May 30, 1997

MONITORING WELL INSTALLATION AND QUARTERLY GROUNDWATER MONITORING REPORT First Quarter, 1997 5/30/97

1075 40th Street Oakland, CA 94608

Project No. 1540

Prepared For

Fidelity Roof Co. 1075 40th Street Oakland, CA 94608

Prepared By

All Environmental, Inc. 3364 Mt. Diablo Boulevard Lafayette, CA 94583 (800) 801-3224



May 30, 1997

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

Subject: Monitoring Well Installation and Quarterly Groundwater Monitoring Report 1075 40th Street Oakland, CA 94608 Project No. 1540

Dear Mr. Upshaw:

We are enclosing two copies of the Monitoring Well Installation and Quarterly Groundwater Monitoring Report for the property at the above referenced address.

If you have any questions or comments regarding the findings presented in this report, please contact me at (510) 283-6000.

Sincerely, ALL ENVIRONMENTAL, INC.

Bryan Campbell Project Geologist

 Ms. Amy Leech, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577

> Mr. Wyman Hong, Zone 7 Water Agency 5997 Parkside Drive, Pleasanton, CA 94588-5127

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TABLE OF CONTENTS St Jee

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2.5

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12

| Stadie 5 IN Grad | |
|--|---|
| 1.0 INTRODUCTION1 | |
| 2.0 SITE DESCRIPTION AND BACKGROUND1 | |
| 3.0 PERMITS | ł |
| 4.0 GEOLOGY AND HYDROGEOLOGY | |
| Table 1 - Water Level Measurements | |
| 5.0 SOIL BORINGS | ł |
| 6.0 WELL CONSTRUCTION4 | • |
| 7.0 SOIL SAMPLING | • |
| 8.0 WELL DEVELOPMENT AND SAMPLING | |
| 9.0 ANALYTICAL RESULTS OF SAMPLES6 | į |
| Table 2 - Soil Sample Analyses 6 Table 3 - Groundwater Sample Analyses 7 | • |
| 10.0 SUMMARY AND RECOMMENDATIONS7 | ł |
| 11.0 REPORT LIMITATIONS AND SIGNATURES8 | ; |

LIST OF FIGURES

| FIGURE 1 | SITE LOCATION MAP | |
|--|--------------------------|---|
| FIGURE 2 | GROUNDWATER GRADIENT MAP | Ť |
| and the second | 1 | |

LIST OF APPENDICES

| Appendix A | PERMITS AND NOTIFICATION DOCUMENTS |
|------------|---|
| Appendix B | BORING LOGS, WELL CONSTRUCTION DIAGRAM, |
| | Well Field Sampling Forms |
| Appendix C | Current Laboratory Analyses With Chain Of |
| | CUSTODY DOCUMENTATION |

AEI

1.0 INTRODUCTION

All Environmental, Inc. (AEI) has prepared this report on behalf of the Fidelity Roof Company of Oakland, in response to their request for a soil and groundwater investigation at 1075 40th Street in Oakland, California (Figure 1: Site Location Map). The investigation involved the advancement of three soil borings at the site and conversion of the borings to groundwater monitoring wells on March 6, 1997. The wells were developed on March 10, 1997 and sampled on March 19, 1997. The investigation was initiated by the property owner in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA). The investigation was conducted to assess petroleum hydrocarbon concentrations found present in the groundwater during a Phase II Subsurface Investigation conducted in September, 1996.

2.0 SITE DESCRIPTION AND BACKGROUND

The site is located in a commercial zone at 1075 40th Street in Oakland, California, and currently supports the operation of Fidelity Roof Company, a roofing company. The topography of the site slopes gently to the south.

On December 19, 1995, Tank Protect Engineering removed one (1) 1,000 gallon underground storage tank (UST) and one (1) 500 gallon gasoline UST from the southeast corner of the property. The removal of the tanks produced a single excavation. The excavated soil was stockpiled north of the excavation. Three discrete soil samples were collected from beneath the USTs. Analysis of the samples indicated that soil beneath the 1,000 gallon UST was impacted with minor concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE). A single soil sample collected from beneath the 500 gallon UST indicated 100 mg/kg TPH as gasoline and 96 mg/kg TPH as diesel present. BTEX was present at concentrations of 2.0 mg/kg, 0.26 mg/kg, 1.9 mg/kg and 8.0 mg/kg, respectively. MTBE was not present above the detection limit of 0.30 mg/kg.

Four discrete soil samples were collected from the excavated soil. The samples were analyzed as one composite sample. TPH as gasoline and TPH as diesel were present within the representative sample at concentrations of 580 mg/kg and 120 mg/kg, respectively. BTEX concentrations were 2.3 mg/kg, 11 mg/kg, 6.8 mg/kg and 47 mg/kg, respectively. MTBE was not detected within the composite stockpile soil sample above the detection limit.

AEI issued a workplan on August 28, 1996 to the Alameda County Health Care Services Agency (ACHCSA) designed to define the extent and magnitude of petroleum hydrocarbon



contamination in the vicinity of the former USTs. On September 11, 1996, Ms. Susan Hugo of the ACHCSA approved the workplan.

On September 12, 1996, AEI advanced four soil borings in the vicinity of the former UST excavation (Ref. - Phase II Soil and Groundwater Investigation, dated October 7, 1996). Soil samples were collected from all of the borings and groundwater samples were collected from two of the borings. Analytical results from the subsurface investigation revealed significant levels of gasoline and diesel present in soil to the south and west of the open excavation. The soil contamination was believed to extend beneath the existing pump island.

Based upon information obtained during the Phase II Subsurface Investigation, AEI recommended additional excavation of soil from south of the current excavation. In addition, the excavation of contaminated soil from beneath and in the vicinity of the pump island was recommended. Moderate concentrations of petroleum hydrocarbons remain present in the soil to the east of the excavation, however the removal of additional soil could potentially undermine the existing building. Concentrations present in the soil north of the excavation do not warrant the removal of additional soil.

During the Phase II Subsurface Investigation, AEI collected soil samples from the stockpiled soil in order to determine the soil's suitability as backfill. AEI collected four soil samples from the soil. The samples were combined by the laboratory into one composite sample for analysis. Analysis of the samples indicated the presence of concentrations of 3.8 mg/kg TPH as gasoline, 28 mg/kg TPH as diesel and minor concentrations of BTEX. Approval was obtained from Ms. Hugo of the ACHCSA to reuse the stockpiled soil as backfill material.

On October 25, 1996, AEI extended the excavation to the south and west (Ref. - Excavation and Disposal of Contaminated Soil Report, dated January 7, 1997). The contaminated soil was stockpiled on-site and profiled for disposal into a Class III Landfill. The original excavation was extended laterally 7 feet to the south and 12 feet to west. Soil was removed to a depth of 9 feet below ground surface (bgs). The dispenser island and associated piping were removed. Groundwater was not encountered during the excavation activities. Four confirmation soil samples were collected from the excavation sidewalls. Analyses of the soil samples collected from the excavation sidewalls indicated that up to 150 mg/kg TPH as gasoline, 16 mg/kg benzene, and 300 mg/kg TPH as diesel remains within the western sidewall of the excavation. The excavated soil was profiled and accepted for disposal at the BFI Vasco Road Sanitary Landfill, in Livermore, California. On November 27 and November 29, 1996, approximately 235 tons of contaminated soil was loaded and transported to the landfill, under non-hazardous waste manifest, for disposal.

Results of the Phase II Subsurface Investigation indicated groundwater impacted with maximum



concentrations of 5,500 μ g/l TPH as gasoline, 340 μ g/l benzene, and 2,100 μ g/l TPH as diesel. Due to the high concentrations of petroleum hydrocarbons within the groundwater, the ACHCSA required further investigation into the extent and magnitude of the groundwater contaminant plume.

On March 6, 1997, AEI drilled three soil borings and converted them to groundwater monitoring wells. The wells were developed on March 10, 1997 and sampled on March 19, 1997. The following report describes the activities surrounding the well installations.

3.0 PERMITS

Prior to drilling, a work plan, dated February 24, 1997, was submitted to the ACHCSA by AEI. In a letter, dated February 28, 1997, Ms. Amy Leech, of the ACHCSA approved the workplan. Well construction permits were obtained from the Alameda County Flood Control and Water Conservation District, Zone 7 (Zone 7). The property owner and operator were notified of the drilling schedule. A copy of the Zone 7 permit to perform the soil borings and monitoring well installations is included in Appendix A.

4.0 GEOLOGY AND HYDROGEOLOGY

According to logs of the soil borings advanced by AEI, the near surface sediments beneath the site consist of mainly sandy clay with intermittent gravel up to 1/8" in diameter to a depth of at least 21 feet below ground surface (bgs). These sediments make up the water-bearing stratum.

Water level measurements made during the current groundwater monitoring and sampling episode on March 19, 1997, indicate that the static water ranges from between 7.59 to 8.25 feet bgs. Elevations of the tops of the well casings were surveyed relative to Mean Sea Level (MSL) by Logan Surveying on April 5, 1997. Refer to Appendix B for the Groundwater Monitoring Well Field Sampling Forms.

The water level measurements were collected in order to calculate the groundwater gradient and flow direction. **Based on these measurements, the groundwater flow is northwest at a gradient of** 0.015 feet per foot. The groundwater flow direction is depicted in Figure 2. Water elevations to date are summarized in the following table:



| Table 1 - | Water | Level | Measurements |
|-----------|-------|-------|--------------|
|-----------|-------|-------|--------------|

| Date: March 19, 1997 | | MW-1 | MW-2 | MW-3 |
|----------------------------|----------------|-------|-------|-------|
| Depth to Water (feet) | | 8.25 | 8.40 | 7.59 |
| Depth of Well (feet) | | 21,00 | 21.00 | 21.00 |
| Well Elevation (feet above | MSL) | 45.41 | 44.94 | 44.32 |
| Groundwater Elevation (I | eet above MSL) | 37.16 | 36.54 | 36.73 |

5.0 SOIL BORINGS

On March 6, 1997, three soil borings (BH-1, BH-2 and BH-3) were advanced at the site in the locations shown on Figure 2. BH-1 was advanced near the southern property boundary in the assumed up-gradient direction. BH-2 and BH-3 were advanced down-gradient from the former UST excavation. BH-1, BH-2 and BH-3 were then converted to groundwater monitoring wells MW-1, MW-2 and MW-3, respectively

A Mobile B-53 rotary drill with 6.25" I.D. by 10.5" O.D. hollow stem augers was used to drill the borings. Drilling proceeded to a depth of 21.0 feet during the advancement of each boring. Soil samples were collected at depths of 5, 10, 15, and 20 feet with a hammer-driven California Modified split spoon sampler. The sampler, containing two-inch diameter brass sample tubes, was advanced ahead of the auger tip by successive hammer blows. Boring logs were maintained during drilling by one of AEI's geologists using the Unified Soil Classification System. The logs are presented in Appendix B. Cuttings generated during drilling were stored on-site in 55 gallon drums for future off-site disposal.

6.0 WELL CONSTRUCTION

On March 6, 1997, soil borings BH-1, BH-2 and BH-3 were drilled and converted to groundwater monitoring wells, labeled MW-1, MW-2 and MW-3, respectively. The wells were constructed with 5 feet of 2" flush threaded blank Schedule 40 PVC blank casing, and 15 feet of .020" factory-slotted well screen that was installed through the hollow auger. The blank casing extends from 0.5 feet bgs to 6.0 feet bgs. The slotted casing extends for 0.5 feet bgs to 6.0 feet bgs. The slotted casing extends for the borings, 21.0 feet bgs. The well screens were fitted with a flush-threaded bottom cap. No. 3 (2/16) Monterey sand was poured through the augers to form a sand pack from the bottom of the wells to 5.0 feet bgs. Approximately 1 foot of bentonite pellets were placed above the sand and hydrated with tap water. The remainder of the borings were filled to



about 0.5 feet below grade with neat cement grout. A flush mounted traffic rated well box was installed over the casing, and an expanding, locking water tight inner cap was placed on the casing top. Refer to the boring logs (Appendix B) for a visual description of the well construction.

7.0 SOIL SAMPLING

Soil samples were collected for chemical analyses to assess the extent of any contamination of soil and/or groundwater resulting from unauthorized releases of petroleum hydrocarbons associated with underground fuel tanks that were formerly located at the site.

The drill rig and augers were steam cleaned prior to drilling and on-site before departure. Soil sampling equipment was decontaminated prior to each use with a TSP solution and rinsed with tap water in plastic buckets. Soil samples were sealed using Teflon tape and plastic caps.

Undisturbed soil samples were collected at depths of 5, 10, 15, 20 feet bgs from each boring during drilling and labeled according to their depth. Since groundwater was escontrated at approximately 9 feet bgs during drilling, only the soil samples collected at the soil/groundwater interface, those collected at 10 feet bgs, were submitted for chemical analyses. The samples were labeled and placed on ice for transportation under chain of custody protocol for analysis to a state certified laboratory.

8.0 WELL DEVELOPMENT AND SAMPLING

The three wells were developed on March 10, 1997. The wells were developed by pumping water into a 55 gallon drum until the water appeared to be reasonably clear with a minimum of 10 well volumes removed or until the wells were pumped dry. The pumped water was turbid at first, but became clear by the end of the well development and all wells were pumped dry. The water level returned to a static level in approximately 120 minutes. The Groundwater Well Sampling Field Logs are included in Appendix B.

Groundwater samples were collected from the wells on March 19, 1996. Groundwater was checked for sheen and free product prior to purging and sampling. No sheen or free product was observed. Depth to groundwater was measured prior to purging the wells. The wells were purged by pumping water into a 55 gallon drum until the groundwater temperature, pH, and conductivity stabilized. The groundwater samples were collected using clean disposable bailers. Water was poured from the bailers into amber liter bottles, 40 ml VOA vials and 1 liter bottles and capped so that no head space or visible air bubbles within the sample containers. The samples were labeled and placed on ice for transportation under chain of custody protocol for



analysis to a state certified laboratory.

9.0 ANALYTICAL RESULTS OF SAMPLES

Soil and groundwater samples were analyzed at McCampbell Analytical, Inc. of Pacheco, California (State Certification No. 1644). One soil sample from each boring and groundwater samples from each well were submitted for chemical analyses for TPH as gasoline (EPA Method 5030/8015), TPH as diesel (EPA Method 3510/8015), methyl tertiary butyl ether (MTBE) (EPA Method 8020/602), and benzene, toluene, ethyl benzene, and total xylenes (BTEX) (EPA Method 8020/602).

Refer to the following Table 2 for a summary of the soil sample analyses and to Table 3 for a summary of the groundwater sample analyses.

| Sample Identification (Depth) | Date | TPHg mg/kg | MTBE mg/kg | Benzene mg/kg | Toluene mg/kg | Ethyl- benzene mg/kg | Total Xylencs mg/kg | TPAd mg/kg |
|-------------------------------------|--------|---------------|---------------|------------------|------------------|----------------------------|---------------------------|---------------|
| BH-1, (10') | 3/6/97 | 7.7 | <0.05 | 0.028 | 0.021 | 0.060 | 0:058 | 2.5 |
| BH-2, (10') | 3/6/97 | 7.7 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 18 |

Table 2 - Soil Sample Analyses

Total Petroleum Hydrocarbons as gasoline = TPHg Total Petroleum Hydrocarbons as diesel = TPHd methyl tertiary butyl ether = MTBE mg/kg = milligrams per kilogram (ppm)



| Sample | Date | TPHg | MTBE | Benzene | Toluene | Ethyl- | Total | TPHd |
|-----------------|------------------|---------------|---------------|---------|--------------|--------|-----------------|------------------|
| - Iventincation | | μ g /ι | μ ε /ι | μg⁄i | 18/1 18/1 | μg/l | дујењез µg/l | μ α υ |
| MW-1 | 3/19/97 | <50 | 23 | <0.5 | <0.5 | <0.5 | <0.5 | <50 |
| MW-2 | 3/19/97 | <50 | 65 | <0.5 | <0.5 | <0.5 | <0.5 | <50 |
| MW-3 | 3/1 9/ 97 | 26,000 | 230 | 3000 | 5 30 | 340 | 2300 | 5000 |

Table 3 - Groundwater Sample Analyses

Total Petroleum Hydrocarbons as gasoline = TPHg Total Petroleum Hydrocarbons as diesel = TPHd

methyl tertiary butyl ether = MTBE

 $\mu g/l = micrograms per liter (ppb)$

Laboratory results and chain of custody documentation are included in Appendix C.

10.0 SUMMARY AND RECOMMENDATIONS

AEI installed three groundwater monitoring wells to assess soil and groundwater contamination and to determine the groundwater gradient at 1075 40th Street in Oakland, California. The subsurface investigation included logging boreholes under the supervision of a professional geologist, soil sampling and analyses, well development, and groundwater sampling and analyses.

Significant concentrations of petroleum hydrocarbons are present in the groundwater west of the former UST excavation. Concentrations of TPH as gasoline in well MW-3 were recorded in concentrations of 26,000 μ g/l TPH as gasoline, 5,000 μ g/l TPH as diesel, and 3,000 μ g/l benzene. Minor concentrations of TPH as gasoline, TPH as diesel, MTBE, and BTEX were found in samples from wells MW-1 and MW-2. Analysis of soil samples collected during the installation of the wells indicated only minor concentrations of petroleum hydrocarbons present.

AEI recommends the quarterly groundwater monitoring of the three on-site wells for a period of at least one year. The next groundwater monitoring and sampling episode should be conducted in June, 1996.



11.0 REPORT LIMITATIONS AND SIGNATURES

This report presents a summary of work completed by All Environmental, Inc., 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 which existed at the time and location of the work.

All Environmental, Inc.

Bryan Campbell Project Manager

, for

Joseph P. Derhake, PE, CAC Senior Author







SCALE: 1":2400'

ALL ENVIRONMENTAL, INC. 3364 MT. DIABLO BOULEVARD, LAFAYETTE, CA

SITE LOCATION MAP

1075 40TH STREET

OAKLAND, CALIFORNIA

DATE:

DRAWING NUMBER:

FIGURE 1

N A A

FROM: ALAMEDA/CONTRA COSTA COUNTIES THOMAS BROS. MAPS 1997 EDITION



LUNE / WATER AGENUT



5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600 FAX (510) 462-3914

DRILLING PERMIT APPLICATION

| FOR APPLICANT TO COMPLETE | FOR OFFICE USE |
|--|---|
| LOCATION OF PROJECT Fideling Roof Company 1075 40 th spect Oakland, CA 94608 | PERMIT NUMBER 97158 |
| CLIENT Name <u>Filelin, Root (om pany / Mone () p</u> shaw Address 1075 40th Smelr Voice (570) 547-1330 City <u>Oakland</u> Zp <u>94608</u> | PERMIT CONDITIONS Circled Permit Requirements Apply |
| APPLICANT Name <u>All Environmental. Inc.</u> <u>Bryan Campbell</u> <u>Far (510)283-6121</u> Address 3364 Mt. Diablo BlVdde (510)283-6000 Chy Lafayette Zp 94549 TYPE OF PROJECT Well Construction General Water Supply Contamination | A gennit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date. Submit to Zone 7 within 50 days after completion of permitted work the original Department of Water Resources Water Well Onliers Report or equivalent for well Projects, or drilling logs and location sketch for gestechnical projects. Permit is void if project not begun within 90 days of approval date. |
| Monitoring X Well Destruction PROPOSED WATER SUPPLY WELL USE Comestic Industrial Other Municipal Inrigation DRILLING METHOD: August X Cable Other | B. WATER WELLS, INCLUDING PIEZOMETERS Minimum surface seal thickness is two inches of carvent grout placed by tremie. Minimum seal depth is 50 fast for municipal and industrial wells or 20 feet for domestic and infgation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet. GEOTECHNICAL. Baddil bore hole with compacted cuttings or heavy benomite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings. CATHODIC. Fill hole above anode zone with concrete placed by |
| WELL PROJECTS Onli Hole Diameter 1 Casing Diameter 2 Surface Seal Depth 2 Surface Seal Depth 2 GEOTECHNICAL PROJECTS Number of Sorings Hole Diameter in. Depth 20 RECTECHNICAL PROJECTS Number of Sorings Maximum Hole Diameter in. Depth 1 ESTIMATED STARTING DATE 3/6/97 STIMATED COMPLETION DATE 3/6/97 | E. WELL DESTRUCTION. See attached. |
| APPLICANT'S SIGNATURE | Approved WUTINEN WOTUL Cars IL Hall 2. Wyman Hong |



| PROJEC | T: Fidelity Roof Co. #1540 | LOG OF BOR | EHOLE: MW-1 |
|--|--|---------------------------------------|---------------------------------|
| DE SOIL SYMBOLS | DESCRIPTION | SAMPLES SAMPLES NO. IT WAREN | WELL CONSTRUCTION DETAILS |
| $\begin{array}{c} \underline{a} \underline{c} \\ \\ - \\ 15 \\ - \\ 16 \\ - \\ 16 \\ - \\ 17 \\ - \\ 18 \\ - \\ 19 \\ - \\ 20 \\ - \\ 20 \\ - \\ 21 \\ - \\ 22 \\ - \\ 22 \\ - \\ 23 \\ - \\ 22 \\ - \\ 23 \\ - \\ 23 \\ - \\ 23 \\ - \\ 24 \\ - \\ 25 \\ - \\ 26 \\ - \\ 27 \\ - \\ 28 \\ - \\ 29 \\ - \\ 29 \\ - \\ 30 \\ - \\ 21 \\ - \\ 21 \\ - \\ 21 \\ - \\ 21 \\ - \\ 21 \\ - \\ 22 \\ - \\ 23 \\ - \\ 21 \\ - \\ 22 \\ - \\ 23 \\ - \\ 21 \\ - \\ 21 \\ - \\ 22 \\ - \\ 23 \\ - \\ 21 \\ - \\ 23 \\ - \\ 21 \\ - \\ 23 \\ - \\ 21 \\ - \\ 23 \\ - \\ 21 \\ - \\ 23 \\ - \\ 20 \\ - \\ 21 \\ - \\ 22 \\ - \\ 23 \\ - \\ 20 \\ - \\ 21 \\ - \\ 22 \\ - \\ 23 \\ - \\ 20 \\ - \\ 21 \\ - \\ 21 \\ - \\ 22 \\ - \\ 23 \\ - \\ 20 \\ - \\ 21 \\ - \\ 22 \\ - \\ 20 \\ - \\ 21 \\ - \\ 22 \\ - \\ 20 \\ - \\ 21 \\ - \\ 20 \\ - \\ 21 \\ $ | 0.6 - 21.0: Sandy Clay (cont.): moderate yellowish brown with low plasticity: grayish olive mottling: slight hydrocarbon odor; 30 ppm. 0.6 - 21.0: Sandy Gravelly Clay (cont.): moderate yellowish brown with high plasticity: grayish olive mottling: slight hydrocarbon odor; 0 ppm. Terminated at 21.0' | | DETAILS |
| | ALL ENVIRONMENTAL | , INC. | page 2 of 2 |



| PROJEC | T: Fidelity Roof Co. #1540 | LOG OF BOREHOLE: MW-2 | | | |
|--|---|--------------------------------|---------------------------------|--|--|
| HLL SOIL SYMBOLS | DESCRIPTION | SAMPLES NO. BLOW BLOW | WELL CONSTRUCTION DETAILS | | |
| $ \begin{array}{c} \begin{bmatrix} \mathbb{A} \\ $ | DESCRIPTION 0.6 - 21.0: Sandy Clay (cont.): moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 40 ppm. 0.6 - 21.0: Sandy Gravelly Clay (cont.): moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 20 ppm. Terminated at 21.0' | | DETAILS | | |
| | | | | | |
| | ALL ENVIRONMENTAL | , INC. | page 2 of 2 | | |



| PR | OJEC | F: Fidelity Roof Co. #1540 | LOG OF BOR | EHOLE: MW-3 |
|-----------------|--|---|--|---------------------------------------|
| DEPTH (feet) | SOIL SYMBOLS | DESCRIPTION | SAMPLES SAMPLES IN IN BLOW SAMPLE | WELL CONSTRUCTION DETAILS |
| | CL | 0.6 - 21.0: Sandy Clay (cont.): moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 84 ppm. | | |
| 20- | CL | 0.6 - 21.0: Sandy Gravelly Clay (cont.): moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 8 ppm. | <u>20'</u> - | · · · · · · · · · · · · · · · · · · · |
| | | Terminated at 21.0' | | |
| 22- | | | | |
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| 23 - | | | | |
| 24- | | | | |
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| 28- | | | | |
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| 30- | | | | |
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| 31- | | ······································ | | |
| | | ALL ENVIRONMENTAL | , INC. | page 2 of 2 |

ALL ENVIRONMENTAL INC. - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

| | | Monitor | ring W | ell N | umber: M | [W-1 | | |
|-------------|------------------|--------------|--------|-------|------------|--|--|--|
| | | | | | | | | |
| Project Nar | ne: Fidelity Roo | of Co. | | Date | of Samplin | ng: 3/19/97 | | |
| Job Numbe | r: 1540 | | | Nam | e of Sampl | er: Dusty Roy | | |
| Project Add | iress: 1075 40th | n Street, Oa | kland, | CA 9 | 4608 | | | |
| | | | | | | | | |
| | | MON | TOR | NG V | WELL DA' | ТА | | |
| Well Casin | g Diameter (2"/4 | 4"/6") | | 2" | | | | |
| Seal at Gra | de Type and C | Condition | | | | | | |
| Well Cap & | Lock OK/Re | place | | | | | | |
| Elevation o | f Top of Casing | | : | 45.4 | 1 | | | |
| Depth of W | /ell | | | | | | | |
| Depth to W | ater | | | 8.25 | | | | |
| Water Elev | ation | | | 37.1 | 6 | | | |
| Three Well | Volumes (gallo | ns)* | | | | | | |
| 2" casi | ng: (TD - DTW) | (0.16)(3) | ··· | | | | | |
| 4" casi | ng: (TD - DTW) | (0.65)(3) | | | | | | |
| 6" casi | ng: (TD - DTW) | (1.44)(3) | | | | ₩ | | |
| Actual Volu | ume Purged (gal | lons) | | 9 | | | | |
| Appearance | e of Purge Water | | | Clea | r | ······································ | | |
| | | | | | | | | |
| | | GROU | JNDW | ATE | R SAMPL | ES | | |
| Number of | Samples/Contai | ner Size | | 2 - 4 | 0 ml VOA | s, 1 - 1 liter bottle | | |
| | | | | | | | | |
| Time | Vol Remvd | Temp | pI | Ŧ | Cond | Comments | | |
| | (gal) | (deg F) | - | | (mS) | | | |
| 9:15 | 1 | 69.2 | 7.0 | 13 | 1418 | | | |
| 9:18 | 2 | 66.1 | 7.0 | 15 | 1362 | · · · · · · · · · · · · · · · · · · · | | |
| 9:21 | 3 | 65.8 | 7.0 |)7 | 1346 | | | |
| 9:24 | 5 | 65.8 | 7.0 | 15 | 1339 | | | |
| 9:27 | 7 | 65.8 | 7.0 | 15 | 1338 | | | |
| 9:30 | 9 | 65.8 | 7.0 | 6 | 1336 | | | |

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

TD - Total Depth of Weil DTW - Depth To Water

ø

ALL ENVIRONMENTAL INC. - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

| Project Name: Fidelity Roof Co. | Date of Sampling: 3/19/97 |
|---|----------------------------|
| Job Number: 1540 | Name of Sampler: Dusty Roy |
| Project Address: 1075 40th Street, Oakland, | CA 94608 |

MONITORING WELL DATA

| Well Casing Diameter (2"/4"/6") | 2" |
|----------------------------------|-------|
| Seal at Grade Type and Condition | |
| Well Cap & Lock OK/Replace | |
| Elevation of Top of Casing | 44.94 |
| Depth of Well | |
| Depth to Water | 8.40 |
| Water Elevation | 36.54 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 9 |
| Appearance of Purge Water | Clear |

| | | GROU | JNDW | ATER | SAMPL | ES |
|-----------|----------------|--------------|---------|----------|--------------|---------------------------------------|
| Number of | Samples/Contai | ner Size | | 2 - 40 | ml VOAs | s, 1 - 1 liter bottle |
| | | | | | | |
| Time | Vol Remvd | Temp | pH | I | Cond | Comments |
| | (gal) | (deg F) | • | | (mS) | |
| 8:45 | 1 | 69.1 | 7.1 | 3 | 1427 | · · · · · · · · · · · · · · · · · · · |
| 8:48 | 2 | 68.5 | 7.1 | 3 | 1396 | |
| 8:51 | 3 | 68.2 | 7.1 | 3 | 1401 | |
| 8:54 | 5 | 68.2 | 7.1 | 3 | 1401 | |
| 8:57 | 7 | 67.9 | 7.1 | 3 | 1398 | |
| 9:00 | 9 | 68.0 | 7.1 | 3 | 1400 | |
| | | | | I | | · · · · |
| | COMMENT | S (i.e., sam | ple odo | or, well | recharge | time & percent, etc.) |

TD - Total Depth of Well DTW - Depth To Water

ALL ENVIRONMENTAL INC. - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

| Project Name: Fidelity Roof Co. | Date of Sampling: 3/19/97 | |
|---|----------------------------|--|
| Job Number: 1540 | Name of Sampler: Dusty Roy | |
| Project Address: 1075 40th Street, Oakland, | CA 94608 | |

MONITORING WELL DATA

| Well Casing Diameter (2"/4"/6") | 2" |
|----------------------------------|-------|
| Seal at Grade Type and Condition | |
| Well Cap & Lock OK/Replace | |
| Elevation of Top of Casing | 44.32 |
| Depth of Well | |
| Depth to Water | 7.59 |
| Water Elevation | 36.73 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 9 |
| Appearance of Purge Water | Clear |
| | |

| | | GROU | JNDW. | ATER SAME | PLES | |
|-----------|------------------|-----------|-------|--------------|-------------------|---------------------------------------|
| Number of | f Samples/Contai | iner Size | | 2 - 40 ml VO | As, 1 - 1 liter b | ottle |
| | | | | | | |
| Time | Vol Remvd | Temp | pH | Cond | | Comments |
| _ | (gal) | (deg F) | | (mS) | | |
| 8:15 | 1 | 68.5 | 6.6 | 7 2450 | | |
| 8:18 | 2 | 67.9 | 6.6 | 8 2450 | | |
| 8:21 | 3 | 68.2 | 6.6 | 8 2430 | | |
| 8:24 | 5 | 68.2 | 6.6 | 8 2430 | | |
| 8:27 | 7 | 68.0 | 6.6 | 9 2430 | | |
| 8:30 | 9 | 68.2 | 6.7 | 0 2430 | | · · · · · · · · · · · · · · · · · · · |
| | | | | | · · · · | ···· |

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

TD - Total Depth of Well DTW - Depth To Water

| All Enviro | nmental, Inc. | | Client Projec | t ID: # 154 | 0; Fidelity | Date Sampled: 03/19/97 | | | | | | | | |
|-----------------------|---------------------------------------|------------------------|-------------------------------------|----------------------------------|--------------------------------------|------------------------|----------------------------------|-------------|---------------------|--|--|--|--|--|
| 3364 Mt. E | iablo Blvd. | | | | | | Date Receive | ed: 03/21/9 | 7 | | | | | |
| Lafayette, | CA 94549 | | Client Conta | et: Bryan C | ampbell | Date Extract | ed: 03/24/9 | 17 | | | | | | |
| | | | Client P.O: | | | Date Analyze | ed: 03/24/9 | 7 | | | | | | |
| Gasolin EPA method | 1e Range (C6-C s 5030, modified 80 | 12) Vola 15, and 80 | atile Hydroca)20 or 602; Califo | rbons as C ornia RWQCI | Fasoline*, v B (SF Bay Rej | vith Met | hyl tert-Butyl nod GCFID(5030 | Ether* & | BTEX* | | | | | |
| Lab ID | Client ID | Matrix | TPH(g) ⁺ | MTBE | Benzene | Toluer | e Ethylben- zene | Xylenes | % Rec. Surrogate | | | | | |
| 74590 | MW-1 | w | ND | 23 | ND | ND | ND | ND | 105 | | | | | |
| 74591 | MW-2 | w | ND | 65 | ND | ND | ND | ND | 105 | | | | | |
| 74592 | MW-3 | w | 26,000,a | 230 | 3000 | 530 | 340 | 2300 | 100 | | | | | |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| Reportin | g Limit unless | W | 50 ug/L | 5.0 | 0.5 | 0.5 | 0.5 | 0.5 | | | | | | |
| above the | not detected reporting limit | S | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 | | | | | | |

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L

[#] cluttered chromatogram; sample peak coelutes with surrogate peak

⁺ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: 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 (?); f) one to a few isolated peaks present; g) stronglyaged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

11

Edward Hamilton, Lab Director

| All Environm | iental, Inc. | Client Pro | ject ID: # 1540; Fidelity Roof | Date Sampled: 03/19/97 | | | | | | |
|------------------------------|---|--------------|--|---------------------------------------|------------|--|--|--|--|--|
| 3364 Mt. Dia | blo Blvd. | | | Date Received: 03 | /21/97 | | | | | |
| Lafayette, CA | A 94549 | Client Cor | ntact: Bryan Campbell | Date Extracted: 03 | /21/97 | | | | | |
| | | Client P.C |): | Date Analyzed: 03 | /21/97 | | | | | |
| EBA motheda | Diesel Ra | nge (C10-0 | 223) Extractable Hydrocarbons | as Diesel * | (2510) | | | | | |
| LFA methods m | odined 8015, and 3550 or | 5510; Calilo | mia KwQCB (SF Bay Region) method | JCFID(3550) of GCFID | % Recovery | | | | | |
| | Chent ID | Matrix | TPH(d) | | Surrogate | | | | | |
| 74590 | MW-1 | W | ND | | 101 | | | | | |
| 74591 | MW-2 | w | ND | | 110 | | | | | |
| 74592 | MW-3 | w | 5000,d | | 100 | | | | | |
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| | | | | | | | | | | |
| Reporting | Limit unless other- | w | 50 ug/L | <u> </u> | | | | | | |
| wise stated; tected above | ND means not de- the reporting limit | s | 1.0 mg/kg | | | | | | | |

* water samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP and STLC extracts in mg/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 McCampbell 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) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

DHS Certification No. 1644

12

Edward Hamilton, Lab Director

QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/21/97

Matrix: Water

| | Concentr | ation | (mg/L) | | % Reco | very | |
|------------------------|----------|-------|--------|---------------|--------|-------|-------------|
| Analyte | Sample | | | Amount | | | RPD |
| | (#74543) | MS | MSD | Spiked | MS | MSD | |
| | | | | | | | · · · · · · |
| TPH (gas) | 0.0 | 97.3 | 99.5 | 100.0 | 97.3 | 99.5 | 2.2 |
| Benzene | 0.0 | 9.6 | 9.8 | 10.0 | 96.0 | 98.0 | 2.1 |
| Toluene | 0.0 | 9.9 | 10.2 | 10.0 | 99.0 | 102.0 | 3.0 |
| Ethyl Benzene | 0.0 | 10.2 | 10.5 | 10.0 | 102.0 | 105.0 | 2.9 |
| Xylenes | 0.0 | 30.4 | 31.3 | 30.0 | 101.3 | 104.3 | 2.9 |
| | | | | | | . , | |
| TPH (diesel) | 0 | 139 | 143 | 150 | 93 | 95 | 2.6 |
| TRPH (oil & grease) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

% Rec. = (MS - Sample) / amount spiked x 100-

 $RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100$

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/24/97

Matrix: Water

| | Concent: | ration | (mg/L) | | 🖁 🖁 🖁 🖁 | very | |
|---------------------------------------|----------|--------|--------|----------|---------|-------|-----|
| Analyte | Sample | | | Amount | | | RPD |
| | (#74563) | MS | MSD | Spiked | MS | MSD | I |
| <u> </u> | ł | | | | | | |
| | | | | | | | |
| TPH (gas) | 0.0 | 101.4 | 100.8 | 100.0 | 101.4 | 100.8 | 0.6 |
| Benzene | 0.0 | 9.9 | 9.8 | 10.0 | 99.0 | 98.0 | 1.0 |
| Toluene | 0.0 | 10.3 | 10.2 | 10.0 | 103.0 | 102.0 | 1.0 |
| Ethyl Benzene | 0.0 | 10.4 | 10.4 | 10.0 | 104.0 | 104.0 | 0.0 |
| Xylenes | 0.0 | 31.1 | 31.3 | 30.0 | 103.7 | 104.3 | 0.6 |
| · · · · · · · · · · · · · · · · · · · | | | | <u> </u> | | | 1 |
| | | | | | | | |
| TPH (diesel) | 0 | 139 | 139 | 150 | 93 | 92 | 0.2 |
| l | l | | | l | | | |
| | | | | | | | |
| TRPH | 0 | 24800 | 24900 | 23700 | 105 | 105 | 0.4 |
| (oil & grease) | | | | | | | |
| 1 | | | | | | | |

% Rec. = (MS - Sample) / amount spiked x 100

 $RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100$

| | | | | | . | | | | | | | | | | | | L | | | | | <u>ل</u> | 2 | ìS | 5 | 67 | ٣¥ | 26 | 6 | |
|-----------------|--|----------|----------------------|--------------|------------------------|--------------------|---------------------|------------|----------|-------------|---------------|------------|------------------|----------|----------|------------|------|------|----------|----------|-------|------------|-------------|-----------|------------|-----|-----------|-------------------|----------|----------|
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| MW-1 | | 3/19/97 | | 3 | | K | | | | | | | X | X | | | | | _ | | | | | | | | \square | | | 74590 |
| MW-2 | | 3/19/97 | | 3 | | X | | | | | | | X | Å | _ | _ | _ | | | | | <u></u> | | | | | | | | |
| MW-3 | | 3/13/57 | | 3 | | X | ┠━┠ | | _ - | | | | М | \geq | - | + | | | + | | | | | | | | ┢─┼╴ | - | | 74591 |
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| RELINQUISHED BY | | DATE | TIME | RECE | IVED | BY | | - | 7 | r | | | | R | EMA | NRK | 12 | | | | | | | | | | | | | |
| Dusty 6 | hoy | 3/21/37 | 9:20A. | | <u> </u> | <u>id</u> i | | 4 | u | <i>ia</i> | / | | | | | | | | | | | | | | | | | | | |
| EL INQUISHED BI | fr <i>V</i> | PATE | 11146 | I KE CE | IVE D | 811 | | Ļ | - | | | | | СЕЛ | • | 1 | | | | | | | | ∷V IÆ- | 045 | | ig l | Æ | SION | A |
| | | DATE | TIME | RECE | IVED | BY | ABO | RATO | IRY | | <u> </u> | | (| 00 | | NDI | TION | | | , A | PPF | NPI NPI | raa Riat | VE1 E | | - | | <u>م بالرامين</u> | | 24.73 |
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| All Enviro | nmental, Inc. | | Client Projec | t ID : # 154(|); Fidelity R | Date Sampled: 03/06/97 | | | | | | | |
|----------------------|---------------------------------------|------------------------|------------------------|---------------------------------|---------------|-------------------------|---------------------|----------|---------------------|--|--|--|--|
| 3364 Mt. [| Diablo Blvd. | | | | | Date Received: 03/07/97 | | | | | | | |
| Lafayette, | CA 94549 | | Client Conta | ct: Jennifer | Anderson | Date Extract | ed: 03/07-0 |)3/10/97 | | | | | |
| | | | Client P.O: | <u>.</u> | | Date Analyze | ed: 03/07-0 | 3/10/97 | | | | | |
| Gasoli EPA method | ne Range (C6-C s 5030, modified 80 | 12) Vol: 15, and 80 | vith Met gion) meth | hyl tert-Butyl od GCFID(5030 | Ether* & | BTEX* | | | | | | | |
| Lab ID | Client ID | Matrix | TPH(g) ⁺ | MTBE | Benzene | Toluen | e Ethylben- zene | Xylenes | % Rec. Surrogate | | | | |
| 74150 | BH-3, 10' | S | 110,a | ND< 0.9 | 1.1 | 0.36 | 1.9 | 7.5 | 97 | | | | |
| 74154 | BH-1, 10' | S | 7.7 . j | ND | 0.028 | 0.021 | 0.060 | 0.058 | 101 | | | | |
| 74158 | BH-2, 10' | s | ND | ND | ND | ND | ND | ND | 100 | | | | |
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| | | | | | | | | | | | | | |
| Reportin | g Limit unless | w | 50 ug/L | 5.0 | 0.5 | 0.5 | 0.5 | 0.5 | | | | | |
| above the | not detected reporting limit | s | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 | | | | | |

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L

[#] cluttered chromatogram; sample peak coelutes with surrogate peak

⁺ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: 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 (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

14 Edward Hamilton, Lab Director

| Client Project ID: # 1540; Fidelity Roof Co. | Date Sampled: 03/06/97 |
|--|--|
| | Date Received: 03/07/97 |
| Client Contact: Jennifer Anderson | Date Extracted: 03/13/97 |
| Client P.O: | Date Analyzed: 03/14/97 |
| | Client Project ID: # 1540; Fidelity Roof Co. Client Contact: Jennifer Anderson Client P.O: |

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel * EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

| Lab ID | Client ID | Matrix | TPH(d) ⁺ | % Recovery Surrogate |
|----------------------------------|---|--------|---------------------|-------------------------|
| 74150 | BH-3, 10' | S | 6.8,d,b | 100 |
| 74154 | BH-1, 10' | S | 2.5,d | 99 |
| 74158 | BH-2, 10' | S | 18,g,b | 107 |
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| | | | | |
| Reporting I wise stated | Limit unless other- ND means not de- | w | 50 ug/L | |
| tected above the reporting limit | | S | 1.0 mg/kg | |

* water samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP and STLC extracts in mg/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 McCampbell 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) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

DHS Certification No. 1644

14 Edward Hamilton, Lab Director

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/07/97

Matrix: Soil

| | Concent: | ration | (mg/kg) | | * Recov | very | |
|------------------|----------|--------|----------|--------|----------|------|------|
| Analyte | Sample | | | Amount | | | RPD |
| | (#68848) | MS | MSD | Spiked | MS | MSD | |
| | | | | | <u> </u> | | |
| | | 1 000 | 1 | | | | |
| TPH (gas) | 0.000 | 1.989 | 1.999 | 2.03 | 98 | 98 | 0.5 |
| Benzene | 0.000 | 0.194 | 0.196 | 0.2 | 97 | 98 | 1.0 |
| Toluene | 0.000 | 0.200 | 0.202 | 0.2 | 100 | 101 | 1.0 |
| Ethylbenzene | 0.000 | 0.206 | 0.210 | 0.2 | 103 | 105 | 1.9 |
| Xylenes | 0.000 | 0.618 | 0.628 | 0.6 | 103 | 105 | 1.6 |
| | | | | | | | |
| TPH (diesel) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | <u> </u> | 1 | | | |
| TRPH | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| (oil and grease) | | | | | | | |
| | { | | | | | | |

% Rec. = (MS - Sample) / amount spiked x 100 $^\circ$

 $RPD \approx (MS - MSD) / (MS + MSD) \times 2 \times 100$

QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/10/97

Matrix: Soil

| | Concent: | ration | (mg/kg) | | % Reco | very | |
|--------------------------|---------------|--------|---------|-----------|--------|------|-----|
| Analyte | Sample | | | Amount | | | RPD |
| | (#68848) | MS | MSD | Spiked | MS | MSD | |
| | | | · | | | | |
| | | | | | | | |
| TPH (gas) | 0.000 | 1.967 | 1.945 | 2.03 | 97 | 96 | 1.1 |
| Benzene | 0.000 | 0.196 | 0.190 | 0.2 | 98 | 95 | 3.1 |
| Toluene | 0.000 | 0.204 | 0.198 | 0.2 | 102 | 99 | 3.0 |
| Ethylbenzene | 0.000 | 0.208 | 0.200 | 0.2 | 104 | 100 | 3.9 |
| Xylenes | 0.000 | 0.622 | 0.590 | 0.6 | 104 | 98 | 5.3 |
| | | | | | | | |
| TPH (diesel) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TRPH (oil and grease) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| İ | | | | | | | |

% Rec. = (MS - Sample) / amount spiked x 100 $^\circ$

 $RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100$

• 1

QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/13/97-03/14/97 Matrix: Soil

| | Concentration (mg/kg) | | |] | | | |
|--------------------------|-----------------------|-----|-----|--------|-----|-----|-----|
| Analyte | Sample | | | Amount | | | RPD |
| | (#68829) | MS | MSD | Spiked | MS | MSD | |
| | | | | | | | |
| TPH (gas) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Benzene | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Toluene | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Ethylbenzene | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Xylenes | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TPH (diesel) | 0 | 318 | 328 | 300 | 106 | 109 | 3.1 |
| TRPH (oil and grease) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

% Rec. = (MS - Sample) / amount spiked x 100 $^\circ$

 $RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100$

| ALL ENVIRONM 3364 Mt. Diablo Lafayette, CA 94 (510) 283-6000 | Bouleva 549 FAX: (5 | rd 510) 283 | -6121 | 8211 | AALEI | 31 | DATE: 3 | <u>/6/97</u> page: <u>1</u> | / |
|--|---------------------------|--|--|---|----------|--|----------------------------------|---|--|
| AEI PROJECT MANAGER: Jeanifer Anderson PROJECT NAME: Fide lity Roof CO. PROJECT NUMBER: 1540 SIGNATURE: 12 TOTAL # OF CONTAINERS: 12 RECD. GOOD COND./COLD: | | | ANALYSIS REQUEST 4. 2000 2011 4. 2000 2011 | | | | 74149 74150 74151 74152 | UMBER OF CONTAINED | |
| SAMPLE I.D. BH-3, 5' BH-3, 10' BH-3, 10' BH-3, 20' BH-1, 10' BH-1, 10' BH-1, 15' BH-2, 5' BH-2, 15' CH-2, 15' | DATE 3/4/97 | TIME 10:12 em 10:25 am 10:32 em 10:44 am 12:00 12:08 12:25 12:56 1:55 2:10 2:17 2:40 | | Hold XXX ZHold XXX ZHold XXX ZHold | | | | 74153 74154 74155 74155 74156 74157 74158 74159 74160 | |
| ANALYTICAL LAB: McCam ADDRESS: PHONE: () FA INSTRUCTIONS/COMMENTS: |) | Time/ | ICE/T COOD CONDITION TIN CONSTRACT Signature Signature Printed Mame BJ Company 7 30 Date | PRESERV APPROPR APPROPR CONTAINE OV Sig Loca Ames Ames Ames Ames Ames Ames Ames Ames | VOAS 0&0 | METALS OTHER I RELINC NM NM NM NM NM NM NM NM NM NM | DUISHED BY | 2: 2 N N N N N N N N N N N N N | LD IJY: 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
