ALAMEDA COUNTY HEALTH CARE SERVICES







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

March 11, 2010

Robert Brooks Robert A. Brooks Trust 4659 Seven Hills Road Castro Valley, CA 94546

REMEDIAL ACTION COMPLETION CERTIFICATE

Subject: Fuel Leak Case No. RO0002844 and GeoTracker Global ID T06019703191, Allied Glass Company, 20574 Wisteria Street, Castro Valley, CA 94546

Dear Mr. Brooks:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Ariu Lexi

Alameda County Environmental Health

ALAMEDA COUNTY HEALTH CARE SERVICES







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Subject: Fuel Leak Case No. RO0002844 and GeoTracker Global ID T06019703191, Allied Glass

Company, 20574 Wisteria Street, Castro Valley, CA 94546

Dear Mr. Brooks:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Residual pollution remaining in soil beneath the site includes total petroleum hydrocarbons as gasoline (TPH-g) at a concentration of 79 mg/kg.
- Maximum concentrations of TPH-g and motor oil at concentrations up to 5,000 µg/L and 1,600 µg/L, respectively, remain in groundwater beneath the site.

If you have any questions, please call Paresh Khatri at (510) 777-2478. Thank you.

Sincerely,

Donna L. Drogos, P.E.

Chief

Enclosures:

- 1. Remedial Action Completion Certificate
- 2. Case Closure Summary

CC:

Ms. Cherie McCaulou (w/enc) SF- Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612 Closure Unit (w/enc)
State Water Resources Control Board
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

Paresh Khatri (w/orig enc), D. Drogos (w/enc)

CASE CLOSURE SUMMARY LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

I. AGENCY INFORMATION

Date: January 7, 2010

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 777-2478
Responsible Staff Person: Paresh Khatri	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Allied Glass	Company				
Site Facility Address: 20574 Wis	steria Street, Castro Valley, California 94	546			
RB Case No.: Local Case No.: NA LOP Case No.: RO0002844					
URF Filing Date:	Global ID No.: T06019703191 APN: 84A-131-16				
Responsible Parties	Addresses		Phone Numbers		
Robert Brooks Robert A. Brooks Trust	4659 Seven Hills Road Castro Valley, CA 94546				

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	1 x 1,000-gallon	Gasoline	Removed	2/24/1993
2	1 x 300-gallon	Gasoline	Removed	2/24/1993
	·			
	Piping		Removed	2/24/1993

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Site characterization complete? Yes Date Approved By Oversight Agency:					
Monitoring wells installed? No		Number:	Proper screened interval?		
Highest GW Depth Below Ground Surface: 5 ft bgs		Lowest Depth: 10 ft bgs	Flow Direction: Assumed South to Southwest based on neighboring site RO0000135.		

Summary of Production Wells in Vicinity: A 2,000 foot radius well survey was conducted at a nearby Chevron site (RO0000475), located at 2920 Castro Valley Boulevard (approximately 500 feet east of the subject site) identified five water supply wells. Three wells are located at Eden Hospital, located approximately 2,000 feet northwest of the site, and one is located at a private residence approximately 1,500 feet southwest of the site. A fifth well was identified to likely be within the 2,000 foot radius, but the exact location could not be determined. These wells are not considered receptors due to their respective distances from the subject site.

Are drinking water wells affected? No	Aquifer Name: East Bay Plain Groundwater Basin				
Is surface water affected? No Nearest SW Name: small south-flowing tributary to the creek is present approximately 400 feet west of the site					
Off-Site Beneficial Use Impacts (Addresses/Locations): None					
Reports on file? Yes Where are reports filed? Alameda County Environmental He					

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL					
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date		
Tank	One 300-gallon One 1,000-gallon	Disposal to H&H Ship Company San Francisco, CA	2/24/1993 2/24/1993		
Piping	Unknown	Disposal, unknown location	2/24/1993		
Free Product	NA		2/24/1993		
Soil	18 cu yds	Disposal to Beatty, Nevada	2/24/1993		
Groundwater	5 to 15 gals		2/24/1993		

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP

(Please see Attachments for additional information on contaminant locations and concentrations)

	Soil	(ppm)	Water (ppb)		
Contaminant	Before	After	Before	After	
TPH (Gas)	<0.5	79 (B-2-10, 10/14/08)	1,700 (W-1, 2/24/1993)	5,000 (B1W, 10/15/2008)	
TPH (Diesel)	18 (B-2-10, 10/14/08)	18 (B-2-10, 10/14/08)	600 (B1W, 10/15/2008)	600 (B1W, 10/15/2008)	
TPH (Motor Oil)	12 (B-2-10, 10/14/08)	12 (B-2-10, 10/14/08)	1,600 (B1W, 10/15/2008)	1,600 (B1W, 10/15/2008)	
TPH (Bunker Oil)	20 (B-1-10, 10/14/08)	20 (B-1-10, 10/14/08)	1,700 (B5W, 10/15/2008)	1,700 (85W, 10/15/2008)	
Benzene	<0.005	<0.005 -<0.010 (10/14/08)	4.5 (W-1, 2/24/1993)	<1.0 (B1W, 10/15/2008)	
Toluene	<0.005	<0.005 -<0.010 (10/14/08)	170 (B4W, 10/15/2008)	170 (B4W, 10/15/2008)	
Ethylbenzene	<0.005	<0.005 -<0.010 (10/14/08)	320 (B4W, 10/15/2008)	320 (84W, 10/15/2008)	
Xylenes	<0.015	<0.005 -<0.010	1,300 (B4W, 10/15/2008)	1,300 (B4W, 10/15/2008)	
МТВЕ	NA⁴	<0.005 ³ (10/14/08	<12²	<12 ¹ (MW-1, 11/21/2002)	
Lead	16 (B-1-10, 10/14/08)	16 (B-1-10, 10/14/08)	<100 (W-1, 2/24/1993)	0.99 (B3W, 10/15/2008)	
1,1-DCA		<0.004 (10/14/08	<12 (10/15/2008)	<12 (10/15/2008)	
1,1-DCE		<0.004 (10/14/08	<12 (10/15/2008)	<12 (10/15/2008)	

¹ Other VOCs analyzed (groundwater μg/L after cleanup): <12 μg/L MtBE, 160 μg/L TBA, <12 μg/L DIPE, <12 μg/L ETBE, <12 μg/L TAME, <12 μg/L EDB, <12 μg/L 1.2-DCA

Site History and Description of Corrective Actions:

The Allied Glass Company (AGC) site is located at 20574 Wisteria Street, on the east side of the street and north of the intersection of Wisteria Street and Castro Valley Boulevard, in Castro Valley (**Figure 1**). Land use in the immediate vicinity of the site is mixed commercial and residential.

Tank Protect Engineering removed one 1,000 gallon gasoline UST and one 300 gallon gasoline UST from the site on February 24, 1993. A Tank Closure Report dated August 26, 1993 documents tank removal activities. According to AGC, the tanks had been empty since at least 1971. During tank removal activities, approximately 18 cubic yards of soil were excavated from around the tanks and stockpiled on the site by placing soil on top of and covering the soil with plastic. According to Tank Protect Engineering, no apparent contamination was present in the excavation sidewalls and stockpiled soil based on the absence of stains and odors. Two soil samples (S-1 and S-2) were collected from the bottom of the 1,000 gallon UST pit and one soil sample (S-3) was collected from the bottom of the 300 gallon UST pit. All of the UST pit soil samples were collected at a depth of approximately 6 feet below the ground surface (bgs). Approximately 5 to 15 gallons of perched groundwater was reported to be present in the UST pit for the 1,000 gallon UST. One water sample (W-1) was collected from the bottom of the 1,000 gallon UST pit. In addition, soil stockpile samples (SP1-(A-D)) were collected. The UST pit and the sample collection locations are shown in Figure 2. The sample results for the soil samples are summarized in Table 1, and the sample results for the water sample are summarized in Table 2. Soil sample results detected TPH-g at a concentration of 1,700 micrograms per liter (ug/L), and that ethylbenzene and xylenes were detected at concentrations of 2.3 and 97 ug/L, respectively.

On October 14, 2008, RGA oversaw the installation of a total of five borings, designated B1 through B5, at locations

²Other VOCs <u>not</u> analyzed (groundwater ppb before cleanup): MtBE, TBA, DIPE, ETBE, TAME, EDB, 1.2-DCA, EtOH ³Other VOCs (Soil mg/kg after cleanup): <0.05 mg/kg TBA, <0.005 mg/kg DIPE, <0.005 mg/kg ETBE, <0.005 mg/kg TAME, <0.004 mg/kg EDB, <0.004 mg/kg 1.2-DCA

⁴ Other VOCs <u>not</u> analyzed (Soil mg/kg before cleanup): MtBE, TBA, DIPE, ETBE, TAME, EDB, 1.2-DCA, EtOH NA - Not Analyzed

shown on **Figure 3**. Drilling was performed by Vironex, Inc. of Pacheco, California using GeoProbe direct push technology. Borings B1 and B2 encountered drilling refusal while drilling and were drilled to total depths of 14.0 feet below the ground surface (bgs) and 13.0 feet bgs, respectively, and borings B3 through B5 were each drilled to a total depth of 15.0 feet bgs without encountering any drilling refusal. All of the borings were continuously cored using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with transparent PVC sleeves. The soil from the boreholes was evaluated with a Photoionization Detector (PID) equipped with a 10.6 eV bulb and calibrated with a 100 part per million (ppm) isobutylene standard. The soil was also evaluated for other evidence of petroleum hydrocarbon contamination such as odors, staining, and discoloration. Odors, staining, or discoloration and detectable PID values were encountered in boreholes B1 through B4 between the depths of 9 and 13 feet bgs. PID values were less than 100 ppm in boreholes B1, B2 and B4, and PID values of up to 861 ppm were observed in borehole B3. No odors, staining, or discoloration and no detectable PID values were encountered in borehole B5.

Since groundwater was not encountered in any of the boreholes on the day of drilling (October 14, 2008), a temporary slotted PVC pipe was placed into each borehole, and RGA returned to the site on October 15, 2008 to collect grab groundwater samples from each of boring. Groundwater was observed in borings B1, B3 and B5. However, no water was present in boreholes B2 or B4 on October 15, 2008. RGA returned to the site on October 16, 2008 to collect water samples from boreholes B2 and B4, however no water was present in boreholes B2 and B4. RGA returned to the site on October 17, 2008 to collect water samples from boreholes B2 and B4, and additional sample was collected from boreholes B1, B3 and B5 on October 17, 2008 for lead analysis. In addition, three VOAs were collected from borehole B4 for petroleum hydrocarbon and lead analysis. No water was detected in borehole B2. In accordance with ACPWA requirements, the temporary PVC pipe was removed from the borings and the boreholes were filled with neat cement through a tremie pipe on October 17, 2008.

According to RGA, the groundwater grab samples were collected from the temporary PVC pipe in the boreholes using a polyethylene tube with a stainless steel check valve. The samples were placed into 40-milliliter VOAs and 1-liter amber glass bottles preserved with hydrochloric acid. On October 17, 2008 the samples that were collected for lead analysis were placed into 500-milliliter polypropylene bottles without preservative. The laboratory was directed by RGA to filter and preserve the samples for lead analysis upon receipt. Chain of custody procedures were observed for all sample handling.

TPH-g was detected in the soil samples collected from boreholes B1, B2, B3, and B4 at concentrations of 34 milligrams per kilogram (mg/kg), 79 mg/kg, 47 mg/kg, and 23 6 mg/kg, respectively, and was not detected in the soil sample collected from B5. TPH-d was detected in the soil samples collected from boreholes B1, B2, B3, B4, and B5 at concentrations of 18 mg/kg, 9 mg/kg, 12 mg/kg, 12 mg/kg, and 4.3 mg/kg, respectively. TPH-mo was detected in the soil samples collected from boreholes B2 and B5 at concentrations of 8.5 mg/kg and 12 mg/kg, respectively, and was not detected in the soil samples collected from boreholes B1, B3, and B4. TPH-bo was detected in the soil collected from boreholes B1, B2, B3, B4, and B5 at concentrations of 20 mg/kg, 18 mg/kg, 13 mg/kg, 13 mg/kg, and 15 mg/kg, respectively. Review of the laboratory analytical report shows the TPH-g detected in soil samples collected from boreholes B1, B2, B3, and B4 was described as having no recognizable pattern. Review of the laboratory analytical reports also shows the TPH-d detected in soil samples collected from boreholes B1, B3, and B4 was described as consisting of Stoddard solvent or mineral spirits. The TPH-D detected in the soil sample collected from borehole B2 was described as consisting of Stoddard solvent or mineral spirits and also having a significant amount of oil range compounds, and the TPH-d detected in the soil sample collected from borehole B5 was described by the laboratory as consisting of oil range compounds and diesel range compounds with no recognizable pattern.

MTBE, BTEX, Fuel Oxygenates, and Lead Scavengers were not detected in any of the five soil samples. Total lead was detected in the soil samples collected from boreholes B1, B2, B3, B4, and B5 at concentrations of 16 mg/kg, 6.6 mg/kg, 7.3 mg/kg, 9.9 mg/kg, and 7.6 mg/kg, respectively. Soil sample analytical results are summarized on **Table 3**.

Groundwater was not encountered in boring B2, therefore groundwater sample analysis was not for B-2. Benzene was not detected in any of the groundwater grab samples collected from any of the remaining borings, and dissolved lead was not detected in any of the groundwater grab samples collected from the borings with the exception of B3 where dissolved lead was detected at a concentration of $0.99 \,\mu g/L$. No fuel oxygenates or lead scavengers were detected in any of the grab groundwater samples with the exception of TBA in the samples collected from boreholes B1 and B4 at concentrations of 10 and $160 \,\mu g/L$, respectively. TPH-g was detected in the groundwater grab samples collected from boreholes B1, B3, B4, and B5 at concentrations of $510 \,\mu g/L$, $690 \,\mu g/L$, $690 \,\mu g/L$, and $690 \,\mu g/L$, respectively. TPH-d was detected in the groundwater grab samples collected from boreholes B1, B3, and B5 at concentrations of $86 \,\mu g/L$, $690 \,\mu g/L$, and $470 \,\mu g/L$, respectively, and was not detected in the sample from borehole B3. TPH-MO was detected in the groundwater grab samples collected from boreholes B1 and B5 at concentrations of $690 \,\mu g/L$, respectively, and was not detected in the groundwater grab sample collected from borehole B3. TPH-BO was detected in the groundwater grab samples collected from boreholes B1, B3, and B5 at concentrations of $690 \,\mu g/L$, and $690 \,\mu g/L$, respectively, and was not detected in the sample from borehole B4. Toluene was detected in the groundwater grab samples collected from boreholes B1, B3, B4, and B5 at concentrations of $690 \,\mu g/L$, $690 \,\mu g/L$, and $690 \,\mu g/L$, respectively, and was not detected in the sample from borehole B4. Toluene was detected in the groundwater grab samples collected from boreholes B1, B3, B4, and B5 at concentrations of $690 \,\mu g/L$, $690 \,\mu g/L$,

at concentrations of $30 \mu g/L$, $320 \mu g/L$, and $47 \mu g/L$, respectively; and xylenes were detected in the groundwater grab samples collected from boreholes B1, B3, B4, and B5 at concentrations of $110 \mu g/L$, $0.67 \mu g/L$, $1.300 \mu g/L$, and $220 \mu g/L$, respectively. Review of the laboratory analytical report shows the TPH-g detected in groundwater grab samples collected from boreholes B1 and B5 was described by the laboratory as consisting of significant heavier gasoline range compounds, possibly aged gasoline, and the TPH-g detected in the grab groundwater sample collected from borehole B3 was described by the laboratory as showing significant strongly aged gasoline or diesel range compounds in the TPH-g chromatogram, and was also described as having no recognizable pattern. Review of the laboratory analytical reports also show the TPH-d detected in grab groundwater samples collected from boreholes B1 and B5 was described by the laboratory as consisting of significant oil range compounds and also significant diesel range compounds with no recognizable pattern. The TPH-d detected in the groundwater grab sample collected from borehole B3 was described by the laboratory as consisting of significant gasoline range compounds. Groundwater sample analytical results are summarized on **Table 4**.

Geology & Hydrogeology

The site is located within the East Bay Plain in Alameda County, at an elevation of approximately 160 feet on the western side of the gently sloped valley of Castro Valley. The San Leandro Hills are located approximately 1 mile to the north, and a ridge is located 2000 feet west of the site, with an isolated hill approximately 100 feet tall present less than 1000 feet to the south-southwest. Lake Chabot is located approximately 2 miles to the northwest. San Lorenzo Creek is located approximately 1 mile to the southwest, south, and southeast of the site, and a small south-flowing tributary to the creek is present approximately 400 feet west of the site.

Based on review of regional geologic maps from U. S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E. J. Helley and K. R. Lajoie, 1979, the subject site is underlain by Late Pleistocene Alluvium (Qpa), which is described as weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand, and gravel. These alluvial fan and fluvial deposits overly bedrock consisting of Cretaceous marine sedimentary rocks which make up the San Leandro Hills to the north and east (Geologic Map of California, San Francisco Sheet, State of California Division of Mines and Geology, 1980).

In U. S. Geological Survey Miscellaneous Field Studies MF-2342, "Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California," by R. W. Graymer, 2000, this Cretaceous bedrock is classified mainly as Knoxville Formation of the Great Valley Sequence. The ridge located to the west of the site consists of northwest-trending fault-bounded blocks of this material associated with the Hayward Fault, the main trace of which passes approximately 1 mile west of the site. The eastern edge of this fault zone is located approximately 400 feet to the west of the site along the course of the small tributary creek, and the east side of Castro Valley is bounded by a thrust fault 1.5 miles east of the site (Graymer, 2000).

According to RGA, the subsurface materials encountered in the five onsite borings consisted of sandy gravel from the ground surface to six feet bgs in boreholes B1 and B2, and organic silt from the surface to 3 to 4 feet bgs in borings B3 through B5. Underlying these units, silt was present in all 5 borings to depths of between 7 and 9 feet. Beneath this silt, silty sand was encountered in borings B1, B2, and B4 to between 11 and 13 feet depth, and in borings B3 and B5 silty clay was encountered to between 10 and 11 feet depth, which was underlain in turn by silty sand to 13 feet bgs in B3, and by clayey sand to the completion depth of 15.0 feet in B5. In borings B1 through B4, the silty sand that was present to depths of 11 to 13 feet was underlain by clayey silt. In borings B1, B2, and B4, this silt extends to the total depths explored for the borings at 14, 13, and 15 feet bgs, respectively. In boring B3, 1 foot of gravelly clayey sand was present beneath the lowermost silt unit to the total depth explored of 15.0 feet bgs. Borings B1 and B2 were completed at depths of less than 15 feet bgs due to drilling refusal where likely bedrock was encountered.

Summary of Analytical Results

In October 2008, five borings were installed at the site to evaluate current soil and groundwater conditions at the site. Soil sample analytical results detected maximum TPH-g, TPH-d, TPH-mo, and TPH-bo concentration at 79 mg/kg, 18 mg/kg, 12 mg/kg, and 29 mg/kg, respectively, with BTEX concentrations below the laboratory detection limit. Grab groundwater sample analytical results detected maximum TPH-g, TPH-d, TPH-mo, TPH-bo, and TBA concentrations at 5,000 μ g/L, 600 μ g/L, 1,600 μ g/L, 1,700 μ g/L, and 160 μ g/L, respectively.

Site concentrations were compared to applicable RWQCB ESLs. Residual concentrations of TPH-g (79 mg/kg), TPH-d (83 mg/kg), TPH-mo (12 mg/kg), and TPH-bo (20 mg/kg) were below the applicable ESL of 83 mg/kg for TPH-g and TPH-d, and below the ESL of 370 mg/kg for residual fuels for residential land-use risk scenario where groundwater is a current or potential drinking water resource. BTEX constituents were not detected above the laboratory detection limit or the applicable ESL. Soil borings B-1 and B-2 were located at the former excavation perimeters with borings B-3 through B-5 located approximately 10 to 20 ft from the excavation perimeters. Grab groundwater sample analytical results exceeded the applicable ESL for TPH-g, TPH-d, TPH-mo, TPH-bo, TEX and TBA.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes

Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a significant risk to human health based upon current land use and conditions.

Site Management Requirements: Case closure for this fuel leak site is granted for the current commercial land use only. If a change in land use to any residential or other conservative land use scenario is proposed at this site, Alameda County Environmental Health (AECH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans.

Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party (or current property owner/developer) prior to and during excavation and construction activities.

Should corrective action be reviewed if land use changes? Yes.

Was a deed restriction or deed notification file	Date Recorded:	
Monitoring Wells Decommissioned: No	Number Retained: 0	
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded:		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

None

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environmental under the current commercial land use based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a change in land use to any residential or other conservative land use scenario occurs at the site. ACEH staff recommend case closure for the site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Paresh Khatri	Title: Hazardous Materials Specialist
Signature: Make	Date: January 7, 2010
Approved by: Donna L. Drogos, P.E.	Title: Chief
Signature: 46	Date: 01/08/10

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature: MMClaul	Date: 3/2/10

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH:	Requested by ACEH: Date of Well Decommissioning Report:				
All Monitoring Wells Decommissioned: No N/A	Number Retained: Ø				
Reason Wells Retained:					
Additional requirements for submittal of groundwater data from retained wells: None					
ACEH Concurrence - Signature: Parkhel		Date: 3/11/2010			

Attachments:

- 1. Analytical Tables 1-4
- 2. Site Figures 1-43. Boring Logs (5 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

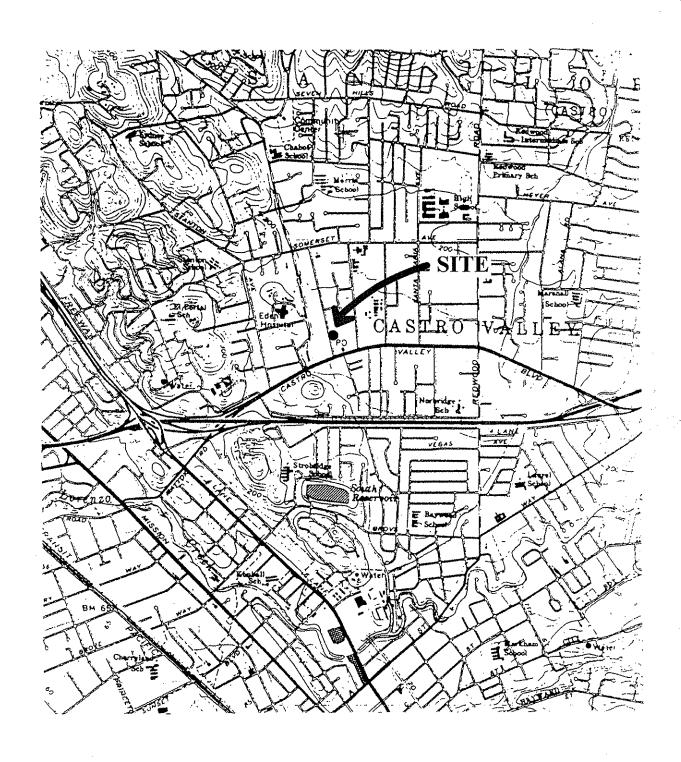
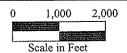


Figure 1 Site Location Map Allied Glass Company 20574 Wisteria Street Castro Valley, California

N

Base Map from: U.S. Geological Survey Hayward, Calif. 7.5 Minute Quadrangle Photorevised 1980

RGA Environmental, Inc. 1466 66th Street Emeryville, CA 94608



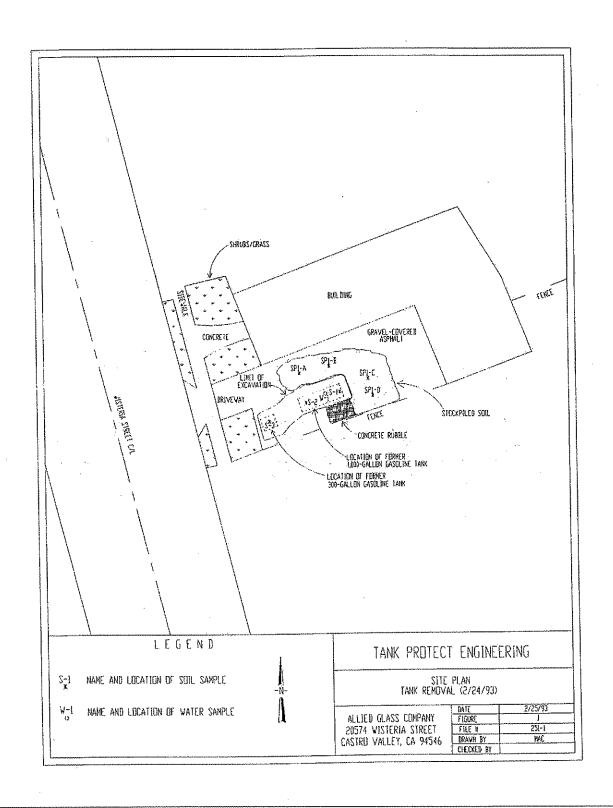
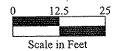
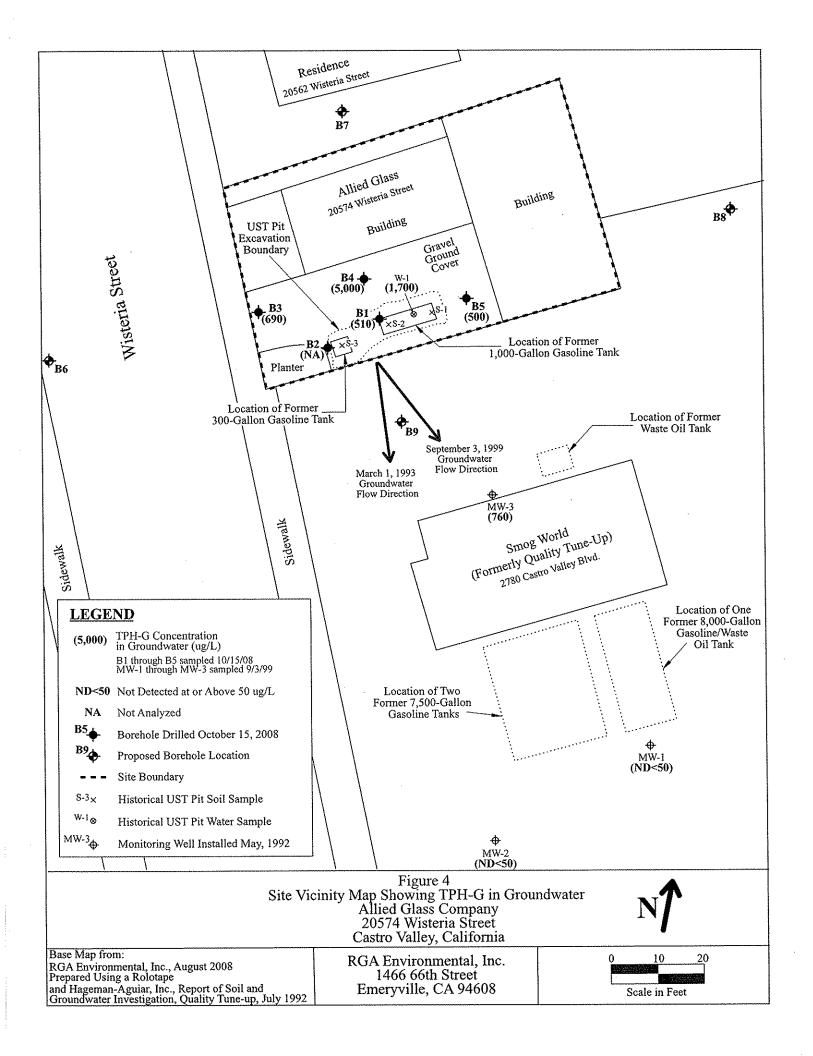


Figure 2
Site Plan Prepared by Tank Protect Engineering
Allied Glass Company
20574 Wisteria Street
Castro Valley, California

Base Map from: Tank Protect Engineering Tank Closure Report, Allied Glass Company August 1993 RGA Environmental, Inc. 1466 66th Street Emeryville, CA 94608





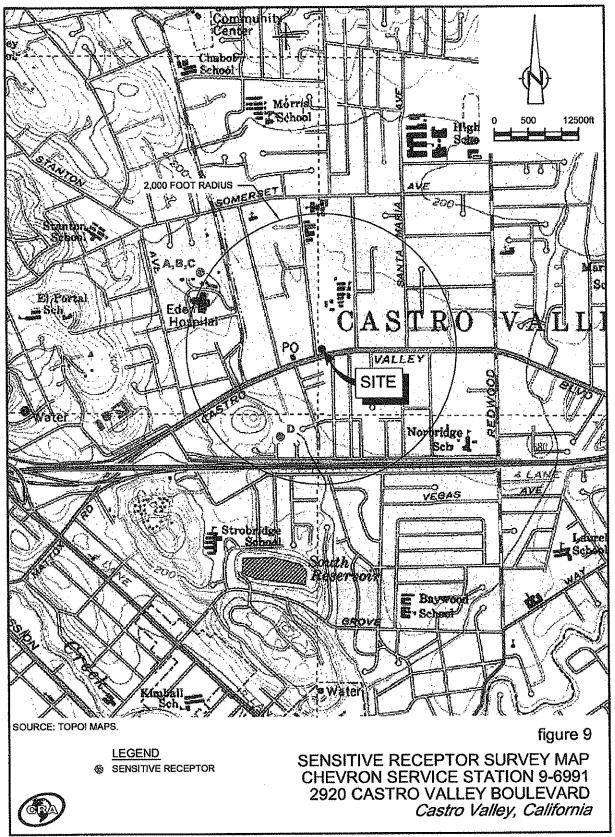


Table 1. Summary of Historic Soil Laboratory Analytical Results								
Allied Glass - 20574 Wisteria Street, Castro Valley, California								
Sample ID	Sample	Sample	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Total Lead
	Date	Depth (Feet)	4		mg/Kg-			
S-1	2/24/1993	6.0	ND<0.500	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	6.8
S-2	2/24/1993	6.0	ND<0.500	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	3.0
S-3	2/24/1993	6.0	ND<0.500	ND<0.0050	ND<0.0050	ND<0,0050	ND<0.015	4.0
SPI-(A-D)	2/24/1993	1.0-2.0	ND<0.500	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	150
ESL			83	0.044	2.9	3.3	2.3	750

Abbreviations and Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

ND = Not Detected.

ESL# Environmental Screening Level, by San Francisco Bay - Regional Water Quality Control Board

(SF-RWQCB), updated May 2008, from Table A- Shallow Soils,

Groundwater is a current or potential source of drinking water, Commercial/ Industrial Land Use.

Values in bold exceed ESLs

Results in mg/Kg unless otherwise indicated.

⁼ Also Analyzed for soluble lead by EPA Method 7420 and lead was detected by this method at a concentration of 5.3.

	Allied	Glass - 20	574 Wisteria	i Street, Cas	tro Valley, Calif	ornia	
Sample ID	Sample Date	TPH-G	Benzene	Toluene - µg/L	Ethylbenzene	Xylenes	Total Lead
V-1	2/24/1993	1,700	ND<1.5	ND <i.1< th=""><th>2.3</th><th>97</th><th>ND<100</th></i.1<>	2.3	97	ND<100
ESI		100	1.0	40	30	20	2.5
Abbreviations PH-G = Total ID = Not Detect	Petroleum Hyo ted.				rional Water Oual	ity Control B	oard
SL= Environm					ional Water Qual	ity Control B	oard

	Table 3. Summary of Borehole Soil Laboratory Analytical Results											
Allied Glass - 20574 Wisteria Street, Castro Valley, California												
Sample ID	Sample Date	Sample Depth (Feet)	TPH-G	TPH-D	TPH-MO mg/Kg	трн-во	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	Fuel Oxygenates & Lead Scavengers
		(=)										
B1-10	10/14/2008	10.0	34, a	18, b	ND<5.0	20	ND<0.10	ND<0.10	ND<0.10	ND<0.10	16	ND
B2-10	10/14/2008	10.0	79, a	9.0, b,c	8.5	18	ND<0.10	ND<0.10	ND<0.10	ND<0.10	6.6	ND
B3-10	10/14/2008	10.0	47, a	12, b	ND<5.0	13	ND<0.10	ND<0.10	ND<0.10	ND<0.10	7.3	ND
B4-10	10/14/2008	10.0	23, a	12, b	ND<5.0	13	ND<0.005	ND<0.005	ND<0.005	ND<0.005	9.9	ND
B5-10	10/14/2008	10.0	ND<1.0	4.3, c, d	12	15	ND<0,005	ND<0.005	ND<0.005	ND<0.005	7.6	ND
	ESL		83	83	2500	2500	0.044	2.9	3,3	2.3	750	

Abbreviations and Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil.

TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.

NA = Not Analyzed.

ND = Not Detected.

a = Laboratory Analytical Note: no recognizable pattern.

b = Laboratory Analytical Note: Stoddard solvent/ mineral spirits.

c = Laboratory Anlaytical Note: oil range compounds are significant

d = Laboratory Analytical Note: diesel range compounds are significant, no recognizable pattern.

ESL= Environmental Screening Level, by San Francisco Bay - Regional Water Quality Control Board

(SF-RWQCB), updated May 2008, from Table A- Shallow Soils,

Groundwater is a current or potential source of drinking water, Commercial/ Industrial Land Use.

Values in bold exceed ESLs

Results in milligram per kilogram (mg/Kg) unless otherwise indicated.

3 = Groundwater Samples collected 10/17/08 for Lead Analysis.

Values underlined exceed ESL²
Results in micrograms per Liter (µg/L) unless otherwise indicated.

Values in bold exceed ESL¹

			Al	ied Glass - 20574	Wisteria Stree	et, Castro V	alley, Califo	rnia			
Sample ID	Sample Date	TPH-G	TPH-D	ТРН-МО	трн-во	Benzene	Toluene	Ethylbenzene	Xylenes	Lead ³	Fuel Oxygenates Lead Scavenger
BIW	10/15/2008	510, a	86, d,e	730	820	ND<1.0	34	30	110	ND<0.5	ND, except, TBA = 10
взw	10/15/2008	690, b,c	600, f	ND<250	670	ND<0,5	0.55	ND<0.5	0.67	0.99	ND
B4W	10/17/2008	5,000	NA	NA	NA	ND⊲12	170	320	1,300	NA	ND, except; TBA = 160
BSW	10/15/2008	500, a	470, d,e	1,600	1,700	ND<2.5	26	47	220	ND<0.5	ND
ESL'		100	100	100	100	1.0	40 .	30	20	2.5	TBA = 12
esl²	www.w	None	None	None	None	1,800	530,000	170,000	160,000	None	None
IPH-G = Tot IPH-D = Tot IPH-MO = T IPH-MO = T IPH-BO = Tot IPH-BO = To	alyzed. y analytical note: I y analytical note: onmental Screenin), updated May 20	ocarbons as I drocarbons as drocarbons as drocarbons as heavier gasoli strongly aged no recognizab oil range com diesel range c gasoline range g Level, by St 08, from Tabi	Diesel. Motor oil. Bunker oil. Bunker oil. me range comp gasoline or die le pattern. pounds are sig ompounds are compounds are an Francisco B le A – Shallow	significant; no reco e significant. ay – Regional Wate Soils, groundwater	ds are significations are signizable patter er Quality Control or is a current or	n. trol Board	H-G chroma	logram.			

ВО	BORING NO.: B1 PROJECT NO.: 0463 PROJECT NAME: Allied Glass, Castro Valley										
во	RING	roc	ATION: Center of parking area				ELEVA	TION AND DA	тим: None		
DRI	ILLING	GAG	ENCY: Vironex, Inc.	DRILLEF	: Brian	DATE & TIME STARTED: DA			DATE & TIME FINISHED: 10/14/08		
DR	ILLIN	G EQ	UIPMENT: Geoprobe 6600				094	5	1000		
со	MPLE	TIO	N DEPTH: 14.0 Feet BEDROCK DEPTH: 14	Feet?		LOGGED BY: MLD			CHECKED BY:		
FIR	ST WA	TER	DEPTH: Not Encountered NO. OF SAMPLES: 1	Water, 1		il Į					
DEPTH (FT.)			DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	a COLA		REMARKS		
			0.0 to 6.0 ft. Brown sandy gravel (GW); dry, with gravel to 1.25-in. diameter. No Petroleum Hydrocarbon (PHC) or Solvent odor.	GW	No Well Constructed		0	using a 5-f Geoprobe sampler lir	ontinuously cored oot long 2-inch O.D. Macrocore barrel led with 5-foot long .D. transparent PVC		
	5		6.0 to 9.0 ft. Grayish brown silt (ML); stiff, dry, with trace sand and gravel to 0.25-in. diameter. Soil stained bluish gray at 9.0 ft. with slight PHC odor.	ML		And the second s	0		0% гесоvегу 100% гесоvегу		
	10		9.0 to 12.0 ft. Bluish green silty sand (SM); loose, moist, with orange mottling. Strong PHC odor.	SM <u>▼</u>	B1-10.0		85		80% recovery		
			12.0 to 14.0 ft. Brown clayey sandy silt (ML); stiff, moist, with orange mottling. No PHC or Solvent odor	ML			0	1	fusal at 14.0 ft. encountered during		
	15 20				. The state of the			on 10/14// diameter : placed in temporari pellets an allow gro Water lev depth at 1 water sam petroleum	terminated at 14.0 ft. 108. Temporary 1-in. 108. Temporary 109. Te		
	25				and the second s	- ti	To the property of the state of	depth at 1 Second w collected on 10/17/ sample. 1	el measured at 10.6 ft. 100 on 10/16/08. ater sample B1W for lead analysis at 0905 08. No odor or sheen on No water level nent recorded.		
	30					**************************************		using tren cement go the Alame	grouted on 10/17/08 nie pipe and neat out. Ron Smalley of da County Public gency onsite to observe		

ВО	RING I	NO.:	B2 PROJECT NO.: 0463 PROJEC	T N	AME: A	Allied Glass, Cas	stro Va	ılley		
во	RING	LOC	ATION: Southwest corner of parking area					ELEVAT	TION AND DA	тим: None
DR)	LLING	G AG	ency: Vironex, Inc.		DRILLER	: Brian	DATE & TIME STARTED: DATE & TIME FINIS 10/14/08 10/14/08			
ÐR	ILLIN	G EQ	ригмент: Geoprobe 6600					091	10/14/08 0930	
СО	MPLE	TIO	N DEPTH: 13.0 Feet BEDROCK DEPTH:	13	Feet?		LOGGED BY:			CHECKED BY:
FIR	ST WA	TER	DEPTH: Not Encountered NO. OF SAMPLES:	18	loil			ML	D	
DEPTH (FT.)			DESCRIPTION		GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID		REMARKS
	5		0.0 to 6.0 ft. Brown sandy gravel (GW); dry, with gravel to 1.5-in. diameter. No Petroleum Hydrocarbon (PHC) or Solvent odor.		GW	No Well Constructed	ALBERTATE AND ALBERTANCE AND ALBERTA	0	using a 5-f Geoprobe sampler lir 1.5-inch O sleeves.	ontinuously cored toot long 2-inch O.D. Macrocore barrel and with 5-foot long .D. transparent PVC
-			6.0 to 9.0 ft. Brown silt (ML); stiff, dry, with black mottling. No PHC or Solvent odor.	******	ML	·		0		100% recovery
	10	_	9.0 to 11.0 ft. Bluish green silty sand (SM); loose, moist, with gravel to 0.5-in. diameter, and orange mottling. Slight PHC odor.	x	SM	B2-10.0		40	Drilling re	fusal at 13.0 ft.
		_	11.0 to 13.0 ft. Brown clayey silt (ML); stiff, dry, with orange mottling. No PHC or Solvent odor. 13.0 ft. Hard, with increased sand content.		ML	-		0	Water not drilling.	encountered during
	15				fann begrund in de				on 10/14/0 diameter's placed in temporari pellets and allow growater ente	terminated at 13.0 ft. 08. Temporary 1-in. slotted PVC casing borehole, and borehole ly sealed with bentonite d plastic sheeting to undwater to enter. No cred borehole by 0945 08, and no water sample
	20				The state of the s			,	using tren cement go the Alame	grouted on 10/17/08 nie pipe and neat out. Ron Smalley of eda County Public gency onsite to observe
	25				The state of the s		***************************************			
	30									

вол	RING N	1.O	B3 PROJECT NO.: 0463 PROJECT	NAME:	Allied Glass, Ca	stro V	alley		
во	RING	roc	ATION: In driveway adjacent to sidewalk				ELEVA.	TION AND DA	тим: None
		······································	Vironex, Inc.	DRILLI	R: Brian	DATI	10/14 083		DATE & TIME FINISHED: 10/14/08 0900
DR	ILLING	G EQ	pulpment: Geoprobe 6600			 		***************************************	
			N DEPTH: 15.0 Feet BEDROCK DEPTH: 1			LOGGED BY: MLD			CHECKED BY:
FIR		TER	DEPTH: Not Encountered No. of Samples:	Water,		<u> </u>		T	
DEPTH (FT.)			DESCRIPTION	GRAPHIC	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	OT O		REMARKS
			0.0 to 0.5 ft. Concrete and gravel base. 0.5 to 3.0 ft. Black organic silt (OH); stiff, dry, with roots, and trace gravel to 0.25-in. diameter. No Petroleum Hydrocarbon (PHC) or Solvent odor. 3.0 to 7.0 ft. Grayish brown silt (ML); stiff, dry, with	ОН	No Well Constructed		0	using a 5-f Geoprobe sampler lir	continuously cored foot long 2-inch O.D. Macrocore barrel and with 5-foot long D. transparent PVC
	5	_	orange mottling. No PHC or Solvent odor.	ML			0	0 to 5 ft. 7	0% recovery
			7.0 to 10.0 ft. Grayish brown silty clay (CL); stiff, dry, with orange mottling. Soil stained bluish green at 9.0 ft., with strong	<u> </u>			0	5 to 10 ft.	90% recovery
	10		PHC odor.	CL.	B3-10.0	AMAII	126 861	10 to 15 ft	. 80% recovery
			10.0 to 13.0 ft. Bluish green silty sand (SM); loose, moist, with trace gravel to 0.25-in. diameter. Strong PHC odor.	SM			283		. SUN TOCOTOLY
_		_	13.0 to 14.0 ft. Grayish brown silt (ML); stiff, dry, with trace gravel to 0.25-in. diameter. No PHC or Solvent odor. 14.0 to 15.0 ft. Brown clayey sand (SC); medium dense, moist, with gravel to 0.75-in. diameter, and orange mottling. No PHC or Solvent odor.	ML SC	nuce .	MANAGEMENT TO THE STATE OF THE	0	Water not drilling.	encountered during
	15							Borehole on 10/14/4 diameter s placed in temporari pellets and allow ground	terminated at 15.0 ft. 28. Temporary 1-in. Slotted PVC casing borehole, and borehole ly sealed with bentonite d plastic sheeting to undwater to enter. It measured at 11.9 ft.
	20							depth at 1 water sam petroleum No odor o	100 on 10/15/08, and the B3W collected for hydrocarbon analyses or sheen on sample.
								depth at 1	el measured at 8.3 ft. 050 on 10/16/08.
	25				Market Control of the			on 10/17/ sample.	ater sample B3W for lead analysis at 0915 08. No odor or sheen on No water level nent recorded.
	30				To Advance of the Control of the Con			using tren cement gr the Alame	grouted on 10/17/08 nie pipe and neat rout. Ron Smalley of eda County Public gency onsite to observe

во	RING I	······	B4 PROJECT NO.: 0463 PROJECT N	AME: /	Allied Glass, Ca	stro V	alley		
во	RING	LOC	ATION: North of boring B1 near building	•••••	***************************************	***************************************	ELEVA'	TION AND DA	тим: None
			, <u> </u>	DRILLEI	R: Brian	DATE	& TIME 10/14/ 100		DATE & TIME FINISHED: 10/14/08 1040
			NDEPTH: 15.0 Feet BEDROCK DEPTH: No	t Enga	antorod		LOGGI		CHECKED BY:
			REPTH: Not Encountered No. of samples: 1		minereu M			1	
	T	T		י. טיש	ğ	TN			I
	DEPTH (FT.)		DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
			0.0 to 1.0 ft. Brown sandy gravel (GW); dry. No Petroleum Hydrocarbon (PHC) or Solvent odor.	GW	No Well Constructed		0		ontinuously cored oot long 2-inch O.D.
			1.0 to 4.0 ft. Black organic silt (OH); stiff, dry, with roots. No PHC or Solvent odor.	ОН			0	Geoprobe sampler lir	Macrocore barrel and with 5-foot long and D. transparent PVC
_	5		4.0 to 9.0 ft. Brown clayey silt (ML); stiff, dry, with — orange mottling. No PHC or Solvent odor.	ML	-		_		
				I	deliteration of the state of th		0		0% recovery 90% recovery
	10	_	9.0 to 13.0 ft. Grayish brown clayey silty sand (SM); dense, moist, with minor gravel to 1.25-in. diameter. Strong PHC or Solvent odor. Soil stained bluish green at 10.0 ft., with slight	SM	B4-10.0		45	10 to 15 ft	. 100% recovery
			PHC odor. 13.0 to 15.0 ft. Grayish brown clayey silt (ML); stiff,	Y	And the state of t			***************************************	
	15		dry, with minor gravel to 0.25-in. diameter, and orange mottling. No PHC or Solvent odor.	ML			0	drilling.	encountered during
				E con d'action d'acti	**************************************			on 10/14/diameter's placed in temporari pellets and allow growater enter	terminated at 15.0 ft. 28. Temporary 1-in. slotted PVC casing borehole, and borehole by sealed with bentonite f plastic sheeting to undwater to enter. No ered borehole by 1010
_	20			-	e de la constanta de la consta				el measured at ately 11.4 ft. depth at
	25				The second secon			0850 on 1 hydrocart or sheen o	nple B4W collected at 0/17/08 for petroleum on analyses. No odor on sample. No water surement recorded.
							**************************************	using tren cement go the Alame	grouted on 10/17/08 nie pipe and neat rout. Ron Smalley of eda County Public gency onsite to observe
	30	_	, some	_				grouting.	coner onone to observe

BO	RING	NO.:	B5 PROJECT NO.: 0463 PROJECT!	IAME:	Allied Glass, Ca	stro V	alley		
вс	RING	LOC	ATION: 25 feet east of boring B1	•			ELEVA'	TION AND DA	тим: None
DR	ILLIN	GAG	ency: Vironex, Inc.	DRILLE	R: Brian	DATI	2 & ТІМЕ 10/14	STARTED:	DATE & TIME FINISHED: 10/14/08
DR	ILLIN	G EQ	QUIPMENT: Geoprobe 6600				110		1125
cc	MPLE	TIO	N DEPTH: 15.0 Feet BEDROCK DEPTH: N	ot Enco	untered	LOGGED BY: MLD			СНЕСКЕЙ ВУ:
FII		TER	DEPTH: Not Encountered NO. OF SAMPLES: 1	Water, 1		ļ	IVIL	,D	
	DEPTH (FT.)		DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	GIA	The state of the s	REMARKS
			0.0 to 1.0 ft. Brown sandy gravel (GW); dry. No Petroleum Hydrocarbon (PHC) or Solvent odor.	GW	No Well Constructed		0		ontinuously cored oot long 2-inch O.D.
			1.0 to 4.0 ft. Black organic silt (OH); stiff, dry, with roots. No PHC or Solvent odor.	ОН	William Programme Control of the Con		0	sampler lir	Macrocore barrel ned with 5-foot long .D. transparent PVC
	5		4.0 to 6.0 ft. Grayish brown sandy silt (ML); stiff, dry,—with orange mottling. No PHC or Solvent odor.—6.0 to 11.0 ft. Gray silty clay (CL); stiff, moist, with—	ML			0	**************************************	
			orange mottling. No PHC or Solvent odor.	_					0% recovery 100% recovery
F			9.0 ft. Color change to dark brown.	CL			0,		100.01000.019
	10		<u> </u>		B5-10.0			10 to 15 ft	. 90% recovery
			11.0 to 15.0 ft. Grayish brown clayey sand (SC); medium dense, moist, with orange mottling. No PHC or Solvent odor. 13.0 to 14.0 ft. With gravel to 0.5-in. diameter.	sc	A December 1		0	Water not	encountéred during
	20							on 10/14/diameter s placed in temporari pellets and allow grow Water level depth at 1 water sam petroleum	terminated at 15.0 ft. 18. Temporary 1-in. 18. Itemporary 1-in. 18. Itemporary 1-in. 18. Itemporary 1-in. 18. Itemporary 1-in. 19. Itemporary 1-in.
	25				Automotive and the second seco			Second w collected 0910 on 1 sheen on	ater sample BSW for lead analysis at 0/17/08. No odor or sample. No water level tent recorded.
	30							using tren cement gr the Alame	grouted on 10/17/08 nie pipe and neat out. Ron Smalley of da County Public ency onsite to observe