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Alameda County  
Environmental Health

Dr. Joginder Sikand  
1300 Ptarmigan Drive, #1  
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Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

SUBJECT: RO0000262  
Albany Hill Mini Mart  
800 San Pablo Avenue  
Albany, California

Dear Mr. Detterman:

Attached please find a copy of the most recent groundwater sampling report for the above referenced site. 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.

Sincerely,



Dr. Joginder Sikand



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August 4, 2011

UPDATED SITE CONCEPTUAL MODEL  
ASE JOB NO. 3934

at  
Albany Hill Mini Mart  
800 San Pablo Avenue  
Albany, CA 94706

Prepared by:  
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## **1.0 INTRODUCTION**

This submittal presents Aqua Science Engineers, Inc. (ASE) updated site conceptual model for the Albany Hill Mini Mart located at 800 San Pablo Avenue in Albany, California (Figures 1 and 2). The proposed site assessment activities were initiated by Dr. Joginder Sikand, owner of the property, as requested 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 approximately 10.5-feet 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



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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). 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.

### 2.6 Quarterly and Semi-Annual Groundwater Monitoring

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



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## 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 below 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 that 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.

## 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



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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 2). 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 encountered 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 encountered 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.

#### 2.12 January 2007 Off-Site Soil and Groundwater Assessment

In January 2007, ASE drilled soil boring BH-Y on the Nippon European Motors property located at 730 San Pablo Avenue north of the site (Figure 8). The soil sample collected from 23.5-feet bgs contained 1.3 ppm. The groundwater sample collected from this boring contained 220 ppb TPH-D, 1.4 ppb TAME and 140 ppb MTBE.



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### 2.13 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 indicated 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.

### 2.14 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, 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.

### 2.15 Ozone-Sparging Remediation System Installation and Startup

In October 2007, ASE installed six additional ozone-sparging wells at the site (Figure 9). These wells, along with three previously constructed ozone-sparging wells were used to deliver an air and ozone mixture to the treatment zone. Two vapor monitoring points were also constructed in November 2007 to monitor ozone and hydrocarbon vapor concentrations beneath the concrete slab of the on-site and neighboring properties at the time of the system startup. The wells were then connected to an ozone generator through a manifold system. The system began operation in November 2007.





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### **3.0 LOCAL AND REGIONAL PLAN VIEWS WITH SOURCES OF CONTAMINATION**

A site plan showing current and historical USTs and fuel dispensers is included as Figures 2 and 3. The site has had a release of both gasoline and diesel fuel, although the age and extent of the release are unknown. Since the site has been in operation since the 1930s, it is possible that there have been multiple releases in the 80 years of site operation. Given the presence of diesel fuel and MTBE at the site, it is likely that at least part of the release occurred at the site after the UST upgrade in 1986, although it is not known whether the release is related to USTs, piping or dispensers. The MTBE could also be related to a vapor release.

Figure 10 shows a regional map with known nearby UST and contamination sites. These sites are shown on the state Geotracker database. Based on the distance of these properties to the site, it does not appear likely that any of these sites would impact soil or groundwater beneath the subject site. Figure 8 shows a closer view of nearby properties. Although none of the listed nearby properties shown are on the Geotracker database, there are a number of automotive related businesses both north and south of the site, any of which may have had a release of hydrocarbons at some point in time. In particular, while contacting property owners north of the site for possible boring locations for our off-site assessment, ASE was told that the entire property at 742 San Pablo Avenue was excavated as part of a remediation project related to a former tire retread shop on that property. ASE could find no records for this remediation and it is not listed in the Geotracker database. It is very possible that this, or one of the other automotive related businesses north of the site, is an additional source of hydrocarbons. In addition, while ASE would find it unlikely that any of the properties north of the site would be a potential source for significant hydrocarbon concentrations beneath the subject site, it may be possible that at least some, if not all of the hydrocarbons detected in borings BH-V and BH-Y north of the site, may be related to an off-site source.

As mentioned above in the site history, in 2005 a contractor working for the City of Albany replaced a sewer line on the western side of San Pablo Avenue. The contractor that installed the new sewer line mentioned that three USTs were encountered 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 encountered just south of the gas station. This UST was removed. ASE has been unable to locate any further information on this UST that was located south of the site, or whom this UST may have belonged to. The contractor also could not provide any further information on this UST, including the exact location. It is possible this UST may have been an additional source for the groundwater contamination in monitoring well MW-5R, which contains elevated hydrocarbon concentrations relative to many borings and wells closer to the source.

### **4.0 GROUNDWATER FLOW DIRECTION**

The groundwater flow direction at the site has been very inconsistent and variable according to potentiometric surface contour maps prepared for the site. This may be related to several factors, including several wells being located immediately adjacent to USTs, which may affect the water levels in these wells when water levels in the tank backfill do not match static groundwater





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conditions. Monitoring wells that may be affected by tank backfill include MW-7, MW-8 and MW-9. During more recent periods, water levels may also be affected by ozone-sparging, which could cause slight mounding of the water table. Unfortunately, ASE does not believe that additional monitoring wells would be beneficial in determining the groundwater flow direction at the site, since there are already nine monitoring wells on-site or immediately adjacent to this very small site.

However, this site lies at the base of Albany Hill, and there is an obvious topographic gradient from the west to the east at this location. Figures 1 and 10 show the site on a topographic map. Based on the topography, groundwater flow would be expected to flow toward the east, or possibly the southeast. It seems highly unlikely that groundwater would flow to the west.

## **5.0 EXTENT OF CONTAMINATION**

Isoconcentration contour maps for the December 2010 groundwater monitoring event are included as Figures 11 through 13. In general, the only wells that currently contain significant hydrocarbon concentrations are MW-9, adjacent and west of a current and historic UST; MW-6, east of the current fuel dispensers; and MW-5R, southeast of the site.

Prior to remediation, a series of borings were drilled to further define the extent of contamination:

- The horizontal extent of hydrocarbons was defined to the east by a series of borings on the east side of San Pablo Avenue.
- West of the site, boring BH-M contained 730 ppb TPH-G, 2,000 ppb TPH-D, 94 ppb benzene, 4.0 ppb toluene, 36 ppb ethylbenzene, 100 ppb total xylenes, and 1.4 ppb DIPE. These results are unexpected since this location is topographically upgradient of the sources on the site. Although the extent of hydrocarbons is not defined to non-detectable to the west, there is a significant distance to the next street uphill to the west to the next location where an additional boring could be drilled, and it appears highly unlikely that hydrocarbons would be present in the next possible drilling location to the west.
- North of the site, petroleum hydrocarbons have been detected in borings drilled in Washington Avenue, and at least some of these hydrocarbons can likely be attributed to the subject site. Additional borings have been drilled to the north of the site at Steve's Auto Care, located at 744 San Pablo Avenue, and Nippon European Motors, located at 730 San Pablo Avenue. Elevated hydrocarbon concentrations, in particular TPH-G and BTEX, were detected in boring BH-V on the Steve's Auto Care property. No TPH-G or BTEX were detected in groundwater samples collected from boring BH-Y, on the Nippon European Motors property, although TPH-D was detected as well as MTBE and TAME at concentrations higher than in the closer in borings. It is not known, however, if hydrocarbons detected in these off-site borings are related to the subject site. The presence of higher concentrations of MTBE and TPH-D in these more distant borings, suggests that the hydrocarbon concentrations in BH-Y may not be related to the subject site. There are also a number of automotive related businesses between the subject site and the



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BH-Y location, including one property that previously had a remediation project. There are also at least two properties north of Nippon European Motors that are listed on the Geotracker database that are possible sources (718 San Pablo Avenue and 660 San Pablo Avenue). Likewise, the hydrocarbon concentrations in BH-V on the Steve's Auto Care property are higher than the closer in borings, such as BH-N and BH-O, suggesting a possible additional source north of the site. While contacting property owners north of the site for possible boring locations for our off-site assessment, ASE was told that the entire property at 742 San Pablo Avenue was excavated as part of a remediation project related to a former tire retread shop on that property. ASE could find no records for this remediation and it is not listed in the Geotracker database. It is very likely that this, or one of the other automotive related businesses north of the site, is an additional source of hydrocarbons. This property is adjacent to the Steve's Auto Care property, where boring BH-V is located. It is possible that there may be a comingling plume situation north of the site, but given access considerations, it is unlikely that pinpointing the extent of the plume as it relates to the subject site will be possible.

- TPH-G and BTEX are present in borings and monitoring wells south and southeast of the site. The extent of these hydrocarbons is reasonably well defined by borings BH-Q and BH-L, although groundwater samples collected from these borings still contained total petroleum hydrocarbons over drinking water ESLs. Hydrocarbons in monitoring well MW-4 have been decreasing due to remediation efforts on the site. ASE has speculated that the contamination at the far southern portion, near MW-5R, may be related to an off-site source. During the City of Albany sewer construction project in 2005, three USTs were encountered by the sewer contractor adjacent to and south of the subject site. The UST encountered south of the site in the city right-of-way area was removed, but ASE has not been able to find further information as to who this UST belonged to, what products the UST contained, or the exact location of the UST. Since there is little MTBE in these wells and borings compared to the on-site wells, it is very likely that these hydrocarbons are either related to a second source or earlier release.

## **6.0 POTENTIAL PREFERENTIAL PATHWAYS**

A potential preferential pathway 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. Figure 14 presents the location of all known utility lines in the site vicinity. A discussion of each type of line is presented below along with an evaluation as to whether each line could present a potential preferred pathway for the movement of groundwater contamination.

### 6.1 Water Lines

Water lines in the site vicinity belong to the East Bay Municipal Utility District (EBMUD). The lines were installed in the 1910s and 1930s, and the as built drawings show no depth or backfill information. However, Nancy Garcia, Senior Pipeline Designer for EBMUD, indicated that the lines in the site vicinity are typically 36-inches deep with little or no pitch. Since the shallowest



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groundwater measured at the site since the project began was 6.22-feet bgs, the water lines will not present a preferential pathway for the movement of groundwater in the site vicinity.

## 6.2 Natural Gas Lines

Natural gas lines in the site vicinity belong to Pacific Gas and Electric (PG&E). The gas main in Washington Avenue is at a depth of 32-inches bgs. The service at the site connects to the main on Washington Avenue at 32-inches bgs. The service lateral for the site was trenched and backfilled by the customer so no information on depth or backfill material is available. The service laterals are generally 18 to 24-inches bgs on average.

The gas main in San Pablo Avenue is at a depth of 30-inches bgs where the service lateral for the south adjacent property (806 San Pablo Avenue) connects.

Since the shallowest groundwater measured at the site since the project began was 6.22-feet bgs, the gas lines will not present a preferential pathway for the movement of groundwater in the site vicinity.

## 6.3 Electric Lines

Electric lines in the site vicinity belong to PG&E. The electric lines in the site vicinity are typically 30-inches bgs with no pitch. No information is available on the backfill material used. Since the shallowest groundwater measured at the site since the project began was 6.22-feet bgs, the electric lines will not present a preferential pathway for the movement of groundwater in the site vicinity.

## 6.4 Telephone Lines

The telephone line in San Pablo Avenue belongs to SBC. The line is 30-inches bgs and is not pitched. No information is available on the backfill used. Since the shallowest groundwater measured at the site since the project began was 6.22-feet bgs, the telephone lines will not present a preferential pathway for the movement of groundwater in the site vicinity.

## 6.5 Caltrans Communication Conduit

Caltrans owns a communication conduit in the San Pablo Avenue sidewalk adjacent to the site. ASE spoke to Kwan Lau, chief of Electric Design for Caltrans, who told ASE that the line is 18-inches below sidewalk areas and 12-inches below shoulder areas with no pitch. No information on backfill material is available. Based on the depth to groundwater in the site vicinity, this conduit will not present a preferential pathway for the movement of groundwater in the site vicinity.



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## 6.6 Cable Television Lines

The cable television lines in the site vicinity belong to Comcast. These lines are overhead, and therefore not a potential preferential pathway for the movement of groundwater in the site vicinity.

## 6.7 Sewer Lines

Both the City of Albany and the City of Berkeley have lines in the site vicinity.

The City of Albany's sewer lines were built in the 1930s. Although the City of Albany generally installs sewers to a depth of 6-feet bgs, Angil Silva, sewer inspector for the City of Albany, stated that the lines are approximately 4-feet deep in the site vicinity. The pitch of the lines are shown on Figure 14. The backfill material is unknown.

The City of Berkeley has 18-inch diameter sewer mains in both San Pablo Avenue and Washington Avenue. These lines are approximately 6 to 8-feet deep below San Pablo Avenue and grades to the north. There is no information available regarding the backfill material for this conduit.

Since the shallowest groundwater measured at the site since the project began was 6.22-feet bgs, these lines lie close to the groundwater potentiometric surface. It is possible that during periods of high groundwater conditions, these conduits may present a preferred pathway for the movement of groundwater. However, based on the boring logs for the wells drilled at the site, it actually appears that water is encountered at deeper depths and the water rises within the monitoring wells due to artesian conditions. Based on this information, this sewer line will not present a potential preferred pathway for the movement of groundwater.

## **7.0 LOCATIONS OF POTENTIAL RECEPTORS**

In June 2002, AARS 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. Based on this information, there are no wells that would present a potential receptor for groundwater contamination that originated at the site.

The nearest surface water is Cerrito Creek, approximately 2,200-feet north of the site. Based on the distance of the site to the creek, this creek should not be considered a potential receptor.

Non-drinking water receptors are limited to potential volatilization of hydrocarbons from groundwater to indoor air. In particular, the residential property behind the property, near boring BH-M, should be evaluated for soil vapors to preclude any potential risks to residents.



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## **8.0 GEOLOGIC CROSS-SECTIONS**

Two geologic cross-sections have been prepared for the site. The locations of the cross-sections are shown on Figure 15. The cross-sections are presented as Figures 16 and 17. Please note that since ground surface elevations were not surveyed on many of the soil borings, the cross-sections were drawn to reflect depth below ground surface (bgs) instead of elevation. This also assumes that the ground surface is flat. In general, the ground surface along the A-A' cross-section line appears relatively flat and any fluctuations in the ground surface would appear insignificant. The B-B' cross-section, however, may be slightly off since there is a topographic slope from west to east, especially with the elevation of BH-M appearing higher than the other borings. However, in general the geologic cross-sections should be relevant for the purposes of this document.

In general, the A-A' geologic cross section shows relatively low-permeability soil, with the exception of MW-6, adjacent to the site, and BH-Q, south of the site near the limits of the cross-section. The B-B' geologic cross-section also shows relatively low-permeability soil with the exception of MW-9 and MW-3, and deeper soils (25 to 35-feet bgs) in boring BH-S. It is interesting to note that monitoring well MW-9 is screened within higher permeability soil, even though this well goes dry quickly during evacuation and is slow to recover. It is also notable that no significant petroleum hydrocarbons were detected in soil below 20-feet bgs.

## **9.0 PLOTS OF CHEMICAL CONCENTRATIONS VERSES DISTANCE FROM THE SOURCE**

Plots of chemical concentrations for TPH-G, benzene and MTBE verses distance from the source were prepared based on monitoring well data from the December 21, 2010 sampling. Since the exact source of the contamination could not be determined (due to multiple USTs being present and the probability of multiple releases at the site at different periods of time), the "source" for the purposes of these plots was set at the center of the former UST west of the current fuel dispensers and east of the current buildings. Distances to the wells were measured from this point.

The plots for TPH-G and benzene were somewhat similar, with relatively high concentrations in monitoring well MW-9, which is the closest well to the "source." Concentrations were then much lower (with a slight increase 45-feet from the source as represented by MW-4), until 70-feet from the source (as represented by MW-5R) where there was a significant increase in TPH-G and a slight increase in benzene.

The plot for MTBE shows a significantly different pattern than the TPH-G and benzene plots. In this plot, there is little MTBE in MW-9, which is closest to the "source," with the highest MTBE at 23-feet from the source (in MW-1). There was then no MTBE until 45 and 53-feet from the "source" (in MW-4 and MW-10, respectively), and no MTBE in MW-5R at 70-feet from the source).



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Based on these plots, it appears that:

- The releases of TPH-G/benzene and MTBE may be from different releases, based on the different patterns.
- The TPH-G/benzene in MW-5R may be from a different source (likely off-site) than the on-site source represented by MW-9.

## **10.0 SUMMARY TABLES OF CHEMICAL CONCENTRATIONS IN DIFFERENT MEDIA**

Concentrations of hydrocarbons in soil and groundwater from all borings and wells to date are tabulated in Tables Three and Two, respectively.

## **11.0 DISCUSSIONS OF LIKELY CONTAMINANT FATE AND TRANSPORT**

Potentiometric surface maps for the site have not been helpful in determining the groundwater flow direction and gradient for the site. There are likely a number of reasons for this including well locations relative to UST backfill, ozone-sparging, etc. Since there are already numerous monitoring wells on this small piece of property, ASE does not recommend installing any additional wells to resolve this issue. Instead, ASE recommends looking at the current distribution of contaminants. Discussions of the extent of contamination and fate and transport follow:

### West of the source area:

Monitoring well MW-9 is located west of the former and current USTs. This location has the highest TPH-G and BTEX concentrations at the site and has been relatively unaffected by remediation efforts to date. It is also noted that this well was installed in a non-conventional manner (with a Geoprobe in a small diameter borehole). It is also the only well to go dry during purging. Since this well was constructed using direct push, the apparent lower permeability in this well may be due to smearing of clay over the outside of the borehole, which would cause the well to have a lower flow rate than the actual water-bearing zone. It may also affect the reliability of data from this well if the clay-smear has absorbed a mass of hydrocarbons and is slower at desorbing the hydrocarbons than surrounding more permeable soil. Previous boring BH-M, west of the site building, also contained hydrocarbons in soil and groundwater. The presence of contamination in this location is unexpected due to its topographic uphill location. It is not practical to drill further to the west due to the distance to the next available location, as well as the slope of the hill making it highly unlikely that an additional boring further to the west would yield contamination. However, due to the residential nature of the property west of the site, ASE recommends conducting a soil vapor survey that will include at least two points west of the site, including a point near former boring BH-M. It is unlikely that the presence of hydrocarbons west of the site would impact beneficial uses of groundwater, and the possible presence of soil gas should be the sole concern for properties to the west.





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#### East of the source area:

Previous borings and monitoring wells along the west side of San Pablo Avenue, east of the site have shown historical elevated hydrocarbon concentrations, while borings drilled further east, across San Pablo Avenue adequately defined the furthest extent of hydrocarbons to the east. Groundwater remediation on-site has decreased, and continues to decrease, hydrocarbon concentrations in these wells on the east side of the site. Based on the current hydrocarbon concentrations in monitoring wells MW-3, MW-6, MW-4 and MW-10, and the decreasing trend of concentrations in these wells, it does not appear that there will be a threat to human health or the environment for properties east of the site once remediation at the site is complete.

#### North of the source area:

Petroleum hydrocarbons have been detected in borings drilled north of the site in Washington Avenue, and at least some of these hydrocarbons can likely be attributed to the subject site. Additional borings have been drilled north of the site at Steve's Auto Care, located at 744 San Pablo Avenue, and Nippon European Motors, located at 730 San Pablo Avenue. Elevated hydrocarbon concentrations, in particular TPH-G and BTEX, were detected in boring BH-V on the Steve's Auto Care property. No TPH-G or BTEX were detected in groundwater samples collected from boring BH-Y, on the Nippon European Motors property, although TPH-D was detected as well as MTBE and TAME at concentrations higher than in the closer in borings. It is not known, however, if hydrocarbons detected in these off-site borings are related to the subject site. The presence of higher concentrations of MTBE and TPH-D in these more distant borings, suggests that the hydrocarbon concentrations in BH-Y may not be related to the subject site. There are also a number of automotive related businesses between the subject site and the BH-Y location, including one property that previously had a remediation project. There are also at least two properties north of Nippon European Motors that are listed on the Geotracker database that are possible sources (718 San Pablo Avenue and 660 San Pablo Avenue). Likewise, the hydrocarbon concentrations in BH-V on the Steve's Auto Care property are higher than the closer in borings, such as BH-N and BH-O, suggesting a possible additional source north of the site. While contacting property owners north of the site for possible boring locations for our off-site assessment, ASE was told that the entire property at 742 San Pablo Avenue was excavated as part of a remediation project related to a former tire retread shop on that property. ASE could find no records for this remediation and it is not listed in the Geotracker database. It is very likely that this, or one of the other automotive related businesses north of the site, is an additional source of hydrocarbons. This property is adjacent to the Steve's Auto Care property, where boring BH-V is located. It is possible that there may be a comingling plume situation north of the site, but given access considerations, it is unlikely that pinpointing the extent of the plume as it relates to the subject site will be possible. Given that it is not practical to determine the extent of hydrocarbons to the north that may be related to the site, ASE recommends that a soil vapor survey point be located on the north side of Washington Avenue to evaluate whether soil vapors should be a concern for the Club Mallard restaurant/bar located at 752 San Pablo Avenue.





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### South of the source area:

TPH-G and BTEX are present in borings and monitoring wells south and southeast of the site. The extent of these hydrocarbons is reasonably well defined by borings BH-Q and BH-L, although groundwater samples collected from these borings still contained total petroleum hydrocarbons over drinking water ESLs. Hydrocarbons in monitoring well MW-4 have been decreasing due to remediation efforts on the site. ASE has speculated that the contamination at the far southern portion, near MW-5R, may be related to an off-site source. During the City of Albany sewer construction project in 2005, three USTs were encountered by the sewer contractor adjacent to and south of the subject site. The UST encountered south of the site in the city right-of-way area was removed, but ASE has not been able to find further information as to who this UST belonged to, what products the UST contained, or the exact location of the UST. Since there is little MTBE in these wells and borings compared to the on-site wells, it is very likely that these hydrocarbons are either related to a second source or earlier release. Regardless, given that the extent of hydrocarbons is defined, the current concentrations of BTEX in monitoring well MW-5R, the lack of MTBE and the commercial nature of the properties south of the site, the presence of hydrocarbons south of the south does not appear to present a threat to human health or the environment given current beneficial uses of groundwater in the site vicinity. However, ASE is recommending that a soil gas sample be collected from the vapor monitoring point that ASE installed in the United Transmission, located at 810 San Pablo Avenue just south of the site to verify current conditions under this slab, especially in remediation conditions.

## **12.0 DISCUSSIONS OF DATA GAPS AND RECOMMENDATIONS**

The following is a list of data gaps and ASE's recommendation on how to address each data gap:

- The groundwater flow direction based on potentiometric surface contour maps is inconsistent. Additional monitoring wells likely won't be beneficial in determining the groundwater flow direction. Instead, ASE is recommending using the impacts of hydrocarbons as detected in each direction surrounding the site.
- Hydrocarbons have been detected west of the site in previous boring BH-M, which is located on a residential property. ASE recommends conducting a soil vapor survey to determine whether the presence of hydrocarbons in this area could be a potential threat for vapor intrusion to indoor air. In addition, ASE recommends collecting a vapor sample from the vapor monitoring point located in the subject site building. See Figure 18 for ASE's recommended soil vapor sampling locations.
- Hydrocarbon concentrations north of the site may be comingling with contamination from other possible sources. In ASE's opinion, additional borings in available locations will likely not resolve the issue as to where contamination may be emanating from. Although there are sufficient on-site monitoring wells to monitor the effectiveness of remediation on-site, there are no off-site monitoring wells to determine whether off-site impacts to the north have been mitigated. ASE therefore recommends two additional soil borings in Washington Avenue to determine current hydrocarbon concentrations in soil and groundwater. ASE also recommends one soil vapor survey point near the Mallard



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Club. See Figure 18 for ASE's recommended soil vapor sampling and soil boring locations.

- There may be an additional off-site source of contamination south of the site. However, the extent of hydrocarbons appears to be relatively well defined. ASE recommends collecting vapor samples from the vapor monitoring point installed beneath the United Transmission Service property at 810 San Pablo Avenue to determine whether any hydrocarbons have accumulated beneath the concrete slab that could present a threat to human health inside this building. See Figure 18 for ASE's recommended soil vapor sampling locations.

### **13.0 REPORT LIMITATIONS**

This report contains opinions and recommendations based on data, some of which was not collected by ASE. ASE can't guarantee the validity of data not collected by ASE, and ASE makes no warranty on the accuracy of that data. In addition, some of the information contained in this report was provided by other entities, such as, but not limited to, utility companies, contractors, city agencies and neighboring property owners. ASE can provide no warranty for the accuracy or completeness of information provided to ASE.



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Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

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



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

Attachments: Figures 1 through 15  
Tables One through Three  
Appendix A

cc: Mr. Mark Detterman, ACHCSA  
RWQCB via Geotracker



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## **FIGURES**



NORTH



**LOCATION MAP**

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

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

UNITED TRANSMISSION

4,000 GAL DIESEL

8,000 GAL SUPREME

10,000 GAL REGULAR

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

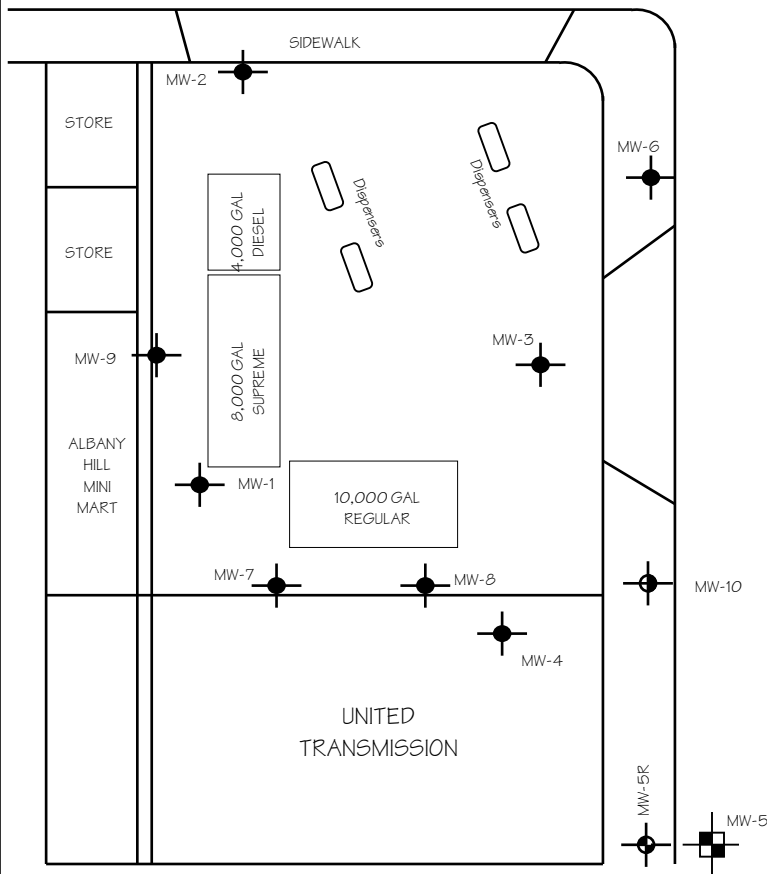




NORTH



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



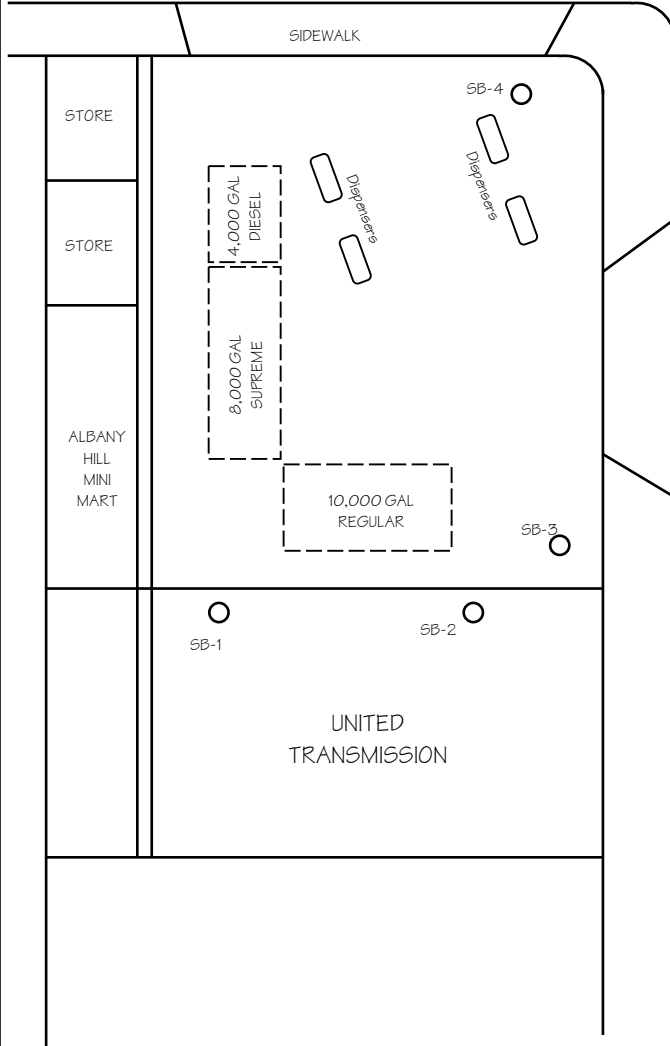
NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE

SIDEWALK

SAN PABLO AVENUE



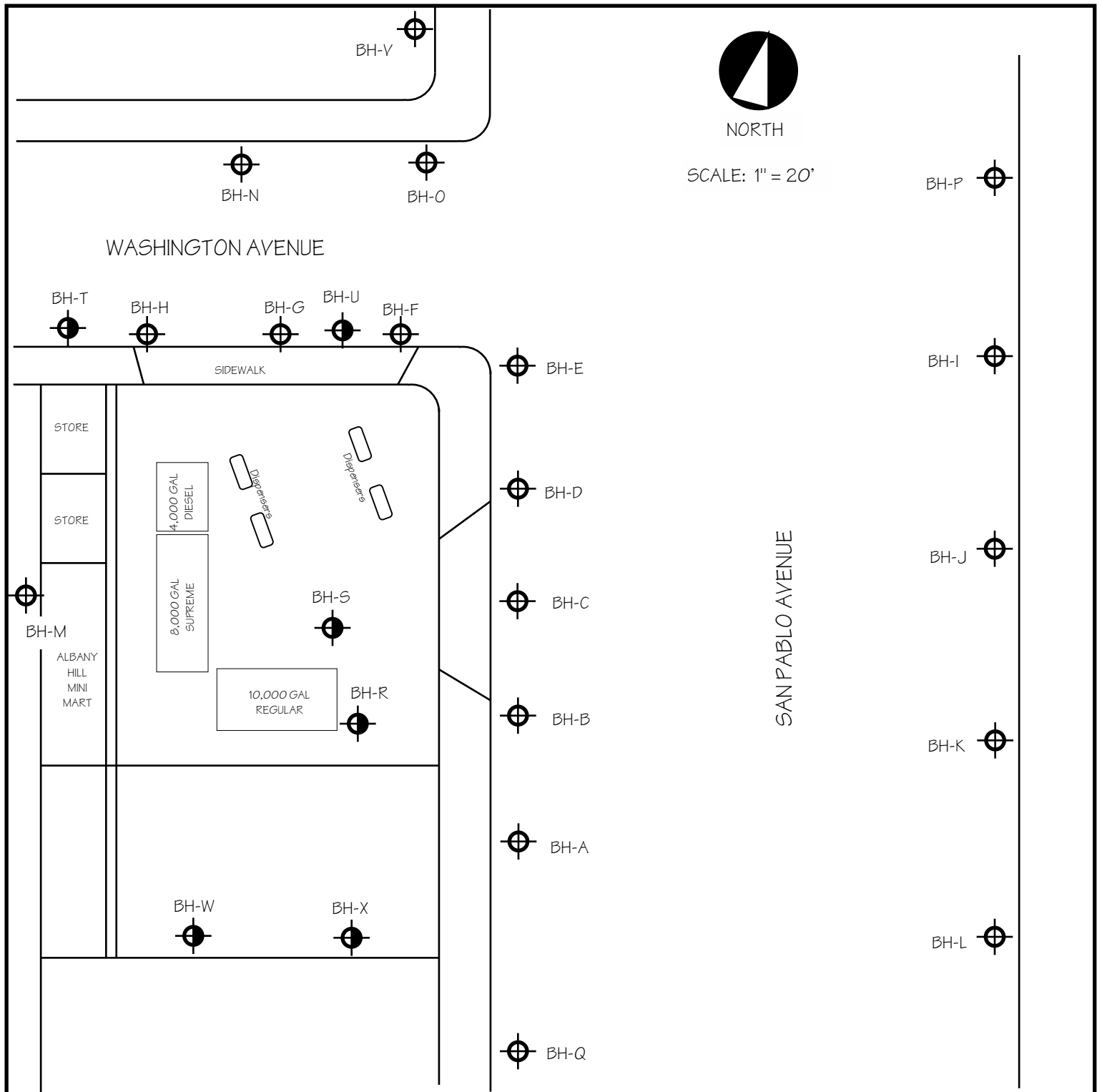
LEGEND




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" = 50'

Nippon European Motors  
(730 San Pablo Ave)

BH-Y ●

Nippon Video

Berkeley Motor Works  
(736 San Pablo Ave)

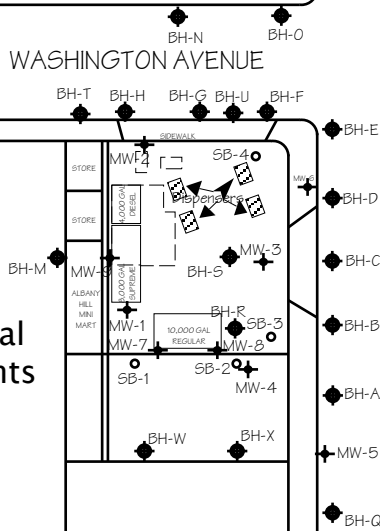
Albany Tire Service  
(742 San Pablo Ave)

BH-Y ◆

Steve's Auto Care  
(744 San Pablo Ave)

Club Mallard  
(752 San Pablo Ave)

SAN PABLO AVENUE



BH-P ◆  
BH-I ◆  
BH-J ◆  
BH-K ◆  
BH-L ◆  
BH-Q ◆

**LEGEND**

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

Residential  
Apartments

EXTENDED BORING  
LOCATION MAP

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

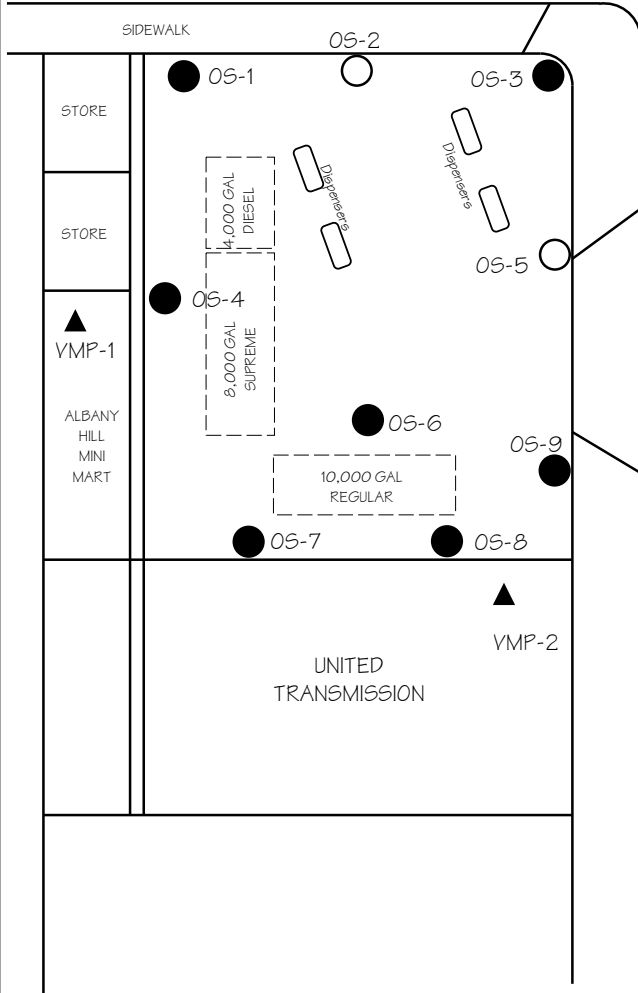
AQUA SCIENCE ENGINEERS	Figure 8
------------------------	----------



NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE



SAN PABLO AVENUE

LEGEND

VMP-2 ▲ VAPOR MONITORING POINT

OS-9 ● EXISTING AIR-SPARGING WELL

OZONE-SPARGING WELL &  
VAPOR MONITORING  
POINT LOCATION MAP

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA



SURROUNDING GEOTRACKER  
SITE LOCATION MAP

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA



NORTH



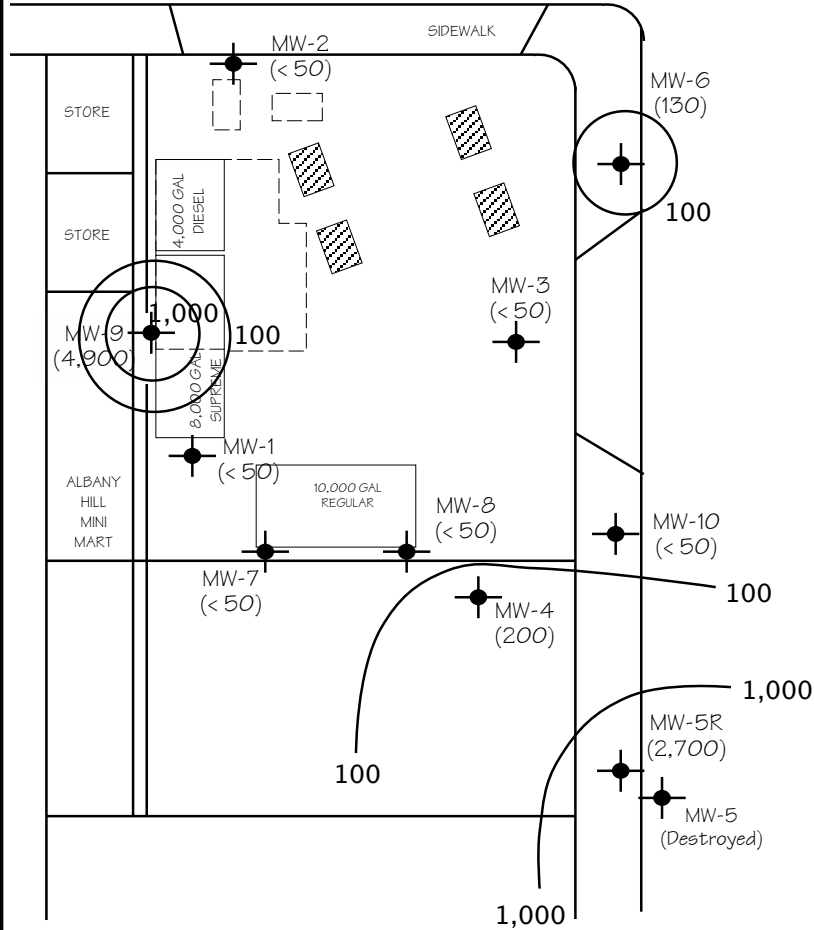




NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE



SAN PABLO AVENUE

LEGEND

MW-9  
(4,900)



MONITORING WELL  
WITH TPH-G CONCENTRATION IN PPB



TPH-G CONCENTRATION CONTOUR LINE



APPROXIMATE FORMER UST LOCATION  
AND AREA OF EXCAVATION

TPH-G CONCENTRATION  
CONTOUR MAP  
DECEMBER 21, 2010

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

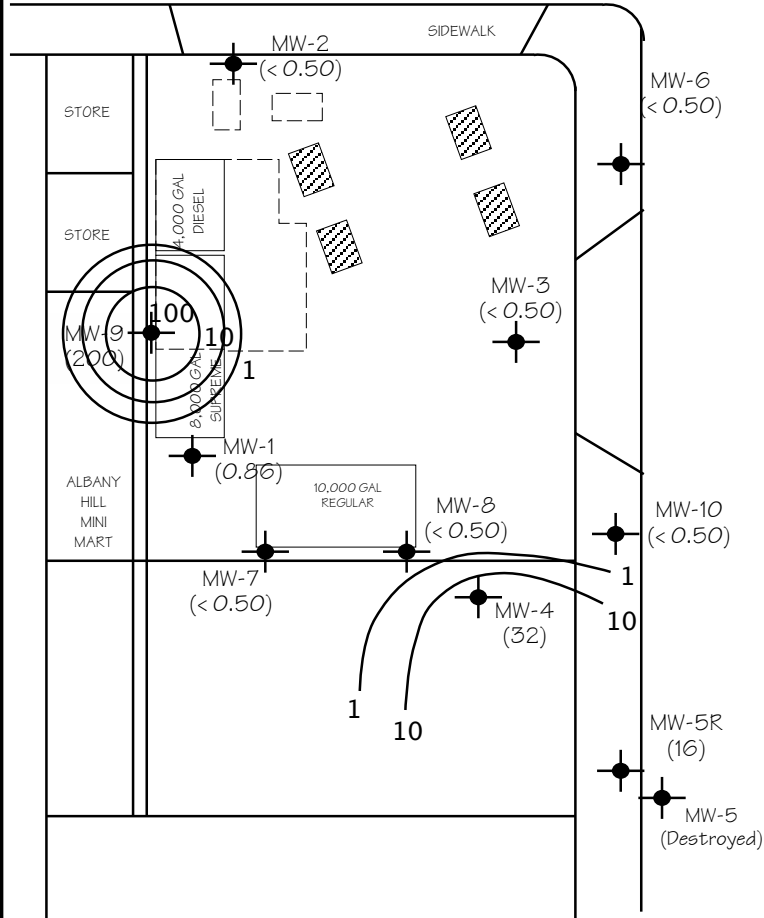
Figure 11



NORTH

SCALE: 1" = 20'

WASHINGTON AVENUE



SAN PABLO AVENUE

LEGEND

- MW-9 (200)
- MONITORING WELL WITH BENZENE CONCENTRATION IN PPB
- BENZENE CONCENTRATION CONTOUR LINE
- APPROXIMATE FORMER UST LOCATION AND AREA OF EXCAVATION

BENZENE CONCENTRATION  
CONTOUR MAP  
DECEMBER 21, 2010

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 12

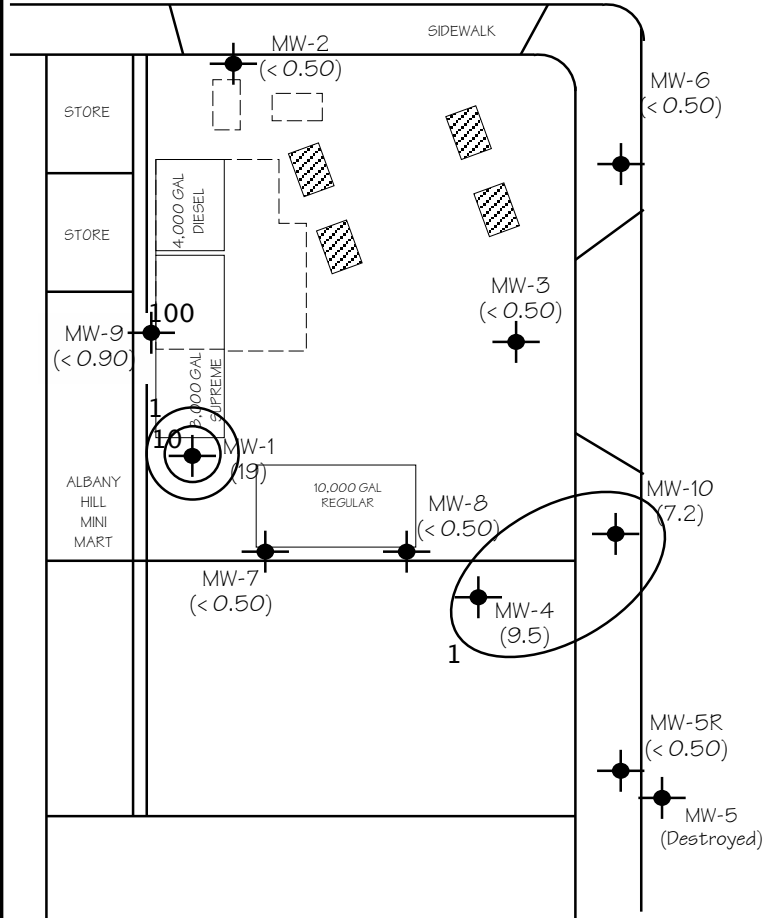


NORTH




SCALE: 1" = 20'

WASHINGTON AVENUE

SAN PABLO AVENUE



LEGEND

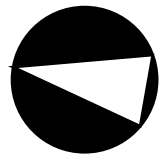
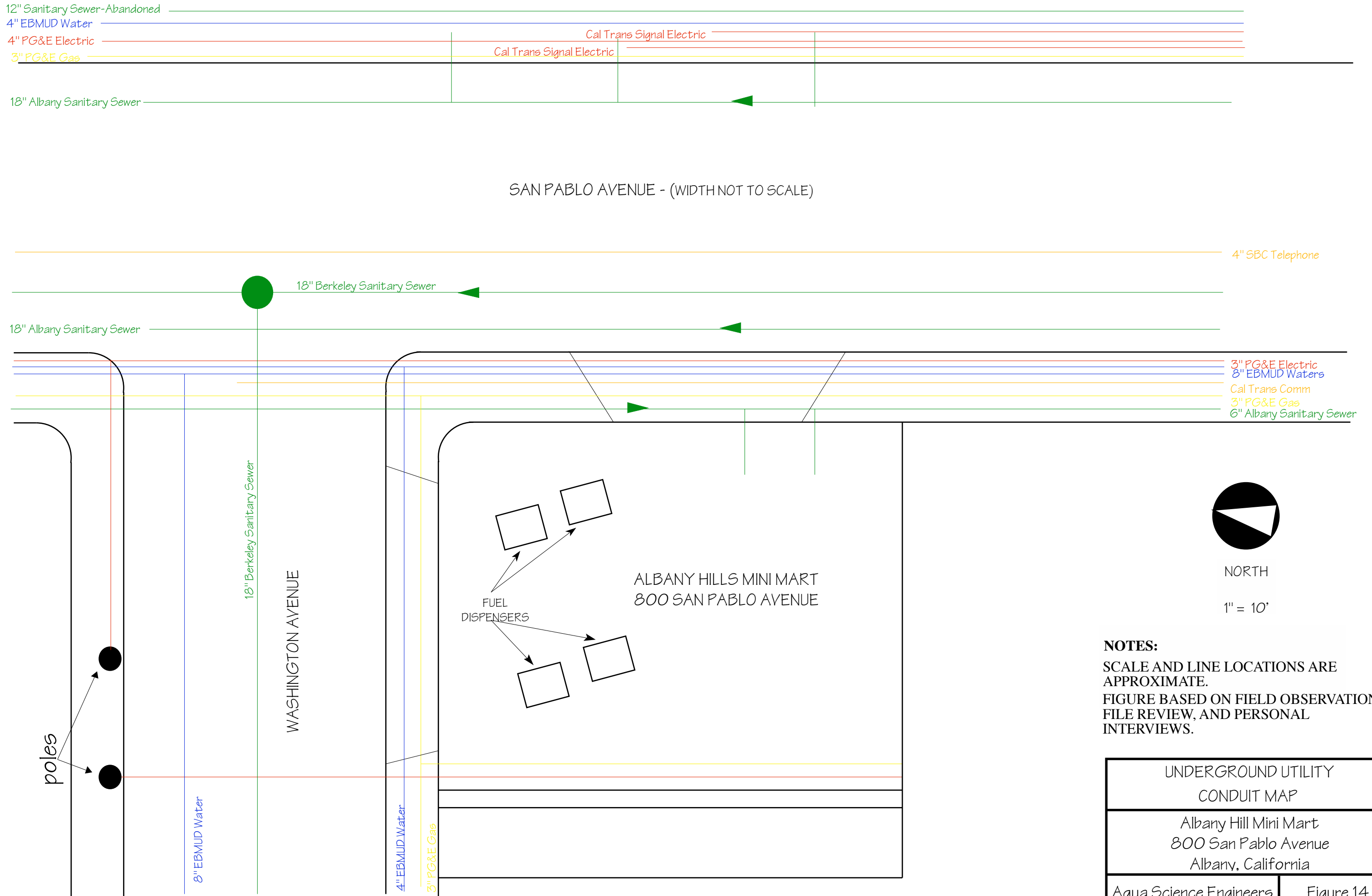
- MW-9 (<math>< 0.90</math>)
-  MONITORING WELL WITH MTBE CONCENTRATION IN PPB
-  MTBE CONCENTRATION CONTOUR LINE
-  APPROXIMATE FORMER UST LOCATION AND AREA OF EXCAVATION

MTBE CONCENTRATION  
CONTOUR MAP  
DECEMBER 21, 2010

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 13

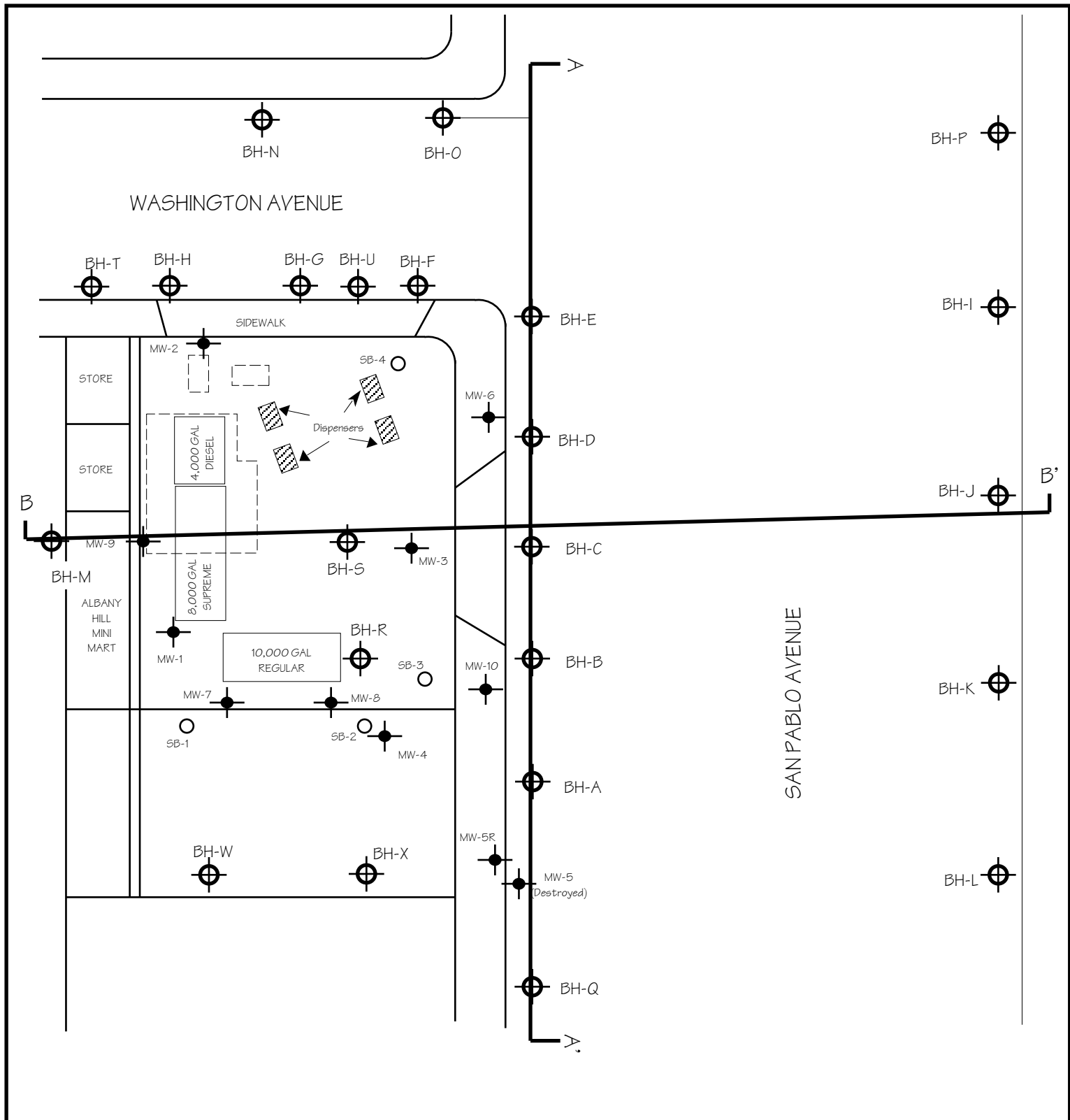


NORTH

1" = 10'

**NOTES:**  
 SCALE AND LINE LOCATIONS ARE APPROXIMATE.  
 FIGURE BASED ON FIELD OBSERVATION, FILE REVIEW, AND PERSONAL INTERVIEWS.

UNDERGROUND UTILITY CONDUIT MAP	
Albany Hill Mini Mart 800 San Pablo Avenue Albany, California	
Aqua Science Engineers	Figure 14



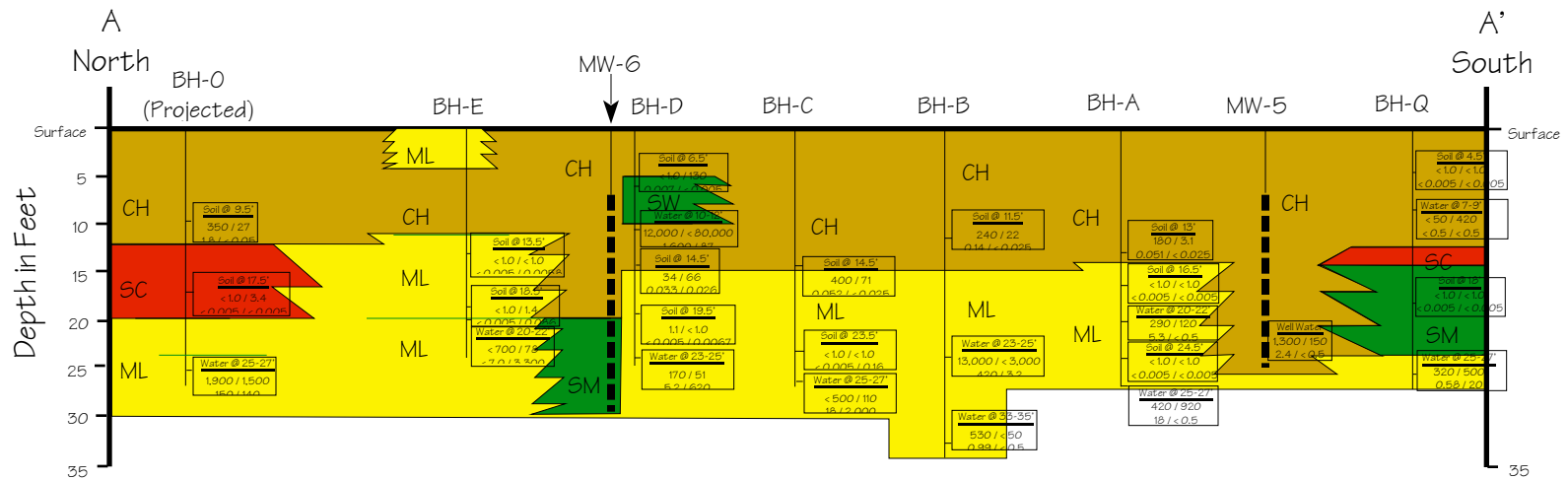
LEGEND

MW-2 	MONITORING WELL	 NORTH SCALE: 1" = 20'
SB-2 	AARS SOIL BORING	
BH-A 		

GEOLOGIC CROSS-SECTION  
LOCATION MAP

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS	Figure 15
------------------------	-----------



**LEGEND**



Clay or Silty Clay (High Plasticity)



Sandy Silt or Silty Sand



Clayey Sand



Sand, Silty Sand, or Sandy Silt within a Silty Sand



Well Screened Interval



Concentrations (ppm for soil and ppb for water) and Sample Depth

TPH-G / TPH-D  
Benzene / MTBE



SCALE: 1" = 20'

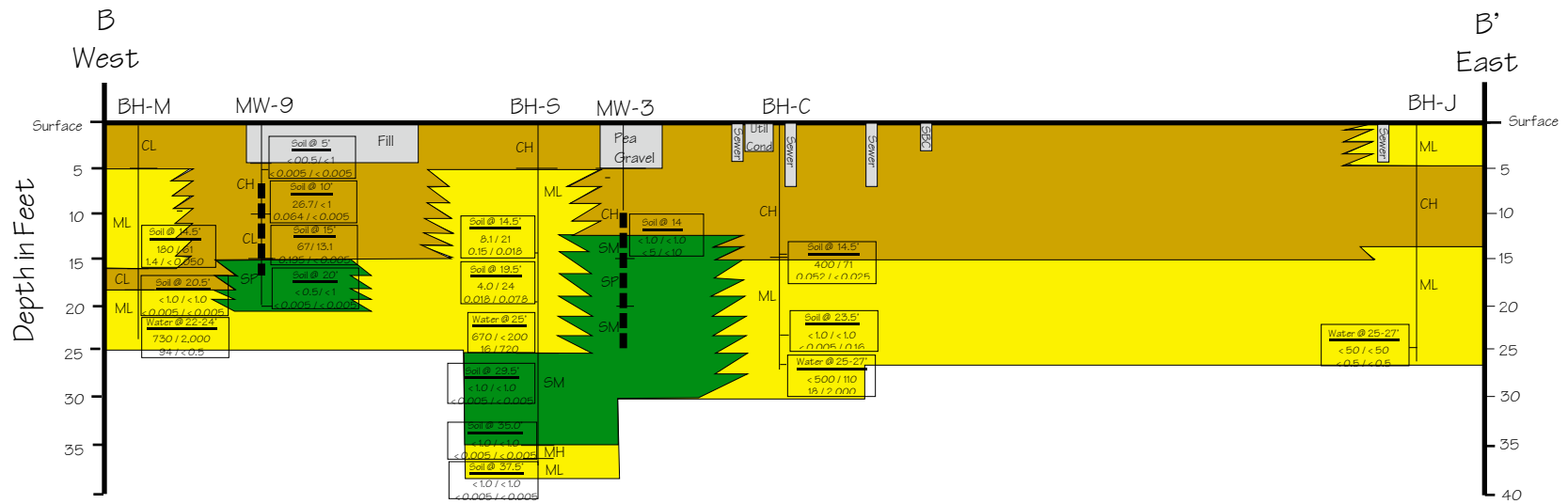
No Vertical Exaggeration

**GEOLOGIC CROSS-SECTION  
A - A'**

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 16



**LEGEND**



Clay or Silty Clay (High Plasticity)



Sandy Silt or Silty Sand



Clayey Sand



Sand, Silty Sand, or Sandy Silt within a Silty Sand



Well Screened Interval



Concentrations (ppm for soil and ppb for water) and Sample Depth

TPH-G / TPH-D  
Benzene / MTBE



SCALE: 1" = 20'

No Vertical Exaggeration

**GEOLOGIC CROSS-SECTION**

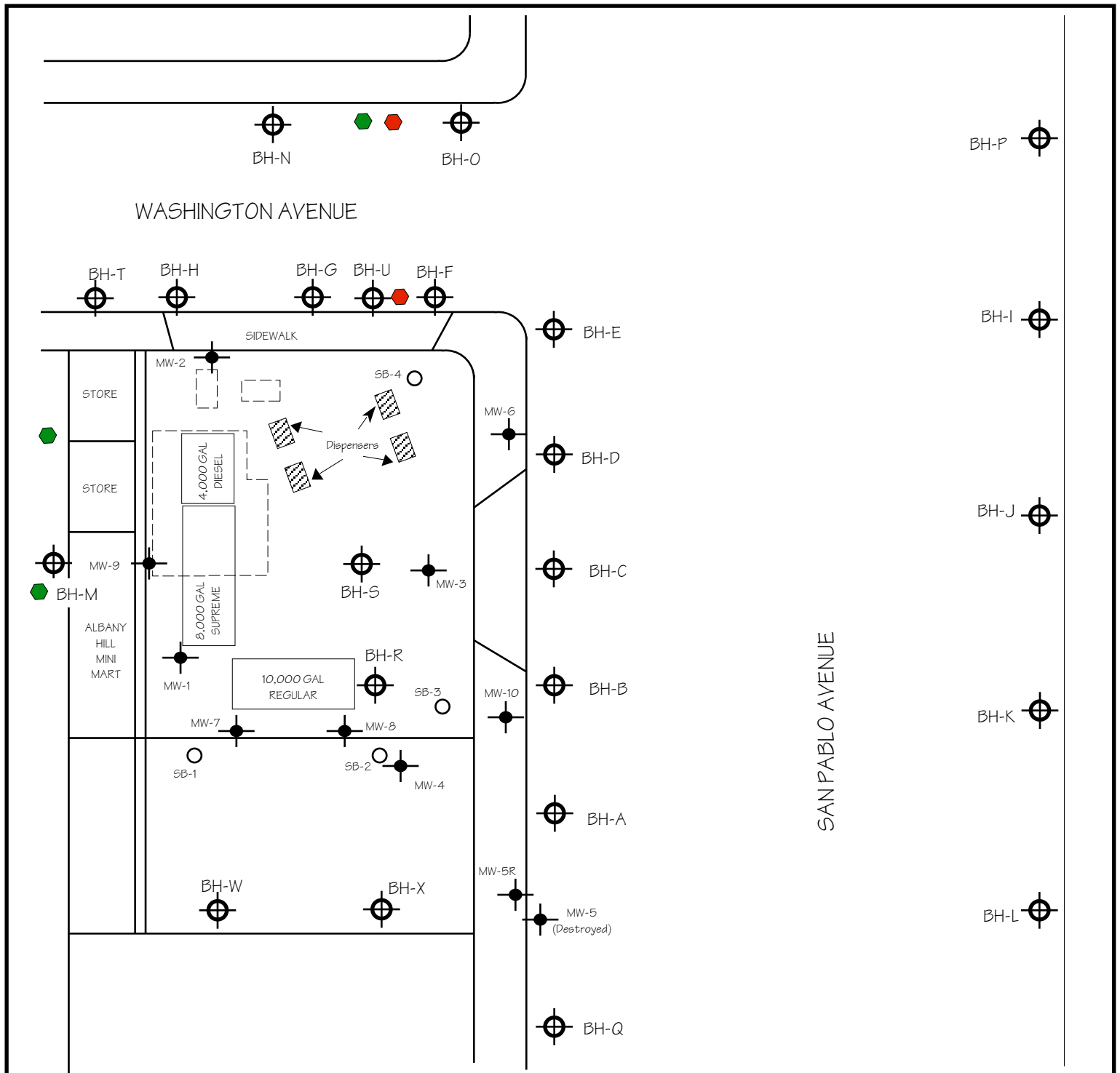
**B - B'**

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 17





**LEGEND**



MW-2  
MONITORING WELL



SB-2  
AARS SOIL BORING



BH-A  
ASE ADVANCED SOIL BORING



PROPOSED SOIL VAPOR SURVEY LOCATION



PROPOSED SOIL BORING LOCATION



NORTH

SCALE: 1" = 20'

**PROPOSED SOIL VAPOR AND  
SOIL BORING LOCATION MAP**

ALBANY HILL MINI MART  
800 SAN PABLO AVENUE  
ALBANY, CALIFORNIA



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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	35.73
	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
	8/22/08		13.06	35.76
	12/10/08		13.17	35.65
	3/20/09		10.09	38.73
	6/4/09		11.89	36.93
12/3/09		12.91	35.91	
5/19/10		10.39	38.43	
12/21/10		10.72	38.10	

**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-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	35.72
	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	
	8/22/08		12.21	35.50	
	12/10/08		11.35	36.36	
	3/20/09	9.26	38.45		
	6/4/09	11.09	36.62		
12/3/09	11.86	35.85			
5/19/10	9.37	38.34			
12/21/10	9.54	38.17			

**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	35.68
	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
	8/22/08		11.74	35.75
	12/10/08		11.93	35.56
	3/20/09		8.46	39.03
	6/4/09		10.97	36.52
12/3/09		11.54	35.95	
5/19/10		9.11	38.38	
12/21/10		<b>9.38</b>	<b>38.11</b>	

**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-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
	8/22/08		11.82	35.79
	12/10/08		12.05	35.56
	3/20/09		9.05	38.56
	6/4/09		10.68	36.93
	12/3/09		11.55	36.06
	5/19/10		9.21	38.40
	12/21/10		<b>9.49</b>	<b>38.12</b>

**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
	8/22/08		11.08	36.28
	12/10/08		11.32	36.04
	3/20/09		8.46	38.90
	6/4/09		10.35	37.01
12/3/09		10.83	36.53	
5/19/10		8.55	38.81	
12/21/10		9.00	38.36	

**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-6	6/13/02	99.36	8.85	90.51
	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
	8/22/08		10.49	35.78
	12/10/08		10.62	35.65
	3/20/09		7.65	38.62
	6/4/09		9.36	36.91
12/3/09		10.14	36.13	
5/19/10		7.83	38.44	
12/21/10		<b>6.35</b>	<b>39.92</b>	



**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-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
	8/22/08			12.66	35.70
	12/10/08			12.80	35.56
	3/20/09			Bubbling	---
	6/4/09			11.55	36.81
	12/3/09			12.41	35.95
	5/19/10			9.94	38.42
	12/21/10			10.77	37.59

**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)
<b>MW-8</b>	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
	8/22/08		12.26	35.73
	12/10/08		12.49	35.50
	3/20/09		9.19	38.80
	6/4/09		11.29	36.70
12/3/09		12.12	35.87	
5/19/10		9.64	38.35	
12/21/10			<b>10.36</b>	<b>37.63</b>

**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-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	37.09
	8/22/08		13.18	36.06
	12/10/08		13.32	35.92
	3/20/09		11.39	37.85
6/4/09	11.82	37.42		
12/3/09	12.93	36.31		
5/19/10	10.26	38.98		
12/21/10	11.66	37.58		

**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-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	36.32
	8/22/08		11.48	35.42
	12/10/08		11.68	35.22
	3/20/09		8.83	38.07
	6/4/09		10.00	36.90
	12/3/09		11.16	35.74
5/19/10		8.87	38.03	
12/21/10		8.67	38.23	

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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
<b>BH-A</b>	20-22	8/24/04	290	120*	5.3	< 0.5	9.9	16	< 0.5	8.1	< 0.5	< 0.5
	25-27	8/24/04	420	920*	18	1.1	29	50	< 0.5	7.1	< 0.5	< 0.5
<b>BH-B</b>	23-25	8/19/04	13,000	< 3,000	420	< 2.5	530	740	< 2.5	< 25	3.2	< 2.5
	33-35	8/19/04	530	< 50	0.99	0.60	0.53	0.69	< 0.5	< 5.0	< 0.5	< 0.5
<b>BH-C</b>	25-27	8/24/04	< 500	110	18	< 5.0	< 5.0	< 5.0	7.5	< 50	2,000	< 5.0
<b>BH-D</b>	10-12	8/25/04	12,000	< 80,000	1,600	2,300	190	<b>1,500</b>	< 7.0	210	87	< 7.0
	23-25	8/25/04	170	51	5.2	8.8	1.2	6.9	2.0	15	620	< 0.90
<b>BH-E</b>	20-22	8/25/04	<b>&lt; 700</b>	78	< 7.0	< 7.0	< 7.0	< 7.0	21.0	< 40	3,300	< 7.0
<b>BH-F</b>	23-25	8/23/04	5,400	< 800	210	320	90	480	750	41	1,500	< 2.5
<b>BH-G</b>	23-25	8/20/04	7,300	< 400	260	660	180	960	13	< 100	5,000	< 10
	28-30	8/20/04	< 1,000	160	47	30	< 10	10	14	< 100	4,800	< 10
<b>BH-H</b>	23-25	8/20/04	2,300	< 300	44	86	79	340	< 2.5	< 25	1,400	< 2.5
	32-34	8/20/04	< 500	120	13	12	< 5.0	7.2	< 5.0	< 50	1,900	< 5.0
<b>BH-I</b>	25-27	8/26/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5
<b>BH-J</b>	25-27	8/24/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5
<b>BH-K</b>	25-27	8/26/04	< 50	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5
<b>BH-L</b>	25-27	8/27/04	320	70	< 0.5	0.60	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5
<b>BH-M</b>	22-24	9/9/04	730	2,000	94	4.0	36	100	< 0.5	< 5.0	< 0.5	1.4 (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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
<b>BH-N</b>	26-28	9/15/04	<1,000	190	15	<10	<10	<10	36	<50	5,300	<10
<b>BH-O</b>	25-27	9/15/04	1,900	1,500*	150	42	82	340	21	<5.0	140	<0.5
<b>BH-P</b>	23-25	10/25/04	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
<b>BH-Q</b>	7-9 25-27	10/25/04 10/25/04	<50 320	420 500	<0.5 0.58	<0.5 0.74	<0.5 <0.5	<0.5 0.62	<0.5 <0.5	<5.0 <5.0	<0.5 20	<0.5 0.75 (1,2-DCA)
<b>BH-R</b>	25	1/30/06	<500	400	<5.0	<5.0	<5.0	<5.0	11	<25	2,800	<5.0
<b>BH-S</b>	25	1/30/06	670	<200	16	1.4	17	99	3.1	34	720	<1.0
<b>BH-T</b>	25-27 34-37	1/30/06 1/30/06	<500 75**	640 450	5.6 0.65	<5.0 0.64	<5.0 <0.5	5.4 0.85	6.3 <0.5	30 <5.0	2,900 180	<5.0 <0.5
<b>BH-V</b>	20-24 30-32	1/30/06 1/30/06	32,000 23,000	<10,000 <4,000	560 330	150 93	1,100 730	5,400 3,600	<7.0 <5.0	<40 <25	92 <5.0	<7.0 <5.0
<b>BH-W</b>	30-32	1/30/06	310	<50	1.2	1.2	6.2	20	<0.5	<5.0	0.77	<0.5
<b>BH-X</b>	32-34	1/30/06	6,300	<500	36	4.9	200	560	<1.5	<7.0	<1.5	<1.5
<b>BH-Y</b>	24-28	1/18/07	<50	220*	<0.5	<0.5	<0.5	<0.5	14	<5.0	140	<0.5

**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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-1	Screen 7-25	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 DIPE
		8/22/08	190	< 50	52	1.2	7.3	4.6	< 0.50	11	160	0.60 DIPE
12/10/08	98	< 50	18	< 0.50	3.2	0.89	< 0.50	< 5.0	74	< 0.50		
3/20/09	61	< 50	1.8	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	65	< 0.50		
6/4/09	< 50	< 50	5.5	< 0.50	0.63	< 0.50	< 0.50	< 5.0	71	< 0.50		
12/3/09	75	< 50	2.8	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	30	< 0.50		
5/19/10	75	< 50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	47	< 0.50		
12/21/10	< 50	< 50	0.86	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	19	< 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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs	
MW-2	Screen 7-25	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	<1.0	620	<1.0
		12/7/04	<150	86	17	<1.5	<1.5	<1.5	<1.5	<1.5	5.1	540	<1.5
		4/18/05	280	130	55	<1.5	4.4	<1.5	<1.5	<1.5	<5.0	840	<1.5
		6/20/05	200	100	34	<0.90	2.4	2.7	<0.90	<0.90	5.7	540	<0.90
		10/7/05	<90	150	11	<0.90	<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	<0.90	<5.0	500	<0.90
		3/6/06	<90	88	7.0	<0.90	<0.90	<0.90	<0.90	<0.90	5.2	610	<0.50
		6/27/06	270	150	49	<0.50	5.1	3.4	0.58	8.9	8.9	540	<0.50
		8/24/06	110	120	13	<0.50	1.3	<0.50	<0.50	<5.0	<5.0	480	<0.50
		11/20/06	56	<50	5.6	<0.50	<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	<0.50	0.61	<5.0	500	<0.50
		5/7/07	<90	<50	22	<0.90	<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	<0.50	9.0	240	<0.50
		12/5/07	<50	<50	<0.50	<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	<0.50	<5.0	10	<0.50
		5/20/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	0.71	<0.50
		8/22/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	0.71	<0.50
		12/10/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
		3/20/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
		6/4/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
12/3/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50		
5/19/10	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50		
12/21/10	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-3	Screen 7-24	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	120	6.4	7.2	10	11	56	2,400	< 4.0
		3/6/06	< 200	88	36	< 2.0	5.3	2.1	4.2	13	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	6.7	200	0.54 DIPE
		8/22/08	< 50	< 50	1.5	< 0.50	< 0.50	< 0.50	0.64	6.9	380	< 0.50
12/10/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	7.2	< 0.50		
3/20/09	< 50	< 50	0.61	< 0.50	< 0.50	< 0.50	< 0.50	7.7	14	< 0.50		
6/4/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0	< 0.50		
12/3/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50		
5/19/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	26	< 0.50		
12/21/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-4	Screen 7-25	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	15	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
		8/22/08	110	< 50	7.3	< 0.50	< 0.50	0.79	< 0.50	12	28	1.0 DIPE
		12/10/08	190	< 50	38	0.53	2.7	1.8	< 0.50	6.6	20	0.76 DIPE
		3/20/09	86	< 50	8.7	< 0.50	1.1	3.6	< 0.50	< 5.0	14	0.73 DIPE
		6/4/09	160	< 50	28	< 0.50	1.5	1.9	< 0.50	< 5.0	12	0.72 DIPE
12/3/09	280	< 50	46	0.61	0.93	1.9	< 0.50	< 5.0	12	0.65 DIPE		
5/19/10	200	< 50	20	< 0.50	< 0.50	< 0.50	< 0.50	9.3	13	0.94 DIPE		
12/21/10	200	< 50	32	< 0.50	1.1	3.3	< 0.50	< 5.0	9.5	0.64 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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-5	Screen 7-25	6/13/02	536	< 50	6.4	0.6	22	23	--	--	11	--
		11/11/02	3,270	1,230*	<1	<1	28	8	--	--	<1	--
		2/14/03	1,260	610*	9	7.0	22	5	--	--	<1	--
		9/10/04	1,300	150	2.4	<0.50	0.77	<0.50	<0.50	<5.0	<0.50	<0.50
		12/7/04	1,000	< 200	4.1	<0.50	1.4	<0.50	<0.50	<5.0	<0.50	<0.50
		4/18/05	Improperly Destroyed by City of Albany During Street Improvements									
MW-5R	Screen 7-20	10/7/05	760	<800	2	<0.50	8.3	1.2	<0.50	<5.0	<0.50	<0.50
		12/7/05	5,200	<2,000	36	1.0	320	15	<0.50	<5.0	<0.50	<0.50
		3/6/06	6,300	<3,000	44	1.2	370	19	<0.90	5.9	<0.90	<0.90
		6/27/06	5,100	<2,000	53	1.3	370	17	<0.50	5.6	<0.50	<0.50
		8/24/06	6,500	<2,000	80	1.8	510	18	<0.90	9.9	<0.90	<0.90
		11/20/06	5,400	<600	160	2.4	370	100	<0.90	10	81	<0.90
		2/5/07	6,300	<1,500	69	3.2	480	31	<0.80	10	<0.80	<0.80
		5/7/07	5,600	<500	61	2.4	510	19	<0.90	11	<0.90	<0.90
		8/3/07	170	<50	3.7	<0.50	<0.50	<0.50	1.4	9.2	330	<0.50
		12/5/07	4,500	<800	32	1.3	240	10	<0.50	<5.0	<0.50	<0.50
		2/25/08	6,000	<600	41	1.7	310	13	<0.50	5.6	<0.50	<0.50
		5/20/08	220	<50	2.4	<0.50	<0.50	<0.50	<0.50	<5.0	37	<0.50
		8/22/08	91	<50	<0.50	<0.50	<0.50	<0.50	0.57	<5.0	100	<0.50
		12/10/08	140	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	41	<0.50
		3/20/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	8.8	<0.50
		6/4/09	4,300	<800	35	2.2	130	5.7	<0.50	<5.0	6.9	<0.50
		12/3/09	55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	13	<0.50
5/19/10	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	2.2	<0.50		
<b>12/21/10</b>	<b>2,700</b>	<b>&lt;50</b>	<b>16</b>	<b>1.4</b>	<b>29</b>	<b>1.6</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>		

**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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-6	Screen 7-25	6/13/02	2,980	1,460*	31	2.3	3.8	12	--	--	310	--
		11/11/02	3,570	1,210*	336	5	< 5	< 15	--	--	95	--
		2/14/03	3,770	1,620*	429	12	7	10	--	--	122	--
		9/10/04	< 1,000	390	2.7	< 0.50	< 0.50	< 0.50	2.3	48	280	< 0.50
		12/7/04	1,800	< 600	32	1.7	< 0.50	1.1	2.2	49	160	< 0.50
		4/18/05	1,200	1,400	34	1.3	< 0.50	0.90	0.86	19	36	< 0.50
		6/20/05	590	1,300	3.3	< 0.50	< 0.50	< 0.50	< 0.50	5.5	8.5	< 0.50
		10/7/05	470	1,300	6.8	< 0.50	< 0.50	< 0.50	0.67	20	82	< 0.50
		12/7/05	420	910	10	< 0.50	< 0.50	< 0.50	< 0.50	7.3	22	< 0.50
		3/6/06	790	590	3.2	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	4.3	< 0.50
		6/27/06	2,600	980	100	4.0	0.96	2.2	1.0	49	78	< 0.50
		8/24/06	1,200	960	57	2.3	< 0.50	1.1	0.82	34	64	< 0.50
		11/20/06	1,300	< 200	58	1.7	< 0.50	1.3	< 0.50	18	26	< 0.50
		2/5/07	1,200	< 200	49	1.8	< 0.50	1.6	0.90	45	67	< 0.50
		5/7/07	290	< 50	3.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.0	< 0.50
		8/3/07	580	< 80	23	1.0	< 0.50	< 0.50	0.57	34	45	< 0.50
		12/5/07	870	< 800	2.8	< 0.50	< 0.50	< 0.50	0.58	20	54	< 0.50
		2/25/08	1,400	< 500	16	0.73	< 0.50	9.6	< 0.50	19	77	< 0.50
		5/20/08	1,600	< 200	42	2.0	< 0.50	1.1	0.72	59	58	< 0.50
		8/22/08	520	< 300	3.2	< 0.50	< 0.50	< 0.50	0.62	47	70	< 0.50
12/10/08	1,000	< 6,000	0.53	< 0.50	< 0.50	< 0.50	< 0.50	24	21	< 0.50		
3/20/09	700	< 500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	2.9	< 0.50		
6/4/09	160	< 1,500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10	18	< 0.50		
12/3/09	750	< 1,500	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	4.4	< 0.50		
5/19/10	210	< 200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	2.8	< 0.50		
12/21/10	130	< 400	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 5.0	< 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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs	
MW-7	Screen 7-20	6/13/02	24,100	1,570*	2,310	657	945	5,430	--	--	951	--	
		11/11/02	4,760	2,160*	1,820	21	316	1,141	--	--	702	--	
		2/14/03	4,320	2,380*	1,020	7	223	293	--	--	1,410	--	
		9/10/04	4,800	< 300	640	16	250	490	< 1.5	31	590	< 1.5	
		12/7/04	990	< 300	140	3.4	49	70	4.0	< 20	960	< 2.0	
		4/18/05	1,400	< 300	260	1.3	96	16	< 1.0	20	370	< 1.0	
		6/20/05	1,900	< 200	320	1.0	130	24	< 0.50	17	370	< 0.50	
		10/7/05	2,600	< 800	190	4.7	91	200	< 0.73	8.0J	310	< 0.50	
		12/7/05						Not sampled. Inaccessible					
		3/6/06	640	< 200	85	0.88	24	30	< 0.50	8.0	150	< 0.50	
		6/27/06	1,200	< 200	180	1.7	64	64	< 0.50	14	150	< 0.50	
		8/24/06	990	< 200	120	0.96	36	51	< 0.50	13	180	< 0.50	
		11/20/06	1,600	< 200	200	1.6	59	160	< 0.50	5.2	180	< 0.50	
		2/5/07	2,300	< 200	390	2.6	120	140	< 0.50	15	190	< 0.50	
		5/7/07	490	< 80	190	0.61	9.3	3.2	0.55	16	200	< 0.50	
		8/3/07	2,100	< 200	390	2.4	94	73	0.61	19	220	0.51 DIPE	
		12/5/07	140	< 50	7.2	0.67	3.0	18	0.98	150	180	< 0.50	
		2/25/08	< 50	< 50	0.98	< 0.50	0.69	2.4	< 0.50	< 5.0	100	< 0.50	
		5/20/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	1.3	< 0.50	
		8/22/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	
		12/10/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	
		3/20/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	
		6/4/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	
12/3/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50			
5/19/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	0.55	< 0.50			
12/21/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs	
MW-8	Screen 7-19	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	<b>&lt;7.0</b>	
		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	<5.0	130	<0.50
		5/20/08	<50	<50	<0.50	<0.50	<0.50	<0.50	1.5	<0.50	<5.0	6.1	<0.50
		8/22/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
		12/10/08	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
		3/20/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
		6/4/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
12/3/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50		
5/19/10	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50		
12/21/10	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-9	Screen 7-18	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	< 50	< 5.0	< 5.0
		12/7/04	13,000	< 1,500	950	580	480	2,900	< 5.0	< 50	< 5.0	< 5.0
		4/18/05	9,600	< 1,000	620	180	260	1,400	< 2.5	< 25	< 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	< 0.90	< 0.90
		3/6/06	4,200	< 800	460	120	97	600	< 0.90	< 5.0	< 0.90	< 0.90
		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
		8/22/08	3,700	< 600	220	68	190	610	< 0.50	< 5.0	0.72	< 0.50
12/10/08	4,100	< 300	240	80	250	840	< 0.50	< 5.0	< 0.50	< 0.50		
3/20/09	1,800	< 200	170	22	81	250	< 0.50	< 5.0	< 0.50	< 0.50		
6/4/09	2,600	< 200	260	35	110	410	< 0.50	< 5.0	< 0.50	< 0.50		
12/3/09	5,200	< 300	260	63	320	970	< 0.50	< 5.0	< 0.50	< 0.50		
5/19/10	3,000	< 300	190	23	120	490	< 0.90	< 5.0	< 0.90	< 0.90		
12/21/10	<b>4,900</b>	<b>&lt; 300</b>	<b>200</b>	<b>35</b>	<b>260</b>	<b>1,000</b>	<b>&lt; 0.90</b>	<b>&lt; 5.0</b>	<b>&lt; 0.90</b>	<b>&lt; 0.90</b>		

**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 Boeing	Sample Depth (ft)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs	
<b>MW-10</b>	Screen 7-25	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	
		8/22/08	1,900	<500	22	0.89	3.8	2.1	<0.50	5.1	<0.50	<0.50	
		12/10/08	3,500	<500	40	2.0	190	7.8	<0.50	<5.0	<0.50	<0.50	
		3/20/09	4,100	<600	40	1.7	150	5.8	<0.50	5.9	<0.50	<0.50	
		6/4/09	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	34	<0.50	<0.50	
		12/3/09	4,500	<800	36	2.5	140	4.3	<0.50	<5.0	<0.50	<0.50	
		5/19/10	3,600	<600	19	2.3	120	3.3	<0.50	<5.0	<0.50	<0.50	
		<b>12/21/10</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>	<b>7.2</b>	<b>&lt;0.50</b>	
<b>ESL</b>			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 **SOIL** Samples  
 Albany Hill Mini Mart  
 800 San Pablo Avenue, Albany, CA  
 All results are in **parts per million (ppm)**

Well or Boring	Sample Depth (feet)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
MW-1	14	7/28/99	1.8	2.6	< 0.005	< 0.005	0.0056	0.012	---	---	< 0.005	---
MW-2	14	7/28/99	< 0.5	< 1	< 0.005	< 0.005	< 0.005	< 0.010	---	---	< 0.005	---
MW-3	13	7/28/99	< 0.5	< 1	< 0.005	< 0.005	< 0.005	< 0.010	---	---	< 0.005	---
MW-4	6	6/5/02	3.05	< 1	0.479	0.452	0.077	0.417	---	---	0.0120	---
	11	6/5/02	144	< 1	0.706	3.03	3.0	17.6	---	---	0.070	---
	16	6/5/02	2.16	< 1	< 0.005	0.007	0.033	0.203	---	---	< 0.005	---
	21	6/5/02	< 0.5	< 1	< 0.005	< 0.005	< 0.005	< 0.010	---	---	< 0.005	---
	26	6/5/02	< 0.5	< 1	< 0.005	< 0.005	< 0.005	< 0.010	---	---	< 0.005	---
MW-5	6	6/5/02	7.72	< 1	< 0.005	< 0.005	0.112	0.684	---	---	< 0.005	---
	11	6/5/02	12.4	< 1	< 0.005	0.029	0.195	0.243	---	---	0.042	---
	16	6/5/02	< 0.5	< 1	< 0.005	< 0.005	< 0.005	< 0.010	---	---	< 0.005	---
	21	6/5/02	< 0.5	< 1	< 0.005	< 0.005	< 0.005	< 0.010	---	---	< 0.005	---
	26	6/5/02	< 0.5	< 1	< 0.005	< 0.005	< 0.005	< 0.010	---	---	< 0.005	---
MW-6	6	6/5/02	< 0.5	< 1	< 0.005	< 0.005	< 0.005	< 0.010	---	---	0.076	---
	11	6/5/02	1.2	< 1	0.055	< 0.005	< 0.005	< 0.010	---	---	0.017	---
	16	6/5/02	< 0.5	< 1	< 0.005	< 0.005	< 0.005	< 0.010	---	---	0.013	---
	21	6/5/02	1.7	< 1	< 0.005	< 0.005	< 0.005	0.019	---	---	< 0.005	---
	26	6/5/02	< 0.5	< 1	< 0.005	< 0.005	< 0.005	0.024	---	---	0.020	---



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

Well or Boring	Sample Depth (feet)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
BH-B	11.5	8/19/04	240	22*	0.14	< 0.025	3.8	4.9	< 0.025	< 0.15	< 0.025	< 0.025
BH-C	14.5	8/24/04	400	71*	0.052	< 0.025	< 0.025	< 0.025	< 0.025	< 0.15	< 0.025	< 0.025
	23.5	8/24/04	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	0.16	< 0.0050
BH-D	6.5	8/25/04	< 1.0	130	0.0070	0.020	0.0064	0.058	< 0.0050	0.047	< 0.0050	< 0.0050
	14.5	8/25/04	34	66	0.033	0.052	< 0.0060	0.024	< 0.0060	< 0.030	<b>0.026</b>	< 0.0060
	19.5	8/25/04	1.1	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0066	0.0067	< 0.0050
BH-E	13.5	8/25/04	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	0.0058	< 0.0050
	18.5	8/25/04	< 1.0	1.4*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	0.086	< 0.0050
BH-F	14.0	8/23/04	210	69*	2.7	14	4.7	24	< 0.025	< 0.25	0.026	< 0.025
BH-G	14.5	8/20/04	170	25*	2.7	7.8	3.1	16	< 0.025	< 0.25	0.060	< 0.025
BH-H	14.5	8/20/04	45	51*	0.28	0.39	0.74	3.0	< 0.025	< 0.25	< 0.025	< 0.025
BH-I	24.5	8/26/04	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
BH-K	23.5	8/26/04	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
BH-L	23.5	8/27/04	< 1.0	1.4	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050



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

Well or Boring	Sample Depth (feet)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
BH-T	15	2/1/06	2.5	15*	0.030	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.040	0.058	< 0.0050
	20	2/1/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.28	< 0.0050
	25	2/1/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.12	< 0.0050
	31	2/1/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.060	< 0.0050
	37.5	2/1/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0085	< 0.0050
	40	2/1/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	45	2/1/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	50	2/1/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
BH-U	10	2/2/06	87	64*	0.59	0.059	1.8	4.8	< 0.0050	0.024	< 0.0050	< 0.0050
	15	2/2/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	20	2/2/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	25	2/2/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	0.0076	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	31	2/2/06	22	14	0.21	0.64	0.44	2.5	< 0.0050	0.015	< 0.0050	< 0.0050
	36	2/2/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	40	2/2/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	45	2/2/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
50	2/2/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	
BH-V	10	2/3/06	13	22	0.16	0.0076	0.22	0.29	< 0.0050	< 0.015	< 0.0050	< 0.0050
	15	2/3/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0063	< 0.0050

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

Well or Boring	Sample Depth (feet)	Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TAME	TBA	MTBE	Other VOCs
<b>BH-W</b>	10	2/6/06	17	7.5*	0.088	< 0.0050	0.34	0.12	< 0.0050	0.017	< 0.0050	< 0.0050
	15	2/6/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	20	2/6/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	30	2/6/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	40	2/6/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	0.0084	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	50	2/6/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
<b>BH-X</b>	10.5	2/6/06	< 1.0	< 1.0	0.018	< 0.0050	0.030	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	15	2/6/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	20.5	2/6/06	5.8	3.1*	0.018	< 0.0050	0.11	0.26	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	30.5	2/6/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	40	2/6/06	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
<b>BH-Y</b>	23.5	1/18/07	< 1.0	1.3*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	
ESL (Non-Drinking Water)			100	100	0.27	9.3	4.7	11	NE	110	8.4	Varies
ESL (Drinking Water)			83	83	0.044	2.9	3.3	2.3	NE	0.075	0.023	Varies

Notes:

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

Concentrations exceeding ESLs are in Bold.

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

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

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

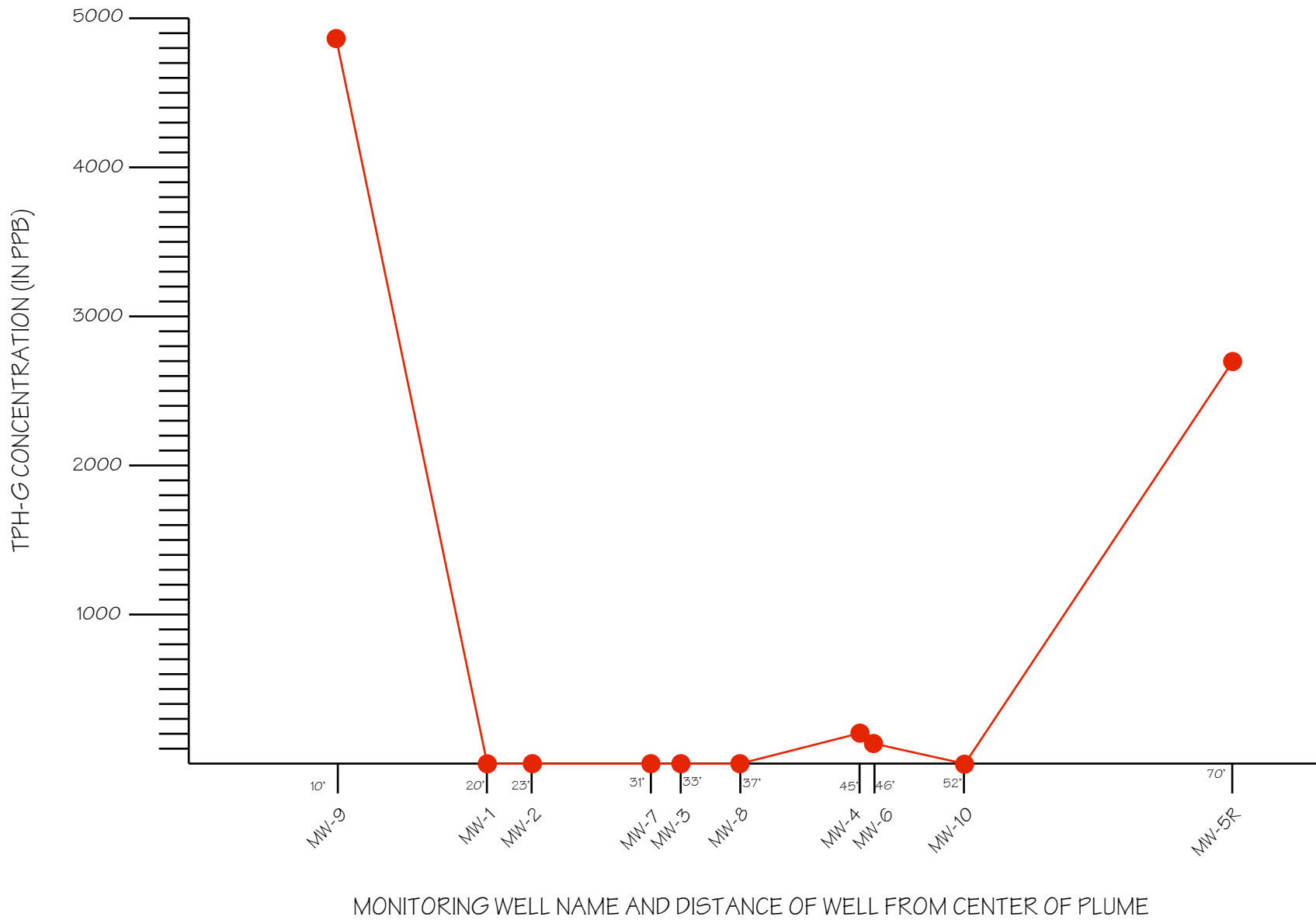


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## **APPENDIX A**

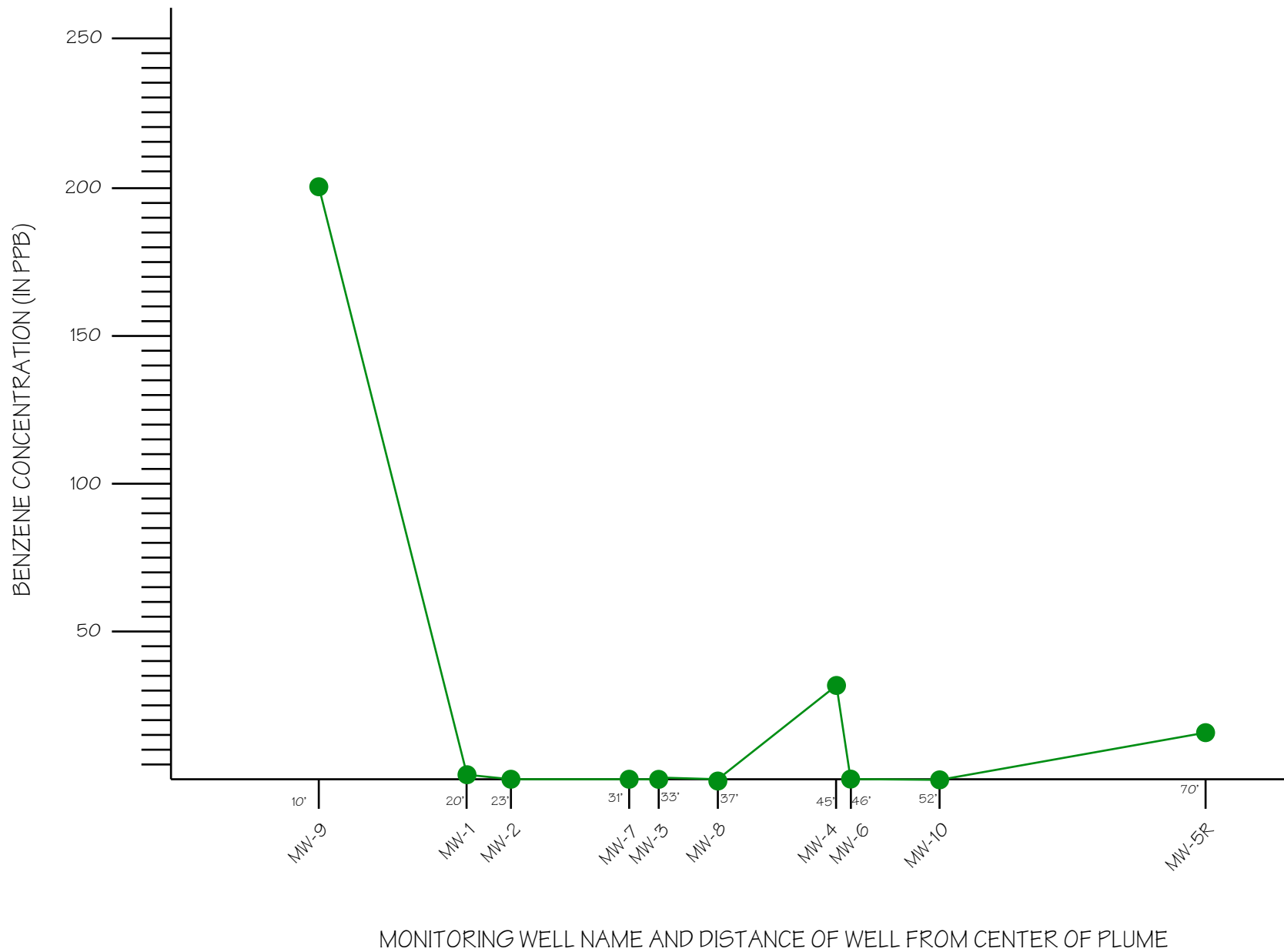
Hydrocarbon Concentration vs. Distance from Source Graphs

TPH-GASOLINE CONCENTRATIONS IN GROUNDWATER VS. DISTANCE FROM CENTER OF PLUME  
SAMPLE DATE DECEMBER 21, 2010





BENZENE CONCENTRATIONS IN GROUNDWATER VS. DISTANCE FROM CENTER OF PLUME  
SAMPLE DATE DECEMBER 21, 2010



MTBE CONCENTRATIONS IN GROUNDWATER VS. DISTANCE FROM CENTER OF PLUME  
SAMPLE DATE DECEMBER 21, 2010

