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**By dehloptoxic at 1:43 pm, Feb 09, 2007**

Aqua Science Engineers, Inc. 208 West El Pintado, Suite C, Danville, CA 94526  
(925) 820-9391 - Fax (925) 837-4853 - [www.aquascienceengineers.com](http://www.aquascienceengineers.com)

February 7, 2007

REPORT  
of  
OFF-SITE SOIL AND GROUNDWATER ASSESSMENT  
ASE JOB NO. 4057  
at  
Albany Hill Mini Mart  
800 San Pablo Avenue  
Albany, California

Submitted by:  
AQUA SCIENCE ENGINEERS, INC.  
208 West El Pintado, Suite C  
Danville, CA 94526  
(925) 820-9391



## **1.0 INTRODUCTION**

This report presents the methods and findings of Aqua Science Engineers, Inc. (ASE)'s soil and groundwater assessment for the Albany Hill Mini Mart site located at 800 San Pablo Avenue in Albany, California (Figures 1 and 2). The site assessment activities were initiated by Dr. Joginder Sikand, owner of the property, as requested by the Alameda County Health Care Services Agency (ACHCSA). The purpose of this assessment is to define the extent of groundwater contamination north of the subject site. The northern most boring previously drilled for this assessment was BH-V, which was located on the Steve's Auto Care property at 744 San Pablo Avenue. Since boring BH-V contained elevated hydrocarbon concentrations, additional definition further to the north was necessary. The next property to the north is 742 San Pablo Avenue, occupied by Albany Tire Service. However, the owner of the Albany Tire Service property indicated that his entire property, including the areas next to the San Pablo Avenue sidewalk where we would have liked to drill, was previously excavated as part of a remediation project related to the former tire retread shop on the property. The entire excavation was backfilled with crushed concrete, and he did not believe that drilling would be possible in that location. For this reason, ASE selected the 736 San Pablo Avenue property for the additional boring in ASE's September 20, 2006 workplan. During initial discussions, the owner of Berkeley Motor Works at the 736 San Pablo Avenue property stated that he would allow ASE to conduct drilling on his property. However, when we met at the site to discuss the exact drilling location, he would not allow us to drill in locations on the eastern portion of the site. Since drilling in locations on the west side of the property would not provide meaningful data for this investigation, ASE spoke with the property owner for the next property to the north, located at 730 San Pablo Avenue and occupied by Nippon European Motors. Mr. Tom Inthawong, owner of the property, granted us access for the drilling of a boring. This revised boring location was discussed and approved by Mr. Jerry Wickham of the ACHCSA in a phone conversation prior to drilling.

## **2.0 SCOPE OF WORK (SOW)**

ASE's scope of work was to:

- 1) Obtain a drilling permit from the Alameda County Public Works Agency.
- 2) Obtain an access agreement from the property owner at 730 San Pablo Avenue to drill a soil boring on his property.
- 3) Drill one soil boring on the southeastern corner of the 730 San Pablo Avenue property using a Geoprobe direct-push drill rig and collect soil and groundwater samples for analysis.
- 4) Following collection of the soil and groundwater samples, backfill the boring described in task 3 with neat cement placed by tremie pipe.





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- 5) Analyze soil and groundwater samples at a CAL-DHS certified analytical laboratory for TPH-D by EPA Method 8015 and TPH-G, BTEX, and fuel oxygenates by EPA Method 8260B.
- 6) Prepare a report presenting the methods and finding of the assessment.

Details of the assessment are presented below.

### **3.0 DRILL SOIL BORING AND COLLECT SAMPLES**

#### **3.1 Obtain Access Agreement**

Prior to drilling, ASE obtained an access agreement from Mr. Tom Inthawong, owner of the 730 San Pablo Avenue property. A copy of the access agreement is presented in Appendix A.

#### **3.2 Obtain Drilling Permit**

Prior to drilling, ASE obtained a drilling permit from the Alameda County Public Works Agency. A copy of this permit is presented in Appendix B. ASE also notified Underground Service Alert (USA) to have underground utility lines marked in the site vicinity.

#### **3.3 Drilling and Soil Sample Collection**

On January 19, 2006, Vironex of Pacheco, California drilled soil boring BH-Y using a Geoprobe direct-push sampling rig (Figure 2). ASE senior geologist Robert Kitay, P.G. directed the drilling.

Undisturbed soil samples were collected continuously as drilling progressed for lithologic and hydrogeologic description and for possible chemical analysis. The samples were collected by driving a sampler lined with acetate tubes using hydraulic direct push methods. Selective soil samples were immediately cut, sealed with Teflon squares and plastic end caps, and labeled with the site location, sample designation, date and time the sample was collected, and the initials of the person collecting the sample. The samples were placed into an ice chest containing wet ice for delivery under chain of custody to a CAL-DHS certified analytical laboratory under chain of custody documentation.

Soil from the remaining tubes was described by the site geologist using the Unified Soil Classification System (USCS) and was screened for volatile organic compounds (VOCs) using a photoionization detector (PID). The soil was screened by emptying soil from one of the sample tubes into a plastic bag. The bag was then sealed and placed in the sun for approximately 10 minutes. After the volatile compounds were allowed to volatilize, the PID measured the vapor in the bag through a small hole punched in the bag. PID readings are used as a screening tool only, since the procedures are not as rigorous as those used in the laboratory. The PID readings are listed on the boring logs presented in Appendix C.



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### 3.4 Groundwater Sample Collection

A temporary PVC well casing was driven into the boring for the collection of groundwater samples. Groundwater samples were removed from the boring with a pre-cleaned bailer. The groundwater samples were contained in 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, and sealed without headspace. The samples were then labeled and chilled with ice for transport to Kiff Analytical under chain of custody.

### 3.5 Decontamination and Borehole Backfilling

Drilling equipment was cleaned with an Alconox solution between sampling intervals to prevent potential cross-contamination. Following collection of the soil and groundwater samples, the boring was backfilled with neat cement to the ground surface.

### 3.6 Subsurface Lithology and Hydrogeology

Sediments encountered during drilling consisted generally of sandy silt from beneath the asphalt surface to 12-feet below ground surface (bgs), clayey silt and clay from 12-feet bgs to 18-feet bgs, sandy silt from 18-feet bgs to 18.5-feet bgs, sandy clay from 18.5-feet bgs to 24-feet bgs, sandy silt from 24-feet bgs to 26-feet bgs, and sandy clay from 26-feet bgs to the total depth explored of 28-feet bgs. Groundwater was encountered at approximately 24-feet bgs. Boring logs are presented in Appendix C.

## **4.0 ANALYTICAL RESULTS FOR SOIL**

The soil sample collected from 23.5-feet below ground surface (bgs) was selected for analysis since it best represented the capillary zone. The sample was analyzed by Kiff Analytical for TPH-D by modified EPA Method 8015 and TPH-G, BTEX, and oxygenates by EPA Method 8260B. There were no indications of hydrocarbons in any of the soil from this boring based on odors, staining and/or PID readings. The analytical results are tabulated in Table One, and the certified analytical report and chain of custody forms are included in Appendix D. The only compound detected was 1.3 parts per million (ppm) TPH-D. However, the laboratory noted that the hydrocarbons reported as TPH-D do not exhibit typical chromatographic pattern for diesel and that the hydrocarbons are higher boiling than typical diesel fuel. This concentration is well below the environmental screening level (ESL) for sites where groundwater is not a current or potential source of drinking water. This ESL is presented in the "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) dated February 2005.





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## **5.0 ANALYTICAL RESULTS FOR GROUNDWATER**

The groundwater sample was analyzed by Kiff Analytical for TPH-D by modified EPA Method 8015 and TPH-G, BTEX, and oxygenates by EPA Method 8260B. The analytical results are tabulated in Table Two, and the certified analytical report and chain of custody forms are included in Appendix D.

The groundwater sample contained 220 parts per billion (ppb) TPH-D, 140 ppb methyl-t-butyl ether (MTBE) and 1.4 ppb tert-amyl methyl ether (TAME). However, the laboratory noted that the hydrocarbons reported as TPH-D do not exhibit typical chromatographic pattern for diesel and that the hydrocarbons are higher boiling than typical diesel fuel.

These concentrations were compared to ESLs for sites where groundwater is not a current or potential source of drinking water. None of the hydrocarbon concentrations exceeded the ESLs.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

The soil sample collected from 23.5-feet bgs (the capillary zone) contained only 1.3 ppm TPH-D. This concentration does not appear to be related to diesel fuel and is well below the RWQCB ESL.

The groundwater sample contained 220 ppb TPH-D, 140 ppb MTBE and 1.4 ppb TAME. However, the laboratory noted that the hydrocarbons reported as TPH-D do not exhibit typical chromatographic pattern for diesel and that the hydrocarbons are higher boiling than typical diesel fuel. None of the concentrations detected exceeded ESLs for sites where groundwater is not a current or potential source of drinking water.

## **7.0 REPORT LIMITATIONS**

The results presented in this report represent conditions at the time of the soil and groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

This report does not fully characterize the site for contamination resulting from unknown sources or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.



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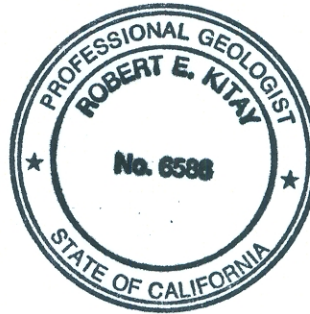
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

A handwritten signature in black ink that reads 'Robert E. Kitay'.

Robert E. Kitay, P.G., R.E.A.  
Senior Geologist



Attachments: Figures 1 and 2  
Tables One and Two  
Appendices A through D



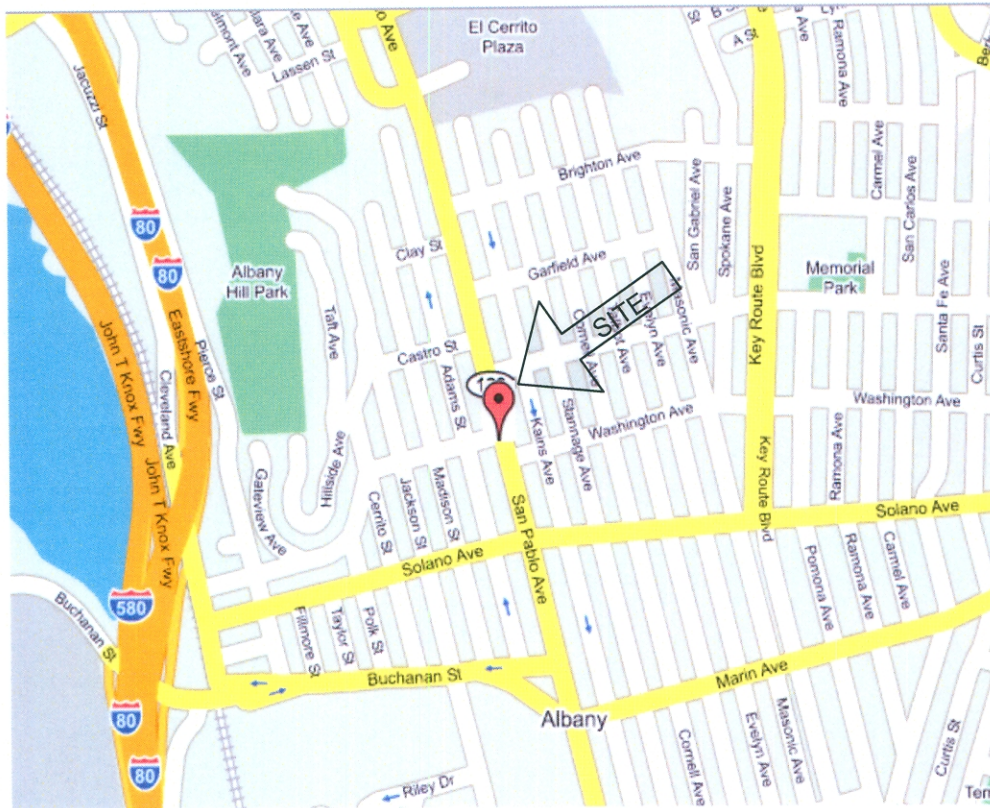


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## **FIGURES**



NORTH



### LOCATION MAP

ALBANY HILL MINI MART  
800 SAN PABLO AVE  
ALBANY, CALIFORNIA

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FIGURE 1





NORTH

0 40

SCALE: 1" = 50'

Nippon European Motors  
(730 San Pablo Ave)

BH-Y

Nippon Video

Berkeley Motor Works  
(736 San Pablo Ave)

Albany Tire Service  
(742 San Pablo Ave)

BH-V

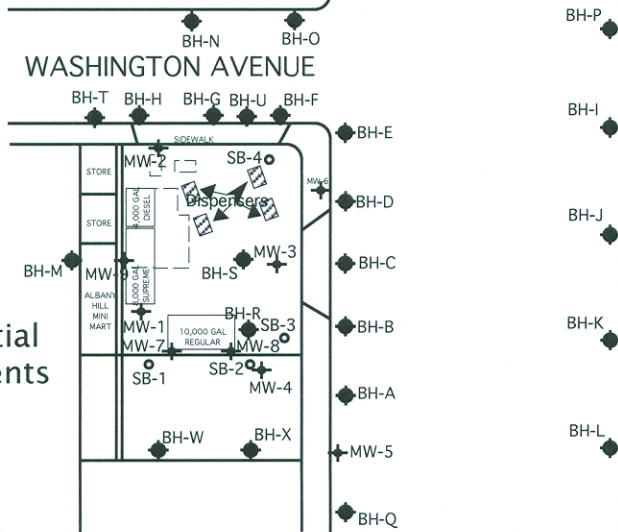
Steve's Auto Care  
(744 San Pablo Ave)

Club Mallard  
(752 San Pablo Ave)

SAN PABLO AVENUE

WASHINGTON AVENUE

Residential  
Apartments



### LEGEND

- MW-2 MONITORING WELL
- SB-2 SOIL BORING
- BH-A ASE ADVANCED SOIL BORING
- NEWEST SOIL BORING

### EXTENDED BORING LOCATION MAP

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

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Figure 2



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## **TABLES**



**TABLE ONE**  
 Certified Analytical Results for **SOIL** Samples  
 Albany Hill Mini Mart  
 800 San Pablo Avenue, Albany, CA  
 All results are in **parts per million (ppm)**

Boring ID	Sample Depth (feet)	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
<b>BH-Y</b>	23.5	< 1.0	1.3*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
ESL		100	100	0.18	9.3	32	11.0	NE	57	2	Varies

Notes:

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (February 2005)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

Concentrations exceeding ESLs are in Bold.

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory detection limit.

NE means that no ESL has been established for this compound.

\* = Hydrocarbons reported as TPH-D do not exhibit a typical diesel chromatographic pattern.

**TABLE TWO**  
 Certified Analytical Results for **GROUNDWATER** Samples  
 Albany Hill Mini Mart  
 800 San Pablo Avenue, Albany, CA  
 All results are in **parts per billion (ppb)**

Boring ID	Sample Depth (feet)	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
<b>BH-Y</b>	24-28	< 50	220*	< 0.5	< 0.5	< 0.5	< 0.5	1.4	< 5.0	140	< 0.5
<b>ESL</b>		500	640	46	130	290	100	NE	18,000	1,800	Varies

Notes:

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (February 20005)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

Concentrations exceeding ESLs are in **Bold**.

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory detection limit.

NE means that no ESL has been established for this compound.

\* = Hydrocarbons reported as TPH-D do not exhibit a typical diesel chromatographic pattern.





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## **APPENDIX A**

### *Access Agreement*

## **ACCESS AGREEMENT**

Dr. Joginder Sikand, owner of the property located at 800 San Pablo Avenue, is being required by the Alameda County Health Care Services Agency and the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) to conduct a soil and groundwater assessment related to the underground storage tanks at the Albany Hill Mini Mart near your property. Aqua Science Engineers (ASE), an environmental consulting firm, is conducting this assessment for Dr. Joginder Sikand. To complete this assessment, ASE would like to place a temporary soil boring on your property located at 730 San Pablo Avenue in Albany, California (your property). This document grants ASE access to your property for the purpose of conducting these activities.

As a condition for receiving access to your property, ASE agrees to at all times while conducting work on the property maintain liability, automotive and workers compensation insurance. ASE will also require any subcontractors to also maintain such insurance. ASE agrees to hold the property owner harmless for any liability that may arise related to ASE's activities at the site. All environmental activities will be at no cost to the property owner.

ASE also agrees to contact Underground Service Alert (USA) to mark underground utility lines in the site vicinity at least 48 hours prior to drilling. ASE will also obtain a drilling permit from the Alameda County Public Health Agency (ACPWA) prior to drilling. ASE will file all required paperwork with the ACPWA following the completion of the drilling.

ASE also agrees to provide a copy of the analytical results to the property owner at the completion of the assessment.

ASE also agrees to match the existing surface conditions (concrete or asphalt patch) upon completion of the drilling.

The property owner agrees to have the drilling location accessible to us at a mutually agreeable time. The drilling should be complete in less than a day.

AGREEMENT

I agree to be bound by the terms and conditions stated above.

  
Robert Kitay  
Aqua Science Engineers

I have read the access agreement and will grant access to my property to conduct the work stated above.

  
Tom Inthawong  
Nippon European Motors  
Property Owner

01/16/2007





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## **APPENDIX B**

### **Drilling Permit**

# Alameda County Public Works Agency - Water Resources Well Permit



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

**Application Approved on: 01/11/2007 By jamesy**

**Permit Numbers: W2007-0056**  
**Permits Valid from 01/18/2007 to 02/01/2007**

**Application Id:** 1167958478684  
**Site Location:** 730 San Pablo Avenue  
**Project Start Date:** 01/18/2007

**City of Project Site:** Albany

**Completion Date:** 02/01/2007

**Applicant:** Aqua Science Engineers - Robert Kitay  
208 West El Pintado, Suite C, Danville, CA 94526  
**Property Owner:** Tom Inthawong  
730 San Pablo Avenue, Albany, CA 94706  
**Client:** Joginder Sikand  
1300 Ptarmigan Drive #1, Walnut Creek, CA 94595

**Phone:** 925-820-9391

**Phone:** --

**Phone:** --

**Receipt Number: WR2007-0017** **Total Due:** \$200.00  
**Payer Name : Aqua Science Engineers** **Total Amount Paid:** \$200.00  
Paid By: VISA **PAID IN FULL**

## Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 1 Boreholes  
Driller: Vironex - Lic #: 705927 - Method: DP

**Work Total: \$200.00**

## Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2007-0056	01/11/2007	04/18/2007	1	2.00 in.	20.00 ft

## Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. 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.
4. Applicant shall contact James Yoo for an inspection time at 510-670-6633 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. 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.
6. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.



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## **APPENDIX C**

### Boring Log



# SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

BORING: BH-Y

Page 1 of 1

Project Name: Albany Hill

Project Location: 800 San Pablo Ave, Albany, CA

Driller: Vironex

Type of Rig: Geoprobe

Size of Drill: 2.0" Diameter

Logged By: Robert E. Kitay, P.G.

Date Drilled: January 18, 2007

Checked By: Robert E. Kitay, P.G.

## WATER AND WELL DATA

Depth of Water First Encountered: 24'

Total Depth of Well Completed: NA

Well Screen Type and Diameter: NA

Static Depth of Water in Well: NA

Well Screen Slot Size: NA

Total Depth of Boring: 28'

Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler

## SOIL/ROCK SAMPLE DATA

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA					Depth in Feet	DESCRIPTION OF LITHOLOGY  standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
			Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log		
0								0	Asphalt
5					0			5	Sandy SILT (ML); yellow brown; stiff; dry; 50% silt; 30% fine to coarse sand; 20% clay; moderate plasticity; very low estimated K; no odor
10					0			10	Clayey SILT (ML); grey; stiff; moist; 90% silt; 10% clay; low plasticity; low estimated K; no odor
15					0			15	CLAY (CH); brown; very stiff; damp; 100% clay; trace silt; high plasticity; very low estimated K; no odor
20					0			20	Sandy SILT (ML); brown; medium stiff; wet; 85% silt; 10% fine sand; 5% clay; low plasticity; low estimated K; no odor
25					0			25	Sandy CLAY (CH); brown; hard; damp; 75% clay; 25% medium to coarse sand; high plasticity; very low estimated K; no odor
30								30	Sandy SILT (ML); brown; soft; wet; 80% silt; 20% fine sand; non-plastic; low estimated K; no odor
									Sandy CLAY (CH); brown; hard; damp; 75% clay; 25% medium to coarse sand; high plasticity; very low estimated K; no odor
									End of boring at 28'

Portland Cement

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## **APPENDIX D**

### **Analytical Report and Chain of Custody Form For Soil and Groundwater Samples**



Report Number : 54461

Date : 1/29/2007

Robert Kitay  
Aqua Science Engineers, Inc.  
208 West El Pintado Rd.  
Danville, CA 94526

Subject : 1 Soil Sample and 1 Water Sample  
Project Name : Albany Hill Mini Mart  
Project Number : 3934

Dear Mr. Kitay,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff", is written over a printed name label.

Joel Kiff



Subject : 1 Soil Sample and 1 Water Sample  
Project Name : Albany Hill Mini Mart  
Project Number : 3934

## Case Narrative

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples BH-Y 23.5 and BH-Y. These hydrocarbons are higher boiling than typical diesel fuel.

Approved By: \_\_\_\_\_

  
Joel Kiff

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

Sample : **BH-Y 23.5**

Matrix : Soil

Lab Number : 54461-04

Sample Date : 1/19/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	1/23/2007
<b>Toluene</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	1/23/2007
<b>Ethylbenzene</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	1/23/2007
<b>Total Xylenes</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	1/23/2007
<b>Methyl-t-butyl ether (MTBE)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	1/23/2007
<b>Diisopropyl ether (DIPE)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	1/23/2007
<b>Ethyl-t-butyl ether (ETBE)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	1/23/2007
<b>Tert-amyl methyl ether (TAME)</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	1/23/2007
<b>Tert-Butanol</b>	< <b>0.0050</b>	0.0050	mg/Kg	EPA 8260B	1/23/2007
<b>TPH as Gasoline</b>	< <b>1.0</b>	1.0	mg/Kg	EPA 8260B	1/23/2007
Toluene - d8 (Surr)	96.0		% Recovery	EPA 8260B	1/23/2007
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	1/23/2007
<b>TPH as Diesel (Silica Gel)</b>	<b>1.3</b>	1.0	mg/Kg	M EPA 8015	1/27/2007
1-Chlorooctadecane (Silica Gel Surr)	95.1		% Recovery	M EPA 8015	1/27/2007

Approved By:

Joel Kiff

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

Sample : **BH-Y**

Matrix : Water

Lab Number : 54461-06

Sample Date : 1/19/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	1/24/2007
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	1/24/2007
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	1/24/2007
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	1/24/2007
<b>Methyl-t-butyl ether (MTBE)</b>	<b>140</b>	0.50	ug/L	EPA 8260B	1/24/2007
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	1/24/2007
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	1/24/2007
<b>Tert-amyl methyl ether (TAME)</b>	<b>1.4</b>	0.50	ug/L	EPA 8260B	1/24/2007
<b>Tert-Butanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	1/24/2007
<b>TPH as Gasoline</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	1/24/2007
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	1/24/2007
4-Bromofluorobenzene (Surr)	96.6		% Recovery	EPA 8260B	1/24/2007
<b>TPH as Diesel (Silica Gel)</b>	<b>220</b>	50	ug/L	M EPA 8015	1/26/2007
Octacosane (Diesel Silica Gel Surr)	102		% Recovery	M EPA 8015	1/26/2007

Approved By:

Joel Kiff



Report Number : 54461

Date : 1/29/2007

**QC Report : Method Blank Data**Project Name : **Albany Hill Mini Mart**Project Number : **3934**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	1/25/2007
Octacosane (Diesel Silica Gel Surr)	105		%	M EPA 8015	1/25/2007
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	1/27/2007
1-Chlorooctadecane (Silica Gel Surr)	93.5		%	M EPA 8015	1/27/2007
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/22/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/22/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/22/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/22/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/22/2007
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/22/2007
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/22/2007
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/22/2007
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/22/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/22/2007
Toluene - d8 (Surr)	98.4		%	EPA 8260B	1/22/2007
4-Bromofluorobenzene (Surr)	106		%	EPA 8260B	1/22/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/24/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/24/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/24/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/24/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/24/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	1/24/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	1/24/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	1/24/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	1/24/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/24/2007
Toluene - d8 (Surr)	104		%	EPA 8260B	1/24/2007
4-Bromofluorobenzene (Surr)	97.5		%	EPA 8260B	1/24/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54461

Date : 1/29/2007

**QC Report : Matrix Spike/ Matrix Spike Duplicate**Project Name : **Albany Hill Mini Mart**Project Number : **3934**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	785	752	ug/L	M EPA 8015	1/25/07	78.5	75.2	4.33	70-130	25
TPH as Diesel	54461-04	1.3	20.0	20.0	18.9	18.8	mg/Kg	M EPA 8015	1/27/07	88.8	88.2	0.617	60-140	25
Benzene	54474-04	<0.50	40.0	40.0	39.9	39.5	ug/L	EPA 8260B	1/24/07	99.7	98.9	0.820	70-130	25
Toluene	54474-04	<0.50	40.0	40.0	43.2	42.6	ug/L	EPA 8260B	1/24/07	108	107	1.37	70-130	25
Tert-Butanol	54474-04	110	200	200	324	324	ug/L	EPA 8260B	1/24/07	108	108	0.225	70-130	25
Methyl-t-Butyl Ether	54474-04	50	40.0	40.0	95.1	93.3	ug/L	EPA 8260B	1/24/07	113	108	4.09	70-130	25
Benzene	54438-01	<0.0050	0.0389	0.0389	0.0349	0.0349	mg/Kg	EPA 8260B	1/23/07	89.8	89.6	0.175	70-130	25
Toluene	54438-01	<0.0050	0.0389	0.0389	0.0356	0.0355	mg/Kg	EPA 8260B	1/23/07	91.4	91.3	0.138	70-130	25
Tert-Butanol	54438-01	<0.0050	0.194	0.194	0.162	0.168	mg/Kg	EPA 8260B	1/23/07	83.0	86.2	3.70	70-130	25
Methyl-t-Butyl Ether	54438-01	<0.0050	0.0389	0.0389	0.0381	0.0385	mg/Kg	EPA 8260B	1/23/07	97.9	98.9	0.995	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54461

Date : 1/29/2007

**QC Report : Laboratory Control Sample (LCS)**

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Diesel	20.0	mg/Kg	M EPA 8015	1/27/07	87.6	70-130
Benzene	40.0	ug/L	EPA 8260B	1/24/07	100	70-130
Toluene	40.0	ug/L	EPA 8260B	1/24/07	108	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/24/07	105	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/24/07	110	70-130
Benzene	0.0398	mg/Kg	EPA 8260B	1/22/07	94.9	70-130
Toluene	0.0398	mg/Kg	EPA 8260B	1/22/07	96.6	70-130
Tert-Butanol	0.199	mg/Kg	EPA 8260B	1/22/07	89.2	70-130
Methyl-t-Butyl Ether	0.0398	mg/Kg	EPA 8260B	1/22/07	101	70-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By:

Joel Kiff





54461

# CHAIN OF CUSTODY

Aqua Science Engineers, Inc.  
208 W. El Pintado Rd.

Danville, CA 94598

phone: (925) 820-9391

fax: (925) 837-4853

JOB # 3934

PAGE 1 OF 1

SAMPLER (SIGNATURE)

*Robert Kitay*

PROJECT NAME: Albany Hill Mini Mart

ADDRESS: 800 San Pablo Ave, Albany, CA

## ANALYSIS REQUEST

Special Instructions:

ANALYSIS REQUEST																							
Special Instructions:																							
Sample ID	Date	Time	Matrix	No. of Samples	TPH-GAS/BTEX/MTBE (EPA 5030/8015-8020)	TPH-GAS/BTEX/5 OXYs (EPA 8260)	TPH-GAS/BTEX/7 OXYs/HVOCs (EPA 8260)	TPH-DIESEL (EPA 3510/8015) w/ Silica 601/8010	TPH-DIESEL & MOTOR OIL (EPA 3510/8015) PURGEABLE	HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 608/8080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	HOLD			
✓ BH-Y 9.5'	1-19-07	14:22	Soil	1																	X		01
✓ BH-Y 14.5'	↓	14:28	↓	↓																	X		02
✓ BH-Y 19.5'	↓	14:53	↓	↓																	X		03
✓ BH-Y 23.5'	↓	15:25	↓	↓		X		X															04
✓ BH-Y 27.5'	↓	15:24	↓	↓																	X		05
✓ BH-Y	1-19-07	15:40	Water	5		X		X															06

RELINQUISHED BY:

*Robert Kitay* 11:45  
(signature) (time)

RECEIVED BY:

(signature) (time)

RELINQUISHED BY:

(signature) (time)

RECEIVED BY LABORATORY:

*Thomas AHERN* 11:45  
(signature) (time)

COMMENTS:

Temp °C 72 Therm. ID# TP-5  
Initial: NA Date: 01/23/07  
Time 15:45 Coolant present Yes/No

Robert Kitay 1-23-07  
(printed name) (date)

Company:  
Aqua Science Engineers

(printed name) (date)

Company:

(printed name) (date)

Company:

(printed name) (date)

Company:

*Robert Kitay* 1/11/07

TURNAROUND TIME

STANDARD 24HR 48HR 72HR