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June 10, 2013

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

**Subject:** **Perjury Statement and Report Transmittal**  
**Groundwater Monitoring Report – 1<sup>st</sup> Semester 2013**  
10700 MacArthur Blvd.  
Oakland, California  
AEI Project # 261829  
Toxics Case No. RO0002580

Dear Mr. Wickham:

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

If you have any questions or need additional information, please do not hesitate to call me at (510) 562-9500, or Mr. Peter McIntyre at AEI Consultants, (925) 746-6004.

Sincerely,

MACARTHUR BOULEVARD ASSOCIATES  
(a California limited partnership)

BY: JAY-PHARES CORPORATION  
(Its Management Agent)

By:

John Jay, Executive Vice President

cc: Mr. Peter McIntyre, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597



May 31, 2013

## GROUNDWATER MONITORING REPORT- 1st SEMESTER 2013

**Property Identification:**

10700 MacArthur Boulevard  
Oakland, California 94605

AEI Project No. 261829

Toxics Case No. RO0002580

**Prepared for:**

Jay-Phares Corporation  
Attn: Mr. John Jay  
10700 MacArthur Blvd., Suite 200  
Oakland, CA 94605

**Prepared by:**

AEI Consultants  
2500 Camino Diablo  
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(925) 746-6000

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May 31, 2013

Jay-Phares Corporation  
Attn: Mr. John Jay  
10700 MacArthur Blvd., Suite 200  
Oakland, CA 94605

**Subject:** **Groundwater Monitoring Report – 1<sup>st</sup> Semester, 2013**  
10700 MacArthur Boulevard  
Oakland, California 94605  
AEI Project No. 261829  
Toxics Case No. RO0002580

Dear Mr. Jay:

AEI Consultants (AEI) has prepared this groundwater monitoring report on behalf of The Jay-Phares Corporation, the manager of the Foothill Square Shopping Center (Figure 1: Site Location Map). The documentation of groundwater quality beneath and around the site was performed to monitor the stability of the chlorinated volatile organic compound (VOC) plume beneath the property.

This report was prepared in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA). This report summarizes the activities and results of the semi-annual monitoring activities conducted on April 26, 2013.

## Background

The subject property (hereinafter referred to as the site or property) is located at 10700 MacArthur Boulevard (Figure 1). The site is approximately 13.5 acres in size and is currently developed with the Foothill Square Shopping Center. The shopping center consists of five buildings, together totaling approximately 155,600 square feet. The area of concern is the former Young's Cleaners, located on the north side of the property.

The site is situated in a mixed commercial and residential area of Oakland. The site is bound by MacArthur Boulevard to the west, Foothill Boulevard to the east, and 108th Avenue to the south. An ARCO gasoline station is located adjacent to the northwest and residences to the north. Refer to Figure 2 for a site plan of the western section of the Foothill Square Shopping Center property.

Extensive site assessment activities have been conducted to date including the installation of multiple monitoring wells, soil borings, and soil vapor borings, as well as source removal excavation. The most recent investigation included additional soil vapor borings which completed vapor phase contaminant delineation for the site. An approval for pilot study site

mitigation activities has been obtained from the ACHCSA, however the pilot study has yet to commence. For a complete history of previous site investigation activities as well as planned pilot study details, please refer to AEI's *Supplemental Soil Vapor Investigation Report* dated June 25, 2008.

### **Summary of Monitoring Activities**

On April 26, 2013, AEI gauged the groundwater levels in each of the accessible active groundwater monitoring wells at the site (AMW-1, AMW-6R, AMW-8, AMW-9, WGR MW-2, FHS MW-10, and FHS MW-11) and groundwater samples were collected from five of the wells (AMW-1, AMW-6R, AMW-9, FHS MW-10, and FHS MW-11) in accordance with the approved sampling schedule. Well WGR MW-4 was not gauged or sampled as the well appears to have been destroyed during site redevelopment activities. All accessible wells were first opened and water levels allowed to equilibrate with atmospheric pressure. The depth to water from the top of the well casings was measured prior to sampling with an electric water level indicator. The wells to be sampled were then purged of at least three well volumes either using a battery powered submersible pump or bailed by hand. Field data sheets are included in Appendix A.

Temperature, pH, specific conductivity, dissolved oxygen, and oxidation-reduction potential (ORP) were measured and the turbidity was visually noted during the purging of the wells. Once the above parameters had stabilized, and the wells were allowed to recharge to a minimum of 90% of their original water volume, a water sample was collected. Groundwater samples were collected from each well using clean, disposable plastic bailers.

Groundwater samples were collected from each well to be sampled into three 40 ml volatile organic analysis (VOA) vials. The samples were capped so that neither head space nor air bubbles were visible within the sample containers. Samples were labeled with unique identifiers, stored over water ice, and placed under chain of custody. The samples were transported to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644). Groundwater samples were analyzed for halogenated volatile organic compounds (HVOCs) using EPA Method 8260.

### **Field Results**

Generally, the wells at the site are categorized as being screened either in a shallow water bearing zone or a deeper water bearing zone. Shallow zone wells (AMW-1, AMW-6R, and WGR MW2) are screened between approximately 13 to 34 feet bgs, and deeper wells (AMW-8, AMW-9, and FHS MW-10 and FHS MW-11) are generally screened in the 35 to 64 feet bgs range. Screen intervals, where known, are presented in Table 1.

Overall, groundwater levels at the site since the last monitoring event increased approximately 0.5 to 5 feet in the wells with the exception of FHS MW-10 and FHS MW-11 which decreased slightly since the last monitoring event. Groundwater levels in the shallow aquifer were reported at 39.64 in WGR MW-2 and 42.12 feet above mean sea level (msl) in AMW-1. With the destruction of shallow wells AMW-4 and AMW-5, insufficient data was available to calculate a groundwater flow direction for the shallow wells. Historically, groundwater in the shallow wells flows towards the west. Groundwater levels in the deeper, apparently confined/semi-confined aquifer, ranged from 25.04 to 46.94 feet above msl. Groundwater flow in the deep

aquifer was toward the southwest at a hydraulic gradient of approximately 0.04 feet per foot, relatively consistent with previous findings.

Groundwater measurement data are summarized in Table 1. The groundwater elevation contours for deep wells are shown in Figure 3. Refer to Appendix A for Groundwater Monitoring Well Field Sampling Forms.

### **Groundwater Quality**

Tetrachloroethene (PCE), trichloroethylene (TCE), and cis-1,2 dichloroethylene (cis-1,2 DCE) were detected in groundwater from the shallow well AMW-6R at 410 micrograms per liter ( $\mu\text{g/L}$ ), 98  $\mu\text{g/L}$ , and 92  $\mu\text{g/L}$ , respectively. These concentrations were relatively consistent with recent data; however, they were well below historic concentration ranges seen in well MW-6. HVOCs were not detected in the remaining shallow groundwater monitoring well (AMW-1) at or above the laboratory detection limits. PCE was only detected in one of the deeper zone wells (AMW-9) at a concentration of 6.9  $\mu\text{g/L}$ , which represents a slight decrease from the last sampling event and significantly lower than historical levels. PCE has not been detected in well FHS MW-10 or FHS MW-11 for the last three sampling events. TCE and 1,2-DCE were not detected at or above the laboratory detection limit in any of the deep groundwater samples.

A summary of groundwater quality data, including historical results, is presented in Table 2. Laboratory results and chain of custody documents are included in Appendix B. Refer to Figure 4 for a summary of VOC concentrations in the wells sampled during this event.

### **Summary**

The report presents the findings of the first semester groundwater monitoring event at the site, conducted during the 2<sup>nd</sup> Quarter 2013. Overall, findings are consistent with prior events and overall confirm a declining trend in the concentrations of PCE and related contaminants.

The ACHCSA, in a letter dated July 10, 2008, concurred that no further characterization is necessary to investigate shallow soil vapor beneath the site and AEI may commence with the pilot testing activities at the site. Construction work for the implementation of the pilot study activities commenced in July 2012. This included the installation of the horizontal extraction piping, conveyance piping, and soil vapor extraction well. Implementation of the pilot study is expected to continue in the next several months. AEI is currently waiting for the completion of certain construction work in the area of the former dry cleaning facility prior to continuing with pilot study installations. Tenants in the vicinity of the proposed pilot study activities have since been relocated and the tenant spaces are currently empty and undergoing remodeling activities. The units will remain empty and not be occupied until pilot study extraction has begun.

The pilot study was previously due on April 16, 2010; however, the remodeling activities have not been completed. A new date has not been established for the pilot study; however, tenant spaces will remain vacant pending the results of the pilot study activities. The ACHCSA will be notified once a pilot study schedule has been established. The monitoring well network will continue to be sampled by AEI in accordance with the approved sampling schedule, with the next sampling event scheduled during October 2013.

### Report Limitations and signatures

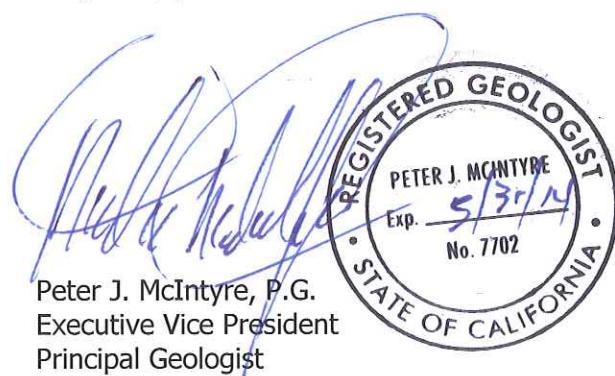
This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. 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 consulting field, which existed at the time and location of the work. If you have any questions regarding our investigation, please do not hesitate to contact one of us at (925) 746-6000.

Sincerely,  
**AEI Consultants**



Jeremy Smith  
Senior Project Manager



Peter J. McIntyre, P.G.  
Executive Vice President  
Principal Geologist

### Figures

- Figure 1: Site Location Map
- Figure 2: Site Plan
- Figure 3: Groundwater Elevation Map – Deep Wells
- Figure 4: Groundwater Analytical Data

### Tables

- Table 1: Groundwater Level Data
- Table 2: Groundwater Sample Analytical Data

**Appendix A:** Groundwater Monitoring Well Field Sampling Forms

**Appendix B:** Laboratory Analyses with Chain of Custody Documentation

#### Distribution:

Mr. Jerry Wickham, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502 (electronic copy)

Jay-Phares Corporation, Attn: John Jay, 10700 MacArthur Blvd., Oakland, California 94605  
Geotracker electronic upload

## **FIGURES**



**AEI CONSULTANTS**

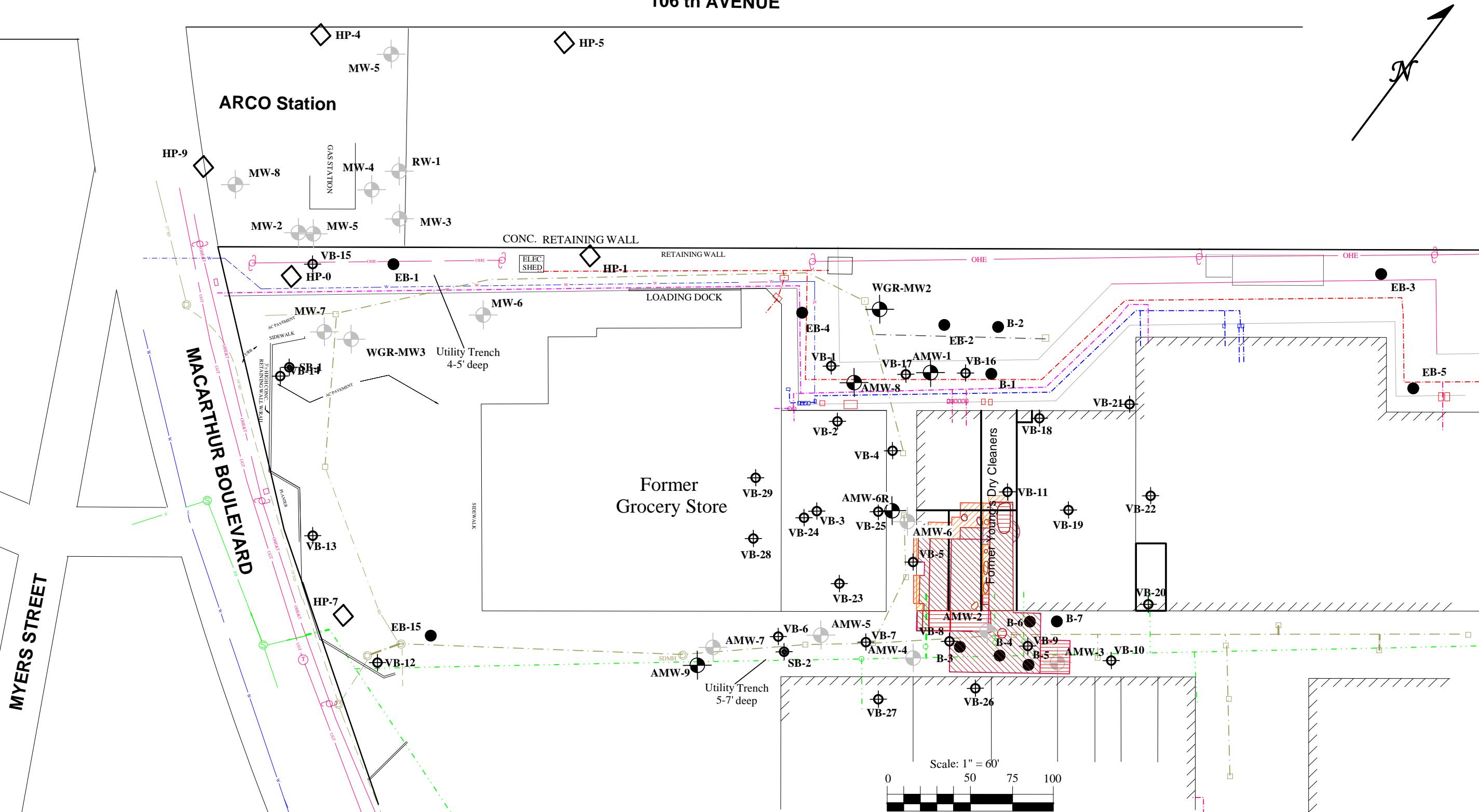
2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597

**SITE LOCATION MAP**

10700 MACARTHUR BLVD  
OAKLAND, CALIFORNIA

**FIGURE 1**  
PROJECT No. 261829

106 th AVENUE



**KEY**

- EB-1** ● Soil Boring - Kaldveer 1988
- B-1** ● Soil Boring - Augeas 1994
- HP-8** ◊ CPT Boring/HydroPunch Sample - PES 1997
- MW4** ○ Groundwater Monitoring Well
- Soil Vapor Sample
- Soil Boring - AEI 2006

Excavated to depth of 5 to 7 feet bg

Excavated to depth of 8 to 13 feet b

Excavated to depth of 14 to 18 feet b

On Site Storm Drai

Off Site Storm Drain

## On Site Sanitary Services

On Site Underground

#### — · — · — On Site Gas Line

Drafted 6/30/05 - RFF on Dirk Slooten basis  
Revised 05/08 by J.SMIT

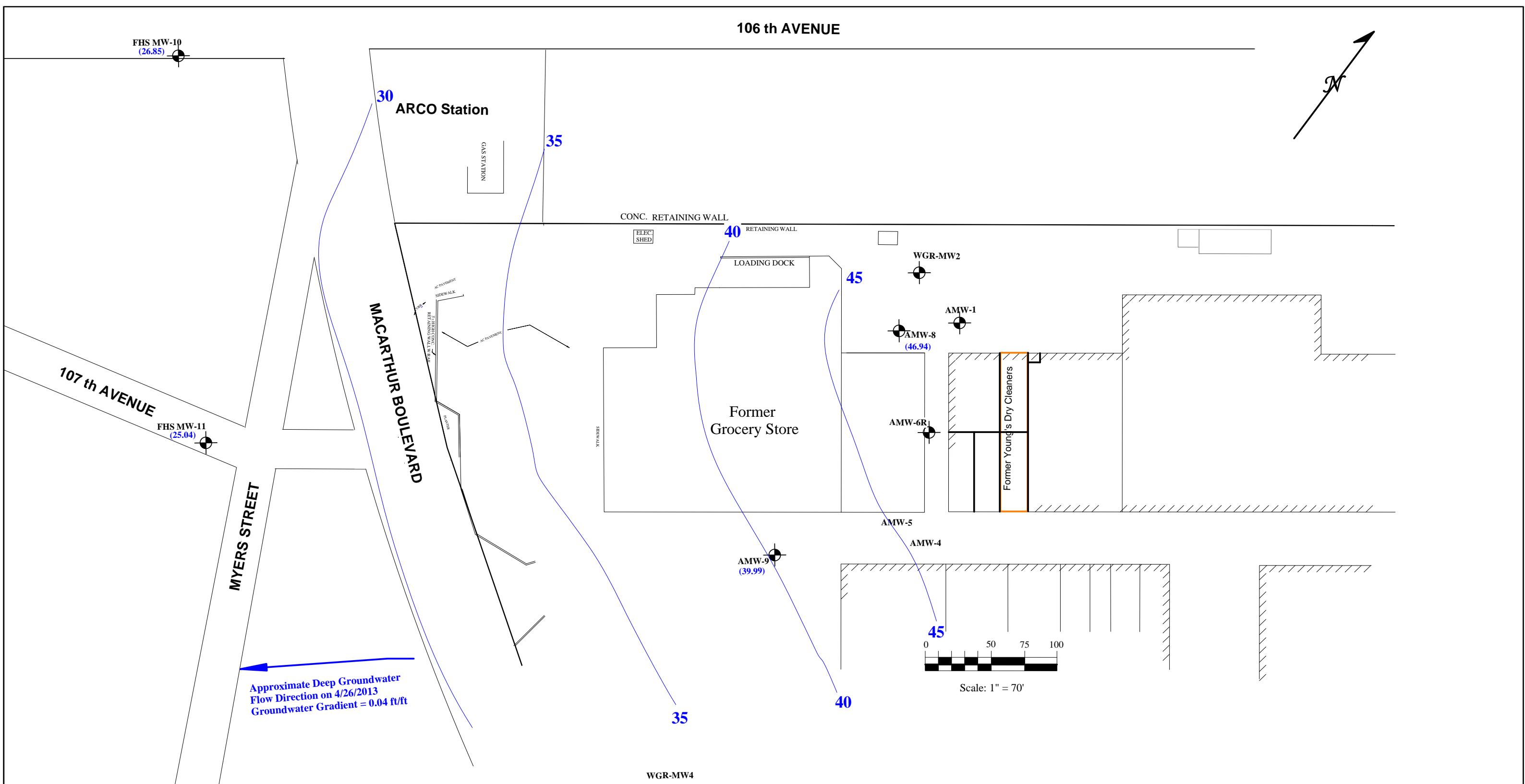
AEI CONSULTANTS

2500 CAMINO DIABLO, WALNUT CREEK, CA

## SITE PLAN

10700 MACARTHUR BLVD.  
OAKLAND, CALIFORNIA

**FIGURE 2**  
PROJECT NO. 261829

**KEY**

**MW4** Groundwater Monitoring Well

(49.91) = Groundwater Elevation (feet)

Groundwater Contour in 5 foot intervals

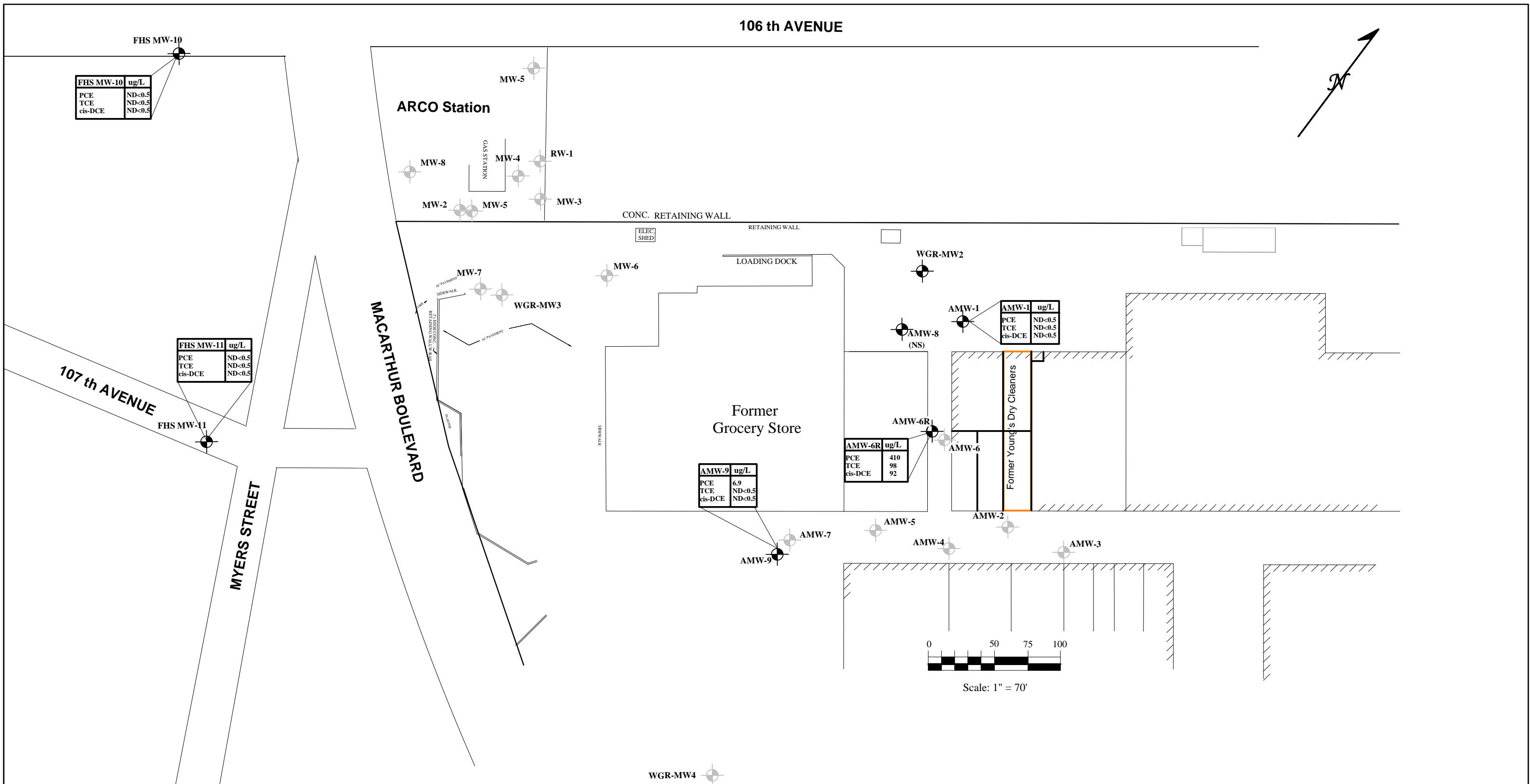
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2500 CAMINO DIABLO, WALNUT CREEK, CA

Groundwater Elevation Map -  
Deep Wells

10700 MACARTHUR BLVD.  
OAKLAND, CALIFORNIA

**FIGURE 3**  
PROJECT NO. 261829


**KEY**

Abandoned Monitoring Well

Groundwater Monitoring Well

PCE = tetrachloroethene

TCE = trichloroethene

cis-DCE = cis 1,2-Dichloroethene

ug/L = micrograms per liter (ppb)

NS = not sampled

**AEI CONSULTANTS**

2500 CAMINO DIABLO, WALNUT CREEK, CA

Groundwater Analytical Data  
(4/26/13)

10700 MACARTHUR BLVD.  
OAKLAND, CALIFORNIA

**FIGURE 4**  
PROJECT NO. 261829

## **TABLES**

**Table 1**  
**Groundwater Level Data**  
**10700 MacArthur Blvd., Oakland, California**

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
AMW-1 (Shallow)	1/29/1999	24-34	64.51	23.01	41.50
	5/5/1999		64.51	21.25	43.26
	10/9/1999		64.51	24.14	40.37
	1/20/2000		64.51	24.66	39.85
	8/8/2000		64.51	23.30	41.21
	2/15/2001		64.51	23.22	41.29
	8/29/2001		64.51	24.38	40.13
	3/12/2002		64.51	21.29	43.22
	9/27/2002		64.51	23.62	40.89
	3/25/2003		64.51	22.45	42.06
	10/2/2003		64.51	24.31	40.20
	10/17/2006		64.51	22.91	41.60
	5/3/2007		64.51	18.61	45.90
	10/17/2007		64.51	23.97	40.54
	4/1/2008		64.51	22.02	42.49
	10/2/2008		64.51	24.21	40.30
	4/2/2009		64.51	22.49	42.02
	10/2/2009		64.51	24.38	40.13
	4/9/2010		64.51	21.68	42.83
	11/10/2010		64.51	24.11	40.40
	5/27/2011		64.51	20.98	43.53
	10/19/2011		64.51	23.41	41.10
	4/30/2012		64.51	22.19	42.32
	10/29/2012		64.51	24.31	40.20
	<b>4/26/2013</b>		<b>64.51</b>	<b>22.39</b>	<b>42.12</b>
AMW-4 (Shallow)	1/29/1999	15-25	64.79	11.51	53.28
	5/5/1999		64.79	10.14	54.65
	10/9/1999		64.79	12.04	52.75
	1/20/2000		64.79	13.50	51.29
	8/8/2000		64.79	11.74	53.05
	2/15/2001		64.79	12.32	52.47
	8/29/2001		64.79	12.40	52.39
	3/12/2002		64.79	10.13	54.66
	9/27/2002		64.79	12.14	52.65
	3/25/2003		64.79	11.03	53.76
	10/2/2003		64.79	12.33	52.46
	10/17/2006		64.79	12.76	52.03
	5/3/2007		64.79	11.11	53.68
	10/17/2007		64.79	12.64	52.15
	4/1/2008		64.79	11.49	53.30
	10/2/2008		64.79	13.34	51.45
	4/2/2009		64.79	12.21	52.58
	10/2/2009		64.79	13.91	50.88
	4/9/2010		64.79	11.23	53.56
	11/10/2010		64.79	12.85	51.94
	5/27/2011		64.79	10.25	54.54
	10/19/2011		64.79	12.42	52.37
	4/30/2012		64.79	11.49	53.30
	10/29/2012			Well Destroyed during Construction	

**Table 1**  
**Groundwater Level Data**  
**10700 MacArthur Blvd., Oakland, California**

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
AMW-5 (Shallow)	1/29/1999	20-30	64.97	13.87	51.10
	5/5/1999		64.97	12.83	52.14
	10/9/1999		64.97	14.25	50.72
	1/20/2000		64.97	14.91	50.06
	8/8/2000		64.97	14.14	50.83
	2/15/2001		64.97	14.32	50.65
	8/29/2001		64.97	14.72	50.25
	3/12/2002		64.97	13.12	51.85
	9/27/2002		64.97	14.62	50.35
	3/25/2003		64.97	13.45	51.52
	10/2/2003		64.97	14.74	50.23
	10/17/2006		64.97	14.15	50.82
	5/3/2007		64.97	13.92	51.05
	10/17/2007		64.97	15.06	49.91
	4/1/2008		64.97	14.14	50.83
	10/2/2008		64.97	15.72	49.25
	4/2/2009		64.97	14.62	50.35
	10/2/2009		64.97	16.18	48.79
	4/9/2010		64.97	13.98	50.99
	11/10/2010		64.97	15.78	49.19
	5/27/2011		64.97	13.65	51.32
	10/19/2011		64.97	14.68	50.29
	4/30/2012		64.97	14.87	50.10
	10/29/2012		Well Destroyed during Construction		
AMW-6 (Shallow)	1/29/1999	? - 25	65.10	12.74	52.36
	5/5/1999		65.10	11.30	53.80
	10/9/1999		65.10	13.29	51.81
	1/20/2000		65.10	14.21	50.89
	8/8/2000		65.10	12.95	52.15
	2/15/2001		65.10	12.64	52.46
	8/29/2001		65.10	13.65	51.45
	3/12/2002		65.10	11.41	53.69
	9/27/2002		65.10	13.25	51.85
	3/25/2003		65.10	12.22	52.88
	10/2/2003		65.10	14.74	50.36
	10/17/2006		65.10	11.46	53.64
	5/3/2007		65.10	13.04	52.06
	10/17/2007		65.10	13.87	51.23
	4/1/2008		65.10	12.64	52.46
	10/2/2008		65.10	14.54	50.56
	4/2/2009		65.10	13.38	51.72
	10/2/2009		65.10	16.03	49.07
	4/9/2010		65.10	12.75	52.35
	11/10/2010		65.10	14.56	50.54
	5/27/2011		Well Destroyed and Replaced with AMW-6R		
AMW-6R (Shallow)	5/27/2011	13-23	NA	14.70	NA
	10/19/2011		NA	14.50	NA
	4/30/2012		NA	15.94	NA
	10/29/2012		NA	14.54	NA
	4/26/2013		NA	<b>14.18</b>	NA

**Table 1**  
**Groundwater Level Data**  
**10700 MacArthur Blvd., Oakland, California**

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
AMW-7 (Shallow)	1/29/1999	Unknown	64.24	14.91	49.33
	5/5/1999			Well Covered during construction	
AMW-8 (Deep)	1/29/1999	? - 45	64.55	16.86	47.69
	5/5/1999		64.55	14.46	50.09
	10/9/1999		64.55	17.10	47.45
	1/20/2000		64.55	18.51	46.04
	8/8/2000		64.55	16.71	47.84
	2/15/2001		64.55	17.31	47.24
	8/29/2001		64.55	18.30	46.25
	3/12/2002		64.55	16.03	48.52
	9/27/2002		64.55	18.03	46.52
	3/25/2003		64.55	17.31	47.24
	10/2/2003		64.55	21.54	43.01
	10/17/2006		64.55	16.05	48.5
	5/3/2007		64.55	23.01	41.54
	10/17/2007		64.55	18.34	46.21
	4/1/2008		64.55	17.49	47.06
	10/2/2008		64.55	19.10	45.45
	4/2/2009		64.55	18.18	46.37
	10/2/2009		64.55	19.75	44.80
	4/9/2010		64.55	17.76	46.79
	11/10/2010		64.55	19.41	45.14
	5/27/2011		64.55	15.92	48.63
	10/19/2011		64.55	17.15	47.40
	4/30/2012		64.55	17.16	47.39
	10/29/2012		64.55	18.72	45.83
	<b>4/26/2013</b>		<b>64.55</b>	<b>17.61</b>	<b>46.94</b>
AMW-9 (Deep)	1/29/1999	? - 55	63.48	23.22	40.26
	5/5/1999		63.48	21.40	42.08
	10/9/1999		63.48	23.74	39.74
	1/20/2000		63.48	24.92	38.56
	8/8/2000		63.48	23.01	40.47
	2/15/2001		63.48	21.20	42.28
	8/29/2001		63.48	22.59	40.89
	3/12/2002		63.48	21.94	41.54
	9/27/2002		63.48	24.16	39.32
	3/25/2003		63.48	23.00	40.48
	10/2/2003		63.48	23.80	39.68
	10/17/2006		63.48	23.07	40.41
	5/3/2007		63.48	23.17	40.31
	10/17/2007		63.48	24.97	38.51
	4/1/2008		63.48	22.97	40.51
	10/2/2008		63.48	25.65	37.83
	4/2/2009		63.48	23.80	39.68
	10/2/2009		63.48	25.98	37.50
	4/9/2010		63.48	22.80	40.68
	11/10/2010		63.48	25.36	38.12
	5/27/2011		63.48	21.73	41.75
	10/19/2011		63.48	24.07	39.41
	4/30/2012		63.48	22.90	40.58
	10/29/2012		63.48	25.49	37.99
	<b>4/26/2013</b>		<b>63.48</b>	<b>23.49</b>	<b>39.99</b>

**Table 1**  
**Groundwater Level Data**  
**10700 MacArthur Blvd., Oakland, California**

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
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	5/5/1999		63.18	21.41	41.77
	10/9/1999		63.18	24.62	38.56
	1/20/2000		63.18	25.24	37.94
	8/8/2000		63.18	23.41	39.77
	8/29/2001		63.18	25.09	38.09
	3/12/2002		63.18	21.86	41.32
	9/27/2002		63.18	24.69	38.49
	3/25/2003		63.18	23.71	39.47
	10/2/2003		63.18	25.13	38.05
	10/17/2006		63.18	23.91	39.27
	5/3/2007		63.18	24.11	39.07
	10/17/2007		63.18	NA	NA
	4/1/2008		63.18	22.83	40.35
	10/2/2008		63.18	25.53	37.65
	4/2/2009		63.18	23.23	39.95
	10/2/2009		63.18	25.70	37.48
	4/9/2010		63.18	22.36	40.82
	11/10/2010		63.18	24.79	38.39
	5/27/2011		63.18	21.56	41.62
	10/19/2011		63.18	24.06	39.12
	4/30/2012		63.18	NA	NA
	10/29/2012		63.18	29.05	34.13
	<b>4/26/2013</b>		<b>63.18</b>	<b>23.54</b>	<b>39.64</b>
WGR MW-3 (Shallow)	1/29/1999	22-27	58.34	15.81	42.53
	5/5/1999		58.34	18.43	39.91
	10/9/1999		58.34	21.38	36.96
	1/20/2000		58.34	19.76	38.58
	8/8/2000		58.34	20.88	37.46
	8/29/2001		58.34	21.22	37.12
	3/12/2002		58.34	14.80	43.54
	9/27/2002		58.34	22.32	36.02
	3/25/2003		58.34	18.07	40.27
	10/2/2003		58.34	22.22	36.12
	10/17/2006		58.34	21.85	36.49
	5/3/2007		58.34	18.37	39.97
	10/17/2007		58.34	NA	NA
	4/1/2008		58.34	18.74	39.60
	10/2/2008		58.34	23.62	34.72
	4/2/2009		58.34	17.89	40.45
	10/2/2009		58.34	22.16	36.18
	4/9/2010		58.34	15.71	42.63
	11/10/2010		58.34	21.75	36.59
	5/27/2011			Well Destroyed by ARCO; Case Closure at 10600 MacArthur Blvd.	

**Table 1**  
**Groundwater Level Data**  
**10700 MacArthur Blvd., Oakland, California**

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
WGR MW-4 (Deep)	1/29/1999	23-45	60.02	26.23	33.79
	5/5/1999		60.02	23.80	36.22
	10/9/1999		60.02	27.73	32.29
	1/20/2000		60.02	27.97	32.05
	8/8/2000		60.02	26.00	34.02
	2/15/2001		60.02	26.55	33.47
	8/29/2001		60.02	27.14	32.88
	3/12/2002		60.02	24.90	35.12
	9/27/2002		60.02	27.09	32.93
	3/25/2003		60.02	25.75	34.27
	10/2/2003		60.02	27.41	32.61
	10/17/2006		60.02	26.31	33.71
	5/3/2007		60.02	26.13	33.89
	10/17/2007		60.02	28.33	31.69
	4/1/2008		60.02	25.91	34.11
	10/2/2008		60.02	28.85	31.17
	4/2/2009		60.02	25.77	34.25
	10/2/2009		60.02	28.81	31.21
	4/9/2010		60.02	25.01	35.01
	11/10/2010		60.02	28.14	31.88
	5/27/2011		60.02	24.51	35.51
	10/19/2011		60.02	26.97	33.05
	4/30/2012		60.02	24.48	35.54
	10/29/2012		60.02	28.23	31.79
<b>4/26/2013 Well Destroyed during Construction</b>					
FHS MW-10 (Deep)	1/29/1999	42-52	52.34	23.91	28.43
	5/5/1999		52.34	20.55	31.79
	10/9/1999		52.34	25.00	27.34
	1/20/2000		52.34	27.23	25.11
	8/8/2000		52.34	24.06	28.28
	2/15/2001		52.34	24.16	28.18
	8/29/2001		52.34	26.11	26.23
	3/12/2002		52.34	23.94	28.40
	9/27/2003		52.34	25.86	26.48
	3/25/2003		52.34	23.20	29.14
	10/6/2003		52.34	26.39	25.95
	10/17/2006		52.34	24.35	27.99
	5/3/2007		52.34	23.97	28.37
	10/17/2007		52.34	27.71	24.63
	4/1/2008		52.34	23.79	28.55
	10/2/2008		52.34	28.40	23.94
	4/2/2009		52.34	23.80	28.54
	10/2/2009		52.34	28.51	23.83
	4/9/2010		52.34	22.04	30.30
	11/10/2010		52.34	NA	NA
	5/27/2011		52.34	21.28	31.06
	10/19/2011		52.34	24.18	28.16
	4/30/2012		52.34	22.41	29.93
	10/29/2012		52.34	25.25	27.09
	<b>4/26/2013</b>		<b>52.34</b>	<b>25.49</b>	<b>26.85</b>

**Table 1**  
**Groundwater Level Data**  
**10700 MacArthur Blvd., Oakland, California**

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
FHS MW-11 (Deep)	1/29/1999	59-64	54.06	26.38	27.68
	5/5/1999		54.06	22.72	31.34
	10/9/1999		54.06	27.42	26.64
	1/20/2000		54.06	29.31	24.75
	8/8/2000		54.06	26.11	27.95
	2/15/2001		54.06	26.43	27.63
	8/29/2001		54.06	28.28	25.78
	3/12/2002		54.06	21.61	32.45
	9/27/2002		54.06	27.93	26.13
	3/25/2003		54.06	45.21	8.85
	10/2/2003		Well Inaccessible		
	10/17/2006		54.06	26.54	27.52
	5/3/2007		54.06	26.25	27.81
	10/17/2007		54.06	29.88	24.18
	4/1/2008		54.06	26.02	28.04
	10/2/2008		54.06	30.61	23.45
	4/2/2009		54.06	26.09	27.97
	10/5/2009*		54.06	30.80	23.26
	4/9/2010		54.06	21.51	32.55
	11/10/2010		54.06	NA	NA
	5/27/2011		54.06	23.38	30.68
	10/19/2011		54.06	27.23	26.83
	4/30/2012		54.06	24.60	29.46
	10/29/2012		54.06	28.29	25.77
	<b>4/26/2013</b>		<b>54.06</b>	<b>29.02</b>	<b>25.04</b>
MW-6 (Deep)	1/29/1999	37.5-56	61.78	32.87	28.91
	5/5/1999		61.78	29.41	32.37
	9/10/1999		61.78	33.98	27.80
	1/20/2000		61.78	36.02	25.76
	8/8/2000		61.78	32.73	29.05
	2/15/2001		61.78	33.34	28.44
	8/29/2001		61.78	34.98	26.80
	3/12/2002		61.78	30.72	31.06
	9/27/2002		61.78	34.50	27.28
	3/25/2003		61.78	32.08	29.70
	10/2/2003		61.78	34.86	26.92
	10/17/2006		61.78	32.58	29.20
	5/3/2007		61.78	32.54	29.24
	10/17/2007		61.78	36.20	25.58
	4/1/2008		61.78	32.39	29.39
	10/2/2008		61.78	36.86	24.92
	4/2/2009		61.78	32.67	29.11
	10/2/2009		61.78	36.98	24.80
	4/9/2010		61.78	30.09	31.69
	11/10/2010		61.78	35.87	25.91
	5/27/2011		Well Destroyed by ARCO; Case Closure at 10600 MacArthur Blvd.		

**Table 1**  
**Groundwater Level Data**  
**10700 MacArthur Blvd., Oakland, California**

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
MW-7 (Shallow)	1/20/2000	17.5-37.5	58.64	20.32	38.32
	8/8/2000		58.64	20.50	38.14
	2/15/2001		58.64	16.95	41.69
	8/29/2001		58.64	21.61	37.03
	3/12/2002		58.64	17.03	41.61
	9/27/2002		58.64	22.73	35.91
	3/25/2003		58.64	19.09	39.55
	10/2/2003		58.64	22.46	36.18
	10/17/2006		58.64	22.19	36.45
	5/3/2007		58.64	19.52	39.12
	10/17/2007		58.64	21.49	37.15
	4/1/2008		58.64	19.73	38.91
	10/2/2008		58.64	24.64	34.00
	4/2/2009		58.64	18.60	40.04
MW-7 (Deep)	10/2/2009		58.64	22.60	36.04
	4/9/2010		58.64	17.57	41.07
	11/10/2010		58.64	22.16	36.48
	5/27/2011		Well Destroyed by ARCO; Case Closure at 10600 MacArthur Blvd.		

Notes: All well elevations are measured from the top of casing not from the ground surface.

ft msl = feet above mean sea level

\* = Car parked over well, reading taken 3 days later then other wells.

NA = not available

**Table 2**  
**Groundwater Sample Analytical Data**  
**10700 MacArthur Blvd., Oakland, California**

Well (aquifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCS* µg/L
AMW-1 (shallow)	3/23/95	Augeus	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	6/21/95	Augeus	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/11/95	Augeus	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	7/17/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/23/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/29/97	PES	NS	NS	NS	NS	NS
	1/20/00	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	1.8	ND<0.5	ND<0.5
	10/2/03	AEI	NS	NS	NS	NS	NS
	10/17/06	AEI	ND<0.5	ND<0.5	2.2	ND<0.5	ND<RL
	5/2/07	AEI	ND<0.5	ND<0.5	ND<0.5	0.69	ND<RL
	10/17/07	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/1/08	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/2/08	AEI	ND<0.5	ND<0.5	0.60	ND<0.5	ND<RL
	4/2/09	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/2/09	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/9/10	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/25/10	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	5/27/11	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/19/11	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/30/12	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/29/12	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	04/26/13	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
AMW-4 (shallow)	5/15/95	Augeus	NR	ND<50	2400	ND<50	NR
	6/21/95	Augeus	NR	ND<50	2500	ND<50	NR
	9/13/95	Augeus	NR	ND<25	1100	ND<25	NR
	4/16/96	PES	ND<10	ND<10	1200	10	NR
	7/17/96	PES	ND<10	ND<10	860	ND<10	NR
	10/23/96	PES	ND<0.5	ND<0.5	22	0.5	NR
	9/29/97	PES	ND<3	ND<3	340	3	NR
	1/29/99	AEI	ND<3	ND<3	100	ND<3	ND<3
	5/5/99	AEI	ND<5	ND<5	210	ND<5	ND<5
	9/10/99	AEI	10	ND<5	240	18	ND<5
	1/20/00	AEI	46	ND<2.5	97	6.2	ND<2.5
	8/8/00	AEI	ND<5	ND<5	440	8	ND<5
	2/15/01	AEI	ND<2.5	ND<2.5	81	2.6	ND<2.5
	8/29/01	AEI	ND<2.5	ND<2.5	230	4.6	ND<2.5
	3/12/02	AEI	ND<5.0	ND<5.0	190	ND<5.0	ND<5.0
	9/27/02	AEI	ND<5.0	ND<5.0	220	ND<5.0	10***
	3/25/03	AEI	1.2	ND<1.0	22	1.9	ND<1.0
	10/2/03	AEI	2.8	ND<0.5	50	2.8	ND<0.5
	10/17/06	AEI	9.9	ND<0.5	6.5	ND<0.5	ND<RL
	5/3/07	AEI	2.7	ND<0.5	5.1	1.2	ND<RL**
	10/17/07	AEI	4.0	ND<0.5	6.2	ND<0.5	ND<RL
	4/1/08	AEI	3.3	ND<0.5	5.8	2.6	0.85**
	10/2/08	AEI	11.0	ND<1.0	34	2.9	ND<RL <sup>3</sup>
	4/2/09	AEI	2.8	ND<0.5	8.0	0.76	ND<RL <sup>4</sup>
	10/2/09	AEI	11	ND<0.5	4.3	0.89	ND<RL <sup>5</sup>
	4/9/10	AEI	1.9	ND<0.5	11	1.6	ND<RL <sup>7</sup>
	10/22/10	AEI	ND<0.5	ND<0.5	0.76	0.53	ND<RL
	5/27/11	AEI	ND<0.5	ND<0.5	1.9	0.75	ND<RL
	10/19/11	AEI	6.0	ND<0.5	1.2	0.68	ND<RL
	4/30/12	AEI	0.73	ND<0.5	1.0	0.82	ND<RL
	10/29/12						

**Table 2**  
**Groundwater Sample Analytical Data**  
**10700 MacArthur Blvd., Oakland, California**

Well (aquifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCS* µg/L
AMW-5 (shallow)	5/15/95	Augeus	NR	ND<0.5	1.2	ND<0.5	NR
	6/21/95	Augeus	NR	ND<0.5	ND<0.5	ND<0.5	NR
	9/13/95	Augeus	NR	ND<0.5	ND<0.5	ND<0.5	NR
	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR
	7/17/96	PES	ND<0.5	ND<0.5	0.6	ND<0.5	NR
	10/23/96	PES	ND<0.5	ND<0.5	0.8	ND<0.5	NR
	9/29/97	PES	ND<0.5	ND<0.5	13	ND<0.5	NR
	1/29/99	AEI	NA	NA	NA	NA	NA
	5/5/99	AEI	ND<1	ND<1	36	ND<1	ND<1
	9/10/99	AEI	ND<1	ND<1	35	ND<1	ND<1
	1/20/00	AEI	ND<1	ND<1	36	ND<1	ND<1
	8/8/00	AEI	ND<0.5	ND<0.5	50	0.72	ND<0.5
	2/15/01	AEI	ND<0.5	ND<0.5	26	0.76	ND<0.5
	8/29/01	AEI	ND<0.5	ND<0.5	28	0.87	ND<0.5
	3/12/02	AEI	ND<0.5	ND<0.5	25	0.75	ND<0.5
	9/27/02	AEI	ND<0.5	ND<0.5	17	ND<0.5	ND<0.5
	3/25/03	AEI	ND<1.0	ND<1.0	23	ND<1.0	ND<1.0
	10/2/03	AEI	ND<0.5	ND<0.5	20	0.58	ND<0.5
	10/17/06	AEI	0.68	ND<0.5	22	0.88	ND<RL
	5/3/07	AEI	0.91	ND<0.5	42	2.0	ND<RL
	10/17/07	AEI	1.2	ND<0.5	42	2.0	ND<RL
	4/1/08	AEI	1.7	ND<0.5	50	2.8	ND<RL
	10/2/08	AEI	1.5	ND<1.0	46	2.3	ND<RL
	4/2/09	AEI	ND<1.7	ND<1.7	56	2.9	ND<RL
	10/2/09	AEI	0.87	ND<0.5	31	1.4	ND<RL
	4/9/10	AEI	ND<1.0	ND<1.0	35	2.1	ND<RL
	10/22/10	AEI	0.93	ND<1.0	29	2.0	ND<RL
	5/27/11	AEI	0.76	ND<0.5	23	1.9	ND<RL
	10/19/11	AEI	ND<0.5	ND<0.5	20	1.5	ND<RL
	4/30/12	AEI	0.59	ND<0.5	8.1	1.2	ND<RL
	10/29/12	Well Destroyed During Construction					
AMW-6 (shallow)	9/13/95	Augeus	NR	ND<25	930	ND<25	NR
	4/16/96	PES	20	ND<10	1900	110	NR
	7/17/96	PES	ND<30	ND<30	3300	280	NR
	10/23/96	PES	ND<30	ND<30	2900	140	NR
	9/29/97	PES	220	70	4600	580	NR
	1/29/99	AEI	270	77	2400	390	ND<63
	5/5/99	AEI	370	110	2700	470	ND<71
	9/10/99	AEI	190	49	1400	250	ND<36
	1/20/00	AEI	210	ND<35	1600	270	ND<35
	8/8/00	AEI	150	56	1100	180	ND<25
	2/15/01	AEI	190	40	930	200	ND<25
	8/29/01	AEI	77	17	780	110	ND<10
	3/12/02	AEI	150	37	1300	170	ND<25
	9/27/02	AEI	67	ND<17	490	91	ND<17
	3/25/2003	AEI	94	ND<33	740	110	ND<33
	10/2/2003	AEI	66	13	440	60	ND<10
	10/17/2006	AEI	32	4.9	98	14	ND<RL
	5/3/2007	AEI	32	ND<5.0	120	22	ND<RL
	10/17/2007	AEI	48	8.4	140	27	ND<RL <sup>2</sup>
	4/1/2008	AEI	39	6.2	140	24	ND<RL
	10/2/2008	AEI	43	7.1	130	26	ND<RL
	4/2/2009	AEI	50	8.1	250	37	ND<RL
	10/2/2009	AEI	55	11	240	44	ND<RL <sup>6</sup>
	4/9/2010	AEI	56	ND<25	530	61	ND<RL
	10/22/2010	AEI	48	10	260	42	ND<RL
	5/27/2011	Destroyed and Replaced with Well AMW-6R					

**Table 2**  
**Groundwater Sample Analytical Data**  
**10700 MacArthur Blvd., Oakland, California**

Well (aquifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCS* µg/L
<b>AMW-6R</b> <b>(shallow)</b>	5/27/2011	AEI	54	7.5	210	45	ND<RL
	10/19/2011	AEI	86	ND<12	570	86	ND<RL
	4/30/2012	AEI	74	8.6	220	65	ND<RL
	10/29/12	AEI	93	14	520	92	ND<RL
	<b>04/26/13</b>	<b>AEI</b>	<b>92</b>	<b>&lt;25</b>	<b>410</b>	<b>98</b>	<b>ND&lt;RL</b>
<b>AMW-7</b> <b>(shallow)</b>	9/13/95	Augeus	NR	ND<25	2350	340	NR
	4/16/96	PES	2200	60	2300	500	NR
	7/17/96	PES	2100	ND<30	2400	530	NR
	10/23/96	PES	3100	50	3400	610	NR
	9/29/97	PES	33	20	520	100	NR
	1/29/99	AEI	22	ND<3	95	12	ND<3
	5/5/99	AEI			Well Covered During Construction		
<b>AMW-8</b> <b>(deep)</b>	9/13/95	Augeus	-	ND<25	95	ND<25	ND<25
	4/16/96	PES	ND<0.5	ND<0.5	0.8	ND<0.5	ND<0.5
	7/17/96	PES	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5
	10/23/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/29/97	PES	ND<0.5	ND<0.5	0.7	ND<0.5	ND<0.5
	1/20/00	AEI	ND<0.5	ND<0.5	0.73	ND<0.5	ND<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/2/03	AEI	NS	NS	NS	NS	NS
	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	AEI	ND<0.5	ND<0.5	1.6	ND<0.5	ND<RL
	4/1/08	AEI	NS	NS	NS	NS	NS
	10/2/08	AEI	ND<0.5	ND<0.5	1.3	ND<0.5	ND<RL
	4/2/09	AEI	NS	NS	NS	NS	NS
	10/2/09	AEI	ND<0.5	ND<0.5	1.4	ND<0.5	ND<RL
	4/9/10	AEI	NS	NS	NS	NS	NS
	10/25/10	AEI	ND<0.5	ND<0.5	2.2	ND<0.5	ND<RL
	5/27/11	AEI	NS	NS	NS	NS	NS
	10/19/11	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/30/12	AEI	NS	NS	NS	NS	NS
	10/29/12	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	<b>04/26/13</b>	<b>AEI</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>

**Table 2**  
**Groundwater Sample Analytical Data**  
**10700 MacArthur Blvd., Oakland, California**

Well (aquifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCS* µg/L
<b>AMW-9</b> <b>(deep)</b>	9/13/95	Augeus	NR	ND<25	170	ND<25	NR
	4/16/96	PES	7	ND<3	170	4	NR
	7/17/96	PES	ND<3	ND<3	190	4	NR
	10/23/96	PES	ND<3	ND<3	190	ND<3	NR
	9/29/97	PES	ND<3	ND<3	110	ND<3	NR
	1/29/99	AEI	ND<4	ND<4	90	ND<4	ND<4
	5/5/99	AEI	ND<2.5	ND<2.5	94	ND<2.5	ND<2.5
	9/10/99	AEI	ND<2.1	ND<2.1	99	ND<2.1	ND<2.1
	1/20/00	AEI	ND<0.5	ND<0.5	100	ND<0.5	ND<0.5
	8/8/00	AEI	ND<2.5	ND<2.5	130	ND<2.5	ND<2.5
	2/15/01	AEI	ND<1.0	ND<1.0	69	ND<1.0	ND<1.0
	8/29/01	AEI	ND<2.5	ND<2.5	98	ND<2.5	ND<2.5
	3/12/02	AEI	ND<2.5	ND<2.5	100	ND<2.5	ND<2.5
	9/27/02	AEI	ND<5.0	ND<5.0	80	ND<5.0	ND<5.0
	3/25/03	AEI	4.1	ND<2.5	48	ND<2.5	ND<2.5
	10/2/03	AEI	4.8	<0.5	36	1.1	ND<0.5
	10/17/06	AEI	ND<1.7	ND<1.7	73	ND<1.7	ND<RL
	5/3/07	AEI	ND<2.5	ND<2.5	86	ND<2.5	ND<RL
	10/17/07	AEI	ND<2.5	ND<2.5	130	ND<2.5	ND<RL
	4/1/08	AEI	ND<2.5	ND<2.5	130	ND<2.5	ND<RL
	10/2/08	AEI	ND<2.5	ND<2.5	110	ND<2.5	ND<RL
	4/2/09	AEI	ND<2.5	ND<2.5	180	ND<2.5	ND<RL
	10/2/09	AEI	ND<2.5	ND<2.5	140	ND<2.5	ND<RL
	4/9/10	AEI	ND<5.0	ND<5.0	160	ND<5.0	ND<RL
	10/22/10	AEI	ND<1.7	ND<1.7	93	ND<1.7	ND<RL
	5/27/11	AEI	ND<1.2	ND<1.2	53	ND<1.2	ND<RL
	10/19/11	AEI	ND<0.5	ND<0.5	30	ND<0.5	ND<RL
	4/30/12	AEI	ND<0.5	ND<0.5	3.4	ND<0.5	ND<RL
	10/29/12	AEI	ND<0.5	ND<0.5	14	ND<0.5	ND<RL
	<b>04/26/13</b>	<b>AEI</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>6.9</b>	<b>ND&lt;0.5</b>	<b>ND&lt;RL</b>
<b>FHS MW-10</b> <b>(deep)</b>	10/9/97	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR
	1/29/99	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/5/99	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/10/99	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	1/20/00	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	1.7	ND<1.0	18	2.5	5.0**
	10/6/03	AEI	ND<0.5	ND<0.5	1.4	ND<0.5	1.0**
	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	5/3/2007 <sup>1</sup>	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/17/07	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/1/08	AEI	ND<0.5	ND<0.5	0.88	ND<0.5	ND<RL
	10/2/08	AEI	ND<0.5	ND<0.5	3.4	ND<0.5	1.4**
	4/2/09	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/2/09	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/9/10	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/22/10	AEI	NS	NS	NS	NS	NS
	5/27/11	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/19/11	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL <sup>8</sup>
	4/30/12	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/29/12	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	<b>04/26/13</b>	<b>AEI</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;RL</b>

**Table 2**  
**Groundwater Sample Analytical Data**  
**10700 MacArthur Blvd., Oakland, California**

Well (aquifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCS* µg/L
<b>FHS MW-11</b> <b>(deep)</b>	9/29/97	PES	ND<0.5	ND<0.5	4	ND<0.5	NR
	1/29/99	AEI	ND<0.5	ND<0.5	7	ND<0.5	ND<0.5
	5/5/99	AEI	ND<0.5	ND<0.5	7.1	ND<0.5	ND<0.5
	9/10/99	AEI	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5
	1/20/00	AEI	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5
	8/8/00	AEI	ND<0.5	ND<0.5	38	ND<0.5	ND<0.5
	2/15/01	AEI	ND<0.5	ND<0.5	18	ND<0.5	ND<0.5
	8/29/01	AEI	ND<0.5	ND<0.5	16	ND<0.5	ND<0.5
	3/12/02	AEI	ND<0.5	ND<0.5	13	ND<0.5	0.77**
	9/27/02	AEI	ND<1	ND<1	13	ND<1	6.4** 1.1***
	3/25/03	AEI	0.78	ND<0.5	12	0.88	4.0** 1.0****
	10/2/03				Well Inaccessible		
	10/17/06	AEI	ND<0.5	ND<0.5	20	ND<0.5	ND<RL
	5/3/2007 <sup>1</sup>	AEI	ND<0.5	ND<0.5	25	1.1	ND<RL
	10/17/07	AEI	ND<0.5	ND<0.5	31	0.71	ND<RL
	4/1/08	AEI	ND<0.5	ND<0.5	26	0.61	ND<RL
	10/2/08	AEI	ND<0.5	ND<0.5	31	0.74	ND<RL
	4/2/09	AEI	ND<0.5	ND<0.5	32	0.71	ND<RL
	10/5/09	AEI	ND<0.5	ND<0.5	32	0.70	ND<RL
	4/9/10	AEI	ND<1.0	ND<1.0	32	ND<1.0	ND<RL
	10/22/10	AEI	NS	NS	NS	NS	NS
	5/27/11	AEI	ND<1.7	ND<1.7	63	1.9	NS
	10/19/11	AEI	ND<1.0	ND<1.0	49	ND<1.0	ND<RL
	4/30/12	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/29/12	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	<b>04/26/13</b>	<b>AEI</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;RL</b>

**Table 2**  
**Groundwater Sample Analytical Data**  
**10700 MacArthur Blvd., Oakland, California**

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**Groundwater Sample Analytical Data**  
**10700 MacArthur Blvd., Oakland, California**

Well (aquifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCS* µg/L
<b>MW-7</b> <b>(shallow)</b>	3/11/95	EMCON	NS	NS	NS	NS	NS
	6/5/95	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	8/29/95	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	9/11/95	Augeus	85	ND<50	-	ND<50	ND<50
	11/16/95	EMCON	ND<20	ND<20	ND<20	ND<20	ND<20
	2/28/96	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/28/96	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	7/17/96	PES	0.6	ND<0.5	ND<0.5	0.6	ND<0.5
	8/19/96	EMCON	ND<1	ND<1	ND<1	ND<1	ND<1
	10/23/96	PES	0.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/21/96	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	3/26/97	EMCON	ND<20	ND<20	ND<20	ND<20	ND<20
	5/20/97	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	9/29/97	PES	ND<10	ND<10	ND<10	ND<10	ND<10
	1/20/00	AEI	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/2/03	AEI	NS	NS	NS	NS	NS
	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL*****
	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	AEI	ND<10	ND<10	ND<10	ND<10	ND<RL
	4/1/08	AEI	NS	NS	NS	NS	NS
	10/2/08	AEI	ND<1.0	ND<1.0	2.2	ND<1.0	ND<RL
	4/2/09	AEI	NS	NS	NS	NS	NS
	10/2/09	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/9/10	AEI	NS	NS	NS	NS	NS
	10/22/10	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	5/27/11	Well Destroyed by ARCO; Case Closure at 10600 MacArthur Blvd.					
<b>WGR MW-2</b> <b>(Shallow)</b>	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	AEI	NS	NS	NS	NS	NS
	4/1/08	AEI	NS	NS	NS	NS	NS
	10/2/08	AEI	NS	NS	NS	NS	NS
	4/2/09	AEI	NS	NS	NS	NS	NS
	10/2/09	AEI	NS	NS	NS	NS	NS
	4/9/10	AEI	NS	NS	NS	NS	NS
	10/22/10	AEI	NS	NS	NS	NS	NS
	5/27/11	AEI	NS	NS	NS	NS	NS
	10/19/11	AEI	NS	NS	NS	NS	NS
	4/30/12	AEI	NS	NS	NS	NS	NS
	4/26/13	AEI	NS	NS	NS	NS	NS

**Table 2**  
**Groundwater Sample Analytical Data**  
**10700 MacArthur Blvd., Oakland, California**

Well (aquifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCS* µg/L
<b>WGR MW-3</b>  (Shallow)	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	AEI	NS	NS	NS	NS	NS
	4/1/08	AEI	NS	NS	NS	NS	NS
	10/2/08	AEI	NS	NS	NS	NS	NS
	4/2/09	AEI	NS	NS	NS	NS	NS
	10/2/09	AEI	NS	NS	NS	NS	NS
	4/9/10	AEI	NS	NS	NS	NS	NS
	10/22/10	AEI	NS	NS	NS	NS	NS
	5/27/11		Well Destroyed by ARCO; Case Closure at 10600 MacArthur Blvd.				
<b>WGR MW-4</b>  (deep)	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	7/17/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/23/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/29/97	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/2/03	AEI	NS	NS	NS	NS	NS
	10/17/06	AEI	ND<0.5	ND<0.5	0.62	ND<0.5	ND<RL
	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/1/08	AEI	NS	NS	NS	NS	NS
	10/2/08	AEI	ND<0.5	ND<0.5	0.55	ND<0.5	ND<RL
	4/2/09	AEI	NS	NS	NS	NS	NS
	10/2/09	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/9/10	AEI	NS	NS	NS	NS	NS
	10/22/10	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	5/27/11	AEI	NS	NS	NS	NS	NS
	10/19/11	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	4/30/12	AEI	NS	NS	NS	NS	NS
	10/29/12	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
<b>04/26/13</b>		<b>AEI</b>	<b>Well Destroyed During Onsite Construction Activities</b>				

**Table 2 Notes:**

Please refer to the Laboratory Analytical Data for further detailed lab information including Reporting Limits and Dilution Factors

\*VHCS = All other chemicals by EPA method 601/8010 or 8260

\*\* Chloroform (trichloromethane)

NS = Well not sampled

\*\*\* Dibromochloromethane

NR = Not Reported

\*\*\*\* Methylene Chloride

µg/L = micrograms per liter (parts per billion)

\*\*\*\*\* bromodichloromethane

Tetrachloroethene (PCE)

cis 1,2-Dichloroethene (cis 1,2 DCE)

Trichloroethene (TCE)

trans 1,2-Dichloroethene (trans 1,2 DCE)

<sup>1</sup> = Reported by laboratory without letters FHS as prefix

<sup>2</sup> = Vinyl Chloride detected at a concentration of 1.9 ug/L

<sup>3</sup> = Vinyl Chloride detected at a concentration of 2.0 ug/L

<sup>4</sup> = Vinyl Chloride detected at a concentration of 0.66 ug/L

<sup>5</sup> = Vinyl Chloride detected at a concentration of 4.0 ug/L

<sup>6</sup> = Vinyl Chloride detected at a concentration of 11 ug/L

<sup>7</sup> = Chloroform detected at a concentration of 0.69 ug/L

<sup>8</sup> = Chloroform detected at a concentration of 0.64 ug/L

\* Available data from AMW-7 is presented although this well was covered during 1999 construction activities

RL = Reporting Limit

## **APPENDIX A**

### **MONITORING WELL FIELD SAMPLING FORMS**

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number:** **AMW-1**

Project Name:	Foothill Square	Date of Sampling:	4/26/2013
Job Number:	261829	Name of Sampler:	J. Sigg
Project Address:	10700 MacArthur Blvd., Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	64.51		
Depth of Well	45.00		
Depth to Water (from top of casing)	22.39		
Water Elevation (feet above msl)	42.12		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	<b>10.9</b>		
Actual Volume Purged (gallons)	11.0		
Appearance of Purge Water	Clear		
Free Product Present?	na	Thickness (ft):	-

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3-VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity ( $\mu$ sec/cm)	DO (mg/L)	ORP (meV)	Comments
6:50	3	20.03	7.38	1,224	3.17	-121.4	Cloudy
	6	20.05	7.33	1,220	2.62	-118.7	Clear
	9	20.10	7.30	1,218	1.77	-115.3	Clear
7:00	11	20.13	7.31	1,212	1.08	-110.1	Clear

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


**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number:** **AMW-6R**

Project Name:	Foothill Square	Date of Sampling:	4/26/2013
Job Number:	261829	Name of Sampler:	J. Sigg
Project Address:	10700 MacArthur Blvd., Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)			
Depth of Well	23.00		
Depth to Water (from top of casing)	14.18		
Water Elevation (feet above msl)	NA		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	4.2		
Actual Volume Purged (gallons)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	na	Thickness (ft):	-

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity ( $\mu$ sec/cm)	DO (mg/L)	ORP (meV)	Comments
7:55	1	20.10	7.73	1,388	4.38	-202.1	Clear
	2	20.12	7.70	1,362	3.54	-195.4	Clear
	3	20.12	7.70	1,347	2.87	-187.2	Clear
8:00	4	20.12	7.69	1,333	2.02	-180.8	Clear

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


**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number:** **AMW-8**

Project Name:	Foothill Square	Date of Sampling:	4/26/2013
Job Number:	261829	Name of Sampler:	J. Sigg
Project Address:	10700 MacArthur Blvd., Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	64.55		
Depth of Well	45.00		
Depth to Water (from top of casing)	17.61		
Water Elevation (feet above msl)	46.94		
Well Volumes Purged	NA		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	<b>NA</b>		
Actual Volume Purged (gallons)	NA		
Appearance of Purge Water	NA		
Free Product Present?	na	Thickness (ft):	-

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				NA			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity ( $\mu$ sec/cm)	DO (mg/L)	ORP (meV)	Comments

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

Well not sampled in accordance with sampling schedule

**AEI CONSULTANTS**  
**GROUNDWATER MONITORING WELL FIELD SAMPLING FORM**

**Monitoring Well Number:** **AMW-9**

Project Name:	Foothill Square	Date of Sampling:	4/26/2013
Job Number:	261829	Name of Sampler:	J. Sigg
Project Address:	10700 MacArthur Blvd., Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	OK
Elevation of Top of Casing (feet above msl)	63.48
Depth of Well	54.30
Depth to Water (from top of casing)	23.49
Water Elevation (feet above msl)	39.99
Well Volumes Purged	3
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	14.8
Actual Volume Purged (gallons)	15.0
Appearance of Purge Water	Clear
Free Product Present?	na
	Thickness (ft): -

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity ( $\mu$ sec/cm)	DO (mg/L)	ORP (meV)	Comments
7:16	3	20.17	7.59	1,182	4.07	202.4	Clear
	6	20.19	7.62	1,180	3.52	197.1	Clear
	9	20.21	7.62	1,162	3.09	190.3	Clear
	12	20.24	7.64	1,157	2.87	182.5	Clear
7:30	15	20.26	7.66	1,149	2.14	173.6	Clear

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


**AEI CONSULTANTS**  
**GROUNDWATER MONITORING WELL FIELD SAMPLING FORM**

**Monitoring Well Number:** WGR MW-2

Project Name:	Foothill Square	Date of Sampling:	4/26/2013
Job Number:	261829	Name of Sampler:	J. Sigg
Project Address:	10700 MacArthur Blvd., Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	4
Wellhead Condition	OK
Elevation of Top of Casing (feet above msl)	63.18
Depth of Well	28.00
Depth to Water (from top of casing)	23.54
Water Elevation (feet above msl)	39.64
Well Volumes Purged	NA
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	NA
Actual Volume Purged (gallons)	Not sampled
Appearance of Purge Water	--
Free Product Present?	na
	Thickness (ft): -

**GROUNDWATER SAMPLES**

Number of Samples/Container Size							
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity ( $\mu$ sec/cm)	DO (mg/L)	ORP (meV)	Comments

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

Well not sampled in accordance with sampling schedule

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number:** WGR MW-4

Project Name:	Foothill Square	Date of Sampling:	4/26/2013
Job Number:	261829	Name of Sampler:	J. Sigg
Project Address:	10700 MacArthur Blvd., Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	60.02		
Depth of Well	44.96		
Depth to Water (from top of casing)	NA		
Water Elevation (feet above msl)	NA		
Well Volumes Purged	NA		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	NA		
Actual Volume Purged (gallons)	NA		
Appearance of Purge Water	NA		
Free Product Present?	na	Thickness (ft):	-

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				NA			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity ( $\mu$ sec/cm)	DO (mg/L)	ORP (meV)	Comments

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

Well Destroyed During Construction Activities

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number:** FHS MW-10

Project Name:	Foothill Square	Date of Sampling:	4/26/2013
Job Number:	261829	Name of Sampler:	J. Sigg
Project Address:	10700 MacArthur Blvd., Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	OK
Elevation of Top of Casing (feet above msl)	52.34
Depth of Well	51.94
Depth to Water (from top of casing)	25.49
Water Elevation (feet above msl)	26.85
Well Volumes Purged	3
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	12.7
Actual Volume Purged (gallons)	13.0
Appearance of Purge Water	Clear
Free Product Present?	n/a
	Thickness (ft): -

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity ( $\mu$ sec/cm)	DO (mg/L)	ORP (meV)	Comments
5:17	3	20.14	7.68	922	5.83	-162.4	Clear
	6	20.22	7.66	917	4.77	-160.1	Clear
	9	20.24	7.66	912	3.98	-155.3	Clear
5:30	13	20.26	7.67	909	2.52	-152.6	Clear

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


**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number:** FHS MW-11

Project Name:	Foothill Square	Date of Sampling:	4/26/2013
Job Number:	261829	Name of Sampler:	J. Sigg
Project Address:	10700 MacArthur Blvd., Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	OK
Elevation of Top of Casing (feet above msl)	54.06
Depth of Well	64.07
Depth to Water (from top of casing)	29.02
Water Elevation (feet above msl)	25.04
Well Volumes Purged	3
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	16.8
Actual Volume Purged (gallons)	16.0
Appearance of Purge Water	Clear
Free Product Present?	na
	Thickness (ft): -

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3 VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity ( $\mu$ sec/cm)	DO (mg/L)	ORP (meV)	Comments
6:01	3	20.21	7.87	1038	4.94	-232.1	Clear
	6	20.24	7.86	1030	3.72	-224.6	Clear
	9	20.26	7.86	1028	2.99	-218.4	Clear
	12	20.26	7.86	1017	2.21	-209.7	Clear
6:15	16	20.28	7.84	1003	1.87	-200.3	Clear

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


## **APPENDIX B**

**LABORATORY ANALYTICAL REPORTS  
W/ CHAIN OF CUSTODY DOCUMENTATION**



## Analytical Report

AEI Consultants  2500 Camino Diablo, Ste.#200  Walnut Creek, CA 94597	Client Project ID: #261829; Foothill Square  Client Contact: Jeremy Smith  Client P.O.: #WC084076	Date Sampled: 04/26/13  Date Received: 04/26/13  Date Reported: 05/02/13  Date Completed: 05/02/13
---	---	--

**WorkOrder: 1304848**

May 02, 2013

Dear Jeremy:

Enclosed within are:

- 1) The results of the **5** analyzed samples from your project: **#261829; Foothill Square**,
- 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.***

1304848

## 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 DAYEDF Required?  Yes  No

Report To: Jeremy Smith Bill To: same P.O. #WC084076

Company: AEI Consultants

2500 Camino Diablo

Walnut Creek, CA 94597 E-Mail: jasmith@aeiconsultants.com

Tele: (925) 746-6000 Fax: (925) 746-6099

Project #: 261829 Project Name: Foothill Square

Project Location: 10700 MacArthur Blvd. Oakland, CA

Sampler Signature: *John Sigg*

## Analysis Request

Other

Comments

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX	METHOD PRESERVED	BTX & TPH as Gas (60/28/20 + 80/15)/MTBE			
		Date	Time						TPH as Diesel (80/15) w/silica Gel Cleanup	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)
AMW-1		4-26-13	0900	3	VOA X			XX	X	X	X
AMW-6R			0800	3	VOA X			XX	X	X	X
AMW-9			0730	3	VOA X			XX	X	X	X
FHS MW-10			0530	3	VOA X			XX	X	X	X
FHS MW-11			0615	3	VOA X			XX	X	X	X

Relinquished By:	Date: 4-26-13	Time: 1007	Received By: <i>John Sigg</i>
Relinquished By:	Date: 4-26	Time: 1506	Received By: <i>Marcia Webb</i>
Relinquished By:	Date:	Time:	Received By:

ICE/t° 4.2  
GOOD CONDITION   
HEAD SPACE ABSENT   
DECHLORINATED IN LAB   
PRESERVATION   
APPROPRIATE CONTAINERS   
O&G   
METALS   
OTHER \_\_\_\_\_

PRESERVED IN LAB \_\_\_\_\_



# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1304848

ClientCode: AEL

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

## Report to:

Jeremy Smith  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 283-6000 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com  
CC:  
PO: #WC084076  
ProjectNo: #261829; Foothill Square

## Bill to:

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIConsultants.c

Requested TAT: 5 days

Date Received: 04/26/2013

Date Printed: 04/29/2013

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
1304848-001	AMW-1	Water	4/26/2013 7:00	<input type="checkbox"/>	A											
1304848-002	AMW-6R	Water	4/26/2013 8:00	<input type="checkbox"/>	A											
1304848-003	AMW-9	Water	4/26/2013 7:30	<input type="checkbox"/>	A											
1304848-004	FHS MW-10	Water	4/26/2013 5:30	<input type="checkbox"/>	A											
1304848-005	FHS MW-11	Water	4/26/2013 6:15	<input type="checkbox"/>	A											

Test Legend:

1	8010BMS_W
6	
11	

2		3		4		5	
7		8		9		10	
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.



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **4/26/2013 6:06:00 PM**

Project Name: **#261829; Foothill Square**

Login Reviewed by:

**Maria Venegas**

WorkOrder N°: **1304848**

Matrix: Water

Carrier: David Valles (MAI Courier)

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| Custody seals intact on shipping container/coolier? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/coolier in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |   |
|---|---|-----------------------------|---|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Container/Temp Blank temperature                    | Cooler Temp: 4.2°C                      |                             | NA <input type="checkbox"/>                     |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |

(Ice Type: WET ICE )

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

Comments:



AEI Consultants 2500 Camino Diablo, Ste.#200 Walnut Creek, CA 94597	Client Project ID: #261829; Foothill Square	Date Sampled: 04/26/13
		Date Received: 04/26/13
	Client Contact: Jeremy Smith	Date Extracted: 04/30/13-05/01/13
	Client P.O.: #WC084076	Date Analyzed: 04/30/13-05/01/13

**Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1304848

Lab ID	1304848-001A	1304848-002A	1304848-003A	1304848-004A	Reporting Limit for DF =1	
Client ID	AMW-1	AMW-6R	AMW-9	FHS MW-10		
Matrix	W	W	W	W	S	W
DF	1	50	1	1		
Compound	Concentration				µg/kg	µg/L
Bromodichloromethane	ND	ND<25	ND	ND	NA	0.5
Bromoform	ND	ND<25	ND	ND	NA	0.5
Bromomethane	ND	ND<25	ND	ND	NA	0.5
Carbon Tetrachloride	ND	ND<25	ND	ND	NA	0.5
Chlorobenzene	ND	ND<25	ND	ND	NA	0.5
Chloroethane	ND	ND<25	ND	ND	NA	0.5
Chloroform	ND	ND<25	ND	ND	NA	0.5
Chloromethane	ND	ND<25	ND	ND	NA	0.5
Dibromochloromethane	ND	ND<25	ND	ND	NA	0.5
1,2-Dibromoethane (EDB)	ND	ND<25	ND	ND	NA	0.5
1,2-Dichlorobenzene	ND	ND<25	ND	ND	NA	0.5
1,3-Dichlorobenzene	ND	ND<25	ND	ND	NA	0.5
1,4-Dichlorobenzene	ND	ND<25	ND	ND	NA	0.5
Dichlorodifluoromethane	ND	ND<25	ND	ND	NA	0.5
1,1-Dichloroethane	ND	ND<25	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND<25	ND	ND	NA	0.5
1,1-Dichloroethene	ND	ND<25	ND	ND	NA	0.5
cis-1,2-Dichloroethene	ND	92	ND	ND	NA	0.5
trans-1,2-Dichloroethene	ND	ND<25	ND	ND	NA	0.5
1,2-Dichloropropane	ND	ND<25	ND	ND	NA	0.5
cis-1,3-Dichloropropene	ND	ND<25	ND	ND	NA	0.5
trans-1,3-Dichloropropene	ND	ND<25	ND	ND	NA	0.5
Freon 113	ND	ND<500	ND	ND	NA	10
Methylene chloride	ND	ND<25	ND	ND	NA	0.5
1,1,1,2-Tetrachloroethane	ND	ND<25	ND	ND	NA	0.5
1,1,2,2-Tetrachloroethane	ND	ND<25	ND	ND	NA	0.5
Tetrachloroethene	ND	410	6.2	ND	NA	0.5
1,1,1-Trichloroethane	ND	ND<25	ND	ND	NA	0.5
1,1,2-Trichloroethane	ND	ND<25	ND	ND	NA	0.5
Trichloroethene	ND	98	ND	ND	NA	0.5
Trichlorofluoromethane	ND	ND<25	ND	ND	NA	0.5
Vinyl Chloride	ND	ND<25	ND	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	105	107	106	106		
%SS2:	96	99	98	98		
%SS3:	98	96	92	99		
Comments						

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

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or surrogate coelutes with another peak.



AEI Consultants 2500 Camino Diablo, Ste.#200 Walnut Creek, CA 94597	Client Project ID: #261829; Foothill Square	Date Sampled: 04/26/13
		Date Received: 04/26/13
	Client Contact: Jeremy Smith	Date Extracted: 04/30/13-05/01/13
	Client P.O.: #WC084076	Date Analyzed: 04/30/13-05/01/13

**Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1304848

Lab ID	1304848-005A				Reporting Limit for DF =1
Client ID	FHS MW-11				
Matrix	W				S      W
DF	1				
Compound	Concentration			µg/kg	µg/L
Bromodichloromethane	ND			NA	0.5
Bromoform	ND			NA	0.5
Bromomethane	ND			NA	0.5
Carbon Tetrachloride	ND			NA	0.5
Chlorobenzene	ND			NA	0.5
Chloroethane	ND			NA	0.5
Chloroform	ND			NA	0.5
Chloromethane	ND			NA	0.5
Dibromochloromethane	ND			NA	0.5
1,2-Dibromoethane (EDB)	ND			NA	0.5
1,2-Dichlorobenzene	ND			NA	0.5
1,3-Dichlorobenzene	ND			NA	0.5
1,4-Dichlorobenzene	ND			NA	0.5
Dichlorodifluoromethane	ND			NA	0.5
1,1-Dichloroethane	ND			NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND			NA	0.5
1,1-Dichloroethene	ND			NA	0.5
cis-1,2-Dichloroethene	ND			NA	0.5
trans-1,2-Dichloroethene	ND			NA	0.5
1,2-Dichloropropane	ND			NA	0.5
cis-1,3-Dichloropropene	ND			NA	0.5
trans-1,3-Dichloropropene	ND			NA	0.5
Freon 113	ND			NA	10
Methylene chloride	ND			NA	0.5
1,1,1,2-Tetrachloroethane	ND			NA	0.5
1,1,2,2-Tetrachloroethane	ND			NA	0.5
Tetrachloroethene	ND			NA	0.5
1,1,1-Trichloroethane	ND			NA	0.5
1,1,2-Trichloroethane	ND			NA	0.5
Trichloroethene	ND			NA	0.5
Trichlorofluoromethane	ND			NA	0.5
Vinyl Chloride	ND			NA	0.5
Surrogate Recoveries (%)					
%SS1:	117				
%SS2:	105				
%SS3:	107				
Comments					

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

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or surrogate coelutes with another peak.



## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 76833

WorkOrder: 1304848

EPA Method: SW8260B		Extraction: SW5030B		Spiked Sample ID: 1304880-003A						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Chlorobenzene	ND	10	92.3	87.7	5.11	88.8	70 - 130	20	70 - 130	
1,2-Dibromoethane (EDB)	ND	10	108	102	6.20	93.1	70 - 130	20	70 - 130	
1,2-Dichloroethane (1,2-DCA)	ND	10	110	105	4.13	102	70 - 130	20	70 - 130	
1,1-Dichloroethene	ND	10	93.1	92.1	1.09	98.2	70 - 130	20	70 - 130	
Trichloroethene	ND	10	97.9	94.5	3.52	95.1	70 - 130	20	70 - 130	
%SS1:	110	25	113	112	0.654	121	70 - 130	20	70 - 130	
%SS2:	95	25	96	95	0.517	107	70 - 130	20	70 - 130	
%SS3:	100	2.5	100	100	0	106	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 76833 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304848-001A	04/26/13 7:00 AM	04/30/13	04/30/13 4:23 PM	1304848-002A	04/26/13 8:00 AM	05/01/13	05/01/13 2:18 PM
1304848-003A	04/26/13 7:30 AM	05/01/13	05/01/13 3:01 PM	1304848-004A	04/26/13 5:30 AM	05/01/13	05/01/13 4:27 AM

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

% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

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.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.



## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 76912

WorkOrder: 1304848

EPA Method: SW8260B		Extraction: SW5030B		Spiked Sample ID: 1304848-005A					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Chlorobenzene	ND	10	93.7	91.4	2.45	98.1	70 - 130	20	70 - 130
1,2-Dibromoethane (EDB)	ND	10	105	103	1.41	109	70 - 130	20	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	94.8	94.1	0.740	101	70 - 130	20	70 - 130
1,1-Dichloroethene	ND	10	89.1	87	2.40	98.1	70 - 130	20	70 - 130
Trichloroethylene	ND	10	96.5	94.8	1.80	100	70 - 130	20	70 - 130
%SS1:	117	25	121	119	1.93	119	70 - 130	20	70 - 130
%SS2:	105	25	103	102	0.511	108	70 - 130	20	70 - 130
%SS3:	107	2.5	101	101	0	105	70 - 130	20	70 - 130

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

### BATCH 76912 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304848-005A	04/26/13 6:15 AM	05/01/13	05/01/13 10:48 AM				

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

% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

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.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.