

RECEIVED

By dehloptoxic at 9:00 am, Feb 05, 2007

January 30, 2007

**MONITORING WELL INSTALLATION
AND
GROUNDWATER MONITORING REPORT
1st Quarter, 2007**

1075 40th Street
Oakland, California 94608

AEI Project No. 116303
ACHCSA Case No. RO0000186

Prepared For

Mr. Monte Upshaw
Fidelity Roof Company
1075 40th Street
Oakland, CA 94608

Prepared By

AEI Consultants
2500 Camino Diablo Blvd
Walnut Creek, CA 94597
(925) 944-2899

AEI



January 30, 2007

Mr. Monte Upshaw
Fidelity Roof Company
1075 40th Street
Oakland, CA 94608

**Subject: Monitoring Well Installation and Quarterly Monitoring Report
1st Quarter, 2007**

1075 40th Street
Oakland, California 94608
AEI Project No. 116303
ACHCSA Case No. RO0000186

Dear Mr. Upshaw:

AEI Consultants (AEI) has prepared this report on of Fidelity Roof Company to document the ongoing groundwater investigation at the above referenced site (Figure 1). The purpose of this activity is to monitor groundwater quality in the vicinity of previous underground storage tanks (USTs). The work was performed in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA). This report presents the methods and findings of the installation of two additional groundwater monitoring wells and the 1st Quarter, 2007 groundwater monitoring and sampling event conducted on January 3, 2007.

1.0 SITE DESCRIPTION AND BACKGROUND

The site currently supports the operation of Fidelity Roof Company and is located in a mixed residential and commercial area of Oakland at 1075 40th Street.

On December 19, 1995, Tank Protect Engineering, Inc. removed one (1) 1,000-gallon diesel UST and one (1) 500-gallon gasoline UST from the southeast corner of the property. The removal of the tanks produced a single excavation. Analysis of the soil samples indicated that soil beneath the 1,000-gallon UST had been impacted by minor concentrations of total petroleum hydrocarbons as gasoline (TPH-g), TPH as diesel (TPH-d), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE).

On September 12, 1996, AEI advanced four (4) soil borings near the former UST excavation. Analytical results from the subsurface investigation revealed significant levels of gasoline and diesel petroleum hydrocarbons present in soil and groundwater to the south and to the west of the open excavation. Due to the high concentrations of petroleum hydrocarbons within the

groundwater, the ACHCSA required further investigation of the extent and magnitude of the groundwater contaminant plume.

On October 25, 1996, AEI extended the excavation laterally 7 feet to the south and 12 feet to the west. Soil was removed to a depth of 9 feet below ground surface (bgs). The dispenser island and associated piping were also removed. Analyses of the soil samples collected from the excavation sidewalls indicated that up to 150 milligrams per kilogram (mg/kg) of TPH-g, 16 mg/kg of benzene, and 300 mg/kg of TPH-d remained within the western sidewall of the excavation.

On March 6, 1997, AEI installed three (3) groundwater monitoring wells, MW-1 through MW-3. TPH-g and TPH-d were detected in well MW-3 at concentrations of 26,000 micrograms per liter ($\mu\text{g/L}$) and 5,000 $\mu\text{g/L}$, respectively. No TPH-g or TPH-d was detected in wells MW-1 and MW-2, at the time of the initial sampling. MTBE was detected in wells MW-1, MW-2 and MW-3 at concentrations of 23 $\mu\text{g/L}$, 65 $\mu\text{g/L}$ and 230 $\mu\text{g/L}$, respectively. Well construction details for the groundwater monitoring wells are summarized in Table 1.

At the request of the ACHCSA, six (6) additional soil borings were drilled south and west of the well locations on November 4, 1998. TPH-d was detected at a concentration of 2,400 $\mu\text{g/L}$ in groundwater to the south of the former excavation. No significant concentrations of petroleum hydrocarbons were detected from the other borings.

Monitoring well MW-4 was installed on July 15, 1999, located south of the former tank locations along Yerba Buena Avenue. No hydrocarbons were detected in MW-4 at the time of installation; however, MTBE was reported at a concentration of 37 $\mu\text{g/L}$. The results of ongoing groundwater monitoring of these four wells is summarized on Tables 2, 2a, and 3.

On May 6, 2004, AEI installed one (1) vapor extraction well (VE-1) and two (2) air sparge wells (AS-1 and AS-1). Six (6) shallow drive point (DP) micro-wells (DP-1 through DP-6) were installed on May 13, 2004 using direct push technology. On May 19 through 20, 2004, AEI carried out a soil vapor extraction and air sparge pilot test. The results of this pilot test and recommendations for remediation are summarized in AEI's *Soil Vapor Extraction and Air Sparge Pilot Test Report*, dated August 6, 2004.

A 5-day HVDPE event was conducted at the site between the dates of March 8 through 13, 2006. HVDPE activities were proposed by AEI in an *Interim Corrective Action* letter, dated October 24, 2005, which was proposed as an addendum to the *Soil Vapor Extraction and Air Sparge Pilot Test Report*, dated August 6, 2004. This letter recommended removal of free phase hydrocarbons from and around MW-3 prior to implementing corrective action measures. Free product recovery using HVDPE was subsequently approved by the ACEH.

On March 8, 2006 extraction began on well MW-3. Total influent hydrocarbon concentrations, as measured by the Horiba OVA ranged from approximately 156 part per million by volume (ppmv) to 355 ppmv. The total system flow rate ranged from 32 to 50 scfm.

Extraction well VE-1 and monitoring well MW-2 were connected to the system on March 10, 2006. Total influent hydrocarbon concentrations ranged from approximately 427 to 612 ppmv. The total system flow rate ranged from 108 to 124 scfm.

Hydrocarbon concentrations stabilized in the 450 to 500 ppmv range until the end of the day on March 12, 2006 when the concentrations fell to about 340 ppmv. By the last day of the event, concentrations stabilized in the 150 to 200 ppmv range.

Based on CalClean mass removal calculations using the Horiba OVA data, a total of approximately 58.4 pounds of hydrocarbons were recovered. With a 97% system uptime, this equals approximately 12.65 pounds per day (lb/day) of vapor phase hydrocarbons recovered. The approximate total mass of hydrocarbons in the smear zone (from approximately 5.5 to 12 feet bgs) is 1,821 pounds or 299 gallons. Therefore, about 1,763 pounds or 289 gallons of hydrocarbons remain in the smear zone soils.

AEI proposed the addition of two additional groundwater monitoring wells (MW-5 and MW-6) in the *Workplan For Monitoring Well Installation & Butane Biosparging And Bioventing System*, dated August 31, 2006. Installation of these wells was approved by the ACHCSA in a letter dated November 3, 2006. The installation these wells, which were installed on December 14, 2006, is summarized in *Section 3.1 Groundwater Monitoring Well Installation* of this report.

2.0 LNAPL REMOVAL

Light non-aqueous phase liquid (LNAPL) was reported by the laboratory in samples from monitoring well MW-3 collected on November 18, 1999, but was not present in a measurable thickness until 2004.

On September 9, 2004, 0.66 feet of LNAPL was measured in MW-3. On September 23, 2004, 200 gallons of liquid (water and gasoline) were removed from monitoring well MW-3 by Excel Environmental Services. The liquid was removed by placing a 1-inch diameter PVC stinger into the well and dewatering the well to 17 feet bgs for approximately 90 minutes using a vacuum truck. On September 29, 2004, 0.52 feet of LNAPL was measured in MW-3.

On October 22, 2004, 30 gallons of liquids were removed from MW-3 by extending the 1-inch PVC stinger into the top of the static water table approximately 6-inches and vacuuming for approximately 1 hour. On October 27, 2004, 0.32 feet of LNAPL was measured in well MW-3.

On November 4 and 23, 2004, 15 gallons of liquid was removed on each visit by vacuuming the surface of the groundwater. LNAPL measurements on November 6 and 19, 2004 were 0.01 feet and 0.14 feet, respectively. The total amount of LNAPL removed is difficult to quantify. Free product removal was discontinued when the thickness stabilized at less than 0.05 feet.

Apparent LNAPL thickness stabilized to less than 0.05 feet through the March 11, 2005 sampling event and increased to 0.12 feet and 0.64 feet by June and September 2005, respectively.

In a letter dated October 24, 2005, AEI proposed a 3 to 5 day high vacuum dual phase extraction (HVDPE) event as interim corrective action to remove free product from and around well MW-3 prior to implementing corrective action measures. The ACHCSA concurred with this recommendation in a letter dated January 5, 2006.

A 5-day HVDPE event was conducted at the site between the dates of March 8 through 13, 2006. This extraction event was successful in reducing the apparent LNAPL thickness from 0.95 feet to less than seen. During the extraction event, a total volume of approximately 3,750 gallons of hydrocarbon impacted groundwater was recovered and treated. This equates to a separated or “superficial” total liquid flow rate of approximately 0.57 gallons per minute (gpm) from the combined extraction well network (MW-3, MW-2, and VE-1).

A HVDPE remedial action report, prepared by CalClean, is included in the *High Vacuum Dual Phase Extraction Interim Corrective Action Report* dated June 20, 2006. This report includes field data sheets, vapor sample analytical data, plots of hydrocarbons recovery rates and estimates of total mass of hydrocarbons recovered.

3.0 SUMMARY OF ACTIVITIES

3.1 Groundwater Monitoring Well Installation

On December 5, 2005 drilling permits W2006-1013 and W2006-1014 were approved by the Alameda County Public Works Agency. On December 11, 2006 the boring locations were marked as required by State law and USA North was notified and USA ticket number 445591 was issued.

3.1.1 Soil Borings

On December 14, 2006, the wells were drilled by HEW Drilling, a California C57 licensed drilling contractor (C57-384167) with a CME-75 drilling rig using nominal 8¼” outside diameter hollow stem augers. Borehole drilling, logging and sample collection were performed by an AEI California-licensed Professional Geologist.

One soil boring (MW-5) was located approximately 40 feet north and about 10 feet to the east of MW-2 to help delineate the northern extent of the MTBE plume. One soil boring (MW-6) was located approximately 60 feet northwest of MW-2 to help delineate the northern extent of the MTBE plume.

3.1.2 Soil Sampling

The boreholes for the groundwater monitoring wells were sampled at a minimum of five foot intervals. At least one soil sample was retained from each 5 feet cored for possible chemical analysis. Boring logs for the two wells are included in Appendix B.

Selected samples were sealed with Teflon tape and plastic end caps, labeled with a unique identifier, entered onto chain of custody, and placed in a cooler on water ice pending same day transportation to the laboratory. An adjacent sample was placed in a 1-quart zipper locking plastic bag and used for field screening. The samples will be screened using a Mini-Rae Plus Classic photo ionization detector (PID).

Samples were transported the same day collected on water ice under proper chain of custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644). Select soil and groundwater samples were analyzed for total petroleum hydrocarbon as gasoline (TPH-g) and as diesel (TPH-d) by Method SW8015Cm and benzene, toluene, ethylbenzene, and xylenes (BTEX) and MTBE by Method SW8021B. Analysis of the soil samples reported no target analytes at standard laboratory detection limits. The reports of analyses are included in Appendix D

3.1.3 Well Installation

Ground water monitoring well MW-5 and MW-6 were both installed at a depth of 20 feet bgs with 15 feet of flush threaded 2-inch inside diameter schedule 40 PVC casing with 0.010 inch factory cut slots, with 2-inch inside diameter blank casing to the surface. The annular space was filled with #2/12 Monterey sand to a depth 4.0 feet bgs, 1.0 feet above the top of the slotted casing. A seal made up of 1.0 feet of 3/8" bentonite pellets was placed from 4.0 feet to 3.0 feet bgs. After the bentonite was hydrated with 5 gallons of tap water, the annulus was filled to a depth of approximately 3/4 foot bgs with neat cement grout. A traffic rated flush mounted well box was cemented over the casing head.

3.1.4 Well Development

The wells were developed on December 27, 2006 by surging, bailing, and purging with a submersible pump to remove accumulated fines from the casing and sand pack. Well MW-5, which had a depth to water of 19.93 feet, bgs purged dry after approximately 3.5 gallons. Approximately 10 well volumes were purged from well MW-6 during development.

3.1.5 Site Survey

On January 22, 2007 a new site survey to GeoTracker specifications was finished at the subject site. A copy of the site survey is attached as Appendix E.

3.2 Groundwater Monitoring

AEI measured the depth to groundwater in monitoring wells (MW-1 through MW-6) extraction well VE-1, air sparge wells (AS-1, AS-2) and the six (6) DP micro-wells (DP-1 through DP-6-6) on January 3, 2006. The depth to water in new monitoring well MW-5 was re-measured on January 9, 2007. The depth to ground water from the top of the well casings was measured with an electric water level indicator. Depth to water and LNAPL were measured in MW-3 using an electric oil/water interface meter. Well MW-3 was not purged or sampled due to the presence of the LNAPL. The wells with no LNAPL (MW-1, MW-2 and MW-4 through MW-6) were purged with a battery powered submersible purge pump. Temperature, pH, specific conductivity, and oxidation-reduction potential (ORP) were measured during the purging of the wells. Turbidity was visually noted. AEI removed at least 3 well volumes from wells MW-1, MW-2 and MW-4 through MW-6. The drive points which generally purge dry were not purged. Groundwater samples were collected from the DP wells using a ¼-inch poly line and a peristaltic pump. Following the recovery of water levels to at least 90% after purging, a water sample was collected from wells MW-1, MW-2 and MW-4 through MW-6 using disposable Teflon bailers. The locations of the groundwater monitoring wells, air sparging wells, vapor extraction wells, and the drive / monitoring points are shown on Figure 2.

Groundwater samples were collected in 40 ml VOA vials and 1-liter amber bottles. The VOAs were capped so that neither headspace nor air bubbles were present within the sample containers. Samples were delivered on ice under proper chain of custody protocol to McCampell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644).

Fourteen (14) groundwater samples were submitted for chemical analysis for TPH-g and TPH-d by Method SW8015Cm and BTEX & MTBE by Method SW8021B. Samples from new wells MW-5 and MW-6 were analyzed for fuel oxygenated by Method 8260B.

3.3 Field Results

On January 3, 2007, LNAPL was present in well MW-3 with a measurable thickness of 0.28 feet. Groundwater elevations in onsite wells for this event ranged from 34.57 (MW-5) to 45.83 (VE-1) feet above mean sea level (amsl). The groundwater elevations for wells MW-1 through MW-4 were an average of 1.22 feet higher than the average level observed during the previous monitoring event September 18, 2006. The direction of the groundwater flow at the time of measurement on January 3, 2007 using wells MW-1, MW-2 and MW-4 was towards the

northwest with a calculated hydraulic gradient of approximately 0.0347 ft/ft. Which is consistent with the previous groundwater gradients.

Groundwater elevation data are summarized in Tables 2, Groundwater Elevation Data and Table 2a Groundwater Flow Summary. The groundwater elevation contours and the groundwater flow direction are shown in Figure 3. Refer to Appendix A for the monitoring well field sampling forms, which include field measurements and observations made during the well sampling activities.

3.4 Groundwater Quality

TPH-g, benzene and ethylbenzene were reported in MW-1 at concentrations of 78 µg/L, 1.4 µg/L, and 0.66 µg/L, respectively. TPH-d, toluene, xylenes, and MTBE were reported as not detected at reporting limits of 50 µg/L, 0.5 µg/L, and 0.5 µg/L, respectively.

TPH-g, TPH-d, and MTBE were reported in MW-2 at concentrations of 1,500 µg/L, 600 µg/L, and 7,500 µg/L, respectively. BTEX was detected in MW-2 at concentrations of 150 µg/L, ND<5.0 µg/L, 51 µg/L, and 59 µg/L, respectively.

Monitoring well MW-3 was not sampled during this quarter due to the presence of measurable LNAPL, which had increased from 0.04 feet in September 18, 2006 to 0.28 feet on January 3, 2006.

TPH-g TPH-d and BTEX continued to be reported as non detectable at or above standard laboratory method detection limits in MW-4. MTBE was reported at a concentration of 7.9 µg/L.

TPH-g TPH-d, MTBE and BTEX were reported as non detectable at or above standard laboratory method detection limits in new well MW-5.

TPH-g and BTEX were reported as non detectable at or above standard laboratory method detection limits in new well MW-6. TPH-d was reported in MW-6 at a concentration of 63 µg/L. MTBE was reported at a concentrations 340 µg/L and 320 µg/L by methods 8021B and 8260B, respectively.

TPH-g, TPH-d, and MTBE were reported in VE-1 at concentrations of 82 µg/L, 250 µg/L, and 320 µg/L, respectively. BTEX was detected in VE-1 at concentrations of 8.4 µg/L, 1.5 µg/L, 1.7 µg/L, and 2.6 µg/L, respectively.

TPH-g, TPH-d, and MTBE were reported in AS-1 at concentrations of ND<50 µg/L, 130 µg/L, and 98 µg/L, respectively. BTEX was reported as not detectable in AS-1 at a reporting limit of 0.5 µg/L.

TPH-g, TPH-d, and MTBE were reported in AS-2 at concentrations of ND<50 µg/L, 910 µg/L, and ND<5.0 µg/L, respectively. BTEX was reported as not detectable in AS-2 at a reporting limit of 0.5 µg/L.

TPH-g was detected in drive / monitoring points (DP-2, DP-4, and DP-6) at concentrations ranging from 170 µg/L (DP-2) to 2,400 µg/L (DP-6).

TPH-d was detected in each of the drive / monitoring points at concentrations ranging from 77 µg/L (DP-2) to 1,700 µg/L (DP-6).

Benzene was detected in DP-3, DP-4, and DP-6 at concentrations of 0.60 µg/L, 210 µg/L, and 270 µg/L, respectively.

Toluene was detected in DP-4, and DP-6 at concentrations of 4.1 µg/L and 3.9 µg/L, respectively.

Ethylbenzene was detected in DP-4 and DP-6 at concentrations of 11 µg/L and 160 µg/L, respectively.

Xylenes were detected in DP-4 and DP-6 at concentrations of 0.54 µg/L and 30 µg/L, respectively.

MTBE was reported in DP-4, DP-5, and DP-6 at concentrations of 200 µg/L, 5.5 µg/L, and 21 µg/L, respectively.

Groundwater sample analytical data is summarized in Table 3 and on Figure 4. Distribution of TPH-g, TPH-d, MTBE and Benzene are shown on Figures 5, 6, 7, and 8, respectively. Laboratory analytical results and chain of custody documentation are included in Appendix B.

4.0 SUMMARY

Two additional groundwater monitoring wells, MW-5 and MW-6 were installed to further delineate the extent of the petroleum hydrocarbon and MTBE plume to north and north west of MW-2.

The sediments encountered in the two wells were markedly different. Below the black to dark brown clay that is encountered in the majority of borings in site to a depth of approximately 4 feet. Primarily gravelly clay to clayey gravel was encountered in MW-5 to a depth of approximately 17 feet bgs where a poorly graded relatively low porosity sand was encountered. Below the shallow black clay, MW-6 encountered primarily sandy clay to occasionally gravelly clay to the total depth 20 feet.

Well MW-5, located approximately 45 feet north of MW-2, has a groundwater elevation of more than 8 feet lower than either MW-1 or MW-6 which is located to the west. The boring for Well MW-5 was essentially dry when completed. Also, was de-watered during initial development and purging. MW-6, on the other, hand contained water to approximately 9 feet bgs which indicated that water bearing sediments are present between the intervals sampled. Such variation in lithologies encountered between wells is typical of the site which lies on a alluvial fan. Although not as striking, similar variations in groundwater elevations are seen between wells with different depths and screened intervals such as between monitoring wells, the air sparge wells and the shallow DP micro-wells.

LNAPL in MW-3 increased from a thickness of 0.04-feet in MW-3 at the time of the September 18, 2006 sampling event to 0.28-feet on January 3, 2007. LNAPL remains isolated in this area, likely adsorbed in the soil in the smear zone. Concentrations of TPH-g, TPH-d, BTEX, and MTBE reported are within recent historic ranges. The increase in LNAPL thickness indicates that a significant source of hydrocarbons is still present in the area surrounding MW-3.

Groundwater data from newly installed groundwater monitoring wells MW-5 and MW-6 indicates that that a MTBE plume in the groundwater extends to the northwest from MW-2 (Figure 7). The orientation of this plume is consistent with the groundwater direction calculated in the monitoring wells. The distribution of hydrocarbons in the monitoring and DP wells suggests a more westerly orientation to the hydrocarbon plume (Figures 5,6, and 8).

5.0 RECOMMENDATIONS AND PROJECTED ACTIVITY

AEI recommends the following actions:

1. Immediate installation of a passive LNAPL removal system such as a skimmer canister pending installation of the approved vapor extraction bio-sparge remediation system
2. Perform baseline sampling to include Biological and Chemical Oxygen Demand, Total Organic Carbon, Nitrate, Nitrite, Potassium, Phosphorous, Sulfate, metals and indications of biologic activity in the center of the contamination plume as well as one background (MW-4). This may include an initial vapor survey of existing wells to determine the levels of oxygen and carbon dioxide. This baseline will be used in future comparisons and evaluation of remedial progress.
3. Finalize proposed cleanup goals for MTBE and petroleum hydrocarbons with Mr. Barney Chan of ACHCS.
4. Finalize the scope of work and specifications of a bioventing and biosparging remediation system (without butane enhancement) as presented in AEI's *Workplan for Well Installation & Butane Biosparging and Bioventing* dated August 31, 2006 which was approved in the November 27, 2006 ACHCS letter.


6.0 REPORT LIMITATIONS AND SIGNATURES

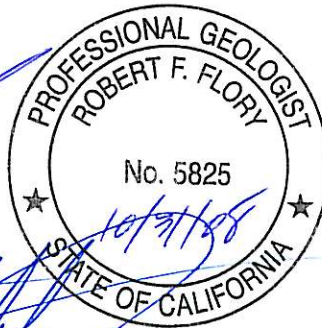
This report presents a summary of work completed by AEI Consultants including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, 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 construction field that existed at the time and location of the work. Please contact the undersigned at (925) 944-2899 if you have any questions or need any additional information.

Sincerely,
AEI Consultants


Robert F. Flory, PG
Senior Project Geologist


Peter J. McIntyre, P.G
Senior Project Manager



Figures

<i>Figure 1</i>	<i>Site Location Map</i>
<i>Figure 2</i>	<i>Site Plan</i>
<i>Figure 3</i>	<i>Groundwater Elevations and Gradient</i>
<i>Figure 4</i>	<i>Groundwater Analytical Data</i>
<i>Figure 5</i>	<i>TPH-g Isopleths</i>
<i>Figure 6</i>	<i>TPH-d Isopleths</i>
<i>Figure 7</i>	<i>MTBE Isopleths</i>
<i>Figure 8</i>	<i>Benzene Isopleths</i>

Tables

<i>Table 1</i>	<i>Well Construction Details</i>
<i>Table 2</i>	<i>Groundwater Elevation Data</i>
<i>Table 2a</i>	<i>Groundwater Flow Summary</i>
<i>Table 3</i>	<i>Groundwater Analytical Data</i>
<i>Table 4</i>	<i>Fuel Oxygenate Analytical Data</i>

Appendices

<i>Appendix A</i>	<i>Well Permit</i>
<i>Appendix B</i>	<i>Laboratory Boring Logs</i>
<i>Appendix C</i>	<i>Groundwater Monitoring Well Field Sampling Forms</i>
<i>Appendix D</i>	<i>Laboratory Analyses with Chain of Custody Documentation</i>
<i>Appendix D</i>	<i>Site Survey</i>

Distribution

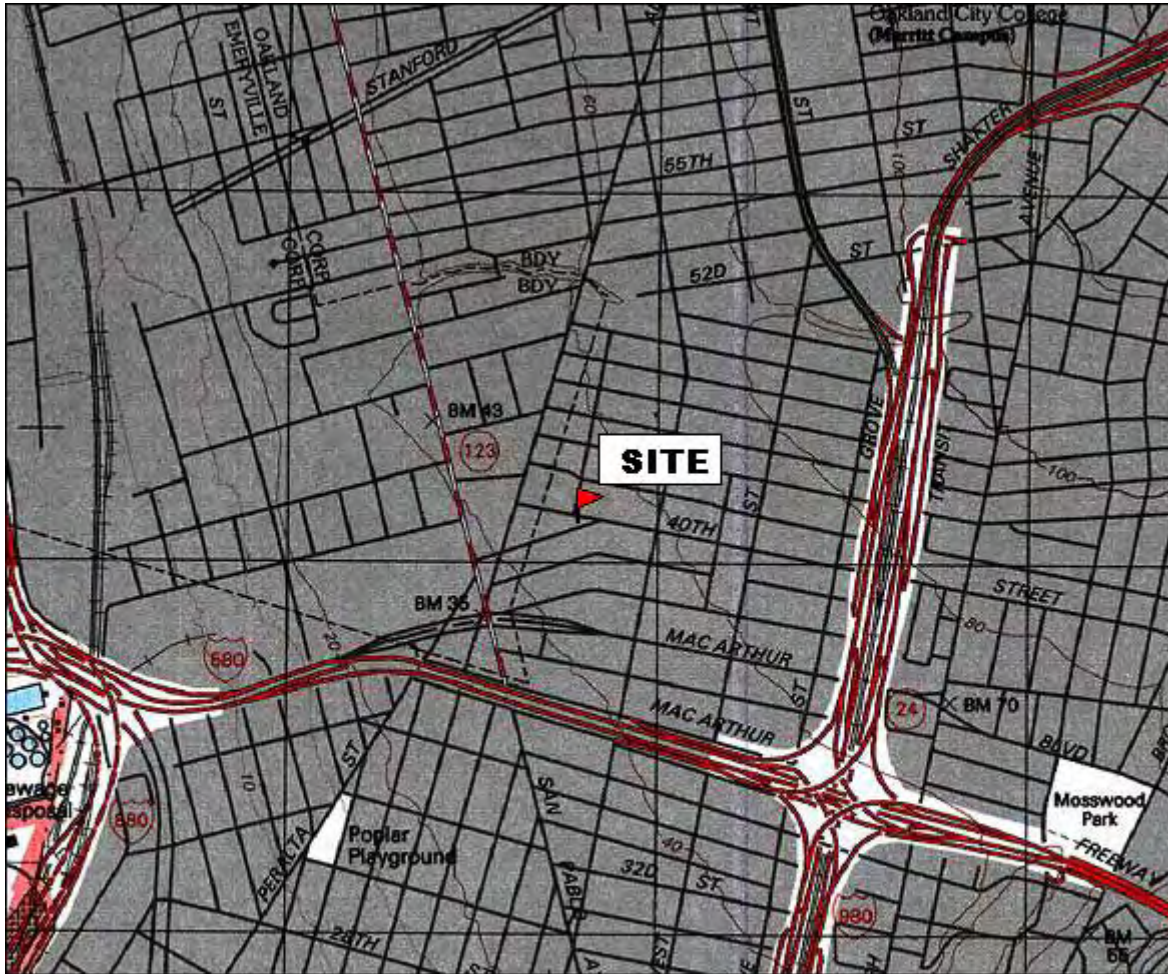
Mr. Monte Upshaw
Fidelity Roof Company
1075 40th Street
Oakland, CA 94608

Mr. Barney Chan (electronic copy)
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

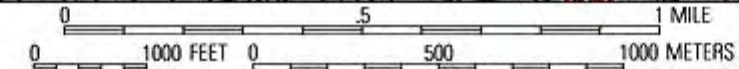
Mr. Sunil Ramdass
UST Cleanup Fund
1001 I Street
Sacramento, CA 94224

GeoTracker

FIGURES

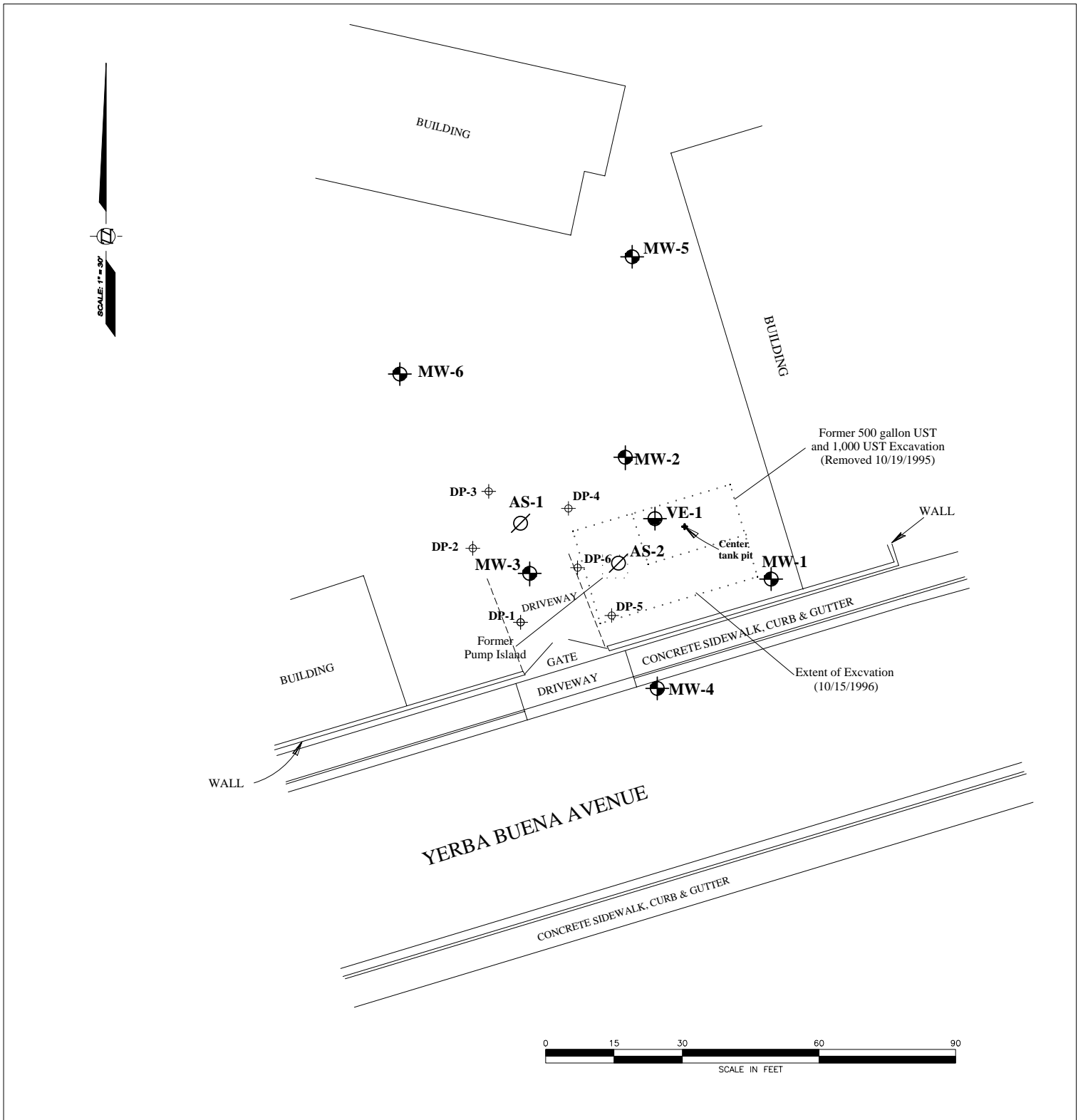


TN * MN
15°



Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

<p>AEI CONSULTANTS 2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK, CA</p>	
<p>SITE LOCATION MAP</p>	
<p>1075 40th STREET OAKLAND, CALIFORNIA</p>	<p>FIGURE 1 PROJECT No. 116303</p>



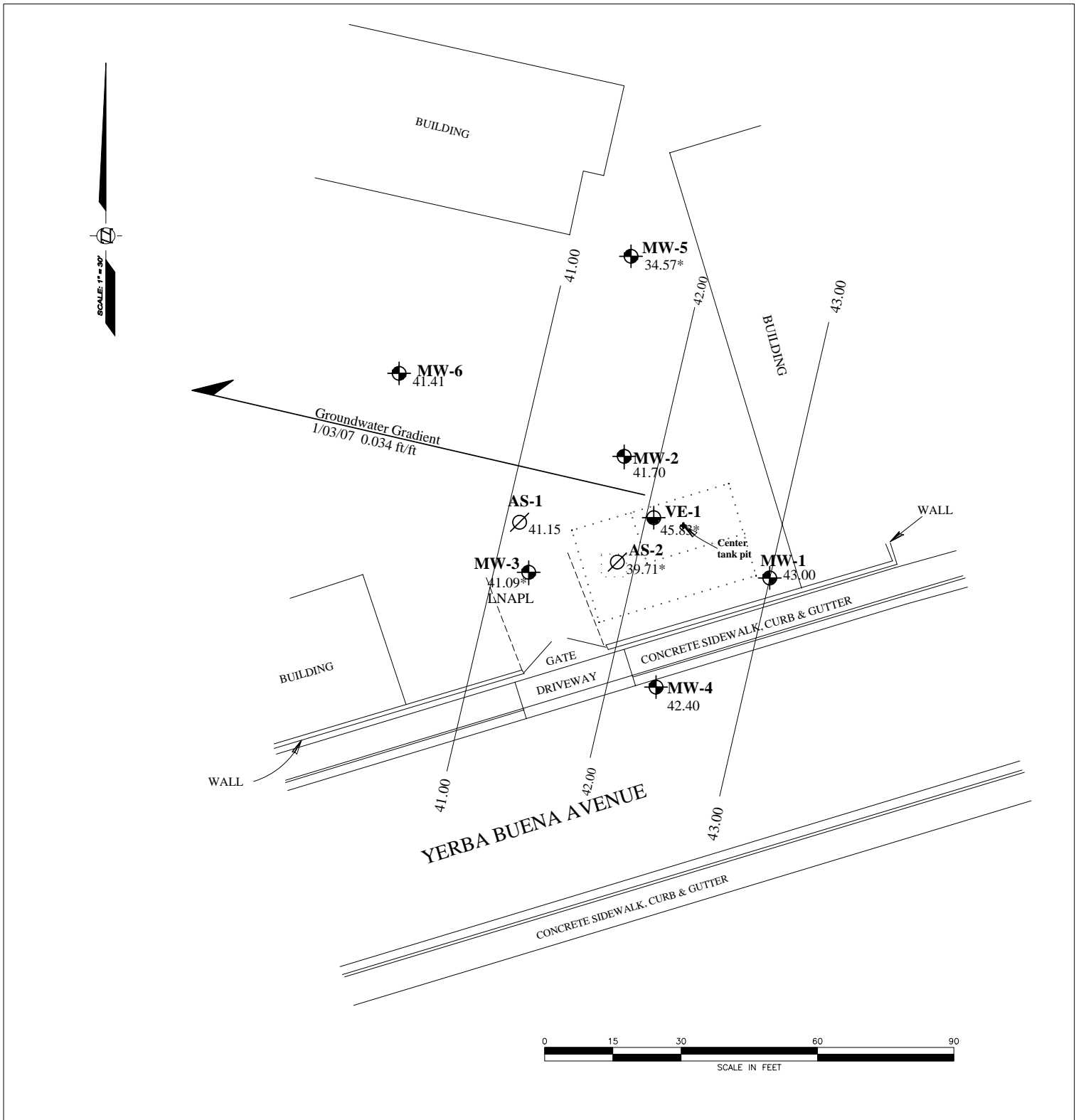
- MW-1** Groundwater Monitoring Well - Depth 20-21 feet
- AS-1** Air Sparge Well - Depth 30 feet
- DP-1** shallow drive point (DP) micro-wells - Depth 16 feet
- VE-1** Vapor Extraction well - Depth 10 feet




AEI CONSULTANTS
2500 Camino Diablo, Walnut Creek, California

SITE PLAN

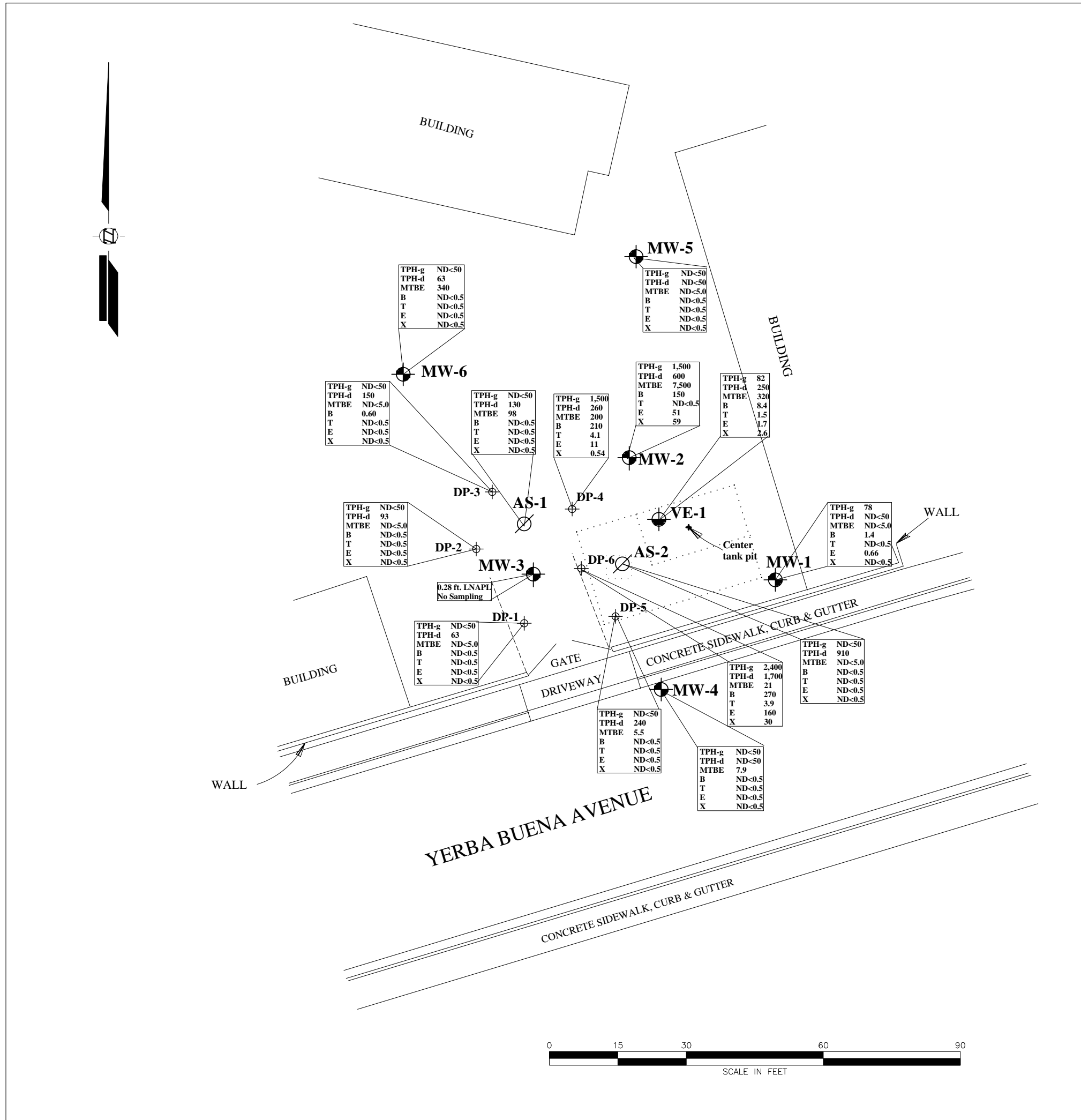
1075 40th STREET
OAKLAND, CALIFORNIA

FIGURE 2
AEI Project # 116303



-  **MW-1** Groundwater Monitoring Well - Depth 20-21 feet
-  **AS-1** Air Sparge Well - Depth 30 feet
-  **VE-1** Vapor Extraction well - Depth 10 feet
- 42.40 Groundwater elevation - feet MSL
- 34.57* Elevation not used in contouring

AEI CONSULTANTS 2500 Camino Diablo, Walnut Creek, California	
GROUNWATER ELEVATIONS AND GRADIENT	
1075 40th STREET OAKLAND, CALIFORNIA	FIGURE 3 AEI Project # 116303

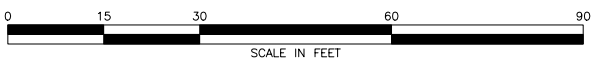
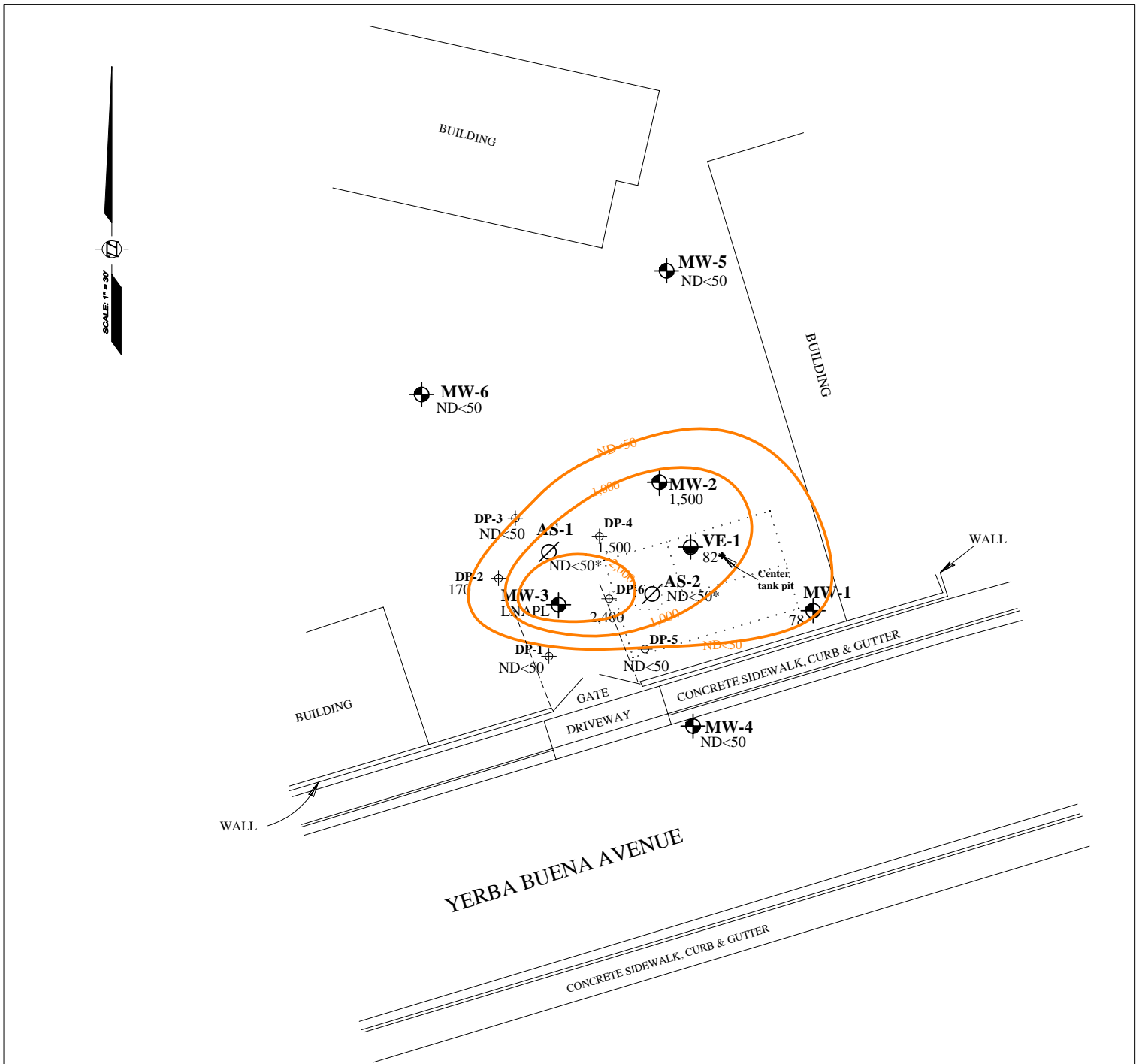






- MW-1** Groundwater Monitoring Well - Depth 20-21 feet
- AS-1** Air Sparge Well - Depth 30 feet
- DP-1** shallow drive point (DP) micro-wells - Depth 16 feet
- VE-1** Vapor Extraction well - Depth 10 feet

AEI CONSULTANTS
2500 Camino Diablo, Walnut Creek, California

GROUNDWATER ANALYTICAL DATA

1075 40th STREET OAKLAND, CALIFORNIA	FIGURE 4 AEI Project # 116303
---	----------------------------------



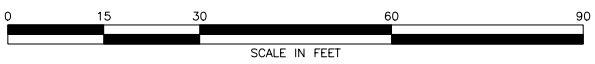
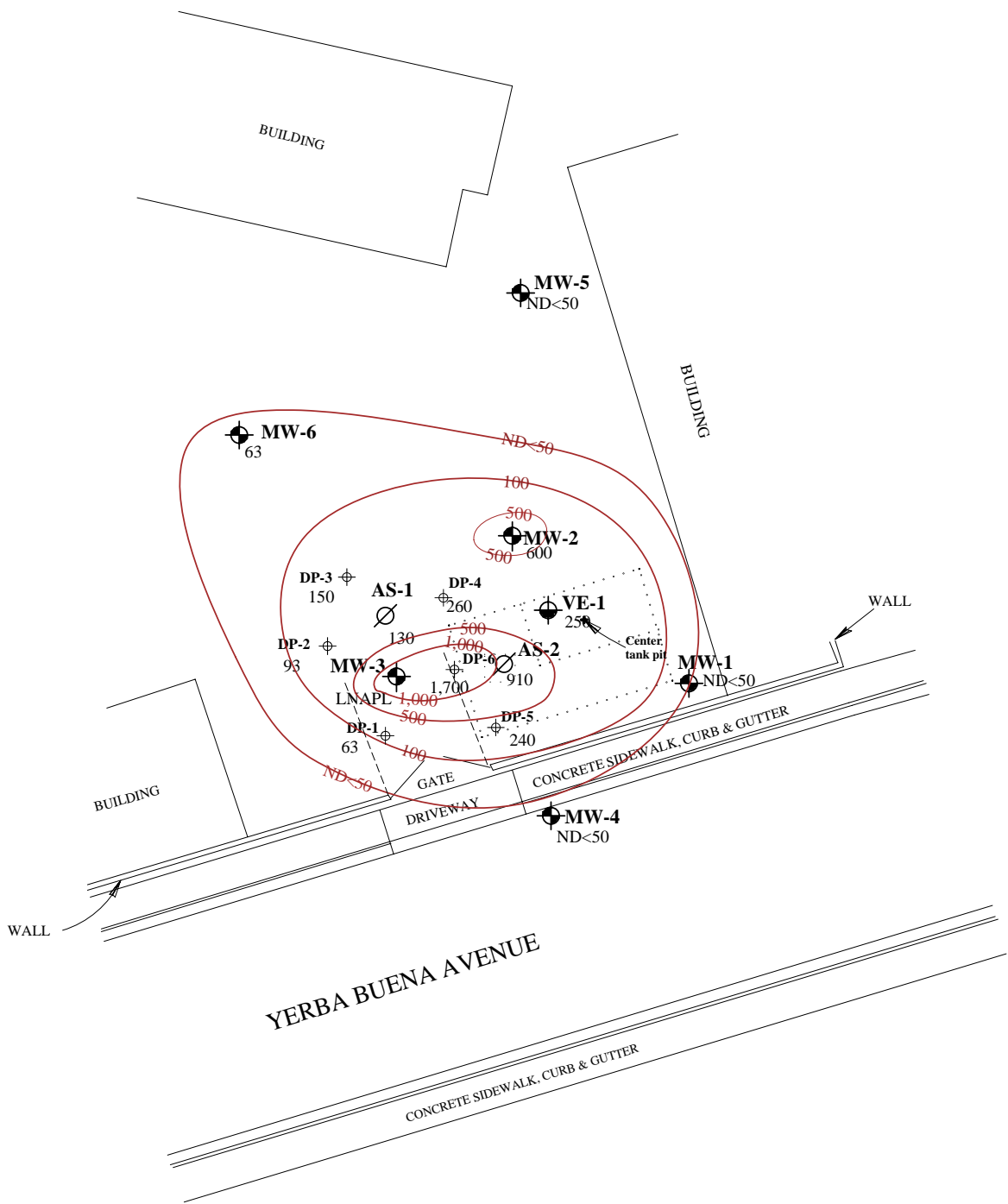
-  **MW-1** Groundwater Monitoring Well - Depth 20-21 feet
-  **AS-1** Air Sparge Well - Depth 30 feet
-  **DP-1** shallow drive point (DP) micro-wells - Depth 16 feet
-  **VE-1** Vapor Extraction well - Depth 10 feet
- 1,500 TPH-g Concentration in ug/L
- 350* Value not used for contouring

AEI CONSULTANTS
2500 Camino Diablo, Walnut Creek, California

TPH-G ISOPLETHS

1075 40th STREET
OAKLAND, CALIFORNIA

FIGURE 5
AEI Project # 116303



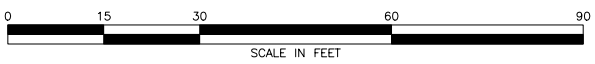
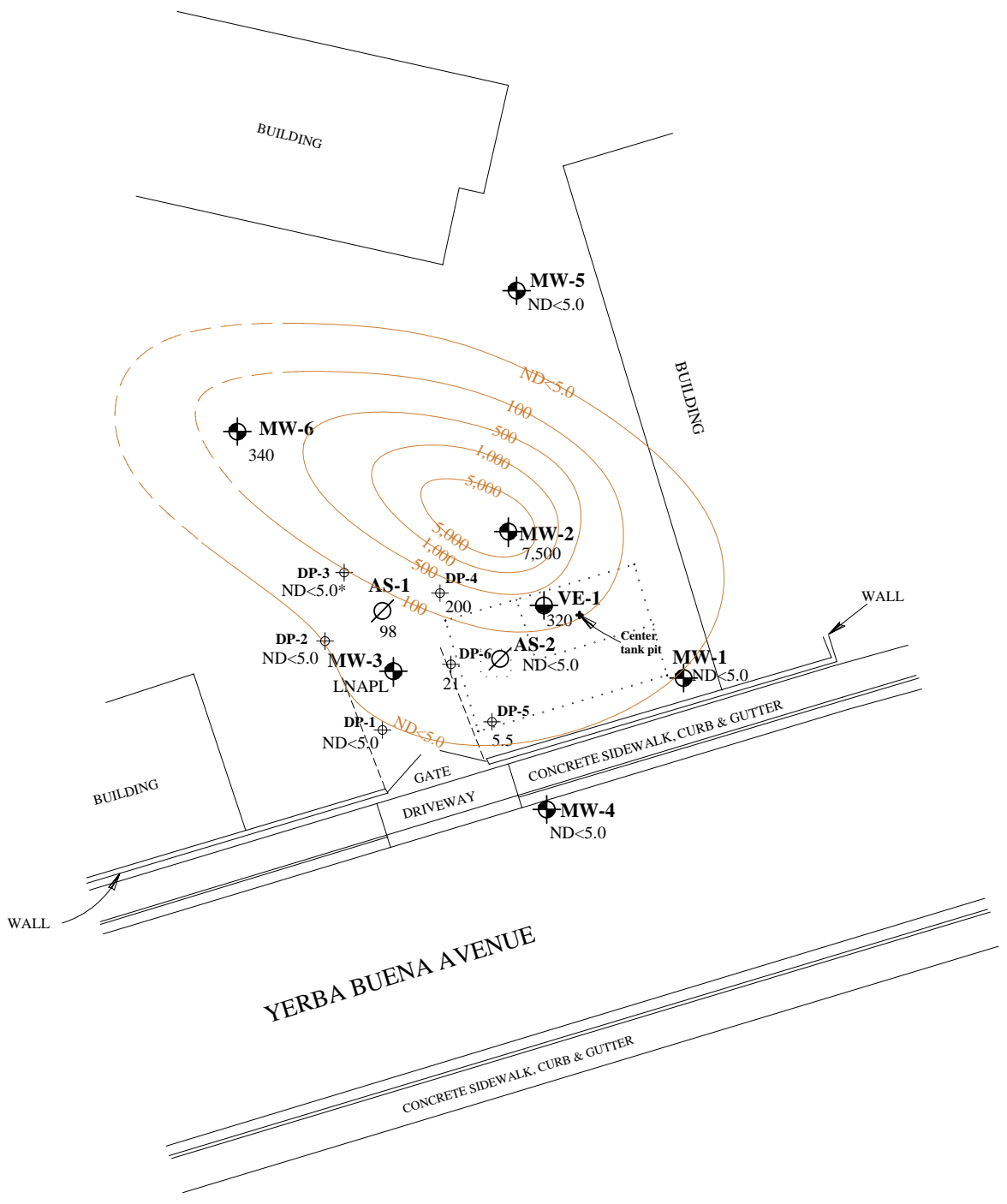
- MW-1** Groundwater Monitoring Well - Depth 20-21 feet
- AS-1** Air Sparge Well - Depth 30 feet
- DP-1** shallow drive point (DP) micro-wells - Depth 16 feet
- VE-1** Vapor Extraction well - Depth 10 feet
- 200 TPH-d Concentration in ug/L
- 350* Value not used for contouring

AEI CONSULTANTS
2500 Camino Diablo, Walnut Creek, California

TPH-D ISOPLETHS

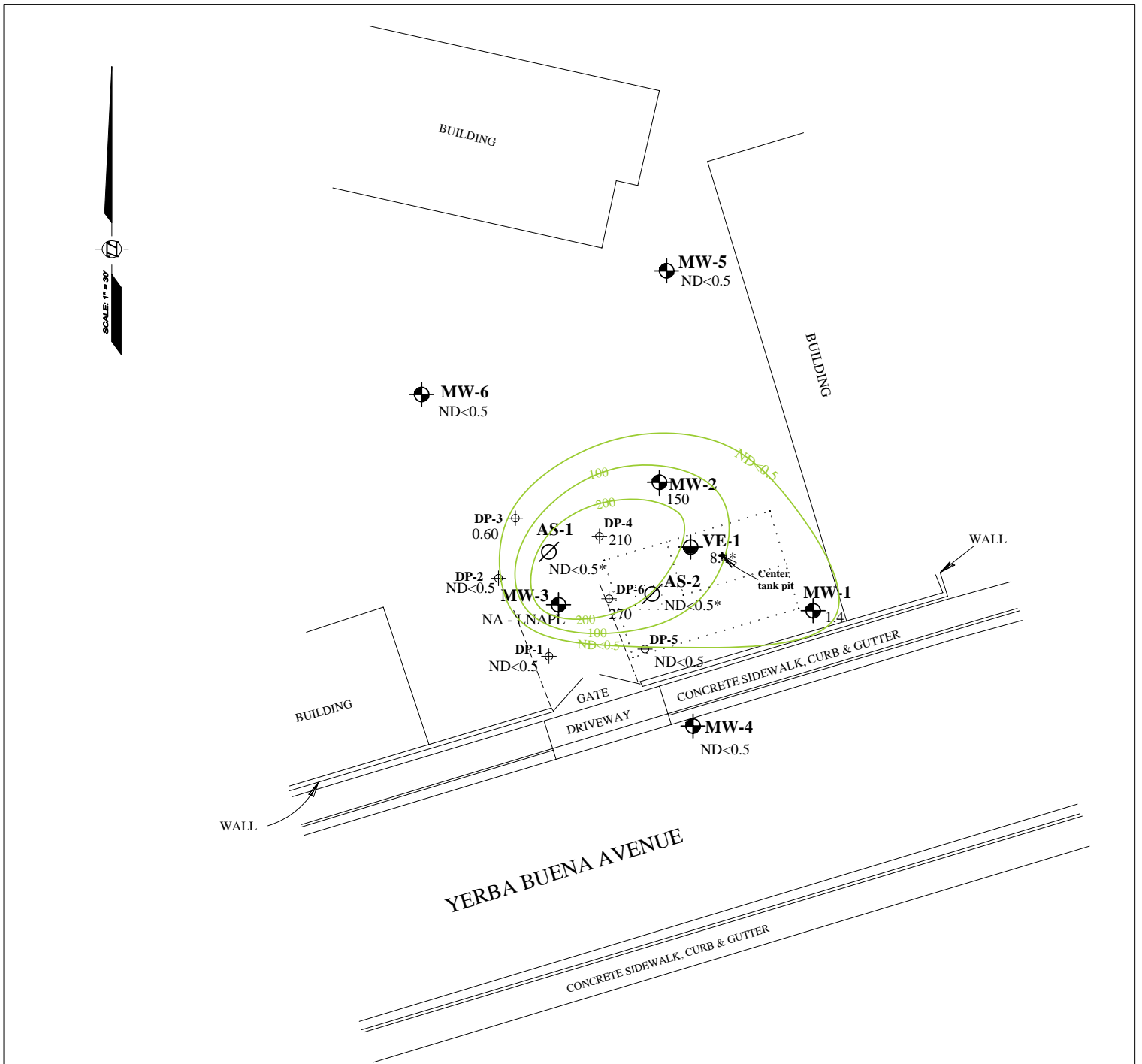
1075 40th STREET
OAKLAND, CALIFORNIA

FIGURE 6
AEI Project # 116303



- MW-1** Groundwater Monitoring Well - Depth 20-21 feet
- AS-1** Air Sparge Well - Depth 30 feet
- DP-1** shallow drive point (DP) micro-wells - Depth 16 feet
- VE-1** Vapor Extraction well - Depth 10 feet
- 1,500 MTBE Concentration in ug/L

AEI CONSULTANTS 2500 Camino Diablo, Walnut Creek, California	
MTBE ISOPLETHS	
1075 40th STREET OAKLAND, CALIFORNIA	FIGURE 7 AEI Project # 116303



SCALE: 1" = 30'

0 15 30 60 90
SCALE IN FEET

- MW-1** Groundwater Monitoring Well - Depth 20-21 feet
- AS-1** Air Sparge Well - Depth 30 feet
- DP-1** shallow drive point (DP) micro-wells - Depth 16 feet
- VE-1** Vapor Extraction well - Depth 10 feet
- 210 MTBE Concentration in ug/L
- 120* Value not used for contouring

AEI CONSULTANTS 2500 Camino Diablo, Walnut Creek, California	
BENZENE ISOPLETHS	
1075 40th STREET OAKLAND, CALIFORNIA	FIGURE 8 AEI Project # 116303

TABLES

TABLE 1: WELL CONSTRUCTION DETAILS
Fidelity Roof Company, 1075 40th Street, Oakland, California

Well ID	Date Drilled	Well Box Rim (ft)	Casing Elevation (ft msl)	Boring Depth (ft)	Slotted Interval (ft)	Slot Size (in)	Blank Casing (ft)	Sand Interval (ft)	Sand Size (ft)	Bentonite Interval (ft)	Grout Interval (ft)
MW-1	03/06/97	51.33	50.99	21.0	6-21	0.020	0.5-6	5-21	#3	4-5	0.5-4
MW-2	03/19/97	51.15	50.49	21.0	6-21	0.020	0.5-6	5-21	#3	4-5	0.5-4
MW-3	03/19/97	50.48	49.93	21.0	6-21	0.020	0.5-6	5-21	#3	4-5	0.5-4
MW-4	08/05/99	49.23	48.97	21.0	6-21	0.020	0.5-6	4-20	#3	3-4	0.5-3
MW-5	12/14/06	51.32	51.04	20.0	5.0-20.0	0.010	0.5-5.0	4-20	#2/12	3-4	0.5-3
MW-6	12/14/06	50.74	50.34	20.5	5.0-20.0	0.010	0.5-5.0	4-20.5	#2/12	3-4	0.5-3
AS-1	05/06/04	50.62	50.35	30.0	25-30	0.010	0.75-25	22-30	#2/12	19-22	1.0-19
AS-2	05/06/04	50.99	50.51	30.0	25-30	0.010	0.75-25	22-30	#2/12	19-22	1.0-19
VE-1	05/06/04	51.12	50.75	10.0	5-10	0.010	0.75-10	4-10	#2/12	3-4	1.0-3
DP-1	05/13/04	50.11	49.96	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-2	05/13/04	50.54	50.17	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-3	05/13/04	50.71	50.45	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-4	05/13/04	50.91	50.85	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-5	05/13/04	50.69	50.61	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-6	05/13/04	50.77	50.68	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5

TABLE 2: GROUNDWATER ELEVATION DATA
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
MW-1	03/19/97	45.41	8.25	37.16
	06/20/97	45.41	9.10	36.31
	10/08/97	45.41	9.95	35.46
	01/16/98	45.41	7.57	37.84
	08/05/99	45.49	10.16	35.33
	11/18/99	45.49	8.52	36.97
	02/24/00	45.49	7.65	37.84
	05/24/00	45.49	8.47	37.02
	08/29/00	45.49	10.28	35.21
	01/12/01	45.49	8.50	36.99
	04/18/01	45.49	8.77	36.72
	07/27/01	45.49	10.50	34.99
	11/06/01	45.49	10.28	35.21
	02/13/02	45.49	8.47	37.02
	05/14/02	45.49	9.50	35.99
	08/15/02	45.49	10.39	35.10
	11/14/02	45.49	9.08	36.41
	02/12/03	45.49	8.36	37.13
	05/16/03	45.49	8.49	37.00
	08/29/03	45.49	9.91	35.58
	12/02/03	45.49	8.88	36.61
	03/08/04	45.49	7.66	37.83
	06/08/04	45.49	9.39	36.10
	09/10/04	45.49	9.95	35.54
	12/13/04	45.49	6.94	38.55
	03/11/05	45.49	7.35	38.14
	06/15/05	45.49	8.29	37.20
	09/08/05	45.49	9.57	35.92
	12/01/05	45.49	7.66	37.83
	03/07/06	45.49	7.32	38.17
06/05/06	45.49	8.46	37.03	
09/18/06	45.49	9.36	36.13	
	01/03/07**	50.99	7.99	43.00
MW-2	03/19/97	44.94	8.40	36.54
	06/20/97	44.94	8.85	36.09
	10/08/97	44.94	9.80	35.14
	01/16/98	44.94	5.28	39.66
	08/05/99	44.98	9.32	35.66
	11/18/99	44.98	10.20	34.78
	02/24/00	44.98	7.03	37.95
	05/24/00	44.98	8.01	36.97
	08/29/00	44.98	11.07	33.91
	01/12/01	44.98	8.60	36.38
	04/18/01	44.98	8.80	36.18
	07/27/01	44.98	11.10	33.88
	11/06/01	44.98	12.21	32.77
	02/13/02	44.98	7.98	37.00

TABLE 2: GROUNDWATER ELEVATION DATA
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
MW-2 continued	05/14/02	44.98	10.48	34.50
	08/15/02	44.98	10.64	34.34
	11/14/02	44.98	11.69	33.29
	02/12/03	44.98	9.07	35.91
	05/16/03	44.98	11.25	33.73
	08/29/03	44.98	12.19	32.79
	12/02/03	44.98	10.92	34.06
	03/08/04	44.98	8.41	36.57
	06/08/04	44.98	10.19	34.79
	09/10/04	44.98	10.84	34.14
	12/13/04	44.98	9.26	35.72
	03/11/05	44.98	7.81	37.17
	06/15/05	44.98	10.80	34.18
	09/08/05	44.98	11.58	33.40
	12/01/05	44.98	9.03	35.95
	03/07/06	44.98	7.78	37.20
	06/05/06	44.98	9.28	35.70
	09/18/06	44.98	10.39	34.59
	01/03/07**	50.49	8.79	41.70
	MW-3	03/19/97	44.32	7.59
10/08/97		44.32	9.98	34.34
06/20/97		44.32	8.36	35.96
01/16/98		44.32	9.18	35.14
08/05/99		44.37	10.56	33.81
11/18/99		44.37	10.92	33.45
02/24/00		44.37	8.49	35.88
05/24/00		44.37	8.42	35.95
08/29/00		44.37	12.00	32.37
01/12/01		44.37	10.50	33.87
04/18/01		44.37	9.50	35.22
07/27/01		44.37	11.61	32.76
11/06/01		44.37	11.73	32.64
02/13/02		44.37	9.36	35.01
05/14/02		44.37	9.00	35.37
08/15/02		44.37	11.72	32.65
11/14/02		44.37	11.28	33.09
02/12/03		44.37	10.17	34.20
05/16/03		44.37	11.47	32.90
08/29/03		44.37	11.92	32.45
12/02/04		44.37	10.96	33.41
03/08/04		44.37	10.49	33.88
06/08/04		44.37	9.89	34.48
09/10/04		44.37	11.54	32.83
12/13/04		44.37	8.96	35.41
03/11/05		44.37	6.99	37.38
06/15/05		44.37	7.72	36.65
09/8/05 *		44.37	10.61	33.76

TABLE 2: GROUNDWATER ELEVATION DATA
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
MW-3 continued	12/01/05*	44.37	ng	-
	03/7/06*	44.37	5.26	39.11
	06/5/06*	44.37	8.09	36.28
	09/18/06*	44.37	10.56	33.81
	01/03/07**	49.93	8.84	41.09
MW-4	08/05/99	43.48	8.79	34.69
	11/18/99	43.48	8.11	35.37
	02/24/00	43.48	5.19	38.29
	05/24/00	43.48	7.23	36.25
	08/29/00	43.48	9.04	34.44
	01/12/01	43.48	6.40	37.08
	04/18/01	43.48	7.30	36.18
	07/27/01	43.48	9.16	34.32
	11/06/01	43.48	9.03	34.45
	02/13/02	43.48	6.60	36.88
	05/14/02	43.48	7.19	36.29
	08/15/02	43.48	8.97	34.51
	11/14/02	43.48	7.52	35.96
	02/12/03	43.48	6.37	37.11
	05/16/03	43.48	6.81	36.67
	08/29/03	43.48	8.56	34.92
	12/02/03	43.48	6.02	37.46
	03/08/04	43.48	5.75	37.73
	06/08/04	43.48	8.19	35.29
	09/10/04	43.48	8.84	34.64
	12/13/04	43.48	5.51	37.97
	03/11/05	43.48	5.26	38.22
	06/15/05	43.48	6.79	36.69
09/08/05	43.48	8.20	35.28	
12/01/05	43.48	6.93	36.55	
03/07/06	43.48	4.17	39.31	
06/05/06	43.48	6.88	36.60	
09/18/06	43.48	8.33	35.15	
01/03/07**	48.97	6.57	42.40	
MW-5	01/03/07**	51.04	16.47	34.57
	01/09/07	51.04	16.66	34.38
MW-6	01/03/07**	50.34	8.93	41.41

Notes:

ft msl = feet above mean sea level

ng = not gauged

* = apparent groundwater elevation, free product present

** = well casing elevation resurvey completed 1/22/07

TABLE 2A: GROUNDWATER FLOW SUMMARY
Fidelity Roofing, 1075 40th Street, Oakland, California

Episode	Date	Average Water Table Elevation (ft msl)	Change in Water Table Elevation (ft)	Flow Direction (Gradient - ft/ft)
1	03/19/97	36.81	----	----
2	06/20/97	35.58	-1.23	----
3	10/08/97	35.52	-0.06	----
4	01/16/98	37.55	2.03	----
5	08/05/99	34.87	-2.67	----
6	11/18/99	35.14	0.27	----
7	02/24/00	37.49	2.35	----
8	05/24/00	36.55	-0.94	----
9	08/29/00	33.98	-2.57	NW (0.09)
10	01/12/01	36.08	2.10	W (0.06)
11	04/18/01	36.08	0.00	W (0.02)
12	07/27/01	33.99	-2.09	W (0.02)
13	11/06/01	33.77	-0.22	NW (0.05)
14	02/13/02	36.48	2.71	NW (0.05)
15	05/14/02	35.54	-0.94	N (0.04)
16	08/15/02	34.15	-1.39	W (0.05)
17	11/14/02	34.69	0.54	N (0.08)
18	02/12/03	36.09	1.40	NW (0.03)
19	05/16/03	35.08	-1.01	NW (0.06)
20	08/29/03	33.94	-1.14	NW (0.04)
21	12/02/03	35.39	1.45	NW (0.05)
22	03/08/04	36.50	1.12	NW (0.04)
23	06/08/04	35.17	-1.34	NW (0.02)
24	09/10/04	34.29	-0.88	NW (0.007)
25	12/13/04	36.91	2.63	NW (0.05)
26	03/11/05	37.73	0.81	NW (0.016)
27	06/15/05	36.18	-1.55	NW (0.015)
28	09/08/05	34.59	-1.59	NW (0.042)
29	12/01/05	36.78	2.19	NW (0.040)
30	03/07/06	38.45	1.67	NNE (0.03)
31	06/05/06	36.40	-2.05	NNW (0.022)
32	09/18/06	34.92	-1.48	NW (0.037)
33*	01/03/07	36.14	1.22	NW (0.034)
33**	01/03/07	41.92	----	NW (0.034)

Notes:

ft msl = feet above mean sea level

* = Average water table elevation prior to 1/3/07 calculated using wells MW-1 through MW-4

** = Average water table elevation on 1/3/07 and later calculated using wells MW-1 through MW-4 and MW-6. MW-5 is excluded from the average as it's groundwater elevation is 9.13 feet lower than the average of the other wells.

TABLE 3: GROUNDWATER ANALYTICAL DATA
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Depth to Water (ft)	TPH-g	TPH-d	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			<i>EPA Method SW8015Cm/C</i> (ug/L)		<i>EPA Method SW8021B</i> (ug/L)				
MW - 1	03/19/97	8.25	<50	<50	23	<0.5	<0.5	<0.5	<0.5
	06/23/97	9.10	1,300	420	14	150	2.1	12	19
	10/08/97	9.95	56	66	5.8	2.8	<0.5	<0.5	<0.5
	01/16/98	7.57	1,500	910	<33	95	0.72	69	8.4
	08/05/99	10.16	160	63	<15	1.6	<0.5	0.56	1.1
	11/18/99	8.52	79	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	02/24/00	7.65	300	160	<5.0	14	0.82	3.5	1.6
	05/24/00	8.47	1,300	480	<10	93	<0.5	17	1.6
	08/29/00	10.28	120	<0.5	<5.0	0.93	<0.5	<0.5	<0.5
	01/12/01	8.50	360	170	<5.0	16	<0.5	9.3	0.69
	04/18/01	8.77	1,100	410	2,800	63	<0.5	34	0.73
	07/27/01	10.50	130	66	<5.0	1.6	<0.5	<0.5	<0.5
	11/06/01	10.28	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	02/13/02	8.47	430	270	<5.0	17	0.51	11	0.64
	05/14/02	9.50	340	170	<5.0	21	<0.5	5.3	0.67
	08/15/02	10.39	96	53	<5.0	0.66	<0.5	<0.5	<0.5
	11/14/02	9.08	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	02/12/03	8.36	710	120	<5.0	28	4.3	32	130
	05/16/03	8.49	1,100	340	<15	54	4.1	40	100
	08/29/03	9.91	1,200	280	<5.0	46	5.1	55	230
	12/02/03	8.88	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	03/08/04	7.66	120	240 ^{1,2}	<5.0	2.9	<0.5	<0.5	0.71
	06/08/04	9.39	<50	78 ²	<5.0	<0.5	<0.5	<0.5	<0.5
	09/10/04	9.95	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	12/13/04	6.94	240	150	<5.0	11	<0.5	5.6	<0.5
	03/11/05	7.35	1,100	420	<40	43	0.60	12	0.80
	06/15/05	7.35	440	220	<15	26	<0.5	0.60	<0.5
	09/08/05	9.57	120 ³	76 ¹	<5.0	2.0	<0.5	<0.5	<0.5
	12/01/05	7.66	<50	<50	<5.0	1.3	<0.5	0.74	<0.5
	03/07/06	7.32	590	150	<5.0	29	0.89	4.4	1.1
	06/05/06	8.46	74 ³	120 ^{1,2}	<5.0	1.2	<0.5	<0.5	<0.5
09/18/06	9.36	<50	99 ²	<5.0	<0.5	<0.5	<0.5	<0.5	
1/3//07	7.99	78	<50	<5.0	1.4	<0.5	0.66	<0.5	
MW - 2	03/19/97	8.40	<50	<50	65	<0.5	<0.5	<0.5	<0.5
	06/23/97	8.85	<50	<50	70	3.4	<0.5	<0.5	<0.5
	10/08/97	9.80	<50	<50	90	<0.5	<0.5	<0.5	<0.5
	01/16/98	5.28	<50	<50	65	<0.5	<0.5	<0.5	<0.5
	08/05/99	9.32	<50	<50	600	<0.5	<0.5	<0.5	<0.5
	11/18/99	10.20	<50	<50	370	<0.5	<0.5	<0.5	<0.5
	02/24/00	7.03	<50	<50	880	<0.5	<0.5	<0.5	<0.5
	05/24/00	8.01	<250	62	2,200	<0.5	<0.5	<0.5	<0.5
	08/29/00	11.07	<200	<50	1,900	<0.5	<0.5	<0.5	<0.5
	01/12/01	8.60	470	70	2,000	8.7	3.1	16	73
	04/18/01	8.80	<50	<50	2,800	<0.5	<0.5	<0.5	<0.5
	07/27/01	11.10	<100	<50	3,300	<0.5	<0.5	<0.5	<0.5
	11/06/01	12.21	<100	<50	3,000	<0.5	<0.5	<0.5	<0.5
	02/13/02	7.98	54	<50	3,200	<0.5	<0.5	<0.5	<0.5
	05/14/02	10.48	<150	<50	3,800	4.8	<1.0	<1.0	<1.0

TABLE 3: GROUNDWATER ANALYTICAL DATA
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Depth to Water (ft)	TPH-g	TPH-d	MTBE	Benzene	Toluene	Ethyl- benzene	Xylenes
			<i>EPA Method SW8015Cm/C</i> (ug/L)						
MW - 2 continued	08/15/02	10.64	<50	<50	2,900	<0.5	<0.5	<0.5	<0.5
	11/14/02	11.69	<120	<50	3,800	<1.0	<1.0	<1.0	<1.0
	02/12/03	9.07	1,100	120	3,200	57	7	55	210
	05/16/03	11.25	530	85	6,000	35	3.6	22	79
	08/29/03	12.19	2,400	1200	4,800	39	5.8	77	320
	12/02/03	10.96	<100	<50	3,300	<1.0	<1.0	<1.0	<1.0
	03/08/04	8.41	<250	<50	4,600	<2.5	<2.5	<2.5	<2.5
	06/08/04	10.19	<120	<50	3,400	<1.2	<1.2	<1.2	<1.2
	09/10/04	10.84	<250	<250	4,100	<2.5	<2.5	<2.5	<2.5
	12/13/04	8.41	77	<50	4,200	<0.5	0.83	<0.5	1.9
	03/11/05	7.81	120	<50	4,900	14	<0.5	0.56	<0.5
	06/15/05	7.81	1,200	<50	12,000	85	<5.0	<5.0	<5.0
	09/08/05	11.58	<500	<50	8,600	<5.0	<5.0	<5.0	<5.0
	12/01/05	9.03	<500	<50	12,000	<5.0	<5.0	<5.0	<5.0
	03/07/06	7.78	<500	<50	10,000	44	<5.0	<5.0	<5.0
	06/05/06	9.28	890 ⁶	1,000 ^{1,2}	19,000	110	<5.0	<5.0	31
	09/18/06	10.39	2,000 ^{7,8}	4,100 ^{1,2}	8,900	<5.0	<5.0	<5.0	<5.0
	01/03/07	8.79	1,500	600¹	7,500	150	<5.0	51	59
MW -3	03/19/97	7.59	26,000	5,000	230	3,000	530	340	2,300
	06/23/97	9.98	25,000	7,000	270	4,400	120	540	1,500
	10/08/97	8.36	17,000	5,100	<280	4,400	47	280	410
	01/16/98	9.18	29,000	7,300	<360	5,600	740	950	3,500
	08/05/99	10.56	31,000	5,100	<200	5,400	150	1100	2,300
	11/18/99	10.92	74,000	49,000	<1,000	8,100	5,000	2,100	8,100
	02/24/00	8.49	110,000	6,300	<200	12,000	1,400	2,900	14,000
	05/24/00	8.42	87,000	26,000	<200	13,000	1,900	2,900	14,000
	08/29/00	12.00	49,000	9,400	<200	7,400	800	1,800	7,400
	01/12/01	10.50	69,000	21,000	<300	8,600	980	2,600	11,000
	04/18/01	9.50	75,000	13,000	<500	9,200	1,200	2,500	12,000
	07/27/01	11.61	75,000	85,000	<650	8,700	1,100	2,600	12,000
	11/06/01	11.73	89,000	86,000	<200	7,900	910	2,800	12,000
	02/13/02	9.36	85,000	13,000	<2,000	8,500	830	2,600	11,000
	05/14/02	9.00	94,000	35,000	<1,000	9,700	1,100	3,400	15,000
	08/15/02	11.72	37,000	9,700	<1,200	5,200	430	1,800	5,900
	11/14/02	11.28	66,000	23,000	<1,200	8,300	860	3,000	11,000
	02/12/03	10.17	61,000	8,400	<500	6,800	500	2,400	9,800
	05/16/03	11.47	59,000	17,000	<500	6,200	320	2,000	6,500
	08/29/03	11.92	78,000	100,000	<1,200	6,800	440	2,900	11,000
	12/02/03	11.32	68,000	46,000	<1,000	7,600	450	2,900	10,000
	03/08/04	10.49	79,000	160,000	<250	7,700	570	300	13,000
	06/08/04	9.89	90,000	26,000	<1,200	6,700	580	2,500	13,000
	09/10/04	11.54	NA - Free Product		<100*	7,600*	540*	3,500*	14,000*
	12/13/04	8.91	NA - Free Product = 0.05 ft		-	-	-	-	-
	03/11/05	6.94	NA - Free Product = 0.05 ft		-	-	-	-	-
	06/15/05	6.99	NA - Free Product = 0.12 ft		-	-	-	-	-
	09/08/05	10.61	NA - Free Product = 0.64 ft		-	-	-	-	-
	12/01/05	ng	NA - Free Product		-	-	-	-	-
	MW -3	03/07/06	5.26	NA - Free Product = 0.95 ft		-	-	-	-

TABLE 3: GROUNDWATER ANALYTICAL DATA
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Depth to Water (ft)	TPH-g	TPH-d	MTBE	Benzene	Toluene	Ethyl- benzene	Xylenes
			<i>EPA Method SW8015Cm/C</i> (ug/L)						
continued	06/05/06	8.09	37,000 ^{7,4,8}	690,000 ^{1,2,4,5}	<100	110	10	960	4,400
	06/13/06	8.99	41,000 ⁶	28,000 ^{1,2}	<170	350	24	1,100	4,600
	09/18/06	10.56	NA - Free Product = 0.04ft		-	-	-	-	-
	01/03/07	8.84	NA - Free Product = 0.28ft		-	-	-	-	-
MW-4	08/05/99	8.79	<50	<50	37	<0.5	<0.5	<0.5	<0.5
	11/18/99	8.11	<50	<50	20	<0.5	<0.5	<0.5	<0.5
	02/24/00	5.19	<50	<50	20	<0.5	<0.5	<0.5	<0.5
	05/24/00	7.23	120	140	31	1.3	<0.5	<0.5	<0.5
	08/29/00	9.04	<50	<50	22	<0.5	<0.5	<0.5	<0.5
	01/12/01	6.40	<50	81	25	<0.5	<0.5	<0.5	<0.5
	04/18/01	7.30	30	170	35	2.4	1.1	0.66	4.2
	07/27/01	9.16	87	110	26	1.8	<0.5	2	10
	11/06/01	9.03	200	59	21	4.5	1	5.2	24
	02/13/02	6.60	<50	91	15	<0.5	<0.5	<0.5	<0.5
	05/14/02	7.19	260	140	26	12	2.7	11	49
	08/15/02	8.97	<50	<50	12	<0.5	<0.5	<0.5	<0.5
	11/14/02	7.52	<50	<50	11	<0.5	<0.5	<0.5	<0.5
	02/12/03	6.37	170	130	16	3.1	0.66	6.4	27
	05/16/03	6.81	<50	60	23	<0.5	<0.5	<0.5	<0.5
	08/29/03	8.56	610	120	10	16	2.7	30	130
	12/02/03	6.02	<50	<50	7.7	<0.5	<0.5	<0.5	<0.5
	03/08/04	5.75	<50	<50	10	<0.5	<0.5	<0.5	<0.5
	06/08/04	8.19	<50	<50	11	<0.5	<0.5	<0.5	<0.5
	09/10/04	8.84	<50	<50	10	<0.5	<0.5	<0.5	<0.5
	12/13/04	5.75	<50	<50	16	<0.5	<0.5	<0.5	<0.5
	03/11/05	5.26	<50	<50	16	<0.5	<0.5	<0.5	<0.5
	06/15/05	5.26	<50	<50	15	<0.5	<0.5	<0.5	<0.5
	09/08/05	8.20	<50	54 ²	16	<0.5	<0.5	<0.5	<0.5
	12/01/05	6.93	<50	<50	13	<0.5	<0.5	<0.5	<0.5
	03/07/06	4.17	<50	<50	11	<0.5	<0.5	<0.5	<0.5
	06/05/06	6.88	<50	<50	11	<0.5	<0.5	<0.5	<0.5
09/18/06	8.33	<50	110	10	<0.5	<0.5	<0.5	<0.5	
01/03/07	6.57	<50	<50	7.9	<0.5	<0.5	<0.5	<0.5	
MW-5	01/03/07	16.47	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
MW-6	01/03/07	8.93	<50	63	340	<0.5	<0.5	<0.5	<0.5
VE-1	12/01/05	5.19	140 ³	540 ^{2,5}	250	26	13	4.5	15
	03/07/06	2.81	55	na	230	5.2	1.4	2.3	4.5
	06/05/06	5.37	180 ⁶	490 ^{5,2,1}	410	30	4.6	5.8	8.2
	01/03/07	4.92	82	250^{5,2}	320	8.4	1.5	1.7	2.6
AS-1	12/01/05	8.11	<50	na	<5.0	<0.5	0.81	<0.5	1.5
	01/03/07	9.20	<50	130^{5,2}	98	<0.5	<0.5	<0.5	<0.5

TABLE 3: GROUNDWATER ANALYTICAL DATA
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Depth to Water (ft)	TPH-g	TPH-d	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			<i>EPA Method SW8015Cm/C</i> (ug/L)		<i>EPA Method SW8021B</i> (ug/L)				
AS-2	12/01/05	9.64	<50	na	<5.0	<0.5	<0.5	<0.5	<0.5
	01/03/07	10.80	<50	910^{5,2}	<5.0	<0.5	<0.5	<0.5	<0.5
DP-1	12/01/05	7.22	220 ²	na	<5.0	<0.5	2.8	<0.5	0.94
	03/07/06	4.40	<50	na	<5.0	<0.5	0.71	<0.5	1.1
	06/13/06	7.99	<50	67 ²	<5.0	<0.5	<0.5	<0.5	<0.5
	01/03/07	7.12	<50	93²	<5.0	<0.5	<0.5	<0.5	<0.5
DP-2	12/01/05	6.83	<50	na	59	<0.5	<0.5	<0.5	<0.5
	03/07/06	6.09	230	na	<10	1.2	2.6	<0.5	1.2
	06/13/06	7.98	280 ⁹	110 ^{1,2}	<5.0	<0.5	1.2	<0.5	0.67
	01/03/07	7.45	170	77^{1,2}	<5.0	<0.5	<0.5	<0.5	<0.5
DP-3	12/01/05	7.14	120	na	140	2.1	0.96	<0.5	0.78
	03/07/06	6.62	<50	na	260	<0.5	<0.5	<0.5	<0.5
	06/13/06	9.34	220 ^{6,9}	88 ^{1,2}	67	0.57	0.83	<0.5	<0.5
	09/18/06	10.53	78 ⁹	110 ^{2,5}	45	<0.5	1.1	<0.5	0.98
	01/03/07	8.92	<50	150^{2,5}	<5.0	0.60	<0.5	<0.5	<0.5
DP-4	12/01/05	8.43	ns	ns	ns	ns	ns	ns	ns
	03/07/06	7.19	2,400	na	310	570	3.2	38	0.94
	06/13/06	8.71	1,100 ^{6,9}	250 ^{1,2}	330	210	2.0	9.2	1.2
	06/13/06	9.56	810 ⁶	210 ^{1,2}	190	190	1.4	11	0.98
	01/03/07	8.33	1,500	260¹	200	210	4.1	11	0.54
DP-5	12/01/05	4.69	<50	na	<5.0	<0.5	<0.5	<0.5	<0.5
	03/07/06	2.33	<50	na	<5.0	<0.5	<0.5	<0.5	<0.5
	06/13/06	5.03	<50	140 ²	5.4	<0.5	<0.5	<0.5	<0.5
	01/03/07	4.98	<50	240^{2,5}	5.5	<0.5	<0.5	<0.5	<0.5
DP-6	12/01/05	5.91	7,000	na	<120	1000	7.8	860	230
	03/07/06	7.11	6,500	na	<160	850	5.9	650	350
	06/13/06	8.73	3,100 ⁶	1,500 ^{1,2}	28	250	1.2	270	120
	09/18/06	9.69	840 ^{7,8}	570 ^{1,2}	<10	70	1.3	77	4.5
	01/03/07	7.98	2,400	1,700^{1,2,5}	21	270	3.9	160	30

Notes:

ug/L= micrograms per liter

MTBE= Methyl Tertiary Butyl Ether

TPHg= Total Petroleum Hydrocarbons as gasoline

TPHd= Total Petroleum Hydrocarbons as diesel

na = not analyzed

ns = not sampled

ng = not gauged

* = Analysis by EPA Method 8260

1 - gasoline range compounds are significant

2 - diesel range compounds are significant; no recognizable pattern

3 - unmodified or weakly modified diesel is significant

4 - lighter than water immiscible sheen/product is present

5- oil range compounds are significant

6 - unmodified or weakly modified gasoline is significant

7 - heavier gasoline range compounds are significant (aged gasoline?)

8- no recognizable pattern

9- One to a few isolated non-target peaks present

TABLE 4: FUEL OXYGENATES ANALYTICAL DATA
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	TAME (mg/L)	TBA (mg/L)	EDB (mg/L)	1,2-DCA (mg/L)	DIPE (mg/L)	ETBE benzene (mg/L)	MTBE (mg/L)	Ethanol	Methanol
MW-1	06/08/04	ND<0.5	ND<5.0	ND<0.5	1.5	ND<0.5	ND<0.5	1.0	----	----
	09/10/04	ND<0.5	ND<5.0	ND<0.5	----	ND<0.5	ND<0.5	1.0	----	----
MW-2	06/08/04	ND<100	ND<1000	ND<100	ND<100	ND<100	ND<100	4,300	----	----
	09/10/04	ND<50	ND<500	ND<50	ND<50	ND<50	ND<50	2,800	----	----
MW-3	06/08/04	ND<5.0	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	99	----	----
	09/10/04	ND<100	ND<1000	ND<100	ND<100	ND<100	ND<100	ND<100	----	----
MW-4	06/08/04	ND<0.5	ND<5.0	ND<0.5	0.79	ND<0.5	ND<0.5	15	----	----
	09/10/04	ND<0.5	ND<5.0	ND<0.5	NA	ND<0.5	ND<0.5	8.2	----	----
MW-5	01/03/07	ND<0.5	ND<5.0	----	----	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<500
MW-6	01/03/07	ND<10	ND<100	----	----	ND<10	ND<10	320	ND<1,000	ND<10,000

Notes: Notes:

(mg/L)	micrograms per liter	1,2-DCA	1,2-Dichloroethane
TAME	tert-Amyl methyl ether	DIPE	Diisopropyl ether
TBA	t-Butyl alcohol	ETBE	Ethyl tert-butyl ether
EDB	1,2-Dibromethane	MTBE	Methyl Tertiary Butyl Ether

APPENDIX A

Well Permits

Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 12/05/2006 By jamesy

Permit Numbers: W2006-1013 to W2006-1014
Permits Valid from 12/14/2006 to 12/14/2006

Application Id: 1165248396120
Site Location: FIDELITY ROOF COMPANY
1075 40TH STREET
OAKLAND, CA 94608

City of Project Site:Oakland

Project Start Date: 12/14/2006

Completion Date:12/14/2006

Applicant: AEI Consultants - Robert Flory
2500 Camino Diablo, Walnut Creek, CA 94597

Phone: 925-944-2899

Property Owner: Monte Upshaw
1075 40TH STREET, OAKLAND, CA 94608, CA 94608

Phone: --

Client: ** same as Property Owner **
Contact: Robert Flory

Phone: 925-944-2899
Cell: 925-457-7517

Receipt Number: WR2006-0534 Total Due: \$600.00
Payer Name : Robert F. Flory Total Amount Paid: \$600.00
Paid By: VISA PAID IN FULL

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 2 Wells
Driller: HEW Drilling - Lic #: 384167 - Method: hstem

Work Total: \$600.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2006-1013	12/05/2006	03/14/2007	MW-5	8.25 in.	2.00 in.	15.00 ft	34.00 ft
W2006-1014	12/05/2006	03/14/2007	MW-6	8.25 in.	2.00 in.	15.00 ft	34.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an 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.

Alameda County Public Works Agency - Water Resources Well Permit

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.
 5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 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. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
 7. Minimum surface seal thickness is two inches of cement grout placed by tremie
 8. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
 9. 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.
-

PROGRAMS AND SERVICES

Well Standards Program

The Alameda County Public Works Agency, Water Resources is located at:

399 Elmhurst Street

Hayward, CA 94544

For Driving Directions or General Info, Please Contact 510-670-5480 or wells@acpwa.org

For Drilling Permit information and process contact [James Yoo](mailto:James.Yoo@acpwa.org) at

Phone: 510-670-6633

FAX: 510-782-1939

Email: Jamesy@acpwa.org

Alameda County Public Works is the administering agency of [General Ordinance Code, Chapter 6.88](#) . The purpose of this chapter is to provide for the regulation of groundwater wells and exploratory holes as required by [California Water Code](#). The provisions of these laws are administered and enforced by Alameda County Public Works Agency through its Well Standards Program.

Drilling Permit Jurisdictions in Alameda County: There are four jurisdictions in Alameda County.

Location: Agency with Jurisdiction Contact Number

Berkeley City of Berkeley Ph: 510-981-7460

Fax: 510-540-5672

Fremont, Newark, Union City Alameda County Water District Ph: 510-668-4460

Fax: 510-651-1760

Pleasanton, Dublin, Livermore, Sunol [Zone 7 Water Agency](#) Ph: 925-454-5000

Fax: 510-454-5728

The Alameda County Public Works Agency, Water Resources has the responsibility and authority to issue drilling permits and to enforce the County Water Well Ordinance 73-68. This jurisdiction covers the western Alameda County area of **Oakland, Alameda, Piedmont, Emeryville, Albany, San Leandro, San Lorenzo, Castro Valley, and Hayward** . The purpose of the drilling permits are to ensure that any new well or the destruction of wells, including geotechnical investigations and environmental sampling within the above jurisdiction and within Alameda County will not cause pollution or contamination of ground water or otherwise jeopardize the health, safety or welfare of the people of Alameda County.

Permits are required for all work pertaining to wells and exploratory holes at any depth within the jurisdiction of the Well Standards Program. A completed [permit application \(30 Kb\)*](#) , along with a site map, should be submitted at least **ten (10) working days prior to the planned start of work**. Submittals should be sent to the address or fax number provided on the application form. When submitting an application via fax, please use a high resolution scan to retain legibility.

Fees

Beginning April 11, 2005 , the following fees shall apply:

A permit to construct, rehabilitate, or destroy wells, including cathodic protection wells, but excluding dewatering wells (*Horizontal hillside dewatering and dewatering for construction period only), shall cost \$300.00 per well.

A permit to bore exploratory holes, including temporary test wells, shall cost \$200 per site. A site includes the project parcel as well as any adjoining parcels.

Please make checks payable to: **Treasurer, County of Alameda**

Permit Fees are exempt to State & Federal Projects

Applicants shall submit a letter from the agency requesting the fee exemption.

Scheduling Work/Inspections:

Alameda County Public Works Agency (ACPWA), Water Resources Section requires scheduling and inspection of permitted work. All drilling activities must be scheduled in advance. Availability of inspections will vary from week to week and will come on a first come, first served bases. To ensure inspection availability on your desired or driller scheduled date, the following procedures are required:

Please contact **James Yoo at 510-670-6633** to schedule the inspection date and time (You must have drilling permit approved prior to scheduling).

Schedule the work as far in advance as possible (at least 5 days in advance); and confirm the scheduled drilling date(s) at least 24 hours prior to drilling.

Once the work has been scheduled, an ACPWA Inspector will coordinate the inspection requirements as well as how the Inspector can be reached if they are not at the site when Inspection is required. Expect for special circumstances given, all work will require the inspection to be conducted during the working hours of 8:30am to 2:30pm., Monday to Friday, excluding holidays.

Request for Permit Extension:

Permits are only valid from the start date to the completion date as stated on the drilling permit application and Conditions of Approval. To request an extension of a drilling permit application, applicants must request in writing prior to the completion date as set forth in the Conditions of Approval of the drilling permit application. Please send fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. There are no additional fees for permit extensions or for re-scheduling inspection dates. You may not extend your drilling permit dates beyond 90 days from the approval date of the permit application. **NO refunds** shall be given back after 90 days and the permit shall be deemed voided.

Cancel a Drilling Permit:

Applicants may cancel a drilling permit only in writing by mail, fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. If you do not cancel your drilling permit application before the drilling completion date or notify in writing within 90 days, Alameda County Public Works Agency, Water Resources Section may void the permit and No refunds may be given back.

Refunds/Service Charge:

A service charge of \$25.00 dollars for the first check returned and \$35.00 dollars for each subsequent check returned.

Applicants who cancel a drilling permit application **before** we issue the approved permit(s), will receive a **FULL** refund (at any amount) and will be mailed back within two weeks.

Applicants who cancel a drilling permit application **after** a permit has been issued will then be charged a service fee of \$50.00 (fifty Dollars).

To collect the remaining funds will be determined by the amount of the refund to be refunded (see process below).

Board of Supervisors Minute Order, File No. 9763, dated January 9, 1996, gives blanket authority to the Auditor-Controller to process claims, from all County departments for the refund of fees which do not exceed \$500 (Five Hundred Dollars)(with the exception of the County Clerk whose limit is \$1,500).

Refunds over the amounts must be authorized by the Board of Supervisors Minute Order, File No. 9763 require specific approval by the Board of Supervisors. The forms to request for refunds under \$500.00 (Five Hundred Dollars) are available at this office or any County Offices. If the amount is exceeded, a Board letter and Minute Order must accompany the claim. Applicant shall fill out the request form and the County Fiscal department will process the request.

Enforcement

Penalty. Any person who does any work for which a permit is required by this chapter and who fails to obtain a permit shall be guilty of a misdemeanor punishable by fine not exceeding Five Hundred Dollars (\$500.00) or by imprisonment not exceeding six months, or by both such fine and imprisonment, and such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any such

violation is committed, continued, or permitted, and shall be subject to the same punishment as for the original offense. (Prior gen. code §3-160.6)

Enforcement actions will be determined by this office on a case-by-case basis

Drilling without a permit shall be the cost of the permit(s) and a fine of \$500.00 (Five Hundred Dollars).

Well Completion Reports (State DWR-188 forms) must be filed with the Well Standards Program within 60 days of completing work. Staff will review the report, assign a state well number, and then forward it to the California Department of Water Resources (DWR). Drillers should not send completed reports to DWR directly. Failure to file a Well Completion Report or deliberate falsification of the information is a misdemeanor; it is also grounds for disciplinary action by the Contractors' State License Board. Also note that filed Well Completion Reports are considered private record protected by state law and can only be released to the well owner or those specifically authorized by government agencies.

See our website (www.acgov.org/pwa/wells/index.shtml) for links to additional forms.

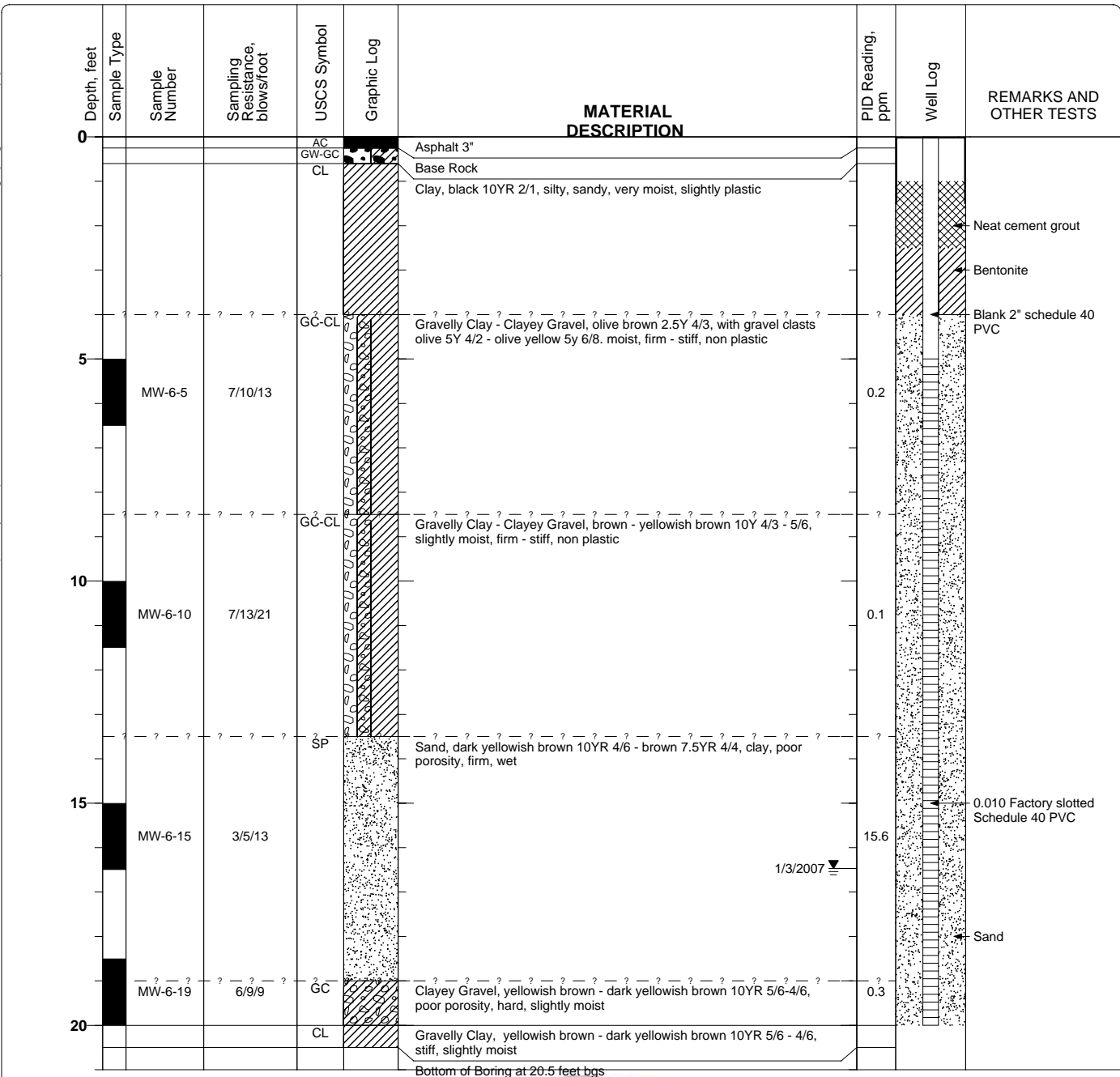
APPENDIX B

Boring/Well Logs

Project: Fidelity Roof Company
Project Location: 1075 40th Street, Oakland, CA
Project Number: 116303

Log of Boring MW-5
 Sheet 1 of 1

Date(s) Drilled December 14, 2006	Logged By Robert F. Flory	Checked By Adrian Angel
Drilling Method Hollow Stem Auger	Drill Bit Size/Type	Total Depth of Borehole 20.5 feet bgs
Drill Rig Type CME 75	Drilling Contractor HEW Drilling	Surface Elevation 51.32 feet MSL
Groundwater Level and Date Measured 16.47 feet measured on 1/3/2007	Sampling Method(s) ModCal	Permit # W2006-1013
Borehole Backfill Well Completion	Location	



X:\PROJECTS\CHARACTERIZATION & REMEDIATION\ADVANCED REMEDIATION\116303 SVE (Fidelity Roof) Oakland, RFFMMW_5_6 install\Graphics\MW5_6.bgs [augerwell 20.tpl]



Project: Fidelity Roof Company
Project Location: 1075 40th Street, Oakland, CA
Project Number: 116303

Log of Boring MW-6
 Sheet 1 of 1

Date(s) Drilled December 14, 2006	Logged By Robert F. Flory	Checked By Adrian Angel
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 8 1/4 inch Hollowstem	Total Depth of Borehole 20 feet bgs
Drill Rig Type CME 75	Drilling Contractor HEW Drilling	Surface Elevation 50.74 feet MSL
Groundwater Level and Date Measured 8.93 feet measured on 1/3/2007	Sampling Method(s) ModCal	Permit # W2006-1014
Borehole Backfill Well Completion	Location	

Depth, feet	Sample Type	Sample Number	Sampling Resistance, blows/foot	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	Well Log	REMARKS AND OTHER TESTS
0				AC GW-GC		Asphalt 3"			
				CL		Base Rock			
				CL		Clay, very dark brown 10YR 2/2, silty, sandy, moist, stiff - slightly plastic			Neat cement grout
				CL		Sandy Clay, dark brown 10YR 3/2, moist, stiff - slightly plastic			Bentonite
				CL		Sandy Clay, very dark gray - dark brown 10YR 3/1-3/2, gravelly, moist, stiff with streaks bcg Clayey Gravel			Blank 2" schedule 40 PVC
5		MW-5-5	8/10/13	CL		Sandy gravelly Clay, brown 10YR 4/3 with abundant dark gray 10YR 4/1 - yellowish brown 10YR 6/8 clasts, moist, stiff - slightly plastic	0.1		
				CL		Silty Clay, yellowish brown, stiff, moist (auger returns)			Auger returns
				CL		Sandy Clay, olive brown 2.5Y 4/2-5/3, with some grayish brown 2.5Y 5/2 mottling, scattered fine gravel, stiff, moist			
10		MW-5-10	12/16/22	CL		Sandy Clay, strong brown, 7.5YR 5/6-5/8 with scattered dark gray 7.5YR 4/1 - black 7.5YR 2.5/1 splotches, moderately stiff, very moist, slightly plastic	0.1		
				CL		Sandy Silty Clay, yellowish brown 10YR 5/6-5/8, rare gravel, stiff, slightly moist			
15		MW-5-15	3/4/6	CL		Sandy Silty Clay, yellowish brown 10YR 5/6-5/8, rare gravel, stiff, slightly moist	0.2		0.010 Factory slotted Schedule 40 PVC
				CL		Sandy Silty Clay, yellowish brown 10YR 5/6-5/8, rare gravel, stiff, slightly moist			Sand
20		MW-5-19	8/14/17	CL		Sandy Silty Clay, yellowish brown 10YR 5/6-5/8, rare gravel, stiff, slightly moist	0.1		
						Bottom of Boring at 20 feet bgs			

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\ADVANCED REMEDIATION\116303 SVE (Fidelity Roof) Oakland, RFFMW_5_6 install\Graphics\MW5_6.bgs [augerwell 20.tpl]



APPENDIX C

Groundwater Monitoring Well Field Sampling Forms

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	50.99		
Depth of Well	21.00		
Depth to Water (from top of casing)	7.99		
Water Elevation (feet above msl)	43.00		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	6.2		
Actual Volume Purged (gallons)	7.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(3) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1	19.44	6.73	850	1.60	-75.1	
	2	19.14	6.67	829	2.26	-40.9	
	4	19.34	6.64	843	0.80	-88.6	
	6	19.45	6.63	866	0.71	-95.9	
	7	20.01	6.60	911	0.41	-131.3	

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

Clear, no hydrocarbon odor

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK ▼		
Elevation of Top of Casing (feet above msl)	50.49		
Depth of Well	21.00		
Depth to Water (from top of casing)	8.79		
Water Elevation (feet above msl)	41.70		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	5.9		
Actual Volume Purged (gallons)	7.0		
Appearance of Purge Water	Clearing by 2.0 gallons		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(3) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1	20.97	6.86	1631	0.43	-195.4	
	2	20.93	6.64	1639	0.40	-201.1	
	3	21.26	6.68	1610	0.35	-207.3	
	5	21.33	6.68	1606	0.32	-210.4	
	7	21.39	6.67	1645	0.22	-222.4	

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

Initially dark, slight hydrocarbon odor, clearing by 2.0 gallons

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK ▼		
Elevation of Top of Casing (feet above msl)	49.93		
Depth of Well	21.00		
Depth to Water (from top of casing)	8.84		
Depth to FP	8.56		
Water Elevation (feet above msl)	41.09		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	6.1		
Actual Volume Purged (gallons)	0.0		
Appearance of Purge Water	NA		
Free Product Present?	Yes	Thickness (ft):	0.28

GROUNDWATER SAMPLES

Number of Samples/Container Size				(3) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments

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

Well not sampled or purged due of presence of Free Product

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	48.97		
Depth of Well	20.00		
Depth to Water (from top of casing)	6.57		
Water Elevation (feet above msl)	42.40		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	6.4		
Actual Volume Purged (gallons)	6.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(3) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1	20.75	6.77	850	4.52	98.9	
	2	20.42	6.70	829	4.17	181.8	
	3	20.35	6.65	843	2.91	226.6	
	5	21.02	6.67	866	2.43	421.9	
	7	21.25	6.64	911	1.18	446.1	

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

Clear, no hydrocarbon odor

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-5

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK <input type="button" value="v"/>		
Elevation of Top of Casing (feet above msl)	51.04		
Depth of Well	19.93		
Depth to Water (from top of casing)	16.47		
Water Elevation (feet above msl)	34.57		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	1.7		
Actual Volume Purged (gallons)	3.0		
Appearance of Purge Water	Clear by 0.5 gallons		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(3) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1	19.97	7.11	2032	7.66	69.9	
	2	20.37	7.04	2267	7.50	66.6	
	3	20.40	7.05	2405	7.50	50.7	

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

Initially brown, no hydrocarbon odor, clears by 0.5 gallons

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-5

Project Name:	Fidelity Roof Company	Date of Sampling:	1/9/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK <input type="button" value="v"/>		
Elevation of Top of Casing (feet above msl)	51.04		
Depth of Well	19.93		
Depth to Water (from top of casing)	16.66		
Water Elevation (feet above msl)	34.38		
Well Volumes Purged	0		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	0.0		
Actual Volume Purged (gallons)			
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(3) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments

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

Gauge only

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-6

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		▼
Elevation of Top of Casing (feet above msl)	50.34		
Depth of Well	20.00		
Depth to Water (from top of casing)	8.93		
Water Elevation (feet above msl)	41.41		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	5.3		
Actual Volume Purged (gallons)	6.0		
Appearance of Purge Water	Light brown		
Free Product Present?	No	Thickness (ft):	---

GROUNDWATER SAMPLES

Number of Samples/Container Size				(2) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1	21.61	7.05	1422	2.88	-149.3	
	2	21.56	7.03	1459	2.96	-132.1	
	4	21.79	6.99	1593	3.46	-139.9	
	6	22.03	6.98	1499	2.92	-149.6	

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

Initially brown, no hydrocarbon odor, light brown by 2.5 gallons

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-1

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK ▼		
Elevation of Top of Casing (feet above msl)	49.96		
Depth of Well	15.50		
Depth to Water (from top of casing)	7.12		
Water Elevation (feet above msl)	42.84		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)			
Actual Volume Purged (gallons)			
Appearance of Purge Water			
Free Product Present?	NA	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size				(2) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments

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

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-2

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	50.17		
Depth of Well	15.50		
Depth to Water (from top of casing)	7.45		
Water Elevation (feet above msl)	42.72		
Well Volumes Purged			
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)			
Actual Volume Purged (gallons)			
Appearance of Purge Water			
Free Product Present?	NA	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size				(2) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments

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

Water initially clear, hc odors

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-3

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK <input type="button" value="v"/>		
Elevation of Top of Casing (feet above msl)	50.45		
Depth of Well	15.50		
Depth to Water (from top of casing)	8.92		
Water Elevation (feet above msl)	41.53		
Well Volumes Purged			
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)			
Actual Volume Purged (gallons)			
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	---

GROUNDWATER SAMPLES

Number of Samples/Container Size				(2) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments

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

Samples collected without purging

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-4

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	50.85		
Depth of Well	15.50		
Depth to Water (from top of casing)	8.33		
Water Elevation (feet above msl)	42.52		
Well Volumes Purged			
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)			
Actual Volume Purged (gallons)			
Appearance of Purge Water			
Free Product Present?	NA	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(2) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments

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

Samples collected without purging, strong hydrocarbon odor

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-5

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK <input type="button" value="▼"/>		
Elevation of Top of Casing (feet above msl)	50.61		
Depth of Well	15.50		
Depth to Water (from top of casing)	4.98		
Water Elevation (feet above msl)	45.63		
Well Volumes Purged			
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)			
Actual Volume Purged (gallons)			
Appearance of Purge Water			
Free Product Present?	NA	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(2) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments

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

No hydrocarbon odor

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-6

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK ▼		
Elevation of Top of Casing (feet above msl)	50.68		
Depth of Well	15.50		
Depth to Water (from top of casing)	7.98		
Water Elevation (feet above msl)	42.70		
Well Volumes Purged			
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)			
Actual Volume Purged (gallons)			
Appearance of Purge Water			
Free Product Present?	NA	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(2) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments

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

Samples collected without purging, strong hydrocarbon odor

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: VE-1

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK <input type="button" value="v"/>		
Elevation of Top of Casing (feet above msl)	50.75		
Depth of Well	10.00		
Depth to Water (from top of casing)	4.92		
Water Elevation (feet above msl)	45.83		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	9.9		
Actual Volume Purged (gallons)	11.0		
Appearance of Purge Water	Milky gray		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(3) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1	18.66	9.23	648	1.32	-270.4	
	2	18.69	9.28	649	0.94	-272.6	
	3	18.70	9.27	648	0.80	-272.3	
	5	8.67	9.25	642	0.57	-269.1	
	7	18.64	9.24	634	0.42	-265.6	
	8	18.56	9.25	626	0.36	-262.2	
	11	18.54	9.30	623	0.33	-269.6	

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

Milky gray with strong hydrocarbon odor

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: AS-1

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK ▼		
Elevation of Top of Casing (feet above msl)	50.35		
Depth of Well	30.0		
Depth to Water (from top of casing)	9.20		
Water Elevation (feet above msl)	41.15		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	40.6		
Actual Volume Purged (gallons)	11.0		
Appearance of Purge Water	Light brown at 7.5 gallons		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(3) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1	21.09	6.72	1140	1.27	-91.3	
	2	20.98	6.72	1122	1.65	-61.4	
	3	20.96	6.73	1121	1.68	-57.4	
	5	20.85	6.74	1095	2.01	-74.2	
	7	20.74	6.74	1107	2.15	-55.5	
	9	20.77	6.70	1182	1.31	-41.7	
	11	20.74	6.70	1198	0.82	-62.8	

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

Initially dark with no hydrocarbon odor.
Turned brown at 3.5 gallons, light brown at 7.5 gallons

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: AS-2

Project Name:	Fidelity Roof Company	Date of Sampling:	1/3/2007
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	50.51		
Depth of Well	30.0		
Depth to Water (from top of casing)	10.80		
Water Elevation (feet above msl)	39.71		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	9.2		
Actual Volume Purged (gallons)	10.0		
Appearance of Purge Water	Light brown at 3.5 gallons		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				(3) 40mL VOAs, (1) 1 Liter Amber			
Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1	20.59	6.74	999	2.35	133.8	
	2	20.76	6.73	993	2.14	146.9	
	4	20.67	6.74	966	2.50	134.7	
	6	20.69	6.73	998	2.49	279.3	
	8	20.62	6.72	1018	0.68	227.7	
	10	20.59	6.72	1012	0.63	227.6	

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

Brown with no hydrocarbon odor.
Light brown at 3.5 gallons

APPENDIX D

Laboratory Analyses With Chain of Custody Documentation



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303;Fidelity Roof Company	Date Sampled: 12/14/06
		Date Received: 12/14/06
	Client Contact: Robert Flory	Date Reported: 12/20/06
	Client P.O.:	Date Completed: 12/20/06

WorkOrder: 0612318

December 20, 2006

Dear Robert:

Enclosed are:

- 1). the results of **4** analyzed samples from your **#116303;Fidelity Roof Company project**,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

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

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

0612318
AEL

McCAMPBELL ANALYTICAL, INC.

1538 Willow Pass Road
Bay Point., 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

GeoTracker EDF PDF Excel Write On (DW)

Report To: Robert Flory **Bill To:** Same
Company: AEI Consultants
 2500 Camino Diablo, Suite 200
 Walnut Creek, CA 94597 **E-Mail:** rflory@aeiconsultants.com
Tel: (925) 283-6000 ext. 148 **Fax:** (925) 944-2895
Project #: 263484 *116303* **Project Name:** Fidelity Roof Company
Project Location: 1075 40th Street, Oakland, CA
Sampler Signature: *[Signature]*

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

SAMPLE ID	LOCATION (Field Point Name)	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other				
MW-5-10	MW-5	12/14/06	0937	1	2x6	X						X	X					
MW-5-16	MW-5		0945	1		X						X	X					
MW-6-5	MW-6		1115	1		X						X	X					
MW-6-10.5	MW-6		1120	1		X						X	X					
MW-6-16	MW-6		1127	1		X						X	X					

MBTEX (SW8021B) & TPH as Gas (SW8015Cm)																			
TPH as Diesel (SW8015Cm)																			
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)																			
RCI																			
Halogenated VOCs (8260B - 8010 Target List)																			

Relinquished By: *[Signature]* **Date:** 12/14/06 **Time:** 0937 **Received By:** *[Signature]*
Relinquished By: *[Signature]* **Date:** 12/14/06 **Time:** 1315 **Received By:** *[Signature]*
Relinquished By: *[Signature]* **Date:** **Time:** **Received By:**

ICE/r° 216°
GOOD CONDITION _____ **PRESERVATION** _____
HEAD SPACE ABSENT _____ **APPROPRIATE** _____
DECHLORINATED IN LAB _____ **CONTAINERS** _____
PERSERVED IN LAB _____

VOAS _____ O&G _____ METALS _____ OTHER _____

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0612318

ClientID: AEL

EDF

Fax

Email

HardCopy

ThirdParty

Report to:

Robert Flory
 AEI Consultants
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597

Email: rflory@aeiconsultants.com
 TEL: (925) 283-600 FAX: (925) 283-612
 ProjectNo: #116303;Fidelity Roof Company
 PO:

Bill to

Denise Mockel
 AEI Consultants
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597

Requested TAT: 5 days

Date Received: 12/14/2006

Date Printed: 12/14/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0612318-001	MW-5-10	Soil	12/14/2006	<input type="checkbox"/>	A	A	A										
0612318-002	MW-5-16	Soil	12/14/2006	<input type="checkbox"/>	A		A										
0612318-004	MW-6-10.5	Soil	12/14/2006	<input type="checkbox"/>	A		A										
0612318-005	MW-6-16	Soil	12/14/2006	<input type="checkbox"/>	A		A										

Test Legend:

1	G-MBTX_S	2	PREF REPORT	3	TPH(D)_S	4		5	
6		7		8		9		10	
11		12							

Prepared by: Nickole White

Comments:

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



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303;Fidelity Roof Company	Date Sampled: 12/14/06
	Client Contact: Robert Flory	Date Received: 12/14/06
	Client P.O.:	Date Analyzed: 12/14/06-12/15/06

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0612318

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-5-10	S	ND	ND	ND	ND	ND	ND	1	91
002A	MW-5-16	S	ND	ND	ND	ND	ND	ND	1	84
004A	MW-6-10.5	S	ND	ND	ND	ND	ND	ND	1	86
005A	MW-6-16	S	ND	ND	ND	ND	ND	ND	1	82

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303;Fidelity Roof Company	Date Sampled: 12/14/06
	Client Contact: Robert Flory	Date Received: 12/14/06
	Client P.O.:	Date Analyzed: 12/16/06
		Date Extracted: 12/14/06

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method SW3550C

Analytical methods SW8015C

Work Order: 0612318

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0612318-001A	MW-5-10	S	ND	1	99
0612318-002A	MW-5-16	S	ND	1	99
0612318-004A	MW-6-10.5	S	ND	1	98
0612318-005A	MW-6-16	S	ND	1	99

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

* 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.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel is significant; d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; o) results are reported on a dry weight basis.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0612318

EPA Method SW8015C		Extraction SW3550C			BatchID: 25221			Spiked Sample ID: 0612297-026A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	ND	20	121	124	2.39	119	118	0.484	70 - 130	30	70 - 130	30
%SS:	103	50	101	107	5.56	110	113	2.74	70 - 130	30	70 - 130	30

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

BATCH 25221 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0612318-001	12/14/06 9:37 AM	12/14/06	12/16/06 7:04 AM	0612318-002	12/14/06 9:45 AM	12/14/06	12/16/06 8:12 AM
0612318-004	12/14/06 11:20 AM	12/14/06	12/16/06 9:20 AM	0612318-005	12/14/06 11:27 AM	12/14/06	12/16/06 10:29 AM

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

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

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

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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0612318

EPA Method SW8021B/8015Cm		Extraction SW5030B			BatchID: 25237			Spiked Sample ID: 0612318-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	0.60	110	115	4.58	107	110	3.65	70 - 130	30	70 - 130	30
MTBE	ND	0.10	100	102	1.96	99.7	96.4	3.41	70 - 130	30	70 - 130	30
Benzene	ND	0.10	94.6	97.9	3.43	97.1	91.4	6.08	70 - 130	30	70 - 130	30
Toluene	ND	0.10	86.5	89.6	3.48	87.7	83.9	4.45	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	95.6	99.5	4.06	91.2	92.9	1.86	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	91.3	96.3	5.33	95.7	91	5.00	70 - 130	30	70 - 130	30
%SS:	91	0.10	85	87	2.33	91	85	6.82	70 - 130	30	70 - 130	30

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

BATCH 25237 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0612318-001	12/14/06 9:37 AM	12/14/06	2/14/06 10:47 PM	0612318-002	12/14/06 9:45 AM	12/14/06	12/15/06 1:05 AM
0612318-004	2/14/06 11:20 AM	12/14/06	12/15/06 4:31 AM	0612318-005	2/14/06 11:27 AM	12/14/06	12/15/06 9:37 AM

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

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

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

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



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303	Date Sampled: 01/03/07
		Date Received: 01/03/07
	Client Contact: Robert Flory	Date Reported: 01/10/07
	Client P.O.:	Date Completed: 01/10/07

WorkOrder: 0701042

January 10, 2007

Dear Robert:

Enclosed are:

- 1). the results of **14** analyzed samples from your **#116303 project,**
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

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

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

McCAMPBELL ANALYTICAL, INC.

1538 Willow Pass Road
Bay Point., 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

GeoTracker EDF PDF Excel Write On (DW)

Report To: Robert Flory **Bill To: Same**
Company: AEI Consultants
 2500 Camino Diablo, Suite 200
 Walnut Creek, CA 94597 **E-Mail: rflory@aeiconsultants.com**
Tel: (925) 283-6000 ext. 148 **Fax: (925) 944-2895**
Project #: 116303 **Project Name: Fidelity Roof Company**
Project Location: 1075 40th Street, Oakland, CA
Sampler Signature: Adam Nieto

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				MBTEX (SW801B) & TPH as Gas (SW8015Cm)	TPH as Diesel (SW8015Cm)	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	7 fuel additives 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)	RCI	Halogenated VOCs (8260B - 8010 Target List)	Other	Comments						
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other																								
MW-1		9/3/06	12:10	4	V/L	X					X	X																										
2 MW-2			12:26	"	"	X					X	X																										
3 MW-4			12:03	"	"	X					X	X																										
4 MW-5			12:53	"	"	X					X	X																										
5 MW-6			11:54	"	"	X					X	X																										
6 DP-1			3:48	3	Vials	X					X	X																										
7 DP-2			3:32	"	"	X					X	X																										
8 DP-3			3:36	"	"	X					X	X																										
9 DP-4			2:54	"	"	X					X	X																										
DP-5			2:09	"	"	X					X	X																										
DP-6			2:34	"	"	X					X	X																										
AS-1			1:03	4	V/L	X					X	X																										
AS-2			1:35	"	"	X					X	X																										
VE-1			12:23	"	"	X					X	X																										

(+)
+10
+5
+
+
+
+
+
+5
+1
+10
(+)

Relinquished By: *Adam Nieto* Date: *1/3* Time: *1745* Received By: *[Signature]*
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____

ICE/t° *18.2* PRESERVATION _____
 GOOD CONDITION _____ APPROPRIATE _____
 HEAD SPACE ABSENT _____ CONTAINERS _____
 DECHLORINATED IN LAB _____ PERSERVED IN LAB _____

VOAS O&G METALS OTHER

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0701042

ClientID: AEL

EDF

Fax

Email

HardCopy

ThirdParty

Report to:

Robert Flory
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

Email: rflory@aeiconsultants.com
TEL: (925) 283-600 FAX: (925) 283-612
ProjectNo: #116303
PO:

Bill to

Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: 01/03/2007

Date Printed: 01/09/2007

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0701042-001	MW-1	Water	1/3/2007 12:10:00	<input type="checkbox"/>		A	B										
0701042-002	MW-2	Water	1/3/2007 12:26:00	<input type="checkbox"/>		A	B										
0701042-003	MW-4	Water	1/3/2007 12:03:00	<input type="checkbox"/>		A	B										
0701042-004	MW-5	Water	1/3/2007 12:53:00	<input type="checkbox"/>	C	A	B										
0701042-005	MW-6	Water	1/3/2007 11:54:00	<input type="checkbox"/>	C	A	B										
0701042-006	DP-1	Water	1/3/2007 3:48:00	<input type="checkbox"/>		A	B										
0701042-007	DP-2	Water	1/3/2007 3:32:00	<input type="checkbox"/>		A	B										
0701042-008	DP-3	Water	1/3/2007 3:36:00	<input type="checkbox"/>		A	B										
0701042-009	DP-4	Water	1/3/2007 2:54:00	<input type="checkbox"/>		A	B										
0701042-010	DP-5	Water	1/3/2007 2:09:00	<input type="checkbox"/>		A	B										
0701042-011	DP-6	Water	1/3/2007 2:34:00	<input type="checkbox"/>		A	B										
0701042-012	AS-1	Water	1/3/2007 1:03:00	<input type="checkbox"/>		A	B										
0701042-013	AS-2	Water	1/3/2007 1:35:00	<input type="checkbox"/>		A	B										
0701042-014	VE-1	Water	1/3/2007 12:23:00	<input type="checkbox"/>		A	B										

Test Legend:

1	7-OXYS_W	2	G-MBTEX_W	3	TPH(D)_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Sheli Cryderman

Comments:

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



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303	Date Sampled: 01/03/07
		Date Received: 01/03/07
	Client Contact: Robert Flory	Date Extracted: 01/05/07
	Client P.O.:	Date Analyzed 01/05/07

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0701042

Lab ID	0701042-004C	0701042-005C			Reporting Limit for DF =1	
Client ID	MW-5	MW-6				
Matrix	W	W				
DF	1	20				

Compound	Concentration				ug/kg	µg/L
	tert-Amyl methyl ether (TAME)	ND	ND<10			NA
t-Butyl alcohol (TBA)	ND	ND<100			NA	5.0
Diisopropyl ether (DIPE)	ND	ND<10			NA	0.5
Ethanol	ND	ND<1000			NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND<10			NA	0.5
Methanol	ND	ND<10,000			NA	500
Methyl-t-butyl ether (MTBE)	ND	320			NA	0.5

Surrogate Recoveries (%)

%SS1:	104	103			
-------	-----	-----	--	--	--

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; N/A means analyte not applicable to this analysis.

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

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303	Date Sampled: 01/03/07
		Date Received: 01/03/07
	Client Contact: Robert Flory	Date Extracted: 01/06/07-01/10/07
	Client P.O.:	Date Analyzed 01/06/07-01/10/07

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0701042

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	78,a	ND	1.4	ND	0.66	ND	1	97
002A	MW-2	W	1500,a,i	7500	150	ND<5.0	51	59	10	100
003A	MW-4	W	ND,i	7.9	ND	ND	ND	ND	1	108
004A	MW-5	W	ND,i	ND	ND	ND	ND	ND	1	96
005A	MW-6	W	ND	340	ND	ND	ND	ND	1	103
006A	DP-1	W	ND	ND	ND	ND	ND	ND	1	109
007A	DP-2	W	170,m	ND	ND	ND	ND	ND	1	122
008A	DP-3	W	ND	ND	0.60	ND	ND	ND	1	102
009A	DP-4	W	1500,c	200	210	4.1	11	0.54	1	126
010A	DP-5	W	ND	5.5	ND	ND	ND	ND	1	101
011A	DP-6	W	2400,a,i	21	270	3.9	160	30	2	---#
012A	AS-1	W	ND,i	98	ND	ND	ND	ND	1	90
013A	AS-2	W	ND,i	ND	ND	ND	ND	ND	1	89
014A	VE-1	W	82,a,i	320	8.4	1.5	1.7	2.6	1	115

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	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303	Date Sampled: 01/03/07
		Date Received: 01/03/07
	Client Contact: Robert Flory	Date Extracted: 01/03/07
	Client P.O.:	Date Analyzed 01/05/07-01/09/07

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method SW3510C

Analytical methods SW8015C

Work Order: 0701042

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0701042-001B	MW-1	W	ND	1	95
0701042-002B	MW-2	W	600,d,i	1	110
0701042-003B	MW-4	W	ND,i	1	96
0701042-004B	MW-5	W	ND,i	1	94
0701042-005B	MW-6	W	63,b	1	94
0701042-006B	DP-1	W	93,b	1	98
0701042-007B	DP-2	W	77,d/b	1	99
0701042-008B	DP-3	W	150,g,b	1	103
0701042-009B	DP-4	W	260,d	1	106
0701042-010B	DP-5	W	240,g,b	1	102
0701042-011B	DP-6	W	1700,d,g,b,i	1	109
0701042-012B	AS-1	W	130,g,b,i	1	115
0701042-013B	AS-2	W	910,g,b,i	1	104
0701042-014B	VE-1	W	250,b,g,i	1	104

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.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0701042

EPA Method SW8021B/8015Cm		Extraction SW5030B			BatchID: 25512			Spiked Sample ID: 0701018-011A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	93.4	91	2.63	93.7	99	5.50	70 - 130	30	70 - 130	30
MTBE	ND	10	77.3	79.9	3.26	79.3	82.3	3.62	70 - 130	30	70 - 130	30
Benzene	1.4	10	77.4	78.1	0.815	87.4	93.5	6.71	70 - 130	30	70 - 130	30
Toluene	ND	10	90	90.9	1.05	87	92.8	6.50	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	93.3	93.9	0.614	89.6	95.4	6.35	70 - 130	30	70 - 130	30
Xylenes	0.95	30	100	104	3.17	100	107	6.45	70 - 130	30	70 - 130	30
%SS:	108	10	93	91	2.32	91	94	2.79	70 - 130	30	70 - 130	30

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

BATCH 25512 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0701042-001	1/03/07 12:10 PM	1/06/07	1/06/07 12:49 PM	0701042-002	1/03/07 12:26 PM	1/06/07	1/06/07 7:59 PM
0701042-002	1/03/07 12:26 PM	1/10/07	1/10/07 2:20 AM	0701042-003	1/03/07 12:03 PM	1/06/07	1/06/07 1:08 PM
0701042-004	1/03/07 12:53 PM	1/06/07	1/06/07 1:39 PM	0701042-005	1/03/07 11:54 AM	1/06/07	1/06/07 2:09 PM
0701042-006	1/03/07 3:48 AM	1/08/07	1/08/07 11:11 PM	0701042-007	1/03/07 3:32 AM	1/06/07	1/06/07 3:40 PM
0701042-008	1/03/07 3:36 AM	1/06/07	1/06/07 4:10 PM	0701042-009	1/03/07 2:54 AM	1/06/07	1/06/07 4:50 PM
0701042-010	1/03/07 2:09 AM	1/06/07	1/06/07 5:20 PM	0701042-011	1/03/07 2:34 AM	1/10/07	1/10/07 3:48 AM
0701042-012	1/03/07 1:03 AM	1/06/07	1/06/07 2:29 PM	0701042-013	1/03/07 1:35 AM	1/06/07	1/06/07 3:02 PM
0701042-014	1/03/07 12:23 PM	1/06/07	1/06/07 10:17 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.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0701042

EPA Method SW8260B		Extraction SW5030B				BatchID: 25530			Spiked Sample ID: 0701042-005C			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND<10	10	96.1	94.8	1.31	87.9	87.6	0.300	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND<100	50	111	119	6.96	114	110	3.76	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND<10	10	114	111	2.45	99.5	97.8	1.71	70 - 130	30	70 - 130	30
Ethanol	ND<1000	500	92.3	94.6	2.54	116	113	2.52	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND<10	10	103	102	0.778	92.1	91.6	0.576	70 - 130	30	70 - 130	30
Methanol	ND<10,000	2500	115	113	2.19	115	113	1.15	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	320	10	NR	NR	NR	95.2	96	0.826	70 - 130	30	70 - 130	30
%SS1:	103	10	110	110	0	102	103	1.50	70 - 130	30	70 - 130	30

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

BATCH 25530 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0701042-004	1/03/07 12:53 PM	1/05/07	1/05/07 4:44 AM	0701042-005	1/03/07 11:54 AM	1/05/07	1/05/07 10:28 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.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0701042

EPA Method SW8015C		Extraction SW3510C				BatchID: 25532			Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	120	120	0	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	99	100	1.39	N/A	N/A	70 - 130	30

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

BATCH 25532 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0701042-001	1/03/07 12:10 PM	1/03/07	1/09/07 4:42 AM	0701042-002	1/03/07 12:26 PM	1/03/07	1/05/07 11:16 PM
0701042-003	1/03/07 12:03 PM	1/03/07	1/09/07 5:51 AM	0701042-004	1/03/07 12:53 PM	1/03/07	1/09/07 6:59 AM
0701042-005	1/03/07 11:54 AM	1/03/07	1/09/07 8:07 AM	0701042-006	1/03/07 3:48 AM	1/03/07	1/09/07 11:43 AM
0701042-007	1/03/07 3:32 AM	1/03/07	1/09/07 12:51 PM	0701042-008	1/03/07 3:36 AM	1/03/07	1/06/07 5:55 AM
0701042-009	1/03/07 2:54 AM	1/03/07	1/06/07 7:01 AM	0701042-010	1/03/07 2:09 AM	1/03/07	1/06/07 1:22 PM
0701042-011	1/03/07 2:34 AM	1/03/07	1/06/07 2:31 PM	0701042-012	1/03/07 1:03 AM	1/03/07	1/09/07 12:51 PM
0701042-013	1/03/07 1:35 AM	1/03/07	1/06/07 2:59 AM	0701042-014	1/03/07 12:23 PM	1/03/07	1/08/07 11:23 AM

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

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

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

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

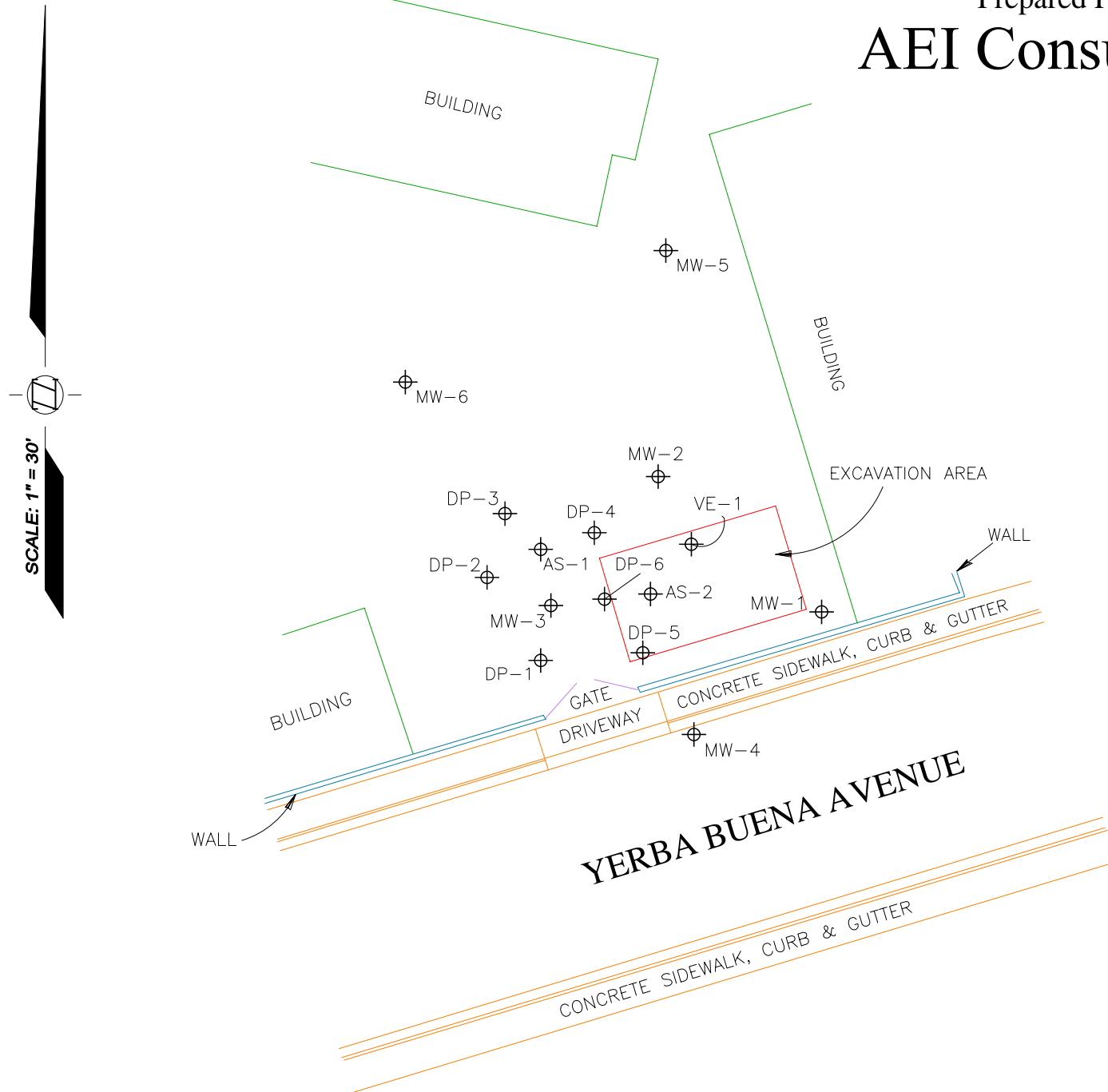
APPENDIX E

Site Survey

Monitoring Well Exhibit

Prepared For:

AEI Consultants



DESCRIPTION	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEV (PVC)	ELEV (BOX)
MW-1	2129811.7	6048521.3	37.8307039	-122.2768969	50.99	51.33
MW-2	2129838.1	6048489.4	37.8307748	-122.2770092	50.49	51.15
MW-3	2129812.9	6048468.5	37.8307045	-122.2770799	49.93	50.48
MW-4	2129787.7	6048496.5	37.8306366	-122.2769815	48.97	49.23
MW-5	2129882.6	6048490.8	37.8308969	-122.2770075	51.04	51.32
MW-6	2129856.8	6048439.8	37.8308234	-122.2771822	50.34	50.74
AS-1	2129824.0	6048466.5	37.8307347	-122.2770875	50.35	50.62
AS-2	2129815.3	6048487.9	37.8307121	-122.2770130	50.51	50.99
DP-1	2129802.3	6048466.5	37.8306751	-122.2770860	49.96	50.11
DP-2	2129818.5	6048456.2	37.8307193	-122.2771230	50.17*	50.54
DP-3	2129831.0	6048459.5	37.8307535	-122.2771121	50.45	50.71
DP-4	2129827.3	6048477.1	37.8307445	-122.2770513	50.85*	50.91
DP-5	2129803.8	6048486.4	37.8306803	-122.2770175	50.61*	50.69
DP-6	2129814.2	6048479.2	37.8307086	-122.2770431	50.68*	50.77
VE-1	2129825.0	6048496.1	37.8307390	-122.2769851	50.75	51.12

*MEASUREMENT TAKEN TO THE TOP OF THE VALVE.

BASIS OF COORDINATES AND ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 2 COORDINATES FROM GPS OBSERVATIONS USING UNIVERSITY OF CALIFORNIA BAY AREA DEFORMATION CORS STATION OBSERVATION FILES AND BASED ON THE CALIFORNIA SPATIAL REFERENCE CENTER DATUM, REFERENCE EPOCH 2000.35.
 COORDINATE DATUM IS NAD 83(1986)
 DATUM ELLIPSOID IS GRS80
 REFERENCE GEDID IS NGS99
 VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS

CORS STATIONS USED WERE UCD1 AND DIAB.



Fidelity Roof Company
 1075 40th Street
 Oakland
 Alameda County
 California



1450 Harbor Blvd. Ste. D
 West Sacramento
 California 95691
 (916) 372-8124
 jeff@morrrowsurveying.com

Date: 1-22-07
 Scale: 1" = 30'
 Sheet 1 of 1
 Revised:
 Field Book: MW-31
 Dwg. No. 0116-029 JL