

**COPY**

**FIELD INVESTIGATION  
SUMMARY REPORT**

**5054 Havens Place  
Dublin, California**

**SECOR PN: F0803-041-01**

**Submitted by  
SECOR International Incorporated  
for**

**Archstone Communities Trust  
7670 South Chester Street, Suite 100  
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**March 11, 1999**

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## 1.0 INTRODUCTION

This report presents a summary of the limited soil and groundwater investigation (LSGI) performed by SECOR International Incorporated on behalf of Archstone Communities (Archstone) at 5054 Havens Place, in Dublin, California (the Property). The location of the Property is shown on Figure 1. The purpose of this LSGI was to assess the nature and extent of petroleum hydrocarbon-impacted soil and groundwater associated with a former leaking underground storage tank (LUST) recently identified at the Property, and determine shallow groundwater flow direction in the vicinity of the former underground storage tank (UST).

### 1.1 SITE DESCRIPTION

The Property is located on the south side of Dublin Boulevard in Dublin, California, and is currently vacant land being developed as a multi-family residential building that is partially underlain by a parking garage. The dwelling will be positioned approximately 10 feet above the floor of the garage. The study area encompasses the southwest corner of the building pad (Figure 2). The subject property is bordered on the south by Dublin Boulevard, and on the north, east, and west by building pads under construction as multi-family residential complexes.

### 1.2 BACKGROUND

SECOR understands that Archstone recently purchased the Property from the County of Alameda. According to information supplied to SECOR by Archstone, the Property is located in an area formerly occupied by houses and support structures associated with Camp Shoemaker, a naval receiving station and naval hospital. Activities associated with the previous use of the Property reportedly ceased in the late 1950s. During the ongoing development of the property in early August 1998, Archstone encountered a previously unidentified UST, which was struck by excavating equipment and severely damaged. On August 4, 1998, a representative of the Alameda County Health Care Services Agency (the County) was called to the site to observe removal of the UST and excavation of impacted soil. Reportedly, approximately 30 gallons of suspected diesel fuel were pumped from the damaged UST prior to removal. Impacted soil was excavated to a depth of approximately 10 feet below ground surface (bgs). A soil sample was collected from the excavation at approximately 10 feet bgs and from the stockpile of excavated impacted soil. Laboratory data indicated the presence of total petroleum hydrocarbons as diesel (TPHd), toluene, and xylenes in the soil samples. Considering the previous use of the Property and observations made at the time the tank was discovered, it is believed that the UST has always been used for storage of diesel fuel. The UST was likely taken out of service in the late 1950s, prior to the time that methyl tert butyl ether (MTBE) was used as a lead substitute and oxygenate in gasoline.

On August 21, 1998, additional excavation was conducted at the Property to a depth of approximately 15 feet bgs. Groundwater appeared in the UST excavation at approximately 15 feet bgs and reportedly rose to approximately 14 feet bgs. A single soil sample was collected from approximately 14 feet bgs, and a water sample was collected from the UST excavation. A representative from the County was present and noted the apparent presence of free phase product floating on the surface of the water. Water from the excavation was then reportedly pumped out in an attempt to remove the free product.

Laboratory analysis of the soil sample revealed the following concentrations: 420 milligrams per kilogram (mg/Kg) of TPHd, 29 micrograms per kilogram ( $\mu\text{g}/\text{Kg}$ ) of toluene, 18  $\mu\text{g}/\text{Kg}$  of ethylbenzene, and 30  $\mu\text{g}/\text{Kg}$  of xylene. Laboratory analysis of the groundwater sample revealed a concentration of 11,000,000 micrograms

per liter ( $\mu\text{g/L}$ ) TPHd, 11  $\mu\text{g/L}$  benzene, 9.5  $\mu\text{g/L}$  toluene, 2.1  $\mu\text{g/L}$  ethylbenzene, and 71  $\mu\text{g/L}$  xylenes. The laboratory report indicated the presence of gasoline-range compounds and the presence of an immiscible sheen (free product).

As a result, Archstone requested that SECOR further assess soil and groundwater conditions at the Property. SECOR submitted a work plan, dated October 26, 1998, for this LSGI to the County on behalf of Archstone. The LSGI was conducted pursuant to the October 27, 1998 oral approval of the work plan by Mr. Scott Seery of the County, with the SECOR work plan, as amended based on discussions in the field with Mr. Seery. Specifically, the work plan was amended as follows: boring location B4 was eliminated in lieu of moving boring B5 closer to the excavation limit.

## **2.0 ENVIRONMENTAL SETTING**

### **2.1 SUBSURFACE GEOLOGICAL CHARACTERIZATION**

#### **2.1.1 Geology**

The subject property lies in a region of the San Ramon Valley located within in the Coast Ranges geomorphic province. The alluvial plain of the San Ramon Valley is characterized by generally fine-grained deposits of clay, silt, and sand, with occasional laterally discontinuous gravels. The San Ramon Valley is bounded on the west by the Las Trampas Ridge and the Diablo Range to the east.

#### **2.1.2 Hydrogeology**

Based on groundwater elevation measurements made during the LSGI, groundwater flow direction in the vicinity of the UST excavation trends to the south-southeast at a shallow gradient, as depicted on Figure 3. Groundwater was encountered at a depth of approximately 17 feet bgs during the LSGI.

## **3.0 LIMITED SUBSURFACE INVESTIGATION**

### **3.1 PRE-FIELD ACTIVITIES**

#### **3.1.1 Utility Clearance and Limited Geophysical Survey**

Prior to drilling activities, SECOR marked the soil boring locations and notified Underground Service Alert (USA) regarding the impending subsurface investigation activities, and secured the services of a private utility locating company. Local utility companies were notified of the scheduled subsurface investigation by USA to identify buried utilities in the vicinity of the investigation area. SECOR retained the services of a private underground utility locating company, California Utility Surveys (CU) to locate and identify potential underground utilities and to conduct a geophysical survey to identify USTs that may be present beneath the Property and/or the building site under development immediately west of the Property. CU utilized electromagnetic techniques to complete the limited geophysical survey. Based on the results of the limited geophysical survey, no subsurface anomalies with signatures consistent with that of a UST were detected beneath the Property or the adjacent site to the west.

### 3.1.2 Health and Safety Plan

Prior to drilling, SECOR prepared a site-specific Health and Safety Plan (HASP) to address potential environmental and physical hazards associated with the proposed sampling. The HASP was reviewed by SECOR sampling personnel and subcontractors prior to initiating field sampling activities. The HASP established personnel protection standards and mandatory safety practices and procedures for use during the field investigation.

## 3.2 FIELD ACTIVITIES

### 3.2.1 Soil Sampling

On October 28, 1998, SECOR representatives supervised the drilling of seven soil boreholes (borings B1, B2, B3, B5, B6, B7, and B8) outside the perimeter of the UST excavation at the Property. The borehole locations are shown on Figure 2.

At each location, a Geoprobe direct-push drilling rig, operated by Precision Sampling, Inc. (Precision), was used to advance the soil boreholes to depths ranging from 13 to 20 feet bgs. Groundwater was not encountered in any of the boreholes during this investigation. Specific depths for each soil borehole are as follows:

B1	Total Depth: 19 feet bgs
B2	Total Depth: 19 feet bgs
B3	Total Depth: 19 feet bgs
B5	Total Depth: 25 feet bgs
B6	Total Depth: 19 feet bgs
B7	Total Depth: 19 feet bgs
B8	Total Depth: 16 feet bgs

During drilling activities, a SECOR geologist classified the subsurface soils, collected soil samples, and logged each soil borehole. Soils encountered while drilling were classified using the Unified Soil Classification System (USCS). Soil samples were collected at 3-foot intervals using a Geoprobe equipped with a direct-push sampling system. Each borehole was continuously cored in 3-foot sampling intervals using a 2-inch outside diameter sampling tube lined with an acetate sleeve. After being advanced through the sampling interval, the sampler was withdrawn from the borehole and disassembled. Upon removal of the acetate sleeve from the sampler, samples for possible laboratory analysis were collected, and the sleeve ends sealed with Teflon sheets and plastic caps. Each soil sample was then labeled and stored in an insulated cooler containing ice pending submittal to Entech Analytical Labs, Inc. (Entech) for chemical analysis. Entech is a California State Department of Health Services (DOHS)-certified laboratory (CA ELAP #2224).

A portion of the soil from each sampling interval was placed in a plastic resealable bag. Organic vapors from the soil sample were allowed to volatilize into the headspace for several minutes. Headspace vapors were measured by inserting the probe of a photoionization detector (PID) into the bag. PID measurements are listed in the soil boring logs (Appendix A).

All sampling equipment was decontaminated between each sampling interval using a non-phosphate detergent wash to avoid potential sample cross-contamination. In addition, protective gloves were also changed between each sample location to minimize cross-contamination. Decontamination of the Geoprobe equipment was performed prior to and between each soil borehole. Each of the soil boreholes was backfilled with a Portland cement grout at the completion of the LSGI. Three 5-gallon buckets of soil cuttings and one partially filled-55-gallon drum of decontamination rinsate were generated during drilling activities. These materials were transported from the Property for appropriate disposal by Precision.

### 3.2.2 Groundwater Sampling and Elevation Measurements

Groundwater samples were collected from the open boreholes using a dedicated disposable 1.5-inch diameter polyvinyl chloride (PVC) bailer. The water was decanted from the bailer into labeled laboratory-supplied sampling containers, and the containers were placed in an ice-filled insulated cooler pending transport to the project laboratory (Entech).

Prior to collecting water samples from boreholes B5, B6, B7, and B8, temporary piezometers consisting of 1-inch diameter PVC screen and casing were placed into these boreholes. The temporary piezometers were surveyed for top-of-casing elevations by Center Line Land Surveying, California licensed surveyors. SECOR measured the depth to groundwater in each of the temporary piezometers using an electronic water-level indicator. Groundwater elevations, calculated to assess groundwater flow direction, indicated that groundwater flow in the vicinity of the UST excavation is toward the southeast at a shallow gradient. Groundwater elevation measurements are indicated on Figure 3.

The temporary piezometers were removed from the boreholes prior to abandonment of the soil boreholes by backfilling with a Portland cement grout.

## 4.0 SUBSURFACE TESTING RESULTS

A total of eight soil samples and seven groundwater samples were collected from the Geoprobe soil boreholes and analyzed for total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd) using Modified EPA Method 8015, and benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8020. Groundwater samples were also analyzed for dissolved lead and MTBE. The groundwater samples collected from boreholes B1 and B2 were not analyzed for TPHd due to limited groundwater recharge.

### 4.1 ANALYTICAL RESULTS

The laboratory analytical results for the soil and groundwater samples collected are summarized in the attached tables (Tables 1 and 2) and illustrated in Figure 2. The laboratory analytical reports are provided in Appendix B.

#### 4.1.1 Groundwater Sampling Results

Of the constituents analyzed in groundwater, TPHd, TPHg, benzene, ethylbenzene, and total xylenes were variously detected in the samples. TPHd was detected in two of the five samples: B3 and B8 at 58 and 14 milligrams per liter (mg/L), respectively. TPHg was detected in samples B1, B2, B3, and B8 at concentrations ranging from 3.3 to 7.7 mg/L; however, the laboratory report qualified the detected TPHg concentrations, stating that the chromatographic pattern was indicative of a heavier hydrocarbon such as diesel, rather than gasoline. Benzene, ethylbenzene, and total xylenes were detected in one or more groundwater sample: B2 and B8 (benzene), B8 (ethylbenzene), and B1 through B8 (total xylenes). Neither MTBE nor dissolved lead were detected at or above their respective laboratory method reporting limits.

The groundwater analytical results were compared to primary drinking water standard maximum contaminant levels (MCLs), although groundwater at the Property is not used as a drinking water source. Groundwater analytical results were also compared to American Society of Testing and Materials (ASTM) E 1739-95 *Standard Guide for Risk-Based Corrective Action (RBCA) Applied at Petroleum Release Sites Tier 1 draft Risk-Based Screening Level (RBSL) "look-up" table values*, modified to reflect California-EPA policy (i.e., using cancer risk levels of  $1 \times 10^{-6}$  for residential exposures, and multiplying by a toxicity adjustment factor of 0.29 for benzene, the only carcinogen detected at the Property). Because MCLs and RBSLs are typically applied to specific chemicals of concern (such as BTEX compounds), no MCL or RBSL exists for either TPHg or TPHd in groundwater. Benzene, ethylbenzene, and total xylene levels occurred below their corresponding MCLs (1  $\mu\text{g/L}$ , 680  $\mu\text{g/L}$ , and 1750  $\mu\text{g/L}$ , respectively). The detected concentrations were also below corresponding RBSLs for vapor intrusion from groundwater into residential buildings.

#### 4.1.2 Soil Sampling Results

Review of the soil analytical results indicates that low residual concentrations of TPHd were detected in five of the eight soil samples submitted for analysis. Concentrations of TPHd ranged from 56 mg/Kg (at a depth of 13 feet in boring B2) to 130 mg/Kg (at a depth of 16 feet in boring B5). TPHg was detected in five of the eight soil samples at concentrations ranging between 1.6 g/Kg (at 10 feet in boring B3) and 11 mg/Kg (at 13 feet in boring B8). However, the laboratory report qualified the detected TPHg concentrations, stating that the chromatographic pattern was indicative of a heavier hydrocarbon such as diesel, rather than gasoline. Benzene, toluene, and ethylbenzene were not detected in any of the soil samples analyzed. Total xylenes were detected in four of the eight soil samples analyzed at concentrations ranging between 0.0051 mg/Kg (at 13 feet in boring B2) and 0.035 mg/Kg (at 16 feet in boring B5).

When soil analytical results for total xylenes are compared with applicable RBSLs, the detected levels of total xylenes are below the corresponding RBSL for vapor intrusion from soil into residential buildings (any level of xylenes in soil is below the risk level). Because RBSLs are typically applied to specific chemicals of concern, no RBSL currently exists for either TPHg or TPHd in soil.

#### 4.1.3 Discussion

TPHd was detected in both soil and groundwater samples collected at the Property, consistent with the known former diesel UST. Based on the nature of the release (i.e., a subsurface release from the UST) and the absence of TPHd or other analytes in the soil sample collected from a depth of 7 feet



bgs (borehole B6, the shallow soil sample with the highest PID reading), it is evident that shallow soil (i.e., shallower than 7 to 13 feet bgs) of the Property is not impacted. Considering the depth to impacted soil and groundwater, and since groundwater at the Property is not used as a drinking water source, direct contact exposures (i.e., incidental soil ingestion and/or dermal contact) for future residential occupants are not possible. Because TPHd is generally considered to be composed of relatively non-volatile hydrocarbons (e.g., polynuclear aromatic hydrocarbons [PAHs]), potential inhalation exposures are also improbable. Based on these factors, and since detected levels of benzene, ethylbenzene, and xylenes are below corresponding RBSLs, potential exposures for future residential occupants of the Property, and associated health risks, from the presence of residual petroleum hydrocarbons are considered to be insignificant.

## 5.0 FINDINGS OF SUBSURFACE INVESTIGATION

SECOR conducted this LSGI to assess the nature and extent of petroleum hydrocarbon-impacted soil and groundwater associated with a former LUST identified on the Property. Additional objectives of this investigation were to identify groundwater flow direction in the area of investigation and to conduct a limited geophysical survey to search for additional USTs that may have been present in the vicinity west of the known underground tank location.

Four of the temporary piezometers were surveyed, the depth to groundwater measured, and groundwater elevations calculated to assess groundwater flow direction. Groundwater in the vicinity of the UST excavation was determined to flow toward the southeast.

The geophysical survey was conducted beneath the Property and the adjacent building pad site to the west and did not identify subsurface structures consistent of the size or shape of a UST. No USTs are known to be present in the area of the geophysical survey.

Based on the LSGI soil sample results, the UST removal remedial excavation work completed by Archstone appears to have removed the majority of the impacted soil, which was of the source of petroleum hydrocarbons to groundwater. Residual petroleum hydrocarbon-impacted soil appears to be limited laterally to within approximately 15 to 20 feet from the excavation perimeter. Review of the soil analytical results indicates that low residual concentrations of TPHd and total xylenes were detected.

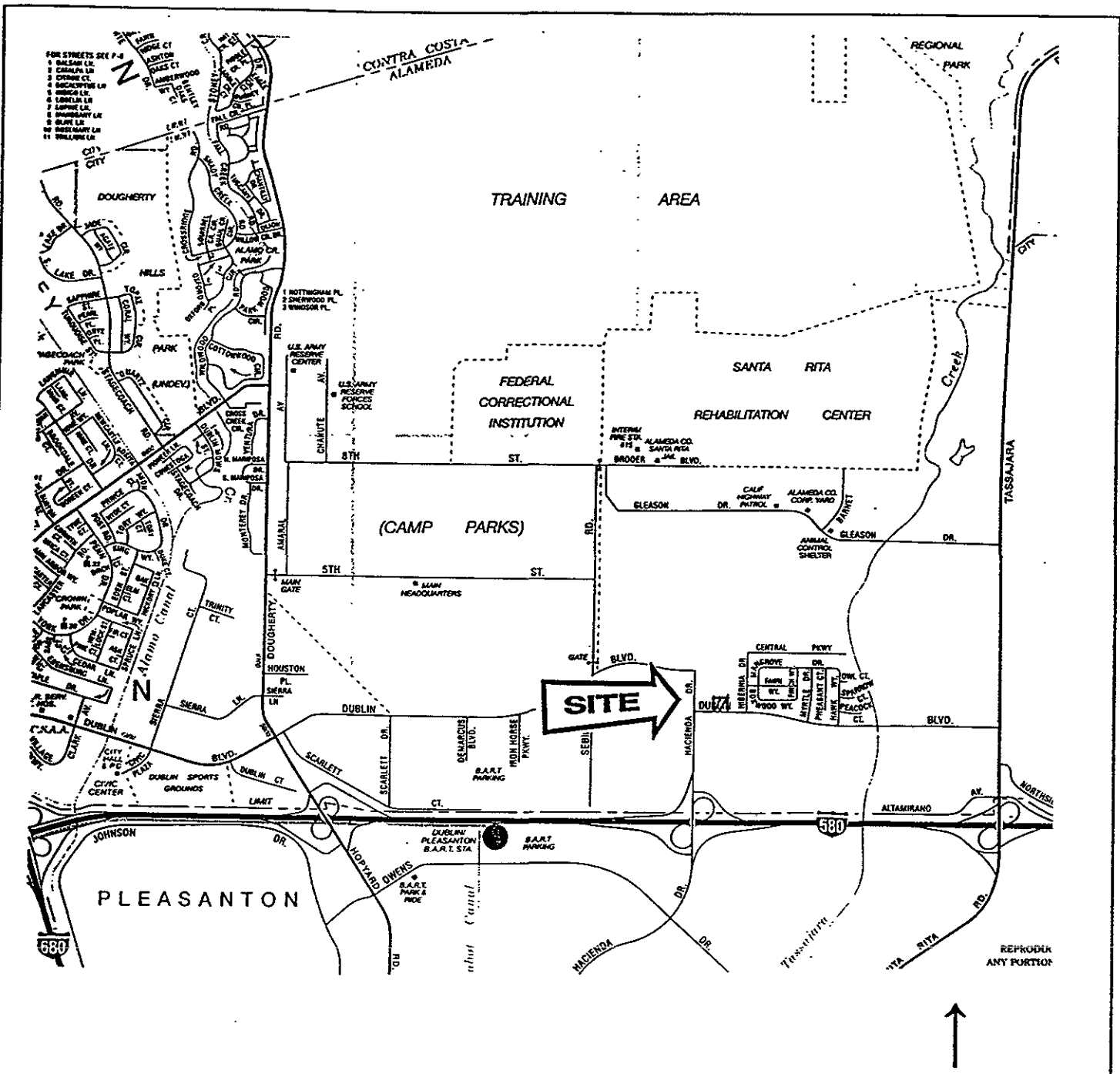
TPHd and very low concentrations of benzene, ethylbenzene, and total xylenes were variously detected in the groundwater samples. Neither MTBE nor dissolved lead was detected at or above respective laboratory method reporting limits. Detected concentrations of benzene, ethylbenzene, and total xylenes were below corresponding MCLs and RBSLs for vapor intrusion from groundwater into residential buildings. MCLs and RBSLs have not been established for TPHd. Although TPHg was reported in both soil and groundwater sample analysis, the laboratory stated that the chromatographic pattern was indicative of a heavier hydrocarbon such as diesel, rather than gasoline.

TPHd was detected in both soil and groundwater samples collected at the Property, consistent with the known former diesel UST. Based on the nature of the release (i.e., a subsurface release from the UST) and the absence of TPHd or other analytes in the soil sample collected from a depth of 7 feet bgs (borehole B6, the shallow soil sample with the highest PID reading), it is evident that shallow soil (i.e., shallower than 7 to 13 feet bgs) of the Property is not impacted. Considering the depth to impacted soil and groundwater, and since groundwater at the Property is not used as a drinking water source, direct contact exposures (i.e., incidental soil ingestion and/or dermal contact) for future residential occupants are not possible. Because

TPHd is generally considered to be composed of relatively non-volatile hydrocarbons (e.g., PAHs), potential inhalation exposures are also improbable. Based on these factors, and since detected levels of benzene, ethylbenzene, and xylenes are below corresponding RBSLs, potential exposures for future residential occupants of the Property, and associated health risks, from the presence of residual petroleum hydrocarbons are considered to be insignificant.

Given that the findings of this investigation have revealed that RBSLs in soil and MCLs and RBSLs in groundwater have not been exceeded and residual petroleum hydrocarbons are considered to be insignificant, SECOR recommends that this report be provided to the Alameda County Health Care Services Department with a request that the County consider closure of the case file.

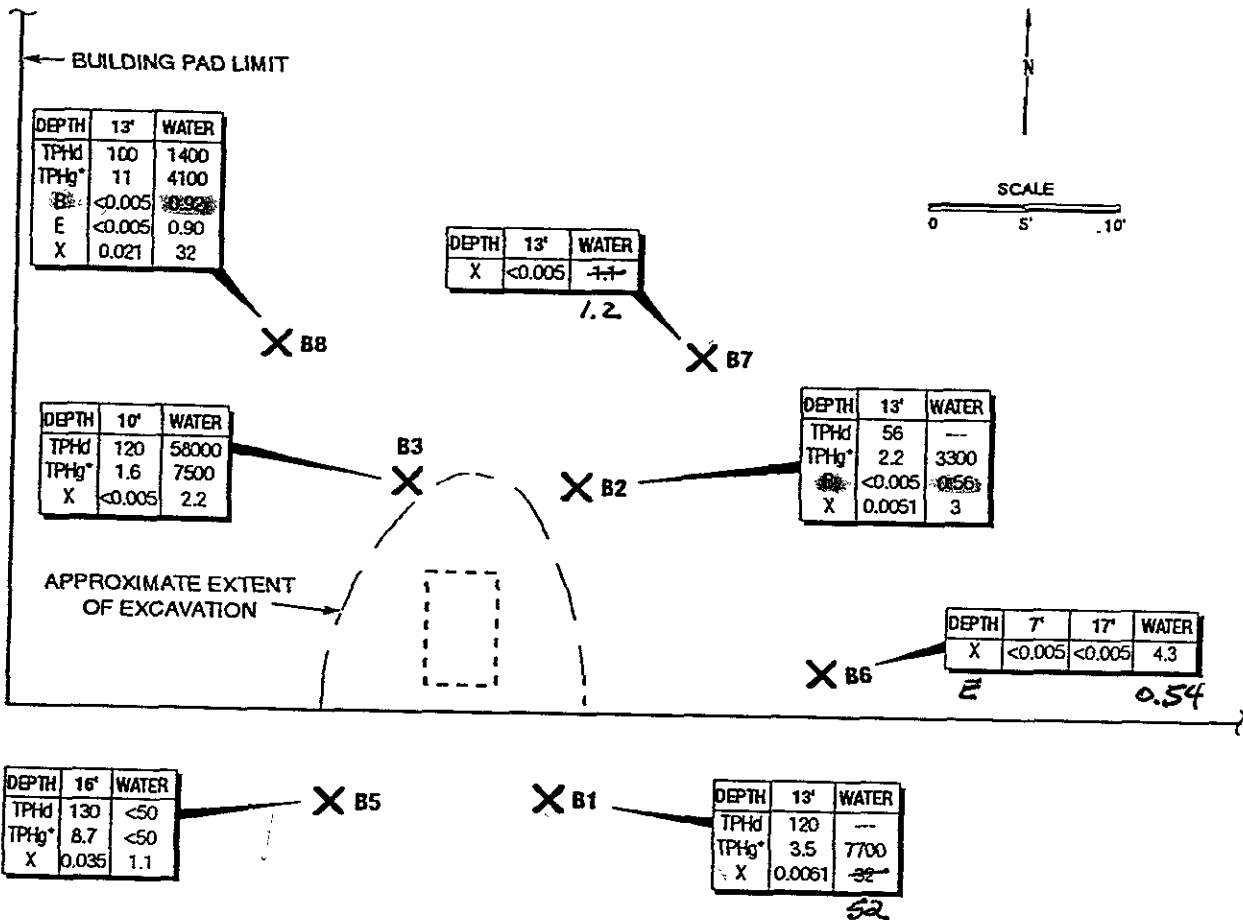
**FIGURES**



REFERENCE: CALIFORNIA STATE AUTOMOBILE ASSOCIATION MAP  
 SAN RAMON VALLEY  
 SEPTEMBER 1997.

SCALE 1" = 2,200 feet

DRAFTED BY CP	CHECKED BY. CP	Project No. F0803-041-01	Figure 1	<b>SECOR</b> 1225 Pear Avenue Suite 110 Mountain View, CA 94043
PREP. DATE: 10/04/98	REV. DATE. .....	ARCHSTONE-HAVENS PLACE On Dublin Boulevard Between Hacienda and Hibernia Dublin, CA	Site Location Map	
FILE NAME: ARCHSTONE				



**HYDROCARBON DATA**

DEPTH	13'	WATER
TPHd	100	120.5
TPHg*	---	NA
B	---	---
E	---	---
X	---	---

- TPHd = DIESEL RANGE HYDROCARBONS
- TPHg\* = GASOLINE RANGE HYDROCARBONS (SEE \* BELOW)
- B = BENZENE
- E = ETHYLBENZENE
- X = XYLENE
- NA = NOT ANALYZED
- --- = DATA NOT COLLECTED

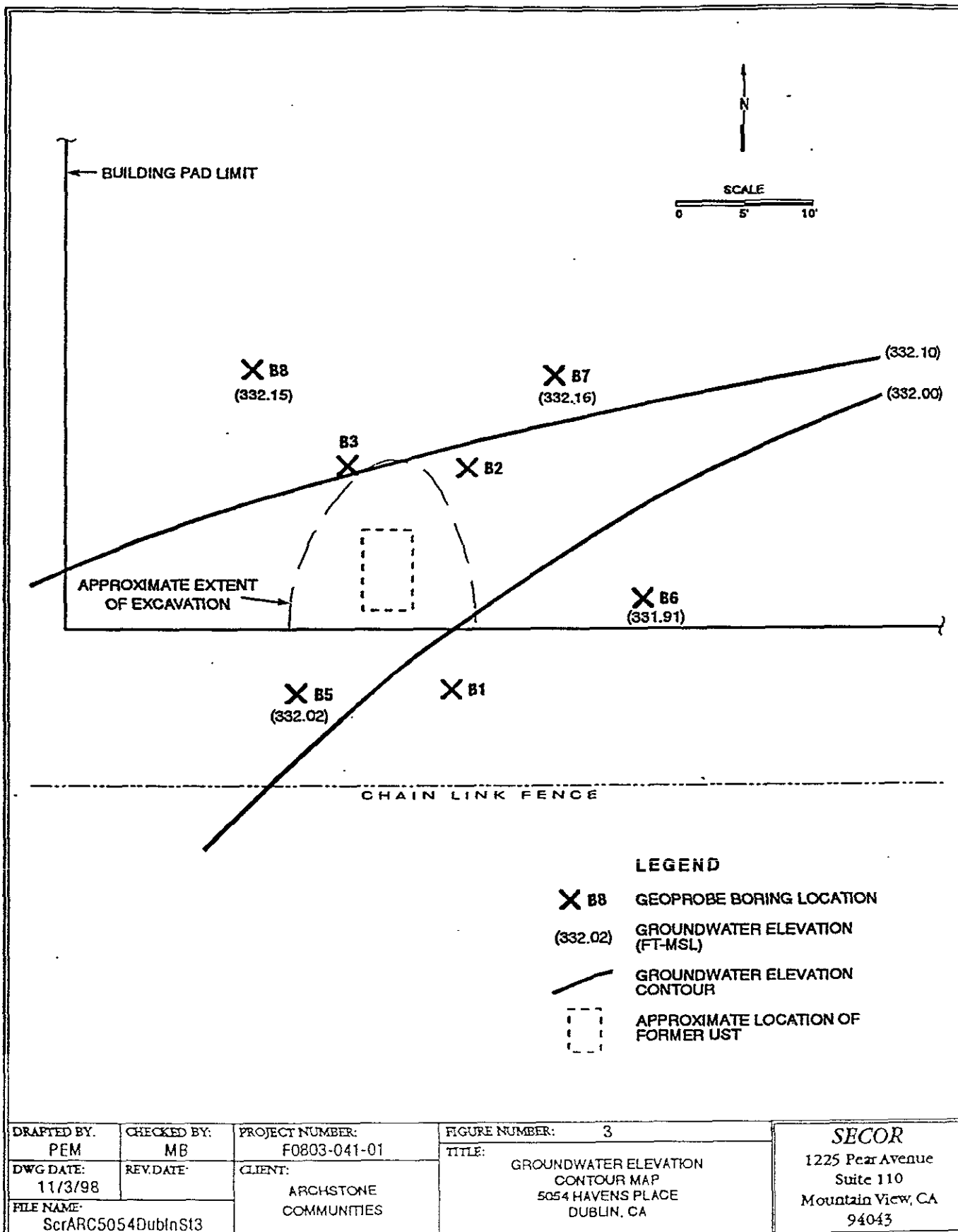
SOIL RESULTS IN mg/Kg, WATER RESULTS IN µg/L

**LEGEND**

- X B8** GEOPROBE BORING LOCATION
- APPROXIMATE LOCATION OF FORMER UST

\* Note: Gasoline results were within quantitative range, however, the chromatographic pattern was not typical of gasoline.

DRAFTED BY PEM	CHECKED BY MB	PROJECT NUMBER F0803-041-01	FIGURE NUMBER 2	<b>SECOR</b> 1225 Pear Avenue Suite 110 Mountain View, CA 94043
DWG DATE 11/3/98	REV. DATE 11/23/98	CLIENT ARCHSTONE COMMUNITIES	TITLE SITE PLAN WITH COMPOUNDS DETECTED IN SOIL AND GROUNDWATER SAMPLES 5054 HAVENS PLACE DUBLIN, CA	
FILE NAME ScrARC5054DublnSt2				



DRAFTED BY: PEM	CHECKED BY: MB	PROJECT NUMBER: F0803-041-01	FIGURE NUMBER: 3	<b>SECOR</b> 1225 Pear Avenue Suite 110 Mountain View, CA 94043
DWG DATE: 11/3/98	REV. DATE:	CLIENT: ARCHSTONE COMMUNITIES	TITLE: GROUNDWATER ELEVATION CONTOUR MAP 5054 HAVENS PLACE DUBLIN, CA	
FILE NAME: ScrARC5054DublnSt3				

**TABLES**

Table 1. Summary of Groundwater Sample Analytical Results  
5054 Havens Place, Dublin, California

Sample ID	Sample Date	TPH-d <sup>a</sup> ( $\mu\text{g/L}$ )	TPH-g <sup>b</sup> ( $\mu\text{g/L}$ )	MTBE <sup>c</sup> ( $\mu\text{g/L}$ )	Dissolved Lead <sup>d</sup> (mg/L)	BTEX <sup>e</sup> ( $\mu\text{g/L}$ )			
						Benzene	Toluene	Ethylbenzene	Xylenes
B-1	10-30-98	no sample	7,700 <sup>a</sup>	<100	<0.015	<10	<10	<10	52
B-2	10-30-98	no sample	3,300 <sup>a</sup>	<5.0	no sample	0.56	<0.50	<0.50	3
B-3	10-28-98	58,000	7,500 <sup>a</sup>	<5.0	<0.015	<0.50	<0.50	<0.50	2.2
B-5	10-28-98	<50	<50	<5.0	<0.015	<0.50	<0.50	<0.50	1.1
B-6	10-28 & 30-98	<50	<50	<5.0	<0.015	<0.50	<0.50	0.54	4.3
B-7	10-28-98	<50	<50	<5.0	<0.015	<0.50	<0.50	<0.50	1.2
B-8	10-28-98	1,400	4,100 <sup>a</sup>	<5.0	<0.015	0.92	<0.50	0.90	32

- a Total diesel-range petroleum hydrocarbons, by EPA Method 8015 Modified, reported as micrograms per liter ( $\mu\text{g/L}$ ).
- b Total gasoline-range petroleum hydrocarbons, by EPA Method 8015 Modified.
- c Methyl tertiary-butyl ether, by EPA Method 8020.
- d Dissolved lead (i.e., sample was filtered by the laboratory and the filtrate analyzed), by EPA Method 6010, reported as milligrams per liter (mg/L).
- e BTEX (benzene, toluene, ethylbenzene and xylenes), by EPA Method 8020.
- x Results within quantitation range; chromatographic pattern not typical of gasoline.



Table 2. Summary of Soil Sample Analytical Results  
5054 Havens Place, Dublin, California

Sample ID	Sample Date	Sample Depth (feet)	TPH-d <sup>a</sup> (mg/Kg)	TPH-g <sup>b</sup> (mg/Kg)	BTEX <sup>c</sup> (mg/Kg)			
					Benzene	Toluene	Ethylbenzene	Xylenes
B1-16	10-28-98	16	120	3.5 <sup>x</sup>	<0.005	<0.005	<0.005	0.0061
B2-13	10-28-98	13	56	2.2 <sup>x</sup>	<0.005	<0.005	<0.005	0.0051
B3-10	10-28-98	10	120	1.6 <sup>x</sup>	<0.005	<0.005	<0.005	<0.005
B5-16	10-28-98	16	130	8.7 <sup>x</sup>	<0.005	<0.005	<0.005	0.035
B6-7	10-28-98	7	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005
B6-17	10-28-98	16	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005
B7-13	10-28-98	13	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005
B8-13	10-28-98	13	100	11 <sup>x</sup>	<0.005	<0.005	<0.005	0.021

- a Total diesel-range petroleum hydrocarbons, by EPA Method 8015 Modified, reported as milligrams per kilogram (mg/kg).
- b Total gasoline range petroleum hydrocarbons, by EPA Method 8015 Modified.
- c BTEX (benzene, toluene, ethylbenzene and xylenes), by EPA Method 8020.
- x Results within quantitation range; chromatographic pattern not typical of gasoline.

**APPENDIX A**  
**SOIL BORING LOGS**

Field Investigation Summary Report  
Financial Gateway Property  
5054 Havens Place  
Dublin, California  
SECOR PN: F0803-041-01  
March 11, 1999

Project: ARCHSTONE		Log of Boring/Monitoring Well:	
Boring Location: DUBLIN, CALIFORNIA		Project No.: F0803-041-01	
Subcontractor and Equipment: PRECISION GEOPROBE		Logged By: S.R.S. Drawn By: C.R.	
Sampling Method: CONTINUOUS		Monitoring Device: PID	
Start Date/Time: 10/28/98//1105		Finish Date/Time: 10/30/98	
First Water (bgs): NA		Stabilized Water Level (bgs): 10/30/98	

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Comments:

Sample Number	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: NA	Casing Top Elevation: NA	Boring Abandonment/ Well Construction Details
						LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)		
		0						
		1						
		2						
		3						
	16.3	4						Backfilled with Grout
		5						
B1-7	16.9	7				DARK GRAYISH BROWN (10YR 4/2) SANDY CLAY (CL) stiff, dry (0,35,20,45)		
		8						
		9						
B1-10	13.9	10				DARK GRAYISH BROWN (10YR 4/2) SAND AND CLAY MIX (CL/SW) stiff, dry (0,45,10,45)		
		11						
		12						
B1-13	33.2	13				PALE BROWN (10YR 6/3) SILTY SAND (SM) medium dense, dry (0,60,30,10)		
		14						
		15				odor of diesel		
B1-16	64.0	16				odor		
		17				becomes wet		
		18						
	22.2	19				no odor		
		20						

199807 29:1949 X:\LOGS\ARCHSTONE\B1

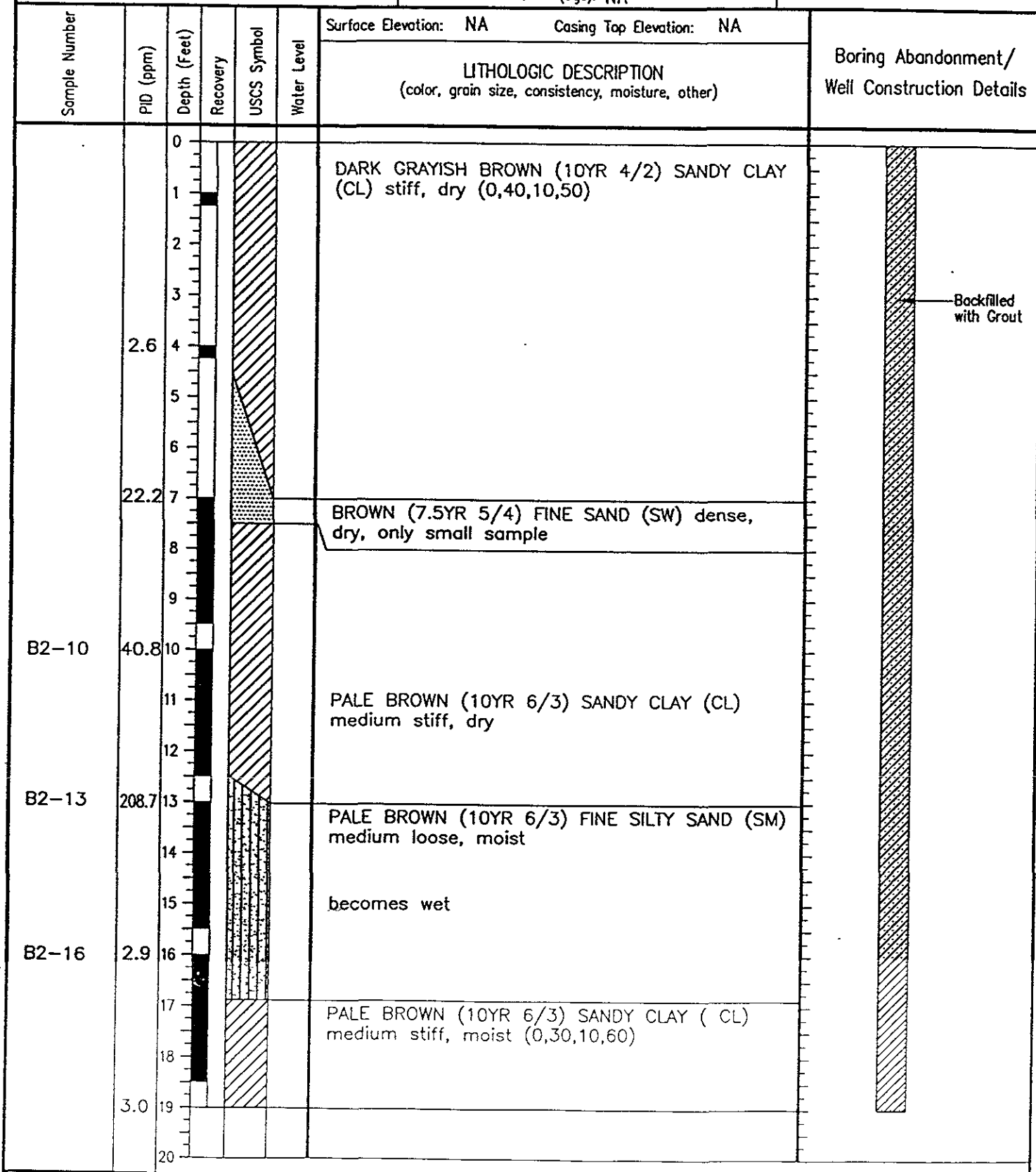
SECOR

Reviewed By SETH STILES, R.G. Date 12/7/98  
 Revised By \_\_\_\_\_ Date \_\_\_\_\_

Project: ARCHSTONE		Log of Boring/Monitoring Well:	
Boring Location: DUBLIN, CALIFORNIA		Project No.: F0803-041-01	
Subcontractor and Equipment: PRECISION GEOPROBE		Logged By: S.R.S. Drawn By: C.R.	
Sampling Method: CONTINUOUS		Monitoring Device: PID	
Start Date/Time: 10/28/98//1322		Finish Date/Time: 10/30/98	
First Water (bgs): NA		Stabilized Water Level (bgs): NA	

B2

Comments:



199807.291949 X:\LOGS\ARCHSTONE\B2

Project: ARCHSTONE		Log of Boring/Monitoring Well:	
Boring Location: DUBLIN, CALIFORNIA		Project No.: F0803-041-01	
Subcontractor and Equipment: PRECISION GEOPROBE		Logged By: S.R.S. Drawn By: C.R.	
Sampling Method: CONTINUOUS		Monitoring Device: PID	
Start Date/Time: 10/28/98//1358		Finish Date/Time: 10/30/98	
First Water (bgs): NA		Stabilized Water Level (bgs): NA	

B3

Comments:

Sample Number	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: NA      Casing Top Elevation: NA	Boring Abandonment/ Well Construction Details
						LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)	
		0					
		1				DARK GRAYISH BROWN (10YR 4/2) SANDY CLAY (CL) stiff, dry (5,40,10,45)	
		2					
		3					
	2.2	4				BROWN (7.5YR 5/4) FINE SAND (SW) dense, dry,	Backfilled with Grout
		5				BROWN (7.5YR 5/4) FINE SAND (SW) dense, dry, (5,65,15,15)	
		6					
	2.7	7					
		8				LIGHT OLIVE BROWN (2.5Y 5/3) SANDY CLAY (CL) stiff, dry	
		9					
B3-10	49.1	10					
		11					
		12					
B3-13	15.0	13					
		14				BLUISH GREEN (no corresponding munsel color chip) FINE SILTY SAND (SM) medium dense, moist	
		15					
B3-16	2.6	16				Becomes Brown (2.5Y 5/3)	
		17					
		18					
	2.6	19					
		20					

199807 291949 X:\LOGS\ARCHSTONE\B3

SECOR

Reviewed By: SETH STILES, R.G. Date: 12/7/98  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

Project: ARCHSTONE		Log of Boring/Monitoring Well:	
Boring Location: DUBLIN, CALIFORNIA		Project No.: F0803-041-01	
Subcontractor and Equipment: PRECISION GEOPROBE		Logged By: S.R.S.	Drawn By: C.R.
Sampling Method: CONTINUOUS		Monitoring Device: PID	
Start Date/Time: 10/28/98//1155		Finish Date/Time: 10/30/98	
First Water (bgs): NA		Stabilized Water Level (bgs): NA	

B5

Comments:

Sample Number	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: NA	Casing Top Elevation: NA	Boring Abandonment/ Well Construction Details
						LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)		
		0						
		1						
		2						
		3						
	183	4						
		5						
B5-7	17.5	7						
		8						
		9						
B5-10	21.4	10						
		11						
		12						
B5-13	215.4	13						
		14						
		15						
B5-16	228	16						
		17						
		18						
	9.4	19						
		20						

DARK GRAYISH BROWN (10YR 4/2) SANDY CLAY (CL) stiff, dry (0,35,20,45)

DARK GRAYISH BROWN (10YR 4/2) BECOMES SAND AND CLAY MIX (CL/SW), sand is well graded, multi colored (oxides) medium dense, stiff (0,45,10,45)

PALE BROWN (10YR 6/3) SILTY SAND (SM) medium dense, moist

odor  
Becomes wet, soft  
no odor

Backfilled with Grout

199807 291949 x \LOGS\ARCHSTONE\B5

Project: ARCHSTONE		Log of Boring/Monitoring Well:	
Boring Location: DUBLIN, CALIFORNIA		Project No.: F0803-041-01	
Subcontractor and Equipment: PRECISION GEOPROBE		Logged By: S.R.S.   Drawn By: C.R.	
Sampling Method: CONTINUOUS		Monitoring Device: PID	
Start Date/Time: 10/28/98//1024		Finish Date/Time: 10/30/98	
First Water (bgs): NA		Stabilized Water Level (bgs): NA	
Comments:			

**B6**

Sample Number	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: NA	Casing Top Elevation: NA	Boring Abandonment/ Well Construction Details
						LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)		
B6-7	23	0						Backfilled with Grout
		1				BROWN/DARK BROWN (10YR 4/3) SANDY CLAY (CL) (0,25,20,55)		
		2						
		3						
B6-10	22.9	4				BROWN/DARK BROWN (10YR 4/3) SANDY CLAY (CL) (0,25,20,55)		
		5						
		6						
		7				PALE BROWN (10YR 6/3) SILTY SAND (SM) medium dense, dry		
B6-17	13.3	8						
		9						
		10				BROWN/RED, HIGHLY COMPACTED WELL GRADED MULTI COLORED FILL (SW) poor recovery		
		11						
	7.8	12						
		13						
		14						
		15						
	11.7	16						
		17				BROWN/DARK BROWN (10YR 4/3) SANDY CLAY (CL) (0,25,20,55) moist		
		18						
		19						
		20						

199807 291949 X:\LOGS\ARCHSTONE\B6

Project: ARCHSTONE		Log of Boring/Monitoring Well:	
Boring Location: DUBLIN, CALIFORNIA		Project No.: F0803-041-01	
Subcontractor and Equipment: PRECISION GEOPROBE		Logged By: S.R.S. Drawn By: C.R.	
Sampling Method: CONTINUOUS		Monitoring Device: PID	
Start Date/Time: 10/28/98//0930		Finish Date/Time: 10/30/98	
First Water (bgs): NA		Stabilized Water Level (bgs): NA	

B7

Comments:

Sample Number	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: NA	Casing Top Elevation: NA	Boring Abandonment/ Well Construction Details
						LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)		
		0						
		1						
		2						
		3						
	23.8	4						
B7-7	24.2	7				BROWN/DARK BROWN (10YR 4/3) SANDY CLAY (CL) (0,25,20,55)		Backfilled with Grout
		8						
B7-10	25.2	10						
		11				PALE BROWN (10YR 6/3) SILTY SAND (SM) medium dense, dry (0,50,30,20)		
		12						
	27.8	13						
		14				becomes moist, not wet		
B7-16	26.5	16				BROWN/DARK BROWN (10YR 4/3) SANDY CLAY (CL) (0,25,20,55)		
		17						
		18						
B7-19	22.0	19				PALE BROWN (10YR 6/3) SILTY SAND (SM) medium dense, dry (0,50,30,20)		
		20						

199807 291949 X \LOGS\ARCHSTONE\B7



Project: ARCHSTONE		Log of Boring/Monitoring Well:	
Boring Location: DUBLIN, CALIFORNIA		Project No.: F0803-041-01	
Subcontractor and Equipment: PRECISION GEOPROBE		Logged By: S.R.S. Drawn By: C.R.	
Sampling Method: CONTINUOUS		Monitoring Device: PID	
Start Date/Time: 10/28/98//0845		Finish Date/Time: 10/30/98	
First Water (bgs): NA		Stabilized Water Level (bgs): NA	

B8

Comments:

Sample Number	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: NA	Casing Top Elevation: NA	Boring Abandonment/ Well Construction Details
						LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)		
		0						
		1						
		2						
		3						
	8.8	4						Backfilled with Grout
		5						
B8-7	12.7	6						
		7						
		8						
		9						
B8-10	112	10						
		11						
		12						
B8-13	170	13						
		14						
		15						
		16						
		17						
		18						
		19						
		20						

199807 291949 X:\LOGS\ARCHSTONE\B8

**APPENDIX B**  
**LABORATORY ANALYTICAL REPORTS**

Field Investigation Summary Report

Financial Gateway Property

5054 Havens Place

Dublin, California

SECOR PN: F0803-041-01

March 11, 1999

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

November 2, 1998

Seth Stiles/Mark Becker  
SECOR  
1225 Pear Avenue, Suite 110  
Mountain View, CA 94043

Subject: 3 Water Samples  
Lab #'s: E19490-E19492  
Project Name:  
Project Number: FD803-041-01  
Method(s): EPA 200.7, EPA 8015M, EPA 8020

Dear Seth Stiles/Mark Becker,

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

Entech Analytical Labs, Inc. is certified by the State of California (#2224). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,



Michelle L. Anderson  
Lab Director

## NARRATIVE

Lab #'s: E19490 - E19492  
Method(s): EPA 200.7, EPA 8015M, EPA 8020

### SUMMARY:

Three (3) water samples were received from SECOR on October 30, 1998. Sample cooler was intact at time of sample receipt.

### FINDINGS:

For lab number E19491, TPH-Gas chromatogram, although within the reporting limits, does not match the typical Gas pattern. The chromatogram indicates the presence of a fuel which is heavier than gas. For lab number E19492, TPH-Gas chromatogram, although within the reporting limits, does not match the typical Gas pattern. The chromatogram indicates the presence of a fuel which is heavier than gas.

All Quality Control parameters are within established limits.

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

WATER

SECOR International  
1225 Pear Avenue, Suite 110  
Mountain View, CA 94043  
Attn: Seth Stiles/Mark Becker

Date: 11/2/98  
Date Received: 10/30/98  
Project: FD803-041-01  
PO #:  
Sampled By: Client

## Certified Analytical Report

### Water Sample Analysis:

Sample ID	B6			B2			B1				
Sample Date	10/30/98			10/30/98			10/30/98				
Sample Time	12:20			12:30			12:30				
Lab #	E19490			E19491			E19492				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in mg/Liter:											
Analysis Date							11/2/98				
Dissolved Lead	na			na			ND <sup>1</sup>	1.0	0.015	0.015	200.7
Results in µg/Liter:											
Analysis Date	10/30/98										
TPH-Diesel	ND	1.0	50	na			na			50	8015M
Analysis Date				10/30/98			10/30/98				
TPH-Gas	na			3,300 <sup>x</sup>	1.0	50	7,700 <sup>x</sup>	20	1000	50	8015M
MTBE	na			ND	1.0	5.0	ND	20	100	5.0	8020
Benzene	na			0.56	1.0	0.50	ND	20	10	0.50	8020
Toluene	na			ND	1.0	0.50	ND	20	10	0.50	8020
Ethyl Benzene	na			ND	1.0	0.50	ND	20	10	0.50	8020
Xylenes	na			3.0	1.0	0.50	52	20	10	0.50	8020

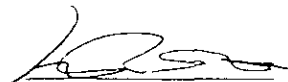
DF=Dilution Factor

ND=None Detected above DLR

PQL=Practical Quantitation Limit

DLR=Detection Reporting Limit

1. Sample was filtered prior to analysis
2. na: not analyzed
3. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)



Michelle L. Anderson, Lab Director

## STANDARD LAB QUALIFIERS

July, 1998

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier	Description
U	Compound was analyzed for but not detected
J	Estimated valued for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E  
Sunnyvale, CA 94086

**QUALITY CONTROL RESULTS SUMMARY**

METHOD: Gas Chromatography  
Laboratory Control Spikes

QC Batch #: DW981007  
Matrix: Water  
Units: µg/L

Date analyzed: 10/27/98  
Date extracted: 10/27/98  
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB	SA	SR	SP	SP	SPD	SPD	RPD	QC LIMITS	
		µg/L	µg/L	µg/L	µg/L	%R	µg/L	%R		RPD	%R
Diesel	8015M	<50.0	950	ND	996	105	954	100	4	25	62-131

**Definition of Terms:**

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

**QUALITY CONTROL RESULTS SUMMARY**

METHOD: ICP

QC Batch #: WM981026

Date Analyzed: 11/02/98

Matrix: Water

Units: mg/L

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB mg/L	SA mg/L	SR mg/L	SP mg/L	SP %R	SPD mg/L	SPD % R	RPD	QC LIMITS	
										%R	RPD
Antimony	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Arsenic	200.7	<0.005	0.50	ND	0.53	106	0.49	98	7.5	75- 125	25.0
Barium	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Beryllium	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Cadmium	200.7	<0.005	0.50	ND	0.46	92	0.47	94	1.7	75- 125	25.0
Chromium	200.7	<0.005	0.50	ND	0.45	91	0.45	91	0.0	75- 125	25.0
Cobalt	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Copper	200.7	<0.005	0.50	ND	0.47	94	0.47	95	1.3	75- 125	25.0
Lead	200.7	<0.005	0.50	ND	0.48	95	0.50	99	3.7	75- 125	25.0
Molybdenum	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Nickel	200.7	<0.005	0.50	ND	0.50	99	0.49	97	2.0	75- 125	25.0
Selenium	200.7	<0.005	0.50	ND	0.48	97	0.50	100	3.9	75- 125	25.0
Silver	200.7	<0.005	0.50	ND	0.47	95	0.47	95	0.0	75- 125	25.0
Thallium	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Vanadium	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Zinc	200.7	<0.005	0.50	ND	0.49	98	0.48	96	2.1	75- 125	25.0

Note: LCS and LCSD results reported for the following Parameters:  
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- MB: Method Blank
- na: Not analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD Spike Duplicate Result
- SPD (%R) Spike % Recovery



Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E  
Sunnyvale, CA 94086

### QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2981030

Matrix: Water

Units: ug/L

Date Analyzed: 10/30/98

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB ug/L	SA ug/L	SR ug/L	SP ug/L	SP % R	SPD	SPD %R	RPD	QC LIMITS	
										RPD	%R
Benzene	8020	<0.50	40	ND	39	96	38	96	0.6	25	78-112
Toluene	8020	<0.50	40	ND	39	98	39	98	0.1	25	80-111
Ethyl Benzene	8020	<0.50	40	ND	39	98	42	106	7.2	25	79-114
Xylenes	8020	<0.50	120	ND	122	101	122	101	0.0	25	79-116
Gasoline	8015	<50.0	500	ND	496	99	502	100	1.2	25	66-124

Note: LCS and LCSD results reported for the following Parameters:

All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

#### Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

# SECOR Chain-of Custody Record

Field Office: Attn: South Stiles / Mark Becker  
 Address: 1225 Pear Ave #110  
Mountain View CA, 94043  
ph (650) 691-0131, fax (650) 691-9937

Additional documents are attached, and are a part of this Record.

Job Name: \_\_\_\_\_

Location: \_\_\_\_\_

Project # FD803-041-01 Task # 00  
 Project Manager Howe Gates  
 Laboratory Entech  
 Turnaround Time 24 hours

Analysis Request

Sampler's Name Stiles  
 Sampler's Signature [Signature]

Sample ID	Date	Time	Matrix	HCID	TPH9/BTEX/WTPH-G 8015 (modified)/8020	TPH4/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Comments/ Instructions	Number of Containers
B6 E19490	10/30/98	12:20	L			X											1
B2 E19491	↓	12:30	↓		X												3
B1 E19492	↓	12:30	↓		X											Int. filter Pb	1.5 #

**RUSH**

Special Instructions/Comments:  
 \* 24-hour or whatever is appropriate due to sample drop off date & time.  
 # Only one VDA, ~ 125 ml for Pb.

Relinquished by: \_\_\_\_\_  
 Sign [Signature]  
 Print Stiles  
 Company SECOR  
 Time 15:10 Date 10/30/98

Received by: \_\_\_\_\_  
 Sign [Signature]  
 Print V. TRAZO  
 Company ENTECH  
 Time 15:10 Date 10/30/98

Sample Receipt  
 Total no. of containers: \_\_\_\_\_  
 Chain of custody seals: \_\_\_\_\_  
 Rec'd. in good condition/cold: \_\_\_\_\_  
 Conforms to record: \_\_\_\_\_  
 Client: \_\_\_\_\_  
 Client Contact: \_\_\_\_\_  
 Client Phone: \_\_\_\_\_

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

October 30, 1998

Seth Stiles/Mark Becker  
SECOR  
1225 Pear Avenue, Suite 110  
Mountain View, CA 94043


Subject: 5 Water Samples  
Lab #'s: E19403-E19407  
Project Name:  
Project Number: F0804-041-01  
Method(s): EPA 200.7, EPA 8015M, EPA 8020

Dear Seth Stiles/Mark Becker,

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

Entech Analytical Labs, Inc. is certified by the State of California (#2224). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,



Michelle L. Anderson  
Lab Director

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

## NARRATIVE

Lab #'s: E19403-E19407  
Method(s): EPA 200.7, EPA 8015M, EPA 8020

### SUMMARY:

Five (5) water samples were received from SECOR on October 29, 1998. Sample cooler was intact at time of sample receipt.

### FINDINGS:

For lab number E19403, TPH-Gas chromatogram, although within the reporting limits, does not match the typical Gas pattern. The chromatogram indicates the presence of a fuel which is heavier than gas. For lab number E19406, TPH-Gas chromatogram, although within the reporting limits, does not match the typical Gas pattern. The chromatogram indicates the presence of a fuel which is heavier than gas.

All Quality Control parameters are within established limits.

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

# WATER

SECOR International  
1225 Pear Avenue, Suite 110  
Mountain View, CA 94043  
Attn: Seth Stiles/Mark Becker

Date: 10/30/98  
Date Received: 10/29/98  
Project: F0804-041-01  
PO #:  
Sampled By: Client

## Certified Analytical Report

### Water Sample Analysis:

Sample ID	B3			B5			B7				
Sample Date	10/28/98			10/28/98			10/28/98				
Sample Time											
Lab #	E19403			E19404			E19405				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in mg/Liter:											
Analysis Date	10/30/98			10/30/98			10/30/98				
Dissolved Lead	ND <sup>1</sup>	1.0	0.015	ND <sup>1</sup>	1.0	0.015	ND <sup>1</sup>	1.0	0.015	0.015	200.7
Results in µg/Liter:											
Analysis Date	10/29/98			10/29/98			10/29/98				
TPH-Diesel	58,000	20	1000	ND	1.0	50	ND	1.0	50	50	8015M
Analysis Date	10/29/98			10/29/98			10/29/98				
TPH-Gas	7,500 <sup>2</sup>	1.0	50	ND	1.0	50	ND	1.0	50	50	8015M
MTBE	ND	1.0	5.0	ND	1.0	5.0	ND	1.0	5.0	5.0	8020
Benzene	ND	1.0	0.50	ND	1.0	0.50	ND	1.0	0.50	0.50	8020
Toluene	ND	1.0	0.50	ND	1.0	0.50	ND	1.0	0.50	0.50	8020
Ethyl Benzene	ND	1.0	0.50	ND	1.0	0.50	ND	1.0	0.50	0.50	8020
Xylenes	2.2	1.0	0.50	1.1	1.0	0.50	1.2	1.0	0.50	0.50	8020

DF=Dilution Factor ND=None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. Sample was filtered prior to analysis
2. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)



Michelle L. Anderson, Lab Director

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

SECOR International  
 1225 Pear Avenue, Suite 110  
 Mountain View, CA 94043  
 Attn: Seth Stiles/Mark Becker

Date: 10/30/98  
 Date Received: 10/29/98  
 Project: F0804-041-01  
 PO #:  
 Sampled By: Client

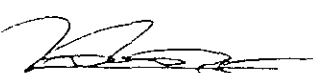
## Certified Analytical Report

### Water Sample Analysis:

Sample ID	B8			B6						
Sample Date	10/28/98			10/28/98						
Sample Time										
Lab #	E19406			E19407						
	Result	DF	DLR	Result	DF	DLR			PQL	Method
Results in mg/Liter:										
Analysis Date	10/30/98			10/30/98						
Dissolved Lead	ND <sup>1</sup>	1.0	0.015	ND <sup>1</sup>	1.0	0.015			0.015	6010
Results in µg/Liter:										
Analysis Date	10/29/98			10/29/98						
TPH-Diesel	1,400	1.0	50	na					50	8015M
Analysis Date	10/29/98			10/29/98						
TPH-Gas	4,100 <sup>x</sup>	1.0	50	ND	1.0	50			50	8015M
MTBE	ND	1.0	5.0	ND	1.0	5.0			5.0	8020
Benzene	0.92	1.0	0.50	ND	1.0	0.50			0.50	8020
Toluene	ND	1.0	0.50	ND	1.0	0.50			0.50	8020
Ethyl Benzene	0.90	1.0	0.50	0.54	1.0	0.50			0.50	8020
Xylenes	32	1.0	0.50	4.3	1.0	0.50			0.50	8020

DF=Dilution Factor      ND=None Detected above DLR      PQL=Practical Quantitation Limit      DLR=Detection Reporting Limit

1. Sample was filtered prior to analysis
2. na: not analyzed
3. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

  
 Michelle L. Anderson, Lab Director

## STANDARD LAB QUALIFIERS

July, 1998

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier	Description
U	Compound was analyzed for but not detected
J	Estimated valued for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E  
Sunnyvale, CA 94086

### QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography  
Laboratory Control Spikes

QC Batch #: DW981007  
Matrix: Water  
Units: µg/L

Date analyzed: 10/27/98  
Date extracted: 10/27/98

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB	SA	SR	SP	SP	SPD	SPD	RPD	QC LIMITS	
		µg/L	µg/L	µg/L	µg/L	%R	µg/L	%R		RPD	%R
Diesel	8015M	<50.0	950	ND	996	105	954	100	4	25	62-131

**Definition of Terms:**

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated



QUALITY CONTROL RESULTS SUMMARY

METHOD: ICP

QC Batch #: WM981025

Date Analyzed: 11/02/98

Matrix: Water

Units: mg/L

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB mg/L	SA mg/L	SR mg/L	SP mg/L	SP %R	SPD mg/L	SPD % R	RPD	QC LIMITS	
										%R	RPD
Aluminum	200.7	<0.05	5.00	0.00	5.1	102	5.1	103	0.2	75- 125	25.0
Arsenic	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Barium	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Beryllium	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Cadmium	200.7	<0.005	0.50	0.00	0.5	103	0.5	103	0.2	75- 125	25.0
Chromium	200.7	<0.005	0.50	0.00	0.5	105	0.5	103	na	75- 125	25.0
Cobalt	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Copper	200.7	<0.005	0.50	0.00	0.5	97	0.5	96	na	75- 125	25.0
Lead	200.7	<0.005	0.50	0.00	0.6	110	0.5	100	9.5	75- 125	25.0
Manganese	200.7	<0.005	0.50	0.00	0.5	102	0.5	105	na	75- 125	25.0
Nickel	200.7	<0.005	0.50	0.00	0.5	108	0.5	110	1.7	75- 125	25.0
Selenium	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Silver	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Thallium	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Vanadium	200.7	na	na	na	na	na	na	na	na	75- 125	25.0
Zinc	200.7	<0.005	0.50	0.00	0.5	109	0.5	108	0.6	75- 125	25.0

Note: LCS and LCSD results reported for the following Parameters:

All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

MB: Method Blank

na: Not analyzed in QC batch

SA: Spike Added

SR: Sample Result

SP: Spike Result

SP (%R) Spike % Recovery

SPD Spike Duplicate Result

SPD (%R) Spike % Recovery

## QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4981029

Matrix: Water

Units: ug/L

Date Analyzed: 10/29/98

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB ug/L	SA ug/L	SR ug/L	SP ug/L	SP % R	SPD ug/L	SPD %R	RPD	QC LIMITS	
										RPD	%R
Benzene	8020	<0.50	40	ND	37	93	38	94	1.8	25	77-115
Toluene	8020	<0.50	40	ND	36	90	37	92	2.2	25	75-115
Ethyl Benzene	8020	<0.50	40	ND	38	95	38	95	0.4	25	77-115
Xylenes	8020	<0.50	120	ND	115	96	116	97	0.5	25	76-117
Gasoline	8015	<50.0	500	ND	549	110	540	108	1.7	25	66-134

Note: LCS and LCSD results reported for the following Parameters:

All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

## Definition of Terms:

na: Not Analyzed in QC batch

MB: Method Blank

SA: Spike Added

SR: Sample Result

RPD(%): Duplicate Analysis - Relative Percent Difference

SP: Spike Result

SP (%R): Spike % Recovery

SPD: Spike Duplicate Result

SPD (%R): Spike % Recovery

NC: Not Calculated

# SECOR Chain-of Custody Record

Field Office: Attn: Seth Stiles/Mark Becker  
 Address: 1225 Pear Ave #110  
Mountain View, CA 94043  
(650) 691-0131, FAX (650) 691-9837

Additional documents are attached, and are a part of this Record.  
 Job Name: Archstone  
 Location: Dublin, California

Project # F0804-041-01 Task # 00  
 Project Manager Howe Gates  
 Laboratory Entech  
 Turnaround Time 24-hour

Sampler's Name Stiles  
 Sampler's Signature [Signature]

Sample ID	Date	Time	Matrix	HCID	Analysis Request													Comments/Instructions	Number of Containers	
					TPHig/BTEX/WTPH-G/MIBE 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Diss. Lead (lab filter)				
B1	10/25/98		water																	
B2																				
B3	10/28				X	X											X	E19403	5	
B4																				
B5	10/28				X	X											X	E19404	5	
B6					X												X	E19407	3	
B7					X	X											X	E19405	5	
B8					X	X											X	E19406	5	

Special Instructions/Comments:  
In-lab filter for dissolved lead!

Relinquished by: [Signature]  
 Sign Stiles  
 Print Stiles  
 Company SECOR  
 Time 10:30 Date 10/29/98

Received by: [Signature]  
 Sign Jeremiah Miller  
 Print Jeremiah Miller  
 Company Entech  
 Time 10:30 Date 10/29/98

Sample Receipt  
 Total no. of containers: \_\_\_\_\_  
 Chain of custody seals: \_\_\_\_\_  
 Rec'd. in good condition/cold: \_\_\_\_\_  
 Conforms to record: \_\_\_\_\_

Relinquished by: [Signature]  
 Sign [Signature]  
 Print McGee  
 Company Entech  
 Time 10:50 Date 10/29/98

Received by: [Signature]  
 Sign [Signature]  
 Print McGee  
 Company Entech  
 Time 10:50 Date 10/29/98

Client Contact: \_\_\_\_\_  
 Client Phone: \_\_\_\_\_

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

SECOR International  
1225 Pear Avenue, Suite 110  
Mountain View, CA 94043  
Attn: Seth Stiles/Mark Becker

Date: 10/30/98  
Date Received: 10/29/98  
Project: F0804-041-01  
PO #:  
Sampled By: Client

## Certified Analytical Report

### Soil Sample Analysis: (All results in mg/kg)

Sample ID	B5-16			B6-7			B6-17				
Sample Date	10/28/98			10/28/98			10/28/98				
Sample Time											
Lab #	E19381			E19382			E19396				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Analysis Date	10/29/98			10/29/98			10/29/98				
TPH-Diesel	130	1.0	1.0	ND	1.0	1.0	ND	1.0	1.0	1.0	8015M

DF=Dilution Factor    ND= None Detected above DLR    PQL=Practical Quantitation Limit    DLR=Detection Reporting Limit

• Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)



Michelle L. Anderson, Lab Director

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

SECOR International  
1225 Pear Avenue, Suite 110  
Mountain View, CA 94043  
Attn: Seth Stiles/Mark Becker

Date: 10/30/98  
Date Received: 10/29/98  
Project: F0804-041-01  
PO #:  
Sampled By: Client

## Certified Analytical Report

### Soil Sample Analysis: (All results in mg/kg)

Sample ID	B1-16			B2-13			B3-10				
Sample Date	10/28/98			10/28/98			10/28/98				
Sample Time											
Lab #	E19378			E19379			E19380				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Analysis Date	10/29/98			10/29/98			10/29/98				
TPH-Diesel	120	1.0	1.0	56	1.0	1.0	120	1.0	1.0	1.0	8015M


DF=Dilution Factor

ND= None Detected above DLR

PQL=Practical Quantitation Limit

DLR=Detection Reporting Limit

• Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)



Michelle L. Anderson, Lab Director

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

SECOR International  
1225 Pear Avenue, Suite 110  
Mountain View, CA 94043  
Attn: Seth Stiles/Mark Becker

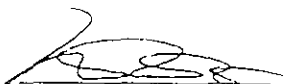
Date: 10/30/98  
Date Received: 10/29/98  
Project: F0804-041-01  
PO #:  
Sampled By: Client

## Certified Analytical Report

### Soil Sample Analysis: (All results in mg/kg)

Sample ID	B7-13			B8-13						
Sample Date	10/28/98			10/28/98						
Sample Time										
Lab #	E19383			E19384						
	Result	DF	DLR	Result	DF	DLR			PQL	Method
Analysis Date	10/29/98			10/29/98						
TPH-Diesel	ND	1.0	1.0	100	1.0	1.0			1.0	8015M

DF=Dilution Factor      ND= None Detected above DLR      PQL=Practical Quantitation Limit      DLR=Detection Reporting Limit  
Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

  
Michelle L. Anderson, Lab Director

QUALITY CONTROL RESULTS SUMMARY

QC Batch #: DS981010

Date analyzed: 10/26/98

Matrix: Soil

Date extracted: 10/26/98

Units: mg/Kg

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB	SA	SR	SP	SP	SPD	SPD	RPD	QC LIMITS	
		mg/Kg	mg/Kg	mg/Kg	mg/Kg	%R	mg/Kg	%R		RPD	%R
Diesel	8015M	<1.0	25	ND	20	81	20	79	2.5	25	60-119

Note: LCS and LCSD results reported for the following Parameter:

All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

MB: Method Blank

na: Not Analyzed in QC batch

SA: Spike Added

SR: Sample Result

RPD(%): Duplicate Analysis - Relative Percent Difference

SP: Spike Result

SP (%R): Spike % Recovery

SPD: Spike Duplicate Result

SPD (%R): Spike Duplicate % Recovery

NC: Not Calculated


# SECOR Chain-of Custody Record

Field Office Attn: Seth Stiles/Mark Becker  
 Address: 1225 Pear Ave #110  
Mountain View, CA 94043  
(650) 691-0131, FAX (650) 691-9837

Additional documents are attached, and are a part of this Record.  
 Job Name: Archstone  
 Location: Dublin, California


Project # F0804-041-01 Task # 00  
 Project Manager Howe Gates  
 Laboratory Entech  
 Turnaround Time 24-hour


**Analysis Request**

Sampler's Name Stiles  
 Sampler's Signature 

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Comments/ Instructions	Number of Containers
B1-7	10/28/98		soil													Hold E19385	1
B1-10																↓ E19380	
B1-13																↓ E19387	
B1-16																E19378	
B2-10																Hold E19388	
B2-13						X										E19379	
B2-16																Hold E19389	
B3-10						X										E19380	
B3-13																Hold E19390	
B3-16																↓ E19391	1

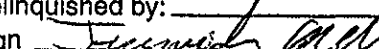
Special Instructions/Comments:

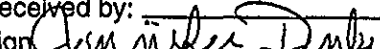
Relinquished by:  
 Sign   
 Print Seth Stiles  
 Company SECOR  
 Time 10:30 Date 10/29/98

Received by:  
 Sign   
 Print Jeremiah Miller  
 Company Entech  
 Time 10:30 Date 10/29/98

**Sample Receipt**

Total no. of containers:	
Chain of custody seals:	
Rec'd. in good condition/cold:	✓
Conforms to record:	

Relinquished by:  
 Sign   
 Print Jeremiah Miller  
 Company Entech  
 Time 10:53AM Date 10/29/98

Received by:  
 Sign   
 Print Cynthia Durbey  
 Company Entech  
 Time 10:53AM Date 10/29/98

Client: \_\_\_\_\_  
 Client Contact: \_\_\_\_\_  
 Client Phone: \_\_\_\_\_



# SECOR Chain-of Custody Record

Field Office: Attn: Seth Stiles/Mark Becker  
 Address: 1225 Pear Ave #110  
Mountain View, CA 94041-043

Additional documents are attached, and are a part of this Record.  
 Job Name: Archstone  
 Location: Dublin, California


Project # F0804-041-01 Task # 00  
 Project Manager Howe Gates  
 Laboratory Entech  
 Turnaround Time 24-hour

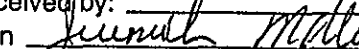
Sampler's Name Stiles  
 Sampler's Signature 

### Analysis Request

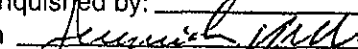
Sample ID	Date	Time	Matrix	HClD	TPH/g/BTEX/WTPH-G 8015 (modified)/8020	TPH/d/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBS 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Comments/ Instructions	Number of Containers
B5-7	10/28/98		soil													Hold E19392	1
B5-10																E19393	
B5-13																E19394	
B5-16					X											E19381	
B6-7					X											E19382	
B6-10																Hold E19395	
B6-17					X											off Hold E19396	
B7-7																E19397	
B7-10																E19398	
B7-13					X											E19383	↓

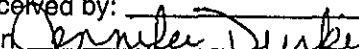
Special Instructions/Comments:

Relinquished by:  
 Sign   
 Print Stiles  
 Company SECOR  
 Time 10:30 Date 10/29/98

Received by:  
 Sign   
 Print Jeremiah Miller  
 Company Entech  
 Time 10:30 Date 10-29-98

Sample Receipt  
 Total no. of containers: \_\_\_\_\_  
 Chain of custody seals: \_\_\_\_\_  
 Rec'd. in good condition/cold:   
 Conforms to record: \_\_\_\_\_

Relinquished by:  
 Sign   
 Print Jennifer Miller  
 Company Entech  
 Time 10:52 Date 10-29-98

Received by:  
 Sign   
 Print Jennifer Durkin  
 Company Entech  
 Time 10:52 Date 10/29/98

Client: \_\_\_\_\_  
 Client Contact: \_\_\_\_\_  
 Client Phone: \_\_\_\_\_

**SECOR International Incorporated**  
**Portland Office**  
**7730 Southwest Mohawk Street**  
**Post Office Box 1508**  
**Tualatin, OR 97062-1508**  
**Phone: (503) 691-2030**  
**FAX: (503) 692-7074**

**LETTER OF TRANSMITTAL**

---

**Date:** April 13, 1999

**Attn:** Mr. Scott Seery  
**Company:** Alameda County Health Services Agency  
**Address:** 1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

**RE:** Field Investigation Summary Report for 5054 Havens Place in Dublin, CA

**ENCLOSED:**

**FOR:**

<input type="checkbox"/>	<b>Proposal</b>	<input checked="" type="checkbox"/>	<b>As Requested</b>
<input type="checkbox"/>	<b>Contract</b>	<input type="checkbox"/>	<b>Review</b>
<input checked="" type="checkbox"/>	<b>Report</b>	<input type="checkbox"/>	<b>Your Information</b>
<input type="checkbox"/>	<b>Letter</b>	<input type="checkbox"/>	<b>Approval</b>
<input type="checkbox"/>	<b>Other:</b>	<input type="checkbox"/>	<b>Signature</b>
		<input type="checkbox"/>	<b>Return</b>
		<input type="checkbox"/>	<b>Other:</b>

99 APR 14 PM 12:18  
ENVIRONMENTAL  
PROTECTION  
DIVISION

**Comments:** Enclosed please find a final Field Investigation Summary Report for the referenced site. We hope that the information presented therein is such that your office will consider closure of the case file. If you need any additional information, please feel free to contact me.

**Signature:** D. Howe Gates, R.E.A.  
**Title:** Senior Project Manager



# SECOR Chain-of Custody Record

Field Office: Attn: Seth Stiles/Mark Becker  
 Address: 1225 Pear Ave #110  
Mountain View, CA 94043  
(650) (###) 691-0131, FAX (650) 691-9837

Additional documents are attached, and are a part of this Record.  
 Job Name: Archstone  
 Location: Dublin, California

Project # f0804-041-01 Task # 00  
 Project Manager Howe Gates  
 Laboratory Entech  
 Turnaround Time 24-hour

Sampler's Name Stiles  
 Sampler's Signature [Signature]

Sample Information				Analysis Request													Comments/ Instructions	Number of Containers	
Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals				
B7-16	10/26/98		soil														Hold	E19309	1
B7-19																	↓	E19400	1
B8-7																	↓	E19401	1
B8-10																	↓	E19402	1
B8-13						X												E19387	1

Special Instructions/Comments:

Relinquished by:  
 Sign [Signature]  
 Print Stiles  
 Company SECOR  
 Time 10:30 Date 10/29/98

Received by:  
 Sign [Signature]  
 Print Jerome McNeil  
 Company Entech  
 Time 10:30 Date 10-29-98

Sample Receipt  
 Total no. of containers: \_\_\_\_\_  
 Chain of custody seals: \_\_\_\_\_  
 Rec'd. in good condition/cold:   
 Conforms to record: \_\_\_\_\_

Relinquished by:  
 Sign [Signature]  
 Print McNeil  
 Company Entech  
 Time 10:52 Date 10-29-98

Received by:  
 Sign [Signature]  
 Print Jennifer Durkin  
 Company Entech  
 Time 10:52 Date 10/29/98

Client: \_\_\_\_\_  
 Client Contact: \_\_\_\_\_  
 Client Phone: \_\_\_\_\_

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

SECOR International  
1225 Pear Avenue, Suite 110  
Mountain View, CA 94043  
Attn: Seth Stiles/Mark Becker

Date: 11/9/98  
Date Received: 10/29/98  
Project: F0804-041-01  
PO #:  
Sampled By: Client

## Certified Analytical Report

### Soil Sample Analysis: (All results in mg/kg)

Sample ID	B1-16			B2-13			B3-10				
Sample Date	10/28/98			10/28/98			10/28/98				
Sample Time											
Lab #	E19378			E19379			E19380				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Analysis Date	11/6/98			11/6/98			11/6/98				
TPH-Gas	3.5 <sup>x</sup>	1.0	1.0	2.2 <sup>x</sup>	1.0	1.0	1.6 <sup>x</sup>	1.0	1.0	1.0	8015M
Benzene	ND	1.0	0.005	ND	1.0	0.005	ND	1.0	0.005	0.005	8020
Toluene	ND	1.0	0.005	ND	1.0	0.005	ND	1.0	0.005	0.005	8020
Ethyl Benzene	ND	1.0	0.005	ND	1.0	0.005	ND	1.0	0.005	0.005	8020
Xylenes	0.0061	1.0	0.005	0.0051	1.0	0.005	ND	1.0	0.005	0.005	8020

DF=Dilution Factor    ND= None Detected above DLR    PQL=Practical Quantitation Limit    DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

SECRET - MT VIEW

NOV 13 1998

S.I.S. \_\_\_\_\_  
TASK NO: \_\_\_\_\_

Michelle L. Anderson, Lab Director

# Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

SECOR International  
1225 Pear Avenue, Suite 110  
Mountain View, CA 94043  
Attn: Seth Stiles/Mark Becker

Date: 11/9/98  
Date Received: 10/29/98  
Project: F0804-041-01  
PO #:  
Sampled By: Client


## Certified Analytical Report

### Soil Sample Analysis: (All results in mg/kg)

Sample ID	B5-16			B6-7			B7-13				
Sample Date	10/28/98			10/28/98			10/28/98				
Sample Time											
Lab #	E19381			E19382			E19383				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Analysis Date	11/6/98			11/6/98			11/6/98				
TPH-Gas	8.7 <sup>x</sup>	1.0	1.0	ND	1.0	1.0	ND	1.0	1.0	1.0	8015M
Benzene	ND	1.0	0.005	ND	1.0	0.005	ND	1.0	0.005	0.005	8020
Toluene	ND	1.0	0.005	ND	1.0	0.005	ND	1.0	0.005	0.005	8020
Ethyl Benzene	ND	1.0	0.005	ND	1.0	0.005	ND	1.0	0.005	0.005	8020
Xylenes	0.035	1.0	0.005	ND	1.0	0.005	ND	1.0	0.005	0.005	8020

DF=Dilution Factor    ND= None Detected above DLR    PQL=Practical Quantitation Limit    DLR=Detection Reporting Limit

• Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

  
Michelle L. Anderson, Lab Director

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Attn: Seth Stiles/Mark Becker

Date: 11/9/98  
Date Received: 10/29/98  
Project: F0804-041-01  
PO #:  
Sampled By: Client


## Certified Analytical Report

### Soil Sample Analysis: (All results in mg/kg)

Sample ID	B8-13			B6-17					
Sample Date	10/28/98			10/28/98					
Sample Time									
Lab #	E19384			E19396					
	Result	DF	DLR	Result	DF	DLR			PQL Method
Analysis Date	11/6/98			11/6/98					
TPH-Gas	11 <sup>x</sup>	1.0	1.0	ND	1.0	1.0			1.0 8015M
Benzene	ND	1.0	0.005	ND	1.0	0.005			0.005 8020
Toluene	ND	1.0	0.005	ND	1.0	0.005			0.005 8020
Ethyl Benzene	ND	1.0	0.005	ND	1.0	0.005			0.005 8020
Xylenes	0.021	1.0	0.005	ND	1.0	0.005			0.005 8020

DF=Dilution Factor      ND= None Detected above DLR      PQL=Practical Quantitation Limit      DLR=Detection Reporting Limit

• Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)



Michelle L. Anderson, Lab Director

## STANDARD LAB QUALIFIERS

July, 1998

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier	Description
U	Compound was analyzed for but not detected
J	Estimated valued for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E  
Sunnyvale, CA 94086

**QUALITY CONTROL RESULTS SUMMARY**

METHOD: Gas Chromatography

QC Batch #: GBG4981103

Matrix: Soil

Units:  $\mu\text{g}/\text{kg}$

Date Analyzed: 11/03/98

Quality Control Sample: Blank Spike

PARAMETER	Method #	MB	SA	SR	SP	SP	SPD	SPD	RPD	QC LIMITS	
		$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	% R	$\mu\text{g}/\text{kg}$	%R		RPD	%R
Benzene	8020	<5.0	80	ND	77	96	76	95	0.8	25	76-117
Toluene	8020	<5.0	80	ND	80	100	77	96	4.0	25	76-117
Ethyl Benzene	8020	<5.0	80	ND	81	101	78	97	3.8	25	74-119
Xylenes	8020	<5.0	240	ND	247	103	231	96	6.9	25	75-120
Gasoline	8015	<1000.00	1000	ND	1080	108	1050	105	2.8	25	58-120

Note: LCS and LCSD results reported for the following Parameters:  
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

na: Not Analyzed in QC batch

MB: Method Blank

SA: Spike Added

SR: Sample Result

RPD(%): Duplicate Analysis - Relative Percent Difference

SP: Spike Result

SP (%R): Spike % Recovery

SPD: Spike Duplicate Result

SPD (%R): Spike % Recovery

NC: Not Calculated



Chain of Custody Number:

# SECOR Chain-of Custody Record

**TUSH**

Field Office: Attn: Seth Stiles/Mark Becker  
 Address: 1225 Pear Ave #110  
Mountain View, CA 94043  
(650) 691-0131, FAX (650) 691-9837

Additional documents are attached, and are a part of this Record.

Job Name: Archstone  
 Location: Dublin, California

Project # F0804-041-01 Task # 00  
 Project Manager Howe Gates  
 Laboratory Entech  
 Turnaround Time 24-hour

Analysis Request

Sampler's Name Stiles  
 Sampler's Signature [Signature]

Sample ID	Date	Time	Matrix	HCID	TPH/BTEX/WTPH-G 8015 (modified)/8020	TPH/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Comments/Instructions	Number of Containers
B1-7	10/28/98		soil													Hold E19385	1
B1-10																↓ E19380	
B1-13																↓ E19387	
B1-16				X	X											E19378	
B2-10																Hold E19388	
B2-13				X	X											E19379	
B2-16																Hold E19389	
B3-10				X	X											E19380	
B3-13																Hold E19390	
B3-16																↓ E19391	

Special Instructions/Comments:

Relinquished by:  
 Sign [Signature]  
 Print Stiles  
 Company SECOR  
 Time 10:30 Date 10/29/98

Received by:  
 Sign [Signature]  
 Print Jeremiah Miller  
 Company Entech  
 Time 10:30 Date 10/29/98

Sample Receipt  
 Total no. of containers:  
 Chain of custody seals:  
 Rec'd. in good condition/cold:   
 Conforms to record:

Relinquished by:  
 Sign [Signature]  
 Print [Signature]  
 Company Entech  
 Time 10:57 AM Date 10/29/98

Received by:  
 Sign [Signature]  
 Print [Signature]  
 Company Entech  
 Time 10:53 AM Date 10/29/98

Client:  
 Client Contact:  
 Client Phone:

# SECOR Chain-of Custody Record

Field Office: Attn: Seth Stiles/Mark Becker  
 Address: 1225 Pear Ave #110  
Mountain View, CA 94041043

Additional documents are attached, and are a part of this Record.  
 Job Name: Archstone  
 Location: Dublin, California

**RUSH**

Project # F0804-041-01 Task # 00  
 Project Manager Howe Gates  
 Laboratory Entech  
 Turnaround Time 24-hour

Sampler's Name Stiles  
 Sampler's Signature [Signature]

Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Comments/Instructions	Number of Containers
B5-7	10/28/98		soil													Hold E19392	1
B5-10																E19393	
B5-13																E19394	
B5-16					X	X										E19381	
B6-7					X	X										E19382	
B6-10																Hold E19395	
B6-17					X	X										off held E19396	
B7-7																E19397	
B7-10																E19398	
B7-13					X	X										E19383	1

Special Instructions/Comments:

Relinquished by:  
 Sign [Signature]  
 Print Stiles  
 Company SECOR  
 Time 10:30 Date 10/29/98

Received by:  
 Sign [Signature]  
 Print Jennifer Miller  
 Company Entech  
 Time 10:30 Date 10-29-98

Sample Receipt  
 Total no. of containers: \_\_\_\_\_  
 Chain of custody seals: \_\_\_\_\_  
 Rec'd. in good condition/cold:   
 Conforms to record: \_\_\_\_\_

Relinquished by:  
 Sign [Signature]  
 Print Miller  
 Company Entech  
 Time 10:52 Date 10-29-98

Received by:  
 Sign [Signature]  
 Print Jennifer Durkin  
 Company Entech  
 Time 10:52 Date 10/29/98

Client: \_\_\_\_\_  
 Client Contact: \_\_\_\_\_  
 Client Phone: \_\_\_\_\_

# SECOR Chain-of Custody Record

Field Office: Attn: Seth Stiles/Mark Becker  
 Address: 1225 Pear Ave #110  
Mountain View, CA 94043  
 (650) (###) 691-0131, FAX (650) 691-9837

Additional documents are attached, and are a part of this Record.  
 Job Name: Archstone  
 Location: Dublin, California

**RUSH**

Project # E0804-041-01 Task # 00  
 Project Manager Howe Gates  
 Laboratory Entech  
 Turnaround Time 24-hour

Sampler's Name Stiles  
 Sampler's Signature *[Signature]*

				Analysis Request												Number of Containers		
Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020 per Mark Becker	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GCMS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GCMS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals		Comments/Instructions	
B7-16	10/26/98		soil														Hold E19309	1
B7-19	↓		↓														E19400	1
B8-7	↓		↓														E19401	1
B8-10	↓		↓														E19402	1
B8-13	↓		↓		X	X											E19387	1

Special Instructions/Comments:

Relinquished by: [Signature]  
 Sign Stiles  
 Print Stiles  
 Company SECOR  
 Time 10:30 Date 10/29/98

Received by: [Signature]  
 Sign Jeremiah Miller  
 Print Jeremiah Miller  
 Company Entech  
 Time 10:30 Date 10/29/98

Sample Receipt  
 Total no. of containers: \_\_\_\_\_  
 Chain of custody seals: \_\_\_\_\_  
 Rec'd. in good condition/cold:   
 Conforms to record: \_\_\_\_\_

Relinquished by: [Signature]  
 Sign Michelle  
 Print Michelle  
 Company Entech  
 Time 10:52 Date 10/29/98

Received by: [Signature]  
 Sign Annita Dubin  
 Print Annita Dubin  
 Company Entech  
 Time 10:52 Date 10/29/98

Client: \_\_\_\_\_  
 Client Contact: \_\_\_\_\_  
 Client Phone: \_\_\_\_\_