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1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

SUBJECT: Perjury Statement

To Whom It May Concern:

I declare, under penalty of perjury, that the information and/or recommendations contained in the requested attached reports in your letter dated August 8, 2011 are true and correct to the best of my knowledge.

Signed: _____

JANE A. ALLEN

January 15, 2012

Well Installation and Fourth Quarter 2011 Groundwater Monitoring Report

Property Identification:
325 Martin Luther King Jr. Way
Oakland, California

AEI Project No. 277915
ACEH Site: RO0002930

Prepared for:
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TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this report to document the installation of additional infusion wells (IW-4 and IW-5) and the Fourth (4th) Quarter 2011 groundwater monitoring event at the above referenced site (Figure 1, Site Location Map). The well installation, infusion program, and groundwater monitoring is being performed in accordance with the requirements of the Alameda County Environmental Health (ACEH).

2.0 SITE DESCRIPTION AND HISTORY

The subject property is located on the western corner of the intersection of Martin Luther King Jr. Way and 4th Street in a mixed commercial and industrial area of Oakland. The property measures approximately 100 feet along Martin Luther King and approximately 150 feet along 4th Street with the property building covering essentially 100% of the site. The northwestern portion of the building along 4th Street has also had the address 671 4th Street. The building is currently vacant, but was previously occupied by Pucci Enterprises as warehouse space and cold storage freezers.

A Phase I Environmental Site Assessment (ESA) of the property dated November 1, 1993 identified a 10,000-gallon former gasoline UST that currently exists below the north side of the building. The gasoline UST was used to provide fuel for the Pucci Enterprises truck fleet.

2.1 Tank Closure

On October 20, 1993, the tank was abandoned in place by pumping remaining sludge out of the tank, steam cleaning the tank, and filling the tank with concrete slurry. At the time of the UST closure, the eastern section of the building had not yet been built and it was believed that the tank could not be removed because of its proximity to the footing of the 671 4th Street building. The available records contain no documentation of sampling around the tank at the time of the tank closure. After tank closure, the eastern portion of the building (325 Martin Luther King) was constructed.

2.2 2005 AEI Investigation

In May 2005, AEI performed a Phase II Subsurface Investigation. Soil borings SB-1 and SB-3 encountered refusal at a depth of 4 feet bgs, at the top of the concrete filled UST. Soil borings SB-2 and SB-4 were advanced into the groundwater. Total Petroleum Hydrocarbons as gasoline (TPH-g), as diesel (TPH-d), and benzene were reported in groundwater from boring SB-2 at concentrations up to 780 micrograms per liter (µg/L), 420 µg/L, and 53 µg/L, respectively.

2.3 2005 Terra Firma Investigation

In September 2005, Terra Firma collected groundwater samples were collected from four (4) soil borings (labeled 50901-1 to 50901-4). Analysis of the groundwater samples reported the highest concentrations of hydrocarbons in soil boring 50901-3 to the south of the UST, where TPH-g, TPH-d, and benzene were reported at concentrations of 20,000 µg/L, 3600 µg/L, and 990 µg/L, respectively.

2.4 2006 Ceres Investigation

In June 2006, Ceres Associates (Ceres) advanced five soil borings (SB5 through SB9). The highest concentrations of hydrocarbons in the soil were reported in boring SB-7 (located southeast of the UST) where TPH-g, TPH-d, and benzene were reported in sample SB-7-10 at concentrations of 20,000 mg/kg, 3,300 mg/kg, 200 mg/kg, respectively. Analysis of groundwater samples from SB7 reported TPH-g, TPH-d, and benzene at concentrations of 110,000 µg/l, 110,000 µg/l, and 3,300 µg/l, respectively. Concentrations of TPH-g in the other soil borings ranged from ND <50 µg/l (SB5-GW) to 610 µg/l (SB8-GW).

2.5 LRM Consulting Workplan

LRM Consulting prepared release notification documentation and a workplan for the ACEH in August 2006. The workplan included additional file and data base research into possible additional source locations (dispenser, piping, offsite releases, etc) and installing three (3) 2-inch diameter monitoring wells a screened interval of 5 to 20 feet bgs.

2.6 2007 AEI Investigation

Following ACEH comments relating to the work plan and previous investigations, AEI was retained to prepare a comprehensive workplan. The *Site Characterization Workplan*, dated March 31, 2007, outlined the scope of work for installation of 12 additional soil borings and three groundwater monitoring wells to further characterize the release.

In May of 2007, AEI performed a soil and groundwater investigation which included the drilling of additional twelve (12) soil borings at the property. Significant concentrations of TPH-g, TPH-d, and benzene in the soil were reported only in monitoring well MW-3 (MW-3-10), located down gradient of abandoned UST, at concentrations of 1,500 mg/kg, 240 mg/kg, and 6.0 mg/kg, respectively. Low concentrations (<210 µg/l) of TPH were reported down gradient of the abandoned UST in soil boring SB-10, SB-12, SB-13, SB-16, SB-17, SB-18, and SB-19.

Data from these investigations shows that the dissolved hydrocarbon plume is limited to the eastern most portion of 325 Martin Luther King Jr. Way, immediately down gradient of the abandoned in place UST. On August 10, 2007, AEI installed three (3) groundwater monitoring wells (MW-1 thru MW-3) down gradient of the abandoned in place UST. Significant concentrations of TPH-g, TPH-d and benzene were reported only in well MW-3 at concentrations of 24,000 µg/l, 1,200 µg/l, and 2,600 µg/l, respectively.

Site maps showing the locations of soil borings advanced and monitoring wells installed by AEI and well construction details are contained in AEI's *Soil and Groundwater Investigation Report*, dated September 21, 2007.

2.7 Chemical Oxidation Pilot Test

A *Corrective Action Pilot Test Workplan*, dated April 7, 2008, was prepared for the ACEH. The workplan proposed five injection points around monitoring well MW-3 using a RegenOx™ solution. The workplan was approved by the ACEH in a letter dated May 13, 2008. On July 17 and 18, 2008, 720 lbs of RegenOx™ was injected in five locations (IP-1 through IP-5) at spacing approximately five feet away from well MW-3.

Following the pilot test, groundwater samples collected on August 4, 2008 from well MW-3 reported an increase in TPH-g from pre-pilot concentration from 20,000 µg/L to 110,000 µg/L. Follow up sampling on August 20, 2008 reported TPH-g at a concentration of 120,000 µg/L. This increase was the result of release of hydrocarbons adsorbed to clay, silt and sand grains in the smear zone (between 9 - 11 feet bgs).

This significant increase in TPH-g concentration indicated that the residual source area around the abandoned in place UST is significantly greater than had been anticipated and that several rounds of injection would be required to remediate the site. Based on the relative high cost of multiple direct push infusions using RegenOx™, installation of permanent injection points and alternate remedial approaches were evaluated. AEI determined that H_2O_2 infusion through permanently installed wells was a lower cost approach to remediation. A *Hydrogen Peroxide Infusion Pilot Test Workplan*, dated August 12, 2009, was completed for the site and approved in a letter from the ACEH dated August 21, 2009.

2.8 H^2O^2 Infusion

In December of 2009, a 2,400 gallon poly tank was placed on the site and manifolded to wells IW-1, IW-2 and IW-3. Between December 29, 2009, and January 29, 2010, 8,000 gallons of 0.5% H^2O^2 was infused primarily into injection wells IW-2 and IW-3.

On February 8 and 24, 2010 following the infusion of 8,000 gallons of 0.5% H^2O^2 solution, wells MW-3, IW-2, and IW-3 were sampled to determine the effects of the H^2O^2 infusion. TPH-g in MW-3 decreased from 59,000 µg/L on October 30, 2009 to 16,000 µg/L on February 24, 2010. TPH-g in IW-2 decreased from 15,000 µg/L on October 30, 2009 to 3,500 µg/L on February 24, 2010. IW-3 decreased from 77,000 µg/L on November 23, 2009 to 36,000 µg/L on February 24, 2010.

On March 16, 2010, prior to starting a second round of H^2O^2, AEI conducted the regularly scheduled groundwater-monitoring event at the site. TPH-g in wells MW-1 and MW-2 remained below standard reporting limits. TPH-g concentrations in MW-3, IW-2, and IW-3 rebounded to 34,000 µg/L, 20,000 µg/L, and 44,000 µg/L, respectively.

Between March 16, 2010 and May 12, 2010, 9,400 gallons of 0.5% H^2O^2 were infused into wells IW-2 and IW-3. Between May 24, 2010 and June 29, 2010, 4,900 gallons of 1.25% H^2O^2 were infused primarily into well IW-3.

Progress monitoring sampling was performed on May 24, July 19, and August 5, 2010. The results of the progress sampling through July 19, 2010 is summarized in Table 3 and in the *Hydrogen Peroxide Infusion Report* dated July 30, 2010.

Following the Third Quarter 2010 semi-annual monitoring event on September 9, 2010 hydrogen peroxide infusion into well IW-3 was resumed. Between September 21, 2010 and December 29, 2010 an additional 18,000 gallons of 0.5 % hydrogen peroxide was infused in well IW-3.

2.9 Post Infusion Monitoring

The regularly scheduled First Quarter 2011 semiannual monitoring event was performed on March 24, 2011. No TPH-g or BTEX was reported in wells MW-1, MW-2, IW-1, or IW-2 at or below standard laboratory reporting limits.

TPH-g was reported in wells MW-3 and IW-3 at concentrations of 140 μg/L and 390 μg/L respectively.

The second semiannual monitoring event was performed on August 9, 2011. No TPH-g or BTEX was reported in wells MW-1, MW-2, IW-1, or IW-2 at or below standard laboratory reporting limits.

TPH-g and benzene concentrations in well MW-3 increased from concentrations of 590 μg/L and 38 μg/L, respectively on August 9, 2011 to 4,900 μg/L and 1,400 μg/L, respectively on December 14, 2011. The concentration of TPH-d increased from 200 μg/L to 1,000 μg/L.

TPH-g concentration in well IW-3 increased from 9,600 μg/L on August 9, 2011 to 36,000 μg/L and on December 14, 2011. Benzene concentration in well IW-2 increased from 2,400 μg/L on August 9, 2011 to 4,600 μg/L and on December 14, 2011.

3.0 WELL INSTALLATION – IW-4, IW-5

3.1 Tank Location Attempt

On November 8, 2011 AEI supervised a Ground Penetrating Radar (GPR) Survey performed by Subtronic Corporation, Martinez, CA. The purpose of the survey was to attempt to precisely locate the abandoned UST. Due to thickness of the floor, and nature of the sediments beneath the floor, no significant tank related anomalies could be identified by electro-magnetic methods or GPR, despite the fact earlier probing had encountered the tank at a depth of approximately 4 feet bgs.

On November 16, 2011, AEI cored the floor slab with a roto-hammer and hand probed a location on the up gradient (north) side of the area where the previous probing and soil borings had encountered the UST. The probe location which was located three feet from the wall was driven to a depth of 9.5 feet bgs where sand where a strong weathered gasoline odor was encountered. This confirmed that there was sufficient space between the UST and the wall to install additional infusion wells.

3.2 Proposed Re-completion of wells MW-3, IW-2, and IW-3

The approved workplan proposed recompletion of wells MW-3, IW-2 and IW-3, after re-examining the problem with the leaking well seals in wells IW-1, IW-2, and IW-3 during infusion of peroxide and examining past data, AEI determined that the seals had leaked only when a significant head had been applied and that infusion rate into the formation was not significantly improved by this higher head. Since the wells are inside and protected, AEI believes the added cost of repairing the seals was not warranted at this time.

3.3 Installation of well IW-4 and IW-5

On November 29, 2011, AEI installed two addition infusion wells (IW-4 and IW-5) between the UST and the footing of the northeast wall of the building. The locations of the wells are shown on Figure 2. AEI applied for and received Alameda County Public Works Agency injection well permit No. W2011-0696. The wells were installed by a HEW Drilling, C57 license 604987. The borings were advanced with a CME 45 drilling rig. The soil borings were advanced using 6-inch hollow stem augers to a depth of 15 feet bgs. The wells were constructed with 10-feet of 2-inch diameter, flush threaded, 0.010 inch factory slotted well screen and 5 feet of 2-inch diameter blank PVC riser.

An annular sand pack was installed through the augers, to approximately 1-foot above the top of slotted casing, in 1-foot lifts. A bentonite seal was placed above the sand and the remainder of the boring was sealed with cement grout. Each well was finished with an expanding, lockable inner cap and a flush-mounted well box. Well completion details are summarized on Table 1.

The wells were developed on December 6, 2011 by surging, bailing, and purging to stabilize the sand pack and remove accumulated fines from the casing and sand pack. The wells were purged until the water was clear. Approximately 20 gallons was removed from each well. The wells were surveyed relative to existing wells and mean sea level by Morrow Surveying, West Sacramento, California, licensed Land Surveyor LS 8501.

Drilling cuttings and other investigation-derived waste (IDW) were stored onsite in sealed 55-gallon drums, pending the results of sample analyses. Equipment rinse water and well purge water was stored in 55-gallon drums. Upon receipt of necessary analytical results, the waste will be profiled for disposal and transported from the site under appropriate manifest to approved disposal or recycling facility(s).

3.4 Soil Sampling

Due to the location of the soil boring near the outside wall a standard boomed drilling rig could not be used to install the wells. A CME-45 drilling rig which is capable of drilling in a boom down configuration was used to install the wells. As the CME-45 is not able to drive a sampler with the boom down, no soil samples were collected. Auger returns from the smear zone between 8.0 and 10.0 feet bgs contained heavily stained sand with a strong gasoline odor.

4.0 SUMMARY OF GROUNDWATER SAMPLING ACTIVITIES

On December 14, 2011, wells MW-1 though MW-3 and IW-1 through IW-5 were sampled to establish a baseline for continued infusion remediation.

The well caps were removed from each well. After allowing a minimum of 15 minutes for the water level in each well to reach equilibrium with atmospheric pressure, the depth to water in each well was measured with an electronic meter to a precision of ± 0.001 feet. Each well was then purged with a peristaltic pump with the bottom of the drop tube placed at approximately 10 feet bgs under a low flow protocol until the groundwater parameters of temperature, pH, conductivity, dissolved oxygen (DO), oxygen reduction potential (ORP) and visual clarity.

A water sample was collected using the peristaltic pump into hydrochloric acid (HCl) preserved one liter amber bottles and 40-milliliter (ml) volatile organic analysis vials (VOAs). All samples were labeled with at minimum, project number, sample number, time, date, and sampler's name.

The samples were entered on an appropriate chain-of-custody form and placed on water ice in an ice chest pending transportation under chain of custody protocols to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification # 1644). The samples were analyzed for TPH-g and MBTEX using methods SW8021B/8015Bm and for TPH-d using method SW8015B.

5.0 ANALYTICAL RESULTS

No TPH-g or MBTEX was reported in wells MW-1, MW-2, or IW-1 at standard laboratory reporting limits.

TPH-g and benzene concentrations in well MW-3 increased from concentrations of 590 μg/L and 38 μg/L, respectively on August 9, 2011 to 4,900 μg/L and 1,400 μg/L, respectively on December 14, 2011. The concentration of TPH-d increased from 200 μg/L to 1,000 μg/L.

TPH-g and benzene concentrations in well IW-2 increased from concentrations of 1,700 μg/L and 2,400 μg/L, respectively on August 9, 2011 to 36,000 μg/L and 4,600 μg/L, respectively on December 14, 2011. The concentration of TPH-d increased from <50 μg/L to 710 μg/L.

TPH-g and benzene concentrations in well IW-3 increased from concentrations of 9,600 μg/L and 40 μg/L, respectively on August 9, 2011 to 2,900 μg/L and 110 μg/L, respectively on December 14, 2011. The concentration of TPH-d increased from 800 μg/L to 4,200 μg/L.

TPH-g and benzene concentrations in IW-4 were reported at concentrations of 95,000 μg/L and 13,000 μg/L, respectively. TPH-d was reported at a concentration 5,600 μg/L.

TPH-g and benzene concentrations in IW-5 were reported at concentrations of 250 μg/L and 11 μg/L, respectively. TPH-d was reported at a concentration 190 μg/L.

6.0 SUMMARY

The rebound in hydrocarbon concentrations in wells IW-2, IW-3, and MW-3 indicate that a source of hydrocarbons remains in the soil underlying the site. The lower rebound seen in well MW-3 relative to wells IW-2 and IW-3 suggests that the bulk of the soil residual is located up gradient of wells IW-2 and IW-3 in the area of newly installed well IW-5.

AEI recommends additional H^2O^2 infusion following the recent installation of additional up gradient infusion wells (IW-4, IW-5). Infusion into well IW-5 was initiated on January 12, 2012.

7.0 REPORT LIMITATIONS AND SIGNATURES

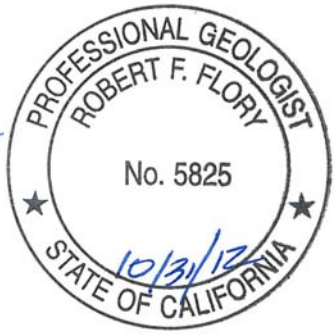
This report presents a summary of work completed by AEI, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide requested information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses and observations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work. If you have any questions regarding this report, we can be reached at (925) 746-6000.

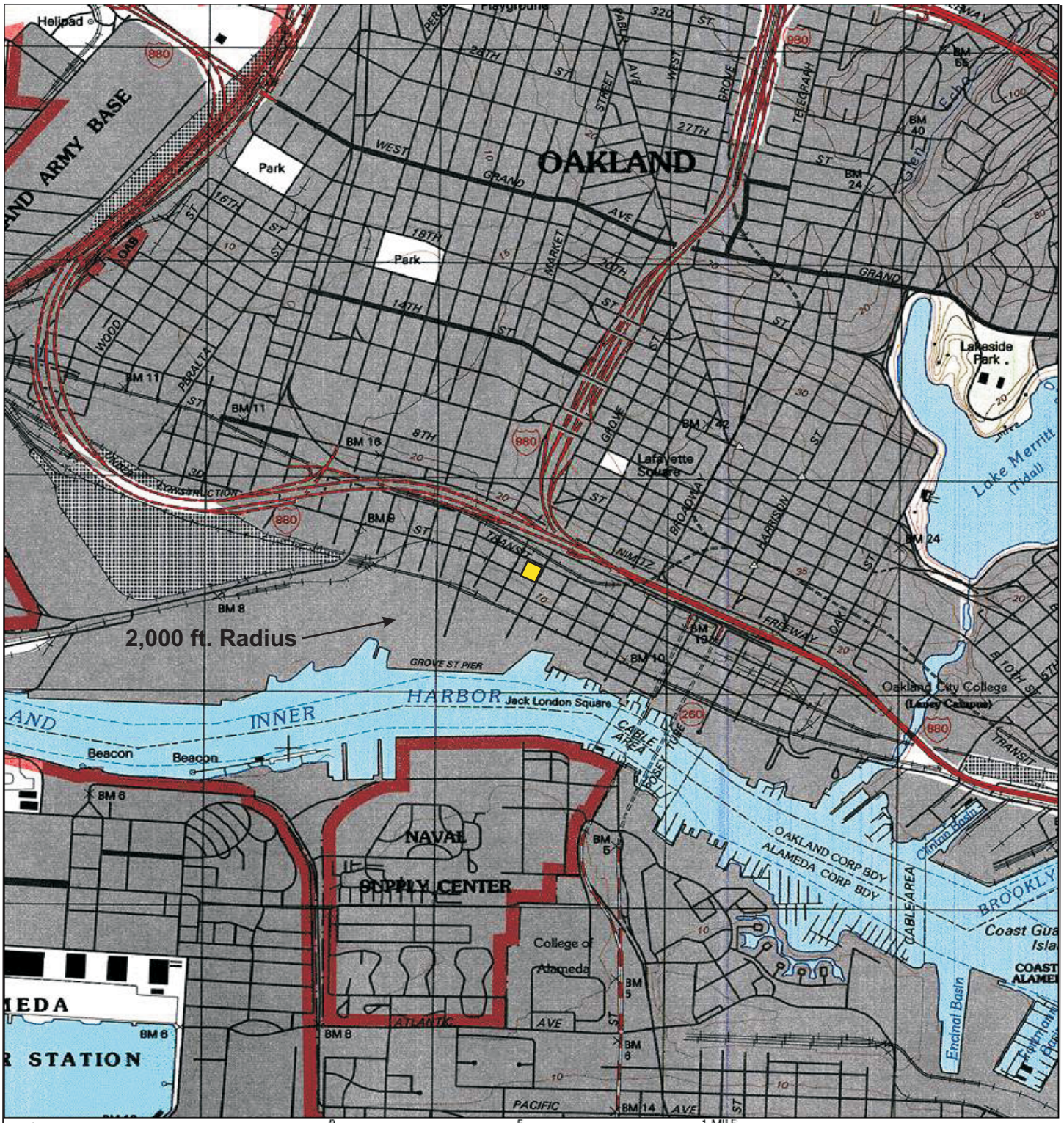
Sincerely,
AEI Consultants

Adrian M. Angel, GIT
Project Geologist

Robert F. Flory, PG
Senior Geologist



FIGURES



TN 15° MN

0 .5 1 MILE

0 1000 FEET 0 500 1000 METERS

Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

LEGEND

N

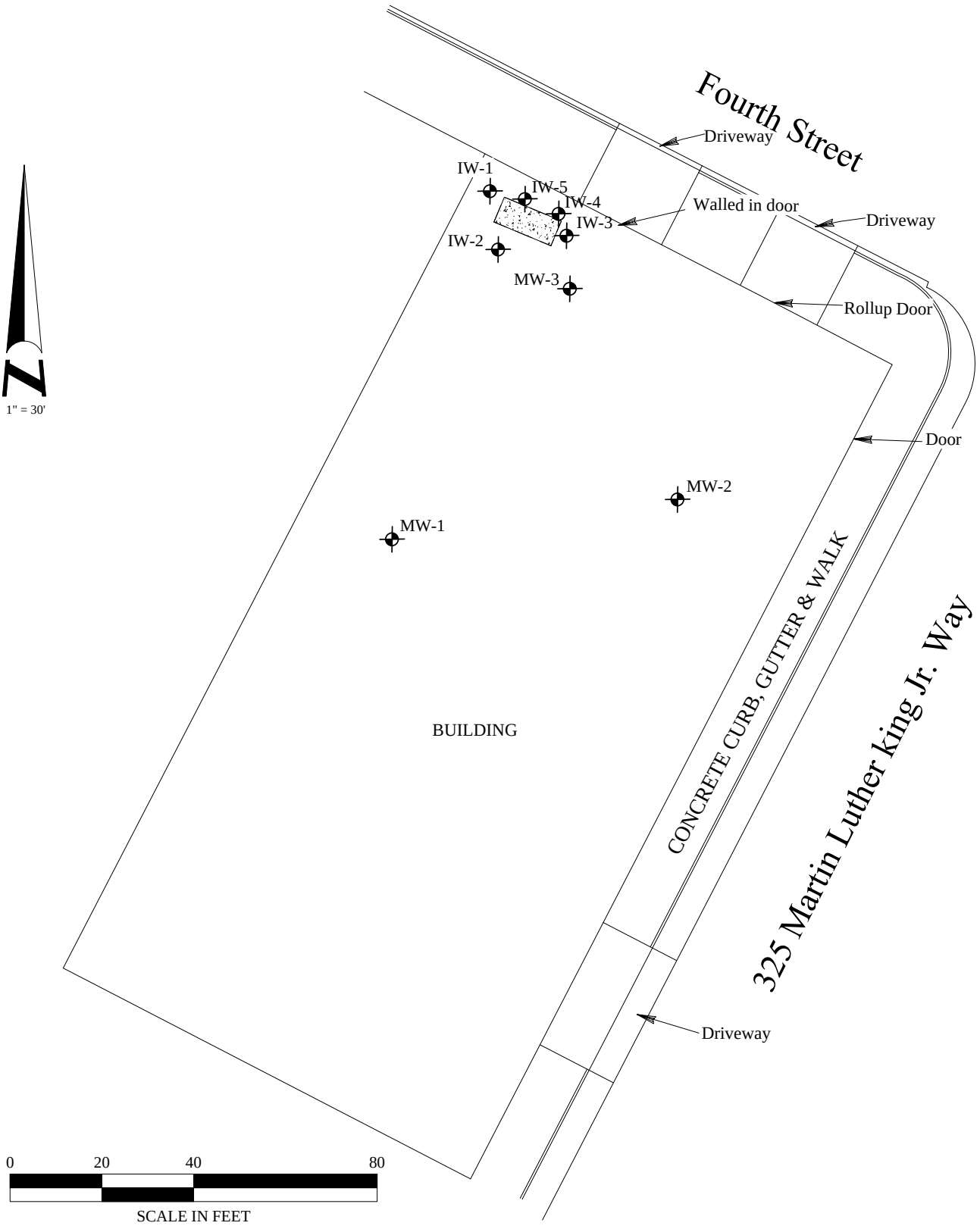
SITE LOCATION

AEI CONSULTANTS
2500 Camino Diablo, Walnut Creek, CA 94597

SITE LOCATION MAP

325 Martin Luther King Jr. Way
Oakland, CA 94607

FIGURE 1
Job No: 277915



Drafted by RFF 3/4/2010 from Morrow 0116-034 MAM
Revised by RFF 12/22/2011from 2011 Morrow Survey

2" Monitoring / Infusion Well

Abandoned in place UST

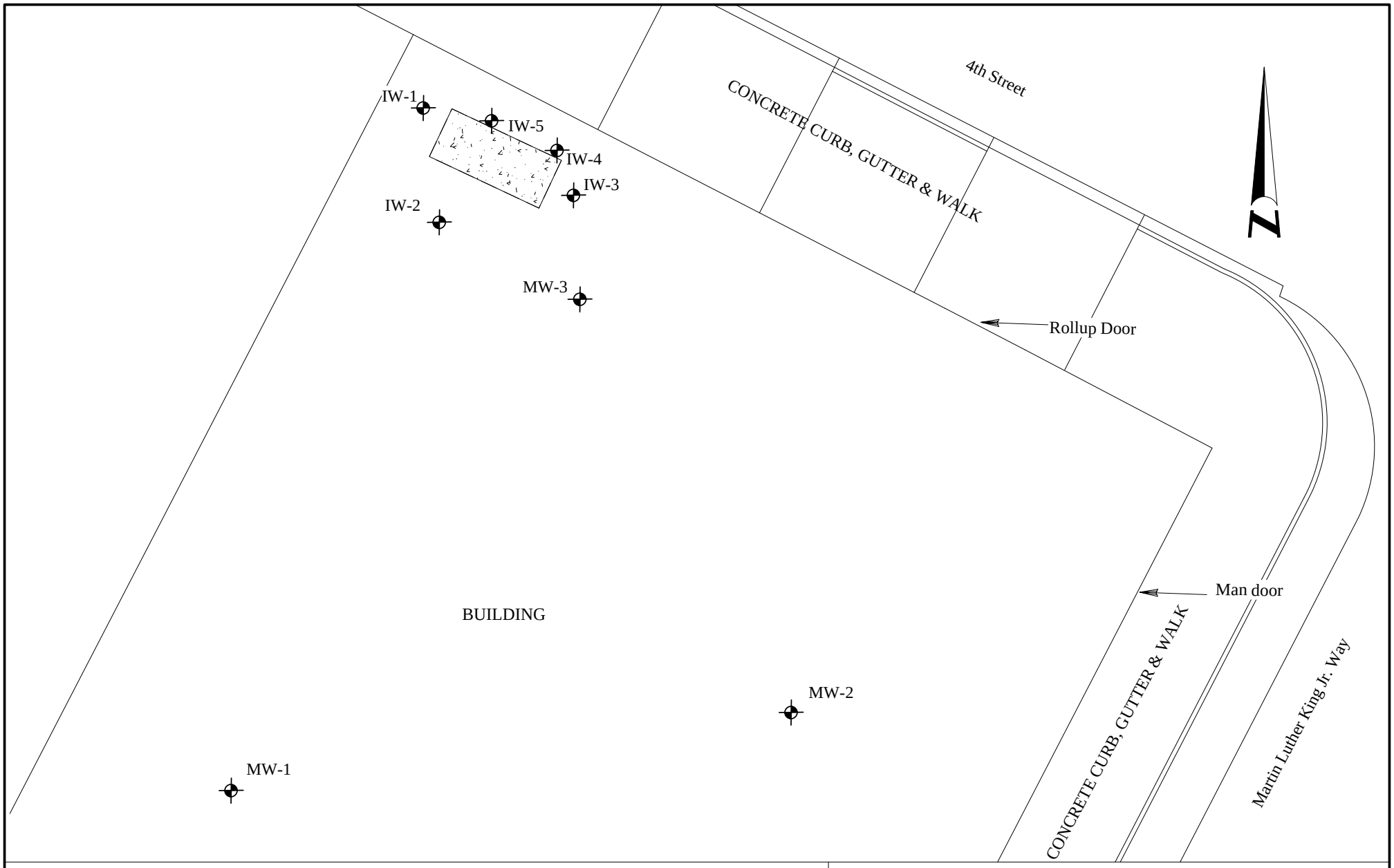
AEI CONSULTANTS

2500 Camino Diablo, Walnut Creek, CA

Site Plan

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 2
AEI Project # 277915



2" Monitoring / Infusion Well

Abandoned in place UST

0 20 40 80

SCALE IN FEET

Drafted by RFF 3/4/2010 from Morrow 0116-034 MAM
Revised by RFF 12/22/2011from 2011 Morrow Survey

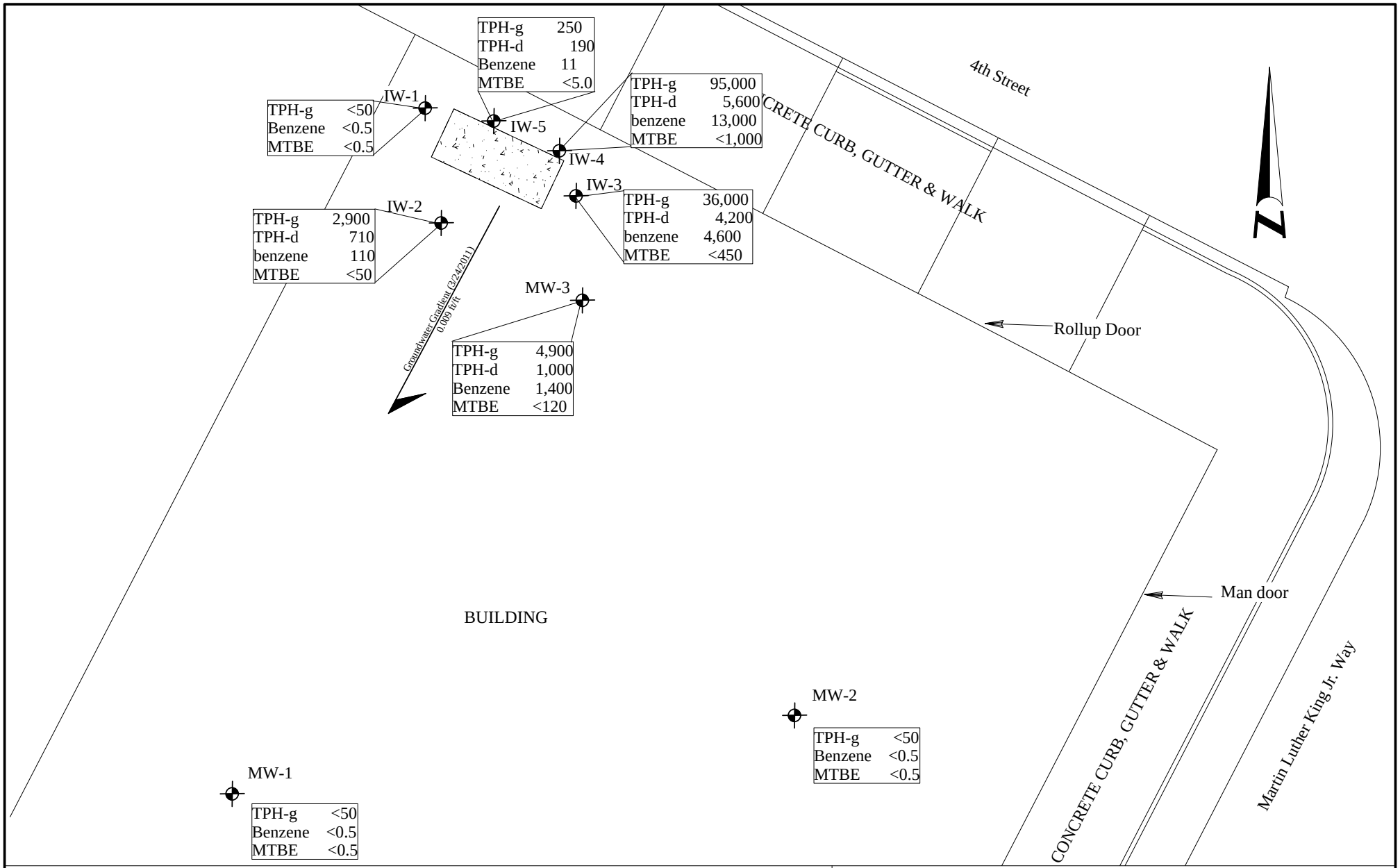
AEI CONSULTANTS

2500 Camino Diablo, Walnut Creek, CA

Detail Site Plan

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 3
AEI Project # 277915



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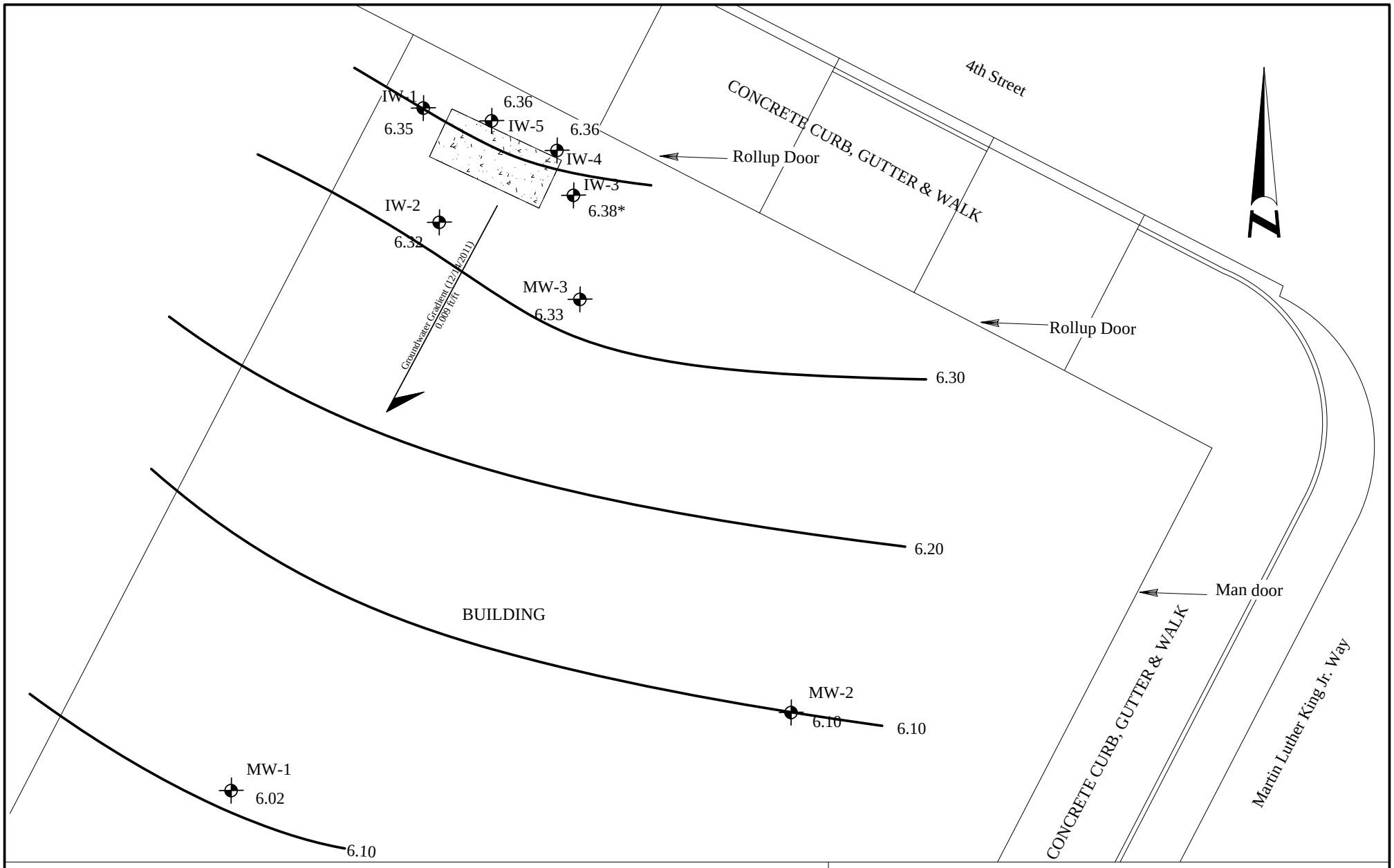
2500 Camino Diablo, Walnut Creek, CA

Groundwater Analytical Data (12/14/2011)

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 4
AEI Project # 277915



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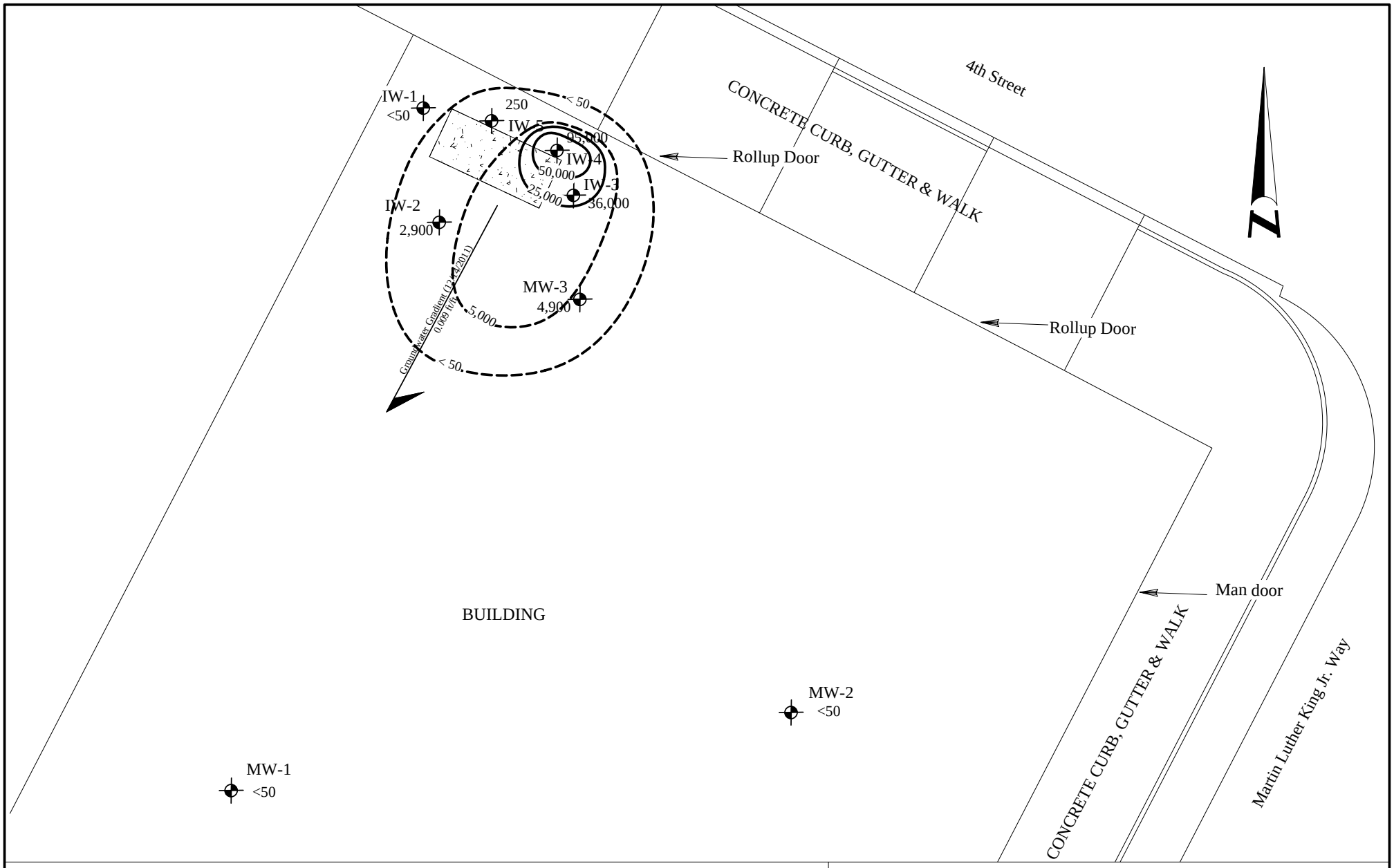
2500 Camino Diablo, Walnut Creek, CA

Groundwater Gradient (12/14/2011)

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 5
AEI Project # 277915



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2500 Camino Diablo, Walnut Creek, CA

TPH-g Isoconcentration Map (12/14/2011)

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 6
AEI Project # 277915

FIGURE 7: TPH-g Concentrations MW-3, IW-2, IW-3

TABLES

Table 1 - Well Construction Details

AEI Project # 277915

Well ID	Date Installed	Top of Casing Elevation (ft amsl)	Well Box Elevation (ft amsl)	Well Depth (ft)	Slotted Casing (ft)	Slot Size (in)	Sand Interval (ft)	Sand Size	Bentonite Interval (ft)	Grout Interval (ft)
MW-1	08/10/07	14.87*	15.34	18	8 - 18	0.010	7 - 18	# 2/12	7 - 8	0.75 - 7
MW-2	08/10/07	15.27	15.52	17	7 - 17	0.010	6 - 17	# 2/12	6 - 7	0.75 - 6
MW-3	08/10/07	15.11*	15.57	18	8 - 18	0.010	7 - 18	# 2/12	7 - 8	0.75 - 7
IW-1	02/09/10	15.20**	15.61	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3
IW-2	02/09/10	15.04**	15.63	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3
IW-3	02/09/10	15.29**	15.60	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3
IW-4	12/01/11	14.74	15.66	15	5 - 15	0.010	4 - 15	2/12	3 - 4	1 - 3
IW-5	12/01/11	14.54	15.64	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3

Notes:

ft amsl = feet above mean sea level

14.87* = Casing elevation changes, 02/09/10

Table 2 - Groundwater Elevation Data

AEI Project # 277915

Well ID (Screen Interval)	Date Collected	Well Elevation *(ft amsl)*	Depth to Water *(ft)*	Groundwater Elevation *(ft amsl)*	Elevation Change *(ft)*
MW-1	8/21/2007	14.92	8.38	6.54	**----**
(8 - 18)	11/21/2007	14.92	8.37	6.55	0.01
	2/26/2008	14.92	7.98	6.94	0.39
	6/18/2008	14.92	8.41	6.51	-0.43
	9/19/2008	14.92	8.56	6.36	-0.15
	12/29/2008	14.92	8.66	6.26	-0.10
	3/17/2009	14.92	7.84	7.08	0.82
	6/15/2009	14.92	8.31	6.61	-0.47
	9/18/2009	14.92	8.59	6.33	-0.28
	3/16/2010*	14.87	7.80	7.07	----
	9/9/2010	14.87	8.75	6.12	-0.95
	3/24/2011	14.87	7.66	7.21	1.09
	12/14/2011	**14.87**	**8.85**	**6.02**	**-1.19**
MW-2	8/21/2007	15.27	8.78	6.49	**----**
(7 - 17)	11/21/2007	15.27	8.72	6.55	0.06
	2/26/2008	15.27	8.37	6.90	0.35
	6/18/2008	15.27	8.82	6.45	-0.45
	9/19/2008	15.27	8.92	6.35	-0.10
	12/29/2008	15.27	8.87	6.40	0.05
	3/17/2009	15.27	8.27	7.00	0.60
	6/15/2009	15.27	8.71	6.56	-0.44
	9/18/2009	15.27	8.98	6.29	-0.27
	3/16/2010	15.27	8.19	7.08	0.79
	9/9/2010	15.27	9.04	6.23	-0.85
	3/24/2011	15.27	7.89	7.38	1.15
	12/14/2011	**15.27**	**9.17**	**6.10**	**-1.28**
MW-3	8/21/2007	15.26	8.59	6.67	**----**
(8 - 18)	11/21/2007	15.26	8.55	6.71	0.04
	2/26/2008	15.26	8.11	7.15	0.44
	6/18/2008	15.26	8.62	6.64	-0.51
	8/4/2008	15.26	8.65	6.61	-0.03
	8/20/2008	15.26	8.68	6.58	-0.03
	9/19/2008	15.26	8.74	6.52	-0.06
	12/29/2008	15.26	8.67	6.59	0.07
	3/17/2009	15.26	7.96	7.30	0.71
	6/15/2009	15.26	8.47	6.79	-0.51
	9/18/2009	15.26	8.78	6.48	-0.31
	10/30/2009	15.26	8.62	6.64	-0.15
	3/16/2010	15.11	7.57	7.54	----
	7/19/2010	15.11	8.53	6.58	-0.96
	9/9/2010	15.11	8.73	6.38	-0.20
	3/24/2011	15.11	7.35	7.76	1.38
	12/14/2011	**15.11**	**8.78**	**6.33**	**-1.43**

Table 2 - Groundwater Elevation Data

AEI Project # 277915

Well ID (Screen Interval)	Date Collected	Well Elevation *(ft amsl)*	Depth to Water *(ft)*	Groundwater Elevation *(ft amsl)*	Elevation Change *(ft)*
IW-1	10/30/2009	15.23	8.53	6.70	**----**
	3/16/2010	15.23	7.68	7.55	0.85
	9/9/2010	15.23	8.72	6.51	-1.04
	3/24/2011	15.23	7.36	7.87	1.36
	12/14/2011	**15.20****	**8.85**	**6.35**	**-1.49**
IW-2	10/30/2009	15.06	8.37	6.69	----
	3/16/2010	15.06	7.57	7.49	0.80
	7/19/2010	15.06	8.29	6.77	-0.72
	9/9/2010	15.06	8.62	6.44	-0.33
	3/24/2011	15.06	7.26	7.80	1.36
	12/14/2011	**15.04****	**8.72**	**6.32**	**-1.46**
IW-3	10/30/2009	15.30	8.68	6.62	----
	3/16/2010	15.30	7.82	7.48	0.86
	7/19/2010	15.30	8.51	6.79	-0.69
	9/9/2010	15.30	8.83	6.47	-0.32
	3/24/2011	15.30	7.44	7.86	1.39
	12/14/2011	**15.29****	**8.91**	**6.38**	**-1.47**
IW-4	**12/14/2011**	**14.74**	**8.38**	**6.36**	----
IW-5	**12/14/2011**	**14.54**	**8.18**	**6.36**	----

Notes

14.87* = Casing elevation changes, 02/09/10

15.29** = Casing elevation changes, 12/14/2011

Event #	Date	Average Water Table Elevation (ft amsl)	Change from Previous Episode (ft)	Flow Direction (gradient) (ft/ft)
1	8/21/2007	6.57	NA	S (0.003)
2	11/21/2007	6.60	0.04	S (0.005)
3	2/26/2008	7.00	0.39	S (0.005)
4	6/18/2008	6.53	-0.46	SSE (0.004)
5	9/19/2008	6.41	-0.12	S (0.003)
6	12/29/2008	6.42	0.01	SSW (0.005)
7	3/17/2009	7.13	0.71	SW (0.006)
8	6/15/2009	6.65	-0.47	SW 0.004)
9	9/18/2009	6.37	-0.29	SW (0.006)
10**	3/16/2010	7.24	----	SW (0.006)
11	9/9/2010	6.36	----	SW (0.005)
12	3/24/2011	7.65	1.29	SW (0.009)
13	**12/14/2011**	**6.28**	**-1.37**	**SW (0.009)**

ft amsl = feet above mean sea level

All water level depths are measured from the top of casing

** Average calculated for all wells with 2/9/10 re-survey elevations

*** Average calculated for all wells with 12/14/2011re-survey elevations

Table 3 - Groundwater Analytical Data
AEI Project # 277915

Sample ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
			Method 8015		Method 8021B				
			mg/L						
MW-1	8/21/2007	8.38	<50	<50	15	<0.5	<0.5	<0.5	<0.5
	11/21/2007	8.37	<50	<50	12	<0.5	<0.5	<0.5	<0.5
	2/26/2008	7.98	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	6/18/2008	8.41	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	9/19/2008	8.56	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	12/29/2008	8.66	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	3/17/2009	7.84	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	6/15/2009	8.31	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	9/18/2009	8.59	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	3/16/2010	7.80	<50	-	-	<0.5	<0.5	<0.5	<0.5
	9/9/2010	7.75	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	3/24/2011	7.66	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	12/14/2011	**8.85**	**<50**	**-**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-2	8/21/2007	8.78	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	11/21/2007	8.72	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	2/26/2008	8.37	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	6/18/2008	53.00	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	9/19/2008	8.92	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	12/29/2008	8.87	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	3/17/2009	8.27	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	6/15/2009	8.71	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	9/18/2009	8.98	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	3/16/2010	8.19	<50	-	-	<0.5	<0.5	<0.5	<0.5
	9/9/2010	9.04	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	3/24/2011	7.89	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	12/14/2011	**9.17**	**<50**	**-**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-3	8/21/2007	8.59	24,000	2,100	<180	2,600	3,500	450	2,400
	11/21/2007	8.55	36,000	3,800	<500	4,900	1,200	230	2,700
	2/26/2008	8.11	31,000	5,400	-	4,200	1,900	590	2,200
	6/18/2008	8.62	20,000	3,000	-	2,900	1,100	390	990
	8/4/2008	8.65	110,000	27,000	-	5,900	9,000	76	8,100
	8/20/2008	8.68	120,000	6,500	-	8,900	18,000	930	12,000
	9/19/2008	8.74	64,000	4,500	-	6,200	9,200	660	6,600
	12/29/2008	8.67	130,000	7,900	-	11,000	19,000	1,800	11,000
	3/17/2009	7.96	83,000	8,000	-	7,400	10,000	1,100	8,500
	6/15/2009	8.47	67,000	21,000	-	11,000	9,100	1,200	6,80
	9/18/2009	8.78	58,000	16,000	-	11,000	7,000	1,400	4,700
	10/30/2009	6.64	59,000	-	-	10,000	7,100	1,200	3,900
	2/8/2010	7.74	13,000	-	<50	840	1,500	120	1,700
	2/24/2010	8.03	16,000	-	<50	1,200	1,700	200	1,900
	3/16/2010	7.75	34,000	-	<250	3,000	4,100	580	4,100
	4/15/2010	-	-	-	-	-	-	-	-
	5/24/2010	-	11,000	-	<250	910	1,600	120	2,400
	7/19/2010	8.33	270	-	<5.0	2.7	2.9	<0.5	4.8
	8/5/2010	8.35	350	-	<5.0	15	6.3	4	46
	9/9/2010	8.67	1,200	360	-	57	8.3	18	160
	12/29/2010	-	130	-	<5.0	0.79	1.2	<0.5	3.1
	2/7/2011	-	<50	-	<5.0	2.3	1.0	<0.5	6.4
	3/24/2011	7.35	140	<50	<5.0	4.9	6.7	0.6	19
	8/9/2011	-	590	200	<5.0	38	2.3	<0.5	60
	12/14/2011	**8.78**	**4,900**	**1,000**	**<120**	**1,400**	**28**	**54**	**250**

Table 3 - Groundwater Analytical Data
AEI Project # 277915

Sample ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
			Method 8015		Method 8021B				
			mg/L						
IW-1	10/30/2009	8.53	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	3/16/2010	7.68	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	9/9/2010	8.73	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	3/24/2011	7.36	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	12/14/2011	**8.85**	**<50**	**-**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
IW-2	10/30/2009	8.37	15,000	-	-	1,100	2,100	630	2,400
	2/8/2010	7.70	630	-	<5.0	4.4	17	3.7	78
	2/24/2010	-	3,500	-	<50	22	220	57	590
	3/16/2010	7.57	20,000	-	<100	320	2,100	450	4,000
	4/15/2010	-	-	-	-	-	-	-	-
	5/24/2010	-	190	-	<5.0	0.82	6.9	1.0	20
	7/19/2010	8.29	600	-	<5.0	5.8	43	5.3	110
	8/5/2010	8.39	340	-	<5.0	1.8	14	2.7	74
	9/9/2010	8.62	5,100	660	-	59	330	57.0	1,100
	12/29/2010	-	<50	-	<5.0	<0.5	<0.5	<0.5	0.62
	2/7/2011	-	<50	<50	<5.0	<0.5	<0.5	<0.5	0.98
	3/24/2011	7.26	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	8/9/2011	-	1,700	-	<10	40	2.5	1.9	270
	12/14/2011	**8.72**	**2,900**	**710**	**<50**	**110**	**5.9**	**29**	**430**
IW-3	10/30/2009	8.68	61,000	-	<1,000	10,000	14,000	1,400	9,800
	11/5/2009	8.60	64,000	-	<150	4,000	7,500	1,100	1,100
	11/23/2009	-	77,000	-	<250	6,700	11,000	430	11,000
	2/8/2010	7.74	18,000	-	<50	790	910	38	2,600
	2/24/2010	-	36,000	-	<250	2,400	4,300	320	460
	3/16/2010	7.82	44,000	-	<500	3,200	6,000	650	5,400
	4/15/2010	-	-	-	-	-	-	-	-
	5/24/2010	-	4,300	-	<60	170	430	19	680
	7/19/2010	8.51	4,100	-	<50	190	450	28	440
	8/5/2010	8.56	5,400	-	<50	360	780	62	730
	9/9/2010	8.83	22,000	3,230	-	1,800	3,900	310	3,300
	12/29/2010	-	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	2/7/2011	-	2,700	870	<50	180	330	18	360
	3/24/2011	7.44	390	290	<5.0	3.7	7.4	2.4	53
	8/9/2011	-	9,600	800	<250	2400	940	150	1,300
	12/14/2011	**8.91**	**36,000**	**4,200**	**<450**	**4,600**	**2,700**	**300**	**4,000**
IW-4	**12/14/2011**	**8.38**	**95,000**	**5,600**	**<1,000**	**13,000**	**13,000**	**1,200**	**7,400**
IW-5	**12/14/2011**	**8.18**	**250**	**190**	**<5.0**	**11**	**0.56**	**<0.5**	**8.0**
GW ESL (NDW) Gross Contaminatio			2,500	2,500	1,800	2,000	400	300	5,300
GW ESL (NDW) Aquatic Habitat			210	210	1,800	46	130	43	100

Notes:
TPHg = total petroleum hydrocarbons as gasoline (C6-C12)
TPHd = total petroleum hydrocarbons as diesel (C10-C23)
Benzene, toluene, ethylbenzene, and xylenes using EPA Method 8021B
MTBE = methyl-tertiary butyl ether
mg/L= micrograms per liter
ND<50 = non detect at respective reporting limit

APPENDIX A

Drilling Permit

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: 11/17/2011 By jamesy

Permit Numbers: W2011-0696
Permits Valid from 11/29/2011 to 11/29/2011

Application Id: 1320971078550 **City of Project Site:** Oakland
Site Location: 325 Martin Luther King Jr. Way
Project Start Date: 11/29/2011 **Completion Date:** 11/29/2011
Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Applicant: AEI Consultants - Adrian Angel **Phone:** 408-559-7600
2500 Camino Diablo, Walnut Creek, CA 94597
Property Owner: Jane Allen **Phone:** 415-383-2689
2 Lone Tree Way, Mill Valley, CA 94941
Client: ** same as Property Owner **
Contact: Adrian Angel **Phone:** 408-559-7600
Cell: 831-331-3547

Total Due: $265.00
Receipt Number: WR2011-0338 **Total Amount Paid:** $265.00
Payer Name : Peter McIntyre Paid By: VISA **PAID IN FULL**

Works Requesting Permits:

Remediation Well Construction-Injection - 2 Wells
Driller: HEW Drilling - Lic #: 604987 - Method: hstem **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2011-0696	11/17/2011	02/27/2012	IW-4	8.50 in.	2.00 in.	8.00 ft	15.00 ft
W2011-0696	11/17/2011	02/27/2012	IW-5	8.50 in.	2.00 in.	8.00 ft	15.00 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. Permittee, 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.

APPENDIX B

Boring Logs

Project: Allen
Project Location: 325 Martin Luther King Jr Way, Oakland, CA
Project Number: 277915

Log of Boring IW-4

Sheet 1 of 1

Date(s) Drilled November 29, 2011	**Logged By** Adrian Angel	**Checked By** Peter McIntyre
Drilling Method Hollow Stem Auger	**Drill Bit Size/Type** 6 inch	**Total Depth of Borehole** 15 feet bgs
Drill Rig Type CME-45 (boom down)	**Drilling Contractor** HEW Drilling	**Ground elevation** 15.66 feet MSL
Groundwater Level and Date Measured 8.38 feet measured on 12/14/2011	**Sampling Method(s)** Auger returns	**Permit No.** W2011-0696
Borehole Backfill Well Completion	**Location**	

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	Well Log	REMARKS AND OTHER TESTS
15	0				Concrete		Concrete		TOC ft	
					SP-SM		Silty Sand, brown - dark brown, poorly graded, moist			Neat cement grout
										Blank 2" schedule 40 PVC casing
5	5				SP-SM		Silty Sand, brown - pale brown, minor clay, poorly graded, loose, moist			
10										Bentonite chips
					SP		Sand, pale brown - light gray - greenish gray, silty, poorly graded, loose, moist to very moist, strong petroleum hydrocarbon odors			
10	10									
5					SP		Sand, pale brown - light gray - greenish gray, silty, poorly graded, loose, moist to very moist, moderate petroleum hydrocarbon odors decreasing downward			# 2/12 Monterey sand
15	15						Bottom of Boring at 15 feet bgs			0.010 slotted, 2" schedule 40 PVC casing
0										
20	20									
-5										
25	25									
-10										
	30									

E:\Allen SGWI (277915) Oakland - AA\(F) Infusion 2011\Report\IW-4_5.bgs [Auger well 20.tpl]

Project: Allen
Project Location: 325 Martin Luther King Jr Way, Oakland, CA
Project Number: 277915

Log of Boring IW-5

Sheet 1 of 1

Date(s) Drilled November 29, 2011	**Logged By** Adrian Angel, GIT	**Checked By** Robert F. Flory, PG
Drilling Method Hollow Stem Auger	**Drill Bit Size/Type** 6 inch	**Total Depth of Borehole** 15 feet bgs
Drill Rig Type CME-45 (boom down)	**Drilling Contractor** HEW Drilling	**Ground elevation** 15.64 feet MSL
Groundwater Level and Date Measured 8.18 feet measured on 12/14/2011	**Sampling Method(s)** Auger returns	**Permit No.** W2011-0696
Borehole Backfill Well Completion	**Location**	

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	Well Log	REMARKS AND OTHER TESTS
15	0				Concrete		Concrete		TOC ft	
					SP-SM		Silty Sand, brown - dark brown, poorly graded, moist			Neat cement grout
										Blank 2" schedule 40 PVC casing
10	5				SP-SM		Silty Sand, brown - pale brown, minor clay, poorly graded, loose, moist			
5	10				SP		Sand, pale brown, silty, poorly graded, loose, moist to very moist, very slight petroleum hydrocarbon odors			Bentonite chips
0	15				SP		Sand, pale brown, silty, poorly graded, loose, moist to very moist, very slight petroleum hydrocarbon odors decreasing downward			# 2/12 Monterey sand
-5	20						Bottom of Boring at 15 feet bgs			0.010 slotted, 2" schedule 40 PVC casing
-10	25									
	30									

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APPENDIX C

Field Data Sheets

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	ALLEN	Date of Sampling:	12/14/2011
Job Number:	277925	Name of Sampler:	J. Sigg
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	14.87		
Depth of Well	18.00		
Depth to Water (from top of casing)	8.85		
Water Elevation (feet above msl)	6.02		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	5.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	1.0	17.38	7.24	1,036	2.70	-20.9	Clear
	2.0	17.71	7.28	1,027	1.96	6.1	Clear
	3.0	17.82	7.27	1,024	1.73	39.3	Clear
	4.0	17.86	7.24	1,023	1.63	68.8	Clear
	5.0	17.86	7.22	1,024	1.46	81.6	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Purge line @ 10.0 ft b gs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	ALLEN	Date of Sampling:	12/14/2011
Job Number:	277925	Name of Sampler:	J. Sigg
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.27		
Depth of Well	17.00		
Depth to Water (from top of casing)	9.17		
Water Elevation (feet above msl)	6.10		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	5.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	1.0	17.96	7.27	880	9.24	-26.7	Clear
	2.0	18.22	7.25	875	3.52	28.1	Clear
	3.0	18.23	7.24	874	3.00	29.0	Clear
	4.0	18.23	7.24	875	2.83	-30.4	Clear
	5.0	18.23	7.24	876	2.78	-33.2	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Purge line @ 10.0 ft b gs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	ALLEN	Date of Sampling:	12/14/2011
Job Number:	277925	Name of Sampler:	J. Sigg
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.11		
Depth of Well	18.00		
Depth to Water (from top of casing)	8.78		
Water Elevation (feet above msl)	6.33		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	5.0		
Appearance of Purge Water	light yellow		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	1.0	17.62	7.44	1,475	4.68	-306.3	Clear
	2.0	17.93	7.47	13	2.10	-279.1	Clear
	3.0	17.96	7.42	1,240	1.49	-243.8	Clear
	4.0	17.97	7.39	1,241	1.10	-225.8	Clear
	5.0	17.99	7.38	1,259	0.90	-217.9	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Purge line @ 10.0 ft b gs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-1

Project Name:	ALLEN	Date of Sampling:	12/14/2011
Job Number:	277925	Name of Sampler:	J. Sigg
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.20		
Depth of Well	18.00		
Depth to Water (from top of casing)	8.85		
Water Elevation (feet above msl)	6.35		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	5.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	1.0	17.60	7.25	785	17.80	-133.0	Clear
	2.0	17.70	7.23	788	8.58	-116.2	Clear
	3.0	17.44	7.22	789	9.02	-113.6	Clear
	4.0	17.76	7.22	791	9.23	-110.5	Clear
	5.0	17.78	7.22	792	9.19	-109.2	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Purge line @ 10.0 ft b gs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-2

Project Name:	ALLEN	Date of Sampling:	12/14/2011
Job Number:	277925	Name of Sampler:	J. Sigg
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.04		
Depth of Well	18.00		
Depth to Water (from top of casing)	8.72		
Water Elevation (feet above msl)	6.32		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	5.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	1.0	17.48	7.09	662	3.50	-173.3	Clear
	2.0	17.68	7.16	651	1.86	-176.1	Clear
	3.0	17.74	7.18	646	1.46	-174.9	Clear
	4.0	17.76	7.18	645	1.27	172.3	Clear
	5.0	17.78	7.18	646	1.05	-174.2	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Purge line @ 10.0 ft bgs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-3

Project Name:	ALLEN	Date of Sampling:	12/14/2011
Job Number:	277925	Name of Sampler:	J. Sigg
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.29		
Depth of Well	18.00		
Depth to Water (from top of casing)	8.91		
Water Elevation (feet above msl)	6.38		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	5.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	1.0	17.72	7.31	601	3.23	-242.7	Clear
	2.0	17.89	7.27	591	1.74	-230.3	Clear
	3.0	17.95	7.26	596	1.33	-228.0	Clear
	4.0	17.99	7.25	603	1.16	-227.8	Clear
	5.0	18.01	7.24	610	1.02	-228.1	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Hydrocarbon odor

Purge line @ 10.0 ft bgs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-4

Project Name:	ALLEN	Date of Sampling:	12/14/2011
Job Number:	277925	Name of Sampler:	J. Sigg
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	14.74		
Depth of Well	15.00		
Depth to Water (from top of casing)	8.38		
Water Elevation (feet above msl)	6.36		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	5.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	1.0	17.75	7.27	1,032	5.41	-206.7	Clear
	2.0	18.01	7.35	1,050	1.54	-192.2	Clear
	3.0	18.01	7.35	1,063	1.26	-187.6	Clear
	4.0	18.06	7.35	1,070	1.01	-183.7	Clear
	5.0	18.09	7.35	1,066	0.90	-181.6	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Strong hydrocarbon odor

Purge line @ 10.0 ft b gs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-5

Project Name:	ALLEN	Date of Sampling:	12/14/2011
Job Number:	277925	Name of Sampler:	J. Sigg
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	14.54		
Depth of Well	15.00		
Depth to Water (from top of casing)	8.18		
Water Elevation (feet above msl)	6.36		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	5.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	1.0	17.49	7.27	830	7.01	-209.3	Clear
	2.0	17.83	7.32	837	2.05	-185.2	Clear
	3.0	17.90	7.32	848	1.49	-174.9	Clear
	4.0	17.91	7.31	855	1.25	-166.3	Clear
	5.0	17.93	7.31	860	1.17	-162.7	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Purge line @ 10.0 ft b gs

APPENDIX D

Laboratory Analytical
and
Chain of Custody Documentation

McCampbell Analytical, Inc.
"When Quality Counts"

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

Analytical Report

AEI Consultants	Client Project ID: #277915; Allen	Date Sampled: 12/14/11
		Date Received: 12/15/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Reported: 12/21/11
Walnut Creek, CA 94597	Client P.O.: #WCO8337	Date Completed: 12/21/11

WorkOrder: 1112468

December 21, 2011

Dear Robert:

Enclosed within are:

1) The results of the **8** analyzed samples from your project: **#277915; Allen,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

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

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

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

1112468

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR **5 DAY**

EDF Required? ■ Yes ☐ No Email PDF Report: YES

Report To: Robert Flory	Bill To: Same
Company: AEI Consultants	PO #: WCO8337
2500 Camino Diablo	
Walnut Creek, CA 94597	E-Mail: rflory@aeiconsultants.com
Tel: (925) 746-6000	Fax: (925) 946-6099
Project #:277915	Project Name: Allen
Project Location: 325 Martin Luther King Jr. Way	
Sampler Signature: John Sigg	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other	MBTEX & TPH as Gas (602/8020 + 8015)	TPH as Diesel (8015) w/ silica gel cleanup	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260 (8010 list)	BTEX ONLY (EPA 602 / 8020)	Pesticides EPA 608 / 8080	PCBs EPA 608 / 8080	VOCs EPA 624 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	Diss Hexachrome (E218.6)	Arsenic, Barium, Cadmium, Total Chromium, Copper, total Iron, Lead, Selenium (E200.8)	5 Fuel Additives , EDB, and 1,2-DCA (8260)	TPH-g (TO-3) + MBTEX (TO-15)	2-propanol (TO-15)	Comments
MW-1		12-14-11	0758	3		X					X	X			X																				
MW-2			0840	3		X					X	X			X																				
MW-3			0910	4		X					X	X			X	X																			
IW-1			0940	3		X					X	X			X																				
IW-2			1010	4		X					X	X			X	X																			
IW-3			1040	4		X					X	X			X	X																			
IW-4			1110	4		X					X	X			X	X																			
IW-5			1140	4		X					X	X			X	X																			

Relinquished By:	Date:	Time:	Received By:
John Sigg	12-15-11	0818	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 2.4
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB _____ PERSERVED IN LAB _____

PRESERVATION	VOAS	O&G	METALS	OTHER
APPROPRIATE	✓			
CONTAINERS				

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1112468 **ClientCode: AEL**

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

Report to:
Robert Flory
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 283-6000 FAX: (925) 283-6121

Email: rflory@aeiconsultants.com
cc:
PO:
ProjectNo: #277915; Allen

Bill to:
Sara Guerin
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
sguerin@aeiconsultants.com

Requested TAT: 5 days

Date Received: **12/15/2011**
Date Printed: **12/15/2011**

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
1112468-001	MW-1	Water	12/14/2011 7:58	☐	A	A										
1112468-002	MW-2	Water	12/14/2011 8:40	☐	A											
1112468-003	MW-3	Water	12/14/2011 9:10	☐	A		B									
1112468-004	IW-1	Water	12/14/2011 9:40	☐	A											
1112468-005	IW-2	Water	12/14/2011 10:10	☐	A		B									
1112468-006	IW-3	Water	12/14/2011 10:40	☐	A		B									
1112468-007	IW-4	Water	12/14/2011 11:10	☐	A		B									
1112468-008	IW-5	Water	12/14/2011 11:40	☐	A		B									

Test Legend:

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

Prepared by: Maria Venegas

Comments:

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

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

Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **12/15/2011 9:55:31 AM**

Project Name: **#277915; Allen**

Checklist completed and reviewed by: Maria Venegas

WorkOrder N°: **1112468** Matrix: Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 2.4°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

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

AEI Consultants	Client Project ID: #277915; Allen	Date Sampled: 12/14/11
		Date Received: 12/15/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 12/19/11-12/20/11
Walnut Creek, CA 94597	Client P.O.: #WCO8337	Date Analyzed: 12/19/11-12/20/11

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1112468

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	ND	ND	ND	ND	ND	ND	1	112	
002A	MW-2	W	ND	ND	ND	ND	ND	ND	1	100	
003A	MW-3	W	4900	ND<120	1400	28	54	250	10	102	d1
004A	IW-1	W	ND	ND	ND	ND	ND	ND	1	104	
005A	IW-2	W	2900	ND<50	110	5.9	29	430	10	119	d1
006A	IW-3	W	36,000	ND<450	4600	2700	300	4000	20	103	d1
007A	IW-4	W	95,000	ND<1000	13,000	13,000	1200	7400	200	105	d1
008A	IW-5	W	250	ND	11	0.56	ND	8.0	1	106	d1

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

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

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

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

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

AEI Consultants	Client Project ID: #277915; Allen	Date Sampled: 12/14/11
		Date Received: 12/15/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted 12/15/11
Walnut Creek, CA 94597	Client P.O.: #WCO8337	Date Analyzed 12/16/11-12/19/11

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 1112468

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1112468-003B	MW-3	W	1000	1	107	e4,e2
1112468-005B	IW-2	W	710	1	129	e4,e2
1112468-006B	IW-3	W	4200	1	107	e4,e2
1112468-007B	IW-4	W	5600	1	107	e4,e2
1112468-008B	IW-5	W	190	1	96	e2

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

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

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

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

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

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 63475 | WorkOrder: 1112468

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1112466-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	77.3	83.4	7.56	80.5	70 - 130	20	70 - 130
MTBE	ND	10	100	108	7.27	102	70 - 130	20	70 - 130
Benzene	ND	10	89.3	95.2	6.41	91.7	70 - 130	20	70 - 130
Toluene	ND	10	80	84.8	5.81	82.3	70 - 130	20	70 - 130
Ethylbenzene	ND	10	80.4	85.1	5.61	82.8	70 - 130	20	70 - 130
Xylenes	ND	30	91	96.5	5.81	93.8	70 - 130	20	70 - 130
%SS:	103	10	101	99	1.95	101	70 - 130	20	70 - 130

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

BATCH 63475 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1112468-001A	12/14/11 7:58 AM	12/20/11	12/20/11 7:21 AM	1112468-002A	12/14/11 8:40 AM	12/19/11	12/19/11 9:03 PM
1112468-003A	12/14/11 9:10 AM	12/19/11	12/19/11 9:33 PM	1112468-004A	12/14/11 9:40 AM	12/19/11	12/19/11 10:33 PM
1112468-005A	12/14/11 10:10 AM	12/20/11	12/20/11 12:03 AM	1112468-006A	12/14/11 10:40 AM	12/19/11	12/19/11 9:09 PM
1112468-007A	12/14/11 11:10 AM	12/20/11	12/20/11 8:50 PM	1112468-008A	12/14/11 11:40 AM	12/19/11	12/19/11 10:37 PM

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 63371 | WorkOrder: 1112468

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

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	115	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	95	N/A	N/A	70 - 130

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

BATCH 63371 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1112468-003B	12/14/11 9:10 AM	12/15/11	12/16/11 8:32 PM	1112468-005B	12/14/11 10:10 AM	12/15/11	12/19/11 7:38 PM
1112468-006B	12/14/11 10:40 AM	12/15/11	12/16/11 7:15 PM	1112468-007B	12/14/11 11:10 AM	12/15/11	12/16/11 5:59 PM
1112468-008B	12/14/11 11:40 AM	12/15/11	12/16/11 5:59 PM				

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

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

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

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

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

DHS ELAP Certification 1644

QA/QC Officer