(<0.500)	--
	05/01/06	7.25	11.05	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	0.43/0.10
	06/23/06	10.05	8.25	3,150	35.6	9.24	20.7	113	(<0.500)	--
	07/11/06	10.05	8.25	9,270	413	78.2	91.5	341	(2.40)	--
	08/30/06	11.12	7.18	4,900	135	45.5	73.3	180	(2.40)	0.37/0.62
	09/29/06	11.61	6.69	12,300	243	142	290	634	(2.50)	--
	10/13/06	12.01	6.29	19,300	292	169	384	1,080	(1.84)	--
	11/03/06	12.12	6.18	9,300	655	233	366	729	(4.15)	2.0/1.05
	12/26/06	11.41	6.89	2,600	61	50	74	250	(<0.50)	--
	01/11/07	11.45	6.85	5,200	160	190	170	570	(<0.50)	--
	01/30/07	12.21	6.09	2,200	160	20	84	200	(<2.5)	1.37/0.79
	03/01/07	10.40	7.90	520	0.50	0.53	3.3	15	(<0.50)	--
	04/26/07	10.51	7.79	5,700 k	220	140	170	420	(<2.0)	--
	06/01/07	11.00	7.30	4,300 k	150	150	140	380	(<2.0)	0.36/0.23
	06/21/07	11.78	6.52	9,000 k	540	500	350	870	(1.8 m)	--
	07/03/07	11.64	6.66	4,500 k	230	160	160	440	(<5.0)	--
	08/16/07	12.12	6.18	8,800 k	550	520	430	1,020	(<5.0)	0.3/0.1

Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(VW/MW-2 cont'd)	12/06/07	12.43	5.87	2,600	110	84	64	180	(2.4)	--
	02/25/08	9.55	8.75	620	100	4.1	4.9	2.0	<5.0	2.48
	05/26/08	11.53	6.77	7,200	350	200	220	510	<100	1.52/0.99
	08/18/08	12.45	5.85	7,000	420	160	180	460	<100	0.70/0.67
	11/20/08	13.09	5.21	3,400	86	84	75	230	<50	0.93/1.47
	02/18/09	11.35	6.95	1,400	3.5	16	7.2	28	<15	0.77/1.18
	05/26/09	10.76	7.54	1,000	9.5	26	17	56	<5.0	0.84/1.19
	11/23/09	12.77	5.53	270	2.7	5.0	1.5	3.5	<5.0	0.81/2.49
	05/26/10	10.36	7.94	490	3.5	12	4.3	23	<5.0	0.69/0.94
	12/30/10	10.11	8.19	180	0.75	4.0	1.2	4.8	<5.0	0.79/1.02
	05/23/11	9.83	8.47	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.68
	12/27/11	12.78	5.52	280	3.1	6.2	1.5	1.4	<10	0.72/0.77
	06/30/12	**10.63**	**7.67**	**<50**	**<0.5**	**0.54**	**<0.5**	**3.1**	**<5.0**	**4.41**
VW/MW-4	03/25/96	8.45	9.69	83,000	6,500	7,000	2,000	11,000	<250	--
18.14	03/25/96	8.45	9.69	84,000	6,400	7,000	2,100	12,000	<250	--
	06/21/96	10.38	7.76	110,000	14,000	15,000	3,700	17,000	1,700	--
	06/21/96	10.38	7.76	100,000	12,000	12,000	2,900	13,000	<1,000	--
	09/26/96	12.43	5.71	52,000	13,000	2,700	2,100	3,200	<500	--
	12/19/96	11.87	6.27	75,000	15,000	6,600	3,000	7,600	<1,250	--
	03/25/97	9.60	8.54	56,000	4,700	1,500	2,500	6,300	580	2.4
	06/26/97	12.36	5.78	--	--	--	--	--	--	--
	09/26/97	12.82	5.32	--	--	--	--	--	--	0.4
	12/05/97	12.15	5.99	--	--	--	--	--	--	0.3
	02/19/98	5.85	12.29	4,100	320	40	44	520	<50	1.8
	02/19/98	5.85	12.29	4,300	340	44	47	540	<50	1.8
	06/08/98	5.87	12.27	--	--	--	--	--	--	1.8
	08/25/98	10.96	7.18	--	--	--	--	--	--	2.5
	12/28/98	11.28	6.86	--	--	--	--	--	--	0.9
	03/26/99	8.45	9.69	--	--	--	--	--	--	1.9
	06/30/99	9.70	8.44	--	--	--	--	--	--	3.6
	09/30/99	11.78	6.36	--	--	--	--	--	--	2.6
	12/27/99	12.63	5.51	33,900	3,740	2,000	1,130	5,090	587	0.4/0.2
	01/21/00	13.07	5.07	13,900	1,560	568	227	1,990	<500(21.0a)	1.0
	03/07/00	7.82	10.32	--	--	--	--	--	--	0.9
	04/17/00	9.18	8.96	--	--	--	--	--	--	1.4/1.9
	04/18/00	--	--	757	103	8.59	30.8	84.2	<25.0	--
	09/21/00	12.18	5.96	--	--	--	--	--	--	5.0
	10/17/00	12.03	6.11	8,360	2,060	391	468	1,170	147	0.7/0.8
	01/09/01	12.42	5.72	--	--	--	--	--	--	0.9
	04/27/01	10.13	8.01	7,100	2,300	50	460	250	(<10)	1.0/1.4
	07/03/01	11.42	6.72	--	--	--	--	--	--	1.2
	12/06/01	11.02	7.12	7,700	750	90	300	350	(<25)	2.5/1.9
	01/23/02	8.89	9.25	--	--	--	--	--	--	0.4
	04/17/02	9.89	8.25	4,800	760	27	240	150	(<25)	4.7/5.1
	07/18/02	11.37	6.77	--	--	--	--	--	--	0.6
	11/11/02	12.41	5.73	14,000	2,800	480	700	1,300	(<100)	0.3/0.3
	01/16/03	9.17	8.97	--	--	--	--	--	--	0.8
	03/13/03	9.85	8.29	--	--	--	--	--	--	1.1
	04/23/03	9.74	8.40	2,400	710	28	160	100	(<50)	0.2/0.05
	05/13/03	9.70	8.44	3,300	720	35	170	160	(<50)	0.2/0.2
	06/13/03	10.55	7.59	8,200	1,700	220	460	790	(<250)	0.3/0.3
	07/14/03	10.90	7.24	3,700	900	190	220	540	(<10)	0.5/0.4
	09/29/03	11.83	6.31	7,500	1,800	300	390	860	(<20)	0.5/0.6
	10/29/03	12.03	6.11	10,000	2,600	400	510	1,200	(<13)	0.5/0.4
	01/05/04	9.60	8.54	1,000	70	12	30	56	(<1.0)	1.7/1.2
	04/01/04	9.00	9.14	1,000	64	7.0	22	18	(<1.0)	0.6/0.1
	07/02/04	11.00	7.14	5,600	1,500	57	380	180	(<10)	0.4/0.4

Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(VW/MW-4 cont'd)	11/03/04	11.85	6.29	9,400	2,400	210	560	890	(<10)	1.5/2.1
	01/04/05	8.89	9.25	110	12	<0.50	2.3	<1.0	(<0.50)	2.40/1.05
	04/13/05	7.25	10.89	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	1.55/0.52
	07/13/05	10.20	7.94	1,300	520	5.1	100	17	(<2.5)	0.08/0.08
	10/28/05	11.84	6.30	2,500	830	44	170	140	(5.4)	0.6/0.2
	01/17/06	8.05	10.09	<50	<0.50	<0.50	0.56	<0.50	(<0.50)	2.7/0.6
	02/23/06	8.77	9.37	--	1.42	0.930	0.580	<0.500	--	--
	03/09/06	6.75	11.39	--	<0.500	<0.500	<0.500	0.680	--	--
	04/21/06	5.69	12.45	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	05/01/06	6.65	11.49	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	0.51/0.37
	06/23/06	9.22	8.92	920	8.69	1.32	5.63	9.68	(<0.500)	--
	07/11/06	9.22	8.92	<50.0	109	<0.500	3.91	<0.500	(<0.500)	--
	08/30/06	10.87	7.27	2,360	331	12.8	65.4	29.3	(2.64)	0.24/0.56
	09/29/06	11.40	6.74	5,920	327	23.2 i	146	112 i	(2.63)	--
	10/13/06	11.53	6.61	6,560	299	16.6	134	90.4	(3.58)	--
	11/03/06	11.87	6.27	3,530	212	9.14	87.8	52.8	(5.11)	2.60/4.0
	12/26/06	11.17	6.97	960	43	1.0	17	2.7	(<0.50)	--
	01/11/07	11.18	6.96	830	86	1.8	41	3.9	(1.40)	--
	01/30/07	11.53	6.61	2,100	450	15	99	46	(3.0)	1.13/0.91
	03/01/07	10.00	8.14	700	4.8	<0.50	1.8	0.77	(<0.50)	--
	04/26/07	10.26	7.88	930 k	84	5.2	21	9.5	(<1.0)	--
	06/01/07	10.80	7.34	2,000 k	340	7.6	58	17.6	(1.7 m)	0.46/0.42
	06/21/07	11.32	6.82	1,400 k	360	9.7	46	26.1	(2.2)	--
	07/03/07	11.39	6.75	2,700 k	650	24	91	65	(<2.0)	--
	08/16/07	11.87	6.27	1,400 k	240	8.8	32	42.3	(<5.0)	0.3/0.1
	12/06/07	12.40	5.74	3,600	480	16	39	29	(3.5)	--
	02/25/08	9.39	8.75	56	22	<0.5	<0.5	0.50	<5.0	4.61
	05/26/08	11.27	6.87	650	76	7.9	4.9	<0.5	<5.0	0.95/0.96
	08/18/08	12.23	5.91	2,700	540	28	28	71	<25	0.78/0.79
	11/20/08	12.87	5.27	2,000	390	19	13	49	<50	1.17/0.95
	02/18/09	11.29	6.85	850	17	11	3.6	25	<15	0.82/1.02
	05/26/09	10.55	7.59	540	16	11	1.3	1.1	<10	0.81/1.06
	11/23/09	12.55	5.59	1,200	200	12	3.5	12	<5.0	0.84/1.66
	05/26/10	10.15	7.99	410	26	6.3	2.3	3.7	<5.0	0.77/0.84
	12/30/10	9.96	8.18	520	14	8.7	2.3	2.4	<5.0	0.8/1.26
	05/23/11	9.91	8.23	150	33	2.2	3.4	2.1	<5.0	0.50
	12/27/11	12.57	5.57	460	24	4.0	0.99	<0.5	<5.0	0.61
	06/30/12	**11.01**	**7.13**	**3,400**	**640**	**42**	**39**	**190**	**<50**	**1.29**
VW/AS-1	03/25/96	8.98	9.62	--	--	--	--	--	--	--
18.60	06/21/96	10.95	7.65	--	--	--	--	--	--	--
	09/26/96	12.98	5.62	--	--	--	--	--	--	--
	12/19/96	12.67	5.93	--	--	--	--	--	--	--
	03/25/97	10.12	8.48	--	--	--	--	--	--	--
	06/26/97	12.34	6.26	--	--	--	--	--	--	--
	09/26/97	13.40	5.20	--	--	--	--	--	--	--
	12/05/97	11.96	6.64	--	--	--	--	--	--	5.2
	02/19/98	6.22	12.38	--	--	--	--	--	--	1.3
	06/08/98	6.20	12.40	--	--	--	--	--	--	1.0
	08/25/98	11.59	7.01	--	--	--	--	--	--	1.6
	12/28/98	11.74	6.86	--	--	--	--	--	--	1.3
	03/26/99	9.20	9.40	--	--	--	--	--	--	1.3
	06/30/99	11.08	7.52	--	--	--	--	--	--	2.1
	09/30/99	11.94	6.66	--	--	--	--	--	--	1.9
	12/27/99	11.01	7.59	8,940	2,000	95.7	1,200	570	606	1.6/1.8
	03/07/00	7.35	11.25	--	--	--	--	--	--	--
	04/17/00	9.08	9.52	--	--	--	--	--	--	1.9/2.0

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Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(VW/AS-1 cont'd)	04/18/00	--	--	20,800	6,550	1,220	2,270	1,720	<250	--
	09/21/00	11.98	6.62	--	--	--	--	--	--	2.1
	10/17/00	12.62	5.98	38,400	7,240	5,980	1,960	5,730	534(72.4)	2.5/1.0
	01/09/01	13.03	5.57	--	--	--	--	--	--	1.9
	04/27/01	10.71	7.89	34,000	8,000	2,100	2,500	2,000	(<25)	2.9/2.1
	07/03/01	12.03	6.57	--	--	--	--	--	--	2.0
	12/06/01	11.63	6.97	6,000	990	35	820	59	(<25)	1.2/0.8
	01/23/02	9.34	9.26	--	--	--	--	--	--	0.9
	04/17/02	10.41	8.19	12,000	2,900	57	1,400	98	(<200)	3.3/2.9
	07/18/02	12.13	6.47	--	--	--	--	--	--	0.3
	11/11/02	13.15	5.45	2,200	340	7.3	250	24	(<20)	1.2/1.3
	01/16/03	9.73	8.87	--	--	--	--	--	--	2.3
	03/13/03	10.45	8.15	11,000	2,500	55	1,800	170	(<100)	2.1/1.9
	04/07/03	10.40	8.20	--	--	--	--	--	--	--
	04/23/03	10.28	8.32	9,500	4,100	200	1,400	200	(<250)	1.2/0.4
	05/13/03	10.26	8.34	9,700	2,300	110	1,100	140	(<250)	0.5/2.0
	06/13/03	11.15	7.45	9,300	2,300	77	820	<100	(<500)	1.0/0.5
	07/15/03	11.62	6.98	5,500	2,000	230	620	360	(20)	1.8/1.9
	09/29/03	12.48	6.12	9,600	2,300	100	1,200	670	(<20)	2.3/3.6
	10/29/03	12.73	5.87	10,000	2,000	39	1,000	370	(16)	3.3/3.6
	01/05/04	10.25	8.35	2,000	710	18	410	18	(13)	3.0/2.8
	04/01/04	9.60	9.00	27,000	9,100	1,200	2,200	1,400	(<50)	1.0/1.4
	07/02/04	11.80	6.80	18,000	6,500	170	1,200	1,200	(<50)	3.2/0.8
	11/03/04	12.56	6.04	4,500	1,700	23	280	55	(9.8)	1.7/1.9
	01/04/05	9.50	9.10	7,500	2,500	74	540	110	(<13)	1.19/0.53
	04/13/05	7.84	10.76	34,000	6,600	290	930	2,100	(<15)	1.60/1.88
	07/13/05	10.90	7.70	--	--	--	--	--	--	--
	07/22/05	10.96	7.64	8,200	5,900	86	340	320	(<25)	1.7/1.0
	10/28/05	12.30	6.30	2,100	1,300	18	63	21	(<5.0)	0.5/1.6
	01/17/06	8.65	9.95	6,200 g	2,900	190	400	600	(4.70)	1.4/1.0
	02/23/06	9.33	9.27	--	3,080	222	414	778	--	--
	03/09/06	7.40	11.20	--	1,350	88.5	128	164	--	--
	04/21/06	6.44	12.16	18,200	4,460	167	419	717	(2.79)	--
	05/01/06	7.22	11.38	19,700	5,300	261	664	1,050	(<0.500)	0.71/1.23
	06/23/06	9.73	8.87	20,600	3,820	305	259	435	(3.31 h)	--
	07/11/06	9.73	8.87	9,130	6,200	108	232	254	(<0.500)	--
	08/30/06	11.60	7.00	164,000	3,190	6,240	3,780	17,900	(<10.0)	0.4
	09/29/06	11.97	6.63	130,000	6,160	6,370 i	2,910	11,600 i	(<25.0)	--
	10/13/06	12.18	6.42	144,000	6,320	5,710	2,930	13,100	(1.03)	--
	11/03/06	12.21	6.39	112,000	8,290	5,670	2,760	12,100	(<0.500)	0.80
	12/26/06	11.74	6.86	94,000	6,900	5,100	3,100	13,000	(<50)	--
	01/11/07	11.83	6.77	73,000	6,600	5,500	3,000	12,000	(<50)	--
	01/30/07	12.12	6.48	54,000	6,800	4,500	2,200	8,800	(<50)	1.16/1.16
	03/01/07	10.71	7.89	52,000	6,300	3,700	3,400	12,000	(<50)	--
	04/26/07	10.84	7.76	72,000 k	7,200	4,500	3,000	10,900	(<50)	--
	06/01/07	11.40	7.20	70,000 k	7,600	4,900	3,200	12,100	(<50)	0.60/1.09
	06/21/07	11.92	6.68	59,000 k	7,300	3,700	3,200	12,100	(<50)	--
	07/03/07	11.98	6.62	70,000 k	8,800	4,700	3,500	13,500	(<50)	--
	08/16/07	12.53	6.07	67,000 k	9,000	5,500	3,900	14,200	(<50)	0.2/0.1
	12/06/07	12.97	5.63	180,000	9,500	5,000	4,100	16,000	(<17)	--
	02/25/08	9.84	8.76	47,000	3,500	1,200	1,500	4,400	<350	2.39
	05/26/08	11.88	6.72	82,000	8,100	3,000	3,100	12,000	<500	1.65/1.05
	06/27/08	VW/AS-1 drilled out and replaced with AS-1								

Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
VW/AS-2	03/09/06	6.95	--	--	--	--	--	--	--	--
VW/AS-3	03/25/96	8.50	9.67	--	--	--	--	--	--	--
18.17	06/21/96	10.42	7.75	--	--	--	--	--	--	--
	09/26/96	12.49	5.68	--	--	--	--	--	--	--
	12/19/96	12.28	5.89	--	--	--	--	--	--	--
	03/25/97	9.61	8.56	--	--	--	--	--	--	--
	06/26/97	11.80	6.37	--	--	--	--	--	--	--
	09/26/97	12.89	5.28	--	--	--	--	--	--	--
	12/05/97	11.38	6.79	--	--	--	--	--	--	1.8
	02/19/98	6.24	11.93	--	--	--	--	--	--	1.3
	06/08/98	6.25	11.92	--	--	--	--	--	--	1.2
	08/25/98	11.43	6.74	--	--	--	--	--	--	1.3
	12/28/98	11.63	6.54	--	--	--	--	--	--	1.7
	03/26/99	8.92	9.25	--	--	--	--	--	--	1.5
	06/30/99	10.71	7.46	--	--	--	--	--	--	2.5
	09/30/99	11.78	6.39	--	--	--	--	--	--	1.5
	12/27/99	12.57	5.60	488	47.9	2.60	16.9	8.50	35.4	1.5/2.1
	03/07/00	4.82	13.35	--	--	--	--	--	--	--
	04/17/00	8.69	9.48	--	--	--	--	--	--	2.0/2.4
	04/18/00	--	--	3,110	871	<5.00	141	56.8	78.2	--
	09/21/00	11.65	6.52	--	--	--	--	--	--	2.5
	10/17/00	12.13	6.04	7,730	2,700	<50.0	542	344	<250(42.1)	1.6/1.0
	01/09/01	12.51	5.66	--	--	--	--	--	--	2.2
	04/27/01	10.20	7.97	14,000	3,900	62	690	560	(46)	2.8/1.6
	07/03/01	11.55	6.62	--	--	--	--	--	--	2.6
	12/06/01	11.10	7.07	5,000	1,200	19	380	320	(<50)	0.9/1.1
	01/23/02	8.93	9.24	--	--	--	--	--	--	1.1
	04/17/02	10.00	8.17	17,000	5,000	<25	1,100	390	(<250)	3.2/3.2
	07/18/02	11.49	6.68	--	--	--	--	--	--	0.4
	11/11/02	12.43	5.74	1,700	290	1.5	150	2.8	(<10)	1.0/1.1
	01/16/03	9.32	8.85	--	--	--	--	--	--	4.7
	03/13/03	9.88	8.29	--	--	--	--	--	--	2.7
	04/23/03	9.85	8.32	150	47	0.67	8.5	3.2	(<5.0)	2.1/0.7
	05/13/03	9.81	8.36	440	35	<0.50	1.7	<1.0	(<5.0)	1.4/1.8
	06/13/03	10.77	7.40	580	71	<2.5	40	<5.0	(<25)	1.1/0.6
	07/14/03	11.12	7.05	1,100	120	4.9	63	9.3	(16)	2.0/2.2
	09/29/03	12.02	6.15	160	54	2.2	6.9	8.7	(1.1)	4.1/1.6
	10/29/03	12.25	5.92	350	16	<0.50	1.1	<1.0	(6.3)	3.2/1.6
	01/05/04	9.74	8.43	2,700	870	39	130	250	(5.5)	3.6/2.8
	04/01/04	9.06	9.11	1,300	240	4.1	36	45	(12.0)	1.1/1.0
	07/02/04	11.29	6.88	610	59	<1.0	3.6	<2.0	(10.0)	2.0/2.2
	11/03/04	12.02	6.15	200	<0.50	<0.50	<0.50	<1.0	(10.0)	2.1/2.3
	01/04/05	8.99	9.18	2,500	730	42	36	190	(<10)	1.72/1.36
	04/13/05	7.25	10.92	<50	1.6	<0.50	<0.50	<0.50	(0.61)	2.85/3.04
	07/13/05	10.30	7.87	--	--	--	--	--	--	--
	07/22/05	10.51	7.66	160	36	0.65	<0.50	2.5	(2.60)	1.4/1.3
	10/28/05	11.93	6.24	100	<0.50	<0.50	<0.50	<1.0	(1.70)	1.6/0.9
	01/17/06	8.25	9.92	1,400	510	29	16	47	(5.40)	1.9/0.8
	04/21/06	6.06	12.11	--	--	--	--	--	--	--
	05/01/06	6.83	11.34	1,350	74.4	<0.500	12.5	0.520	(3.30)	1.35/0.78
	08/30/06	11.00	7.17	940	77.7	2.67	2.94	5.57	(3.45)	0.80/0.98
	09/29/06	11.30	6.87	--	--	--	--	--	--	--
	11/03/06	12.29	5.88	346 j	83.6 j	5.17 j	2.34 j	13.5 j	(3.47 j)	1.10/0.80
	01/30/07	12.59	5.58	130	13	0.64	<0.50	7.2	(3.4)	0.76/0.64
	06/01/07	10.82	7.35	2,200 k	650	13	3.2 m	143	(7.8)	1.21/0.93
	08/16/07	11.95	6.22	1,000 k	200	4.0	1.1	47.7	(3.3)	0.8/0.2

Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(VW/AS-3 cont'd)	12/06/07	12.43	5.74	<50	<0.5	<0.5	<0.5	<0.5	(<0.5)	--
	02/25/08	9.40	8.77	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.14
	05/26/08	11.20	6.97	1,800	260	6.0	4.3	35	<17	0.86/4.39
	6/26/2008					Well Destroyed				

Notes:

a = Sample was analyzed outside of the EPA recommended holding time.

b = Hydrocarbon reported does not match the pattern of the laboratory's standard.

c = Top of casing change due to maintenance.

d = Sample contains discrete peak in addition to gasoline.

e = Quantity of unknown hydrocarbon(s) in sample based on gasoline.

f = The concentration reported reflects individual or discrete unidentified peaks not matching a typical fuel pattern.

g = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.

h = Secondary ion abundances were outside method requirements. Identification based on a'--lytical judgement.

i = Analyte was detected in the associated Method Blank.

j = pH>2

k = Analyzed by EPA Method 8015B (M).

l = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

m = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

Site surveyed November 1, 2001 by Virgil Chavez Land Surveying of Vallejo, CA.

Site remediation wells surveyed March 21, 2011 by Virgil Chavez Land Surveying of Vallejo, CA.

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

Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8260B from April 27, 2001 through August 16, 2007. Concentrations prior to April 27, 2001 and after August 16, 2007 by EPA Method 8021B.

MTBE = Methyl tert-butyl ether by EPA Method 8021B, concentrations in parentheses by EPA Method 8260B

-- = Not applicable

ug/L = micrograms per liter (Parts per billion)

mg/L = milligrams per liter (Parts per million)

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

(D) = Duplicate sample

n/n = Pre-purge/Post-purge Dissolved Oxygen Readings

Pangea

Table 2. SVE (DPE) Performance Data - 1230 14th Street, Oakland, CA

Date	Wells	Oxidizer Hr Meter Reading (hours)	Total Time (days)	Interval Time (days)	System Vapor Flow (cfm)	App Vac ("Hg)	Lab Sample ID	Influent TPHg Lab (ppmv)	Influent Benzene Lab Data (ppmv)	Influent OVA Reading (ppmv)	Air Sparge (status)	SVE TPHg Removal Rate (lbs/day)	SVE Benzene Removal Rate (lbs/day)	Cumulative SVE TPHg Removal (lbs)	Cumulative SVE Benz Removal (lbs)	Effluent OVA Reading (ppmv)	Abate Effic **OVA** (%)	Effluent TPHg Lab (ppmv)	Effluent Benzene Lab (ppmv)	**TPHg** Abate Effic (%)	Benzene Abate Effic (%)	Benzene Emission Rate (lbs/day)	Cumulative Vapor Flow (cf)	Notes
04/27/11	DP-1,2,4,5	10730.2	0.0	0.0	107	9	---	32	2.0	34	Off	1.1	0.06	0.0	0	6	**82.4**	---	---	---	---	---	0	Startup Test
05/05/11	DP-1,2,4,5	10895.3	6.9	6.9	107	7	INF-V	**28**	**1.5**	23	Off	1.0	0.05	6.6	0.32	11	**52.2**	**22**	**1.0**	**21.4**	**33.3**	**0.031**	1,059,942	On
05/16/11	DP-1,2,4,5	11164.0	18.1	11.2	107	4	---	20	1.0	---	Off	0.7	0.03	14.3	0.67	---	---	---	---	---	---	---	2,784,996	On
05/24/11	DP-1,2,4,5	11239.0	21.2	3.1	107	4	---	20	1.0	12	Off	0.7	0.03	16.4	0.77	4	**66.7**	---	---	---	---	---	3,266,496	On. **Shutdown** due to high EFF-V conc in lab report.
07/13/11	DP-1,2,4,5	11241.4	21.3	0.1	107	7	---	20	1.0	31	Off	0.7	0.03	16.5	0.77	15	**51.6**	---	---	---	---	---	3,281,904	Off. Restart, **check cat cell, send for repair**.
09/06/11	DP-1,2,4,5	11250.6	21.7	0.4	55	5	---	400	10.0	451	Test	7.1	0.16	19.2	0.83	336	**25.5**	---	---	---	---	---	3,312,385	Off. Test with air sparging and HVOCs. Off at departure.
10/24/11	DP-1,2,4,5	11251.7	21.7	0.0	79	7	---	1,800	20.0	1906	Test	45.8	0.46	21.3	0.85	905	**52.5**	---	---	---	---	---	3,317,621	Off. Test new cat cell. Heat exchgr issue. Off at departure.
11/23/11	DP-1,2,4,5	11261.3	22.1	0.4	43	5	---	3,500	40.0	3670	Test	47.9	0.50	40.5	1.05	156	**95.7**	---	---	---	---	---	3,342,170	Off. **Install repaired heat exch and repaired cat cell.**
11/28/11	DP-1,2,4,5	11287.4	23.2	1.1	76	8	---	600	13.0	693	Test	14.6	0.29	56.4	1.36	3	**99.6**	---	---	---	---	---	3,461,186	Off. Test for lead in influent with sparging. **Meets permit.**
11/29/11	DP-1,2,4,5	11295.3	23.5	0.3	151	6	---	600	13.0	693	Test	29.1	0.57	66.0	1.55	19	**97.3**	---	---	---	---	---	3,532,760	Off. Restart to test. **Meets permit. Left on for testing.**
12/01/11	DP-1,2,4,5	11342.8	25.5	2.0	68	6	---	500	10.0	548	Test	10.9	0.20	87.5	1.94	16	**97.1**	---	---	---	---	---	3,726,560	On. **Meets permit. Left on for testing.**
12/14/11	DP-1,2,4,5	11653.4	38.5	12.9	64	5	---	200	5.0	203	Test	4.1	0.09	140.7	2.94	11	**94.6**	---	---	---	---	---	4,919,264	On. **<97% dest so turn off.** Test another unit 12/21/11: similar.
01/05/12	DP-1,2,4,5	11659.2	38.7	0.2	93	6	---	600	13.0	695	Test	17.8	0.35	145.0	6.56	56	**91.9**	---	---	---	---	---	4,951,485	Off. Test with dilution air for oxygen. Off at departure.
01/23/12	DP-1,2,4,5	11659.8	38.7	0.0	93	9	---	700	13.0	726	Test	20.9	0.35	145.5	3.04	58	**92.0**	---	---	---	---	---	4,954,842	Off. Restart to test with dilution and prep for lab test.
01/24/12	DP-1,2,4,5	11680.0	39.6	0.8	95	8	INF-V	**1,500**	**24.0**	2290	Test	45.5	0.66	183.8	7.13	230	**90.0**	**180**	**2.8**	**88.0**	**88.3**	**0.077**	5,069,522	On. Collect lab. Off at departure.
02/08/12	DP-1,2,4,5	11683.0	39.7	0.1	95	8	---	1,500	24.0	---	Test	45.5	0.66	189.5	3.67	---	---	---	---	---	---	---	5,086,553	Cat Cell Testing
02/15/12	DP-1,2,4,5	11690.0	40.0	0.3	118	5	INF-V	**180**	**2.1**	156	Off	6.8	0.07	191.5	7.16	10	**93.6**	**< 7.0**	**< 0.077**	**> 96.1**	**> 96.3**	**< 0.003**	5,136,113	Test destruction efficiency with new cat cell.
02/23/12	DP-1,2,4,5	11705.0	40.6	0.6	131	11	INF-V	**860**	**8.5**	749	On	36.1	0.32	214.1	3.97	6	**99.2**	**7.9**	**< 0.077**	**99.1**	**> 99.1**	**< 0.003**	5,254,013	**Restart DPE/AS. DPE/AS units repaired.**
02/27/12	DP-1,2,4,5	11741.0	42.1	1.5	131	5	INF-V	**73**	**0.8**	---	On	3.1	0.03	218.7	7.23	---	---	---	---	---	---	---	5,536,973	Off. High Enclosure Temp. Restart.
02/28/12	DP-1,2,4,5	11765.6	43.1	1.0	188	5	---	130	5.0	142	On	7.9	0.27	226.8	4.66	---	---	---	---	---	---	---	5,815,052	On. **Limit AS to AS-2, AS-4**. Monitor influence.
02/29/12	DP-1,2,4,5	11777.0	43.6	0.5	188	5	---	130	5.0	---	Off	7.9	0.27	230.5	7.64	---	---	---	---	---	---	---	5,943,917	Off. Restaft DPE/AS
03/01/12	DP-1,2,4,5	11800.7	44.6	1.0	141	8	INF-V	**450**	**7.7**	350	On	20.4	0.32	250.6	5.13	3	**99.1**	---	---	---	---	---	6,144,419	On. Increased vacuum to 8" Hg.
03/02/12	DP-1,2,4,5	11825.7	45.6	1.0	132	10	---	400	7.7	422	On	16.9	0.30	268.2	8.24	---	---	---	---	---	---	---	6,342,419	On.
03/04/12	DP-1,2,4,5	11880.0	47.9	2.3	132	9	---	400	7.7	422	On	16.9	0.30	306.6	6.10	---	---	---	---	---	---	---	6,772,475	On.
03/09/12	DP-1,2,4,5	11994.3	52.7	4.8	146	8	---	700	12.0	740	On	32.8	0.51	462.9	11.83	6	**99.2**	---	---	---	---	---	7,775,115	On.
03/13/12	DP-1,2,4,5	12087.7	56.6	3.9	141	8	INF-V	**990**	**11.0**	545	On	44.7	0.45	636.7	10.00	5	**99.1**	---	---	---	---	---	8,563,037	On.
03/16/12	DP-1,2,4,5	12159.0	59.5	3.0	141	8	---	990	11.0	---	On	44.7	0.45	769.4	14.92	5	---	---	---	---	---	---	9,164,524	On. Shutdown due to element meltdown - SVE unit replaced.
06/15/12	DP-1,2,5	14701.4	59.5	0.0	229	10	---	240	3.0	245	Off	17.6	0.20	688.4	13.19	2	**99.2**	---	---	---	---	---	8,552,065	**Startup of new SVE unit.**
06/19/12	DP-1,2,5	14740.9	61.1	1.6	165	10	---	500	4.4	498	On	26.4	0.21	731.9	10.96	3	**99.4**	---	---	---	---	---	8,942,404	Off. Restart
06/20/12	DP-1,2,4,5	14760.6	62.0	0.8	160	10	INF-V	**450**	**4.4**	337	On	23.1	0.20	745.4	11.10	5	**98.5**	**< 7**	**< 0.077**	**> 98.4**	**> 98.3**	**< 0.004**	8,740,948	On.
07/03/12	DP-1,2,4,5	14823.5	64.6	2.6	164	10	---	350	4.0	372	On	18.4	0.19	795.3	15.88	2	**99.5**	---	---	---	---	---	9,561,340	Off 7/1 for QM. Restart
07/05/12	DP-1,2,4,5	14873.9	66.7	2.1	152	10	---	180	2.0	184	On	8.8	0.09	786.8	13.83	0	**100.0**	---	---	---	---	---	9,200,596	On. Inject Nontox in VW/MW-4, AS-2, AS-4.
07/06/12	DP-1,2,4,5	14891.3	67.4	0.7	170	10	---	190	2.0	195	On	10.4	0.10	824.6	11.58	12	**93.8**	---	---	---	---	---	9,738,820	On.
07/10/12	DP-1,2,4,5	14992.1	71.6	4.2	168	10	---	160	2.0	173	On	8.6	0.10	829.3	12.05	7	**96.0**	---	---	---	---	---	10,216,660	On.
07/11/12	DP-1,2,4,5	15014.1	72.5	0.9	161	10	---	160	2.0	165	On	8.3	0.09	866.9	16.63	6	**96.4**	---	---	---	---	---	9,951,736	On.
07/17/12	DP-1,2,4,5	15075.7	75.1	2.6	168	10	---	180	2.0	186	On	9.7	0.10	863.1	14.65	5	**97.3**	---	---	---	---	---	10,839,067	Off. Turn off AS. Inject Nontox in VW/MW-4,AS-2,AS-4 on 7/18; restart.
07/19/12	DP-1,2,4,5	15088.9	75.6	0.5	168	9	---	160	2.0	---	On	8.6	0.10	893.9	12.39	---	---	---	---	---	---	---	10,085,108	Off. Restart.
07/20/12	DP-1,2,4,5	15109.2	76.5	0.8	168	9	---	160	2.0	---	On	8.6	0.10	875.2	12.52	---	---	---	---	---	---	---	11,044,178	On.
07/21/12	DP-1,2,4,5	15124.0	77.1	0.6	168	9	---	160	2.0	---	On	8.6	0.10	906.5	17.08	---	---	---	---	---	---	---	10,234,648	Off. Restart.
08/03/12	DP-1,2,4,5	15365.7	87.2	10.1	168	9	---	160	2.0	---	On	8.6	0.10	967.6	15.84	---	---	---	---	---	---	---	13,486,315	Off. Transfer pump not working. Coordinate repair. Restart later 8/3.
08/07/12	DP-1,2,4,5	15398.7	88.6	1.4	133	10	---	160	2.0	159	On	6.8	0.08	984.6	13.39	5	**96.9**	---	---	---	---	---	10,497,592	Off. Restart.
08/31/12	DP-1,2,4,5	15556.9	95.1	6.6	155	11	---	140	1.0	140	On	7.0	0.05	1023.1	13.37	4	**97.1**	---	---	---	---	---	14,957,575	Off. Restart.
09/20/12	DP-1,2,4,5	15595.1	96.7	1.6	111	10	---	180	1.0	187	On	6.4	0.03	1037.0	17.71	4	**97.9**	---	---	---	---	---	10,752,004	Off. Restart.

Notes:
ALL = Wells DP-1, DP-2, DP-3, DP-4 and DP-5.
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).
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

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Table 2. SVE (DPE) Performance Data - 1230 14th Street, Oakland, CA											Air Sparge	Removal				Emission Reporting								Notes
Date	Wells	Oxidizer Hr Meter Reading (hours)	Total Time (days)	Interval Time (days)	System Vapor Flow (cfm)	Applied Vac ("Hg)	Lab Sample ID	Influent TPHg Lab Data (ppmv)	Influent Benzene Lab Data (ppmv)	Influent OVA Reading (ppmv)	Air Sparge (status)	SVE TPHg Removal Rate (lbs/day)	SVE Benzene Removal Rate (lbs/day)	Cumulative SVE TPHg Removal (lbs)	Cumulative SVE Benz Removal (lbs)	Effluent OVA Reading (ppmv)	Abate Effic **OVA** (%)	Effluent TPHg Lab (ppmv)	Effluent Benzene Lab (ppmv)	**TPHg** Abate Effic (%)	Benzene Abate Effic (%)	Benzene Emission Rate (lbs/day)	Cumulative Vapor Flow (cf)	

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 ft³) x molecular weight (86 lb/lb-mole for TPH-Gas hexane) x 1440 min/day x 1/1,000,000.

Table 3. GWE (DPE) System Performance Summary - 1230 14th Street, 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 Influent	04/27/11	2,090	0	0	--	**960**	**120**	**ND (<5.0)**	0.000	0.000	0.000	Starup water sampling of influent (3/7/11)
	05/05/11	62,822	60,732	8	5.27	---	---	---	0.485	0.061	0.000	On.
	05/16/11	100,689	37,867	11	2.39	---	---	---	0.302	0.038	0.000	On.
	05/24/11	101,686	997	8	0.09	---	---	---	0.008	0.001	0.000	On. Shutdown due to high EFF-V conc.
	07/13/11	101,686	0	50	0.00	---	---	---	0.000	0.000	0.000	Off. Restart, check cat cell. Send for repair.
	09/06/11	102,753	1,067	55	0.01	---	---	---	0.009	0.001	0.000	Off. Restart, off at departure.
	10/24/11	102,753	0	48	0.00	---	---	---	0.000	0.000	0.000	Off. Restart, install new cat cell. Off at departure.
	11/22/11	103,480	727	29	0.02	---	---	---	0.006	0.001	0.000	Off. Restart.
	11/23/11	103,593	113	1	0.08	---	---	---	0.001	0.000	0.000	Off. Restart.
	11/28/11	104,011	418	5	0.06	---	---	---	0.003	0.000	0.000	Off. Restart.
	11/29/11	104,105	94	1	0.07	---	---	---	0.001	0.000	0.000	Off. Restart.
	12/01/11	105,995	1,890	2	0.66	---	---	---	0.015	0.002	0.000	On.
	12/14/11	107,707	1,712	13	0.09	**320**	**8.9**	**ND (<5.0)**	0.005	0.000	0.000	Off. Restart.
	01/05/12	108,203	496	22	0.02	---	---	---	0.001	0.000	0.000	Off. Restart, off at departure.
	01/23/12	108,303	100	18	0.00	---	---	---	0.000	0.000	0.000	Off. Restart.
	01/24/12	112,516	4,213	1	2.93	---	---	---	0.011	0.000	0.000	Off. Restart, off at departure.
	02/23/12	113,710	1,194	30	0.03	---	---	---	0.003	0.000	0.000	Off. Restart.
	02/28/12	118,833	5,123	5	0.71	---	---	---	0.014	0.000	0.000	On.
	02/29/12	119,300	467	1	0.32	---	---	---	0.001	0.000	0.000	Off. Restart.
	03/01/12	119,956	656	1	0.46	---	---	---	0.002	0.000	0.000	On.
	03/02/12	123,447	3,491	1	2.42	---	---	---	0.009	0.000	0.000	On.
	03/09/12	146,799	23,353	7	2.32	---	---	---	0.062	0.002	0.000	On.
	03/13/12	160,104	13,305	4	2.31	**2,100**	**70**	**ND (<5.0)**	0.232	0.008	0.000	On. Shutdown 3/16 due to overheating - SVE unit replaced.
	06/15/12	167,592	7,488	94	0.06	---	---	---	0.131	0.004	0.000	Startup of new SVE unit.
	06/19/12	169,669	2,077	4	0.36	---	---	---	0.036	0.001	0.000	Off. Restart.
	06/20/12	172,212	2,543	1	1.77	---	---	---	0.044	0.001	0.000	Off. Restart.
	07/03/12	179,966	7,754	13	0.41	---	---	---	0.135	0.005	0.000	Off 7/1 for QM. Restart.
	07/06/12	188,780	8,814	3	2.04	**1,000**	**26**	**ND (<5.0)**	0.073	0.002	0.000	On.
	07/10/12	193,738	4,958	4	0.86	**900**	**16**	**ND (<5.0)**	0.037	0.001	0.000	On.
	07/17/12	207,286	13,548	7	1.34	---	---	---	0.101	0.002	0.000	Off. Leave off. Restart 7/18.
	07/19/12	209,077	1,791	2	0.62	---	---	---	0.013	0.000	0.000	Off. Restart.
	07/20/12	211,310	2,233	1	1.55	---	---	---	0.017	0.000	0.000	On.
	07/21/12	212,880	1,570	1	1.09	---	---	---	0.012	0.000	0.000	Off. Restart.
	08/03/12	256,581	43,701	13	2.33	---	---	---	0.327	0.006	0.000	Off. Restart.
	08/07/12	258,157	1,577	4	0.27	---	---	---	0.012	0.000	0.000	Off. Restart.
	08/31/12	284,048	25,891	24	0.75	---	---	---	0.194	0.003	0.000	Off. Restart.
	09/20/12	286,963	2,915	20	0.10	---	---	---	0.022	0.000	0.000	Off. Restart.
									2.110	**0.137**	**0.000**	**Total Cumulative Removal (Lbs)**
System Effluent	04/27/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	Startup water sampling of effluent (3/7/11)
	12/14/11	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	
	07/10/12	---	---	---	---	**ND (<50)**	**ND (<0.5)**	**ND (<5.0)**	---	---	---	

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

ABBREVIATIONS AND NOTES:

1 = Initial totalizer reading was 2,090.

gpm = Gallons per minute

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

Table 3. GWE (DPE) System Performance Summary - 1230 14th Street, 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

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)

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Table 4. Air Sparge Performance Data - 1230 14th Street, Oakland, CA

Date	Sparge Wells	Compressor Hr Meter Reading[1] (hours)	Total Time[1] (days)	Interval Time (days)	AS-1 Flow Rate (scfm)	AS-1 Injection Pressure (PSI)	AS-2 Flow Rate (scfm)	AS-2 Injection Pressure (PSI)	AS-3 Flow Rate (scfm)	AS-3 Injection Pressure (PSI)	AS-4 Flow Rate (scfm)	AS-4 Injection Pressure (PSI)	AS-5 Flow Rate (scfm)	AS-5 Injection Pressure (PSI)	Notes
04/27/11	---	---	0.0	0.0	---	---	---	---	---	---	---	---	---	---	Startup Test of DPE System
05/05/11	---	---	0.0	0.0	---	---	---	---	---	---	---	---	---	---	Off
05/16/11	---	---	0.0	0.0	---	---	---	---	---	---	---	---	---	---	Off
05/24/11	---	---	0.0	0.0	---	---	---	---	---	---	---	---	---	---	Off.
07/13/11	---	---	0.0	0.0	---	---	---	---	---	---	---	---	---	---	Off.
09/06/11	AS-1,3,4,5	---	0.1	0.1	---	---	---	---	---	---	---	---	---	---	Off. Compressor on for test with sparging. Off at departure.
10/24/11	AS-1,3,4,5	---	0.2	0.1	1.8	9	---	---	2.0	8	1.6	10	1.0	10	Off. Test.
11/23/11	AS-1,3,4	---	0.3	0.1	2.5	8	---	---	2.5	6	2.6	10	---	---	Off. Test
11/28/11	AS-1,3,4	---	0.4	0.1	NM	NM	---	---	NM	NM	NM	NM	---	---	Off. Test for lead in influent with sparging.
11/29/11	AS-1,3,4	---	0.5	0.1	2.0	NM	---	---	2.0	NM	2.0	NM	---	---	Off. Restart. DPE/AS left on for testing.
12/01/11	AS-1,3,4	---	2.0	1.5	2.0	NM	---	---	2.0	NM	2.0	NM	---	---	On. Meets permit. Left on for testing.
12/14/11	AS-1,3,4	---	3.0	1.0	2.0	NM	---	---	2.0	NM	2.0	NM	---	---	Off. Restart. <97% dest so turn off.
01/05/12	AS-1,3,4	---	4.0	1.0	2.0	NM	---	---	2.0	NM	2.0	NM	---	---	Off. Restart. Shutdown.
01/23/12	AS-1,3,4	---	4.5	0.5	2.0	NM	---	---	2.0	NM	2.0	NM	---	---	Off. Restart.
01/24/12	ALL	---	5.5	1.0	1.8	NM	1.8	NM	1.8	NM	1.8	NM	1.8	NM	On. Turned Off.
02/15/12	AS-1, 2, 3,4	---	6.0	0.5	3.0	NM	3.0	NM	3.0	NM	3.0	NM	---	---	Off. Restart.
02/22/12	AS-1, 2, 3,4	---	6.0	0.0	3.0	NM	3.0	NM	3.0	NM	3.0	NM	---	---	Off. Replace capacitors. Restart
02/23/12	AS-2,4	---	7.0	1.0	---	---	3.0	NM	---	---	3.0	NM	---	---	On.
02/24/12	AS-2,4	---	8.0	1.0	---	---	3.0	NM	---	---	3.0	NM	---	---	On.
02/28/12	AS-2,4	---	12.0	4.0	---	---	3.0	13	---	---	3.0	9	---	---	On.
02/29/12	AS-2,4	2.0	13.0	1.0	---	---	3.0	13	---	---	3.0	9	---	---	On.
03/01/12	AS-2,4	3.3	13.3	0.3	---	---	3.0	13	---	---	3.0	12	---	---	On.
03/02/12	AS-2,4	7.0	14.3	0.9	---	---	3.0	12	---	---	3.0	12	---	---	On.
03/09/12	AS-2,4	34.7	21.2	6.9	---	---	3.4	7	---	---	3.0	14	---	---	On.
03/13/12	AS-2,4	51.4	25.4	4.2	---	---	3.0	5	---	---	3.0	13	---	---	On.
03/16/12	AS-2,4	62.0	28.0	2.7	---	---	3.0	5	---	---	3.0	13	---	---	On. Shut down - SVE unit overheated - SVE unit replaced.
06/15/12	AS-1,2,4	62.2	28.1	0.1	1.8	14	1.8	13	---	---	1.8	11	---	---	Start up new SVE unit. Restart AS
06/19/12	AS-2,4	72.4	30.6	2.6	---	---	1.8	13	---	---	1.8	11	---	---	Off. Restart.
06/20/12	AS-2,4	74.8	31.2	0.6	---	---	2.0	4	---	---	2.0	10	---	---	On.
07/03/12	AS-2,4	114.5	41.1	9.9	---	---	2.0	4	---	---	2.0	10	---	---	Off 7/1 for QM. Restart
07/05/12	AS-1,2,4	125.1	43.8	2.7	2.5	5	2.2	8	---	---	2.0	10	---	---	On. Inject Nontox VW/MW-4, AS-2, AS-4.
07/06/12	AS-1,2,4	127.0	44.3	0.5	2.4	10	2.2	13	---	---	2.0	22	---	---	On.
07/10/12	AS-1,2,4	147.6	48.5	4.3	2.0	7	2.0	5	---	---	2.0	11	---	---	On.
07/11/12	AS-1,2,4	151.4	49.3	0.8	2.0	14	2.0	9	---	---	2.0	15	---	---	On.
07/18/12	AS-1,2,4	169.2	53.8	4.5	2.0	14	2.0	9	---	---	2.0	15	---	---	Off. Restart. Inject Nontox VW/MW-4, AS-2, AS-4.
07/19/12	AS-1,2,4	172.0	54.5	0.7	2.0	11	2.0	7	---	---	2.0	11	---	---	On.
08/03/12	AS-1,2,4	229.5	66.5	12.0	2.0	11	2.0	7	---	---	2.0	11	---	---	Off. Restart.
08/07/12	AS-1,2,4	245.0	69.7	3.2	2.4	10	2.2	10	---	---	1.8	22	---	---	Off. Restart.
08/31/12	AS-1,2,4	276.3	76.2	6.5	2.0	9	2.2	8	---	---	2.0	18	---	---	Off. Restart.
09/20/12	AS-1,2,4	282.0	77.4	1.2	1.8	8	2.0	6	---	---	2.0	18	---	---	Off. Restart.

Notes:

1 = Compressor hour meter records run time of compressor when filling air tank: does not record air injection into wells when compressor idle. Actual sparging time exceeds hour meter reading by a factor of 5 to 6. Hours before 2/29/12 estimated.

ALL = Wells AS-1, AS-2, AS-3, AS-4 and AS-5.

scfm = standard cubic feet per minute based on in-line visi-float air meter.

PSI = pounds per square inch

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

System data estimated when specific data not available.

APPENDIX A

Groundwater Monitoring Program

Table A - Semi-Annual Groundwater Monitoring Program

1230 14th Street, Oakland, CA

Well ID	Well Type	Screened Interval (ft bgs)	Well Location for Monitoring	Casing Diam. (in)	Gauge Frequency	Sample Frequency[1]
Monitoring Wells						
MW-1	Mon	7-22	Downgradient	2	2nd, 4th	2nd, 4th
MW-2	Mon	7.5-22.5	S Upgradient	2	2nd, 4th	2nd
MW-3	Mon	7-21.5	W Upgradient	2	2nd, 4th	2nd
MW-4	Mon	7-22	NW Crossgradient	2	2nd, 4th	2nd
MW-5R	Mon	5-20	Source	4	2nd, 4th	2nd, 4th
MW-6	Mon	5-20	E Downgradient	4	2nd, 4th	2nd, 4th
MW-7	Mon	5-20	NE Downgradient	4	2nd, 4th	2nd, 4th
VMP-1	Vapor Monitoring	4.25-4.75	N Boundary (Downgradient)	1/2	--	--
Remediation/Monitoring Wells						
AS-1	Mon/Air Sparging	22-25	N Source	1	2nd, 4th	2nd, 4th
AS-2	Air Sparging	22-25	--	1	--	--
AS-3	Air Sparging	22-25	--	1	--	--
AS-4	Air Sparging	22-25	--	1	--	--
AS-5	Air Sparging	21.5-25	--	1	--	--
VW/MW-2	Mon/Vapor Extraction	6-22	W Crossgradient	2	2nd, 4th	2nd, 4th
VW/MW-4	Mon/Vapor Extraction	5-20	SW Downgradient	2	2nd, 4th	2nd, 4th
DP-1	Dual Phase Extraction (Rem)	8-20	--	4	2nd	2nd
DP-2	Dual Phase Extraction (Rem)	8-20	--	4	--	--
DP-3	Dual Phase Extraction (Rem)	8-20	--	4	--	--
DP-4	Dual Phase Extraction (Rem)	8-20	--	4	--	--
DP-5	Dual Phase Extraction (Rem)	8-20	--	4	2nd	2nd

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.

2nd, 4th = Semi Annually during second and fourth quarter, typically May and November

2nd = Annually during second quarter, typically May

Mon = Groundwater Monitoring Well

Rem= Remediation Well

VW = Vapor Extraction Well

VMP= Vapor Monitoring Well

DP = Dual Phase Extraction

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

-- = Not applicable, gauged or sampled.

Table B - Quarterly Groundwater Monitoring Program: 2012 with BOC Workplan

1230 14th Street, Oakland, CA

Well ID	Well Type	Screened Interval (ft bgs)	Well Location for Monitoring	Casing Diam. (in)	Gauge Frequency	Sample Frequency[1]
Monitoring Wells						
MW-1	Mon	7-22	Downgradient	2	2nd, 3rd, 4th	2nd, 3rd, 4th (and Nov/Dec[2])
MW-2	Mon	7.5-22.5	S Upgradient	2	2nd, 3rd, 4th	2nd (June)
MW-3	Mon	7-21.5	W Upgradient	2	2nd, 3rd, 4th	2nd (June)
MW-4	Mon	7-22	NW Crossgradient	2	2nd, 3rd, 4th	2nd (June)
MW-5R	Mon	5-20	Source	4	2nd, 3rd, 4th	2nd, 3rd, 4th (and Nov/Dec[2])
MW-6	Mon	5-20	E Downgradient	4	2nd, 3rd, 4th	2nd, 3rd, 4th (and Nov/Dec[2])
MW-7	Mon	5-20	NE Downgradient	4	2nd, 3rd, 4th	2nd, 3rd, 4th
VMP-1	Vapor Monitoring	4.25-4.75	N Boundary (Downgradient)	1/2	--	2nd (and Nov/Dec[2])
Remediation/Monitoring Wells						
AS-1	Mon/Air Sparging	22-25	N Source	1	2nd (June)	2nd (June)
AS-2	Air Sparging	22-25	--	1	2nd (June)	2nd (June)
AS-3	Air Sparging	22-25	--	1	2nd (June)	2nd (June)
AS-4	Air Sparging	22-25	--	1	2nd (June)	2nd (June)
AS-5	Air Sparging	21.5-25	--	1	2nd (June)	2nd (June)
VW/MW-2	Mon/Vapor Extraction	6-22	W Crossgradient	2	2nd, 3rd, 4th	2nd, 3rd, 4th
VW/MW-4	Mon/Vapor Extraction	5-20	SW Downgradient	2	2nd, 3rd, 4th	2nd, 3rd, 4th (and Nov/Dec[2])
DP-1	Dual Phase Extraction (Rem)	8-20	--	4	2nd, 3rd, 4th	2nd (and Nov/Dec[2])
DP-2	Dual Phase Extraction (Rem)	8-20	--	4	2nd, 3rd, 4th	2nd (and Nov/Dec[2])
DP-3	Dual Phase Extraction (Rem)	8-20	--	4	2nd, 3rd, 4th	2nd (June)
DP-4	Dual Phase Extraction (Rem)	8-20	--	4	2nd, 3rd, 4th	2nd (and Nov/Dec[2])
DP-5	Dual Phase Extraction (Rem)	8-20	--	4	2nd, 3rd, 4th	2nd (and Nov/Dec[2])

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.

2=Monthly Sampling in Nov/Dec 2012 for Enhanced Site Remediation evaluation (if approved by ACEH). Grab sample DP wells.

2nd, 3rd, 4th = Quarterly during second, third and fourth quarter. Propose June, September and December for 2012.

2nd = Annually during second quarter, typically May

Mon = Groundwater Monitoring Well

Rem= Remediation Well

VW = Vapor Extraction Well

VMP= Vapor Monitoring Well

DP = Dual Phase Extraction

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

-- = Not applicable, gauged or sampled.

APPENDIX B

Groundwater Monitoring Field Data Sheets

Pangea
ENVIRONMENTAL SERVICES, INC.

Well Gauging Data Sheet

Project.Task #:1150.001	Project Name: Saberi - 1230 14th St.
1230 14th Street, Oakland, CA	Date: 6/30/12
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	2	08:51			11.67	21.32	TOC
MW-2	2	08:39			10.49	22.02	
MW-3	2	08:35			10.60	18.65	
MW-4	2	08:30			10.94	19.81	
MW-5R	4	09:12			12.15	22.60	
MW-6	4	08:45			11.74	19.70	
MW-7	4	09:05			12.29	19.81	
AS-1	1	08:57			24.29	26.00	
VW-MW-2	2	09:25			10.63	21.89	
VW-MW4	2	09:20			11.01	18.23	
DP-1	4	09:40			11.25	22.49	X

Comments:

Extraction system hrs = 148234 to system on upon arrival (shut off system at 10:00 after gauging wells)
Air Sparge hrs = 001140

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Well Gauging Data Sheet

Project.Task #:1150.001				Project Name: Saberi - 1230 14th St.			
1230 14th Street, Oakland, CA						Date: 6/30/12	
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
DP-5	4	09:45			10.85	20.04	TOC

Comments:

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MONITORING FIELD DATA SHEET

Well ID: MW-1

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 21.32	Depth to Product:
Depth to Water (DTW): 11.67	Product Thickness:
Water Column Height: 9.65	1 Casing Volume: 1.54 gallons
Reference Point: TOC	3 Casing Volumes: 4.62 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
15:00	20.2	7.42	790				1.5	
15:05	19.9	7.38	771				3.0	
15:10	19.8	7.36	767				4.5	

Comments: YSI 550A DO meter

pre purge DO = 6.18 mg/l

;

post purge DO = mg/l

Sample ID: MW-1	Sample Time: 15:15
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-2

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 22.02	Depth to Product:
Depth to Water (DTW): 10.49	Product Thickness:
Water Column Height: 11.53	1 Casing Volume: 1.84 gallons
Reference Point: TOC	3 Casing Volumes: 5.52 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
12:00	19.5	6.90	629				2.0	
12:05	19.5	6.95	610				4.0	
12:10	19.7	6.97	612				5.5	

Comments: YSI 550A DO meter — pre purge DO = 3.46 mg/l

; — post purge DO = mg/l

Sample ID: MW-2	Sample Time: 12:15
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg,BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-3

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 18.65	Depth to Product:
Depth to Water (DTW): 10.60	Product Thickness:
Water Column Height: 8.05	1 Casing Volume: 1.28 gallons
Reference Point: TOC	3 Casing Volumes: 3.84 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
11:30	19.6	7.24	792				1.5	
11:35	19.9	7.22	770				3.0	
11:40	20.0	7.21	768				4.0	

Comments: YSI 550A DO meter — pre purge DO = 2.53 mg/l

; — post purge DO = mg/l

Sample ID: MW-3	Sample Time: 11:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg,BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-4

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 19.81	Depth to Product:
Depth to Water (DTW): 10.94	Product Thickness:
Water Column Height: 8.87	1 Casing Volume: 1.41 gallons
Reference Point: TOC	3 Casing Volumes: 4.23 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
11:05	19.4	7.33	490				1.5	
11:08	19.9	7.38	494				3.0	
11:10	20.0	7.37	490				4.0	

Comments: YSI 550A DO meter — pre purge DO = 4.01 mg/l

; — post purge DO = mg/l

Sample ID: MW-4	Sample Time: 11:15
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-5R

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: Cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 22.60	Depth to Product:
Depth to Water (DTW): 12.15	Product Thickness:
Water Column Height: 10.45	1 Casing Volume: 6.79 gallons
Reference Point: TOC	3 Casing Volumes: 20.37 gallons
Purging Device: 3" 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
15:30	20.2	7.29	1016				7.0	
15:35	20.2	7.31	1048				14.0	
15:40	20.2	7.31	1051				20.0	

Comments: YSI 550A DO meter — pre purge DO = 2.30 mg/l

; — post purge DO = mg/l

Sample ID: MW-5R	Sample Time: 15:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-6

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: Cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 19.70	Depth to Product:
Depth to Water (DTW): 11.74	Product Thickness:
Water Column Height: 7.96	1 Casing Volume: 5.17 gallons
Reference Point: TOC	3 Casing Volumes: 15.51 gallons
Purging Device: 3" 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	19.9	7.36	443				5.0	
12:40	20.1	7.42	448				10.0	
12:50	20.2	7.44	441				15.5	

Comments: YSI 550A DO meter — pre purge DO = 1.47 mg/l

; — post purge DO = mg/l

Sample ID: MW-6	Sample Time: 12:55
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg,BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-7

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 19.81	Depth to Product:
Depth to Water (DTW): 12.29	Product Thickness:
Water Column Height: 7.52	1 Casing Volume: 4.88 gallons
Reference Point: TOC	3 Casing Volumes: 14.64 gallons
Purging Device: 3" 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	20.1	7.12	806				5.0	
13:15	19.9	7.15	829				10.0	
13:20	19.9	7.17	813				14.5	

Comments: YSI 550A DO meter — pre purge DO = 2.92 mg/l

; — post purge DO = mg/l

Sample ID: MW-7	Sample Time: 13:25
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg,BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: AS-1

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: Cloudy
Well Diameter: 1"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 26.00	Depth to Product:
Depth to Water (DTW): 24.29	Product Thickness:
Water Column Height: 1.71	1 Casing Volume: 0.06 gallons
Reference Point: TOC	3 Casing Volumes: 0.18 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
13:40	20.1	7.21	755				0.1	
13:41	20.1	7.20	759				0.2	
13:42	20.1	7.24	756				0.3	

Comments: YSI 550A DO meter — pre purge DO = — mg/l — no DO per Morgan

; — post purge DO = — mg/l

Sample ID: AS-1	Sample Time: 13:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: VW-MW-2

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.			
Address: 1230 14th Street, Oaklane, CA				
Date: 6/30/12	Weather: Cloudy			
Well Diameter: 2"	Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47
		2" = 0.16	4" = 0.65	radius² * 0.163
Total Depth (TD): 21.89	Depth to Product:			
Depth to Water (DTW): 10.63	Product Thickness:			
Water Column Height: 11.26	1 Casing Volume: 1.80 gallons			
Reference Point: TOC	3 Casing Volumes: 5.40 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
14:30	19.9	7.31	592				1.5	
14:35	19.7	7.28	599				3.0	
14:40	20.1	7.29	604				5.0	

Comments: YSI 550A DO meter — pre purge DO = 4.41 mg/l

; — post purge DO = mg/l

Sample ID: VW/MW-2	Sample Time: 14:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: VW-MW-4

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 18.23	Depth to Product:
Depth to Water (DTW): 11.01	Product Thickness:
Water Column Height: 7.22	1 Casing Volume: 1.15 gallons
Reference Point: TOC	___ Casing Volumes: 3.45 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
14:00	20.2	7.11	735				1.0	
14:05	20.2	7.19	737				2.0	
14:10	20.0	7.25	743				3.5	

Comments: YSI 550A DO meter — pre purge DO = 1.29 mg/l

; — post purge DO = mg/l

Sample ID: VW/MW-4	Sample Time: 14:15
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg,BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: DP-1

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: Cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 22.49	Depth to Product:
Depth to Water (DTW): 11.25	Product Thickness:
Water Column Height: —	1 Casing Volume: — gallons
Reference Point: TOC	— Casing Volumes: — 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
			No purge					

Comments: YSI 550A DO meter — pre purge DO = 0.08 mg/l

; — post purge DO = mg/l

Sample ID: DP-1	Sample Time: 15:55
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg,BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: DP-5

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oaklane, CA	
Date: 6/30/12	Weather: Cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 20.04	Depth to Product:
Depth to Water (DTW): 10.85	Product Thickness:
Water Column Height: —	1 Casing Volume: — gallons
Reference Point: TOC	___ Casing Volumes: — 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
			No Purge					

Comments: YSI 550A DO meter — pre purge DO = 0.14 mg/l

; — post purge DO = mg/l

Sample ID: DP-5	Sample Time: 16:00
Laboratory: McCampbell Analytical, INC.	Sample Date: 6/30/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg,BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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Well Gauging Data Sheet

Project.Task #:1150.001				Project Name: Saberi - 1230 14th St.			
1230 14th Street, Oakland, CA						Date 9/1/12	
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	2"	09:20			13.56	21.32	TOC
MW-5R	4"	09:25			13.64	22.60	
MW-6	4"	09:15			13.52	19.70	
DP-1	4"	09:45			13.63		
DP-2	4"	09:35			13.83		
DP-4	4"	09:30			12.26		
DP-5	4"	09:40			13.51		

Comments:

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MONITORING FIELD DATA SHEET

Well ID: MW-1

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oakland, CA	
Date: 9/1/12	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 21.32	Depth to Product:
Depth to Water (DTW): 13.56	Product Thickness:
Water Column Height: 7.76	1 Casing Volume: 1.24 gallons
Reference Point: TOC	3 Casing Volumes: 3.72 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
10:45	20.6	7.49	736				1.5	
10:50	20.4	7.52	778				3.0	
10:55	20.3	7.54	774				4.0	

Comments: YSI 550A DO meter — pre purge DO = 4.22 mg/l

; — post purge DO = mg/l

Sample ID: MW-1	Sample Time: 11:00
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/1/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-5R

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oakland, CA	
Date: 9/1/12	Weather: cloudy
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): 22.60	Depth to Product:
Depth to Water (DTW): 13.64	Product Thickness:
Water Column Height: 8.96	1 Casing Volume: 5.82 gallons
Reference Point: TOC	3 Casing Volumes: 17.46 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
11:15	20.9	7.21	1050				6.0	
11:20	20.7	7.20	1092				12.0	
11:25	20.7	7.18	1065				17.0	

Comments: YSI 550A DO meter

pre purge DO = 1.94 mg/l

;

post purge DO = mg/l

Sample ID: MW-5R	Sample Time: 11:30
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/1/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-6

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oakland, CA	
Date: 9/1/12	Weather: cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 19.70	Depth to Product:
Depth to Water (DTW): 13.52	Product Thickness:
Water Column Height: 6.18	1 Casing Volume: 4.01 gallons
Reference Point: TOC	3 Casing Volumes: 12.03 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
10:15	20.1	7.40	519				4	
10:20	20.6	7.43	531				8	
10:25	20.7	7.45	533				12	

Comments: YSI 550A DO meter — pre purge DO = 1.50 mg/l

; — post purge DO = mg/l

Sample ID: MW-6	Sample Time: 10:30
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/1/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: DP-1

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.			
Address: 1230 14th Street, Oakland CA				
Date: 9/1/12	Weather: Cloudy			
Well Diameter: 4"	Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47
		2" = 0.16	4" = 0.65	radius^2 * 0.163
Total Depth (TD):	Depth to Product:			
Depth to Water (DTW): 13.63	Product Thickness:			
Water Column Height:	1 Casing Volume: gallons			
Reference Point: TOC	____ Casing Volumes: 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
	Grab sample no purge							

Comments: YSI 550A DO meter — pre purge DO = 2.09 mg/l

; — post purge DO = mg/l

Sample ID: DP-1	Sample Time: 12:25
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/1/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: DP-2

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.			
Address: 1230 14th Street, Oakland, CA				
Date: 9/1/12	Weather: cloudy			
Well Diameter: 4"	Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47
		2" = 0.16	4" = 0.65	radius^2 * 0.163
Total Depth (TD):	Depth to Product:			
Depth to Water (DTW): 13.83	Product Thickness:			
Water Column Height:	1 Casing Volume: gallons			
Reference Point: TOC	___ Casing Volumes: 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
	grab sample NV purge							

Comments: YSI 550A DO meter — pre purge DO = 1.17 mg/l

; — post purge DO = mg/l

Sample ID: DP-2	Sample Time: 12:10
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/1/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg,BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: DP-4

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.
Address: 1230 14th Street, Oakland CA	
Date: 9/1/12	Weather: cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD):	Depth to Product:
Depth to Water (DTW): 12.26	Product Thickness:
Water Column Height:	1 Casing Volume: gallons
Reference Point: TOC	____ Casing Volumes: 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
		grab	sample					

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

; — post purge DO = mg/l

Sample ID: DP-4	Sample Time: 11:55
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/1/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg,BTEX, MTBE	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: DP-5

Project.Task #: 1150.001	Project Name: Saberi - 1230 14th St.			
Address: 1230 14th Street, Oakland, CA				
Date: 9/1/12	Weather: cloudy			
Well Diameter: 4"	Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47
		2" = 0.16	4" = 0.65	radius^2 * 0.163
Total Depth (TD):	Depth to Product:			
Depth to Water (DTW): 13.51	Product Thickness:			
Water Column Height:	1 Casing Volume: gallons			
Reference Point: TOC	___ Casing Volumes: 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
grab sample NO purge								

Comments: YSI 550A DO meter — pre purge DO = 0.29 mg/l

; — post purge DO = mg/l

Sample ID: DP-5	Sample Time: 12:15
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/1/12
Containers/Preservative: VOA/HCl	
Analyzed for: TPHg, BTEX, MTBE	
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: #1150.001; Saberi-1230 14th St	Date Sampled: 06/30/12
		Date Received: 07/03/12
	Client Contact: Tina De La Fuente	Date Reported: 07/11/12
	Client P.O.:	Date Completed: 07/11/12

WorkOrder: 1207041

July 11, 2012

Dear Tina:

Enclosed within are:

1) The results of the **12** analyzed samples from your project: **#1150.001; Saberi-1230 14th St,**
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 ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

120704 0

CHAIN OF CUSTODY RECORD

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

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

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

Report To: Tina de la Fuente	Bill To: Pangea
Company: Pangea Environmental Services	
1710 Franklin St., Ste: 200 Oakland, CA	E-Mail: tdelafuente@pangeaenv.com
Tele: 510-836-3702	Fax: 510-836-3709
Project #: 1150.001	Project Name: Saberi-1230 14th St
Project Location: 1230 14th St., Oakland, CA	
Sampler Signature: Muskan Environmental Sampling	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: ICE	HCL	HNO_3	Other	BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	RCRA 8 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	Other	Other	Comments
15 MW-1		6/30/12	15:15	3	VOA	X					X	X			X																				
+ MW-2			12:15																																
+1 MW-3			11:45																																
+5 MW-4			11:15																																
+ MW-5R			15:45																																
+ MW-6			12:55																																
+ MW-7			13:25																																
+ AS-1			13:45																																
+15 VW-MW-2			14:45																																
+ VW-MW-4			14:15																																
(+1) DP-1			15:55																																

**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:
	7/3/12	11:04	M. Vasquez
M. Vasquez	7/3	1375	Mel Vall

ICE/t° 4.5° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

COMMENTS:

PRESERVATION	VOAS ✓	O&G	METALS	OTHER
			pH<2	

McCAMPBELL ANALYTICAL, INC.
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PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

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

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

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

Report To:	Tina de la Fuente	**Bill To:**	Pangea
Company:	Pangea Environmental Services 1710 Franklin St., Ste: 200 Oakland, CA	**E-Mail:**	tdelafuente@pangeaenv.com
Tele:	510-836-3702	**Fax:**	510-836-3709
Project #:	1150.001	**Project Name:**	Saberi-1230 14th St
Project Location:	1230 14th St., Oakland, CA		
Sampler Signature:	Muskan Environmental Sampling		

SAMPLE ID	LOCATION/ Field Point Name	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	BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	RCRA 8 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other: Filter sample for DISSOLVED metals analysis	Other	Other	Comments
DP-5		6/30/12	16:00	3	VOA	X					X	X			X																			

Analysis Request | **Other** | **Comments**

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

****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:
	7/3/12	11:00	M. Vasquez
Relinquished By: M. Vasquez	Date: 7/3	Time: 1375	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
PRESERVATION			pH<2	

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1207041 **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: #1150.001; Saberi-1230 14th St

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

Requested TAT: 5 days

Date Received: **07/03/2012**
Date Printed: **07/03/2012**

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
1207041-001	MW-1	Water	6/30/2012 15:15	☐	A	A										
1207041-002	MW-2	Water	6/30/2012 12:15	☐	A											
1207041-003	MW-3	Water	6/30/2012 11:45	☐	A											
1207041-004	MW-4	Water	6/30/2012 11:15	☐	A											
1207041-005	MW-5R	Water	6/30/2012 15:45	☐	A											
1207041-006	MW-6	Water	6/30/2012 12:55	☐	A											
1207041-007	MW-7	Water	6/30/2012 13:25	☐	A											
1207041-008	AS-1	Water	6/30/2012 13:45	☐	A											
1207041-009	VW-MW-2	Water	6/30/2012 14:45	☐	A											
1207041-010	VW-MW-4	Water	6/30/2012 14:15	☐	A											
1207041-011	DP-1	Water	6/30/2012 15:55	☐	A											
1207041-012	DP-5	Water	6/30/2012 16:00	☐	A											

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

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Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **7/3/2012 2:10:26 PM**

Project Name: **#1150.001; Saberi-1230 14th St**
LogIn Reviewed by: Melissa Valles

WorkOrder N°: **1207041** Matrix: Water
Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 4.3°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:

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Pangea Environmental Svcs., Inc.	Client Project ID: #1150.001; Saberi-1230 14th St	Date Sampled: 06/30/12
		Date Received: 07/03/12
1710 Franklin Street, Ste. 200	Client Contact: Tina De La Fuente	Date Extracted: 07/06/12-07/11/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 07/06/12-07/11/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1207041

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	260	ND	0.58	0.99	3.4	13	1	101	d1,b1
002A	MW-2	W	ND	ND	ND	ND	ND	ND	1	100	
003A	MW-3	W	ND	ND	ND	ND	ND	ND	1	93	b1
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	90	b1
005A	MW-5R	W	3400	ND<25	300	53	120	150	5	107	d1
006A	MW-6	W	ND	ND	ND	ND	ND	ND	1	87	
007A	MW-7	W	ND	ND	ND	ND	ND	ND	1	88	
008A	AS-1	W	ND	ND	ND	ND	ND	ND	1	91	
009A	VW-MW-2	W	ND	ND	ND	0.54	ND	3.1	1	90	b1
010A	VW-MW-4	W	3400	ND<50	640	42	39	190	10	101	d1
011A	DP-1	W	2800	ND<50	66	41	43	420	10	94	d1
012A	DP-5	W	4600	ND<50	350	240	83	470	10	100	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:
b1) aqueous sample that contains greater than ~1 vol. % sediment
d1) weakly modified or unmodified gasoline is significant

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 68845 | WorkOrder: 1207041

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1207014-001A**

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	108	101	7.08	110	70 - 130	20	70 - 130
MTBE	ND	10	103	104	0.661	101	70 - 130	20	70 - 130
Benzene	ND	10	100	106	6.02	104	70 - 130	20	70 - 130
Toluene	ND	10	99.4	106	6.84	104	70 - 130	20	70 - 130
Ethylbenzene	ND	10	98.7	102	3.50	104	70 - 130	20	70 - 130
Xylenes	ND	30	93.9	98.7	5.02	100	70 - 130	20	70 - 130
%SS:	105	10	100	98	2.45	100	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 68845 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1207041-001A	06/30/12 3:15 PM	07/06/12	07/06/12 2:27 PM	1207041-004A	06/30/12 11:15 AM	07/06/12	07/06/12 3:29 PM
1207041-005A	06/30/12 3:45 PM	07/11/12	07/11/12 2:12 PM	1207041-006A	06/30/12 12:55 PM	07/06/12	07/06/12 5:49 PM
1207041-007A	06/30/12 1:25 PM	07/06/12	07/06/12 6:21 PM	1207041-008A	06/30/12 1:45 PM	07/06/12	07/06/12 10:00 PM
1207041-009A	06/30/12 2:45 PM	07/09/12	07/09/12 4:39 PM	1207041-010A	06/30/12 2:15 PM	07/06/12	07/06/12 8:31 PM
1207041-011A	06/30/12 3:55 PM	07/06/12	07/06/12 9:30 PM	1207041-012A	06/30/12 4:00 PM	07/06/12	07/06/12 10:29 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"

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 68886 | WorkOrder: 1207041

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1207036-004A**

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	83.9	85.7	2.15	94.4	70 - 130	20	70 - 130
MTBE	ND	10	90	88.7	1.44	98.2	70 - 130	20	70 - 130
Benzene	ND	10	84.4	81	4.04	88.1	70 - 130	20	70 - 130
Toluene	ND	10	86.5	82.2	5.03	88.6	70 - 130	20	70 - 130
Ethylbenzene	ND	10	86.1	82.3	4.52	89.9	70 - 130	20	70 - 130
Xylenes	ND	30	88.6	85	4.07	93	70 - 130	20	70 - 130
%SS:	96	10	95	91	4.24	91	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 68886 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1207041-002A	06/30/12 12:15 PM	07/06/12	07/06/12 8:41 AM	1207041-003A	06/30/12 11:45 AM	07/07/12	07/07/12 4:52 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: #1150.001; Saberi-1230 14th Street	Date Sampled: 09/01/12
		Date Received: 09/04/12
	Client Contact: Tina De La Fuente	Date Reported: 09/10/12
	Client P.O.:	Date Completed: 09/06/12

WorkOrder: 1209009

September 10, 2012

Dear Tina:

Enclosed within are:

1) The results of the **7** analyzed samples from your project: **#1150.001; Saberi-1230 14th Street,**
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.

1209009

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 ☒ Excel ☐ Write On (DW) ☐

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

Report To: Tina de la Fuente
Company: Pangea Environmental Services
1710 Franklin Street, Ste: 200
Oakland, CA
Tele: (510) 836-3702

Bill To: Pangea
E-Mail: tdelafuente@pangeaenv.com
Fax: (510) 836-3709

Project #: 1150.001
Project Name: Saberi - 1230 14th Street
Project Location: 1230 14th Street, Oakland, CA
Sampler Signature: Muskan Environmental Sampling

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: ICE	HCL	HNO_3	Other
+2 MW-1		9/1/12	11:00	3	VOA	X					X	X		
+ MW-5R			11:30											
+ MW-6			10:30											
+ DP-1			12:25											
+ DP-2			12:10											
+ DP-4			11:55											
+ DP-5			12:15											

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

Other: Filter sample for DISSOLVED metals analysis

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

**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:
	9/4/12	1:04	
Relinquished By:	Date:	Time:	Received By:
	9/4/12	2:40	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 24
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

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

COMMENTS:

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1209009 **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: #1150.001; Saberi-1230 14th Street

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

Requested TAT: 5 days

Date Received: **09/04/2012**
Date Printed: **09/04/2012**

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
1209009-001	MW-1	Water	9/1/2012 11:00	☐	A	A										
1209009-002	MW-5R	Water	9/1/2012 11:30	☐	A											
1209009-003	MW-6	Water	9/1/2012 10:30	☐	A											
1209009-004	DP-1	Water	9/1/2012 12:25	☐	A											
1209009-005	DP-2	Water	9/1/2012 12:10	☐	A											
1209009-006	DP-4	Water	9/1/2012 11:55	☐	A											
1209009-007	DP-5	Water	9/1/2012 12:15	☐	A											

Test Legend:

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

Prepared by: Maria Venegas

Comments:

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

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

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **9/4/2012 2:49:06 PM**

Project Name: **#1150.001; Saberi-1230 14th Street**
LogIn Reviewed by: Maria Venegas

WorkOrder N°: **1209009** Matrix: Water
Carrier: David Valles (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: 2.4°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"

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

Pangea Environmental Svcs., Inc.	Client Project ID: #1150.001; Saberi-1230 14th Street	Date Sampled: 09/01/12
		Date Received: 09/04/12
1710 Franklin Street, Ste. 200	Client Contact: Tina De La Fuente	Date Extracted: 09/05/12-09/07/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 09/05/12-09/07/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1209009

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	220	ND	0.60	1.0	7.8	13	1	95	d1,b1
002A	MW-5R	W	1200	ND<10	110	20	51	120	2	120	d1
003A	MW-6	W	ND	ND	ND	ND	ND	ND	1	87	
004A	DP-1	W	7300	ND<250	360	180	68	1700	50	88	d1
005A	DP-2	W	2300	ND<50	100	17	61	440	10	96	d1
006A	DP-4	W	590	ND	3.6	15	2.6	140	1	106	d1
007A	DP-5	W	8100	ND<50	270	910	180	1700	10	110	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:
b1) aqueous sample that contains greater than ~1 vol. % sediment
d1) weakly modified or unmodified gasoline is significant

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 70501 | WorkOrder: 1209009

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1209009-003A**

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	96.3	97.2	0.917	106	70 - 130	20	70 - 130
MTBE	ND	10	103	106	2.57	101	70 - 130	20	70 - 130
Benzene	ND	10	99.5	98.8	0.740	106	70 - 130	20	70 - 130
Toluene	ND	10	103	101	1.76	108	70 - 130	20	70 - 130
Ethylbenzene	ND	10	105	103	1.48	109	70 - 130	20	70 - 130
Xylenes	ND	30	111	109	1.62	113	70 - 130	20	70 - 130
%SS:	87	10	82	79	4.29	91	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 70501 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1209009-001A	09/01/12 11:00 AM	09/05/12	09/05/12 5:23 PM	1209009-002A	09/01/12 11:30 AM	09/07/12	09/07/12 1:11 AM
1209009-003A	09/01/12 10:30 AM	09/05/12	09/05/12 6:54 PM	1209009-004A	09/01/12 12:25 PM	09/05/12	09/05/12 8:23 PM
1209009-005A	09/01/12 12:10 PM	09/07/12	09/07/12 7:09 AM	1209009-006A	09/01/12 11:55 AM	09/05/12	09/05/12 7:24 PM
1209009-007A	09/01/12 12:15 PM	09/07/12	09/07/12 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 = 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.
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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: #1150.001; 1230 14th St	Date Sampled: 01/24/12
		Date Received: 01/24/12
	Client Contact: Morgan Gillies	Date Reported: 01/30/12
	Client P.O.:	Date Completed: 01/25/12

WorkOrder: 1201648

January 30, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#1150.001; 1230 14th St,**
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.

1.201648

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
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: Morgan Gillies	Bill To: Pangea
Company: Pangea Environmental Services, Inc.	
1710 Franklin Street, Suite 200, Oakland, CA 94612	
	E-Mail: mgillies@pangeaenv.com
Tele: (510) 836-3702	Fax: (510) 836-3709
Project #: 1150.001	Project Name: 1230 14th St
Project Location: 1230 14th St., Oakland	
Sampler Signature:	

SAMPLE ID	LOCATION (Field Point Name)	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	Other	Comments
EFF-V	EFF	1-24-12	1010	1	Tedlar			X						X	X		
INF-V	INF	1-24-12	1020	1	Tedlar			X						X	X		

Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date: 1-24-12	Time: 1421	Received By:
Relinquished By:	Date: 1/24	Time: 1730	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
PRESERVATION_____ pH<2_____

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1201648 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ 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
cc:
PO:
ProjectNo: #1150.001; 1230 14th St

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

Requested TAT: **5 days**

Date Received: **01/24/2012**
Date Printed: **01/24/2012**

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
1201648-001	EFF-V	Air	1/24/2012 10:10	☐	A	A										
1201648-002	INF-V	Air	1/24/2012 10:20	☐	A											

Test Legend:

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

The following SampIDs: 001A, 002A contain testgroup.

Prepared by: Ana 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.
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Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **1/24/2012 5:57:14 PM**

Project Name: **#1150.001; 1230 14th St**

Checklist completed and reviewed by: Ana Venegas

WorkOrder N°: **1201648** Matrix: Air

Carrier: Benjamin Yslas (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: #1150.001; 1230 14th St	Date Sampled: 01/24/12
		Date Received: 01/24/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 01/25/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 01/25/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1201648

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	EFF-V	A	630	ND	9.0	7.8	1.4	6.6	1	---#	d1
002A	INF-V	A	5200	ND<80	77	72	15	62	6.7	100	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"

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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: #1150.001; 1230 14th St	Date Sampled: 01/24/12
		Date Received: 01/24/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 01/25/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 01/25/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1201648

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	EFF-V	A	180	ND	2.8	2.0	0.32	1.5	1	---#	d1
002A	INF-V	A	1500	ND<26	24	19	3.5	14	6.7	100	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"

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air | QC Matrix: Water | BatchID: 64315 | WorkOrder: 1201648

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1201654-002C**

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	121	114	5.47	119	70 - 130	20	70 - 130
MTBE	ND	10	104	92.3	11.6	104	70 - 130	20	70 - 130
Benzene	ND	10	106	100	5.63	105	70 - 130	20	70 - 130
Toluene	ND	10	105	101	4.38	103	70 - 130	20	70 - 130
Ethylbenzene	ND	10	106	103	3.33	104	70 - 130	20	70 - 130
Xylenes	ND	30	108	106	1.69	107	70 - 130	20	70 - 130
%SS:	106	10	94	94	0	95	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 64315 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201648-001A	01/24/12 10:10 AM	01/25/12	01/25/12 7:04 AM	1201648-002A	01/24/12 10:20 AM	01/25/12	01/25/12 3:19 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 = 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

Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1150.001; 1230 14th St	Date Sampled: 02/15/12
		Date Received: 02/16/12
	Client Contact: Morgan Gillies	Date Reported: 02/22/12
	Client P.O.:	Date Completed: 02/22/12

WorkOrder: 1202512

February 22, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#1150.001; 1230 14th St,**
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.

1202512

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
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: Morgan Gillies Bill To: Pangea

Company: Pangea Environmental Services, Inc.

1710 Franklin Street, Suite 200, Oakland, CA 94612

E-Mail: mgillies@pangeaenv.com

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

Project #: 1150.001 Project Name: 1230 14th St

Project Location: 1230 14th St., Oakland

Sampler Signature:

SAMPLE ID	LOCATION (Field Point Name)	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: 5 Oxygenates (8260)	Other	Comments
INF-V	INF	2/15	1715	1	T			X							X			
EFF-V	EFF	2/15	1710	1	T			X							X			

Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date:	Time:	Received By:
	2/16	1700	
Relinquished By:	Date:	Time:	Received By:
	2/16	1859	
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
PRESERVATION _____ pH<2 _____

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1202512 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ 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
cc:
PO:
ProjectNo: #1150.001; 1230 14th St

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

Requested TAT: 5 days

Date Received: **02/16/2012**
Date Printed: **02/16/2012**

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
1202512-001	INF-V	Air	2/15/2012 17:15	☐	A											
1202512-002	EFF-V	Air	2/15/2012 17:10	☐	A											

Test Legend:

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

The following SampIDs: 001A, 002A contain testgroup.

Prepared by: Ana Venegas

Comments:

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

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Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **2/16/2012 6:58:09 PM**

Project Name: **#1150.001; 1230 14th St**

Checklist completed and reviewed by: Ana Venegas

WorkOrder N°: **1202512** Matrix: Air

Carrier: Benjamin Yslas (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.
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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: #1150.001; 1230 14th St	Date Sampled: 02/15/12
		Date Received: 02/16/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 02/17/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 02/17/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1202512

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-V	A	660	---	7.0	5.5	0.68	3.2	2	118	d1
002A	EFF-V	A	ND	---	ND	0.26	ND	0.65	1	105	

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

Pangea Environmental Svcs., Inc.	Client Project ID: #1150.001; 1230 14th St	Date Sampled: 02/15/12
		Date Received: 02/16/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 02/17/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 02/17/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1202512

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-V	A	180	---	2.1	1.4	0.15	0.72	2	118	d1
002A	EFF-V	A	ND	---	ND	0.067	ND	0.15	1	105	

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air | QC Matrix: Water | BatchID: 64935 | WorkOrder: 1202512

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1202451-006A**

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	115	107	7.63	112	70 - 130	20	70 - 130
MTBE	ND	10	102	103	0.753	101	70 - 130	20	70 - 130
Benzene	ND	10	104	100	4.35	98.9	70 - 130	20	70 - 130
Toluene	ND	10	103	98.1	4.59	96.7	70 - 130	20	70 - 130
Ethylbenzene	ND	10	103	98.4	4.74	97.3	70 - 130	20	70 - 130
Xylenes	ND	30	104	98.7	5.43	98	70 - 130	20	70 - 130
%SS:	104	10	99	102	2.22	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 64935 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202512-001A	02/15/12 5:15 PM	02/17/12	02/17/12 3:05 PM	1202512-001A	02/15/12 5:15 PM	02/17/12	02/17/12 3:05 PM
1202512-002A	02/15/12 5:10 PM	02/17/12	02/17/12 2:36 PM	1202512-002A	02/15/12 5:10 PM	02/17/12	02/17/12 2:36 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 = 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.
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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: #1150.001; 1230 14th St	Date Sampled: 02/23/12
		Date Received: 02/23/12
	Client Contact: Morgan Gillies	Date Reported: 02/29/12
	Client P.O.:	Date Completed: 02/27/12

WorkOrder: 1202686

February 29, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#1150.001; 1230 14th St,**
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 Road
Pittsburg, CA 94565
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

120686

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

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

Report To: Morgan Gillies	Bill To: Pangea
Company: Pangea Environmental Services, Inc.	
1710 Franklin Street, Suite 200, Oakland, CA 94612	
	E-Mail: mgillies@pangeaenv.com
Tele: (510) 836-3702	Fax: (510) 836-3709
Project #: 1150.001	Project Name: 1230 14th St
Project Location: 1230 14th St., Oakland	
Sampler Signature:	

SAMPLE ID	LOCATION (Field Point Name)	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: 5 Oxygenates (8260)	Other	Comments
INF-V		2/23	1230	1	T			X							X			
EFF-V		2/23	1225	1	T			X							X			

Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date: 2/23/12	Time: 1429	Received By:
Relinquished By:	Date: 2/23/12	Time: 1515	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° n/a
GOOD CONDITION____
HEAD SPACE ABSENT____
DECHLORINATED IN LAB____
APPROPRIATE CONTAINERS____
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: 1202686 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ 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
cc:
PO:
ProjectNo: #1150.001; 1230 14th St

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

Requested TAT: **5 days**

Date Received: **02/23/2012**
Date Printed: **02/24/2012**

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
1202686-001	INF-V	Air	2/23/2012 12:30	☐	A	A										
1202686-002	EFF-V	Air	2/23/2012 12:25	☐	A											

Test Legend:

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

The following SampIDs: 001A, 002A contain testgroup.

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"

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

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **2/23/2012 7:35:01 PM**

Project Name: **#1150.001; 1230 14th St**

Checklist completed and reviewed by: Zoraida Cortez

WorkOrder N°: **1202686** 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"

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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: #1150.001; 1230 14th St	Date Sampled: 02/23/12
		Date Received: 02/23/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 02/24/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 02/24/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1202686

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-V	A	3100	ND<35	27	28	3.1	16	2	103	d1
002A	EFF-V	A	28	ND	ND	0.36	ND	0.34	1	114	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"

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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: #1150.001; 1230 14th St	Date Sampled: 02/23/12
		Date Received: 02/23/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 02/24/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 02/24/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1202686

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-V	A	860	ND<10	8.5	7.3	0.71	3.7	2	103	d1
002A	EFF-V	A	7.9	ND	ND	0.094	ND	0.076	1	114	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"

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air | QC Matrix: Water | BatchID: 65189 | WorkOrder: 1202686

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1202671-011B**

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	105	116	9.33	116	70 - 130	20	70 - 130
MTBE	ND	10	98	101	3.51	113	70 - 130	20	70 - 130
Benzene	ND	10	99.1	99.5	0.440	111	70 - 130	20	70 - 130
Toluene	ND	10	96	98.2	2.15	109	70 - 130	20	70 - 130
Ethylbenzene	ND	10	97.4	100	2.92	109	70 - 130	20	70 - 130
Xylenes	ND	30	97.5	99.9	2.44	109	70 - 130	20	70 - 130
%SS:	101	10	99	97	1.67	105	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 65189 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202686-001A	02/23/12 12:30 PM	02/24/12	02/24/12 11:48 PM	1202686-002A	02/23/12 12:25 PM	02/24/12	02/24/12 4:24 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 = 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"

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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: #1150.001; 1230 14th St	Date Sampled: 02/27/12
		Date Received: 02/27/12
	Client Contact: Morgan Gillies	Date Reported: 03/01/12
	Client P.O.:	Date Completed: 02/29/12

WorkOrder: 1202753

March 01, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **1** analyzed sample from your project: **#1150.001; 1230 14th St,**
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.

1202753

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
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: Morgan Gillies Bill To: Pangea

Company: Pangea Environmental Services, Inc.

1710 Franklin Street, Suite 200, Oakland, CA 94612

E-Mail: mgillies@pangeaenv.com

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

Project #: 1150.001 Project Name: 1230 14th St

Project Location: 1230 14th St., Oakland

Sampler Signature:

SAMPLE ID	LOCATION (Field Point Name)	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: 5 Oxygenates (8260)	Other	Comments
INF-V	INF	2/27/12	1030	1	TEDLAR			X							X			

Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date: 2/27/12	Time: 1359	Received By:
Relinquished By:	Date: 2/27/12	Time: 1300	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t°_____ COMMENTS:
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

Report in PPMV

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: 1202753 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ 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
cc:
PO:
ProjectNo: #1150.001; 1230 14th St

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

Requested TAT: **5 days**

Date Received: **02/27/2012**
Date Printed: **02/27/2012**

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
1202753-001	INF-V	Air	2/27/2012 10:30	☐	A	A										

Test Legend:

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

The following SampID: 001A contains testgroup.

Prepared by: Ana Venegas

Comments:

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

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Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **2/27/2012 1:25:59 PM**

Project Name: **#1150.001; 1230 14th St**

Checklist completed and reviewed by: Ana Venegas

WorkOrder N°: **1202753** 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:

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Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1150.001; 1230 14th St	Date Sampled: 02/27/12
		Date Received: 02/27/12
	Client Contact: Morgan Gillies	Date Extracted: 02/28/12
	Client P.O.:	Date Analyzed: 02/28/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1202753

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-V	A	260	ND<5.0	2.7	2.0	ND	ND	1	94	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"

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

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1150.001; 1230 14th St	Date Sampled: 02/27/12
		Date Received: 02/27/12
	Client Contact: Morgan Gillies	Date Extracted: 02/28/12
	Client P.O.:	Date Analyzed: 02/28/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1202753

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-V	A	73	ND<1.5	0.83	0.52	ND	ND	1	94	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

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air | QC Matrix: Water | BatchID: 65231 | WorkOrder: 1202753

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1202720-009A**

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	77.3	76.7	0.739	79.1	70 - 130	20	70 - 130
MTBE	ND	10	113	111	1.11	119	70 - 130	20	70 - 130
Benzene	ND	10	98.2	106	7.43	103	70 - 130	20	70 - 130
Toluene	ND	10	101	109	7.85	105	70 - 130	20	70 - 130
Ethylbenzene	ND	10	106	115	7.79	112	70 - 130	20	70 - 130
Xylenes	ND	30	108	119	9.70	111	70 - 130	20	70 - 130
%SS:	103	10	88	85	3.27	89	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 65231 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202753-001A	02/27/12 10:30 AM	02/28/12	02/28/12 6:19 PM	1202753-001A	02/27/12 10:30 AM	02/28/12	02/28/12 6:19 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 = 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

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"When Quality Counts"

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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: #1150.001; 1230 14th St.	Date Sampled: 02/28/12-03/01/12
		Date Received: 03/01/12
	Client Contact: Morgan Gillies	Date Reported: 03/06/12
	Client P.O.:	Date Completed: 03/02/12

WorkOrder: 1203039

March 06, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#1150.001; 1230 14th St.,**
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.

1203039

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
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: Morgan Gillies	Bill To: Pangea
Company: Pangea Environmental Services, Inc.	
1710 Franklin Street, Suite 200, Oakland, CA 94612	E-Mail: mgillies@pangeaenv.com
Tele: (510) 836-3702	Fax: (510) 836-3709
Project #: 1150.001	Project Name: 1230 14th St
Project Location: 1230 14th St., Oakland	
Sampler Signature:	

SAMPLE ID	LOCATION (Field Point Name)	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED ICE	HCL	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	Analysis Request	Other	Comments
VMP-1		2/28	1600	1	T			X							X			Filter Samples for Metals analysis: Yes / No
INF-V		3/1	1000	1	T			X							X			

Relinquished By:	Date: 3/1/12	Time: 1500	Received By: 3/1/12
Relinquished By:	Date: 3/1/12	Time: 1630	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° N/A
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB ✓
APPROPRIATE CONTAINERS
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: 1203039 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ 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
cc:
PO:
ProjectNo: #1150.001; 1230 14th St.

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

Requested TAT: **5 days**

Date Received: **03/01/2012**
Date Printed: **03/01/2012**

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
1203039-001	VMP-1	Air	2/28/2012 16:00	☐	A	A										
1203039-002	INF-V	Air	3/1/2012 10:00	☐	A											

Test Legend:

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

The following SampIDs: 001A, 002A contain testgroup.

Prepared by: Maria Venegas

Comments:

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

McCampbell Analytical, Inc.
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Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **3/1/2012 8:18:16 PM**

Project Name: **#1150.001; 1230 14th St.**

Checklist completed and reviewed by: Maria Venegas

WorkOrder N°: **1203039** 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"

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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: #1150.001; 1230 14th St.	Date Sampled: 02/28/12-03/01/12
		Date Received: 03/01/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 03/02/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 03/02/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1203039

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VMP-1	A	ND	ND	ND	ND	ND	ND	1	105	
002A	INF-V	A	1600	ND<20	25	24	3.5	21	4	99	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"

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

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1150.001; 1230 14th St. Client Contact: Morgan Gillies Client P.O.:	Date Sampled: 02/28/12 Date Received: 03/01/12 Date Extracted: 03/02/12 Date Analyzed: 03/02/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1203039

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VMP-1	A	ND	ND	ND	ND	ND	ND	1	105	
002A	INF-V	A	450	ND<5.0	7.7	6.2	0.80	4.8	4	99	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"

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air | QC Matrix: Water | BatchID: 65395 | WorkOrder: 1203039

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1203030-001A**

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	78.7	78	0.862	77.8	70 - 130	20	70 - 130
MTBE	ND	10	108	104	3.32	109	70 - 130	20	70 - 130
Benzene	ND	10	92.8	90.8	2.14	92.8	70 - 130	20	70 - 130
Toluene	ND	10	93.2	91.2	2.06	95.3	70 - 130	20	70 - 130
Ethylbenzene	ND	10	101	98.9	2.05	101	70 - 130	20	70 - 130
Xylenes	ND	30	102	99.7	2.42	100	70 - 130	20	70 - 130
%SS:	107	10	89	86	3.37	87	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 65395 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203039-001A	02/28/12 4:00 PM	03/02/12	03/02/12 6:35 PM	1203039-002A	03/01/12 10:00 AM	03/02/12	03/02/12 4:22 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

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Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1150.001; 1230 14th St	Date Sampled: 03/13/12
		Date Received: 03/13/12
	Client Contact: Morgan Gillies	Date Reported: 03/19/12
	Client P.O.:	Date Completed: 03/15/12

WorkOrder: 1203398

March 19, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **3** analyzed samples from your project: **#1150.001; 1230 14th St,**
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.

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Pittsburg, CA 94565
120398
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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: Morgan Gillies	Bill To: Pangea
Company: Pangea Environmental Services, Inc.	
1710 Franklin Street, Suite 200, Oakland, CA 94612	
	E-Mail: mgillies@pangeaenv.com
Tele: (510) 836-3702	Fax: (510) 836-3709
Project #: 1150.001	Project Name: 1230 14th St
Project Location: 1230 14th St., Oakland	
Sampler Signature:	

SAMPLE ID	LOCATION (Field Point Name)	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED ICE	HCL	HNO_3	Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	5 Oxygenates (8260)	Other	Comments
INF-W	INF	3/13	955	3		X					X	X			X			Filter Samples for Metals analysis: Yes / No
EFF-W	EFF	↓	950	3		X					X	X			X			
INF-V	INF	3/13	945	1				X							X			

Relinquished By:	Date: 3/13/12	Time: 1700	Received By:
Relinquished By:	Date: 3/13/12	Time: 1600	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 2.7 COMMENTS:
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

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: 1203398 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ 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
cc:
PO:
ProjectNo: #1150.001; 1230 14th St

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

Requested TAT: 5 days

Date Received: **03/13/2012**
Date Printed: **03/13/2012**

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
1203398-001	INF-W	Water	3/13/2012 9:55	☐		A	A									
1203398-002	EFF-W	Water	3/13/2012 9:50	☐		A										
1203398-003	INF-V	Air	3/13/2012 9:45	☐	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: 003A contains testgroup.

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.

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Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **3/13/2012 6:17:30 PM**

Project Name: **#1150.001; 1230 14th St**

Checklist completed and reviewed by: Zoraida Cortez

WorkOrder N°: **1203398** Matrix: Air/Water

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: 2.7°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

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Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1150.001; 1230 14th St Client Contact: Morgan Gillies Client P.O.:	Date Sampled: 03/13/12 Date Received: 03/13/12 Date Extracted: 03/14/12 Date Analyzed: 03/14/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1203398

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
003A	INF-V	A	3500	ND<30	37	65	12	78	4	119	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.
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Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1150.001; 1230 14th St	Date Sampled: 03/13/12
		Date Received: 03/13/12
	Client Contact: Morgan Gillies	Date Extracted: 03/14/12
	Client P.O.:	Date Analyzed: 03/14/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1203398

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
003A	INF-V	A	990	ND<10	11	17	2.7	18	4	119	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

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Pangea Environmental Svcs., Inc.	Client Project ID: #1150.001; 1230 14th St	Date Sampled: 03/13/12
		Date Received: 03/13/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 03/15/12-03/16/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 03/15/12-03/16/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1203398

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-W	W	2100	ND	70	190	49	460	1	103	d1
002A	EFF-W	W	ND	ND	ND	ND	ND	ND	1	103	

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

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Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air | QC Matrix: Water | BatchID: 65751 | WorkOrder: 1203398

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1203360-002A**

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	113	115	2.12	107	70 - 130	20	70 - 130
MTBE	ND	10	84.8	82.5	2.60	88.7	70 - 130	20	70 - 130
Benzene	ND	10	101	100	0.379	98.4	70 - 130	20	70 - 130
Toluene	ND	10	99.2	102	2.27	96.7	70 - 130	20	70 - 130
Ethylbenzene	ND	10	99.4	99.4	0	96.7	70 - 130	20	70 - 130
Xylenes	0.56	30	102	102	0	98.8	70 - 130	20	70 - 130
%SS:	120	10	118	120	1.48	108	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 65751 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203398-003A	03/13/12 9:45 AM	03/14/12	03/14/12 4:16 AM	1203398-003A	03/13/12 9:45 AM	03/14/12	03/14/12 4:16 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

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 65789 | WorkOrder: 1203398

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1203360-005A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	113	111	2.02	111	70 - 130	20	70 - 130
MTBE	ND	10	82.7	77.8	6.08	88.5	70 - 130	20	70 - 130
Benzene	ND	10	112	114	1.79	106	70 - 130	20	70 - 130
Toluene	ND	10	114	117	2.39	107	70 - 130	20	70 - 130
Ethylbenzene	ND	10	111	115	3.18	104	70 - 130	20	70 - 130
Xylenes	ND	30	112	114	2.18	107	70 - 130	20	70 - 130
%SS:	120	10	115	103	11.4	105	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 65789 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203398-001A	03/13/12 9:55 AM	03/15/12	03/15/12 8:17 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 = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 65849 | WorkOrder: 1203398

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1203443-001A**

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	115	115	0	113	70 - 130	20	70 - 130
MTBE	ND	10	115	102	12.0	93.4	70 - 130	20	70 - 130
Benzene	ND	10	97.4	99.7	2.42	91.8	70 - 130	20	70 - 130
Toluene	ND	10	99.7	101	0.959	92.4	70 - 130	20	70 - 130
Ethylbenzene	ND	10	96.1	98.9	2.83	88.8	70 - 130	20	70 - 130
Xylenes	ND	30	98.5	101	2.74	91.2	70 - 130	20	70 - 130
%SS:	98	10	103	104	1.24	94	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 65849 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203398-002A	03/13/12 9:50 AM	03/16/12	03/16/12 4:48 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"

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

Analytical Report

Pangea Environmental Svcs., Inc.	Client Project ID: #1150.001; 1230 14th Street	Date Sampled: 06/20/12
		Date Received: 06/20/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Reported: 06/25/12
Oakland, CA 94612	Client P.O.:	Date Completed: 06/22/12

WorkOrder: 1206611

June 25, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#1150.001; 1230 14th Street,**
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.

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

1206611

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: Morgan Gillies	Bill To: Pangea
Company: Pangea Environmental Services, Inc.	
1710 Franklin Street, Suite 200, Oakland, CA 94612	
	E-Mail: mgillies@pangeaenv.com
Tele: (510) 836-3702	Fax: (510) 836-3709
Project #: 1150.001	Project Name: 1230 14th St
Project Location: 1230 14th St., Oakland	
Sampler Signature:	

SAMPLE ID	LOCATION (Field Point Name)	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: 5 Oxygenates (8260)	Other	Comments
EFF-V	EFF	6/20/12	1015	1	T			X							X			
INF-V	INF	6/20/12	1020	1	T			X							X			

Filter Samples for Metals analysis: Yes / No

	Date:	Time:	Received By:
Relinquished By:	6/20	1520	
Relinquished By:	6/20/12	1715	
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
PRESERVATION pH<2

McCampbell Analytical, Inc.
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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1206611 **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
cc:
PO:
ProjectNo: #1150.001; 1230 14th Street

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

Requested TAT: 5 days

Date Received: **06/20/2012**
Date Printed: **06/20/2012**

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
1206611-001	EFF-V	Air	6/20/2012 10:15	☐	A	A										
1206611-002	INF-V	Air	6/20/2012 10:20	☐	A											

Test Legend:

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

The following SampIDs: 001A, 002A contain testgroup.

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: **6/20/2012 8:16:09 PM**

Project Name: **#1150.001; 1230 14th Street**
LogIn Reviewed by: Zoraida Cortez

WorkOrder N°: **1206611** 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:

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

Pangea Environmental Svcs., Inc.	Client Project ID: #1150.001; 1230 14th Street	Date Sampled: 06/20/12
		Date Received: 06/20/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 06/21/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 06/21/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1206611

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	EFF-V	A	ND	ND	ND	ND	ND	ND	1	105	
002A	INF-V	A	1600	ND<5.0	14	22	2.1	16	2	---#	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"

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1150.001; 1230 14th Street	Date Sampled: 06/20/12
		Date Received: 06/20/12
	Client Contact: Morgan Gillies	Date Extracted: 06/21/12
	Client P.O.:	Date Analyzed: 06/21/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1206611

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	EFF-V	A	ND	ND	ND	ND	ND	ND	1	105	
002A	INF-V	A	450	ND<1.4	4.4	5.8	0.48	3.6	2	---#	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

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air | QC Matrix: Water | BatchID: 68506 | WorkOrder: 1206611

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1206563-001A**

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	109	103	5.84	89	70 - 130	20	70 - 130
MTBE	220	10	NR	NR	NR	96.6	N/A	N/A	70 - 130
Benzene	ND	10	98	95	3.10	77.8	70 - 130	20	70 - 130
Toluene	ND	10	97.4	93.4	4.25	77.3	70 - 130	20	70 - 130
Ethylbenzene	ND	10	96.3	92.6	3.97	79.1	70 - 130	20	70 - 130
Xylenes	ND	30	93.2	89.1	4.41	80.6	70 - 130	20	70 - 130
%SS:	85	10	98	97	1.14	91	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 68506 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1206611-001A	06/20/12 10:15 AM	06/21/12	06/21/12 4:06 PM	1206611-002A	06/20/12 10:20 AM	06/21/12	06/21/12 7:02 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 = 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.
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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Pangea Environmental Svcs., Inc.	Client Project ID: #1150.001; 1230 14th St	Date Sampled: 07/05/12
		Date Received: 07/06/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Reported: 07/11/12
Oakland, CA 94612	Client P.O.:	Date Completed: 07/10/12

WorkOrder: 1207123

July 12, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **1** analyzed sample from your project: **#1150.001; 1230 14th St,**
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.

1207123

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
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: Morgan Gillies	Bill To: Pangea
Company: Pangea Environmental Services, Inc.	
1710 Franklin Street, Suite 200, Oakland, CA 94612	
	E-Mail: mgillies@pangeaenv.com
Tele: (510) 836-3702	Fax: (510) 836-3709
Project #: 1150.001	Project Name: 1230 14th St
Project Location: 1230 14th St., Oakland	
Sampler Signature:	

SAMPLE ID	LOCATION (Field Point Name)	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED ICE	HCL	HNO_3	Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	5 Oxygenates (8260)	Other	Comments
+ INF-W	INF	7/5	1530	3	VOAs	X					X	X			X			

Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date: 7/6/12	Time: 1320	Received By:
Relinquished By:	Date: 7/6/12	Time: 1430	Received By: Gabriela Wan
Relinquished By:	Date:	Time:	Received By:

ICE/t° 4.9°C COMMENTS:
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

	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: 1207123 **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
cc:
PO:
ProjectNo: #1150.001; 1230 14th St

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

Requested TAT: 5 days

Date Received: **07/06/2012**
Date Printed: **07/06/2012**

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
1207123-001	INF-W	Water	7/5/2012 15:30	☐	A	A										

Test Legend:

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

Prepared by: Gabrielle Walker

Comments:

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

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Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **7/6/2012 2:34:59 PM**

Project Name: **#1150.001; 1230 14th St**
LogIn Reviewed by: Gabrielle Walker

WorkOrder N°: **1207123** Matrix: Water
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: 4.9°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.
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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: #1150.001; 1230 14th St	Date Sampled: 07/05/12
		Date Received: 07/06/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 07/09/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 07/09/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1207123

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF-W	W	1000	ND	26	73	9.9	160	1	102	d1

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

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

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

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

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 68965 | WorkOrder: 1207123

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1207141-002A**

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	97.8	95.9	1.99	93.5	70 - 130	20	70 - 130
MTBE	ND	10	87.5	92.5	5.61	102	70 - 130	20	70 - 130
Benzene	ND	10	89.5	90.4	1.01	90	70 - 130	20	70 - 130
Toluene	ND	10	91.7	92	0.254	92.6	70 - 130	20	70 - 130
Ethylbenzene	ND	10	91.4	92.4	1.04	91.2	70 - 130	20	70 - 130
Xylenes	ND	30	94.1	95	1.01	94.5	70 - 130	20	70 - 130
%SS:	91	10	93	92	1.14	91	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 68965 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1207123-001A	07/05/12 3:30 PM	07/09/12	07/09/12 3:38 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.
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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: #1150.001; 1230 14th Street	Date Sampled: 07/10/12
		Date Received: 07/10/12
	Client Contact: Morgan Gillies	Date Reported: 07/12/12
	Client P.O.:	Date Completed: 07/12/12

WorkOrder: 1207204

July 12, 2012

Dear Morgan:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#1150.001; 1230 14th Street,**
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.

RUSH

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
Pittsburg, CA 94565
1207204
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: Morgan Gillies	Bill To: Pangea
Company: Pangea Environmental Services, Inc.	
1710 Franklin Street, Suite 200, Oakland, CA 94612	
	E-Mail: mgillies@pangeaenv.com
Tele: (510) 836-3702	Fax: (510) 836-3709
Project #: 1150.001	Project Name: 1230 14th St
Project Location: 1230 14th St., Oakland	
Sampler Signature:	

	SAMPLE ID	LOCATION (Field Point Name)	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED ICE	HCL	HNO_3	Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	5 Oxygenates (8260)	Other	Comments
✓	EFF-W	EFF	7/10	1140	3	VOAs	X					X	X			X			Filter Samples for Metals analysis: Yes / No
+	INF-W	INF	↓	1145	3	↓	X					X	X			X			

Relinquished By:	Date: 7/10/12	Time: 1633	Received By:
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 5.2 COMMENTS:
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

	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: 1207204 **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
cc:
PO:
ProjectNo: #1150.001; 1230 14th Street

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

Requested TAT: 3 days

Date Received: **07/10/2012**
Date Printed: **07/10/2012**

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
1207204-001	EFF-W	Water	7/10/2012 14:10	☐	A	A										
1207204-002	INF-W	Water	7/10/2012 14:15	☐	A											

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		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"

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

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **7/10/2012 6:12:51 PM**

Project Name: **#1150.001; 1230 14th Street**
LogIn Reviewed by: Zoraida Cortez

WorkOrder N°: **1207204** 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: 5.2°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: #1150.001; 1230 14th Street	Date Sampled: 07/10/12
		Date Received: 07/10/12
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 07/12/12
Oakland, CA 94612	Client P.O.:	Date Analyzed: 07/12/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1207204

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	EFF-W	W	ND	ND	ND	ND	ND	ND	1	93	
002A	INF-W	W	900	ND	16	59	7.9	180	1	101	d1

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

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

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

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

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 69040 | WorkOrder: 1207204

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1207204-001A**

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	104	95	8.70	93.8	70 - 130	20	70 - 130
MTBE	ND	10	101	98.9	2.24	99.7	70 - 130	20	70 - 130
Benzene	ND	10	83.1	82.6	0.539	85.4	70 - 130	20	70 - 130
Toluene	ND	10	85.5	83.3	2.55	84.5	70 - 130	20	70 - 130
Ethylbenzene	ND	10	88.4	85.1	3.75	85.5	70 - 130	20	70 - 130
Xylenes	ND	30	94.2	87.9	6.91	87.4	70 - 130	20	70 - 130
%SS:	93	10	85	87	1.97	86	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 69040 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1207204-001A	07/10/12 2:10 PM	07/12/12	07/12/12 1:09 AM	1207204-002A	07/10/12 2:15 PM	07/12/12	07/12/12 1:39 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