October 6, 2008

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: **Well Installation and Destruction Report**
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 *Well Installation and Destruction Report* for the subject site. This report describes the installation of seven new wells (three dual-phase extraction wells, three air sparge wells and one vapor monitoring well), replacement of one damaged monitoring well, and the destruction of two damaged coaxial remediation wells. This work was outlined in Pangea's *Draft Corrective Action Plan and Pilot Test Work Plan* dated January 18, 2008 that was approved by the Alameda County Environmental Health letter dated June 5, 2008.

If you have any questions or comments, please call me at (510) 435-8664 or email briddell@pangeaenv.com.

Sincerely,
Pangea Environmental Services, Inc.

Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Well Installation and Destruction Report*

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
Som Gupta, c/o Carmerlengo & Johnson, 500 Airport Boulevard, Suite 230, Burlingame, CA 94010
Ana Friel, Conestoga-Rovers & Associates, 19449 Riverside Drive, Suite 230, Sonoma, CA 95476
SWRCB Geotracker (electronic copy)

WELL INSTALLATION AND DESTRUCTION REPORT

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

October 6, 2008

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 2010
CIVIL
STATE OF CALIFORNIA

Morgan Gillies
Project Manager

Bob Clark-Riddell, P.E.
Principal Engineer

INTRODUCTION

On behalf of property owner Andy Saberi, Pangea Environmental Services, Inc. (Pangea) has prepared this *Well Installation and Destruction Report* (report) for the above-referenced site. The report describes installation of seven new wells (three dual-phase extraction wells, three air sparge wells, and one vapor monitoring well), replacement of one damaged monitoring well, and the destruction of two damaged coaxial remediation wells. This well work was performed to facilitate implementation of approved pilot testing. The following sections describe the site background, and well installation, destruction, development and groundwater sampling.

SITE BACKGROUND

This site background section describes the site description, site history, previous environmental work, and site conditions. The site conditions subsection describes the sediment lithology, groundwater depth and flow direction, and hydrocarbon distribution in site soil and groundwater.

Site Description

The former Shell-branded service station is located at the northeast corner of the 14th Street and Union Street intersection 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 unpaved. 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 City of Oakland records, the current site building was constructed in 1958. 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 1980's.

Previous Environmental Work

Previous environmental work has included significant site assessment, a sensitive receptor evaluation/well survey, risk evaluation, two rounds of feasibility testing (in 2000 and 2006), several rounds of interim remedial action, and implementation of a prior CAP. Quarterly groundwater monitoring activities have been

performed at the site since 1996. A summary of previous environmental work conducted at the site between 1991 and 2006 and prior boring/well location maps is included in Pangea's *Draft Corrective Action Plan and Pilot Test Work Plan* (Draft CAP/WP) dated January 18, 2008.

In 2007, a series of letters were exchanged by Shell Oil's consultant, Mr. Saberi's consultant, and ACEH regarding site remediation. On behalf of Shell, Cambria Environmental Technology, Inc. (Cambria), of Emeryville, California submitted a *Dual-Phase Extraction Pilot Test Report and Groundwater Monitoring Report – Fourth Quarter 2006* that proposed additional interim groundwater extraction (GWE). On behalf of Mr. Saberi, Pangea has provided comments concerning Cambria's report and presented a more aggressive remedial approach of DPE/AS in the Draft CAP/WP. Pangea did not propose SVE based on limited vacuum influence observed during two rounds of prior testing. On May 16, 2007, Conestoga-Rovers Associates (CRA, formerly Cambria) presented a revised work plan that proposed additional feasibility testing and implementation of SVE and AS. On September 19, 2007, ACEH requested a pilot test work plan to address ACEH technical comments followed by a CAP.

On October 31, 2007, property owner Andy Saberi assumed the role as lead responsible party for corrective action at the site. In a letter dated November 5, 2007, Pangea notified ACEH of the change in remediation lead, and recommended incorporating the pilot test into a Draft CAP to expedite site remediation. In its November 29, 2007 letter, ACEH concurred that pilot testing during a period of lower water levels is advantageous, and requested preparation of a Draft CAP / Pilot Test Work Plan. Pangea's Draft CAP/WP was approved in a June 5, 2008 letter from ACEH and pilot testing was conducted in July 2008.

Site Conditions

Sediment Lithology: Site investigations conducted to date indicate that subsurface materials encountered beneath the site consist primarily of silty sand, silty gravel, and sand to the total explored depth of 30 ft. The upper 9 to 10 ft of the filled former tank pit area consists of gravelly sand fill material. United States Geological Survey (USGS) publications and maps indicate the site is underlain by the Merritt Sand formation. Soil samples collected in March 2005 at depths of 5 and 8 feet below grade surface (ft bgs) from three onsite soil borings were submitted to a laboratory for grain size analysis, and the results indicated that the native soil type is silty to very silty sand, which is consistent with the description of the Merritt Sand formation.

Groundwater Depth and Flow Direction: Recorded groundwater depths beneath the site have ranged from 4.8 to 13.9 ft bgs. The shallowest groundwater elevations since monitoring began were observed in February and June 1998 and in March 2000. The groundwater flow direction, as calculated from depth to water measurements in onsite monitoring wells, is typically to the northeast.

Hydrocarbon Distribution in Soil and Groundwater: The primary hydrocarbon impact area is in the central portion of the site (in the vicinity of the former UST locations) and extends downgradient (northeast). The primary contaminants of concern at this site are benzene and total petroleum hydrocarbons as gasoline (TPHg), which exceed select Environmental Screening Levels (ESLs) established by the SFRWQCB.

Historical soil analytical results suggest that soil conditions have been improved by remedial activities, but elevated soil concentrations that exceed applicable ESLs were detected in all four post-remediation borings (SB-18 through SB-21).

For groundwater, recent monitoring results indicate that petroleum hydrocarbon concentrations exceed applicable ESLs (final ESLs for drinking water) in select site monitoring and remediation wells. Historical groundwater concentrations are shown on Table 1. Petroleum hydrocarbons are well delineated in groundwater to the east and north by low aqueous-phase hydrocarbon concentrations in well MW-6 and well MW-7, respectively. Petroleum hydrocarbons are defined to the west by well MW-4 and to the south by well MW-2.

A primary concern for sites like this is the potential for volatile gasoline constituents (especially benzene) to intrude into indoor air where they pose a risk to human health. Benzene concentrations in site soil and groundwater exceed the ESLs protective of indoor air under the commercial site use scenario.

WELL DESTRUCTION AND INSTALLATION

On June 26 and 27, 2008, Pangea oversaw installation of seven new wells (three dual-phase extraction wells, three air sparge wells and one vapor monitoring well), replacement of one damaged monitoring well, and the destruction of two damaged coaxial remediation wells to facilitate implementation of approved feasibility testing. Dual-phase extraction wells (DP-1 through DP-3) were constructed to facilitate water table drawdown in the capillary fringe and to enhance capture of hydrocarbon vapors created by air sparging. Air sparge remediation wells (AS-1 through AS-3) were installed to inject compressed air into the saturated zone to volatilize hydrocarbon vapors from saturated soil and groundwater. Vapor monitoring well VMP-1 was requested by the RWQCB to monitor for possible effects of air sparging near the property boundary in a letter dated June 5, 2008. Two of the damaged site wells (MW-5 and VW/AS-1) were over-drilled and replaced with new wells, while well VW/AS-3 was destroyed by over-drilling and grouting the open borehole to the surface. Site well locations are shown on Figure 2.

Well Drilling Activities

A comprehensive Site Safety Plan was prepared to protect site workers, and the plan was kept onsite during all field activities. Well installation permits were obtained from Alameda County Public Works Agency (ACPWA). Copies of the permits are presented in Appendix A. The proposed drilling locations were marked and Underground Service Alert was notified at least 72 hours before the proposed field activities. Each new well location was hand augured to at least 4 ft bgs to help avoid subsurface utilities.

Pangea retained Resonant Sonic International (RSI) of Woodland, California, to conduct well installation and destruction activities. Well VW/AS-1 was over-drilled with 8-inch, hollow stem augers to the total depth of the well (22 ft bgs) and a direct-push boring was advanced within the open borehole to a depth of 25 ft to assess the appropriate screened interval for new well AS-1. Remediation wells AS-2 and AS-3 were first continuously cored and logged using direct-push drilling methods to assess the appropriate screened interval. Each boring was then reamed using appropriately-sized hollow-stem augers to facilitate the installation of the wells. Dual-phase extraction wells DP-1 through DP-3 were drilled with 10-inch diameter, hollow stem augers and were screened based on the lithology of recent and historical nearby direct-push borings. Well MW-5 was over-drilled with 10-inch, hollow stem augers and well MW-5R was installed in the drilled out borehole. The borehole for well VMP-1 was completed using a hand auger. Boring logs for new wells and destroyed wells are included in Appendix B. The drilling and well installation was observed in the field by Pangea Hydrologist Bryce Taylor and supervised by Bob Clark-Riddell, a California Professional Civil Professional Engineer (P.E.).

Well Construction

The three AS wells were constructed of 1-inch diameter, schedule-80 PVC casing with 0.010-inch slotted screen. The three DP wells and well MW-5R were constructed of 4-inch diameter, schedule-40 PVC casing with 0.010-inch slotted screen. Well VMP-1 was constructed with a 6-inch stainless steel geoprobe implant connected to new ¼-inch diameter polyethylene tubing and capped with a Swagelok® fitting. The implant was placed in the middle of a one-foot long sand pack at the bottom of the five-foot deep borehole. Approximately one foot of dry granular bentonite was poured onto the sand, followed by two feet of hydrated bentonite and a concrete surface seal. Well construction details for the existing and new wells are summarized on Table 2. Each well was protected by a traffic-rated vault and locking well cap. The soil characteristics and well construction details for the wells are shown on the boring logs (Appendix B).

Well Development

Pangea coordinated development of the new remediation wells by surge-block agitation and evacuation on July 2 and 3, 2008. Groundwater evacuation was conducted using a positive air displacement pump or new

polyethylene tubing with a check valve. At least ten casing volumes of groundwater were removed from each of the new wells. The investigation-derived waste generated during drilling was temporarily stored onsite in 55-gallon, DOT-approved drums pending disposal by a properly-licensed disposal company.

Additional well installation and development procedures are presented in Pangea's *Standard Operating Procedures for Monitoring Wells* in Appendix C. The well development field data sheets are presented in Appendix D.

Remediation Well Sampling

To help control costs, Pangea coordinated sampling of the new remediation wells immediately following well development. Prior to sample collection, approximately three casing volumes of water were purged using a positive air displacement pump or new polyethylene tubing with a check valve. During well purging, field technicians measured the pH, temperature, conductivity and turbidity. 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. The laboratory analytical report is included in Appendix E. Remediation well sampling data and purge information is included at the bottom of each well development data sheet (Appendix D).

Remediation Well Sampling Results

The highest TPHg and benzene concentrations detected in groundwater from the new remediation wells were 34,000 µg/L and 5,100 µg/L, respectively, in well DP-1. TPHg and benzene isoconcentration maps are shown on Figures 3 and 4, respectively. The highest concentrations of hydrocarbons in groundwater were detected in wells near and downgradient of the former UST excavation. Results from the AS wells compared to other site wells suggest that hydrocarbon concentrations are higher in the shallower saturated zone. Offsite migration appears to be minimal, based on relatively low concentrations found in downgradient well MW-7, located near the northern property boundary of the site. The lateral extent of hydrocarbon contamination in the southern, eastern and western directions appears to be well defined by perimeter wells MW-2, MW-3, MW-4 and MW-6.

CONCLUSIONS AND RECOMMENDATIONS

Based on the above information, Pangea offers the following conclusions and recommendations:

- The lateral extent of hydrocarbon contamination is well defined by the existing site monitoring and remediation well network. Analytical data from the new remediation wells confirms that the primary contaminant source area is near and downgradient of the former UST location in the northeastern portion of the site.

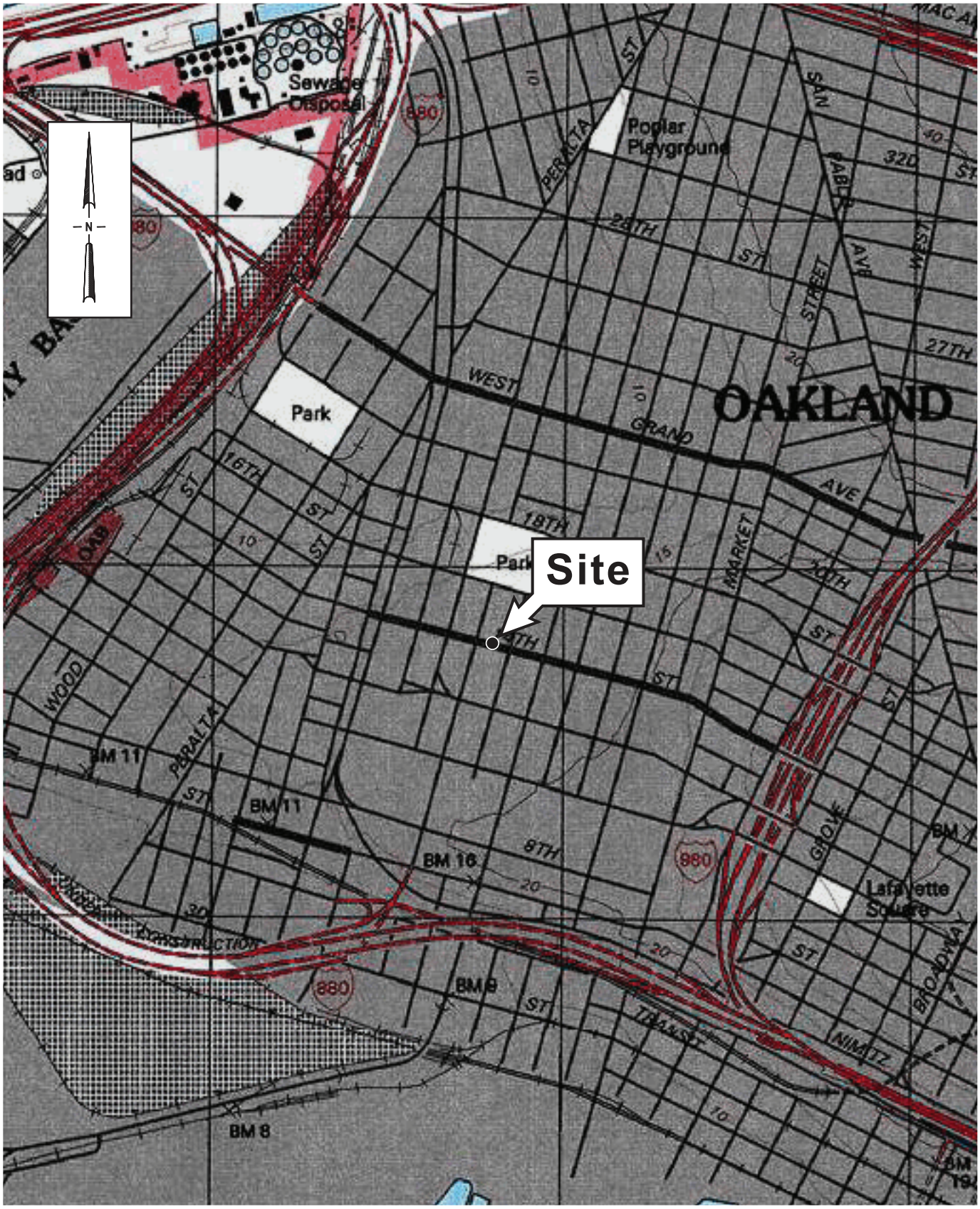
- The elevated concentrations of detected contaminants and relatively high permeability of strata encountered in the screened sections of the newly installed DP wells indicate that the wells are appropriately targeted to remediate site soil and groundwater. Air sparge well locations and screen intervals also appear appropriate for pilot testing. Pilot testing was performed in July 2008 and will be reported separately.

ATTACHMENTS

Figure 1 – Vicinity Map
Figure 2 – Well Location Map
Figure 3 – Distribution of TPHg in Groundwater
Figure 4 – Distribution of Benzene in Groundwater

Table 1 – Groundwater Analytical Data
Table 2 – Well Construction Details

Appendix A – Permits
Appendix B – Boring Logs
Appendix C – Standard Operating Procedures
Appendix D – Well Development Field Data Sheets
Appendix E – Laboratory Analytical Report



0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Figure

1

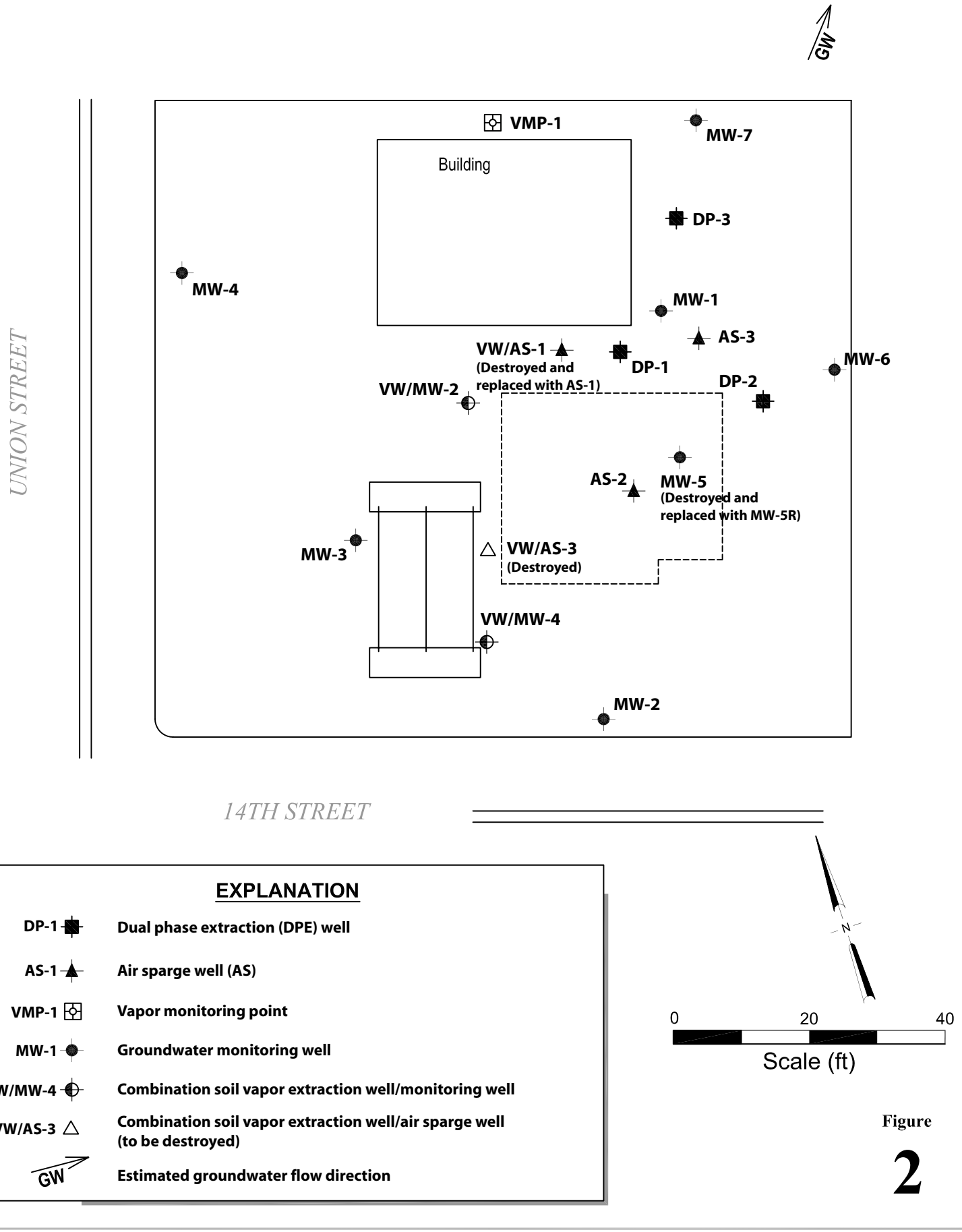
Former Shell Service Station

1230 14th Street

Oakland, California

PANGEA

Vicinity Map



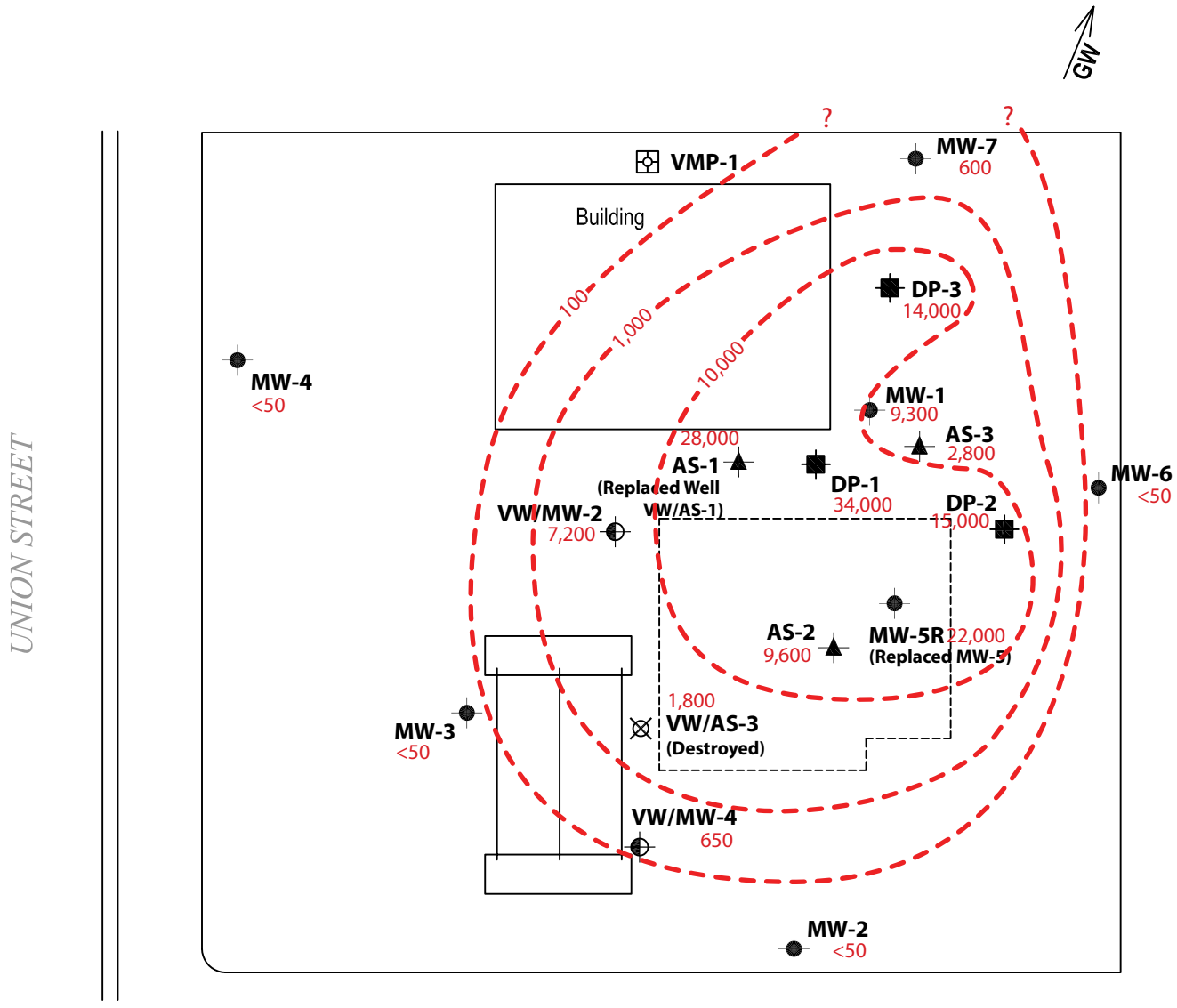
Figure

2

Former Shell Service Station
1230 14th Street
Oakland, California

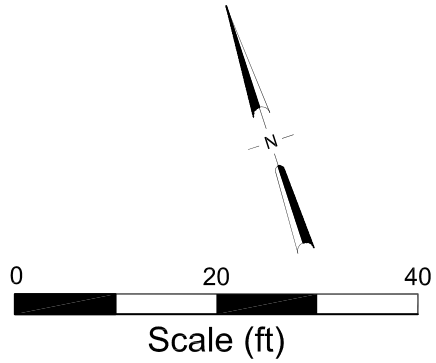
PANGEA

Vapor Monitoring Point, Remediation Well and Monitoring Well Locations



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	Combination soil vapor extraction well/air sparge well (Destroyed)
GW	Estimated groundwater flow direction
100	TPHg isoconcentration contour of shallow water bearing zone
<50	TPHg concentration in micrograms per liter (µg/L) from July 2 and 3, 2008 for new wells, and from May 26, 2008 for existing monitoring wells and destroyed well VW/MW-4.



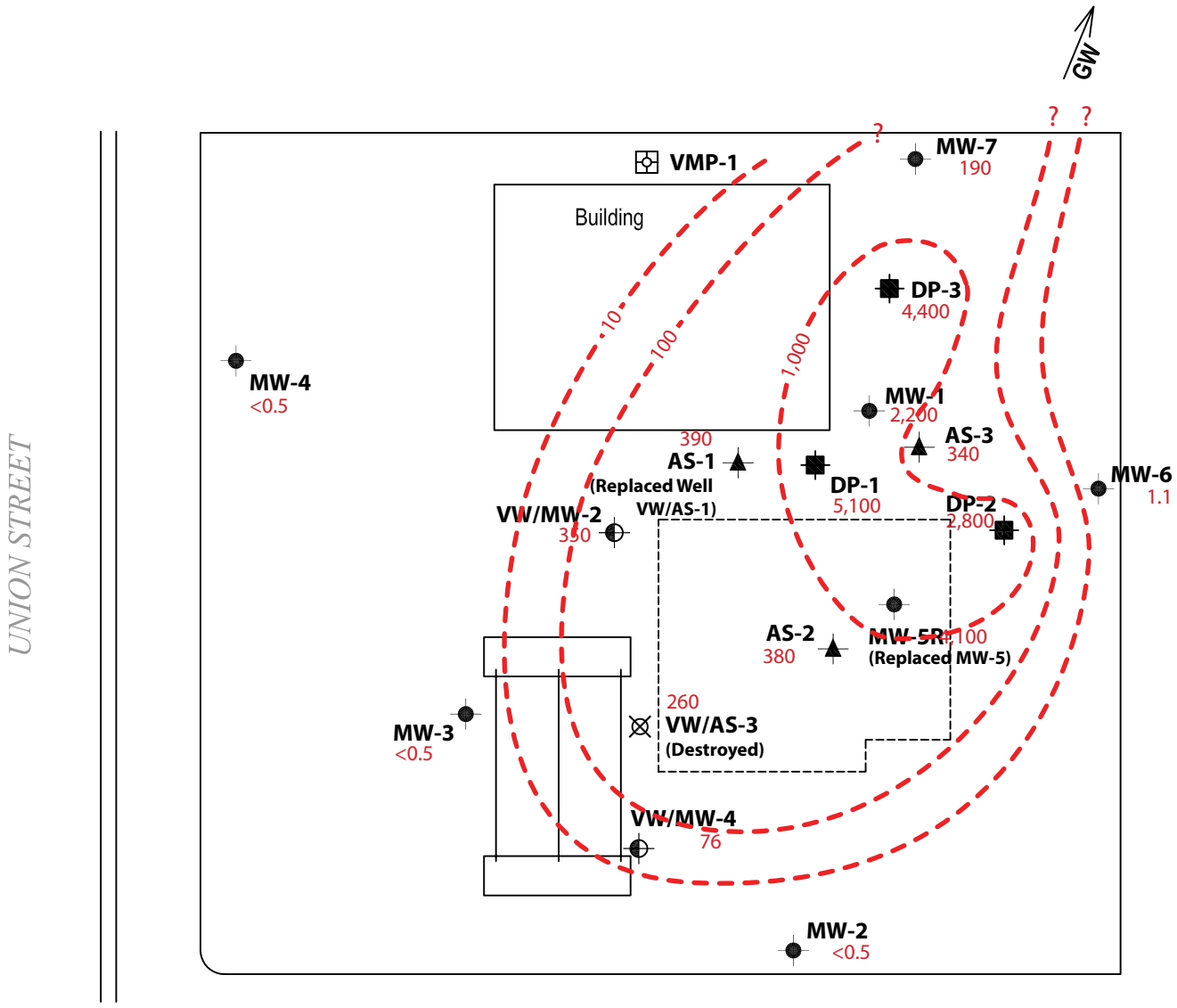
Figure

3

Former Shell Service Station
1230 14th Street
Oakland, California

PANGEA

Distribution of TPHg in Groundwater



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<50	Benzene concentration in micrograms per liter (µg/L) from July 2 and 3, 2008 for new wells, and from May 26, 2008 for existing monitoring wells and destroyed well VW/MW-4.

N

0 20 40

Scale (ft)

Figure

4

Former Shell Service Station
1230 14th Street
Oakland, California

PANGEA

Distribution of Benzene in Groundwater

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										
DP-1	07/03/08	12.43	--	**34,000**	**5,100**	**1,800**	**1,300**	**4,900**	**<350**	--
DP-2	07/03/08	12.92	--	**15,000**	**2,800**	**300**	**560**	**1,600**	**<150**	--
DP-3	07/02/08	13.21	--	**14,000**	**4,400**	**100**	**720**	**150**	**<350**	--
AS-1	07/02/08	12.08	--	**28,000**	**390**	**350**	**620**	**2,500**	**<500**	--
AS-2	07/02/08	11.98	--	**9,600**	**380**	**620**	**170**	**1,000**	**<50**	--
AS-3	07/02/08	12.42	--	**2,800**	**340**	**7.2**	**20**	**37**	**<50**	--
MW-5R	07/02/08	11.91	--	**22,000**	**4,100**	**710**	**750**	**2,300**	**<250**	--
MONITORING 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
	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

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)
	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
(MW- 1 cont'd)	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
	05/26/08	**11.90**	**6.68**	**9,300**	**2,200**	**67**	**140**	**130**	**<250**	**1.96/1.13**
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
	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**
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	--

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)
	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
(MW-3 Cont'd)	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
	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**
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

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)
	01/09/01	12.33	5.68	--	--	--	--	--	--	2.1
	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
MW-4 (cont'd)	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**
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
	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

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)
	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**
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
MW-6 (cont'd)	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
	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**
MW-7	12/03/01	12.66	6.18	--	--	--	--	--	--	--
19.20	12/06/01	12.20	6.64	1,800	390	<2.0	6.2	<2.0	(<20)	3.9/3.8
	01/23/02	10.00	8.84	--	--	--	--	--	--	9.4
	04/17/02	11.21	7.63	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	8.8/7.3
	07/18/02	12.69	6.15	--	--	--	--	--	--	0.8
	11/11/02	13.69	5.15	3,000	190	<0.50	<0.50	4.3	(5.2)	0.4/0.8
	01/16/03	10.36	8.48	--	--	--	--	--	--	7.9
	03/13/03	11.16	7.68	--	--	--	--	--	--	5.2
	04/23/03	11.02	7.82	250	48	<0.50	<0.50	<1.0	(<5.0)	3.2/1.3
	05/13/03	11.00	7.84	1,700	550	<2.5	<2.5	<5.0	(<25)	2.0/1.5
	06/13/03	11.90	6.94	1,500 b	470	<2.5	<2.5	<5.0	(<25)	1.8/1.6
	07/14/03	12.29	6.55	1300 b	1,200	<10	<10	<20	(<10)	0.4/0.2
	09/29/03	13.12	5.72	5,200	1,200	<10	<10	<20	(<10)	0.9/0.9
	10/29/03	13.34	5.50	4,800	1,100	<5.0	<5.0	<10	(8.9)	0.4/0.3
	01/05/04	10.85	7.99	53	6.7	<0.50	<0.50	<1.0	(<0.50)	1.4/2.3
	04/01/04	10.28	8.56	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	5.5/6.2
	07/02/04	12.48	6.36	8,100 d	3,400	<25	<25	<50	(<25)	0.8/0.8
	11/03/04	13.25	5.59	3,700	1,200	<5.0	<5.0	<10	(<5.0)	1.9/0.8
	01/04/05	10.02	8.82	<50	2.0	<0.50	<0.50	<1.0	(<0.50)	6.31/5.71
	04/13/05	8.46	10.38	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	5.87/5.89
	07/13/05	11.57	7.27	1,100	380	9.2	<2.5	37	(<2.5)	0.30/0.33
	10/28/05	13.15	5.69	5,100	2,900	<13	<13	<25	(<13)	0.6/0.9
	01/17/06	9.30	9.54	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	6.4/7.4
	02/23/06	10.03	8.81	--	<0.500	<0.500	<0.500	<0.500	--	--
	03/09/06	7.70	11.14	--	<0.500	<0.500	<0.500	<0.500	--	--

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)
	04/21/06	6.66	12.18	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	05/01/06	7.72	11.12	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	0.67/0.98
	06/23/06	10.55	8.29	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	07/11/06	10.55	8.29	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	08/30/06	12.35	6.49	1,520	150	13.3	5.78	53.0	(0.640)	0.52/0.79
	09/29/06	12.66	6.18	2,420	384	1.80	<0.500	5.44	(0.850)	--
	10/13/06	12.85	5.99	5,980	549	0.540	0.680	11.7	(0.930)	--
	11/03/06	13.73	5.11	3,190	501	<0.500	<0.500	5.38	(0.560)	2.2/1.4
	12/26/06	12.51	6.33	4,600	570	<0.50	44	2.1	(<0.50)	--
	01/11/07	12.55	6.29	3,900	490	<2.5	46	<5.0	(<2.5)	--
	01/30/07	12.89	5.95	2,500	380	<2.5	40	<5.0	(<2.5)	1.37/0.90
MW-7 (cont'd)	03/01/07	11.45	7.39	2,600	350	<2.5	35	3.5	(<2.5)	--
	04/26/07	11.62	7.22	2,300 k	290	<5.0	31	1.3 m	(<5.0)	--
	06/01/07	12.23	6.61	4,400 k	350	<2.0	19	<2.0	(1.1 m)	0.04/0.71
	06/21/07	12.67	6.17	2,600 k	260	<2.0	12	<2.0	(1.4 m)	--
	07/03/07	12.76	6.08	1,700 k	170	<1.0	7.7	0.86 m	(<1.0)	--
	08/16/07	13.20	5.64	1,900 k	44	<1.0	<1.0	<1.0	(<1.0)	0.5/1.1
	12/06/07	13.73	5.11	510	21	3.1	5.8	14	(1.2)	--
	02/25/08	10.65	8.19	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.11
	05/26/08	**12.62**	**6.22**	**600**	**190**	**2.3**	**<0.5**	**<0.5**	**<35**	**1.31/3.52**
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
	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

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)
	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
	12/06/07	12.43	5.87	2,600	110	84	64	180	(2.4)	--
(VW/MW-2 cont'd)	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**
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
	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)	--

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)
	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**
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	--	--	--	--	--	--	--
(VW/AS-1 cont'd)	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
	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)	--

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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)
	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**
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	--	--	--	--	--	--	--
(VW/AS-3 cont'd)	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
	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**
GRAB GROUNDWATER SAMPLING										
November 2003 Post-Peroxide Injection Sampling										
S-18	11/7/2003	~12.5	--	75,000	3,600	10,000	2,200	12,000	--	--
S-19	11/7/2003	~12.5	--	18,000	540	980	480	2,300	--	--
S-20	11/7/2003	~12.5	--	1,500	1,100	15	66	38	--	--
S-21	11/7/2003	~12.5	--	34,000	2,400	2,300	1,200	5,000	--	--

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)
2002 Off-Site Investigation										
HA-1	7/23/2002	14.0	--	55	<0.5	<0.5	<0.5	1.2	--	--
HA-2	7/23/2002	14.0	--	83	<0.5	0.77	0.52	2.8	--	--
HA-3	7/23/2002	15.0	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
HA-4	7/23/2002	15.0	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
2002 On-Site Investigation										
S-10 W	6/7/2002	17.0	--	34,000	760	940	930	5,200	--	--
S-11 W	6/7/2002	22.0	--	78,000	2,000	7,000	2,600	14,000	--	--
S-12 W	6/7/2002	18.0	--	180,000	9,600	28,000	49,000	28,000	--	--
S-13 W	6/7/2002	17.0	--	22,000	2,400	850	900	1,900	--	--
S-14 W	6/10/2002	17.0	--	260,000	6,900	49,000	6,200	35,000	--	--
S-15 W	6/10/2002	17.0	--	130,000	15,000	15,000	4,100	20,000	--	--
S-16 W	6/10/2002	17.0	--	70,000	940	2,100	3,200	15,000	--	--
S-17 W	6/10/2002	17.0	--	69,000	2,600	1,000	1,900	13,000	--	--

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.

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 DO Readings

Table 2 - Well Construction Details – 1230 14th Street, Oakland, CA

Well ID	Slot Size (inches)	Total Depth of Well (feet bgs)	Screened Interval (ft bgs)	Well Casing Nominal Diameter (inches)	Filter Pack Interval (ft bgs)	Casing Material
MW-1	0.020	22	7-22	2	6-27	PVC – Sched 40
MW-2	0.020	22.5	7.5-22.5	2	6-22.5	PVC – Sched 40
MW-3	0.020	21.5	7-21.5	2	6-21.5	PVC – Sched 40
MW-4	0.020	22	7-22	2	6-22	PVC – Sched 40
MW-6	0.020	20	5-20	4	4-20	PVC – Sched 40
MW-7	0.020	20	5-20	4	4-20	PVC – Sched 40
VW/MW-2	0.020	22	6-22	2	5-22	PVC – Sched 40
VW/MW-4	0.020	20	5-20	2	4-21.5	PVC – Sched 40
DP-1	0.010	23	8-20	4	7-23	PVC – Sched 40
DP-2	0.010	23	8-20	4	7-23	PVC – Sched 40
DP-3	0.010	23	8-20	4	7-23	PVC – Sched 40
AS-1	0.010	25	22-25	1	21-25	PVC – Sched 80
AS-2	0.010	25	22-25	1	21-25	PVC – Sched 80
AS-3	0.010	25	22-25	1	21-25	PVC – Sched 80
MW-5R	0.010	23	5-20	4	4-23	PVC – Sched 40
VMP-1	0.0057*	5	4.25-4.75	1/2	4-5	Stainless Steel/Polyethylene

bgs = below ground surface
* = pore screen size

APPENDIX A

Permits

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 06/12/2008 By jamesy

Permit Numbers: W2008-0345 to W2008-0347
Permits Valid from 06/24/2008 to 07/24/2008

Application Id: 1212690514935
Site Location: 1230 14th St
Project Start Date: 06/24/2008
Requested Inspection: 06/24/2008
Scheduled Inspection: 06/24/2008 at 2:00 PM (Contact your inspector, Vicky Hamlin at (510) 670-5443, to confirm.)

City of Project Site: Oakland

Completion Date: 07/24/2008

Applicant: Pangea Environmental Services, Inc. - Morgan Gillies
1710 Franklin St., Suite 200, Oakland, CA 94612
Phone: 510-836-3700

Property Owner: Andy Saberi
1045 Airport Blvd., South San Francisco, CA 94080
Phone: --

Client: ** same as Property Owner **

	Total Due:	$700.00
Receipt Number: WR2008-0202	**Total Amount Paid:**	$700.00
Payer Name : Robert Clark-Riddell	Paid By: VISA	**PAID IN FULL**

Works Requesting Permits:

Remediation Well Construction-Extraction - 6 Wells
Driller: RSI Drilling, Inc. - Lic #: 802334 - Method: hstem

Work Total: $200.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2008-0345	06/12/2008	09/22/2008	AS-2	6.00 in.	1.00 in.	21.00 ft	25.00 ft
W2008-0345	06/12/2008	09/22/2008	AS-3	6.00 in.	1.00 in.	21.00 ft	25.00 ft
W2008-0345	06/12/2008	09/22/2008	DP-1	10.00 in.	4.00 in.	7.00 ft	23.00 ft
W2008-0345	06/12/2008	09/22/2008	DP-2	10.00 in.	4.00 in.	7.00 ft	23.00 ft
W2008-0345	06/12/2008	09/22/2008	DP-3	10.00 in.	4.00 in.	7.00 ft	23.00 ft
W2008-0345	06/12/2008	09/22/2008	VW-AS-1 to AS-1	6.00 in.	1.00 in.	21.00 ft	25.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with

appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).

7. Minimum surface seal thickness is two inches of cement grout placed by tremie

8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

9. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

Well Replacement-(Redrill)-Monitoring - 1 Wells
Driller: RSI Drilling, Inc. - Lic #: 802334 - Method: hstem **Work Total: $300.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2008-0346	06/12/2008	09/22/2008	MW-5 to MW-5R	10.00 in.	4.00 in.	4.00 ft	23.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Remove the Christy box or similar structure. Drill out & Replace with New Well

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the

Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Minimum surface seal thickness is two inches of cement grout placed by tremie

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

11. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

Remediation Well Destruction-Extraction - 1 Wells
Driller: RSI - Lic #: 802334 - Method: over **Work Total: $200.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2008-0347	06/12/2008	09/22/2008	VW-AS-3	8.00 in.	2.00 in.	5.00 ft	21.50 ft			

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

3. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Remove the Christy box or similar structure. Pressure Grout with Cement (Less than 30 ft in depth. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing.

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

APPENDIX B

Boring Logs

PANGEA
Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200
Oakland, CA 94612
Telephone: 510-836-3700
Fax: 510-836-3709

WELL NUMBER DP-1

CLIENT Saberi
PROJECT NAME Saberi - 1230 14th Street
PROJECT NUMBER 1150001
PROJECT LOCATION 1230 14th Street, Oakland
DATE STARTED 6/27/08 **COMPLETED** 6/27/08
GROUND ELEVATION _____ **HOLE SIZE** 10"
DRILLING CONTRACTOR RSI
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger - 10"
AT TIME OF DRILLING ---
LOGGED BY Bryce Taylor **CHECKED BY** Bob Clark-Riddell
AT END OF DRILLING ---
NOTES Hand augered to 5' depth.
AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						See boring AS-3 for representative lithology.	Concrete; Portland Cement; Bentonite; #2/12 Sand; 0.010 Slotted 4" Schedule 40 PVC
5							
10							
15							
20							

TOTAL WELL LOG 1230 14TH STREET DP-1.GPJ GINT US.GDT 8/25/08

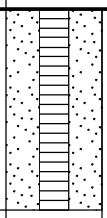
(Continued Next Page)

Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200
Oakland, CA 94612
Telephone: 510-836-3700
Fax: 510-836-3709

WELL NUMBER DP-1

CLIENT Saberi **PROJECT NAME** Saberi - 1230 14th Street

PROJECT NUMBER 1150001 **PROJECT LOCATION** 1230 14th Street, Oakland

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20						See boring AS-3 for representative lithology. *(continued)*	
						23.0	
						Bottom of hole at 23.0 feet.	

Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200
Oakland, CA 94612
Telephone: 510-836-3700
Fax: 510-836-3709

WELL NUMBER DP-2

CLIENT Saberi
PROJECT NAME Saberi - 1230 14th Street
PROJECT NUMBER 1150001
PROJECT LOCATION 1230 14th Street, Oakland
DATE STARTED 6/27/08 **COMPLETED** 6/27/08
GROUND ELEVATION _____ **HOLE SIZE** 10"
DRILLING CONTRACTOR RSI
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger - 10"
AT TIME OF DRILLING ---
LOGGED BY Bryce Taylor **CHECKED BY** Bob Clark-Riddell
AT END OF DRILLING ---
NOTES Hand augered to 5' depth.
AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						See boring AS-3 for representative lithology.	Concrete; Portland Cement; Bentonite; #2/12 Sand; 0.010 Slotted 4" Schedule 40 PVC
5							
10							
15							
20							

TOTAL WELL LOG 1230 14TH STREET DP-2.GPJ GINT US.GDT 8/25/08

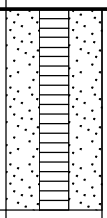
(Continued Next Page)

Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200
Oakland, CA 94612
Telephone: 510-836-3700
Fax: 510-836-3709

WELL NUMBER DP-2

CLIENT Saberi **PROJECT NAME** Saberi - 1230 14th Street

PROJECT NUMBER 1150001 **PROJECT LOCATION** 1230 14th Street, Oakland

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20						See boring AS-3 for representative lithology. *(continued)*	
						23.0	
						Bottom of hole at 23.0 feet.	

PANGEA
Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200
Oakland, CA 94612
Telephone: 510-836-3700
Fax: 510-836-3709

WELL NUMBER DP-3

CLIENT Saberi
PROJECT NAME Saberi - 1230 14th Street
PROJECT NUMBER 1150001
PROJECT LOCATION 1230 14th Street, Oakland
DATE STARTED 6/27/08 **COMPLETED** 6/27/08
GROUND ELEVATION _____ **HOLE SIZE** 10"
DRILLING CONTRACTOR RSI
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger - 10"
AT TIME OF DRILLING ---
LOGGED BY Bryce Taylor **CHECKED BY** Bob Clark-Riddell
AT END OF DRILLING ---
NOTES Hand augered to 5' depth.
AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						See boring AS-3 for representative lithology.	Concrete; Portland Cement; Bentonite; #2/12 Sand; 0.010 Slotted 4" Schedule 40 PVC
5							
10							
15							
20							

TOTAL WELL LOG 1230 14TH STREET DP-3.GPJ GINT US.GDT 8/25/08

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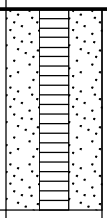
WELL NUMBER DP-3

CLIENT Saberi **PROJECT NAME** Saberi - 1230 14th Street

PROJECT NUMBER 1150001 **PROJECT LOCATION** 1230 14th Street, Oakland

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20						See boring AS-3 for representative lithology. *(continued)*	
						23.0	
						Bottom of hole at 23.0 feet.	

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WELL NUMBER AS-1

CLIENT Saberi
PROJECT NAME Saberi - 1230 14th Street
PROJECT NUMBER 1150001
PROJECT LOCATION 1230 14th Street, Oakland
DATE STARTED 6/27/08 **COMPLETED** 6/27/08
GROUND ELEVATION _____ **HOLE SIZE** 8"/6"
DRILLING CONTRACTOR RSI
GROUND WATER LEVELS:
DRILLING METHOD Macrocore Direct Push/Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY Bryce Taylor **CHECKED BY** Bob Clark-Riddell
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						See boring VW/AS-1 for representative lithology.	Concrete
5							
10							Portland Cement
15							
20							

TOTAL WELL LOG 1230 14TH STREET AS-1.GPJ GINT US.GDT 8/25/08

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WELL NUMBER AS-1

CLIENT Saberi **PROJECT NAME** Saberi - 1230 14th Street

PROJECT NUMBER 1150001 **PROJECT LOCATION** 1230 14th Street, Oakland

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20						See boring VW/AS-1 for representative lithology. *(continued)*	Bentonite
						21.0	
				SP		**Sand (SP)**; brown; 90-100% fine-grain sand; 5-10% low plasticity fines; wet; no hydrocarbon odor.	#2/12 Sand
							0.010 Slotted 1" Schedule 80 PVC
25						25.0	

(Well VW/AS-1 was a coaxial well. Well was overdrilled to 22' bgs, and the damaged well casing was removed. A pilot boring was advanced to 25' bgs using direct push macrocore technology. Using 6" HSA's the boring was completed to 25' bgs to facilitate well installation.)

Bottom of hole at 25.0 feet.

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WELL NUMBER AS-2

CLIENT Saberi
PROJECT NAME Saberi - 1230 14th Street
PROJECT NUMBER 1150001
PROJECT LOCATION 1230 14th Street, Oakland
DATE STARTED 6/26/08 **COMPLETED** 6/26/08
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR RSI
GROUND WATER LEVELS:
DRILLING METHOD Dual Tube Direct Push/Hollow Stem Auger
▽ **AT TIME OF DRILLING** 18.0 ft
LOGGED BY Bryce Taylor **CHECKED BY** Bob Clark-Riddell
AT END OF DRILLING ---
NOTES Hand augered to 4' depth.
AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						**Sandy Gravel (GP)**; light brown; 70-80% fine gravels to 3/4"; 10-20% fine- to coarse-grain sand; 10-15% non-plastic fines; dry; fill.	Concrete
5				GP			
10						11.0 **Poorly Graded Sand (SP)**; olive grey; 90-100% fine-grain sand; 5-10% low plasticity fines; strong hydrocarbon odor from 11' - 22'; dry.	Portland Cement
15				SP		▽ @18' Moist to wet.	
20							Bentonite

TOTAL WELL LOG 1230 14TH STREET AS-2.GPJ GINT US.GDT 8/25/08

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WELL NUMBER AS-2

CLIENT Saberi **PROJECT NAME** Saberi - 1230 14th Street

PROJECT NUMBER 1150001 **PROJECT LOCATION** 1230 14th Street, Oakland

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20							
				SP		**Poorly Graded Sand (SP)**; olive grey; 90-100% fine-grain sand; 5-10% low plasticity fines; strong hydrocarbon odor from 11' - 22'; dry. *(continued)* @22' Brwon; no hydrocarbon odor. @23' Wet.	#2/12 Sand 0.010 Slotted 1" Schedule 80 PVC
25						25.0	
						(Pilot boring was advanced to 25' bgs using direct push drilling methods. Boring was reamed with a 6" hollow stem auger to facilitate the installation of the well.) Bottom of hole at 25.0 feet.	

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WELL NUMBER AS-3

CLIENT Saberi
PROJECT NAME Saberi - 1230 14th Street
PROJECT NUMBER 1150001
PROJECT LOCATION 1230 14th Street, Oakland
DATE STARTED 6/26/08 **COMPLETED** 6/26/08
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR RSI
GROUND WATER LEVELS:
DRILLING METHOD Dual Tube Direct Push/Hollow Stem Auger
▽ **AT TIME OF DRILLING** 18.0 ft
LOGGED BY Bryce Taylor **CHECKED BY** Bob Clark-Riddell
AT END OF DRILLING ---
NOTES Hand augered to 5' depth.
AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0							
				GP		**Sandy Gravel (GP)**; light brown; 70-80% fine gravels to 3/4"; 10-20% fine- to coarse-grain sand; 5-10% non-plastic fines; dry.	Concrete
5					5.0		
				SP		**Poorly Graded Sand (SP)**; brown; 90-100% fine-grain sand; 5-10% low plasticity fines.	Portland Cement
10							
15						@15' Strong hydrocarbon odor; olive grey.	
						▽ @18' Moist to wet.	
20							

TOTAL WELL LOG 1230 14TH STREET AS-3.GPJ GINT US.GDT 8/25/08

(Continued Next Page)

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WELL NUMBER AS-3

CLIENT Saberi **PROJECT NAME** Saberi - 1230 14th Street

PROJECT NUMBER 1150001 **PROJECT LOCATION** 1230 14th Street, Oakland

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20							
				SP		**Poorly Graded Sand (SP)**; brown; 90-100% fine-grain sand; 5-10% low plasticity fines. *(continued)*	Bentonite; #2/12 Sand
						Poorly Graded Sand (SP); brown; 100% medium-grain sand; no hydrocarbon odor; wet.	0.010 Slotted 1" Schedule 80 PVC
25						25.0	
						(Pilot boring was advanced to 25' bgs using direct push drilling methods. Boring was reamed with 6" HSAs to facilitate the installation of the well.) Bottom of hole at 25.0 feet.	

Pangea Environmental Services, Inc.
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WELL NUMBER MW-5R

CLIENT Saberi
PROJECT NAME Saberi - 1230 14th Street
PROJECT NUMBER 1150001
PROJECT LOCATION 1230 14th Street, Oakland
DATE STARTED 6/27/08 **COMPLETED** 6/27/08
GROUND ELEVATION _____ **HOLE SIZE** 10"
DRILLING CONTRACTOR RSI
GROUND WATER LEVELS:
DRILLING METHOD Dual Tube Direct Push/Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY Bryce Taylor **CHECKED BY** Bob Clark-Riddell
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						See boring AS-2 for representative lithology.	Concrete; Portland Cement; Bentonite; #2/12 Sand; 0.010 Slotted 1" Schedule 80 PVC
5							
10							
15							
20							

TOTAL WELL LOG 1230 14TH STREET MW-5R.GPJ GINT US.GDT 7/2/08

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Pangea Environmental Services, Inc.
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WELL NUMBER MW-5R

CLIENT Saberi **PROJECT NAME** Saberi - 1230 14th Street

PROJECT NUMBER 1150001 **PROJECT LOCATION** 1230 14th Street, Oakland

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20						See boring AS-2 for representative lithology. *(continued)*	
23.0						*(Well MW-5 screened 5-20' bgs was overdrilled with 10" HSA's to 20' bgs. The damaged casing and well screen were removed from well MW-5 and the boring was advanced to 23' bgs.)* Bottom of hole at 23.0 feet.	

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WELL NUMBER VMP-1

CLIENT Saberi
PROJECT NAME Saberi - 1230 14th Street
PROJECT NUMBER 1150001
PROJECT LOCATION 1230 14th Street, Oakland
DATE STARTED 6/27/08 **COMPLETED** 6/27/08
GROUND ELEVATION _____ **HOLE SIZE** 3.25"
DRILLING CONTRACTOR RSI
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger
AT TIME OF DRILLING ---
LOGGED BY Bryce Taylor **CHECKED BY** Bob Clark-Riddell
AT END OF DRILLING ---
NOTES Hand augered to 5' depth.
AFTER DRILLING ---

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	BLOW COUNTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					0.5	Topsoil; debris.	Concrete
				SP		**Poorly Graded Sand (SP)**; 80-85% fine-grained sand; 10-15% nonplastic fines; dry.	Hydrated Granular Bentonite
							Dry Granular Bentonite
5					5.0		#2/12 Sand
						(Note: Temporary vapor monitoring point installed in hand augered borehole at 5' bgs. Vapor probe tip and screen connected to 1/4" ID polyethylene tubing and capped with a swagelok valve.) Bottom of hole at 5.0 feet.	

APPENDIX C

Standard Operating Procedures

STANDARD FIELD PROCEDURES FOR MONITORING WELLS

This document describes Pangea Environmental Services' standard field methods for drilling, installing, developing and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Well Construction and Surveying

Groundwater monitoring wells are installed in soil borings to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 feet below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three feet thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two ft above the well screen. A two feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I, II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security. The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

APPENDIX D

Well Development Field Data Sheets

Confluence Environmental, Inc

Equipment Calibration Log

Job #: MI-080702		Client: Pangea			Site: 1230 14th St. Oakland				
Equipment make/model	Equipment ID/ serial number	Date	Time	Calibration Standards	Equipment Reading	Equipment Calibrated	Temp (°C/ °F)	Tech init.	Comments
Ultrameter	62106462	7/2/08	800	pH 4, 7, 10	4.0, 7.0, 10.0	yes	17.8	BM	
〃	〃	〃	〃	cond 1413	1413	yes	17.4	BM	
〃	〃	7/3/08	740	pH 4, 7, 10	4.0, 7.0 10.0	yes	18.0	BM	
〃	〃	〃	〃	cond 1413	1413	yes	18.1	BM	

Notes/comments:

Pangea
ENVIRONMENTAL SERVICES, INC.

WELL DEVELOPMENT FIELD DATA SHEET

Well ID: DP-1

Project.Task #: M1 - 080702	Project Name: Former Shell
Address: 1230 14th Street, Oakland	
Date: 7/3/08	Weather: Warm
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): 22.52/22.53	Depth to Product:
Depth to Water (DTW): 12.43/	Product Thickness:
Water Column Height: 10.09/13.90	1 Casing Volume: 6.5 gallons
Reference Point: Toc	10 Casing Volumes: 65 gallons
Purging Device: Positive Air Displacement (Surged well prior)	
Sampling Device: Disp. bailer	

Time	Temp ©	pH	Cond (µs)	NTU	Vol(gal)	DTW	Notes
1015	19.3	7.3	1889	>1000	6.5	13.63	Hard bottom, Turbid, silty
1024	19.0	6.7	1554	>1000	13	13.90	Turbid, silty
1034	18.7	6.7	1430	>1000	19.5	13.90	clearing
1046	18.8	6.6	1387	576	26	13.90	"
1057	18.8	6.6	1343	121	32.5	13.90	"
1109	18.6	6.6	1397	93	39	13.94	"
1120	18.6	6.6	1252	77	45.5	13.93	"
1132	18.6	6.6	1211	54	52	13.90	
1143	18.8	6.7	1177	38	58.5	13.90	
1155	18.9	6.7	1136	31	65	13.90	
	Finished development - Purge + Sample						
1205	19.0	6.6	1096	22	71.5	13.90	
1216	19.1	6.6	1085	20	78	13.90	
1228	19.3	6.6	1070	18	84.5	13.90	

Comments: Recharge Rate = 0.3 gpm

Sample ID: DP-1	Sample Time: 1230
Laboratory: McCampbell	Sample Date: 7/3/08
Containers/Preservative: 3 HCl VOA's	
Analyzed for: TPH-G, BTEX, MTBE	
Sampler Name: Brandon Myers	Signature:

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ENVIRONMENTAL SERVICES, INC.

WELL DEVELOPMENT FIELD DATA SHEET

Well ID: DP-2

Project.Task #: M1 - 080702	Project Name: Former Shell
Address: 1230 14th Street, Oakland	
Date: 7/3/08	Weather: Warm
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): 22.28/22.30	Depth to Product:
Depth to Water (DTW): 12.92/	Product Thickness:
Water Column Height: 9.36	1 Casing Volume: 6 gallons
Reference Point: Toc	10 Casing Volumes: 60 gallons
Purging Device: Positive Air Displacement (Surged well prior)	
Sampling Device: Disp. bailer	

Time	Temp ©	pH	Cond (µs)	NTU	Vol(gal)	DTW	Notes
755	18.5	6.2	2059	>1000	6	14.70	Hard bottom, Turbid, silty
805	19.0	6.4	1690	>1000	12	15.20	Turbid, silty
818	18.9	6.6	1466	>1000	18	15.31	" "
828	19.2	6.6	1309	>1000	24	17.73	" clearing
837	19.6	6.6	1355	>1000	30	18.18	clearing
847	19.6	6.7	1238	>1000	36	17.90	"
858	20.0	6.7	1211	>1000	42	17.90	"
909	20.4	6.6	1185	113	48	17.90	"
918	20.6	6.6	1184	77	54	17.94	"
927	20.6	6.6	1180	47	60	17.92	"
	Finished development - Purge + Sample						
936	20.8	6.6	1193	42	66	17.90	"
944	20.8	6.6	1207	36	72	17.90	"
952	20.7	6.6	1212	32	78	17.93	"

Comments: Recharge Rate 0.325 gpm

Sample ID: DP-2	Sample Time: 955
Laboratory: McCampbell	Sample Date: 7/3/08
Containers/Preservative: 3 HCl VOA's	
Analyzed for: TPH-G, BTEX, MTBE	
Sampler Name: Brandon Myers	Signature:

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WELL DEVELOPMENT FIELD DATA SHEET

Well ID: DP-3

Project.Task #: M1 - 080702	Project Name: Former Shell
Address: 1230 14th Street, Oakland	
Date: 7/2/08	Weather: warm
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): 22.28 / 22.29	Depth to Product:
Depth to Water (DTW): 13.21 / 16.53	Product Thickness:
Water Column Height: 9.07	1 Casing Volume: 5.9 gallons
Reference Point: Toc	10 Casing Volumes: 59 gallons
Purging Device: Positive Air Displacement (Surged well prior)	
Sampling Device: Disp. bailer	

Time	Temp ©	pH	Cond (µs)	NTU	Vol(gal)	DTW	Notes
1215	20.2	6.7	2366	>1000	6	15.13	Hard bottom, Turbid, s, lty
1233	19.1	6.6	1927	>1000	12	15.80	Turbid
1234	19.1	6.4	1500	>1000	18	16.13	"
1241	18.6	6.4	1496	>1000	24	16.27	" but clearing
1248	18.6	6.4	1405	>1000	30	16.40	" "
1257	18.4	6.4	1343	>1000	36	16.50	" "
1305	18.8	6.4	1233	>1000	42	16.54	" "
1316	18.4	6.4	1276	>1000	48	16.50	" "
1323	18.4	6.4	1281	97	54	16.60	clear
1331	18.3	6.4	1260	56	59	16.50	clear
	Finished development - Purge + Sampled						
1340	18.4	6.4	1250	53	65	16.53	clear
1349	18.3	6.4	1248	29	71	16.57	clear
1357	18.5	6.4	1195	25	77	16.53	clear

Comments: Recharge Rate ≈ ~~1gpm~~ = 0.3 gpm

Sample ID: DP-3	Sample Time: 1400
Laboratory: McCampbell	Sample Date: 7/2/08
Containers/Preservative: 3 HCl VOA's	
Analyzed for: TPH-G, BTEX, MTBE	
Sampler Name: Brandon Myers	Signature:

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WELL DEVELOPMENT FIELD DATA SHEET

Well ID: AS-1

Project.Task #: M1 - 080702	Project Name: Former Shell
Address: 1230 14th Street, Oakland	
Date: 7/2/08	Weather: Cool
Well Diameter: 1	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 25.20/25.22	Depth to Product:
Depth to Water (DTW): 12.08/12.60	Product Thickness:
Water Column Height: 13.12	1 Casing Volume: 0.5 gallons
Reference Point: TOC	10 Casing Volumes: 5 gallons
Purging Device: 5/8 tubing w/ check valve	
Sampling Device: SAME	

Time	Temp ©	pH	Cond (µs)	NTU	Vol(gal)	DTW	Notes
1042	18.9	6.8	1510	>1000	0.5	—	Hard bottom Turbid
1042	18.9	6.8	1437	>1000	1	—	Turbid
1043	18.8	6.8	1410	>1000	1.5	—	
1043	18.8	6.8	1367	>1000	2	—	
1044	18.7	7.2	1268	>1000	2.5	—	
1044	18.6	7.7	1110	>1000	3	—	
1045	18.7	7.5	1008	>1000	3.5	—	
1045	18.7	7.4	984	>1000	4	—	
1046	18.7	7.1	820	>1000	4.5	—	
1046	18.6	7.1	832	>1000	5	—	
	Finish development Purge & sample						
1047	18.8	7.0	880	>1000	5.5	—	
1047	18.7	6.8	842	>1000	6	—	
1048	18.6	6.8	825	>1000	6.5	—	

Comments:

Sample ID: AS-1	Sample Time: 1058
Laboratory: McCampbell	Sample Date: 7/2/08
Containers/Preservative: 3 HCl VOA's	
Analyzed for: TPH-G, BTEX, MTBE	
Sampler Name: Brandon Myers	Signature: Brandon Myers

Pangea
ENVIRONMENTAL SERVICES, INC.

WELL DEVELOPMENT FIELD DATA SHEET

Well ID: AS-2

Project.Task #: M1 - 080702	Project Name: Former Shell
Address: 1230 14th Street, Oakland	
Date: 7/2/08	Weather: Cool
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): 24.30/24.55	Depth to Product:
Depth to Water (DTW): 11.98/21.31	Product Thickness:
Water Column Height: 12.32	1 Casing Volume: 0.5 gallons
Reference Point: TOC	10 Casing Volumes: 5 gallons
Purging Device: 5/8 tubing w/ check valve	
Sampling Device: SAME	

Time	Temp ©	pH	Cond (µs)	NTU	Vol(gal)	DTW	Notes
1000	19.3	6.9	922	>1000	0.5	—	dewatered Turbid
1005	20.1	7.3	817	>1000	1.0	—	dewatered Turbid
1035	22.0	6.9	816	>1000	1.5	—	dewatered Turbid
1104	22.9	6.9	803	>1000	2	—	Turbid
1106	20.5	6.7	771	>1000	2.5	—	dewatered Turbid
1128	22.0	7.2	760	>1000	3	—	dewatered Turbid
1137	21.0	7.2	737	>1000	3.5	—	" "
1210	20.7	7.2	713	>1000	4	—	" "
1220	20.5	7.0	714	>1000	4.5	—	" "
1230	20.3	6.8	716	>1000	5	—	" "
	Finished Development - Purge & Sample						
1305	20.7	6.5	694	>1000	5.5	—	" "
1335	20.7	6.7	663	>1000	6	—	" "
1405	20.6	6.7	649	>1000	6.5	—	" "

Comments:

Sample ID: AS-2	Sample Time: 1410
Laboratory: McCampbell	Sample Date: 7/2/08
Containers/Preservative: 3 HCl VOA's	
Analyzed for: TPH-G, BTEX, MTBE	
Sampler Name: Brandon Myers	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

WELL DEVELOPMENT FIELD DATA SHEET

Well ID: AS-3

Project.Task #: M1 - 080702	Project Name: Former Shell
Address: 1230 14th Street, Oakland	
Date: 7/2/08	Weather: Cool
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): 24.80/24.80	Depth to Product:
Depth to Water (DTW): 12.42/12.50	Product Thickness:
Water Column Height: 12.38	1 Casing Volume: 0.5 gallons
Reference Point: TOC	10 Casing Volumes: 5 gallons
Purging Device: 5/8 tubing w/ check valve	
Sampling Device: SAME	

Time	Temp ©	pH	Cond (µs)	NTU	Vol(gal)	DTW	Notes
1012	18.9	7.2	1534	>1000	0.5	—	Hard bottom, Turbid
1013	18.7	6.8	1512	>1000	1.0	—	Turbid
1013	18.3	6.8	1479	>1000	1.5	—	
1014	18.3	6.8	1463	>1000	2	—	
1014	18.3	6.8	1450	>1000	2.5	—	
1015	18.1	6.7	1433	>1000	3	—	
1015	18.1	6.7	1411	>1000	3.5	—	
1016	18.1	6.6	1398	>1000	4	—	
1016	18.1	6.5	1377	>1000	4.5	—	
	18.0	6.5	1368	>1000	5	—	
	Finished development - Purged + Sampled						
1017	18.5	6.7	1348	>1000	5.5	—	
1018	18.3	6.6	1347	>1000	6	—	
1018	18.2	6.6	1347	>1000	6.5	—	

Comments:

Sample ID: AS-3	Sample Time: 1020
Laboratory: McCampbell	Sample Date: 7/2/08
Containers/Preservative: 3 HCl VOA's	
Analyzed for: TPH-G, BTEX, MTBE	
Sampler Name: Brandon Myers	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

WELL DEVELOPMENT FIELD DATA SHEET

Well ID: MW-5R

Project.Task #: M1 - 080702	Project Name: Former Shell
Address: 1230 14th Street, Oakland	
Date: 7/2/08	Weather: cool
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): 22.50 / 22.50	Depth to Product:
Depth to Water (DTW): 11.91 / 18.96	Product Thickness:
Water Column Height: 10.59	1 Casing Volume: 6.9 gallons
Reference Point: TOC	10 Casing Volumes: 69 gallons
Purging Device: Positive Air Displacement (surged well 10 mins)	
Sampling Device: Disp bailer	

Time	Temp ©	pH	Cond (µs)	NTU	Vol(gal)	DTW	Notes
842	17.9	6.8	1823	>1000	7	14.20	soft bottom, Turbid, silty
853	17.9	8.4	1377	>1000	14	18.05	Hard bottom, Turbid, silty
903	17.9	8.0	1104	>1000	21	19.10	Turbid
	well dewatered @ 21 gallons			recharge rate = 0.3 gpm			
928	18.1	7.5	1075	>1000	28	18.91	clearing
944	16.3	7.0	996	577	35	19.27	clearing * dewatered @ 35 g
1112	21.1	6.7	1059	395	42	15.67	clearing
1125	20.6	7.0	1111	426	49	16.95	clearing
1137	19.9	6.6	1038	332	56	18.83	" dewatered @ 60 g
1417	19.6	6.7	997	236	63	15.00	clearing
1427	19.6	6.8	1078	137	69	15.77	Finish development - Purge + Sample
1435	19.5	7.0	1108	113	76	*17.83	clearing
1443	19.5	6.6	1065	113	83	18.40	clearing
1451	19.6	6.6	1032	107	90	18.96	clearing

Re surged →

Resurged

Comments: Recharge Rate = 0.3 gpm

Sample ID: MW-5R	Sample Time: 1455
Laboratory: McCampbell	Sample Date: 7/2/08
Containers/Preservative: 3 HCl VOA's	
Analyzed for: TPH-G, BTEX, MTBE	
Sampler Name: Brandon Myers	Signature:

APPENDIX E

Laboratory Analytical Report

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #M1-080702	Date Sampled: 07/02/08-07/03/08
		Date Received: 07/03/08
	Client Contact: Morgan Gillies	Date Reported: 07/11/08
	Client P.O.:	Date Completed: 07/11/08

WorkOrder: 0807115

July 11, 2008

Dear Morgan:

Enclosed within are:

1) The results of the **7** analyzed samples from your project: **#M1-080702,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

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.

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Pangea Environmental Svcs., Inc.	Client Project ID: #M1-080702	Date Sampled: 07/02/08-07/03/08
		Date Received: 07/03/08
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 07/09/08-07/11/08
Oakland, CA 94612	Client P.O.:	Date Analyzed 07/09/08-07/11/08

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

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0807115

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	DP-1	W	34,000,d1	ND<350	5100	1800	1300	4900	20	99
002A	DP-2	W	15,000,d1	ND<150	2800	300	560	1600	20	110
003A	DP-3	W	14,000,d1	ND<350	4400	100	720	150	10	105
004A	AS-1	W	28,000,d1,b1	ND<500	390	350	620	2500	100	104
005A	AS-2	W	9600,d1,b1	ND<50	380	620	170	1000	10	108
006A	AS-3	W	2800,d1,b1	ND<50	340	7.2	20	37	10	107
007A	MW-5R	W	22,000,d1	ND<250	4100	710	750	2300	50	95

Reporting Limit for DF =1; ND means not detected at or	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 and all TCLP & SPLP extracts are reported in ug/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.

+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

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

Chain of Custody

080715 Page 1 of 1

Project Name: 1230 14th Street, Oakland

Job Number: M1-080702

TAT: STANDARD (5 DAY) 2 DAY 24 HOUR OTHER:

Lab: McCampbell	Site Address: 1230 14th St, Oakland	Confluence PM: Jason Brown
Address: 1534 Willow Pass Rd, Pittsburg, CA 94565	California Global ID No.:	Phone / Fax: 916-760-7641 / (916-473-8617)
Contact:	Include EDF w/ Report (Yes) No	Confluence Log Code: CESC
Phone/ Fax: 925-252-9262	Consultant / PM: Pangea / Morgan Gillies	Report to: Morgan Gillies
	Phone / Fax: 408-910-1783	Invoice to: Pangea

	Sample ID	Time	Date	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air	Laboratory No.	No. of Containers	Preservative: Unpreserved	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Requested Analysis: TPH-G (8015C)	Requested Analysis: BTEX, MTBE (8021B)	Notes and Comments
†	DP-1	1230	7/3		X			3				3		X	X	
†	DP-2	955	7/3		X			3				3		X	X	
†	DP-3	1400	7/2		X			3				3		X	X	
†5	AS-1	1050	"		X			3				3		X	X	
†2	AS-2	1410	"		X			3				3		X	X	
†5	AS-3	1020	"		X			3				3		X	X	
†	MW-5R	1455	"		X			3				3		X	X	

Sampler's Name: B. Myers	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: Confluence Environmental		7/3/08			7/5/08	150
Shipment Date:		7/3/08	1430	M-E Kell	7/3/08	1429
Shipment Method:						

Special Instructions:

ICE / t° 1.2°
GOOD CONDITION ✓ APPROPRIATE
HEAD SPACE ABSENT ✓ CONTAINERS ✓
DECHLORINATED IN LAB ____ PRESERVED IN LAB ____

PRESERVATION	VOAs	O & G	METALS	OTHER
	✓			

version 1.1 date printed:6/30/2008

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0807115 **ClientCode: PEO**

☐ 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: #M1-080702

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

Requested TAT: 5 days

Date Received: **07/03/2008**
Date Printed: **07/03/2008**

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
0807115-001	DP-1	Water	7/3/2008 12:30	☐	A	A										
0807115-002	DP-2	Water	7/3/2008 9:55	☐	A											
0807115-003	DP-3	Water	7/2/2008 14:00	☐	A											
0807115-004	AS-1	Water	7/2/2008 10:50	☐	A											
0807115-005	AS-2	Water	7/2/2008 14:10	☐	A											
0807115-006	AS-3	Water	7/2/2008 10:20	☐	A											
0807115-007	MW-5R	Water	7/2/2008 14:55	☐	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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Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **07/03/08 5:27:44 PM**

Project Name: **#M1-080702**
Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0807115** 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: 7.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

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

Client contacted: Date contacted: Contacted by:

Comments:

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0807115

EPA Method SW8021B/8015Cm **Extraction SW5030B** **BatchID: 36702** **Spiked Sample ID: 0807063-008A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	103	97.5	5.68	88.6	105	17.1	70 - 130	20	70 - 130	20
MTBE	ND	10	102	98.3	3.69	85.7	86.7	1.21	70 - 130	20	70 - 130	20
Benzene	ND	10	85.4	83.5	2.24	92.7	83	11.0	70 - 130	20	70 - 130	20
Toluene	ND	10	83.7	82.4	1.49	86.2	80.4	7.06	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	89.7	89.8	0.0696	88.4	81.5	8.13	70 - 130	20	70 - 130	20
Xylenes	ND	30	101	100	0.401	81.1	75.7	6.92	70 - 130	20	70 - 130	20
%SS:	92	10	91	90	0.392	108	101	7.01	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 36702 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807115-001A	07/03/08 12:30 PM	07/09/08	07/09/08 7:23 PM	0807115-002A	07/03/08 9:55 AM	07/09/08	07/09/08 6:08 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.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0807115

EPA Method SW8021B/8015Cm **Extraction SW5030B** **BatchID: 36735** **Spiked Sample ID: 0807109-003A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	95.6	92.4	3.35	98	94.9	3.21	70 - 130	20	70 - 130	20
MTBE	ND	10	107	120	11.4	110	99.4	9.65	70 - 130	20	70 - 130	20
Benzene	ND	10	95.5	108	12.0	95	99.6	4.80	70 - 130	20	70 - 130	20
Toluene	ND	10	86.9	95.8	9.79	95.5	97.1	1.63	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	95.9	106	10.3	98.3	103	4.70	70 - 130	20	70 - 130	20
Xylenes	ND	30	95.3	102	7.21	115	114	0.960	70 - 130	20	70 - 130	20
%SS:	92	10	95	96	1.14	86	85	1.30	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 36735 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807115-003A	07/02/08 2:00 PM	07/11/08	07/11/08 9:47 AM	0807115-004A	07/02/08 10:50 AM	07/10/08	07/10/08 1:39 AM
0807115-005A	07/02/08 2:10 PM	07/10/08	07/10/08 1:08 AM	0807115-006A	07/02/08 10:20 AM	07/10/08	07/10/08 12:38 AM
0807115-007A	07/02/08 2:55 PM	07/09/08	07/09/08 8:00 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.