



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

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Alameda County
Environmental Health

RO0262
**OZONE-SPARGING REMEDIATION SYSTEM
INSTALLATION AND 1ST WEEK'S OPERATION REPORT**

at

Albany Hill Mini Mart
800 San Pablo Avenue
Albany, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
55 Oak Court, Suite 220
Danville, CA 94526
(925) 820-9391



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

TABLE OF CONTENTS

SECTION		PAGE
1.0	INTRODUCTION	1
2.0	SITE HISTORY AND BACKGROUND INFORMATION	1
2.1	March 1997 UST Removal & Installation	1
2.2	August 1999 Preliminary Soil and Groundwater Assessment	1
2.3	June 2001 Soil and Groundwater Assessment	2
2.4	June 2002 Soil and Groundwater Assessment	2
2.5	June 2002 Area Well Survey	2
2.6	Quarterly Groundwater Monitoring	3
2.7	October 2003 Area Conduit Study	3
2.8	August & October 2004 Soil and Groundwater Assessment	3
2.9	Replacement Well 5R and MW-10 Well Installation	4
2.10	Vapor Extraction and Ozone Sparging Well Installation	4
2.11	January and February 2006 Soil and Groundwater Assessment	4
2.12	Remediation Feasibility Tests & CAP Preparation	5
2.13	RAP Preparation	5
2.14	USTCF Pre-Approval	5
3.0	OZONE SPARGING DESCRIPTION	6
4.0	REMEDIAL SYSTEM DESIGN & PRE-STARTUP ACTIVITIES	6
4.1	Ozone-Sparging Wells	6
4.2	Vapor Monitoring Points	6
4.3	Pre-Remediation Well Sampling & Analysis	7
4.4	Vapor Monitoring Point Sampling & Analysis	7
4.5	Ozone Generator	8
4.6	Manifold System	9
4.7	Power Supply & Hook-up	9
4.8	Remediation Equipment Delivery & Start-up	9
5.0	FIRST WEEK'S OPERATION & MAINTENANCE	10
6.0	CONCLUSIONS	10



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LIST OF FIGURES

- FIGURE 1 SITE LOCATION MAP
- FIGURE 2 SITE PLAN SHOWING USTs REMOVED IN 1997
- FIGURE 3 SITE PLAN SHOWING USTs INSTALLED IN 1997
- FIGURE 4 MONITORING WELL LOCATION MAP
- FIGURE 5 SOIL BORINGS DRILLED BY AARS, JUNE 2001
- FIGURE 6 SOIL BORINGS DRILLED BY ASE
- FIGURE 7 EXISTING VAPOR-EXTRACTION AND OZONE-SPARGING WELL LOCATION MAP
- FIGURE 8 OZONE-SPARGING WELL RADIUS OF INFLUENCE MAP
- FIGURE 9 VAPOR MONITORING POINT LOCATION MAP
- FIGURE 10 OZONE SPARGE WELL AND TRENCH LAYOUT MAP

TABLES

- TABLE ONE HISTORICAL GROUNDWATER ELEVATIONS
- TABLE TWO HISTORICAL MONITORING WELL ANALYTICAL DATA
- TABLE THREE OZONE-SPARGING WELL GROUNDWATER ANALYTICAL DATA
- TABLE FOUR VAPOR MONITORING POINT AIR ANALYTICAL DATA

APPENDICES

- APPENDIX A ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY AND UNDERGROUND STORAGE TANK CLEANUP FUND LETTERS
- APPENDIX B WELL INSTALLATION LOGS



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LIST OF APPENDICIES, Continued

- | | |
|-------------------|---|
| APPENDIX C | MANIFEST OF SOIL CUTTINGS DISPOSAL |
| APPENDIX D | CERTIFIED ANALYTICAL REPORTS AND CHAIN OF CUSTODIES
FROM FROM LABORATORY FOR GROUNDWATER & AIR
SAMPLES |
| APPENDIX E | REMEDICATION SYSTEM DRAWINGS |
| APPENDIX F | FIELD LOG OF FIRST WEEK'S OPERATING PARAMETERS |



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1.0 INTRODUCTION

This submittal presents Aqua Science Engineers, Inc. (ASE)'s ozone-sparging remediation system installation and first week's operation report for the Albany Hill Mini Mart located at 800 San Pablo Avenue in Albany, California (Figure 1). This report has been prepared on behalf of our client and the property owner, Dr. Joginder Sikand, as required by the Alameda County Health Care Services Agency (ACHCSA)

2.0 BACKGROUND INFORMATION

The subject site is currently a mini market and gasoline service station. It is ASE's understanding that the site has operated as a gasoline and diesel service station since 1930. Dr. Sikand, the present owner, purchased the property in 1973. At that time, three underground fuel storage tanks (USTs) operated at the site. These tanks consisted of two 500-gallon regular gasoline USTs and one 1,000-gallon super gasoline UST. In 1986, the site was remodeled and the three old USTs were removed and were replaced by four new USTs. These new USTs consisted of two 10,000-gallon gasoline USTs, one 6,000-gallon gasoline UST, and one 2,000-gallon diesel UST. The automotive repair operation also ceased at that time.

2.1 March 1997 Underground Storage Tank (UST) Removal & Installation

In March 1997, Superior Underground Tank Services removed five USTs (Figure 2). These USTs consisted of the four USTs installed in 1986 and one 750-gallon UST, which was previously unknown and was found during excavation activities at the site. Soil samples collected from the excavations following the UST removal contained up to 3,800 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPH-G), 820 ppm total petroleum hydrocarbons as diesel (TPH-D), and detectable concentrations of benzene, toluene, ethylbenzene and total xylenes (collectively known as BTEX) and methyl tertiary butyl ether (MTBE). Groundwater samples collected from the excavations also contained elevated concentrations of TPH-G, TPH-D, BTEX and MTBE.

A new 12,000 gallon UST was installed on-site in front of the mini mart. It is compartmented into 8,000 gallons for gasoline, and 4,000 gallons for diesel. A 10,000 gallon UST exists along the southern property line (Figure 3).

2.2 August 1999 Preliminary Soil and Groundwater Assessment

In August 1999, Advanced Assessment and Remediation Services (AARS) conducted a preliminary soil and groundwater assessment at the site. This assessment included the installation of monitoring wells MW-1, MW-2 and MW-3 at the site (Figure 4). Sediments encountered during drilling generally consisted of clay from the ground surface to approximately 13-feet below ground surface (bgs), and sand or silty sand from 13-feet bgs to the total depth explored of 25-feet bgs. Groundwater was encountered at approximately 17-feet bgs and rose to



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

approximately 10.5-foot bgs in the completed monitoring wells. Relatively low concentrations of hydrocarbons were detected in soil samples collected from MW-1, and no hydrocarbons were detected in soil samples collected from MW-2 and MW-3. Groundwater samples collected from the monitoring wells contained up to 1,500 parts per billion (ppb) TPH-G, 1,200 ppb TPH-D, 4.3 ppb benzene, 2.9 ppb toluene, 9.1 ppb ethylbenzene, and 28 ppb total xylenes. The highest concentrations were in monitoring well MW-1, with much lower or non-detectable concentrations in the other two wells. The groundwater flow direction during this assessment was calculated to be to the southeast.

2.3 June 2001 Soil and Groundwater Assessment

In June 2001, AARS conducted an additional soil and groundwater assessment at the site, which included the drilling of four soil borings (SB-1 through SB-4), Figure 5. Hydrocarbons were detected in soil samples collected from approximately 10-foot bgs in all four borings. The highest concentrations were in SB-1, which contained 2,300 ppm TPH-G, 550 ppm TPH-D, 5.3 ppm benzene, 78 ppm toluene, 45 ppm ethylbenzene, and 330 ppm total xylenes. Elevated petroleum hydrocarbon concentrations were detected in groundwater samples collected in all four borings. The highest concentrations were in SB-2 and SB-4, which contained up to 8,900 ppb TPH-G, 19,000 ppb TPH-D, 1,400 ppb benzene, 1,900 ppb toluene, 280 ppb ethylbenzene, 1,300 ppb total xylenes, and 4,500 ppb MTBE.

2.4 June 2002 Soil and Groundwater Assessment

In June 2002, AARS conducted an additional soil and groundwater assessment at the site, which included the installation of six additional monitoring wells (MW-4 through MW-9), Figure 4. Hydrocarbons were detected in soil samples collected from all of these borings, with the highest concentrations detected in the soil samples collected from 11-foot bgs in MW-4 and 15-foot bgs in MW-9. All of the hydrocarbon concentrations in soil were well below the concentrations detected in previous boring SB-2. The groundwater samples collected from these new monitoring wells contained up to 24,100 ppb TPH-G, 19,000 ppb TPH-D, 2,300 ppb benzene, 1,900 ppb toluene, 1,050 ppb ethylbenzene, 5,410 ppb total xylenes, and 12,000 ppb MTBE.

2.5 June 2002 Area Well Survey

In June 2002, AARS also conducted an area well survey that identified wells within a 2,000-foot radius of the site. AARS listed seven wells in the site vicinity. However, all of the wells are over 2,000-feet from the site and none of the wells are domestic, municipal, irrigation or other water supply wells.



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(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

2.6 Quarterly Groundwater Monitoring

Since August 1999, groundwater samples have been collected from the site monitoring wells on a quarterly sampling schedule. The historical water level data and analytical results are tabulated in Tables One and Two.

2.7 October 2003 Area Conduit Study

In October 2003, ASE conducted a study of underground utility conduits in the site vicinity to determine if any of these conduits could be a potential preferred pathway for the movement of groundwater contamination in the site vicinity. This study was conducted by reviewing Underground Service Alert (USA) markings in the site vicinity, reviewing documents such as as-built drawings supplied by the city and individual utility companies, and contacting individuals that would have knowledge of the individual utility lines. None of the water, natural gas, electric, telephone, cable TV, or Caltrans communication conduits could be potential conduits based on their depth and the depth to groundwater in the site vicinity. There is a sewer line beneath San Pablo Avenue that, although currently above all historical depths to water, could potentially have been above the potentiometric surface during periods of extremely high water levels. However, since it appears that the actual water level is well below the potentiometric surface at the site, ASE does not believe that this line presents a potential preferred pathway for the movement of groundwater even during periods of a high water table.

2.8 August and October 2004 Soil and Groundwater Assessment

Between August and October 2004, ASE drilled soil borings BH-A through BH-Q using a Geoprobe hydraulic sampling rig (Figure 6). A dual-wall sampler was advanced to allow drilling through the first water-bearing zone into the second water-bearing zone while minimizing the possibility of cross-contamination. Due to the difficulty in drilling with a dual-wall sampler, all of the borings met with refusal before reaching the planned depth. In general, the analytical results show that elevated hydrocarbon concentrations are present in street areas immediately adjacent to the site to the north and to the east.

The extent of hydrocarbons appeared to be completely defined to the southeast as hydrocarbon concentrations detected in boring BH-Q, drilled on the western side of San Pablo Avenue south of the site were below ESLs, and to the east as all of the hydrocarbon concentrations detected in borings drilled on the eastern side of San Pablo Avenue were below ESLs. The extent of hydrocarbons to the west was not yet defined based on the results from BH-M. However, based on the long distance to the next possible drilling location to the west, and based on the topographic gradient and unlikely groundwater flow in that direction, ASE did not recommend any further definition of the extent of hydrocarbons to the west at this time. The extent of hydrocarbons to the north of the site was not yet defined. ASE recommended further definition of the extent of hydrocarbons to the north, further vertical definition of the extent of hydrocarbons at the site, and vapor extraction and sparging tests at the site.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
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2.9 Replacement of Monitoring Well MW-5 and Installation of Monitoring Well MW-10

Monitoring well MW-5 was destroyed during a sewer replacement project in San Pablo Avenue. In September 2005, California Trenchless, Inc. contracted Heilshorn Environmental Engineering (HE2) at the request of the City of Albany to replace this well. Initially, the replacement well was installed in the wrong location. This was discovered when the well was already nearing completion. This well is currently on-site and is called MW-10. A new replacement well near the location of destroyed monitoring well MW-5 was also constructed and is known as MW-5R (Figure 4). It should be noted that the original monitoring well MW-5 was not properly destroyed but rather the casing was pulled out by the contractor and then the hole was filled with compacted rock. The new sewer line was then built directly over the old well location. In addition, the contractor that installed the new sewer line mentioned that three USTs were located while installing the sewer line near the site. Two USTs were located adjacent to the gas station in the street. These USTs were left in place. One other UST, filled with cement, was located just south of the gas station. This UST was removed.

2.10 Vapor Extraction and Ozone Sparging Well Installation

In December 2005, ASE installed three vapor extraction wells and three ozone sparging wells at the site (Figure 7). These wells were subsequently used to conduct vapor extraction and air sparging feasibility tests at the site.

2.11 January and February 2006 Soil and Groundwater Assessment

Between January 30, 2006 and February 2, 2006, ASE drilled soil borings BH-R through BH-X using an EP Sonic drill rig (Figure 6). The EP Sonic drill rig used a conductor casing to seal off shallower water-bearing zones to minimize the possibility of cross-contamination while drilling deeper borings. Although more successful with drilling using the EP Sonic rig than previous attempts using a dual-wall sampler, several borings still met with refusal prior reaching the planned depth. In general, hydrocarbons were only detected in soil samples collected at depths above 20.5-feet bgs. None of the deeper soil samples contained concentrations of hydrocarbons exceeding ESLs. High concentrations of TPH-G and BTEX were detected in groundwater samples collected from boring BH-V north of the site. These concentrations are higher than hydrocarbon concentrations closer to the site. Relatively high MTBE concentrations were detected in boring BH-T, northwest of the site. Moderate TPH-G and total xylene concentrations were detected in groundwater samples collected from boring BH-X, south of the site. No significant MTBE concentrations have been detected in groundwater samples collected from borings south of the site. Based on these results, it was determined that additional assessment was needed to define the extent of hydrocarbons north of the site.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
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2.12 Remediation Feasibility Tests and Corrective Action Plan

In March 2006, ASE conducted a vapor-extraction (VE) test at the site. The data gathered during the VE test proved that the technology of vapor extraction would not be a useful tool to capture a sizeable radius of impacted vadose zone hydrocarbons.

In April 2006, ASE conducted an air sparging test at the site. Ozone-sparging well OS-2 was chosen as the injection well due to its proximity in relation to sparging wells OS-1 and OS-3. Monitoring wells MW-2 and MW-6 and vapor extraction well VE-2 were used for observation of influence from the injected air/helium mixture. The test consisted of measuring positive pressure in surrounding wells, measuring for helium that was injected in OS-2 as a tracer gas, and measuring water levels in monitoring wells at the site. As for positive pressure, the test showed a brief influence 20-feet away in MW-2, however, that influence was only measured for a period of approximately one hour. As for helium measurements, the test indicates a radius of influence of approximately 20-feet in OS-3. The water level rose 0.01-feet in MW-2, and 0.02-feet in MW-3 and MW-6 during the test.

Several remediation options were considered and discussed in ASE's Corrective Action Plan (CAP) dated June 28, 2006. ASE concluded that ozone-sparging would be the most cost-effective remediation strategy for the site.

2.13 RAP Preparation

ASE prepared a remedial action plan (RAP) dated March 9, 2007 detailing the proposed design, construction and operation of an ozone-sparging remediation system. In a letter dated July 5, 2007 (attached in Appendix A) the ACHCSA requested that the plan include several soil vapor monitoring points around the site to allow for real-time sampling to determine if hydrocarbons or ozone were emanating inside buildings on and off-site. ASE prepared a RAP addendum, dated August 15, 2007 which described the scope of work for monitoring soil vapor and indoor air during operation of the remediation system. The ACHCSA approved the RAP and addendum in their letter dated August 30, 2007 (also attached in Appendix A).

2.14 USTCF Pre-Approval

Using the RAP and its addendum, ASE obtained quotes for implementing the scope of work within the RAP and addendum. Quotes were obtained from several remediation equipment vendors, well drilling subcontractors, and construction (trenching, electrical, plumbing) subcontractors. Once prepared, the ASE proposal was sent to the USTCF in Late August 2007. On September 12, 2007, the USTCF sent a pre-approval letter to our client authorizing payment for the remediation system, which is attached in Appendix A.



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(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

3.0 OZONE SPARGING DESCRIPTION

Ozone sparging is the process of adding an ozone/air mixture into a water-bearing zone contaminated with organic compounds. The ozone acts as an oxidant, which will destroy organic hydrocarbons. Ozone can oxidize contaminants either directly or through the formation of hydroxyl radicals. In situ decomposition of ozone can also lead to beneficial oxygenation and biostimulation. In addition, since a gas is injected, it may be possible for some remediation to also take place in the vadose zone as well.

4.0 REMEDIATION SYSTEM DESIGN & PRE START-UP ACTIVITIES

4.1 Ozone-Sparging Wells

The remediation system incorporates the use of nine (9) ozone-sparge wells. Previous wells OS-1 and OS-3 were used for ozone sparging. OS-2 was not be used because it did not fit within the preferred grid pattern; OS-2 was properly destroyed. The locations of the nine wells are shown on Figure 8. Boring logs showing the construction of the ozone-sparging wells are included in Appendix B. The wells are located to destroy hydrocarbons surrounding and downgradient of the USTs. All nine ports on the ozone generation unit are utilized.

The wells were drilled by V&W Drilling of Lodi, California on October 11 and 12, 2007. The wells were drilled using V&W's BK-81 drill rig equipped with 8-inch diameter hollow-stem augers. The wells were constructed with 1-inch diameter PVC well casing. Ozone is sparged from the casing through a 1.5-inch diameter by 18-inch long sparge point with 10-50 micron perforations. These sparge points were placed in the location of the permeable water-bearing zone identified in each well. The sparge points were installed at a depth ranging between 19-feet to 22-feet bgs (based on lithology). Lonestar #2/16 sand was placed between the sparge point and the boring from the bottom of the boring to 1-foot above the top of the sparge point. A 2-foot thick bentonite layer was placed between the sandpack and the overlying cement sanitary seal. A Portland cement sanitary seal was placed above the bentonite layer to prevent surface water from infiltrating into the well. The wellheads were piped directly into the ozone-sparging manifold, which is piped directly to the ozone generator.

The drill cuttings were placed into drums and hauled to the Allied Waste Forward Landfill in Manteca, California where they were disposed of as non-hazardous waste. See Appendix C for a copy of the non-hazardous waste manifest.

4.2 Vapor Monitoring Points

As required by the ACHCSA, two vapor monitoring points (VMPs) were installed at the site by ASE personnel on November 2, 2007. The locations of the VMPs are shown on Figure 9. The concrete in both locations was cored, then the VMPs were drilled using a hand auger to a total depth of 2-feet bgs. The wells were constructed with slotted 1-inch diameter PVC well casing



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(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

and capped on the bottom. Lonestar #2/16 sand was placed between the slotted casing and the boring from the bottom of the VMP to the top of the slotted casing. A Portland cement sanitary seal was placed above the sand layer to prevent infiltration into the well. The wellheads were completed with a threaded cap and a well box.

4.3 Pre-Remediation Well Sampling and Analysis

On November 13, 2007, ASE personnel collected a water sample from each of the nine ozone-sparging wells (OS-1 thru OS-9). Due to the size and construction of the well, development of the wells was not possible. Groundwater samples were collected from each well using a disposable polyethylene bailer and were decanted from the bottom of the bailer using low-flow emptying devices into 40-ml volatile organic analysis (VOA) vials, pre-preserved with hydrochloric acid. The samples were capped without headspace, labeled and placed in a cooler with wet ice for transport to Kiff Analytical, LLC of Davis, California (ELAP #2236) under appropriate chain-of-custody documentation.

The groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPH-D) by EPA Method 8015, total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX), and the 5 fuel oxygenates by EPA Method 8260B. Analytical data is presented as Table Three. The certified analytical report and chain-of-custody documentation are included as Appendix D.

4.4 Vapor Monitoring Point Sampling and Analysis

Although directed to be performed prior to start-up, vapor monitoring point (VMP-1 & VMP-2) air samples were collected by ASE personnel on December 10, 2007; two weeks after the system was turned on. Using a hand-operated vacuum pump equipped with a new 1-liter Tedlar bag, sample INF-VMP1-12.10.07 was collected as an influent air sample from VMP-1. Using a hand-operated vacuum pump equipped with a new 1-liter Tedlar bag, sample INF-VMP2-12.10.07 was collected as an influent air sample from VMP-2. ASE personnel also collected an air bag sample, INF-UNITED-BLANK from the interior air within the United Transmission Shop where VMP-2 is located. Because the building used as an automotive repair facility, ASE was concerned that hydrocarbons may already be present in the indoor air as a result of operations related to vehicles.

The sample bags were labeled individually and transported to Kiff Analytical, LLC of Davis, California (ELAP #2236) under appropriate chain-of-custody documentation.

The air bag samples were analyzed for TPH-G, BTEX, and the 5 fuel oxygenates by EPA Method 8260B. Analytical data is presented as Table Three. The certified analytical report and chain-of-custody documentation are included as Appendix D.

No hydrocarbons were identified in the air sample collected from VMP-1, located within the mini-mart building. Elevated concentrations of benzene and TPH-G were identified in the air



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

sample collected from VMP-2 located in the United Transmission shop. Elevated concentrations of TPH-G were identified in the air sample collected from the breathing zone located in the United Transmission shop.

Based on the initial air bag results, and after discussions with Jerry Wickham of the ACHCSA, ASE returned to the site to perform additional air sample collection. On December 19, 2007, ASE returned to the site and collected air bag samples from VMP-2 and the breathing zone within the United Transmission shop. Once again, the sample bags were labeled individually and transported to Kiff Analytical, LLC of Davis, California (ELAP #2236) under appropriate chain-of-custody documentation.

The air bag samples were analyzed for TPH-G, BTEX, and the 5 fuel oxygenates by EPA Method 8260B. Analytical data is presented as Table Four. The certified analytical report and chain-of-custody documentation are included as Appendix D.

These second samples still contained detectable concentration of chemicals as did the initial bag samples. However, the concentrations were much lower.

During the December 19, 2007 sampling activities, ASE also used a hand-held organic vapor meter (OVM) to measure hydrocarbon concentrations within the VMP's, around the site, and within the mini mart and United Transmission building. The OVM detected no hydrocarbons emanating from within VMP-1 or within the mini mart. The OVM detected 114 parts per million (ppm) within VMP-2, and up to 45 ppm within the breathing zone in the United Transmission shop. The OVM detected hydrocarbons as high as 398 ppm when measuring the air around the safety-clean parts cleaning unit within the United Transmission shop.

During all of the afore mentioned air testing, the ozone meter was also used to scan the air for ozone detections. At no time during any of the air sampling tasks did the ozone meter identify any ozone within the VMP's or buildings.

Based on all of the findings of air sampling and analysis, it was concluded that the ozone-sparging system was not causing hydrocarbons or ozone to infiltrate the buildings near the treatment wells. Further air sampling was no longer warranted.

4.5 Ozone Generator

The remediation equipment consists of an Ozone Sparge Unit manufactured by H2O Engineering of San Luis Obispo, California. The unit model number is an H2O-OSU20-26 capable of an ozone output of 26 grams/hour at up to 6% by weight. The H2O-OSU20-26 is a compact unit that generates an air/ozone mixture on-site. The unit pumps the air/ozone mixture through nine ports one port at a time on a cycle set by a timer. The air/ozone flow is approximately 3 to 4 cubic feet per minute (cfm) at a pressure of approximately 20 pounds per square inch (psi). Each sparge point receives ozone in 30 minutes intervals approximately 5 times per day for a total of 150 minutes per well/day. A diagram of the H2O-OSU20-26 unit is enclosed in Appendix E.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

4.6 Manifold System

The air/ozone mixture is pumped through double contained ozone-resistant poly tubing from the H2O-OSU20-26 unit to the sparging wells. Figure 10 shows the pipe layout and a trench cross-section. This tubing consists of a 1/2-inch diameter inner transport tubing within a 1-inch schedule 40 PVC secondary-containment tube. This tubing is flexible and is buried through narrow trenches cut through the concrete surface. ASE personnel, along with Orman & Associates (construction subcontractor), began the tubing installation project on October 22 2007. The trenches were laid out, the concrete was sawcut and removed, and the secondary piping and well boxes were then installed. After all underground utility pipes were completed, the existing concrete was doweled with 1/2-inch rebar prior to resurfacing with a minimum of 6-inches of new concrete the following week. Fencing and trench plates were removed from the site several days later to allow for the concrete to properly cure. The ozone-delivery tubing was then pulled through the secondary containment piping using a pull string by ASE personnel. A detailed drawing of the sparge well-head connection is included in Appendix E.

4.7 Power Supply & Hook-up

Harvey Scat Electric (HSE) of Castro Valley, California was subcontracted to install the necessary components to deliver the power to the system, then make a final connection to the remediation equipment. The site itself had a 100-amp dedicated circuit that was not in use; therefore, HSE used that power to supply the remediation equipment. Inside the remediation system compound, HSE provided a disconnect that was later wired to the actual remediation equipment.

4.8 Remediation Equipment Delivery and Start-up

The H2O Engineering ozone-sparging unit was delivered to the site on November 19, 2007. ASE personnel secured the unit to its concrete pad, and connected all of the ozone delivery tubing to the unit. On November 20, 2007, H2O Engineering personnel arrived at the site to make the final electrical connection to the system, and assist in the start-up. Once the electrical hookup was completed, the system was turned on.

On November 20, 2007, the ozone-sparging system was started up. The pressures of all nine wells were evaluated, and it appeared that there were no leaks in the delivery tubing. After a system wide diagnostic test was completed, ASE personnel was trained in the operation and maintenance of the system. ASE planned on visiting the site each day for the first five days of operation to make certain the system was working as designed, and to check for ozone in the VMP's. Due to the Thanksgiving holiday, the system was turned off after several hours on November 20, 2007 and re-started on November 26, 2007.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

5.0 FIRST WEEK'S OPERATION AND MAINTENANCE

The ozone-sparging system operates continuously 24-hours a day, 7 days a week. The system was checked daily for the first week of operation and weekly thereafter. During the first week of operation, ozone was measured at the remediation system and within each well box to determine if any leaks had occurred. Ozone was also measured within the building on and off-site as well as within each VMP. At no time during the first week of operation did any leaks occur. The system uses an internal ozone detector to measure for ozone within the remediation equipment housing. Should ozone be detected, the on-board microprocessor shuts the ozone off to whichever well is sparging during the ozone detection. When this occurs, the affected well remains in use; however, until the problem is remedied, the well is only sparged with oxygen. The same goes for any high pressure situations. Should a particular well require injection pressure of 50 psi or greater for more than 30 seconds, the on-board microprocessor shuts delivery of ozone and/or oxygen to the affected well. The affected well will remain off until the alarm is cleared and the problem causing the high pressure is repaired. During the first week's operation, the system operated without any alarms of any kind. A log of the first week's operating parameters is attached in Appendix F.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

6.0 CONCLUSIONS

An ozone-sparging remediation system was installed at the subject site in November 2007. The system operated as designed during its first week of operation. The system's effectiveness will be discussed in the 6 month System Effectiveness Report, to be completed in September 2008. Should you have any questions or comments, please call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

David Allen, R.E.A.
Vice President



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



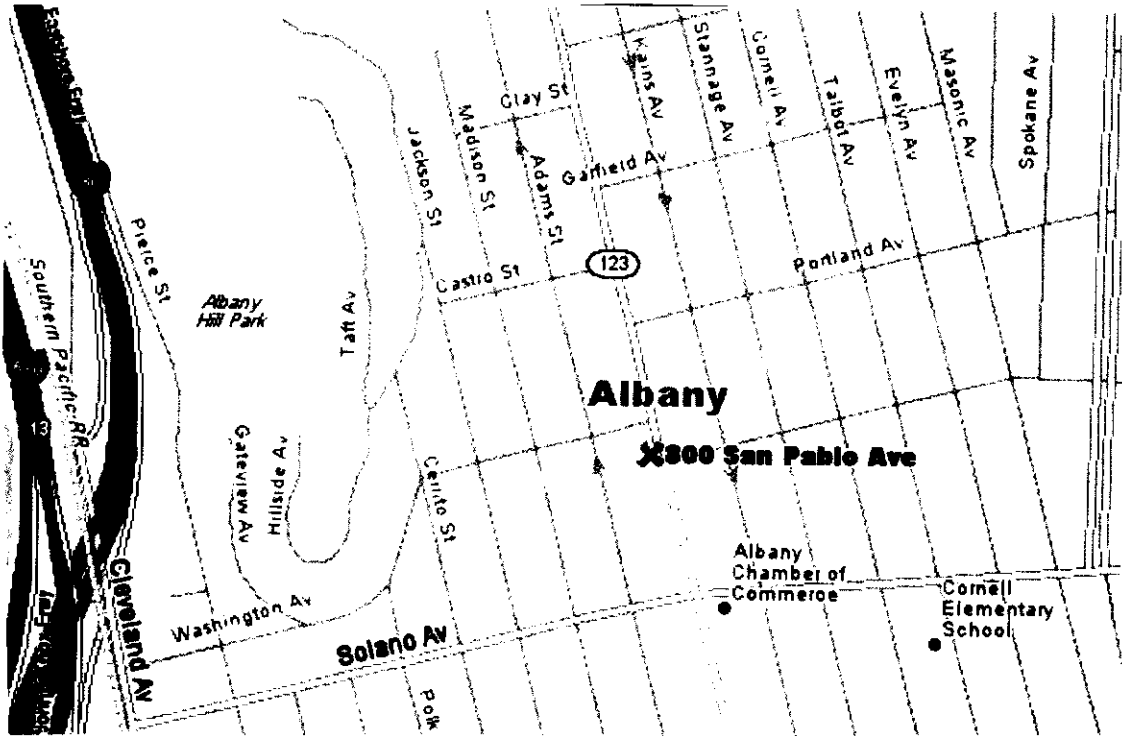


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FIGURES



NORTH



LOCATION MAP	
ALBANY HILL MINI MART 800 SAN PABLO AVE ALBANY, CALIFORNIA	
AQUA SCIENCE ENGINEERS	FIGURE 1



NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE

SIDEWALK

STORE

UST #5

UST #4

STORE

UST #1

UST #2

UST #3

Drainage

Drainage

Drainage

ALBANY HILL MINI MART

OVEREXCAVATION BOUNDARIES

UNITED TRANSMISSION

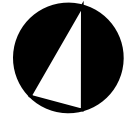
SAN PABLO AVENUE

SITE PLAN SHOWING USTs REMOVED IN 1997

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 2



NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE

SIDEWALK

STORE

STORE

ALBANY
HILL
MINI
MART

4,000 GAL
DIESEL

8,000 GAL
SUPREME

10,000 GAL
REGULAR

UNITED
TRANSMISSION

Detergers

SAN PABLO AVENUE

SITE PLAN SHOWING
USTs INSTALLED IN 1997

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

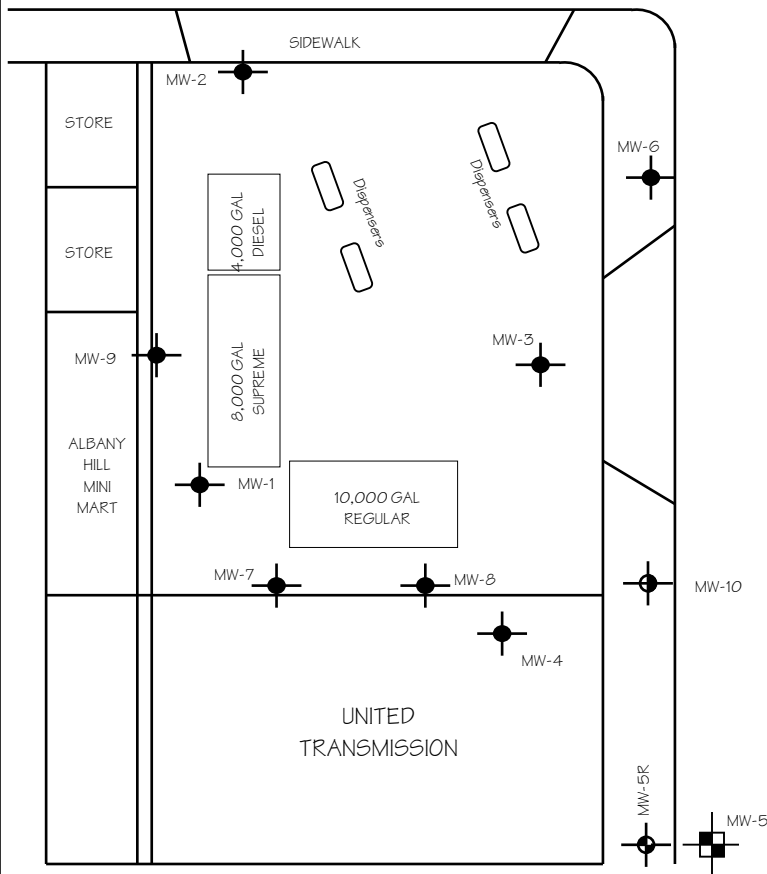
Figure 3



NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE



SAN PABLO AVENUE

LEGEND

- MW-9  MONITORING WELL, INSTALLED BY AARS
- MW-5R  MONITORING WELL, INSTALLED BY HE2
- MW-10  MONITORING WELL, INSTALLED BY ASE
- MW-5  MONITORING WELL, DESTROYED

MONITORING WELL
LOCATION MAP

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA



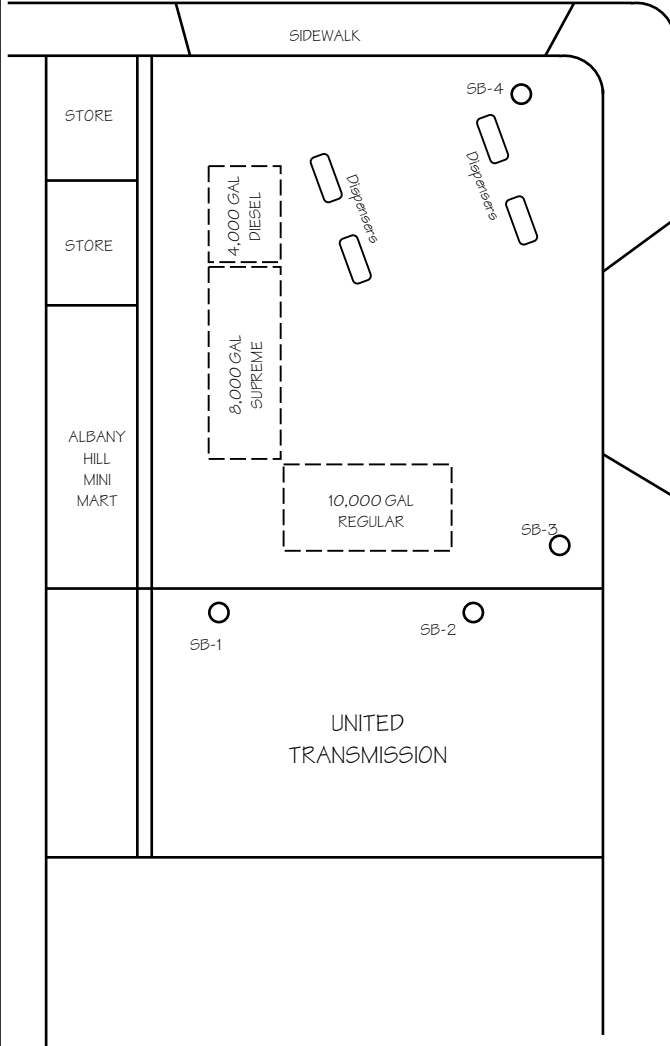
NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE

SIDEWALK

SAN PABLO AVENUE



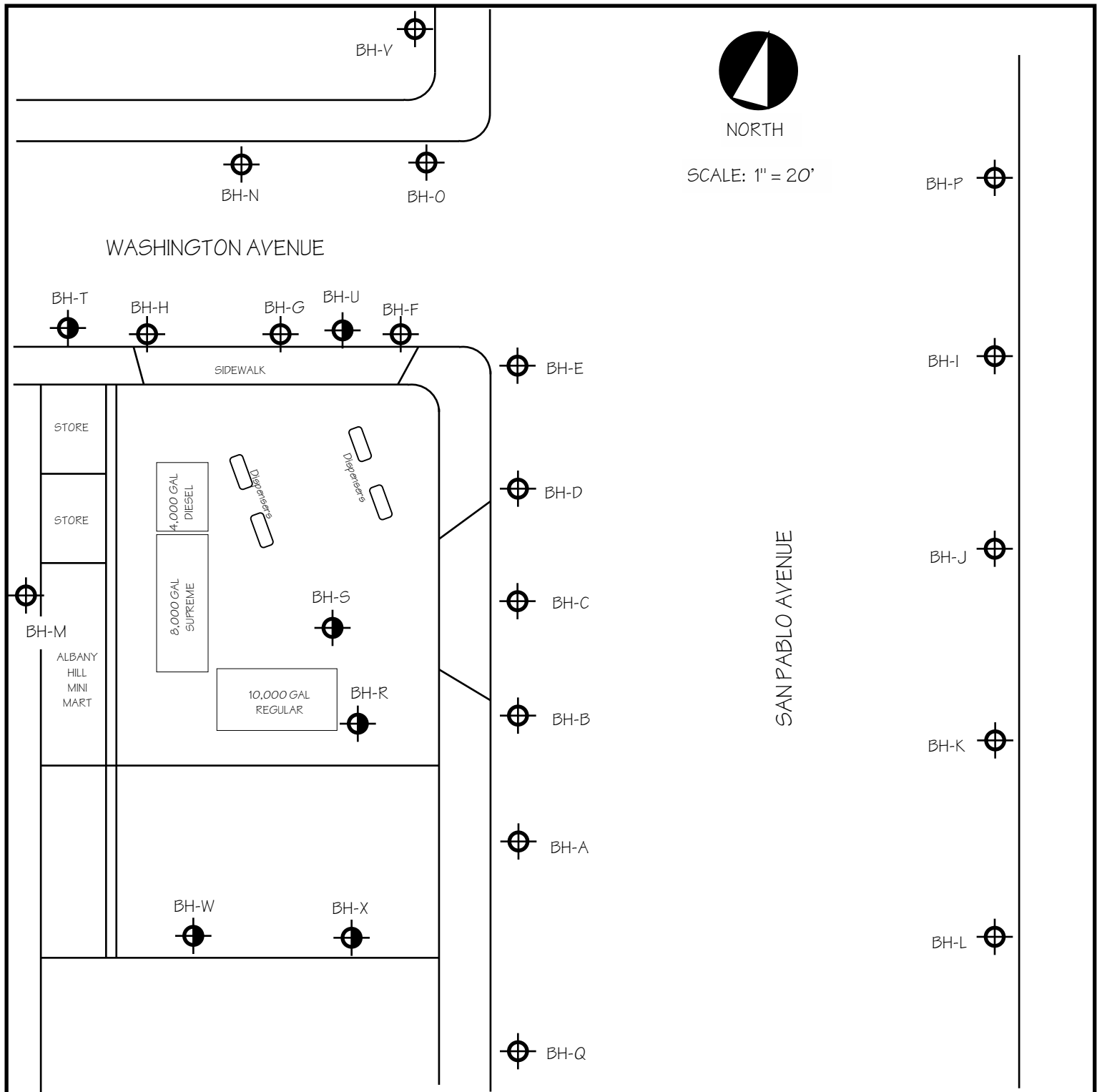
LEGEND




SOIL BORING, DRILLED BY AARS, JUNE 2001

SOIL BORINGS DRILLED
BY AARS - JUNE 2001

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA



LEGEND

BH-Q
 SOIL BORING, DRILLED BY ASE, BETWEEN AUGUST AND OCTOBER 2004

BH-X
 SOIL BORING, DRILLED BY ASE, BETWEEN JANUARY AND FEBRUARY 2006

SOIL BORINGS
 DRILLED BY ASE

ALBANY HILL MINI MART
 800 SAN PABLO AVENUE
 ALBANY, CALIFORNIA



NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE

SIDEWALK

VE-2

VE-1 OS-1 OS-2

VE-3 OS-3

STORE

STORE

ALBANY HILL MINI MART

4,000 GAL DIESEL

8,000 GAL SUPREME

10,000 GAL REGULAR

UNITED TRANSMISSION

SAN PABLO AVENUE

LEGEND

OS-1 AIR-SPARGING WELL

VE-1 VAPOR EXTRACTION WELL

EXISTING OZONE-SPARGING & VAPOR EXTRACTION WELL LOCATION MAP

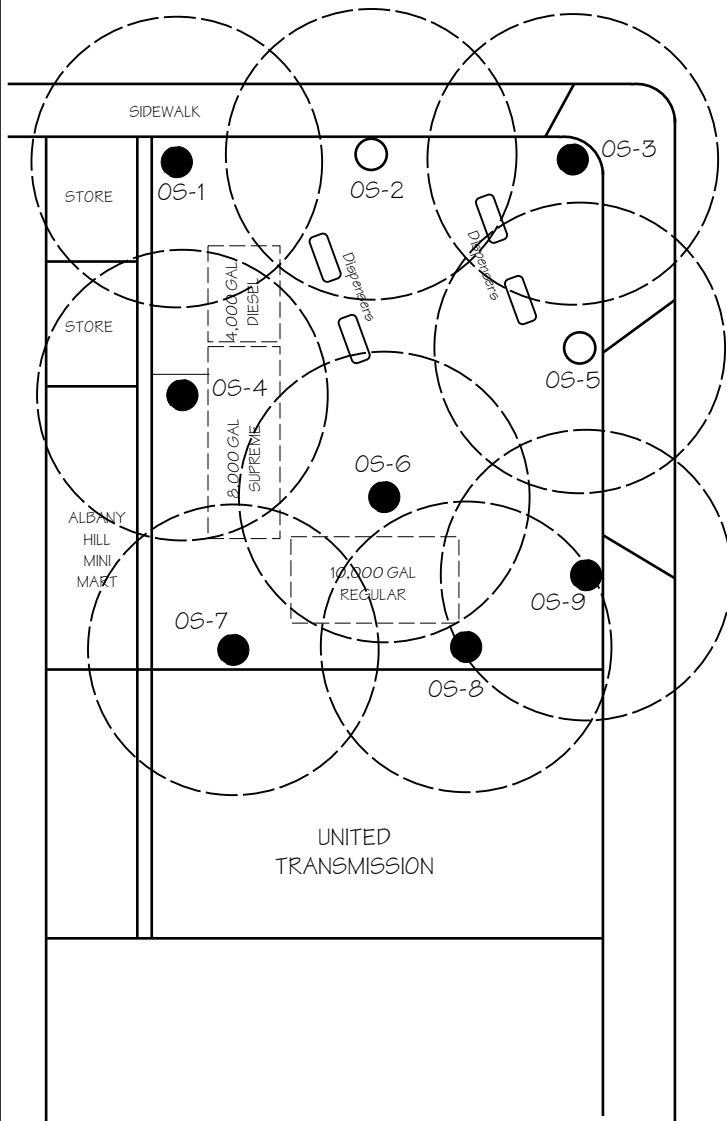
ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA



NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE



SAN PABLO AVENUE

LEGEND

- 05-1 ORIGINAL AIR-SPARGING WELL
- NEW AIR-SPARGING WELL
- PRESUMED RADIUS OF INFLUENCE

OZONE-SPARGING WELL
RADIUS OF
INFLUENCE MAP

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA

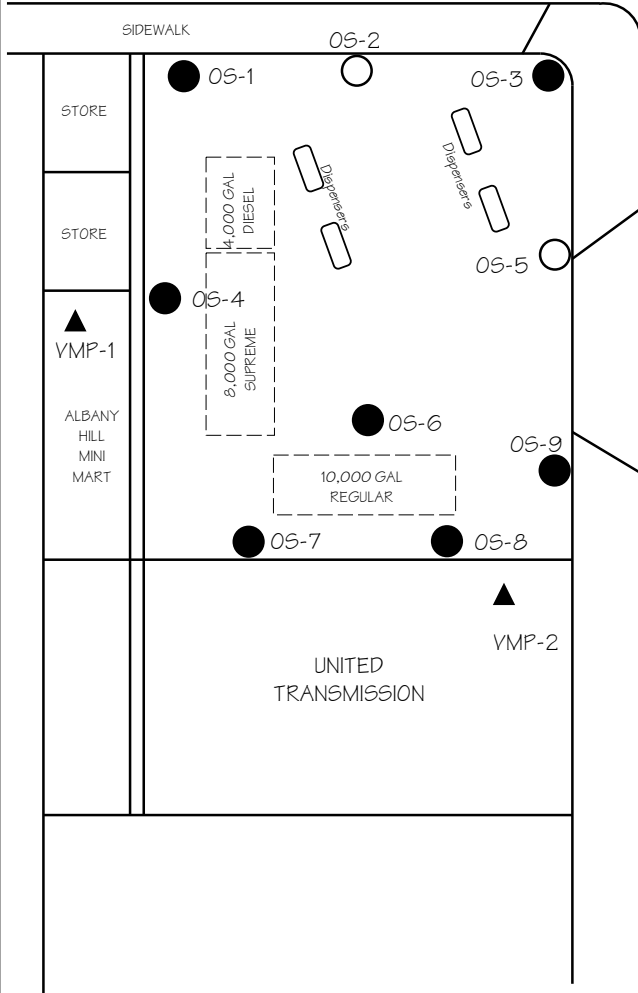


NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE

SAN PABLO AVENUE



LEGEND

VMP-2 ▲ VAPOR MONITORING POINT

OS-9 ● EXISTING AIR-SPARGING WELL

VAPOR MONITORING POINT LOCATION MAP

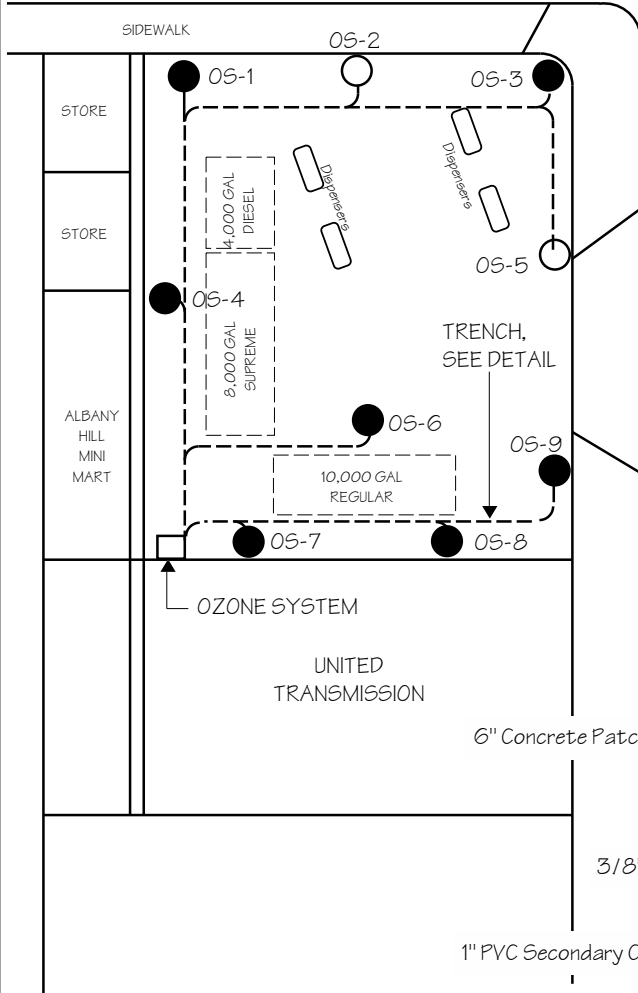
ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA



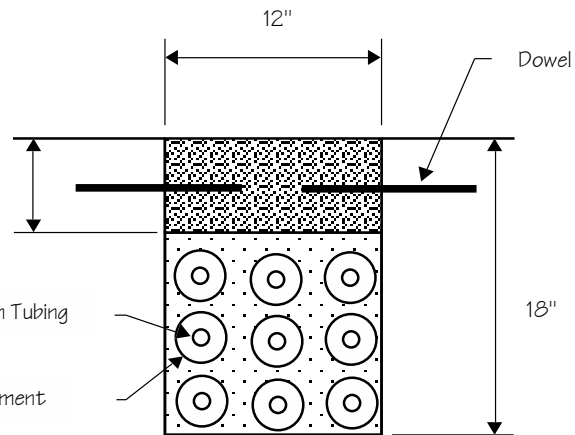
NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE



SAN PABLO AVENUE



LEGEND

05-9 ● EXISTING AIR-SPARGING WELL

OZONE-SPARGE WELL AND TRENCH LAYOUT MAP

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 10



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TABLES

TABLE ONE
 Groundwater Elevation Data
Albany Hill Mini Mart
 800 San Pablo Avenue, Albany, CA

Well ID	Date of Measurement	Top of Casing Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW-1	8/6/99	101.68	11.95	89.73
	11/5/99		12.72	88.96
	2/7/00		10.34	91.34
	5/5/00		10.59	91.09
	8/3/00		11.75	89.93
	11/8/00		11.67	90.01
	2/8/01		11.20	90.48
	6/7/01		11.35	90.33
	9/7/01		11.71	89.97
	12/13/01		10.67	91.01
	6/13/02		11.42	90.26
	9/11/02		12.42	89.26
	2/14/03		46.42	10.69
	9/10/04	13.83		32.59
	12/7/04	12.18		34.24
	4/18/05	9.92		36.50
	6/20/05	10.64	35.78	
	10/7/05	12.42	34.00	
	12/7/05	11.51	34.91	
	3/6/06	48.82	9.35	39.47
	6/27/06		10.07	38.75
	8/24/06		12.02	36.80
	11/20/06		12.02	36.80
	2/5/07		11.68	37.14
	5/7/07		10.91	37.91
8/3/07	12.34		36.48	
12/5/07	12.68		36.14	
2/25/08	9.68		39.14	
5/20/08	12.17		36.65	
MW-2	8/6/99	101.57	10.83	90.74
	11/5/99		11.66	89.91
	2/7/00		9.23	92.34
	5/5/00		9.54	92.03
	8/3/00		10.69	90.88
	11/8/00		10.62	90.95
	2/8/01		10.17	91.40
	6/7/01		10.30	91.27
	9/7/01		10.65	90.92
	12/13/01		9.65	91.92
	6/13/02		10.37	91.20
	9/11/02		11.32	90.25
	2/14/03		45.31	9.59
	9/10/04	11.78		33.53
	12/7/04	11.13		34.18
	4/18/05	8.71		36.60
	6/20/05	9.60	35.71	
	10/7/05	11.39	33.92	
	12/7/05	11.49	33.82	
	3/6/06	47.71	8.22	39.49
	6/27/06		9.45	38.26
	8/24/06		10.35	37.36
	11/20/06		10.87	36.84
	2/5/07		10.53	37.18
	5/7/07		9.72	37.99
8/3/07	11.47		36.24	
12/5/07	11.98		35.73	
2/25/08	8.93		38.78	
5/20/08	11.78		35.93	

TABLE ONE
 Groundwater Elevation Data
Albany Hill Mini Mart
 800 San Pablo Avenue, Albany, CA

Well ID	Date of Measurement	Top of Casing Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW-3	8/6/99	100.33	10.58	89.75
	11/5/99		11.39	88.94
	2/7/00		9.05	91.28
	5/5/00		9.29	91.04
	8/3/00		10.43	89.90
	11/8/00		10.33	90.00
	2/8/01		9.94	90.39
	6/7/01		10.04	90.29
	9/7/01		10.31	90.02
	12/13/01		9.38	90.95
	6/13/02		10.03	90.30
	9/11/02		11.02	89.31
	2/14/03		45.08	9.40
	9/10/04	12.51		32.57
	12/7/04	11.86		33.22
	4/18/05		8.49	36.59
	6/20/05		9.34	35.74
	10/7/05		11.11	33.97
	12/7/05		10.22	34.86
	3/6/06	47.49	8.84	38.65
	6/27/06		6.07	41.42
	8/24/06		10.26	37.23
	11/20/06		10.52	36.97
	2/5/07		10.41	37.08
	5/7/07		9.57	37.92
	8/3/07		11.06	36.43
	12/5/07		11.26	36.23
2/25/08	8.33		39.16	
5/20/08	10.83		36.66	
MW-4	6/13/02	100.05	10.18	89.87
	9/11/02		11.12	88.93
	2/14/03	45.20	9.51	35.69
	9/10/04		11.59	33.61
	12/7/04		10.91	34.29
	4/18/05		8.62	36.58
	6/20/05		9.45	35.75
	10/7/05		11.20	34.00
	12/7/05		10.30	34.90
	3/6/06	47.61	8.19	39.42
	6/27/06		9.71	37.90
	8/24/06		10.43	37.18
	11/20/06		10.70	36.91
	2/5/07		10.60	37.01
	5/7/07		9.52	38.09
	8/3/07		11.33	36.28
	12/5/07		11.37	36.24
	2/25/08		8.75	38.86
5/20/08	11.07		36.54	

TABLE ONE
Groundwater Elevation Data
Albany Hill Mini Mart
800 San Pablo Avenue, Albany, CA

Well ID	Date of Measurement	Top of Casing Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW-5	6/13/02	98.37	8.88	89.49
	9/11/02		9.95	88.42
	2/14/03	44.12	8.66	35.46
	9/10/04		10.26	33.86
	12/7/04		10.79	33.33
	4/18/05	Well Destroyed by City During Street Construction		
MW-5R	10/7/05		10.94	
	12/7/05		9.97	
	3/6/06	47.36	4.93	42.43
	6/27/06		9.47	37.89
	8/24/06		10.10	37.26
	11/20/06		10.00	37.36
	2/5/07		10.21	37.15
	5/7/07		9.21	38.15
	8/3/07		10.60	36.76
	12/5/07		10.97	36.39
	2/25/08		8.64	38.72
	5/20/08		10.18	37.18
	MW-6	6/13/02	99.36	8.85
9/11/02			9.82	89.54
2/14/03		43.88	8.21	35.67
9/10/04			10.33	33.55
12/7/04			9.83	34.05
4/18/05			7.08	36.80
6/20/05			7.52	36.36
10/7/05			10.92	32.96
12/7/05			8.85	35.03
3/6/06		46.27	6.22	40.05
6/27/06			7.40	38.87
8/24/06			9.15	37.12
11/20/06			10.40	35.87
2/5/07			9.20	37.07
5/7/07			7.79	38.48
8/3/07			9.96	36.31
12/5/07			10.02	36.25
2/25/08			6.77	39.50
5/20/08		9.49	36.78	
MW-7	6/13/02	100.96	10.95	90.01
	9/11/02		11.90	89.06
	2/14/03	45.59	10.25	35.34
	9/10/04		12.35	33.24
	12/7/04		11.42	34.17
	4/18/05		9.34	36.25
	6/20/05		10.19	35.40
	10/7/05		12.96	32.63
	12/7/05		not sampled	---
	3/6/06	48.36	8.92	39.44
	6/27/06		10.41	37.95
	8/24/06		11.21	37.15
	11/20/06		11.46	36.90
	2/5/07		11.34	37.02
	5/7/07		10.39	37.97
	8/3/07		12.09	36.27
	12/5/07		12.18	36.18
	2/25/08		Bubbling	---
	5/20/08		11.70	36.66

TABLE ONE
 Groundwater Elevation Data
Albany Hill Mini Mart
 800 San Pablo Avenue, Albany, CA

Well ID	Date of Measurement	Top of Casing Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW-8	6/13/02	100.54	10.57	89.97
	9/11/02		11.53	89.01
	2/14/03	45.59	9.98	35.61
	9/10/04		11.98	33.61
	12/7/04		11.42	34.17
	4/18/05		8.99	36.60
	6/20/05		9.83	35.76
	10/7/05		11.60	33.99
	12/7/05		11.69	33.90
	3/6/06	47.99	8.58	39.41
	6/27/06		10.06	37.93
	8/24/06		10.77	37.22
	11/20/06		11.12	36.87
	2/5/07		10.97	37.02
	5/7/07		9.94	38.05
	8/3/07		11.74	36.25
	12/5/07		11.80	36.19
2/25/08		8.82	39.17	
	5/20/08		11.38	36.61
MW-9	2/14/03	46.86	10.84	36.02
	9/10/04		12.97	33.89
	12/7/04		12.84	34.02
	4/18/05		9.75	37.11
	6/20/05		10.83	36.03
	10/7/05		12.59	34.27
	12/7/05		12.56	34.30
	3/6/06	49.24	10.24	39.00
	6/27/06		9.83	39.41
	8/24/06		11.91	37.33
	11/20/06		12.42	36.82
	2/5/07		11.95	37.29
	5/7/07		11.20	38.04
	8/3/07		12.67	36.57
	12/5/07		12.96	36.28
	2/25/08		10.71	38.53
		5/20/08		12.15
MW-10	10/7/05		10.52	
	12/7/05	not sampled		
	3/6/06	46.90	7.46	39.44
	6/27/06		9.03	37.87
	8/24/06		9.75	37.15
	11/20/06		10.30	36.60
	2/5/07		9.83	37.07
	5/7/07		8.85	38.05
	8/3/07		11.00	35.90
	12/5/07		10.64	36.26
	2/25/08		8.03	38.87
		5/20/08		10.58

Notes:

Data prior to September 10, 2004, including survey data, is based on tables compiled by AARS.

* Top of casing elevations were initially surveyed to an arbitrary benchmark. The elevations were resurveyed on November 11, 2002 with respect mean sea level.

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

Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-1	8/6/99	1,500	1,200	4.3	2.9	9.1	28	--	--	ND	--
	11/5/99	1,800	1,400	5.1	3.2	8.9	33	--	--	ND	--
	2/7/00	1,100	890	3.3	1.9	5.6	21	--	--	ND	--
	5/7/00	970	650	2.9	1.7	4.9	18	--	--	ND	--
	8/3/00	1,200	270*	190	43.0	41	160	--	--	360	--
	11/8/00	4,200	230*	990	200.0	130	560	--	--	840**	--
	2/8/01	2,800	380*	630	130.0	51	250	--	--	390	--
	6/7/01	650	190	97	13.0	20	62	--	--	320	--
	9/7/01	970	400	260	17.0	44	140	--	--	460	--
	12/13/01	291	< 50	91.7	1.4	17.4	7.2	--	--	499	--
	6/13/02	5,120	2,160*	1,860	22.0	316	318	--	--	325	--
	11/11/02	824	< 50	216	< 5	22	20	--	--	290	--
	2/14/03	1,783	590*	546	5.0	90	52	--	--	321	--
	9/10/04	900	82	210	8.4	52	23	< 0.5	5.1	220	< 0.5
	12/7/04	540	< 80	130	3.1	24	14	< 0.5	< 5.0	240	< 0.5
	4/18/05	1,600	< 200	390	3.6	32	57	< 0.5	< 5.0	240	0.53,1,2-DCA
	6/20/05	2,500	< 300	740	12.0	110	69	< 0.5	5.7	240	< 0.50
	10/7/05	520	130	97	26.0	11	28	< 0.50	< 5.0	190	< 0.50
	12/7/05	220	86	42	11.0	6.2	12	< 0.50	< 5.0	230	< 0.50
	3/6/06	180	69	63	1.6	3.8	2.3	< 0.50	< 0.50	180	< 0.50
	6/27/06	2,800	< 300	1,100	7.1	140	44	< 0.50	9.9	220	< 0.50
	8/24/06	3,200	< 200	1,100	6.6	170	16	< 2.0	< 9.0	250	< 2.0
	11/20/06	630	< 50	170	1.2	22	2.8	< 0.50	6.2	220	< 0.50
	2/5/07	570	< 50	180	1.0	23	3.4	< 0.50	< 5.0	180	< 0.50
	5/7/07	500	< 50	200	0.64	12	0.72	< 0.50	< 5.0	210	< 0.50
	8/3/07	930	< 80	300	2.8	49	6.8	< 0.50	7.1	160	< 0.50
	12/5/07	560	< 50	150	37	9.8	46	< 0.50	< 5.0	100	< 0.50
	2/25/08	1,000	100	340	11	14	23	< 0.50	11	170	< 0.50
	5/20/08	740	< 50	220	3.2	7.5	6.9	< 0.50	23	170	0.68 DIFE
	MW-2	8/6/99	ND	340	ND	ND	ND	ND	--	--	ND
11/5/99		ND	420	ND	ND	ND	0.7	--	--	ND	--
2/7/00		ND	310	ND	ND	ND	0.6	--	--	ND	--
5/7/00		ND	280	ND	ND	ND	< 1	--	--	ND	--
8/3/00		460	70*	79	3.0	43	8	--	--	3,300	--
11/8/00		200	120	57	2.0	13	8	--	--	3,000	--
2/8/01		290	80	50	1.0	0.6	4	--	--	3,100	--
6/7/01		210	80	18	0.6	3	5	--	--	2,000	--
9/7/01		230	ND	51	ND	8	8	--	--	2,400	--
12/13/01		172	ND	53	1.2	7.7	8.4	--	--	1,780	--
6/13/02		86	< 50	6	6.7	1.1	4.5	--	--	1,830	--
11/11/02		1,040	< 50	5	1.0	< 1	5	--	--	1,250	--
2/14/03		82	< 50	8	< 1	1	< 3	--	--	1,520	--
9/10/04		< 100	72	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	620	< 1.0
12/7/04		< 150	86	17	< 1.5	< 1.5	< 1.5	< 1.5	< 7.0	540	< 1.5
4/18/05		280	130	55	< 1.5	4.4	< 1.5	< 1.5	< 2.0	840	< 1.5
6/20/05		200	100	34	< 0.90	2.4	2.7	< 0.90	5.2	540	< 0.90
10/7/05		< 90	150	11	< 0.90	< 0.90	< 0.90	< 0.90	< 5.0	360	< 0.90
12/7/05		< 90	110	1.5	< 0.90	< 0.90	< 0.90	< 0.90	< 5.0	500	< 0.90
3/6/06		< 90	88	7.0	< 0.90	< 0.90	< 0.90	< 0.50	5.2	610	< 0.50
6/27/06		270	150	49	< 0.50	5.1	3.4	0.58	8.9	540	< 0.50
8/24/06		110	120	13	< 0.50	1.3	< 0.50	< 0.50	< 5.0	480	< 0.50
11/20/06		56	< 50	5.6	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	330	< 0.50
2/5/07		98	< 50	28	< 0.50	< 0.50	< 0.50	0.61	< 5.0	500	< 0.50
5/7/07		< 90	< 50	22	< 0.90	< 0.90	< 0.90	< 0.90	6.0	450	< 0.90
8/3/07		< 50	< 50	2.2	< 0.50	< 0.50	< 0.50	< 0.50	9.0	240	< 0.50
12/5/07		< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	37	82	< 0.50
2/25/08		< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	10	< 0.50
5/20/08		< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.71	< 0.50

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

Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs	
MW-3	8/6/99	ND	ND	ND	ND	ND	ND	--	--	ND	--	
	11/5/99	92	54	ND	ND	0.6	1.7	--	--	ND	--	
	2/7/00	120	71	ND	0.6	0.8	2.2	--	--	ND	--	
	5/7/00	100	68	ND	ND	0.7	1.9	--	--	ND	--	
	8/3/00	910	300*	220	9.0	35	16	--	--	11,000**	--	
	11/8/00	990	200	320	0.8	18	9	--	--	8,000	--	
	2/8/01	990	110	180	21.0	7	24	--	--	5,200**	--	
	6/7/01	370	140	62	4.0	8	13	--	--	6,600**	--	
	9/7/01	460	ND	87	1.0	11	25	--	--	9,400**	--	
	12/13/01	251	ND	66.8	0.9	2.6	8.4	--	--	6,610	--	
	6/13/02	3,630	< 50	41	60.0	41	187	--	--	8,820**	--	
	11/11/02	6,210	< 50	150	< 1	5	< 3	--	--	7,770	--	
	2/14/03	176	< 50	31	< 1	2	< 3	--	--	5,040	--	
	9/10/04	< 1,000	140	110	< 10	< 10	21	20	200	4,400	< 10	
	12/7/04	1,000	150	310	19.0	24	50	21	< 100	4,000	< 10	
	4/18/05	750	150	170	16.0	33	36	6.1	< 50	1,700	< 5.0	
	6/20/05	680	120	140	9.7	20	38	7.4	< 20	1,900	< 4.0	
	10/7/05	630	160	140	10.0	11	34	9.2	< 20	2,000	< 4.0	
	12/7/05	550	200	128	6.4	7.2	10	11	56	2,400	< 4.0	
	3/6/06	88	36	< 2.0	5.3	2.1	4.2	13	1,000	1,000	< 2.0	
	6/27/06	7,400	< 1,500	2,800	12	190	56	9.8	110	760	< 4.0	
	8/24/06	< 400	130	24	< 4.0	< 4.0	14	9.0	40	2,800	< 4.0	
	11/20/06	< 400	< 50	42	< 4.0	4.4	8.7	7.3	71	1,700	< 4.0	
	2/5/07	440	< 50	110	4.2	< 4.0	16	7.3	39	1,600	< 4.0	
	5/25/07	240	< 50	52	4.3	4.3	18	4.3	140	1,100	< 2.0	
	8/3/07	500	< 50	190	7.2	12	40	4.4	320	860	< 1.5	
	12/5/07	< 150	< 50	< 1.5	< 1.5	< 1.5	< 1.5	5.1	280	1,200	< 1.5	
	2/25/08	< 200	< 50	< 2.0	< 2.0	< 2.0	< 2.0	5.0	13	1,300	< 2.0	
	5/20/08	< 50	< 50	2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.7	200	0.54 DIPE
	MW-4	6/13/02	4,460	1,500*	425	409.0	115	730	--	--	32	--
11/11/02		5,150	2,380*	2,010	74.0	399	252	--	--	< 20	--	
2/14/03		6,360	2,410*	1,560	82.0	274	573	--	--	< 1	--	
9/10/04		1,600	180	370	6.5	68	93	< 1.0	10	13	1.1 (DIPE)	
12/7/04		1,900	< 200	450	8.2	72	100	< 0.9	5.4	9.5	< 0.9	
4/18/05		10,000	< 800	1,500	27.0	420	900	< 1.5	15	18	< 1.5	
6/20/05		6,100	< 600	830	19.0	280	400	< 1.5	17	22	< 1.5	
10/7/05		3,200	< 500	660	8.7	110	140	< 1.5	12	14	< 1.5	
12/7/05		1,000	< 200	220	2.5	48	37	< 0.5	< 5.0	12	< 0.5	
3/6/06		1,200	< 300	280	2.1	32	77	0.65	< 0.50	75	1.0 (DIPE) / 0.57(1,2-DCA)	
6/27/06		2,000	< 300	570	4.0	110	120	< 0.90	15	110	1.2(DIPE)	
8/24/06		2,500	< 300	830	6.5	120	120	< 0.90	18	95	< 0.90	
11/20/06		1,900	< 80	590	4.8	37	29	< 1.5	< 1.5	14	< 1.5	
2/5/07		2,700	< 80	970	4.4	53	62	< 1.5	< 12	45	< 1.5	
5/7/07		2,900	< 200	1,200	5.0	89	95	< 1.5	18	34	< 1.5	
8/3/07		1,800	< 200	610	3.4	36	25	0.62	9.3	25	1.4 DIPE	
12/5/07		1,300	< 200	530	3.4	3.4	20	< 0.90	6.0	32	0.98 DIPE	
2/25/08		800	< 50	180	6.0	15	35	< 0.50	30	44	0.76 DIPE	
5/20/08		560	< 50	130	3.6	5.7	14	< 0.50	21	34	0.85 DIPE	

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

Well ID or Sample Point	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs	
MW-8	6/13/02	20,000	7,760*	2,200	1,140	1,050	4,090	--	--	12,000	--	
	11/11/02	5,010	2,010*	187	<1	15	<3	--	--	16,600	--	
	2/14/03	1,980	<50	607	6	113	40	--	--	11,500	--	
	9/10/04	<2,000	200	110	<20	26	49	25	<200	8,600	<20	
	12/7/04	2,000	280	420	<10	40	61	31	100	6,800	<10	
	4/18/05	<1000	250	76	<10	23	<10	17	<100	3,700	<10	
	6/20/05	1,300	300	190	<7.0	21	40	19	<40	3,400	<7.0	
	10/7/05	<700	200	85	<7.0	9.3	8.3	23	<40	4,400	<7.0	
	12/7/05	1,400	300	250	8.7	41	90	18	<40	4,400	<7.0	
	3/6/06						Not sampled. Inaccessible					
	6/27/06	710	250	100	<5.0	7.8	26	16	30	3,100	<5.0	
	8/24/06	540	260	74	<5.0	5.4	45	15	<25	2,700	<5.0	
	11/20/06	2,100	<100	380	4.4	18	170	10	530	1,900	<4.0	
	2/5/07	1,700	<100	560	3.9	7.5	80	2.7	970	630	<1.0	
	5/7/07	510	<50	170	0.61	2.1	5.4	0.57	460	110	<0.50	
	8/3/07	840	<80	240	1.6	7.0	18	<0.50	100	100	<0.50	
	12/5/07	1,400	<300	9.2	3.9	36	310	1.5	210	370	<0.50	
	2/25/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	130	<0.50	
	5/20/08	<50	<50	<0.50	<0.50	<0.50	1.5	<0.50	<0.50	6.1	<0.50	
	MW-9	6/27/02	19,000	--	1,430	1,750	501	5,410	--	--	<0.5	--
11/11/02		19,000	13,200*	3,390	4,540	1,020	9,050	--	--	549	--	
2/14/03		21,300	8,200*	1,700	2,200	701	4,970	--	--	<1	--	
9/10/04		12,000	<1,500	890	37	280	2,000	<5.0	<5.0	<5.0	<5.0	
12/7/04		13,000	<1,500	950	580	480	2,900	<5.0	<5.0	<5.0	<5.0	
4/18/05		9,600	<1,000	620	180	260	1,400	<2.5	<2.5	<2.5	<2.5	
6/20/05		9,800	<1,500	760	260	430	1,400	<2.0	<9.0	<2.0	<2.0	
10/7/05		3,400	<1000	350	170	100	480	<0.50	<5.0	<0.50	<0.50	
12/7/05		5,600	<1000	320	97	200	580	<0.90	<5.0	<0.50	<0.50	
3/6/06		4,200	<800	460	120	97	600	<0.90	<5.0	<0.90	<0.50	
6/27/06		8,100	<1,000	710	330	390	1,700	<0.50	<5.0	<2.0	<0.50	
8/24/06		6,100	<800	550	220	280	1,200	<2.0	<9.0	<2.0	<2.0	
11/20/06		5,200	<400	310	98	130	850	<1.0	<5.0	<1.0	<1.0	
2/5/07		4,500	<400	370	120	190	720	<1.0	<5.0	<1.0	<1.0	
5/7/07		6,400	<300	700	220	380	1,200	<1.0	<5.0	<1.0	<1.0	
8/3/07		5,300	<300	380	140	290	830	<0.90	<5.0	<0.90	<0.90	
12/5/07		4,100	<300	250	84	130	990	<1.0	<5.0	<1.0	<1.0	
2/25/08	2,600	<300	250	20	120	290	<0.50	<5.0	<0.50	<0.50		
5/20/08	3,000	<200	320	39	170	390	<0.50	<5.0	0.51	<0.50		
MW-10	10/7/05	470	330	17	<0.50	2	11	1.2	9.4J	210	<0.50	
	12/7/05					Not sampled. Inaccessible						
	3/6/06	130	130	4.2	<0.50	<0.50	<0.50	4.9	13	820	0.55 (DIPE)	
	6/27/06	<400	140	4.4	<0.50	<0.50	<0.50	8.9	21	1,300	0.60 (DIPE)	
	8/24/06	<400	140	<4.0	<4.0	<4.0	<4.0	7.0	<20	1,400	<4.0	
	11/20/06	<150	<50	2.5	<1.5	<1.5	<1.5	3.3	10	750	<1.5	
	2/5/07	170	<50	3.0	<0.90	<0.90	<0.90	2.4	6.5	440	<0.90	
	5/7/07	96	<50	2.3	<0.50	<0.50	<0.50	0.83	<5.0	180	<0.50	
	8/3/07	5,000	<1,000	67	2.3	410	14	<0.50	6.7	<0.50	<0.50	
	12/5/07	310	<50	1.2	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
	2/25/08	240	240	5.3	<0.50	<0.50	<0.50	<0.50	9.3	57	<0.50	
5/20/08	3,400	<500	23	1.2	120	5.9	<0.50	<5.0	<0.50	<0.50		
ESL		100	100	1.0	40	30	20	NE	12	5.0	Varies	

Notes:

Data prior to August 2004 is based on a table compiled by AARS - ASE has not checked results against original laboratory reports.

* Does not match diesel pattern

** Confirmed by GC/MS method 8260

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (November 2007)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region for sites where groundwater is a current or potential source of drinking water.

Most recent concentrations are in **Bold**.

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

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

TABLE THREE

Certified Analytical Results for **GROUNDWATER** Samples

Albany Hill Mini Mart

800 San Pablo Avenue, Albany, California

All results are in **parts per billion (ppb)**

Well ID & Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
<u>05-1</u> 11/13/07	70	70	< 0.50	< 0.50	< 0.50	< 0.50	67	< 0.50	< 0.50	< 0.50	< 5.0
<u>05-2</u> 11/13/07	< 250	180	< 2.5	< 2.5	< 2.5	< 2.5	1,200	< 2.5	< 2.5	< 2.5	< 15
<u>05-3</u> 11/13/07	330	1,800	32	6.5	1.4	6.5	440	< 0.50	< 0.50	1.6	320
<u>05-4</u> 11/13/07	64	380	1.5	1.0	< 0.50	< 0.50	1.9	< 0.50	< 0.50	< 0.50	11
<u>05-5</u> 11/13/07	1,500	240	8.5	< 2.0	< 2.0	< 2.0	1,000	< 2.0	< 2.0	3.9	12
<u>05-6</u> 11/13/07	140	870	2.6	0.74	0.63	2.9	380	< 0.50	< 0.50	1.5	48
<u>05-7</u> 11/13/07	220	260	1.1	< 0.50	0.51	6.9	210	< 0.50	< 0.50	< 0.50	7.5
<u>05-8</u> 11/13/07	< 50	240	< 0.50	< 0.50	< 0.50	< 0.50	440	< 0.50	< 0.50	2.2	15
<u>05-9</u> 11/13/07	210	680	2.8	< 0.50	12	2.8	31	< 0.50	< 0.50	< 0.50	12
ESL	100	100	1	40	30	20	5	NE	NE	NE	12

TABLE THREE

Certified Analytical Results for **GROUNDWATER** Samples

Albany Hill Mini Mart

800 San Pablo Avenue, Albany, California

All results are in **parts per billion (ppb)**

Well ID & Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
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Notes:

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (May 2008)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

Detectable concentrations 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.

TABLE FOUR

Certified Analytical Results for Vapor Samples
 Albany Hill Mini Mart
 800 San Pablo Avenue, Albany, California
 All results are in **parts per million by volume (ppmv)**

Sample Point ID & Date Sampled	TPH <i>Gasoline</i>	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
<u>INF-VMP1-12.10.07</u> 12/10/07	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	NA	NA	NA	NA
<u>INF-VMP2-12.10.07</u> 12/10/07	3,000	0.42	< 0.25	< 0.25	< 0.25	< 0.10	NA	NA	NA	NA
<u>INF-UNITED-BLANK</u> 12/10/07	70	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	NA	NA	NA	NA
<u>INF-VMP2-12.19.07</u> 12/19/07	210	0.22	< 0.050	< 0.050	< 0.050	< 0.10	NA	NA	NA	NA
<u>INF-UNITED-BLANK</u> 12/19/07	11	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	NA	NA	NA	NA
<u>INF-VMP1-01.14.08</u> 1/14/08	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.50
<u>INF-VMP2-01.14.08</u> 1/14/08	130	0.11	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.50

Notes:

Detectable concentrations are in **Bold**.

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

NA means not analyzed.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX A

Approval Letters from the Alameda County Health care Services Agency
And the USTCF

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

July 5, 2007

Dr. Joginder Sikand
1300 Ptarmigan Drive #1
Walnut Creek, CA 94595

Mr. Anis Rahman
Albany Hill Mini Mart
800 San Pablo Avenue
Albany, CA 94706

Subject: Fuel Leak Case No. RO0000262 and Geotracker Global ID T0600102131, Albany Hill Mini Mart, 800 San Pablo Avenue, Albany, CA 94706

Dear Dr. Sikand and Mr. Rahman:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site, including the document entitled, "Remedial Action Workplan," dated March 9, 2007 and prepared on your behalf by Aqua Science Engineers, Inc. The Work Plan presents plans for the installation and operation of an ozone-sparging system. In correspondence dated April 5, 2007, ACEH requested identification of adjacent property owners in order to provide notification of the proposed corrective action to potentially affected members of the public. On June 5, 2007, we received a list of surrounding properties and mailing labels that meets our April 5, 2007 request.

Based on our review of the Remedial Action Workplan, the conceptual design of the ozone sparging system is generally acceptable; however, we request that you include soil vapor monitoring points as discussed in technical comment 1 below. Please address the technical comments below, complete the proposed work, and **submit a revised Remedial Action Workplan by September 19, 2007.**

TECHNICAL COMMENTS

- 1. Monitoring of Ozone Sparging.** Monitoring is required to confirm that the system is operating as designed, confirm that the treatment is effective, and for safety. The proposed ozone sparging system is expected to affect much of the site and some off-site areas. Several of the proposed sparge wells are located along the property boundaries and adjacent to existing commercial buildings. Figure 8 of the Remedial Action Workplan shows the presumed radius of influence for several sparge points extending beneath adjacent buildings. We request that you add soil vapor or subslab monitoring points to monitor the potential for the ozone sparging to affect indoor air quality in the adjacent structures. Monitoring will be required for ozone gas, VOCs, and oxygen.

Dr. Joginder Sikand
Mr. Anis Rahman
July 5, 2007
Page 2

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Jerry Wickham), according to the following schedule:

- **September 19, 2007** – Revised Remedial Action Workplan
- **45 days after the end of each quarter** – Groundwater Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

Dr. Joginder Sikand
Mr. Anis Rahman
July 5, 2007
Page 3

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

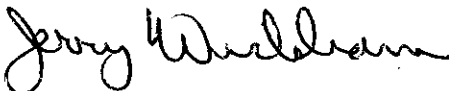
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Sunil Ramdass, SWRCB Cleanup Fund, 1001 I Street, 17th floor
Sacramento, CA 95814-2828

Robert Kitay, Aqua Science Engineers, Inc., 55 Oak Ct., Suite 220
Danville, CA 94526

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

August 30, 2007

Dr. Joginder Sikand
1300 Ptarmigan Drive #1
Walnut Creek, CA 94595

Mr. Anis Rahman
Albany Hill Mini Mart
800 San Pablo Avenue
Albany, CA 94706

Post-it® Fax Note	7671	Date	8/31/07	# of pages	3
To	David Allen / R. Sikand	From	Jerry Wickham		
Co./Dept.	ASE	Co.	ACEH		
Phone #		Phone #	510-567-6791		
Fax #	925-837-4853	Fax #			

Subject: Fuel Leak Case No. RO0000262 and Geotracker Global ID T0600102131, Albany Hill Mini Mart, 800 San Pablo Avenue, Albany, CA 94706

Dear Dr. Sikand and Mr. Rahman:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site, including the recently submitted document entitled, "Addendum to March 9, 2007 Remedial Action Plan, Albany Hill Mini Mart," dated August 15, 2007 and prepared on your behalf by Aqua Science Engineers, Inc. The Addendum presents a scope of work for monitoring soil vapor and indoor air during operation of the proposed ozone sparging remediation system. The proposals in the "Remedial Action Workplan," dated March 9, 2007 and "Addendum to March 9, 2007 Remedial Action Plan," dated August 15, 2007 are approved by ACEH for public comment.

Public participation is a requirement for the Corrective Action Plan (CAP) process. Therefore, ACEH will notify potentially affected members of the public who live or own property in the surrounding area of the proposed remediation described in the Remedial Action Plan (RAP) and Addendum to the RAP. Public comments on the proposed remediation will be accepted for a 30-day period. After the public comments have been reviewed and addressed, ACEH may request responses to the comments with revisions to the RAP or may provide approval for installation and operation of the proposed remediation system.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Jerry Wickham), according to the following schedule:

- 120 days after ACEH approval of RAP and RAP Addendum – Remediation System Start-up Report
- 45 days after the end of each quarter – Groundwater Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2664, and 2721 through 2728 outline the

Dr. Joginder Sikand
Mr. Anis Rahman
RO0000262
August 30, 2007
Page 2

responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

Dr. Joginder Sikand
Mr. Anis Rahman
RO000262
August 30, 2007
Page 3

UNDERGROUND STORAGE TANK CLEANUP FUND

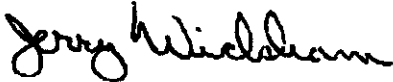
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Sunil Ramdass, SWRCB Cleanup Fund, 1001 I Street, 17th floor
Sacramento, CA 95814-2828

Robert Kitay, Aqua Science Engineers, Inc., 55 Oak Ct., Suite 220
Danville, CA 94526

Donna Drogos, ACEH
Jerry Wickham, ACEH
File



Linda S. Adams
Secretary for
Environmental Protection

State Water Resources Control Board

Division of Financial Assistance

1001 I Street • Sacramento, California 95814
P.O. Box 944212 • Sacramento, California • 94244-2120
(916) 341-5757 • FAX (916) 341-5806 • www.waterboards.ca.gov/cwphome/ustcf



Arnold Schwarzenegger
Governor

SEP 13 2007

SIKAND & SIKAND, INC.
1300 PTARMIGAN DR #1
WALNUT CREEK, CA 94595

**PRE-APPROVAL OF CORRECTIVE ACTION COSTS, CLAIM NO. 013910, PA # 6
SITE ADDRESS: 800 SAN PABLO AVE, ALBANY, CA 94706**

The Fund technical review staff has reviewed your request, received on August 27, 2007, for pre-approval of corrective action costs.

With the following provisions, the total cost pre-approved as eligible for reimbursement for completing the March 9, 2007, Aqua Science Engineers, Inc. workplan approved by the Alameda County EHD (County) in their April 5, 2007 letter, is **\$178,095**; see the table below for a breakdown of costs.

Be aware that this pre-approval does not constitute a decision on reimbursement: **necessary** (as determined by the Fund) corrective action costs for action work **directed and approved by the County** will be eligible for reimbursement at costs consistent with those pre-approved in this letter. However, depending on what happens in the field, some costs may not actually be necessary.

All costs for corrective action must meet the requirements of Article 11, Chapter 16, Underground Storage Tank Regulations in order to be eligible for reimbursement.

- **The work products must be acceptable to the County and the Regional Water Quality Control Board.**
- **If a different scope of work becomes necessary, then you must request pre-approval of costs on the new scope of work.**

California Environmental Protection Agency



Sikand & Sikand, Inc.
Claim No. 13910, PA # 6

-2-

COST PRE-APPROVAL BREAKDOWN

#	Task*	Amount Pre-Approved	Comments
1	Install 9 ~ 25' Ozone Sparge Wells	\$23,948	This cost includes all time, materials and markups associated with this task. Driller, Permits, Analytical, Waste Disposal, PM, Etc. Copies of all permits, disposal manifests and sub-invoices must be submitted to the Fund at the time of reimbursement. Note: only 10% markup is eligible for reimbursement on scopes of work greater than 50K. This pre-approval request is for over 200K.
2	Sawcutting, Fencing, Trenching, Installation of Piping, Purchase and Install OSU Unit, Resurfacing, System Startup, PM, Etc.	\$119,052	This cost includes all time, materials and markups associated with this task. Costs for miscellaneous charges are not approved. Actual costs incurred will be evaluated for reimbursement at the time of reimbursement.
3	System Startup and First Week O&M	\$3,065	This cost includes all time, materials and markups associated with this task.
4	6 Months of System O&M	\$18,168	This cost includes all time, materials and markups. Copies of all O&M Logs must be submitted to the Fund at time of reimbursement and also be uploaded to the State Geotracker Database. Actual PG&E used by the Treatment System will be evaluated for reimbursement.
5	System Installation Report	\$1,945	Copies of all reports must be submitted to the Fund
6	6-Month Operation Report	\$4,465	Copies of all reports must be submitted to the Fund. Please evaluate the system effectiveness and include conclusions and recommendations.
7	Hexavalent Chromium Bench Test	\$3,100	The Fund is recommending that a Hexavalent Chromium Bench Test be performed at this site.

California Environmental Protection Agency



Sikand & Sikand, Inc.
Claim No. 13910, PA # 6

-3-

#	Task*	Amount Pre-Approved	Comments
8	Additional Requirements for Indoor and Sub-Slab Air Monitoring	\$4,352	This cost includes all time, materials and markups associated with this task.
	TOTAL PRE-APPROVED	\$178,095	

* Task descriptions are the same as those identified in Aqua Science Engineers, Inc.'s June 25, 2007 cost estimate.

- Only the tasks/costs reflected on the above table are pre-approved at this time. The Fund will review any tasks/costs that go beyond the pre-approved amount to be determined if the additional tasks and costs are necessary and reasonable.
- Although I have referred to the Aqua Science Engineers, Inc. proposal in my pre-approval above, please be aware that you will be entering into a private contract: the State of California cannot compel you to sign any specific contract. This letter **pre-approves the costs** as presented in the proposal dated June 25, 2007 by Aqua Science Engineers, Inc. for conducting the work approved by the County.

I also want to remind you that the Fund's regulations require that you obtain at least three bids, or a bid waiver from Fund staff, from qualified firms for all necessary future corrective action work. If you need assistance in procuring contractor and consultant services, don't hesitate to call me.

Please remember that it is still necessary to submit the actual costs of the work as explained in the Reimbursement Request Instructions to confirm that the costs are consistent with this pre-approval before you will be reimbursed. ***Please insure that your consultant prepares their invoices to include the required breakdown of costs on a time and materials basis, that invoiced tasks are consistent with the original proposal, and that reasonable explanations are provided for any changes made in the scope of work or increases in the costs. When the invoices are submitted you must include copies of all:***

- *subcontractor invoices,*
- *technical reports, when available, and*
- *applicable correspondence from the County.*

California Environmental Protection Agency



Sikand & Sikand, Inc.
Claim No. 13910, PA # 6

-4-

Please call if you have any questions; I can be reached at (916) 341-5757

Sincerely,



Sunil Ramdass, Water Resources Control Engineer
Technical Review Unit
Underground Storage Tank Cleanup Fund

cc: Jerry Wickham
Alameda County EHD
1131 Harbor Bay Pkway, 2nd Fl.
Alameda, CA 94502-6577



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX B

Well Completion Logs

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

BORING: OS-4 (FIELD = OS-1)

Project Name: Albany Hill

Project Location: 800 San Pablo Ave, Albany, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Geoprobe

Size of Drill: 1.0" Diameter

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

Date Drilled: October 11, 2007

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

WATER AND WELL DATA

Depth of Water First Encountered: 4'

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: 24'

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

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA					Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log		
0							0	Concrete/Base	
5							5	Silty CLAY (CH); black; medium stiff; damp; 80% clay; 20% silt; trace sand; high plasticity; very low estimated K; no odor moist at 3' wet at 4'	
10							10	Clayey SAND (SC); dark brown; stiff; damp; 60% fine sand; 40% clay; trace gravel; non-plastic; low estimated K; moderate hydrocarbon odor	
15							15	Silty SAND (SM); yellow brown; dense; dry; 70% fine sand; 25% silt; 5% gravel; trace clay; non-plastic; low estimated K; strong hydrocarbon odor	
20							20	Sandy SILT (ML); yellow brown; medium stiff; wet; 60% silt; 40% fine sand; non-plastic; low estimated K; slight hydrocarbon odor	
25							25	Silty SAND (SM); yellow brown; loose; wet; 60% fine sand; 40% silt; non-plastic; medium estimated K; moderate hydrocarbon odor	
30							30	Clayey SAND (SC); brown; dense; damp; 50% fine to medium sand; 35% clay; 15% gravel; non-plastic; low estimated K; slight hydrocarbon odor	
								End of boring	

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS						Well OS-1 (FIELD = 05-2)		
Project Name: Albany Hill Mini-Mart			Project Location: 800 San Pablo Avenue, Albany, CA			Page 1 of 1		
Driller: Precision Sampling		Type of Rig: Hollow-Stem Auger		Size of Drill: 8.0" Diameter				
Logged By: Robert E. Kitay, P.G.		Date Drilled: December 21, 2005		Checked By: Robert E. Kitay, P.G.				
WATER AND WELL DATA				Total Depth of Well Completed: 22'				
Depth of Water First Encountered: 20'				Well Screen Type and Diameter: 30" Ozone Sparge Point				
Static Depth of Water in Boring: NA				Well Screen Perforation Size: 10-50 microns				
Total Depth of Boring: 20'				Type and Size of Soil Sampler: 2.0" I.D. Macro Core				
Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level		
0		Street Bx					0	Concrete
5		.75" ID Blank Sch 40 PVC					5	Silty SAND (SM); yellow brown; medium dense; damp; 75-80% medium sand; 20-25% silt; non-plastic; high estimated K; no odor
10		2/16 Lonestar Sand Class "H" Portland Cement					10	olive; moderate hydrocarbon odor at 8'
15		Bentomite Seal					15	2" of olive clayey silt at 11.8'
20		2" I.D. 10-50 Micron Perforated Screen					20	Sandy SILT (ML); yellow brown; hard; damp; 60% silt; 25% fine sand; 15% clay; trace gravel; low plasticity; low estimated K; moderate hydrocarbon odor
25							25	Clayey SILT (ML); yellow brown; hard; damp; 65% silt; 25% clay; 10% fine to medium sand; trace gravel; non-plastic; low estimated K; moderate hydrocarbon odor
30							30	Silty SAND (SM); olive; medium dense; wet; 85-90% fine to medium sand; 10-15% silt; non-plastic; high estimated K; moderate hydrocarbon odor
								End of boring at 20'

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

BORING: OS-5 (FIELD = OS-3)

Project Name: Albany Hill	Project Location: 800 San Pablo Ave, Albany, CA	Page 1 of 1
Driller: V&W Drilling	Type of Rig: Geoprobe	Size of Drill: 1.0" Diameter
Logged By: Robert E. Kitay, P.G.	Date Drilled: October 12, 2007	Checked By: Robert E. Kitay, P.G.

WATER AND WELL DATA	Total Depth of Well Completed: NA
Depth of Water First Encountered: 22'	Well Screen Type and Diameter: NA
Static Depth of Water in Well: NA	Well Screen Slot Size: NA
Total Depth of Boring: 24'	Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA					Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log		
0		Street Box Locking Well Cap						0	Concrete/Base
5		1" ID Blank Sch 80 PVC Portland Cement						5	
10		1" ID. Sparge Point						10	Silty CLAY (CH); olive; very stiff; damp; 90% clay; 10% silt; high plasticity; very low estimated K; strong hydrocarbon odor
15		No. 2/12 Washed Monterey Sand						15	Sandy SILT (ML); olive; medium stiff; moist; 60% silt; 40% fine sand; non-plastic; low estimated K; strong hydrocarbon odor
20								20	Silty SAND (SM); olive; dense; damp; 70% fine to coarse sand; 30% silt; non-plastic; medium estimated K; moderate hydrocarbon odor
25								25	Sandy SILT (ML); olive brown; stiff; damp; 70% silt; 30% fine sand; non-plastic; low estimated K; strong hydrocarbon odor
30								30	Silty SAND (SM); brown; dense; damp; 70% fine to coarse sand; 20% silt; 10% gravel; non-plastic; medium estimated K; moderate hydrocarbon odor
									SILT (ML); yellow brown; stiff; moist; 95% silt; 5% clay; non-plastic; low estimated K; slight hydrocarbon odor
									End of boring

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

BORING: OS-10 (FIELD = OS-4)

Project Name: Albany Hill

Project Location: 800 San Pablo Ave, Albany, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Geoprobe

Size of Drill: 1.0" Diameter

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

Date Drilled: October 12, 2007

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

WATER AND WELL DATA

Depth of Water First Encountered: NA

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: 22'

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

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA					Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0		Street Box Locking Well Cap						Concrete/Base	
0		1" ID Blank Sch 80 PVC						Pea Gravel (fill)	
5		Bentonite Seal							
10		Washed Monterey Sand							
15		No. 2/12							
20		1" I.D. Sparge Point						Silty SAND (SM); yellow brown; dense; wet; 65% fine to coarse sand; 20% silt; 15% gravel; non-plastic; low estimated K; no odor	
25								End of boring	
30									

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS						Well OS-3 (FIELD = OS-5)		
Project Name: Albany Hill Mini-Mart			Project Location: 800 San Pablo Avenue, Albany, CA			Page 1 of 1		
Driller: Precision Sampling			Type of Rig: Hollow-Stem Auger		Size of Drill: 8.0" Diameter			
Logged By: Robert E. Kitay, P.G.			Date Drilled: December 22, 2005		Checked By: Robert E. Kitay, P.G.			
WATER AND WELL DATA				Total Depth of Well Completed: 22'				
Depth of Water First Encountered: 20'				Well Screen Type and Diameter: 30" Ozone Sparge Point				
Static Depth of Water in Boring: NA				Well Screen Perforation Size: 10-50 microns				
Total Depth of Boring: 24'				Type and Size of Soil Sampler: 2.0" I.D. Macro Core				
Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OMV (ppmv)	Water Level		
0		Street Box					0	Concrete
0							0	Pea Gravel
0							0	CLAY (CH); black; stiff; dry; 100% clay; high plasticity; very low estimated K; moderate hydrocarbon odor
5							5	
10							10	
15							15	Sandy SILT (ML); olive; medium stiff; damp; 60% silt; 35% fine sand; 5% gravel; non-plastic; low estimated K; strong hydrocarbon odor
20							20	Silty SAND (SM); dark yellow brown; loose; damp; 85% fine to medium sand; 15% silt; non-plastic; high estimated K; strong hydrocarbon odor
20							20	Sandy SILT (ML); olive; medium stiff; 50% silt; 45% fine to medium sand; 5% gravel; trace clay; non-plastic; low estimated K; strong hydrocarbon odor
25							25	SILT (ML); grey; medium stiff; damp; 100% silt; trace clay; low plasticity; low estimated K; strong hydrocarbon odor
30							30	End of boring at 24'

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

BORING: OS-7 (FIELD = OS-6)

Project Name: Albany Hill

Project Location: 800 San Pablo Ave, Albany, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Geoprobe

Size of Drill: 1.0" Diameter

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

Date Drilled: October 11, 2007

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

WATER AND WELL DATA

Depth of Water First Encountered: 20'

Total Depth of Well Completed: NA

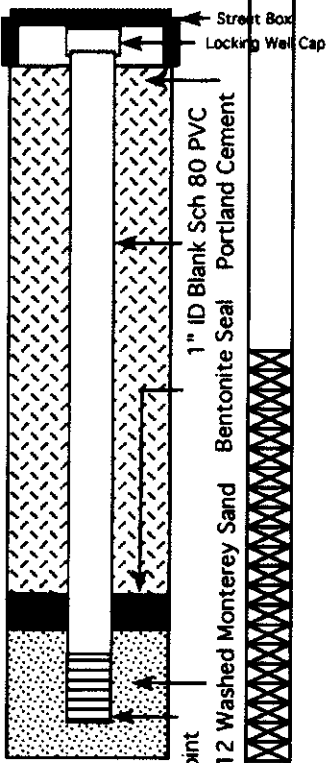
Well Screen Type and Diameter: NA

Static Depth of Water in Well: NA

Well Screen Slot Size: NA

Total Depth of Boring: 22'

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

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level		
0							0	Concrete/Base
5							5	Clayey SILT (MH); olive; stiff; damp; 60% silt; 40% clay; high plasticity; very low estimated K; moderate hydrocarbon odor
10							10	Silty SAND (SM); olive; dense; damp; 70% fine sand; 30% silt; non-plastic; low estimated K; strong hydrocarbon odor yellow brown; 5% gravel; less odor at 15.5' 10% gravel at 16.5'
15							15	Sandy SILT (ML); olive; stiff; moist; 65% silt; 35% fine to medium sand; non-plastic; low estimated K; moderate hydrocarbon odor
20							20	Silty SAND (SM); yellow brown; dense; wet; 80% fine to medium sand; 15% silt; 5% gravel to 0.5" diameter; non-plastic; high estimated K; moderate hydrocarbon odor Clayey SILT (MH); yellow brown; stiff; moist; 60% silt; 40% clay; high plasticity; very low estimated K; hydrocarbon odor
25							25	SAND (SP); yellow brown; loose; wet; 100% fine sand; non-plastic; high estimated K; moderate hydrocarbon odor Silty SAND (SM); yellow brown; dense; wet; 80% fine to medium sand; 15% silt; 5% gravel to 0.5" diameter; non-plastic; high estimated K; moderate hydrocarbon odor
30							30	End of boring

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

BORING: OS-9 (FIELD = OS-7)

Project Name: Albany Hill

Project Location: 800 San Pablo Ave, Albany, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Geoprobe

Size of Drill: 1.0" Diameter

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

Date Drilled: October 11, 2007

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

WATER AND WELL DATA

Depth of Water First Encountered: NA

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: 22'

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

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level		
0		Street Box Locking Well Cap					0	Concrete/Base
5		1" ID Blank Sch 80 PVC Portland Cement					5	
10		1" ID Blank Seal Bentonite					10	Silty CLAY (CH); dark brown; stiff; moist; 80% clay; 20% silt; high plasticity; very low estimated K; slight hydrocarbon odor
15		Washed Monterey Sand					15	Sandy SILT (ML); olive; medium stiff; damp; 80% silt; 20% fine sand; non-plastic; low estimated K; very strong hydrocarbon odor
20		1" Sparge Point No. 2/12					20	Silty SAND (SM); olive; medium dense; damp; 70% fine sand; 30% silt; non-plastic; medium estimated K; moderate hydrocarbon odor fine to medium sand; wet at 18'
25							25	Clayey SAND (SC); orange; dense; damp; 60% sand; 30% clay; 10% gravel; non-plastic; low estimated K; moderate hydrocarbon odor
30							30	End of boring

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

BORING: OS-6 (FIELD = OS-8)

Project Name: Albany Hill

Project Location: 800 San Pablo Ave, Albany, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Geoprobe

Size of Drill: 1.0" Diameter

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

Date Drilled: October 11, 2007

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

WATER AND WELL DATA

Depth of Water First Encountered: 20'

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: 22'

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

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level		
0		Street Box Locking Well Cap					0	Concrete/Base
0-20		1" ID Blank Sch 80 PVC Portland Cement					0-20	Clayey SILT (ML); dark brown; stiff; damp; 80% silt; 20% clay; low plasticity; low estimated K; no odor (concrete and wire present indicating fill material)
0-20		1" ID Blank Sch 80 PVC Portland Cement					0-20	CLAY (CH); brown; very stiff; damp; 100% clay; very high plasticity; very low estimated K; strong hydrocarbon odor
0-20		Bentonite Seal					0-20	Clayey SAND (SC); yellow brown; dense; damp; 60% fine sand; 30% clay; 10% gravel to 1" diameter; non-plastic; low estimated K; strong hydrocarbon odor
0-20		Washed Monterey Sand			760+		0-20	Silty SAND (SM); olive; medium dense; moist; 80% fine sand; 20% silt; non-plastic; medium estimated K; moderate hydrocarbon odor
0-20		1" I.D. Sparge Point					0-20	SILT (ML); olive; loose; wet; 100% silt; non-plastic; low estimated K; moderate hydrocarbon odor
0-20		No. 2/12					0-20	Silty SAND (SM); yellow brown; medium dense; moist; 60% fine sand; 40% silt; non-plastic; medium estimated K; moderate hydrocarbon odor
0-20							0-20	65% fine to medium sand; 20% silt; 15% gravel at 18.5'
0-20							0-20	SAND (SP); olive; loose; wet; 100% fine sand; non-plastic; high estimated K; moderate hydrocarbon odor
0-20							0-20	Clayey SAND (SC); brown; dense; damp; 60% fine to medium sand; 25% clay; 15% gravel; non-plastic; low estimated K; slight hydrocarbon odor
20-22							20-22	End of boring

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

BORING: OS-8 (FIELD = OS-9)

Project Name: Albany Hill

Project Location: 800 San Pablo Ave, Albany, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Geoprobe

Size of Drill: 1.0" Diameter

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

Date Drilled: October 12, 2007

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

WATER AND WELL DATA

Depth of Water First Encountered: 18'

Total Depth of Well Completed: NA

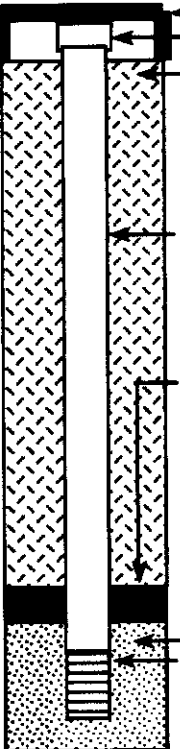
Well Screen Type and Diameter: NA

Static Depth of Water in Well: NA

Well Screen Slot Size: NA

Total Depth of Boring: 22'

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

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		
0		Street Box Locking Well Cap 1" ID Blank Sch 80 PVC Portland Cement Bentonite Seal 1" I.D. Sparge Point No. 2/12 Washed Monterey Sand					0	Concrete/Base
5							5	
10							10	Silty CLAY (CH); olive brown; stiff; damp; 80% clay; 15% silt; 5% gravel; high plasticity; very low estimated K; moderate hydrocarbon odor
15							15	Sandy CLAY (CH); olive; stiff; damp; 80% clay; 20% sand; high plasticity; very low estimated K; moderate hydrocarbon odor
20							20	Silty SAND (SM); yellow brown mottled olive; dense; damp; 60% fine sand; 40% silt; non-plastic; low estimated K; moderate hydrocarbon odor
25							25	Sandy SILT (ML); olive; medium stiff; moist; 60% silt; 40% fine sand; non-plastic; low estimated K; moderate hydrocarbon odor
30							30	Silty SAND (SM); yellow brown; dense; wet; 85% fine to coarse sand; 15% silt; non-plastic; high estimated K; moderate hydrocarbon odor
								Sandy SILT (ML); olive; stiff; wet; 80% silt; 20% fine sand; trace clay; low plasticity; low estimated K; moderate hydrocarbon odor
								End of boring

AQUA SCIENCE ENGINEERS, INC.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX C

Non-Hazardous Waste Manifest
For Soil Cuttings Transportation
To Allied Waste – Forward Landfill in Manteca CA

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 00886

2. Page 1 of

3. Generator's Name and Mailing Address

Albany Hill
800 San Pablo
Albany Ca

Aquascience Engineers

4. Generator's Phone ()

5. Transporter 1 Company Name

Slaby Environmental Inc

6.

US EPA ID Number

N/A

A. Transporter's Phone

888-701-6600

7. Transporter 2 Company Name

8.

US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
FORWARD LANDFILL

10.

US EPA ID Number

C. Facility's Phone

99 0 S. AUSTIN ROAD
MATECA CA 95336

CAL000190080 1-209-982-4298

11. Waste Shipping Name and Description

a.

Non Haz soil cuttings

12. Containers
No. Type

15.

dm

13. Total Quantity

9000.

14. Unit Wt/Vol

P

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

Approval

15. Special Handling Instructions and Additional Information

Slaby Environmental INC. FOR DISPOSAL

P O Box 903

Borrego Springs CA 92004

Wear appropriate clothing, steel toed boots, and gloves when handling large drums.

EMERGENCY (24 HOUR) PHONE # 1-888-701-6600

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Signature

Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year

GENERATOR

TRANSPORTER

FACILITY



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX D

**Certified Analytical Reports
And Chain of Custodies for
Ozone-Sparging Well Water Samples
And Vapor Monitoring point Air Samples**



Report Number : 59573

Date : 12/05/2007

David Allen
Aqua Science Engineers, Inc.
55 Oak Court, Suite 220
Danville, CA 94526

Subject : 9 Water Samples
Project Name : Albany Hill Mini Mart
Project Number : 3934

Dear Mr. Allen,

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".

Joel Kiff



Subject : 9 Water Samples
Project Name : Albany Hill Mini Mart
Project Number : 3934

Case Narrative

Tert-Butanol results for samples OS-5, OS-7 and OS-8 may be biased slightly high and are flagged with a 'J'. A fraction of MtBE (typically less than 1%) converts to Tert-Butanol during the analysis of water samples. We consider this conversion effect to be mathematically significant in samples that contain MtBE/Tert-Butanol in ratios of over 20:1.

Surrogate Recovery for samples OS-3 and OS-4 for test method Mod. EPA 8015 was outside of control limits. This may indicate a bias in the analysis due to the sample's matrix or an interference from compounds present in the sample.

Approved By: _____


Joel Kiff

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

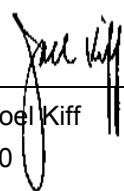
Sample : **OS-1**

Matrix : Water

Lab Number : 59573-01

Sample Date : 11/13/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Methyl-t-butyl ether (MTBE)	67	0.50	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	70	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	11/15/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/01/2007
Octacosane (Diesel Silica Gel Surr)	115		% Recovery	M EPA 8015	12/01/2007

Approved By:  Joel Kiff

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

Sample : **OS-2**

Matrix : Water

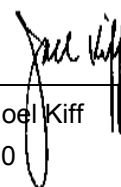
Lab Number : 59573-02

Sample Date : 11/13/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 2.5	2.5	ug/L	EPA 8260B	11/17/2007
Toluene	< 2.5	2.5	ug/L	EPA 8260B	11/17/2007
Ethylbenzene	< 2.5	2.5	ug/L	EPA 8260B	11/17/2007
Total Xylenes	< 2.5	2.5	ug/L	EPA 8260B	11/17/2007
Methyl-t-butyl ether (MTBE)	1200	2.5	ug/L	EPA 8260B	11/17/2007
Diisopropyl ether (DIPE)	< 2.5	2.5	ug/L	EPA 8260B	11/17/2007
Ethyl-t-butyl ether (ETBE)	< 2.5	2.5	ug/L	EPA 8260B	11/17/2007
Tert-amyl methyl ether (TAME)	< 2.5	2.5	ug/L	EPA 8260B	11/17/2007
Tert-Butanol	< 15	15	ug/L	EPA 8260B	11/17/2007
TPH as Gasoline	< 250	250	ug/L	EPA 8260B	11/17/2007
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	11/17/2007
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	11/17/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/01/2007
Octacosane (Diesel Silica Gel Surr)	118		% Recovery	M EPA 8015	12/01/2007

Approved By:

Joel Kiff





Report Number : 59573

Date : 12/05/2007

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

Sample : **OS-3**

Matrix : Water

Lab Number : 59573-03

Sample Date :11/13/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	32	0.50	ug/L	EPA 8260B	11/16/2007
Toluene	6.5	0.50	ug/L	EPA 8260B	11/16/2007
Ethylbenzene	1.4	0.50	ug/L	EPA 8260B	11/16/2007
Total Xylenes	6.5	0.50	ug/L	EPA 8260B	11/16/2007
Methyl-t-butyl ether (MTBE)	440	1.5	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Tert-amyl methyl ether (TAME)	1.6	0.50	ug/L	EPA 8260B	11/16/2007
Tert-Butanol	320	5.0	ug/L	EPA 8260B	11/16/2007
TPH as Gasoline	330	50	ug/L	EPA 8260B	11/16/2007
Toluene - d8 (Surr)	96.1		% Recovery	EPA 8260B	11/16/2007
4-Bromofluorobenzene (Surr)	109		% Recovery	EPA 8260B	11/16/2007
TPH as Diesel (Silica Gel)	100	50	ug/L	M EPA 8015	12/04/2007
(Note: Discrete peaks in Diesel range, atypical for Diesel Fuel.)					
Octacosane (Diesel Silica Gel Surr)	132		% Recovery	M EPA 8015	12/04/2007

Approved By:

Joel Kiff



Report Number : 59573

Date : 12/05/2007

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**


Sample : **OS-4**

Matrix : Water

Lab Number : 59573-04

Sample Date :11/13/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.5	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	1.0	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Methyl-t-butyl ether (MTBE)	1.9	0.50	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	11	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	64	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	96.3		% Recovery	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	11/15/2007
TPH as Diesel (Silica Gel)	54	50	ug/L	M EPA 8015	12/01/2007
(Note: Discrete peaks in Diesel range, atypical for Diesel Fuel.)					
Octacosane (Diesel Silica Gel Surr)	133		% Recovery	M EPA 8015	12/01/2007

Approved By:  Joel Kiff



Report Number : 59573

Date : 12/05/2007

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

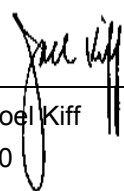
Sample : **OS-5**

Matrix : Water

Lab Number : 59573-05

Sample Date :11/13/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	8.5	2.0	ug/L	EPA 8260B	11/17/2007
Toluene	< 2.0	2.0	ug/L	EPA 8260B	11/17/2007
Ethylbenzene	< 2.0	2.0	ug/L	EPA 8260B	11/17/2007
Total Xylenes	< 2.0	2.0	ug/L	EPA 8260B	11/17/2007
Methyl-t-butyl ether (MTBE)	1000	2.0	ug/L	EPA 8260B	11/17/2007
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	11/17/2007
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	11/17/2007
Tert-amyl methyl ether (TAME)	3.9	2.0	ug/L	EPA 8260B	11/17/2007
Tert-Butanol	12 J	9.0	ug/L	EPA 8260B	11/17/2007
TPH as Gasoline	1500	200	ug/L	EPA 8260B	11/17/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	11/17/2007
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	11/17/2007
TPH as Diesel (Silica Gel)	160	50	ug/L	M EPA 8015	12/04/2007
(Note: Discrete peaks in Diesel range, atypical for Diesel Fuel.)					
Octacosane (Diesel Silica Gel Surr)	124		% Recovery	M EPA 8015	12/04/2007

Approved By:  Joel Kiff



Report Number : 59573

Date : 12/05/2007

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

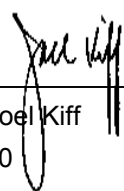
Sample : **OS-6**

Matrix : Water

Lab Number : 59573-06

Sample Date : 11/13/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	2.6	0.50	ug/L	EPA 8260B	11/16/2007
Toluene	0.74	0.50	ug/L	EPA 8260B	11/16/2007
Ethylbenzene	0.63	0.50	ug/L	EPA 8260B	11/16/2007
Total Xylenes	2.9	0.50	ug/L	EPA 8260B	11/16/2007
Methyl-t-butyl ether (MTBE)	380	0.50	ug/L	EPA 8260B	11/16/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Tert-amyl methyl ether (TAME)	1.5	0.50	ug/L	EPA 8260B	11/16/2007
Tert-Butanol	48	5.0	ug/L	EPA 8260B	11/16/2007
TPH as Gasoline	140	50	ug/L	EPA 8260B	11/16/2007
Toluene - d8 (Surr)	96.7		% Recovery	EPA 8260B	11/16/2007
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	11/16/2007
TPH as Diesel (Silica Gel)	66	50	ug/L	M EPA 8015	12/01/2007
(Note: Discrete peaks in Diesel range, atypical for Diesel Fuel.)					
Octacosane (Diesel Silica Gel Surr)	118		% Recovery	M EPA 8015	12/01/2007

Approved By:  Joel Kiff



Report Number : 59573

Date : 12/05/2007

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**


Sample : **OS-7**

Matrix : Water

Lab Number : 59573-07

Sample Date :11/13/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.1	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	0.51	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	6.9	0.50	ug/L	EPA 8260B	11/15/2007
Methyl-t-butyl ether (MTBE)	210	0.50	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	7.5 J	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	220	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	115		% Recovery	EPA 8260B	11/15/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/01/2007
Octacosane (Diesel Silica Gel Surr)	113		% Recovery	M EPA 8015	12/01/2007

Approved By:  Joel Kiff

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



Report Number : 59573

Date : 12/05/2007

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

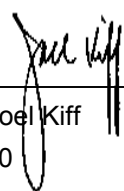
Sample : **OS-8**

Matrix : Water

Lab Number : 59573-08

Sample Date :11/13/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Methyl-t-butyl ether (MTBE)	440	0.90	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	2.2	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	15 J	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	96.3		% Recovery	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	11/15/2007
TPH as Diesel (Silica Gel)	55	50	ug/L	M EPA 8015	12/01/2007
(Note: Discrete peaks in Diesel range, atypical for Diesel Fuel.)					
Octacosane (Diesel Silica Gel Surr)	112		% Recovery	M EPA 8015	12/01/2007

Approved By:  Joel Kiff

Project Name : **Albany Hill Mini Mart**

Project Number : **3934**

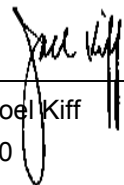
Sample : **OS-9**

Matrix : Water

Lab Number : 59573-09

Sample Date : 11/13/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	2.8	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	12	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	2.8	0.50	ug/L	EPA 8260B	11/15/2007
Methyl-t-butyl ether (MTBE)	31	0.50	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	12	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	210	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	98.6		% Recovery	EPA 8260B	11/15/2007
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/01/2007
Octacosane (Diesel Silica Gel Surr)	105		% Recovery	M EPA 8015	12/01/2007

Approved By:  Joel Kiff

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	11/15/2007
Octacosane (Diesel Silica Gel Surr)	89.8		%	M EPA 8015	11/15/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	102		%	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	11/15/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	100		%	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	98.1		%	EPA 8260B	11/15/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/16/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/16/2007
Toluene - d8 (Surr)	99.6		%	EPA 8260B	11/16/2007
4-Bromofluorobenzene (Surr)	99.6		%	EPA 8260B	11/16/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	104		%	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	113		%	EPA 8260B	11/15/2007

Approved By:  Joel Kiff

Report Number : 59573

Date : 12/05/2007

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
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	97.6		%	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	108		%	EPA 8260B	11/15/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/15/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/15/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/15/2007
Toluene - d8 (Surr)	95.7		%	EPA 8260B	11/15/2007
4-Bromofluorobenzene (Surr)	108		%	EPA 8260B	11/15/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/16/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/16/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/16/2007
Toluene - d8 (Surr)	95.9		%	EPA 8260B	11/16/2007
4-Bromofluorobenzene (Surr)	107		%	EPA 8260B	11/16/2007

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

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

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-D (Si Gel)	Blank	<50	1000	1000	764	700	ug/L	M EPA 8015	11/15/07	76.4	70.0	8.62	70-130	25
Benzene	59555-01	<0.50	40.0	40.0	40.9	40.7	ug/L	EPA 8260B	11/15/07	102	102	0.510	70-130	25
Toluene	59555-01	<0.50	40.0	40.0	41.0	40.5	ug/L	EPA 8260B	11/15/07	102	101	1.15	70-130	25
Tert-Butanol	59555-01	<5.0	200	200	222	221	ug/L	EPA 8260B	11/15/07	111	110	0.290	70-130	25
Methyl-t-Butyl Ether	59555-01	<0.50	40.0	40.0	32.6	32.8	ug/L	EPA 8260B	11/15/07	81.4	82.0	0.691	70-130	25
Benzene	59573-01	<0.50	40.0	40.0	38.3	37.3	ug/L	EPA 8260B	11/15/07	95.7	93.4	2.51	70-130	25
Toluene	59573-01	<0.50	40.0	40.0	38.8	37.6	ug/L	EPA 8260B	11/15/07	97.1	94.0	3.22	70-130	25
Tert-Butanol	59573-01	<5.0	200	200	178	194	ug/L	EPA 8260B	11/15/07	89.1	97.0	8.46	70-130	25
Methyl-t-Butyl Ether	59573-01	67	40.0	40.0	101	99.7	ug/L	EPA 8260B	11/15/07	83.1	80.7	2.99	70-130	25
Benzene	59573-09	2.8	40.0	40.0	44.2	41.4	ug/L	EPA 8260B	11/15/07	104	96.6	6.99	70-130	25
Toluene	59573-09	<0.50	40.0	40.0	40.8	38.5	ug/L	EPA 8260B	11/15/07	102	96.2	5.87	70-130	25
Tert-Butanol	59573-09	12	200	200	214	217	ug/L	EPA 8260B	11/15/07	101	102	1.38	70-130	25
Methyl-t-Butyl Ether	59573-09	31	40.0	40.0	73.2	66.3	ug/L	EPA 8260B	11/15/07	106	88.3	17.8	70-130	25
Benzene	59558-01	<0.50	40.0	40.0	40.5	39.3	ug/L	EPA 8260B	11/16/07	101	98.2	3.00	70-130	25
Toluene	59558-01	<0.50	40.0	40.0	40.1	38.8	ug/L	EPA 8260B	11/16/07	100	96.9	3.41	70-130	25
Tert-Butanol	59558-01	10	200	200	209	210	ug/L	EPA 8260B	11/16/07	99.5	99.9	0.410	70-130	25
Methyl-t-Butyl Ether	59558-01	90	40.0	40.0	130	130	ug/L	EPA 8260B	11/16/07	100	101	1.21	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

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

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
Benzene	59573-07	1.1	40.0	40.0	39.1	38.2	ug/L	EPA 8260B	11/15/07	95.0	92.9	2.21	70-130	25
Toluene	59573-07	<0.50	40.0	40.0	40.5	39.2	ug/L	EPA 8260B	11/15/07	101	98.0	3.13	70-130	25
Tert-Butanol	59573-07	7.5	200	200	201	202	ug/L	EPA 8260B	11/15/07	96.8	97.4	0.649	70-130	25
Methyl-t-Butyl Ether	59573-07	210	40.0	40.0	248	250	ug/L	EPA 8260B	11/15/07	91.6	97.0	5.75	70-130	25
Benzene	59573-04	1.5	40.0	40.0	40.1	38.4	ug/L	EPA 8260B	11/15/07	96.5	92.1	4.64	70-130	25
Toluene	59573-04	1.0	40.0	40.0	39.2	37.1	ug/L	EPA 8260B	11/15/07	95.4	90.1	5.75	70-130	25
Tert-Butanol	59573-04	11	200	200	203	203	ug/L	EPA 8260B	11/15/07	95.8	95.9	0.0757	70-130	25
Methyl-t-Butyl Ether	59573-04	1.9	40.0	40.0	40.9	37.0	ug/L	EPA 8260B	11/15/07	97.5	87.6	10.6	70-130	25
Benzene	59554-06	0.95	40.0	40.0	38.4	38.5	ug/L	EPA 8260B	11/15/07	93.7	93.9	0.210	70-130	25
Toluene	59554-06	<0.50	40.0	40.0	37.3	37.4	ug/L	EPA 8260B	11/15/07	93.3	93.4	0.121	70-130	25
Tert-Butanol	59554-06	<5.0	200	200	201	199	ug/L	EPA 8260B	11/15/07	101	99.6	1.14	70-130	25
Methyl-t-Butyl Ether	59554-06	10	40.0	40.0	48.0	48.7	ug/L	EPA 8260B	11/15/07	94.7	96.3	1.69	70-130	25
Benzene	59579-04	<0.50	40.0	40.0	38.2	38.2	ug/L	EPA 8260B	11/16/07	95.6	95.4	0.174	70-130	25
Toluene	59579-04	<0.50	40.0	40.0	37.9	37.5	ug/L	EPA 8260B	11/16/07	94.7	93.8	0.957	70-130	25
Tert-Butanol	59579-04	<5.0	200	200	192	198	ug/L	EPA 8260B	11/16/07	96.2	99.2	3.04	70-130	25
Methyl-t-Butyl Ether	59579-04	<0.50	40.0	40.0	38.8	38.9	ug/L	EPA 8260B	11/16/07	97.1	97.3	0.227	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

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

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
Benzene	40.0	ug/L	EPA 8260B	11/15/07	102	70-130
Toluene	40.0	ug/L	EPA 8260B	11/15/07	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/15/07	108	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/15/07	86.0	70-130
Benzene	40.0	ug/L	EPA 8260B	11/15/07	93.3	70-130
Toluene	40.0	ug/L	EPA 8260B	11/15/07	97.6	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/15/07	96.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/15/07	85.3	70-130
Benzene	40.0	ug/L	EPA 8260B	11/15/07	100	70-130
Toluene	40.0	ug/L	EPA 8260B	11/15/07	102	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/15/07	103	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/15/07	100	70-130
Benzene	40.0	ug/L	EPA 8260B	11/16/07	99.3	70-130
Toluene	40.0	ug/L	EPA 8260B	11/16/07	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/16/07	103	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/16/07	104	70-130
Benzene	40.0	ug/L	EPA 8260B	11/15/07	95.0	70-130

KIFF ANALYTICAL, LLC

Approved By:



 Joel Kiff

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
Toluene	40.0	ug/L	EPA 8260B	11/15/07	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/15/07	103	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/15/07	101	70-130
Benzene	40.0	ug/L	EPA 8260B	11/15/07	95.2	70-130
Toluene	40.0	ug/L	EPA 8260B	11/15/07	94.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/15/07	99.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/15/07	90.4	70-130
Benzene	40.0	ug/L	EPA 8260B	11/15/07	93.4	70-130
Toluene	40.0	ug/L	EPA 8260B	11/15/07	92.5	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/15/07	98.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/15/07	94.8	70-130
Benzene	40.0	ug/L	EPA 8260B	11/16/07	93.6	70-130
Toluene	40.0	ug/L	EPA 8260B	11/16/07	92.0	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/16/07	92.7	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/16/07	95.2	70-130

KIFF ANALYTICAL, LLC

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

Approved By:



 Joel Kiff

Aqua Science Engineers, Inc.
 208 W. El Pintado Road
 Danville, CA 94526
 (925) 820-9391
 FAX (925) 837-4853

Chain of Custody 59573

PAGE 1 of 1

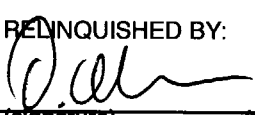
SAMPLER (SIGNATURE)


PROJECT NAME Albany Hill Mini Mart JOB NO. 3934
 ADDRESS 800 San Pablo Ave, Albany CA

ANALYSIS REQUEST

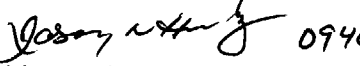

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015) HCA	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	CAM 17 METALS (EPA 6010-7000)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	Pb (TOTAL or DISSOLVED) (EPA 6010)	PESTICIDES (EPA 8081)	FUEL OXYGENATES (EPA 8260)	PURGEABLE HALOCARBONS (EPA 601/8010)	TPH-G/BTEX/5 OXYS (EPA METHOD 8260) HCA	MULT-RANGE HYDROCARBONS WITH SILICA GEL CLEANUP (EPA 8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	LUFT METALS (5) (EPA 6010-7000)	COMPOSITE 4:1	EDF		
05-1	11/13/07	1230	W	5		X								X							01
05-2		1245				X								X							02
05-3		1300				X								X							03
05-4		1315				X								X							04
05-5		1320				X								X							05
05-6		1345				X								X							06
05-7		1400				X								X							07
08-8		1415				X								X							08
05-9		1430				X								X							09

RELINQUISHED BY:

 (signature) (time)
 D. Allen 11/13/07
 (printed name) (date)
 Company-ASE, INC.

RECEIVED BY:
 (signature) (time)
 (printed name) (date)
 Company-

RELINQUISHED BY:
 (signature) (time)
 (printed name) (date)
 Company-

RECEIVED BY LABORATORY:
 0940
 (signature) (time)
 11/14/07
 (signature) (date)
 Kiff Analytical
 Company-

SAMPLE RECEIPT
 Temp °C 7.2 Humidity % 100
 Initial JWA Date 11/14/07
 Time 12:42 Coolant present: No
 TURN AROUND TIME
 STANDARD 24Hr 48Hr 72Hr
 OTHER:



Report Number : 60062

Date : 12/14/2007

David Allen
Aqua Science Engineers, Inc.
55 Oak Court, Suite 220
Danville, CA 94526

Subject : 3 Vapor Samples
Project Name : ALBANY HILL
Project Number : 3934

Dear Mr. Allen,

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".

Joel Kiff



Report Number : 60062

Date : 12/14/2007

Project Name : **ALBANY HILL**

Project Number : **3934**

Sample : **INF-VMP1-12.10.07**

Matrix : Air

Lab Number : 60062-01

Sample Date :12/10/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Toluene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Methyl-t-butyl ether (MTBE)	< 0.10	0.10	ppmv	EPA 8260B	12/11/2007
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	12/11/2007
Toluene - d8 (Surr)	94.2		% Recovery	EPA 8260B	12/11/2007
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	12/11/2007

Sample : **INF-VMP2-12.10.07**

Matrix : Air

Lab Number : 60062-02

Sample Date :12/10/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.42	0.30	ppmv	EPA 8260B	12/11/2007
Toluene	< 0.25	0.25	ppmv	EPA 8260B	12/11/2007
Ethylbenzene	< 0.20	0.20	ppmv	EPA 8260B	12/11/2007
Total Xylenes	< 0.20	0.20	ppmv	EPA 8260B	12/11/2007
Methyl-t-butyl ether (MTBE)	< 0.25	0.25	ppmv	EPA 8260B	12/11/2007
TPH as Gasoline	3000	40	ppmv	EPA 8260B	12/11/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/11/2007
4-Bromofluorobenzene (Surr)	92.6		% Recovery	EPA 8260B	12/11/2007

Approved By:

Joel Kiff



Report Number : 60062

Date : 12/14/2007

Project Name : **ALBANY HILL**

Project Number : **3934**

Sample : **INF-UNITED - BLANK**

Matrix : Air

Lab Number : 60062-03

Sample Date :12/10/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Toluene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Methyl-t-butyl ether (MTBE)	< 0.10	0.10	ppmv	EPA 8260B	12/11/2007
TPH as Gasoline	70	5.0	ppmv	EPA 8260B	12/11/2007
Toluene - d8 (Surr)	94.6		% Recovery	EPA 8260B	12/11/2007
4-Bromofluorobenzene (Surr)	112		% Recovery	EPA 8260B	12/11/2007

Approved By:

Joel Kiff

Report Number : 60062

Date : 12/14/2007


QC Report : Method Blank Data

Project Name : **ALBANY HILL**

Project Number : **3934**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Toluene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Methyl-t-butyl ether (MTBE)	< 0.10	0.10	ppmv	EPA 8260B	12/11/2007
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	12/11/2007
Toluene - d8 (Surr)	93.6		%	EPA 8260B	12/11/2007
4-Bromofluorobenzene (Surr)	110		%	EPA 8260B	12/11/2007
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	12/11/2007
Benzene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Toluene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	12/11/2007
Methyl-t-butyl ether (MTBE)	< 0.10	0.10	ppmv	EPA 8260B	12/11/2007
Toluene - d8 (Surr)	100		%	EPA 8260B	12/11/2007
4-Bromofluorobenzene (Surr)	93.1		%	EPA 8260B	12/11/2007

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

Aqua Science Engineers, Inc.
 55 Oak Court, Suite 220
 Danville, CA 94526
 (925) 820-9391
 FAX (925) 837-4853

Chain of Custody 60062

PAGE 1 OF 1


SAMPLER SIGNATURE


PROJECT NAME ALBANY HILL JOB NO. 3934
 ADDRESS 800 SAN PABLO AVE, ALBANY, CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5036/8015-8020) 8266	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	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 8140 EPA 608/8080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	PURGEABLE HALOCARBONS (EPA 601/8010)	MULTI-RANGE HYDROCARBONS	SILICA-GEL CLEANUP	EDF	
																				HOLD	
INF-VMPI-12.10.07	12.10.07	1235	A	1	X																01
INF-VMPI2-12.10.07	"	1240	A	1	X																02
INF-UNITED-BLANK	"	1245	A	1	X																03
INF-EQUIP-BLANK	"	1140	A	1																	04 X

RELINQUISHED BY:

 (signature) (time)
 D. Allen
 (printed name) (date)
 Company-ASE, INC. ASE

RECEIVED BY:

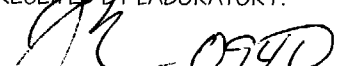
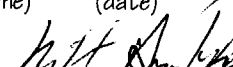
 (signature) (time)

 (printed name) (date)
 Company-

RELINQUISHED BY:

 (signature) (time)

 (printed name) (date)
 Company-

RECEIVED BY LABORATORY:

 (signature) (time)
 Jon Toole 12/10/07
 (printed name) (date)
 Company- 

COMMENTS:

 TURN AROUND TIME
 STANDARD 24Hr 48Hr 72Hr
 OTHER:



Report Number : 60282

Date : 12/26/2007

David Allen
Aqua Science Engineers, Inc.
55 Oak Court, Suite 220
Danville, CA 94526

Subject : 2 Vapor Samples
Project Name : ALBANY HILL
Project Number : 3934

Dear Mr. Allen,

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".

Joel Kiff

Project Name : **ALBANY HILL**

Project Number : **3934**

Sample : **INF-UNITED-BREATHING ZONE**

Matrix : Air

Lab Number : 60282-01

Sample Date :12/19/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	12/20/2007
Toluene	< 0.050	0.050	ppmv	EPA 8260B	12/20/2007
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	12/20/2007
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	12/20/2007
Methyl-t-butyl ether (MTBE)	< 0.10	0.10	ppmv	EPA 8260B	12/20/2007
TPH as Gasoline	11	5.0	ppmv	EPA 8260B	12/20/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/20/2007
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	12/20/2007

Sample : **INF-VMP2-12.19.07**

Matrix : Air

Lab Number : 60282-02

Sample Date :12/19/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.22	0.050	ppmv	EPA 8260B	12/21/2007
Toluene	< 0.050	0.050	ppmv	EPA 8260B	12/21/2007
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	12/21/2007
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	12/21/2007
Methyl-t-butyl ether (MTBE)	< 0.10	0.10	ppmv	EPA 8260B	12/21/2007
TPH as Gasoline	210	5.0	ppmv	EPA 8260B	12/21/2007
Toluene - d8 (Surr)	96.1		% Recovery	EPA 8260B	12/21/2007
4-Bromofluorobenzene (Surr)	99.2		% Recovery	EPA 8260B	12/21/2007

Approved By:

Joel Kiff

Report Number : 60282

Date : 12/26/2007

QC Report : Method Blank Data

Project Name : **ALBANY HILL**

Project Number : **3934**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	12/21/2007
Toluene	< 0.050	0.050	ppmv	EPA 8260B	12/21/2007
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	12/21/2007
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	12/21/2007
Methyl-t-butyl ether (MTBE)	< 0.10	0.10	ppmv	EPA 8260B	12/21/2007
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	12/21/2007
Toluene - d8 (Surr)	95.8		%	EPA 8260B	12/21/2007
4-Bromofluorobenzene (Surr)	98.1		%	EPA 8260B	12/21/2007
Benzene	< 0.050	0.050	ppmv	EPA 8260B	12/20/2007
Toluene	< 0.050	0.050	ppmv	EPA 8260B	12/20/2007
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	12/20/2007
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	12/20/2007
Methyl-t-butyl ether (MTBE)	< 0.10	0.10	ppmv	EPA 8260B	12/20/2007
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	12/20/2007
Toluene - d8 (Surr)	100		%	EPA 8260B	12/20/2007
4-Bromofluorobenzene (Surr)	99.7		%	EPA 8260B	12/20/2007

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



Report Number : 60573

Date : 1/21/2008

David Allen
Aqua Science Engineers, Inc.
55 Oak Court, Suite 220
Danville, CA 94526

Subject : 2 Vapor Samples
Project Name : ALBANY HILL (A.H.)
Project Number : 3934

Dear Mr. Allen,

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".

Joel Kiff



Report Number : 60573

Date : 1/21/2008

Project Name : **ALBANY HILL (A.H.)**

Project Number : **3934**

Sample : **INF-VMP1-01.14.08**

Matrix : Air

Lab Number : 60573-01

Sample Date :1/14/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Toluene	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Diisopropyl ether (DIPE)	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Ethyl-t-butyl ether (ETBE)	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Tert-amyl methyl ether (TAME)	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Tert-Butanol	< 0.50	0.50	ppmv	EPA 8260B	1/15/2008
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	1/15/2008
4-Bromofluorobenzene (Surr)	96.8		% Recovery	EPA 8260B	1/15/2008
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	1/15/2008

Approved By:

Joel Kiff



Report Number : 60573

Date : 1/21/2008

Project Name : **ALBANY HILL (A.H.)**

Project Number : **3934**

Sample : **INF-VMP2-01.14.08**

Matrix : Air

Lab Number : 60573-02

Sample Date :1/14/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.11	0.050	ppmv	EPA 8260B	1/16/2008
Toluene	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Diisopropyl ether (DIPE)	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Ethyl-t-butyl ether (ETBE)	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Tert-amyl methyl ether (TAME)	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Tert-Butanol	< 0.50	0.50	ppmv	EPA 8260B	1/16/2008
TPH as Gasoline	130	5.0	ppmv	EPA 8260B	1/16/2008
4-Bromofluorobenzene (Surr)	98.7		% Recovery	EPA 8260B	1/16/2008
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	1/16/2008

Approved By:

Joel Kiff

QC Report : Method Blank Data

Project Name : **ALBANY HILL (A.H.)**

Project Number : **3934**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Toluene	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Diisopropyl ether (DIPE)	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Ethyl-t-butyl ether (ETBE)	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Tert-amyl methyl ether (TAME)	< 0.050	0.050	ppmv	EPA 8260B	1/15/2008
Tert-Butanol	< 0.50	0.50	ppmv	EPA 8260B	1/15/2008
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	1/15/2008
4-Bromofluorobenzene (Surr)	96.4		%	EPA 8260B	1/15/2008
Toluene - d8 (Surr)	100		%	EPA 8260B	1/15/2008
Benzene	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Toluene	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Diisopropyl ether (DIPE)	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Ethyl-t-butyl ether (ETBE)	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Tert-amyl methyl ether (TAME)	< 0.050	0.050	ppmv	EPA 8260B	1/16/2008
Tert-Butanol	< 0.50	0.50	ppmv	EPA 8260B	1/16/2008
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	1/16/2008
4-Bromofluorobenzene (Surr)	94.6		%	EPA 8260B	1/16/2008
Toluene - d8 (Surr)	98.8		%	EPA 8260B	1/16/2008

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

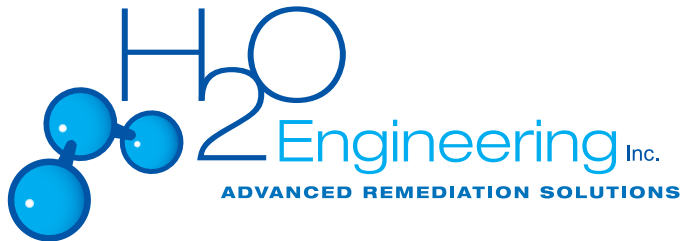


Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX E

Remediation System Diagrams

Ozone Sparge Systems



H2O Engineering's ozone sparge technology delivers the highest concentration of ozone gas directly to the contaminated subsurface. Ozone is released in controlled time duration sequences via in-situ oxidation points. This feature can be programmed and recorded by the logic controller.

Effective for short-term "hot spot" remediation or full scale site clean ups, H2O Engineering's ozone sparge units are completely self-contained and are available in trailer and cabinet enclosures. While we have designed our standard units to handle most field conditions, we also offer custom systems to meet extraordinary site demands. Our systems are successfully oxidizing petroleum hydrocarbons and chlorinated solvents such as TPHg, TPHd, BTEX, TCE, and PCE in both groundwater and soil applications.



OSU20-52

Standard Features

- Ozone Generator Output– 1.3 to 20.4 lbs/day @ 6% concentration by weight
- PSA oxygen concentrator delivers 90% purity
- Ozone delivery pump features all ozone resistant components
- Variable delivery flow (0.5-10 CFM)
- Maximum operating pressure of 50 PSI
- Maximum break through pressure of 100 PSI
- Programmable logic controller (PLC) with human machine interface (HMI)
- Programmable option for Ozone or Oxygen/Air per sparge port
- Independent time duration control of each sparge port (programmable from 1 to 99 minutes)
- Lag time between sparge cycles (programmable from 1 to 240 minutes)
- Individual sparge port and total system cycle time recorder (password protected)
- Sparge port manifold includes ozone compatible solenoid valves, 1/2" Kynar® compression fittings, a high pressure safety switch
- 10,20, 30, and 40 port manifolds available
- Distinctive built-in safety features
 - o Ambient ozone alarm/shutdown sensor
 - o High pressure alarm/shutdown
 - o Built in thermal protection, high temperature alarm, system shut down at 140°F, manual restart
- Remote shutdown interface signal
- Ozone generator pressure gauge and flow meter
- Built-in high flow cooling fans and exhaust vents
- Full one year warranty includes materials and workmanship
- Service contracts and start-up assistance available
- Proven "ozone wing" design allows for reliable operation
- Auto dialer ready

Available Options

- Auto dialer
- Software for remote monitoring and control
- Air Conditioning (Mobile Unit Only)

H2O Engineering, Inc.
189 Granada Drive
San Luis Obispo, CA 93401

Phone: 805-547-0303
Fax: 805-547-0113
www.h2oengineering.com

Ozone Sparge Systems

Product #	Sparge Ports	Ozone Generator Output (LBS/DAY)	Ozone Gas Concentration (PPMv)	Enclosure	Electrical Requirement ¹ (VAC)	Power Consumption (kW)	Max. Operating Flow ² (CFM)	Max. Operating Pressure ³ (PSI)
OSU10-26	10	1.4	2,250	Cabinet	120	1.84	3.8	50
OSU10-52	10	2.7	3,570	Cabinet	120	2.82	3.8	50
OSU20-26	20	1.4	2,250	Cabinet	120	1.84	3.8	50
OSU20-52	20	2.7	3,570	Cabinet	120	2.82	3.8	50
OSU20-104	20	5.5	4,160	Cabinet	240	2.82	3.8	50
MOSU10-52	10	2.7	3,570	Trailer	240	2.82	3.8	50
MOSU10-104	10	5.5	4,160	Trailer	240	4.81	3.8	50
MOSU20-52	20	2.7	3,570	Trailer	240	2.82	3.8	50
MOSU20-104	20	5.5	4,160	Trailer	240	4.81	3.8	50

Note:

1. Electrical requirement: 60 Hz, 1 Ø. All 240 VAC systems require a true neutral.
2. Operating flow is adjustable from .6 to stated maximum.
3. Max. well breakthrough pressure = 100 PSI.



MOSU20-52



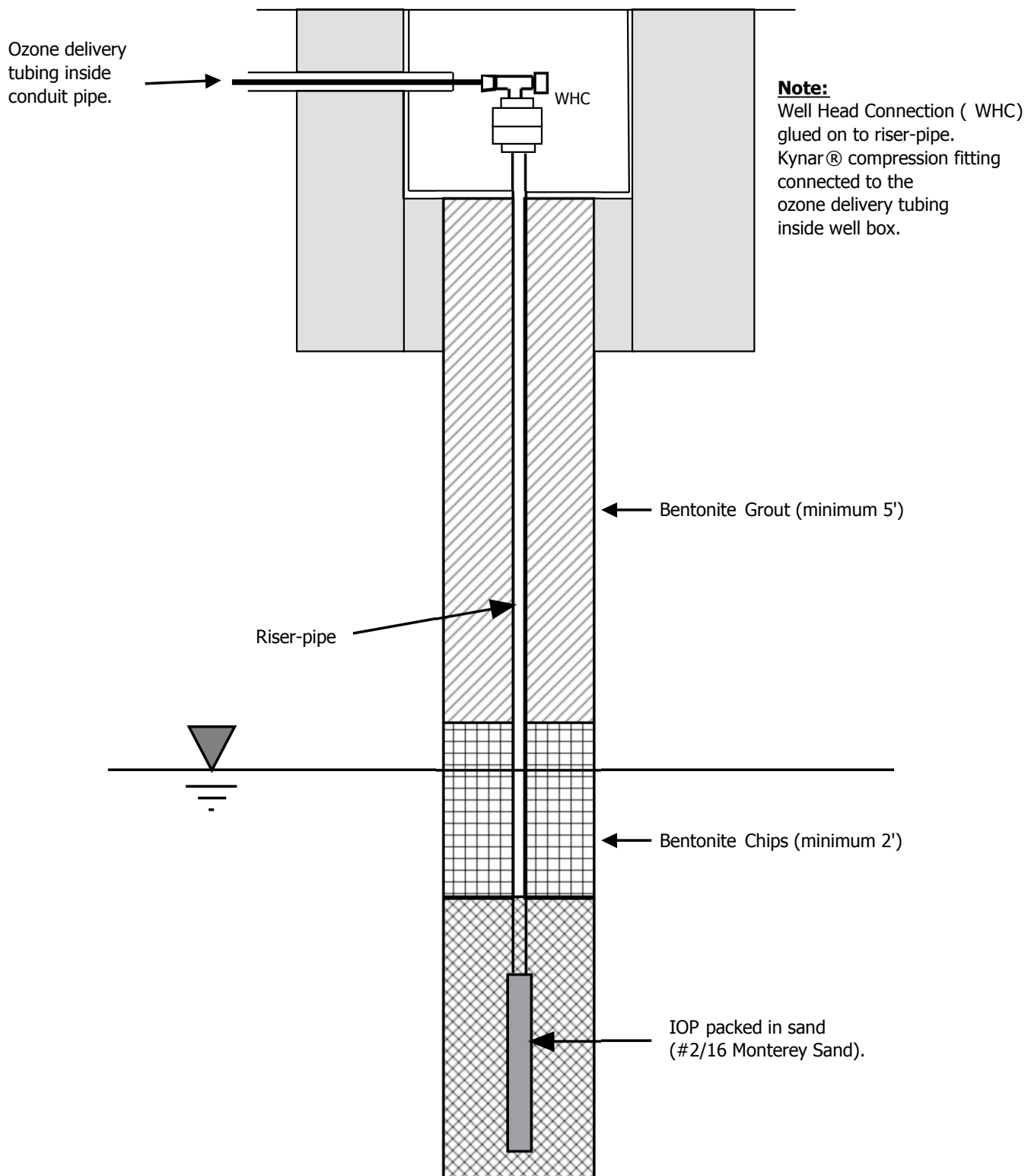
Remote Telemetry Screen



H2O Engineering, Inc.
189 Granada Drive
San Luis Obispo, CA 93401

Phone: 805-547-0303
Fax: 805-547-0113
www.h2oengineering.com

In Situ Oxidation Point (IOP) Sparge Well Installation Diagram



* This is a typical sparge well installation. Please check your state and local requirements for an engineering standard sparge well construction. California Department of Water Resources Bulletin No.74-81 and 74-90: "Water Well Standards: State of California"

** This information is confidential, proprietary and/or privileged material. Any unauthorized review, distribution or other use of or the taking of any action in reliance upon this information is prohibited.

H₂O Engineering, Inc
189 Granada Drive
San Luis Obispo, CA 93401
805-547-0303
805-547-0113 Fax
www.h2oengineering.com





Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX F

Field Logs of First Week's Operation

