



**UNDERGROUND STORAGE TANK  
CLOSURE REPORT**

*Grand Marina  
2099 Grand Street  
Alameda, California*

Submitted to:

Mr. Rob Weston  
Alameda County Health Agency

Prepared by:

**Geologica Inc.**

**January 27, 2006**

SEPT 22.2005



**SR0008699**

# geologica

*Innovative Strategies for Environmental Liability Management*

January 27, 2006

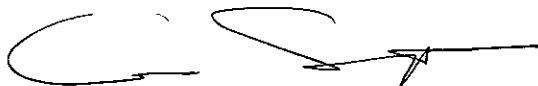
Rob Weston  
Alameda County Health Agency  
1131 Harbor Bay Parkway  
Alameda, California 94502

**RE: UNDERGROUND STORAGE TANK  
CLOSURE REPORT  
GRAND MARINA  
ALAMEDA, CALIFORNIA**

Dear Mr. Weston:

A copy of the Underground Storage Tank Closure Report for the Grand Marina property in Alameda, California is enclosed with this letter. The report includes data summaries and laboratory reports to comply with the requirements of tank removal permit #F05-0119. The report also provides supporting documentation from past investigations at the Grand Marina facility to address monitoring and reporting concerns related to the current tank removal. Additional investigations are proposed for the lead impacts identified at the Marina pumphouse. Should you have any questions or comments, please call me at (415) 597-7882 (office) or (707) 799-8097 (cell).

Very truly yours,  
GEOLOGICA INC.



Gene Suemnicht  
Senior Associate

GEOLOGICA INC.

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UNDERGROUND STORAGE TANK  
CLOSURE REPORT

GRAND MARINA  
2099 GRAND STREET  
ALAMEDA, CALIFORNIA

Mr Rob Weston  
Alameda County Health Agency  
1131 Harbor Bay Parkway  
Alameda, CA 94502

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## List of Acronyms

ACDHS	Alameda County Department of Environmental Health
AST	aboveground storage tank
BAAQMD	Bay Area Air Quality Management District
BTEX	benzene, toluene, ethylbenzene and xylenes
CalEPA	Environmental Protection Agency (State of California)
EPA	Environmental Protection Agency (United States)
LEL	lower explosive limit
mg/kg	milligrams per kilogram
MTBE	methyl tert-butyl ether
PAH	poly-aromatic hydrocarbons
PCBs	poly-chlorinated biphenyls
RWQCB	Regional Water Quality Control Board
STLC	soluble threshold limit concentration
SVOCs	semi volatile organic compounds
TPH <sub>g, d, mo</sub>	total petroleum hydrocarbons (purgeable [gasoline] and extractable [diesel, motor oil] fractions)
USA	Underground Service Alert
UST	underground storage tank
VOA	volatile organic analytes
VOCs	volatile organic compounds



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CLOSURE REPORT  
GRAND MARINA  
2099 GRAND STREET  
ALAMEDA, CALIFORNIA**

## **1 INTRODUCTION**

GEOLOGICA Inc. (GEOLOGICA) provided geologic support for an underground storage tank (UST) removal at Grand Marina in the northeastern part of Alameda, California (Figure 1). The tank was removed by Zaccor Companies Inc. (Zaccor) under Permit #F05-0119 issued 10/18/05, 2005 by the City of Alameda. The UST was removed in accordance with appropriate federal, state, and local regulations and should allow completion of paving work for redevelopment of the site.

Analytical results from the tank excavation and stockpiled soils indicate limited impacts related to organic contaminants. Analyses indicated that the tank pit fill material was suitable for backfill in part of the excavation and analytical results of excavation wall samples identified hydrocarbon impacts in the northern part of the tank pit. Additional excavation removed a sufficient volume of contaminated soils and verification sample analyses detected 350 mg/kg of diesel range hydrocarbons remained in the soils.

The details of tank removal, sample collection and analytical results are discussed in the following sections:

- Section 1 – Introduction
- Section 2 – Site Background
- Section 3 – Tank Removal
- Section 4 - Analytical Results
- Section 5 - Site Closure
- Section 6 – Conclusions
- Section 7 - References

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*Underground Storage Tank  
Closure Report  
Grand Marina  
Alameda, CA*

geologica

## 1.1 REGULATORY FRAMEWORK

Grand Marina elected to remove a pair of 12,000 gallon underground storage tanks (USTs) that had supplied gasoline and diesel fuel to a commercial fueling dock on the northern side of the marina (Figure 2). The City of Alameda Fire Department issued permit #F05-0119 to remove the tank and backfill the excavation if analytical results indicated no significant impacts. All storage tank remediation work is controlled by the Alameda County as the lead agency designated by the San Francisco Region Water Quality Control Board (RWQCB) .

## 2 SITE BACKGROUND

Alameda Island lies immediately west of Oakland bordered by the Oakland Estuary to the east, San Leandro Bay to the south and San Francisco Bay to the north and west. The Oakland Inner Harbor and Estuary separate the island from the City of Oakland. The island has been a commercial and residential site since the turn of the century and the majority of the historic facilities harbor facilities are situated on the northern part of the island bordering the Estuary. Grand Marina is an irregularly shaped parcel facing the Oakland Estuary.

A history of the site and the surrounding properties compiled by Bloomfield (1987) and SECOR (1996) includes:

1839 to 1942	Alaska Packer Association operated a fishing fleet
1906 to 1917	Taylor and Company operates a lumber yard
1917 to 1930	City of Alameda Corporation Yard for repair, carpentry, blacksmithing and a dog pound (still listed on commercial maps)
1930 to 1952	Union Oil Company (Unocal) leased a portion of the site from Harbor Tug and Barge for a tank farm storing gasoline, diesel, fuel oil, kerosene, aviation fuel and other petroleum compounds in aboveground storage tanks (ASTs).
1953 to 1959	W.D. McElawain, dba Bay City Fuel Co. assumed the lease from the City of Alameda and operated the tank farm as a bunker fuel depot
1926 to 1989	Harbor Tug and Barge reportedly leased portions of the site.
1959 to 1989	Harbor Tug and Barge purchased and maintained the tank farm.

- 1980 to 1986            Healy-Tibbets Construction Company used a portion of the site for storing marine construction equipment.
- 1986 to Present        Grand Marina purchased the property and currently operates the marina.

Previous environmental investigations at Grand Marina evaluated the impacts related to the ASTs at the tank farm beginning in 1987. A brief chronology of investigations includes:

- **1987** - Six soil borings, six groundwater monitoring wells (Figure 3) and a series of trenches to evaluate the nature and extent of apparent impacts related to the tank farm. Approximately 285 tons of petroleum hydrocarbon contaminated soils were to a maximum depth of five feet around the tank farm. Free hydrocarbons were noted at the edge of the excavation (SECOR, 1995)
- **1988** – Removed a 1000 gallon UST and found hydrocarbon impacts within the tank pit
- **1990** – Versar risk assessment (SECOR, 1995)
- **1992** – ASTs removed, supply lines and concrete left in place. Additional borings sampled the tank farm soils and four additional groundwater monitoring wells were installed. Elevated levels of diesel and oil and grease were detected in the soils approximately two feet beneath the tank farm with lower levels at depths greater than three feet beneath the tanks and north of the tank farm. Analysis of groundwater samples indicates high levels of gasoline, diesel and benzene near the former UST (Figure 3).
- **1993** – Additional investigations including a review of surrounding properties, a pipeline integrity test, subsurface sampling and the installation of four monitoring wells. The tank farm is the most significant hydrocarbon source based on a long history of hydrocarbon handling and storage. Analyses of site fill and soils from the southern part of the tank farm detect 13 mg/kg gasoline and 800 mg/kg diesel while samples farther north yield 5.0 to 29.0 mg/kg diesel. Grab groundwater samples have elevated levels of diesel in TP-2 and TP-2A north of the tank farm and in borings PL2 and PL4 near the supply pipelines (Figure 3). Analyses do not detect gasoline range hydrocarbons but do reveal toluene, ethylbenzene and xylenes in one groundwater sample.
- **1994** – Quarterly groundwater monitoring is initiated. Samples are routinely analyzed for diesel (TPHd) and benzene, toluene, ethylbenzene and xylenes (BTEX) and once for polyaromatic hydrocarbons (PAHs). Analyses detect BTEX in the water from MW-2.

TPHd in wells MW-1 through 8 (MW-6A is not sampled) and PAHs flourene and naphthalene in MW-2 (Figure 3). Groundwater monitoring continued for two years.

- **1996** - SECOR (1996) completed a risk assessment proposing the Grand Marina site as a candidate for clean closure with hydrocarbons left in place. The RWQCB allowed the property owners to discontinue quarterly monitoring and no further remediation was required. Subsequent investigations identified limited soil and groundwater impacts related to past site activity.
- **2004** – A Phase I Environmental Site Assessment (Lowney Associates, 2004) was completed for the conversion of the southwestern part of the property to condominiums. Based on the Phase I results, subsequent Phase II evaluations of potential soil and groundwater impacts included drilling and sampling soil and groundwater from 12 borings at selected locations and potentially impacted areas (Figure 3) (Lowney Associates, 2004b; 2005).

### 3 TANK REMOVAL

The UST was removed from Grand Marina on October 19, 2005. GEOLOGICA contracted with Zaccor Companies Inc. (Zaccor) of Alameda, California to sample the UST excavation, the excavated stockpiled material and the backfill of the tank pit. Zaccor performed its work under California Contractor’s License number 478799. License certifications include: A (General Engineering); C-21 (demolition); HAZ (Hazardous Substance Removal and Remedial Actions); ASB (asbestos certification) and HIC (home improvement).

#### 3.1 PERMITS AND NOTIFICATIONS

Zaccor obtained the following permits for the Grand Marina tank remediation:

- Tank Removal Permit #F05-0119 issued October 12, 2005 from the City of Alameda.
- Air permitting was completed through the Bay Area Air Quality Management District (BAAQMD) with a Regulation 8 Rule 40 Section 401 permit for tank removal.

Copies of applicable permits are included in Appendix C. The following agencies were notified of the tank removal operations:

<u>Contact</u>	<u>Agency</u>	<u>Phone number</u>
Mr Robert Weston	ACDEH	(510) 622-2347
Mr.Kenneth Jeffery	City of Alameda Fire Department	(510) 540-3773

All on-site activities were coordinated through ACDEH.

### 3.2 SITE CLEARANCE

ZACCOR contacted Underground Service Alert (USA) to clear utilities around the excavation site on October 17, 2005 to identify any potential subsurface hazards with standard markings for buried utility lines or subsurface structures. Overhead clearance was also checked to avoid potential overhead hazards and surface electrical lines.

ZACCOR established and maintained an exclusion zone around the tank site and prepared a bermed, lined and protected stockpile area adjacent to the tank location. The stockpile capacity was sufficient to contain the estimated fill around the tank and approximately 50% excess if additional excavation were required.

### 3.3 TANK PREPARATION

ZACCOR exposed the upper end of the tank with a small excavator on the morning of October 19, 2005 and placed the overburden soils on the prepared stockpile pad on the south side of the planned excavation. Fluids were suctioned from the tank by an Ecology Control Industries (ECI) vacuum truck. The USTs measured 7 feet 8 inches in diameter by 32 feet 6 inches in length. Tank capacity was marked as 12,000 gallons on each tank. No fluids remained in the tanks and each tank interior had been repeatedly rinsed with fresh water and suctioned clean.

ZACCOR checked for flammability and oxygen content using a flammable/combustible gas analyzer and oxygen meter. The tank was rendered inert using 20 pounds of dry ice at 11 a.m. and monitored for two hours. Mr. Rob Weston of Alameda County DEH and Mr. Kenneth Jeffery of AFD arrived to witness the tank removal at 1:00 p.m. They observed measured lower explosive limit (LEL) readings at 0 and oxygen (O<sub>2</sub>) readings at 5.5% for each tank at 2:10 p.m.. Because both measurements were below explosive range the ACDEH approved the removal of the UST.

### 3.4 TANK EXTRACTION

The remaining fill and approximately two feet of soil around the sides of the UST were excavated at 2:10 p.m. on October 18<sup>th</sup> and placed in the stockpile area. The LEL and O<sub>2</sub> levels were measured again and found to be safe when the UST was completely exposed. A fabric sling was placed around the diesel tank and the excavator removed the tank from the pit at 2:20 p.m. The same operation was repeated for the gasoline tank at 2:50 p.m. Both tanks were scrapped clean, washed and inspected. Each tank appeared to be in very good condition with no evidence of rust, corrosion, holes, dents, split seams or obvious leaks. The tanks were placed on flatbed trucks for transport and disposal to ECI in Richmond, California for destruction (State Manifest Document Number CAL-00018233628589). Approximately 10 feet of piping was also removed from the

excavation, cleaned and placed into the UST for scrap. Copies of Manifests and the Certificate of Destruction are included in Appendix D.

## 4 SAMPLING AND ANALYSIS

Based on TriRegional Board recommendations (RWQCB, 1990), GEOLOGICA collected 4 soil samples excavated approximately 2 feet into native soil at the bottom part of the tank pit sidewalls. Soil was collected from a small excavator bucket from the central part of the excavated soil mass and the samples were free of any accidental debris or surface plant matter. A series of two soil samples were also collected from the 100 yd<sup>3</sup> (approximate) stockpile volume of excavation spoils for laboratory compositing and analysis. An additional soil sample was collected from the pipe trench connecting ventilation piping to the tanks and from a supply pump adjacent to a building southeast of the tank pit (Figure 2). Soil samples were collected in glass containers supplied by the analytical laboratory and in metal sleeves driven into the soil mass within the excavator bucket.

Water filling the bottom foot of the excavation pit was also sampled using a clean decontaminated disposable bailer. Water samples were collected in glass VOA vials for volatile constituents, amber Liter bottles for diesel and motor oil analyses and 250 ml plastic bottles for metals analyses

Samples were sealed, placed in cooler at 4°C and delivered to Sequoia Analytical a California EPA certified Analytical Laboratory for analysis according to EPA certified protocols under the laboratory's Quality Assurance Plan.

### 4.1 ANALYTICAL RESULTS

To comply with ACDEH requirements for verification samples, all of the soil samples and the water sample were analyzed for:

- Total Petroleum Hydrocarbons (TPH) as gas (TPH-g), diesel (TPH-d) by EPA Method 8015M.
- Volatile Organic Compounds (VOCs) including benzene, toluene, ethylbenzene, xylenes (BTEX)
- EDB and EDC by EPA Method 8260.
- Fuel oxygenates (MTBE, TAME, ETBE, DIPE, TBA and EtOH) by EPA Method 8260.
- Total Pb by EPA Method 6010

Low levels of hydrocarbons were detected in the soil samples from three corners of the Grand Marina tank excavation (T-1, 2 and 3) and elevated hydrocarbons levels were detected in samples from the northwest corner of the excavation (T-4) (Figure 2). Gasoline range hydrocarbons (TPHg) ranged from a low of 410 mg/kg in sample T-1 to high of 8500 mg/kg in sample T-4 (Table 1). Diesel range hydrocarbons (TPHd) were detected at levels ranging from 3.6 mg/kg in sample T-3 to 2800 mg/kg in sample T-4. Motor oil (TPHmo) hydrocarbons were not analyzed because the tanks were used exclusively for motor fuels. No other organic compounds (VOCs, SVOCs) were detected in any of the soil samples above reporting limits (Table 1).

Analyses from stockpiled pit soils were low in hydrocarbons and lead (Tables 1 and 2). Diesel range hydrocarbons were the only organic constituents detected and TPHd levels ranged from 4.5 - 5.1 mg/kg.

Inorganic constituents were uniformly low in the tank soils (Table 2). Detected concentrations of lead ranged between 3.8 and 43 mg/kg. Higher lead concentrations of 97 mg/kg were detected in the supply trench (Supply trench-1) that contained tank piping and at 520 mg/kg in a soil sample excavated from 3 feet beneath a metal containment pan at the Pump House east of the UST site (Pump-1 in Table 2). The analytical result for the Pump House soils exceed screening levels (10X STLC) under California Designated Level Methodology. Lead levels in stockpile soils ranged from 5.1 – 7.4 mg/kg, significantly below screening levels (10X STLC).

#### **4.2 ADDITIONAL EXCAVATION**

Based on the relatively elevated TPH levels, additional soil was excavated from the northwestern wall of the tank pit (Figure 2) removing potentially contaminated soils and fill material. Two verification samples (OEx-1 and OEx-2; Table 1) were collected from the pit wall and analyzed for the same analytical suite to comply with ACDHS requirements. The TPH levels ranged from 370 to 450 mg/kg TPHg and 7.8 to 200 mg/kg TPHd uniformly lower than the previous analyses of the tank pit wall soils. Detected concentrations of lead in the pit overexcavation soils were also lower ranging between 5.3 and 12 mg/kg (Table 2).

Additional soils were also excavated around the pump station and a verification sample was collected from a depth of ~ 4 feet in the pit. Analysis for organic constituents were uniformly low (Table 1) while lead analysis detected 390 mg/kg in the over excavation sample (Table 2)

#### **4.3 QUALITY ASSURANCE AND QUALITY CONTROL**

The quality of the analytical data is sufficient for the intended use. Quality control data provided by the laboratory indicated quality control sample analyses (matrix spikes, matrix spike

duplicates and surrogates) performed on sample matrix were within acceptable ranges for metals, diesel and gasoline and BTEX analyses. Internal laboratory consistency checks indicate VOC analysis was adequate and that there are no VOCs detected above reporting limits in the samples collected for this project.

## 5 SITE CLOSURE

Mr. Weston reviewed and approved the analytical results and authorized filling the tank excavation by e-mail on November 9, 2005 (Appendix C). The pit was backfilled on November 10, 2005 with a combination of stockpiled excavation the soils and clean soil adjacent to the Marina facility. The backfill was placed in three separate lifts each compacted with the excavator bucket or a hand-held vibrator. The excavation area was be graded to match the perimeter ground level and paved to allow continued Marina access.

## 6 CONCLUSION AND RECOMMENDATIONS

There were no apparent UST leaks and the identified hydrocarbon impacts were limited in one corner of the tank excavation. Analytical results substantiate that the additional excavation within the tank pit successfully removed the impacted soils and that potential impacts were limited to supply lines or older utility lines near the tank. Stockpiled soils were used in part to fill the tank pit because very low levels of hydrocarbons were detected in stockpile samples. Lead levels were uniformly low in the pit wall samples and stockpiled soils. Elevated levels of lead persist after overexcavation beneath the Pump House containment pan and represent a continuing concern.

### 6.1 HYDROCARBON RECOMMENDATIONS

The Grand Marina site has a long history of industrial use and previously documented impacts related to petroleum storage or the use of petroleum products onsite (Section 2). Earlier site characterization determined the nature and extent of petroleum hydrocarbon contamination (HLA, 1987; Zaccor, 1992) and remediation in 1987 removed approximately 285 tons of contaminated soils excavated to depths or 5 feet below ground surface (bgs) beneath the former tank farm in the central part of the site. Another 9 yd<sup>3</sup> of impacted soil from the tank farm was removed in 1990 (SECOR, 1996). Quarterly monitoring of the site continued from 1994 to 1996 (Appendix F) documenting a steady decline in hydrocarbon levels in groundwater.

Subsequent work included an ASTM Phase I Environmental Site Assessment (Lowney and Associates 2004a) and installation of another 12 borings to evaluate the potential redevelopment of the southeastern part of the site (Figure 3). The first investigation phase (Lowney Associates, 2004 b: Appendix F) identified 48 mg/kg TPHg, 9000 mg/kg TPHd and 23,000 TPHmo at 7 feet



bgs approximately 60 feet west of the 12,000 gallon USTs that are the subject of this closure report (GWS-1 in Figure 3). A subsequent boring (GWS-11 in Figure 3) did not identify any impacts immediately adjacent to the tanks (Figure 3). Based on all of the current and historical investigation data, the impacts related to the older aboveground storage tanks that comprised the tank farm in the central part of the property were relatively shallow and the deeper impacts identified in later studies were limited in area and are not widely dispersed across the site nor directly related to the USTs removed during this remediation effort.

A previous risk assessment for the property evaluated that the potential exposure risk for TPHd was acceptable for the commercial development (Seccor, 1996). Using maximum detected concentrations of 1400 mg/kg TPHd hydrocarbons and exposure scenarios for polyaromatic hydrocarbons (PAH) with benzo (a) pyrene as an indicator compound, the calculated risks for residual TPHd remaining in the soils were acceptable for commercial development of the Grand Marina property.

No further action is recommended for the hydrocarbons remaining in the tank pit based on:

- **Low contamination volume** – Previous investigations and over excavation of the tank pit indicate that any residual hydrocarbon impacts are limited in vertical and lateral extent and do not represent a large volume of high hydrocarbon concentrations. Elevated hydrocarbon levels identified in earlier investigations were relatively deep (7 feet) and did not pose a direct threat of exposure (Lowney Assoc, 2004b, 2005). Detections of 8500 mg/kg TPHg and 2800 mg/kg TPHd in the current tank excavation were limited to small volumes of soil around supply piping or old shallow utility piping in the northwest part of the tank pit. Additional excavation successfully removed the impacted soils and the remnant concentrations of 450 mg/kg TPHg and 200 mg/kg TPHd are more than an order of magnitude less than original hydrocarbon concentrations. Previous drilling evidence indicates that hydrocarbon contamination is not widespread or does not extend beyond limited occurrences such as the utility piping near the USTs.
- **No volatile components** - Analyses did not detect BTEX or fuel oxygenates that are commonly the most mobile components of hydrocarbon plumes. The VOCs that usually represent the greatest environmental risk are absent in the tank pit.
- **Groundwater Impacts** – Analyses of pit water documented elevated levels of diesel and trace amounts of toluene and ethylbenzene at levels less than EPA Preliminary Remediation Goals (PRGs) (Table 3). Low levels of MTBE were also detected but may have been related to the original hydrocarbon contamination at the site. The overexcavation within the tank pit successfully reduced the potential source of

hydrocarbon in groundwater and analyses document that VOCs that might impact groundwater were absent in the pit soils. Groundwater quality adjacent to the Oakland Estuary and is generally poor because of brackish water incursion from the Bay. Groundwater is generally not potable and there are no projected plans for groundwater development and no planned uses for local groundwater therefore, groundwater does not represent a significant exposure pathway in the area.

- **No Additional Risk** - Concentrations of 200 mg/kg TPHd remaining in the tank pit soil are less than the accepted risk level of 1400 mg/kg TPHd established for the site (Seccor, 1996). The analytical data document that remediation successfully reduced soil impacts related to this tank removal and that the residual hydrocarbons do not represent a net addition of higher hydrocarbon concentrations nor do they add incrementally to the projected risk to human health.

Consequently, we do not propose soil borings or further monitoring to establish the immobility of hydrocarbons or the decline of the limited identified impacts related to the remediation of the two USTs. The detected levels of hydrocarbons do not represent a larger areal impact or higher concentrations of hydrocarbons than have already been accepted as an insubstantial risk to human health in an area where groundwater is generally not used and exposure scenarios do not indicate a significant incremental additional risk.

## 6.2 LEAD RECOMMENDATIONS

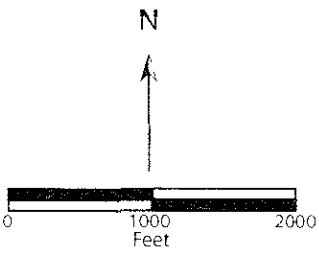
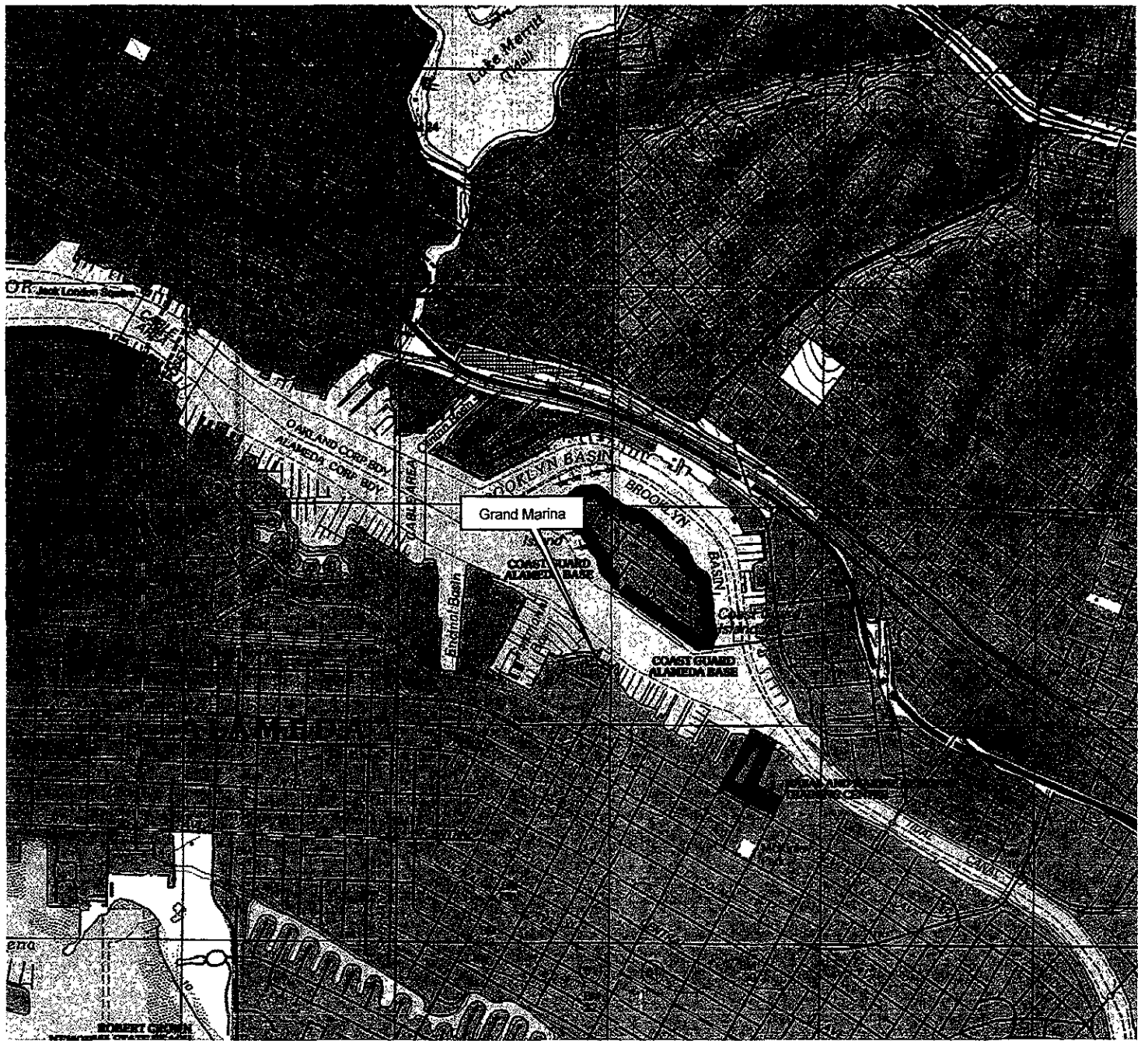
The soil lead levels identified at the former pump site are slightly below PRGs for residential sties but still represent some residual contamination. We recommend a series of three geoprobe borings around the area to a depth of six feet and soil samples collected every two feet to establish the nature and extent of the lead impacts. Based on lead analyses of those samples, an additional volume of soil will be removed to remediate any potential lead impacts. Permits for the borings will be submitted to Alameda County after acceptance of this closure report.

## 7 REFERENCES

- ACC Environmental Consultants, 1996, *Quarterly Groundwater Monitoring Report, Grand Marina, 2099 Grand Street, Alameda, California*. April 1996.
- HLA, 1987, *Soil Investigation of the Grand Marina property, 2099 Grand Street, Alameda, California*. April 1997
- Lowney Associates, 2004a, *Phase I Environmental Site Assessment, Grand Marina Village, Alameda, California*. November 1, 2004.
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- Seccor Environmental, 1995, *Additional Subsurface Investigation Report, Grand Marina*. May 12, 1995.
- Seccor Environmental, 1996, *Risk Assessment Report for the Grand Street and Fortmann Way Property, Alameda, California*. June 26, 1996.

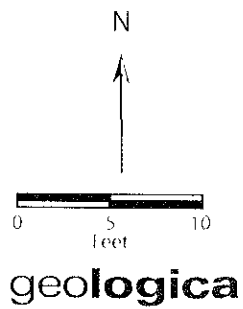
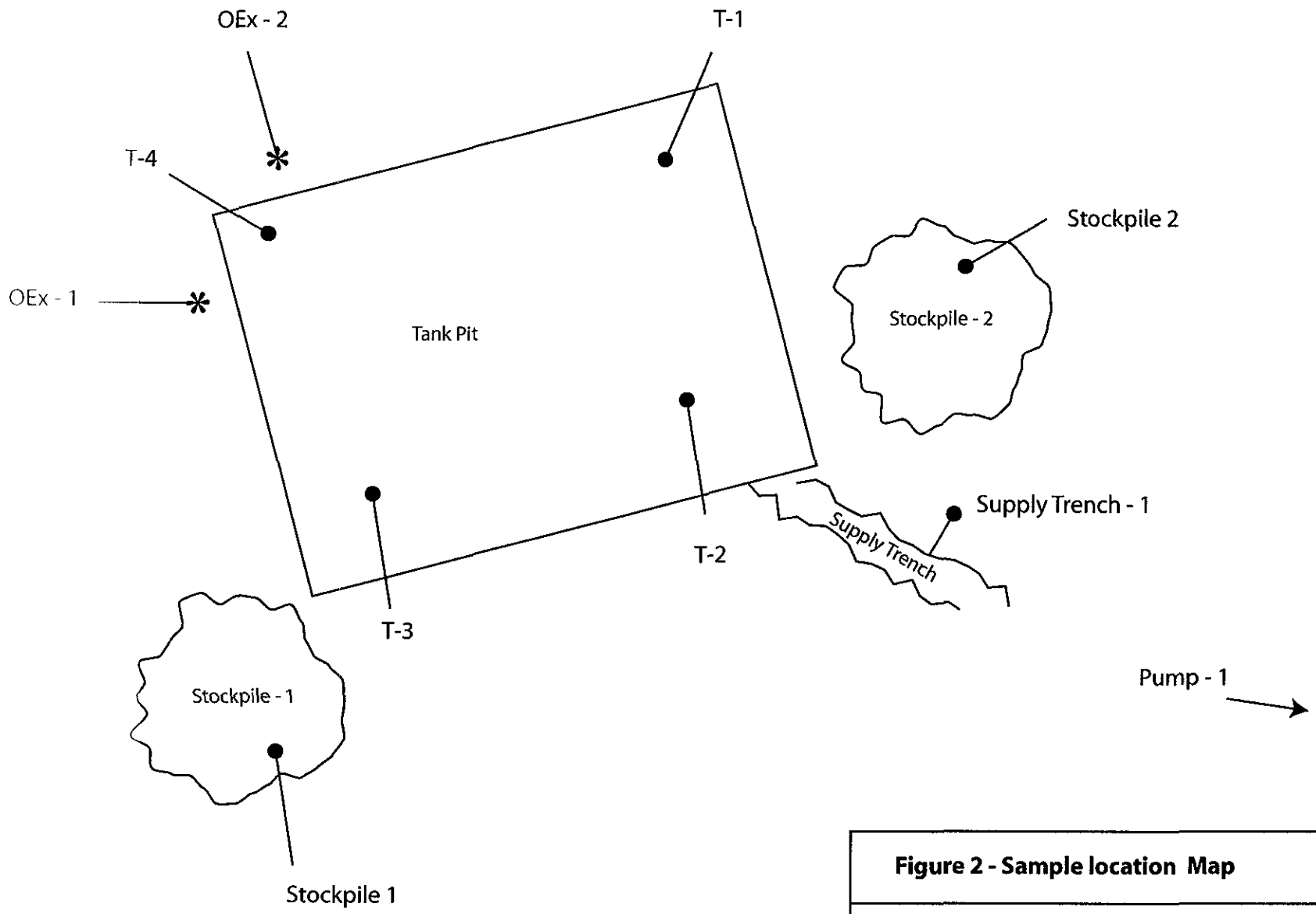


# FIGURES



**Figure 1 - Site Location**

Storage Tank Removal  
Grand Marina  
2099 Grand Street  
Alameda, CA



**Figure 2 - Sample location Map**

Storage Tank Removal  
 Grand Marina  
 2099 Grand Street  
 Alameda, CA

ALAMEDA

HARBOR

HARBOR OFFICE

FUEL DOCK









EXISTING CURB LINE

EXISTING CURB LINE



FORTMANN WAY


STREET

Approx. location former 1000 gal. UST

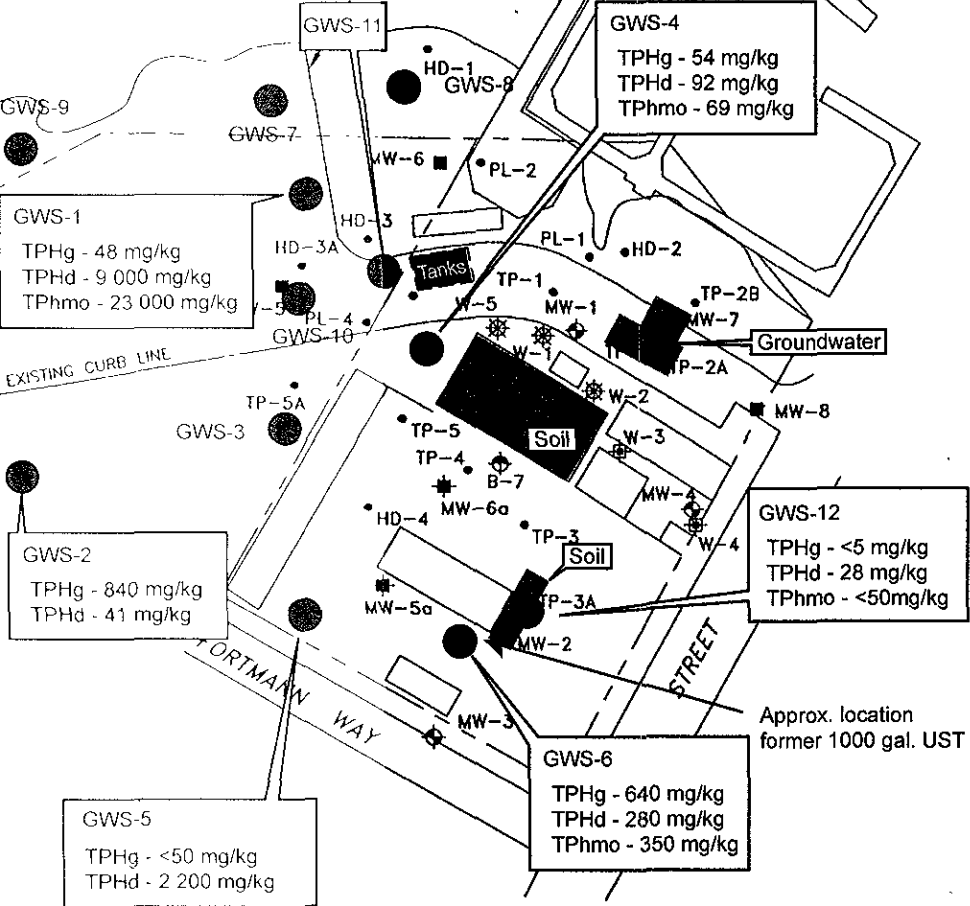
- MW-5a  MONITORING WELL (ACC, 10/94)
- MW-8  MONITORING WELL (SECOR, 10/94)
- TP-3A  BORING (SECOR, 10/94)
- PL-2  BORING (SECOR, 10/93)
- MW-1  MONITORING WELL (ZACCOR, 5/92)
- B-7  MONITORING WELL (HARDING-LAWSON, 6/87)
- W-3  ABANDONED MONITORING WELL (CROWLEY ENVIRONMENTAL SERVICES, 4/87)
- W-4  MONITORING WELL (CROWLEY, 4/87)

PROPERTY LINE

-  Recent boring (Lowney Assoc., 2004; 2005) showing analytical results exceeding lab detection limits
-  Recent boring (Lowney Assoc., 2004; 2005) where analytical results are *below* lab detection limits

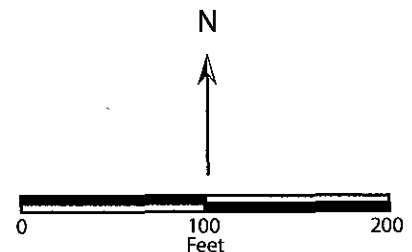
 Historically impacted areas noting affected media ( SECOR, 1996)

 Current tank excavation



**Figure 3 - Compiled Site Investigation Results**

Storage Tank Removal  
Grand Marina  
2099 Grand Street  
Alameda, CA





# TABLES



Table1. Grand Street Marina  
Underground Storage Tank  
Analytical Results for Soil  
Organic Constituents

Sample Designation	Depth (ft)	Concentrations in mg/kg			EPA Method 8260					
		EPA Method 8015MB			Benzene	Toluene	Ethylbenzene	Xylenes	Oxygenates <sup>a</sup>	
		TPH-gasoline	TPH-diesel	TPH-motor oil						
<i>Excavation Samples</i>										
T-1	10	410	4.1	NA	ND	ND	ND	ND	ND	
T-2	10	1800	120	↓	ND	ND	ND	ND	ND	
T-3	10	ND	3.6		ND	ND	ND	ND	ND	
T-4	10	8500	2800		ND	ND	ND	ND	ND	
Supply Trench -1	3	ND	65		ND	ND	ND	ND	ND	
Pump - 1	3	ND	460		ND	ND	ND	ND	ND	
<i>Stockpiles</i>										
Stockpile-1	2' into interior	ND	4.5			ND	ND	ND	ND	ND
Stockpile-2	2' into interior	ND	5.1			ND	ND	ND	ND	ND
<i>Over excavation samples</i>										
Oex-1	10	450	7.8		NA	ND	ND	ND	ND	ND
Oex-2	10	370	200		ND	ND	ND	ND	ND	
Oex-3	4	ND	9.6		ND	ND	ND	ND	ND	

NOTES: \* -Not Applicable    TPH - Total Petroleum Hydrocarbons  
 ND- Not detected    Oxygenates - MTBE, TAME, TBA, DiPE, TBA, EtOH as noted  
 NA - Not analyzed

Table 2. Grand Marina  
Underground Storage Tank  
Analytical Results for Soil  
Inorganic Constituents

Concentrations in mg/kg

Sample Designation	Depth (ft)	Pb
<i>Excavation Samples</i>		
T-1	10	4.1
T-2	10	14
T-3	10	3.8
T-4	10	33
Supply Trench -1	3	97
Pump - 1	3	520
<i>Stockpiles</i>		
Stockpile-1	2' into interior	5.1
Stockpile-2	2' into interior	7.4
<i>Excavation water</i>		
Water - 1		2
<i>Over excavation samples</i>		
Oex-1	10	12
Oex-2	10	5.3
Oex-3	2	390
PRG (Res) in mg/kg		400
PRG (Ind) in mg/kg		750
10XSTLC in mg/kg		50
TTLC in mg/kg		1000

NOTES: \* -Not Applicable

ND- Not detected

NA - Not analyzed

Total concentrations analyzed by EPA Method 6000/7

Table3. Grand Marina  
Underground Storage Tank  
Analytical Results for Excavation Water  
Organic Constituents

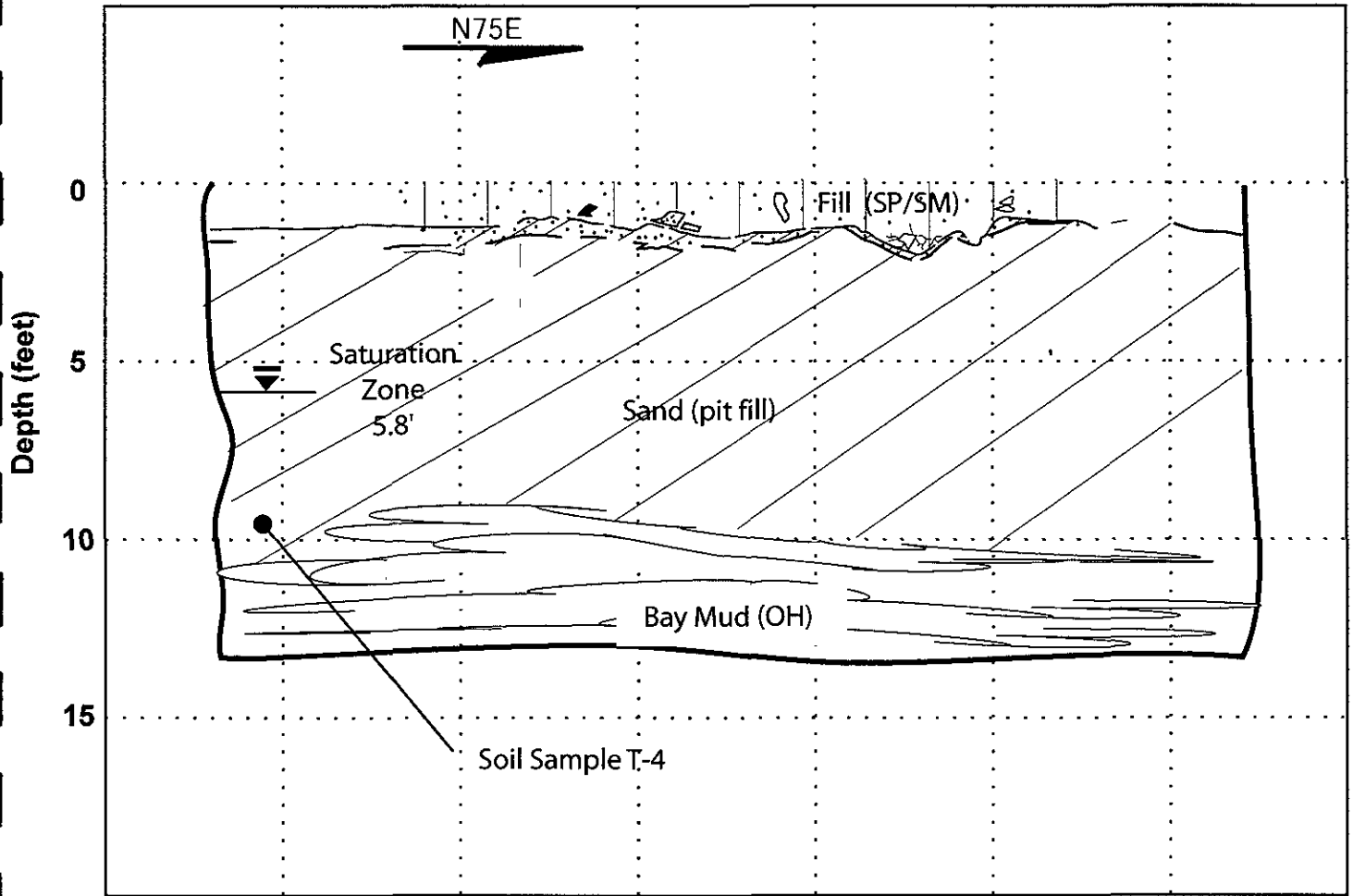
		Concentrations in µg/L								
Sample Designation	Depth (ft)	EPA Method 8015MB			EPA Method 8260				Oxygenates*	
		TPH-gasoline	TPH-diesel	TPH-motor oil	Benzene	Toluene	Ethylbenzene	Xylenes	Ethanol	MTBE
Excavation Sample										
Water - 1		210	5500	NA	ND	2.4	0.66	4.4	330	18
PRG (R) in mg/kg		*	*	*	7.2	590	1500	1400		*
PRG (I) in mg/kg		*	*	*	2.4	2000	6000	4500		*
10XSTLC in mg/kg		*	*	*	*	*	*	*		*
T1LC in mg/kg		*	*	*	*	*	*	*		*

NOTES Not Applicable TPH - Total Petroleum Hydrocarbons  
 ND - Not detected Oxygenates - MTBE, TAME, TBA, DiPE, TBA, EtOH detections noted  
 NA - Not analyzed SVOC - Semi-volatile organic compounds (C - C )



# APPENDIX A

**UST Removal Excavation  
Grand Marina  
Alameda, California**



Depth Description (USCS soil classification)

- 0-1 ft Imported Fill - mixed gravelly sands (SP) and sand-silt mixture, yellow-brown to grey-brown predominantly quartz grains poorly sorted and rounded 1-2mm in size w/ fines <1mm and mixed gravel pebbles of quartz and greywacke.
- 1-8 ft Sand (SW) tank pit fill yellow-olive brown, 1-2mm grains of quartz, well sorted and graded. Petroleum odors at the northwestern pit corner (Sample T-4) . Zone of saturation approximately 5.8 feet probably perched above organic rich Bay Mud layer.
- 8-12 ft Bay Mud - (OH) grey-olive grey, black where plant matter predominates. Very fine grained well sorted , well graded. Minor intercalations of peat and mixed fossilized plant matter w/ minor to trace amounts of shells . .

geologica

TEST PIT / TRENCH LOG

Project: Tank Excavation and Remediation

Date: 10/18/05

Location: Grand Marina, Alameda, CA

Logged by: GS



# APPENDIX B



**Sequoia  
Analytical**

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28 October, 2005

Gene Suemnicht  
Geologica Inc [Sn FSCO]  
594 Howard St. suite 400  
San Francisco, CA 94105

RE: Zaccor:002  
Work Order: MOJ1184

Enclosed are the results of analyses for samples received by the laboratory on 10/22/05 08:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Douglas Clark For Tim Costello  
Lab Manager

CA ELAP Certificate #1210

Geologica Inc [Sn FSCO]  
594 Howard St. suite 400  
San Francisco CA, 94105

Project:Zaccor:002  
Project Number:Grand St. Marina  
Project Manager:Gene Suemnicht

MOJ1184  
Reported:  
10/28/05 17:17

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T-1	MOJ1184-01	Soil	10/20/05 15:00	10/22/05 08:30
T-2	MOJ1184-02	Soil	10/20/05 15:05	10/22/05 08:30
T-3	MOJ1184-03	Soil	10/20/05 15:10	10/22/05 08:30
T-4	MOJ1184-04	Soil	10/20/05 15:15	10/22/05 08:30
Pump-1	MOJ1184-05	Soil	10/20/05 15:35	10/22/05 08:30
Water-1	MOJ1184-06	Water	10/20/05 15:45	10/22/05 08:30
Stockpile -1	MOJ1184-07	Soil	10/20/05 16:00	10/22/05 08:30
Stockpile -2	MOJ1184-08	Soil	10/20/05 16:10	10/22/05 08:30
Supply Trench-1	MOJ1184-09	Soil	10/20/05 16:20	10/22/05 08:30



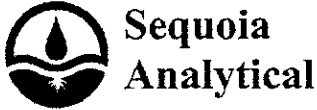
Geologica Inc [Sn FSCO]  
 594 Howard St. suite 400  
 San Francisco CA, 94105

 Project:Zaccor:002  
 Project Number:Grand St. Marina  
 Project Manager:Gene Suemnicht

 MOJ1184  
 Reported:  
 10/28/05 17:17

**METALS**
**Del Mar Analytical, Irvine**

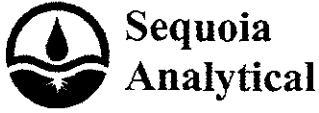
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>T-1 (MOJ1184-01) Soil Sampled: 10/20/05 15:00 Received: 10/22/05 08:30</b>									
Lead	4.1	2.0	mg/kg	1	5J25103	10/25/05	10/27/05 13:54	EPA 6010B	
<b>T-2 (MOJ1184-02) Soil Sampled: 10/20/05 15:05 Received: 10/22/05 08:30</b>									
Lead	14	2.0	mg/kg	1	5J25103	10/25/05	10/27/05 14:00	EPA 6010B	
<b>T-3 (MOJ1184-03) Soil Sampled: 10/20/05 15:10 Received: 10/22/05 08:30</b>									
Lead	3.8	2.0	mg/kg	1	5J25103	10/25/05	10/27/05 14:05	EPA 6010B	
<b>T-4 (MOJ1184-04) Soil Sampled: 10/20/05 15:15 Received: 10/22/05 08:30</b>									
Lead	33	2.0	mg/kg	1	5J25103	10/25/05	10/27/05 14:11	EPA 6010B	
<b>Pump-1 (MOJ1184-05) Soil Sampled: 10/20/05 15:35 Received: 10/22/05 08:30</b>									
Lead	520	2.0	mg/kg	1	5J25103	10/25/05	10/27/05 14:26	EPA 6010B	
<b>Water-1 (MOJ1184-06) Water Sampled: 10/20/05 15:45 Received: 10/22/05 08:30</b>									
Lead	2.0	0.050	mg/l	10	5J25081	10/25/05	10/27/05 11:44	EPA 6010B	
<b>Stockpile -1 (MOJ1184-07) Soil Sampled: 10/20/05 16:00 Received: 10/22/05 08:30</b>									
Lead	5.1	2.0	mg/kg	1	5J25103	10/25/05	10/27/05 14:32	EPA 6010B	
<b>Stockpile -2 (MOJ1184-08) Soil Sampled: 10/20/05 16:10 Received: 10/22/05 08:30</b>									
Lead	7.4	2.0	mg/kg	1	5J25103	10/25/05	10/27/05 14:37	EPA 6010B	
<b>Supply Trench-1 (MOJ1184-09) Soil Sampled: 10/20/05 16:20 Received: 10/22/05 08:30</b>									
Lead	97	2.0	mg/kg	1	5J25103	10/25/05	10/27/05 14:43	EPA 6010B	



Geologica Inc [Sn Fscs] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Purgeable Hydrocarbons by EPA 8015B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>T-1 (MOJ1184-01) Soil Sampled: 10/20/05 15:00 Received: 10/22/05 08:30</b>									
Gasoline Range Organics (C4-C12)	410	100	ug/kg	1	5J25025	10/25/05	10/25/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		102 %	35-130		"	"	"	"	
<b>T-2 (MOJ1184-02) Soil Sampled: 10/20/05 15:05 Received: 10/22/05 08:30</b>									
Gasoline Range Organics (C4-C12)	1800	100	ug/kg	1	5J25025	10/25/05	10/25/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		142 %	35-130		"	"	"	"	S04
<b>T-3 (MOJ1184-03) Soil Sampled: 10/20/05 15:10 Received: 10/22/05 08:30</b>									
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	5J25025	10/25/05	10/25/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		101 %	35-130		"	"	"	"	
<b>T-4 (MOJ1184-04) Soil Sampled: 10/20/05 15:15 Received: 10/22/05 08:30</b>									
Gasoline Range Organics (C4-C12)	8500	500	ug/kg	5	5J25025	10/25/05	10/25/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		142 %	35-130		"	"	"	"	S04
<b>Pump-1 (MOJ1184-05) Soil Sampled: 10/20/05 15:35 Received: 10/22/05 08:30</b>									
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	5J25025	10/25/05	10/25/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		72 %	35-130		"	"	"	"	
<b>Water-1 (MOJ1184-06) Water Sampled: 10/20/05 15:45 Received: 10/22/05 08:30</b>									
Gasoline Range Organics (C4-C12)	210	100	ug/l	2	5J26005	10/26/05	10/26/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		101 %	80-120		"	"	"	"	
<b>Stockpile -1 (MOJ1184-07) Soil Sampled: 10/20/05 16:00 Received: 10/22/05 08:30</b>									
Gasoline Range Organics (C4-C12)	150	100	ug/kg	1	5J25025	10/25/05	10/25/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		94 %	35-130		"	"	"	"	



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Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Purgeable Hydrocarbons by EPA 8015B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Stockpile -2 (MOJ1184-08) Soil    Sampled: 10/20/05 16:10    Received: 10/22/05 08:30</b>									
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	5J25025	10/25/05	10/25/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		84 %	35-130		"	"	"	"	
<b>Supply Trench-1 (MOJ1184-09) Soil    Sampled: 10/20/05 16:20    Received: 10/22/05 08:30</b>									
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	5J25025	10/25/05	10/25/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		84 %	35-130		"	"	"	"	

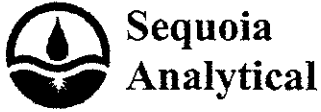


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**Extractable Hydrocarbons by EPA 8015B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>T-1 (MOJ1184-01) Soil Sampled: 10/20/05 15:00 Received: 10/22/05 08:30</b>									
Diesel Range Organics (C10-C28)	4.1	1.0	mg/kg	1	5J24003	10/24/05	10/25/05	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		82 %	30-159		"	"	"	"	
<b>T-2 (MOJ1184-02) Soil Sampled: 10/20/05 15:05 Received: 10/22/05 08:30</b>									
Diesel Range Organics (C10-C28)	120	5.0	mg/kg	5	5J24003	10/24/05	10/25/05	EPA 8015B-SVOA	HC-17
Surrogate: n-Octacosane		106 %	30-159		"	"	"	"	
<b>T-3 (MOJ1184-03) Soil Sampled: 10/20/05 15:10 Received: 10/22/05 08:30</b>									
Diesel Range Organics (C10-C28)	3.6	1.0	mg/kg	1	5J24003	10/24/05	10/25/05	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		89 %	30-159		"	"	"	"	
<b>T-4 (MOJ1184-04) Soil Sampled: 10/20/05 15:15 Received: 10/22/05 08:30</b>									
Diesel Range Organics (C10-C28)	2800	100	mg/kg	100	5J24003	10/24/05	10/25/05	EPA 8015B-SVOA	HC-17
Surrogate: n-Octacosane		%	30-159		"	"	"	"	S08
<b>Pump-1 (MOJ1184-05) Soil Sampled: 10/20/05 15:35 Received: 10/22/05 08:30</b>									
Diesel Range Organics (C10-C28)	460	50	mg/kg	20	5J24003	10/24/05	10/25/05	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		2130 %	30-159		"	"	"	"	S09
<b>Water-1 (MOJ1184-06) Water Sampled: 10/20/05 15:45 Received: 10/22/05 08:30</b>									
Diesel Range Organics (C10-C28)	5500	500	ug/l	10	5J25006	10/25/05	10/26/05	EPA 8015B-SVOA	HC-17
Surrogate: n-Octacosane		107 %	34-123		"	"	"	"	
<b>Stockpile -1 (MOJ1184-07) Soil Sampled: 10/20/05 16:00 Received: 10/22/05 08:30</b>									
Diesel Range Organics (C10-C28)	5.1	1.0	mg/kg	1	5J24003	10/24/05	10/25/05	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		99 %	30-159		"	"	"	"	

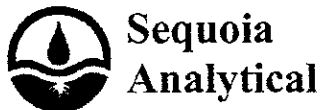


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**Extractable Hydrocarbons by EPA 8015B  
 Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Stockpile -2 (MOJ1184-08) Soil    Sampled: 10/20/05 16:10    Received: 10/22/05 08:30</b>									
Diesel Range Organics (C10-C28)	4.5	1.0	mg/kg	1	5J24003	10/24/05	10/25/05	EPA 8015B-SVOA	HC-12
<i>Surrogate: n-Octacosane</i>		88 %	30-159		"	"	"	"	
<b>Supply Trench-1 (MOJ1184-09) Soil    Sampled: 10/20/05 16:20    Received: 10/22/05 08:30</b>									
Diesel Range Organics (C10-C28)	65	10	mg/kg	10	5J24003	10/24/05	10/25/05	EPA 8015B-SVOA	HC-12
<i>Surrogate: n-Octacosane</i>		374 %	30-159		"	"	"	"	S04



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**BTEX by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Water-1 (MOJ1184-06) Water</b> <b>Sampled: 10/20/05 15:45</b> <b>Received: 10/22/05 08:30</b>									
Benzene	ND	0.50	ug/l	1	5J28009	10/28/05	10/28/05	EPA 8260B	
Ethylbenzene	0.66	0.50	"	"	"	"	"	"	
Toluene	2.4	0.50	"	"	"	"	"	"	
Xylenes (total)	4.4	0.50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91 %		60-135	"	"	"	"	



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Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**T-1 (MOJ1184-01) Soil Sampled: 10/20/05 15:00 Received: 10/22/05 08:30**

Benzene	ND	5.0	ug/kg	1	5J26043	10/26/05	10/26/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		92 %	55-125		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91 %	60-125		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98 %	65-130		"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91 %	60-125		"	"	"	"	

**T-2 (MOJ1184-02) Soil Sampled: 10/20/05 15:05 Received: 10/22/05 08:30**

Benzene	ND	5.0	ug/kg	1	5J26043	10/26/05	10/26/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		93 %	55-125		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		88 %	60-125		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97 %	65-130		"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		88 %	60-125		"	"	"	"	



Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**T-3 (MOJ1184-03) Soil Sampled: 10/20/05 15:10 Received: 10/22/05 08:30**

Benzene	ND	5.0	ug/kg	1	5J26043	10/26/05	10/26/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		78 %	55-125		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		77 %	60-125		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		106 %	65-130		"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		77 %	60-125		"	"	"	"	

**T-4 (MOJ1184-04) Soil Sampled: 10/20/05 15:15 Received: 10/22/05 08:30**

Benzene	ND	5.0	ug/kg	1	5J26043	10/26/05	10/27/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		90 %	55-125		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		86 %	60-125		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95 %	65-130		"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		86 %	60-125		"	"	"	"	





Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Pump-1 (MOJ1184-05) Soil**    **Sampled: 10/20/05 15:35**    **Received: 10/22/05 08:30**

Benzene	ND	5.0	ug/kg	1	5J26043	10/26/05	10/27/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		82 %		55-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		74 %		60-125	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95 %		65-130	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4*

74 %    60-125    "    "    "    "

**Water-1 (MOJ1184-06) Water**    **Sampled: 10/20/05 15:45**    **Received: 10/22/05 08:30**

tert-Amyl methyl ether	ND	0.50	ug/l	1	5J28009	10/28/05	10/28/05	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
<b>Ethanol</b>	<b>330</b>	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>18</b>	0.50	"	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4*

91 %    60-135    "    "    "    "



Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Stockpile -1 (MOJ1184-07) Soil Sampled: 10/20/05 16:00 Received: 10/22/05 08:30**

Benzene	ND	5.0	ug/kg	1	5J26043	10/26/05	10/27/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		82 %		55-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		79 %		60-125	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99 %		65-130	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		79 %		60-125	"	"	"	"	

**Stockpile -2 (MOJ1184-08) Soil Sampled: 10/20/05 16:10 Received: 10/22/05 08:30**

Benzene	ND	5.0	ug/kg	1	5J26043	10/26/05	10/27/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		87 %		55-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		85 %		60-125	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		93 %		65-130	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		85 %		60-125	"	"	"	"	



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**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Supply Trench-1 (MOJ1184-09) Soil    Sampled: 10/20/05 16:20    Received: 10/22/05 08:30</b>									
Benzene	ND	5.0	ug/kg	1	5J26043	10/26/05	10/27/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		78 %		55-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		76 %		60-125	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		93 %		65-130	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		76 %		60-125	"	"	"	"	



Geologica Inc [Sn Fsc0] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**METALS - Quality Control**  
**Del Mar Analytical, Irvine**

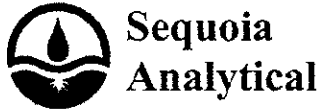
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5J25081 - EPA 3005A ICP / EPA 6010B**

<b>Blank (5J25081-BLK1)</b>				Prepared: 10/25/05 Analyzed: 10/26/05						
Lead	ND	0.0050	mg/l							
<b>Laboratory Control Sample (5J25081-BS1)</b>				Prepared: 10/25/05 Analyzed: 10/26/05						
Lead	0.933	0.0050	mg/l	1.00		93	80-120			
<b>Matrix Spike (5J25081-MS1)</b>				Source: IOJ1423-01 Prepared: 10/25/05 Analyzed: 10/26/05						
Lead	0.941	0.0050	mg/l	1.00	0.0036	94	75-125			
<b>Matrix Spike Dup (5J25081-MSD1)</b>				Source: IOJ1423-01 Prepared: 10/25/05 Analyzed: 10/27/05						
Lead	0.968	0.0050	mg/l	1.00	0.0036	96	75-125	3	20	

**Batch 5J25103 - EPA 3050B ICP / EPA 6010B**

<b>Blank (5J25103-BLK1)</b>				Prepared: 10/25/05 Analyzed: 10/27/05						
Lead	ND	2.0	mg/kg							
<b>Laboratory Control Sample (5J25103-BS1)</b>				Prepared: 10/25/05 Analyzed: 10/27/05						
Lead	46.2	2.0	mg/kg	50.0		92	80-120			
<b>Matrix Spike (5J25103-MS1)</b>				Source: IOJ1672-01 Prepared: 10/25/05 Analyzed: 10/27/05						
Lead	55.3	2.0	mg/kg	50.0	12	87	75-125			
<b>Matrix Spike Dup (5J25103-MSD1)</b>				Source: IOJ1672-01 Prepared: 10/25/05 Analyzed: 10/27/05						
Lead	59.4	2.0	mg/kg	50.0	12	95	75-125	7	20	



Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Purgeable Hydrocarbons by EPA 8015B - Quality Control  
Sequoia Analytical - Morgan Hill**

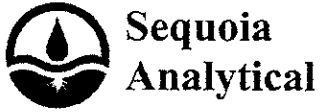
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5J25025 - EPA 5030B [P/T] / EPA 8015B-VOA**

<b>Blank (5J25025-BLK1)</b>										
Prepared & Analyzed: 10/25/05										
Gasoline Range Organics (C4-C12)	ND	100	ug/kg							
Surrogate: 4-Bromofluorobenzene	83.9		"	80.0		105	35-130			
<b>Laboratory Control Sample (5J25025-BS1)</b>										
Prepared & Analyzed: 10/25/05										
Gasoline Range Organics (C4-C12)	417	100	ug/kg	550		76	55-140			
Surrogate: 4-Bromofluorobenzene	84.8		"	80.0		106	35-130			
<b>Matrix Spike (5J25025-MS1)</b>										
Source: MOJ1184-03 Prepared & Analyzed: 10/25/05										
Gasoline Range Organics (C4-C12)	322	100	ug/kg	550	ND	59	55-140			
Surrogate: 4-Bromofluorobenzene	80.1		"	80.0		100	35-130			
<b>Matrix Spike Dup (5J25025-MSD1)</b>										
Source: MOJ1184-03 Prepared & Analyzed: 10/25/05										
Gasoline Range Organics (C4-C12)	405	100	ug/kg	550	ND	74	55-140	23	20	QC21
Surrogate: 4-Bromofluorobenzene	78.6		"	80.0		98	35-130			

**Batch 5J26005 - EPA 5030B [P/T] / EPA 8015B-VOA**

<b>Blank (5J26005-BLK1)</b>										
Prepared & Analyzed: 10/26/05										
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	39.8		"	40.0		100	80-120			
<b>Laboratory Control Sample (5J26005-BS1)</b>										
Prepared & Analyzed: 10/26/05										
Gasoline Range Organics (C4-C12)	249	50	ug/l	275		91	55-130			
Surrogate: 4-Bromofluorobenzene	41.9		"	40.0		105	80-120			
<b>Matrix Spike (5J26005-MS1)</b>										
Source: MOJ1037-01 Prepared & Analyzed: 10/26/05										
Gasoline Range Organics (C4-C12)	212	50	ug/l	275	ND	77	55-130			
Surrogate: 4-Bromofluorobenzene	41.7		"	40.0		104	80-120			



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Geologica Inc [Sn FSCO]  
 594 Howard St. suite 400  
 San Francisco CA, 94105

Project: Zaccor:002  
 Project Number: Grand St. Marina  
 Project Manager: Gene Suernnicht

MOJ1184  
 Reported:  
 10/28/05 17:17

**Purgeable Hydrocarbons by EPA 8015B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5J26005 - EPA 5030B [P/T] / EPA 8015B-VOA</b>										
<b>Matrix Spike Dup (5J26005-MSD1)</b>		<b>Source: MOJ1037-01</b>			<b>Prepared &amp; Analyzed: 10/26/05</b>					
Gasoline Range Organics (C4-C12)	214	50	ug/l	275	ND	78	55-130	0.9	35	
Surrogate: 4-Bromofluorobenzene	42.7		"	40.0		107	80-120			

Geologica Inc [Sn FSCO]  
 594 Howard St. suite 400  
 San Francisco CA, 94105

 Project:Zaccor:002  
 Project Number:Grand St. Marina  
 Project Manager:Gene Suemnicht

 MOJ1184  
 Reported:  
 10/28/05 17:17

### Extractable Hydrocarbons by EPA 8015B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5J24003 - EPA 3550B / EPA 8015B-SVOA**
**Blank (5J24003-BLK1)**

Prepared &amp; Analyzed: 10/24/05

Diesel Range Organics (C10-C28)	ND	1.0	mg/kg							
Surrogate: <i>n</i> -Octacosane	1.30		"	1.67		78	30-159			

**Laboratory Control Sample (5J24003-BS1)**

Prepared &amp; Analyzed: 10/24/05

Diesel Range Organics (C10-C28)	13.7	1.0	mg/kg	16.7		82	54-139			
Surrogate: <i>n</i> -Octacosane	1.42		"	1.67		85	30-159			

**Matrix Spike (5J24003-MS1)**

Source: MOJ1146-01

Prepared &amp; Analyzed: 10/24/05

Diesel Range Organics (C10-C28)	14.0	1.0	mg/kg	16.7	1.9	72	54-139			
Surrogate: <i>n</i> -Octacosane	1.41		"	1.67		84	30-159			

**Matrix Spike Dup (5J24003-MSD1)**

Source: MOJ1146-01

Prepared &amp; Analyzed: 10/24/05

Diesel Range Organics (C10-C28)	14.8	1.0	mg/kg	16.7	1.9	77	54-139	6	29	
Surrogate: <i>n</i> -Octacosane	1.44		"	1.67		86	30-159			

**Batch 5J25006 - EPA 3510C / EPA 8015B-SVOA**
**Blank (5J25006-BLK1)**

Prepared &amp; Analyzed: 10/25/05

Diesel Range Organics (C10-C28)	ND	50	ug/l							
Surrogate: <i>n</i> -Octacosane	31.4		"	50.0		63	34-123			

**Laboratory Control Sample (5J25006-BS1)**

Prepared &amp; Analyzed: 10/25/05

Diesel Range Organics (C10-C28)	303	50	ug/l	500		61	51-128			
Surrogate: <i>n</i> -Octacosane	32.5		"	50.0		65	34-123			

**Laboratory Control Sample Dup (5J25006-BSD1)**

Prepared &amp; Analyzed: 10/25/05

Diesel Range Organics (C10-C28)	298	50	ug/l	500		60	51-128	2	27	
Surrogate: <i>n</i> -Octacosane	30.0		"	50.0		60	34-123			



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**Extractable Hydrocarbons by EPA 8015B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5J25006 - EPA 3510C / EPA 8015B-SVOA**

<b>Duplicate (5J25006-DUP1)</b>	<b>Source: MOJ1149-01</b>		<b>Prepared &amp; Analyzed: 10/25/05</b>							
Diesel Range Organics (C10-C28)	ND	48	ug/l		ND				200	
Surrogate: n-Octacosane	38.3		"	48.1		80	34-123			





Geologica Inc [Sn Fsc] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**BTEX by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5J28009 - EPA 5030B P/T / EPA 8260B**

**Blank (5J28009-BLK1)** Prepared & Analyzed: 10/28/05

Benzene	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							

*Surrogate: 1,2-Dichloroethane-d4*      4.30      "      5.00      86      60-135

**Laboratory Control Sample (5J28009-BS1)** Prepared & Analyzed: 10/28/05

Benzene	5.27	0.50	ug/l	5.16		102	65-115			
Ethylbenzene	6.75	0.50	"	7.54		90	75-135			
Toluene	41.4	0.50	"	37.2		111	85-120			
Xylenes (total)	38.5	0.50	"	41.2		93	85-125			

*Surrogate: 1,2-Dichloroethane-d4*      4.52      "      5.00      90      60-135



Geologica Inc [Sn Fsc0] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5J26043 - EPA 5030B P/T / EPA 8260B**

**Blank (5J26043-BLK1)**

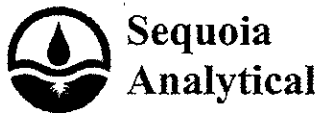
Prepared & Analyzed: 10/26/05

tert-Amyl methyl ether	ND	5.0	ug/kg							
Benzene	ND	5.0	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Toluene	ND	5.0	"							
Xylenes (total)	ND	5.0	"							
<i>Surrogate: Dibromofluoromethane</i>	4.54		"	5.00		91	55-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.42		"	5.00		88	60-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.42		"	5.00		88	60-125			
<i>Surrogate: Toluene-d8</i>	4.67		"	5.00		93	65-130			

**Laboratory Control Sample (5J26043-BS1)**

Prepared & Analyzed: 10/26/05

tert-Amyl methyl ether	15.1	5.0	ug/kg	15.0		101	80-130			
Benzene	5.86	5.0	"	5.16		114	65-125			
tert-Butyl alcohol	141	20	"	143		99	80-165			
Di-isopropyl ether	15.3	5.0	"	15.1		101	85-115			
1,2-Dibromoethane (EDB)	16.1	5.0	"	14.9		108	85-130			
1,2-Dichloroethane	14.4	5.0	"	14.7		98	63-124			
Ethanol	136	100	"	142		96	35-150			
Ethyl tert-butyl ether	15.2	5.0	"	15.0		101	80-125			
Ethylbenzene	7.83	5.0	"	7.54		104	80-135			
Methyl tert-butyl ether	7.13	5.0	"	7.02		102	75-115			
Toluene	38.5	5.0	"	37.2		103	85-125			
Xylenes (total)	44.0	5.0	"	41.2		107	80-140			
<i>Surrogate: Dibromofluoromethane</i>	4.30		"	5.00		86	55-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	3.98		"	5.00		80	60-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	3.98		"	5.00		80	60-125			
<i>Surrogate: Toluene-d8</i>	4.54		"	5.00		91	65-130			



Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	Limit	Notes
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**Batch 5J26043 - EPA 5030B P/T / EPA 8260B**

**Laboratory Control Sample Dup (5J26043-BSD1)**

Prepared & Analyzed: 10/26/05

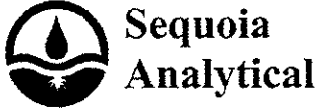
tert-Amyl methyl ether	15.4	5.0	ug/kg	15.0		103	80-130	2	25	
Benzene	5.84	5.0	"	5.16		113	65-125	0.3	20	
tert-Butyl alcohol	151	20	"	143		106	80-165	7	25	
Di-isopropyl ether	15.3	5.0	"	15.1		101	85-115	0	20	
1,2-Dibromoethane (EDB)	16.2	5.0	"	14.9		109	85-130	0.6	15	
1,2-Dichloroethane	16.0	5.0	"	14.7		109	63-124	11	25	
Ethanol	153	100	"	142		108	35-150	12	40	
Ethyl tert-butyl ether	15.3	5.0	"	15.0		102	80-125	0.7	25	
Ethylbenzene	7.85	5.0	"	7.54		104	80-135	0.3	20	
Methyl tert-butyl ether	7.40	5.0	"	7.02		105	75-115	4	35	
Toluene	39.5	5.0	"	37.2		106	85-125	3	15	
Xylenes (total)	44.0	5.0	"	41.2		107	80-140	0	20	
<i>Surrogate: Dibromofluoromethane</i>	4.53		"	5.00		91	55-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.46		"	5.00		89	60-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.46		"	5.00		89	60-125			
<i>Surrogate: Toluene-d8</i>	4.69		"	5.00		94	65-130			

**Batch 5J28009 - EPA 5030B P/T / EPA 8260B**

**Blank (5J28009-BLK1)**

Prepared & Analyzed: 10/28/05

tert-Amyl methyl ether	ND	0.50	ug/l							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.30		"	5.00		86	60-135			



Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5J28009 - EPA 5030B P/T / EPA 8260B**

**Laboratory Control Sample (5J28009-BS1)**

Prepared & Analyzed: 10/28/05

tert-Amyl methyl ether	14.8	0.50	ug/l	15.0		99	80-115			
tert-Butyl alcohol	152	20	"	143		106	75-150			
Di-isopropyl ether	15.0	0.50	"	15.1		99	75-125			
1,2-Dibromoethane (EDB)	16.4	0.50	"	14.9		110	85-120			
1,2-Dichloroethane	15.3	0.50	"	14.7		104	85-130			
Ethanol	143	100	"	142		101	70-135			
Ethyl tert-butyl ether	15.7	0.50	"	15.0		105	75-130			
Methyl tert-butyl ether	7.53	0.50	"	7.02		107	65-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.52</i>		<i>"</i>	<i>5.00</i>		<i>90</i>	<i>60-135</i>			

Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOJ1184 Reported: 10/28/05 17:17
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**Notes and Definitions**

- S09 The recovery of this surrogate is outside control limits due to sample dilution which was required by high analyte concentration in the sample and/or matrix interference.
- S08 The surrogate recovery for this sample is not available due to sample dilution which was required by high analyte concentration and/or matrix interference.
- S04 The surrogate recovery for this sample is above control limits due to interference from the sample matrix.
- QC21 The RPD result exceeded the control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- HC-17 Chromatogram Pattern: Diesel C10-C28
- HC-12 Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



**Sequoia Analytical**

**Chain-of-Custody (COC)**

- 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 778-9600 • FAX (408) 782-6308
- 1455 McDowell Blvd, Suite D • Petaluma, CA 94954 • (707) 792-1885 • FAX (707) 792-0342
- 819 Striker Ave, Suite B • Sacramento, CA 95834 • (916) 921-9800 • FAX (916) 921-0100
- 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 • FAX (650) 232-9612
- 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 • FAX (925) 988-9673

Company Name: <b>Geologica</b>		Project: <b>Zaccor:002 (Grand St. Marina)</b>	
Mailing Address: <b>594 Howard Street, Suite 400</b>		Billing Address (if different):	
City: <b>San Francisco</b>	State: <b>CA</b>	Zip Code: <b>94105</b>	
Telephone: <b>415-597-7888</b>	Fax #: <b>415-597-7880</b>	P.O. #	
Report To: <b>Gene Suernicht</b>	E-mail Address: <b>gsuernicht@geologica.net</b>	QC Data: <input checked="" type="checkbox"/> <b>Level II (standard)</b>	<input type="checkbox"/> Level III <input type="checkbox"/> Level IV
Sampler: <b>Gene Suernicht</b>	Date / Time Results Required	Standard <b>Sequoia's Work Order #</b>	

Turnaround Time:

10-15 Working Days (Standard TAT)

7 Working Days

5 Working Days

72 Hours

48 Hours

24 Hours

2-8 Hours

**MANDATORY:**

- SDWA (Drinking Water)
- CWA (Waste Water)
- RCRA (Hazardous Waste)
- Other

**ANALYSES Requested (Please provide method)**

MOJ1184

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	TPH g. d (8015M)	8260 (BTEX Oxygenates)	6000-7000 Total Pb					Comments / Temp (if required)	
1. T-1	10/20/2005 15:00	soil	1	16 oz. Glass	61	X	X	X						Alameda Co requests 8260 for EDB, EDC, MTBE, TAME, ETBE, DIPE, TBA, EtOH for soils
2. T-2	15:05	soil		16 oz. Glass	62	X	X	X						
3. T-3	15:10	soil		16 oz. Glass	63	X	X	X						
4. T-4	15:15	soil		16 oz. Glass	64	X	X	X						
6. Pump-1	15:35	soil		Brass sleeve	65	X	X	X						
6. Water-1	15:45	water		VOA, Ilir Amber, 250 ml Plas	66	X	X	X						Alameda Co, requests 2/624 for water
7. Stockpile-1	16:00	soil		32 oz. glass	67	X	X	X						
8. Stockpile-2	16:10	soil		32 oz. glass	68	X	X	X						
9. Supply Trench-1	16:20	soil		Brass sleeve	69	X	X	X						
10.														

8260 OK

3-Day

Sub metals. to Irvine.

Relinquished By: <i>[Signature]</i>	Received By: <i>[Signature]</i>	Date / Time: 10/21/05 14:35
Relinquished By: <i>[Signature]</i>	Received By: <i>[Signature]</i>	Date / Time: 10/21/05 8:30
Relinquished By:	Received By:	Date / Time:
Relinquished By:	Received By:	Date / Time:

## SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: Geologica  
 REC. BY (PRINT) E. Fallin  
 WORKORDER: MOJ1184

DATE REC'D AT LAB: 10/22/05  
 TIME REC'D AT LAB: 830  
 DATE LOGGED IN: 10-22-05

For Regulatory Purposes?  
 DRINKING WATER YES/NO  
 WASTE WATER YES/NO

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT ID.	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent Intact / Broken*	01	A	T-1	16 oz jar	-	-	S	10/20/05	
2. Chain-of-Custody	Present / Absent*	02		T-2						
3. Traffic Reports or Packing List:	Present / Absent	03		T-3						
4. Airbill:	Airbill / Sticker Present / Absent	04		T-4						
5. Airbill #:	<u>easton D10010571403190</u>	05		pump-1	B-core					
6. Sample Labels:	Present / Absent	06	A-C	water-1	W2 (3)	HCl		W		
7. Sample IDs:	Listed / Not Listed on Chain-of-Custody	07	DE		1L amber (2)	-				
8. Sample Condition:	Intact / Broken* / Leaking*	08	E		500 ml poly	HNO3				
9. Does information on chain-of-custody, traffic reports and sample labels agree?	Yes / No*	09		stock pile - 1	21 Lamber (2)	-				
10. Sample received within hold time?	Yes / No*	10		Supply Tank	B-core			S		
11. Adequate sample volume received?	Yes / No*									
12. Proper preservatives used?	Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes)	Yes / No*									
14. Read Temp: <u>5.7 °C</u> Corrected Temp: <u>5.7 °C</u> Is corrected temp 4 +/- 2°C? Yes / No**										

*Any questions?*  
*Have James call*  
*John*

EBF

\*IF CIRCLED, CONTACT PROJECT MANAGER AND A



**Sequoia  
Analytical**

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FAX (408) 782-6308  
www.sequoialabs.com

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7 November, 2005

Gene Suemnicht  
Geologica Inc [Sn Fsc]  
594 Howard St. suite 400  
San Francisco, CA 94105

RE: Zaccor:002  
Work Order: MOK0153

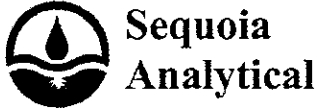
Enclosed are the results of analyses for samples received by the laboratory on 11/04/05 09:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tim Costello  
Lab Manager

CA ELAP Certificate #1210



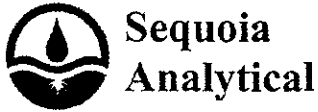


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Geologica Inc [Sn Fsc] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OEx-1	MOK0153-01	Soil	11/03/05 14:30	11/04/05 09:30
OEx-2	MOK0153-02	Soil	11/03/05 14:35	11/04/05 09:30
OEx-3	MOK0153-03	Soil	11/03/05 15:00	11/04/05 09:30



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Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Purgeable Hydrocarbons by EPA 8015B  
 Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>OEx-1 (MOK0153-01) Soil Sampled: 11/03/05 14:30 Received: 11/04/05 09:30</b>									
Gasoline Range Organics (C4-C12)	450	250	ug/kg	5	5K04001	11/04/05	11/04/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		94 %	35-130		"	"	"	"	
<b>OEx-2 (MOK0153-02) Soil Sampled: 11/03/05 14:35 Received: 11/04/05 09:30</b>									
Gasoline Range Organics (C4-C12)	370	50	ug/kg	1	5K04001	11/04/05	11/04/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		90 %	35-130		"	"	"	"	
<b>OEx-3 (MOK0153-03) Soil Sampled: 11/03/05 15:00 Received: 11/04/05 09:30</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/kg	1	5K04001	11/04/05	11/04/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		61 %	35-130		"	"	"	"	



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Geologica Inc [Sn Fsc] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Extractable Hydrocarbons by EPA 8015B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>OEx-1 (MOK0153-01) Soil</b> <b>Sampled: 11/03/05 14:30</b> <b>Received: 11/04/05 09:30</b>									
Diesel Range Organics (C10-C28)	7.8	1.0	mg/kg	1	5K04033	11/04/05	11/05/05	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		90 %	30-159		"	"	"	"	
<b>OEx-2 (MOK0153-02) Soil</b> <b>Sampled: 11/03/05 14:35</b> <b>Received: 11/04/05 09:30</b>									
Diesel Range Organics (C10-C28)	200	10	mg/kg	10	5K04033	11/04/05	11/05/05	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		186 %	30-159		"	"	"	"	S04
<b>OEx-3 (MOK0153-03) Soil</b> <b>Sampled: 11/03/05 15:00</b> <b>Received: 11/04/05 09:30</b>									
Diesel Range Organics (C10-C28)	9.6	1.0	mg/kg	1	5K04033	11/04/05	11/05/05	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		105 %	30-159		"	"	"	"	



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Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Total Metals by EPA 6000/7000 Series Methods  
 Sequoia Analytical - Morgan Hill**

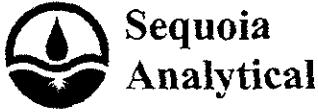
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>OEx-1 (MOK0153-01) Soil    Sampled: 11/03/05 14:30    Received: 11/04/05 09:30</b>									
Lead	12	5.0	mg/kg	1	5K04020	11/04/05	11/04/05	EPA 6010B	
<b>OEx-2 (MOK0153-02) Soil    Sampled: 11/03/05 14:35    Received: 11/04/05 09:30</b>									
Lead	5.3	5.0	mg/kg	1	5K04020	11/04/05	11/04/05	EPA 6010B	
<b>OEx-3 (MOK0153-03) Soil    Sampled: 11/03/05 15:00    Received: 11/04/05 09:30</b>									
Lead	390	5.0	mg/kg	1	5K04020	11/04/05	11/04/05	EPA 6010B	



Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>OEx-1 (MOK0153-01) Soil    Sampled: 11/03/05 14:30    Received: 11/04/05 09:30</b>									
Benzene	ND	5.0	ug/kg	1	5K04012	11/04/05	11/04/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		91 %	55-125	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		87 %	60-125	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99 %	65-130	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		87 %	60-125	"	"	"	"	"	
<b>OEx-2 (MOK0153-02) Soil    Sampled: 11/03/05 14:35    Received: 11/04/05 09:30</b>									
Benzene	ND	5.0	ug/kg	1	5K04012	11/04/05	11/04/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		74 %	55-125	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		74 %	60-125	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		105 %	65-130	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		74 %	60-125	"	"	"	"	"	



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Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project: Zaccor:002 Project Number: Grand St. Marina Project Manager: Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>OEx-3 (MOK0153-03) Soil    Sampled: 11/03/05 15:00    Received: 11/04/05 09:30</b>									
Benzene	ND	5.0	ug/kg	1	5K04012	11/04/05	11/04/05	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		77 %		55-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		75 %		60-125	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %		65-130	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		75 %		60-125	"	"	"	"	



Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Purgeable Hydrocarbons by EPA 8015B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5K04001 - EPA 5035 heated prg / EPA 8015B-VOA</b>										
<b>Blank (5K04001-BLK1)</b> Prepared & Analyzed: 11/04/05										
Gasoline Range Organics (C4-C12)	ND	50	ug/kg							
Surrogate: 4-Bromofluorobenzene	38.3		"	40.0		96	35-130			
<b>Laboratory Control Sample (5K04001-BS1)</b> Prepared & Analyzed: 11/04/05										
Gasoline Range Organics (C4-C12)	257	50	ug/kg	275		93	55-140			
Surrogate: 4-Bromofluorobenzene	40.4		"	40.0		101	35-130			
<b>Matrix Spike (5K04001-MS1)</b> Source: MOK0106-01 Prepared & Analyzed: 11/04/05										
Gasoline Range Organics (C4-C12)	119	50	ug/kg	275	ND	43	55-140			QM02
Surrogate: 4-Bromofluorobenzene	27.5		"	40.0		69	35-130			
<b>Matrix Spike Dup (5K04001-MSD1)</b> Source: MOK0106-01 Prepared & Analyzed: 11/04/05										
Gasoline Range Organics (C4-C12)	172	50	ug/kg	275	ND	63	55-140	36	20	QC20
Surrogate: 4-Bromofluorobenzene	36.9		"	40.0		92	35-130			



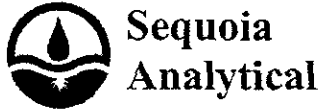
885 Jarvis Drive  
 Morgan Hill, CA 95037  
 (408) 776-9600  
 FAX (408) 782-6308  
 www.sequoialabs.com

Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Extractable Hydrocarbons by EPA 8015B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5K04033 - EPA 3550B / EPA 8015B-SVOA</b>										
<b>Blank (5K04033-BLK1)</b> Prepared: 11/04/05 Analyzed: 11/05/05										
Crude Oil (C9-C40)	ND	10	mg/kg							SPCM
Diesel Range Organics (C10-C28)	ND	1.0	"							
Surrogate: n-Octacosane	1.43		"	1.67		86	30-159			
<b>Laboratory Control Sample (5K04033-BS1)</b> Prepared: 11/04/05 Analyzed: 11/05/05										
Diesel Range Organics (C10-C28)	14.7	1.0	mg/kg	16.7		88	54-139			
Surrogate: n-Octacosane	1.50		"	1.67		90	30-159			
<b>Matrix Spike (5K04033-MS1)</b> Source: MOK0107-02 Prepared: 11/04/05 Analyzed: 11/05/05										
Diesel Range Organics (C10-C28)	755	50	mg/kg	16.7	810	0	54-139			QM05
Surrogate: n-Octacosane	7.09		"	1.67		425	30-159			S09
<b>Matrix Spike Dup (5K04033-MSD1)</b> Source: MOK0107-02 Prepared: 11/04/05 Analyzed: 11/05/05										
Diesel Range Organics (C10-C28)	552	50	mg/kg	16.7	810	0	54-139	31	29	QM05
Surrogate: n-Octacosane	5.89		"	1.67		353	30-159			S09



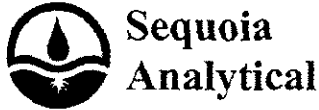


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Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Total Metals by EPA 6000/7000 Series Methods - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5K04020 - EPA 3050B / EPA 6010B</b>										
<b>Blank (5K04020-BLK1)</b> Prepared & Analyzed: 11/04/05										
Lead	ND	5.0	mg/kg							
<b>Laboratory Control Sample (5K04020-BS1)</b> Prepared & Analyzed: 11/04/05										
Lead	46.0	5.0	mg/kg	50.0	4.4	84	75-120			
<b>Matrix Spike (5K04020-MS1)</b> Source: MOJ0907-01 Prepared & Analyzed: 11/04/05										
Lead	46.3	5.0	mg/kg	50.0	4.4	84	75-120			
<b>Matrix Spike Dup (5K04020-MSD1)</b> Source: MOJ0907-01 Prepared & Analyzed: 11/04/05										
Lead	43.6	5.0	mg/kg	50.0	4.4	78	75-120	6	20	



Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5K04012 - EPA 5035 / EPA 8260B**

**Blank (5K04012-BLK1)**

Prepared & Analyzed: 11/04/05

tert-Amyl methyl ether	ND	5.0	ug/kg							
Benzene	ND	5.0	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Toluene	ND	5.0	"							
Xylenes (total)	ND	5.0	"							
<i>Surrogate: Dibromofluoromethane</i>	3.84		"	5.00		77	55-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	3.85		"	5.00		77	60-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	3.85		"	5.00		77	60-125			
<i>Surrogate: Toluene-d8</i>	4.75		"	5.00		95	65-130			

**Laboratory Control Sample (5K04012-BS1)**

Prepared & Analyzed: 11/04/05

tert-Amyl methyl ether	14.7	5.0	ug/kg	15.0		98	80-130			
Benzene	5.74	5.0	"	5.16		111	65-125			
tert-Butyl alcohol	140	20	"	143		98	80-165			
Di-isopropyl ether	15.7	5.0	"	15.1		104	85-115			
1,2-Dibromoethane (EDB)	15.9	5.0	"	14.9		107	85-130			
1,2-Dichloroethane	15.6	5.0	"	14.7		106	63-124			
Ethanol	217	100	"	142		153	35-150			QL01
Ethyl tert-butyl ether	15.1	5.0	"	15.0		101	80-125			
Ethylbenzene	7.62	5.0	"	7.54		101	80-135			
Methyl tert-butyl ether	6.70	5.0	"	7.02		95	75-115			
Toluene	39.6	5.0	"	37.2		106	85-125			
Xylenes (total)	43.3	5.0	"	41.2		105	80-140			
<i>Surrogate: Dibromofluoromethane</i>	4.57		"	5.00		91	55-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.27		"	5.00		85	60-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.27		"	5.00		85	60-125			
<i>Surrogate: Toluene-d8</i>	4.79		"	5.00		96	65-130			



Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project: Zaccor:002 Project Number: Grand St. Marina Project Manager: Gene Suernicht	MOK0153 Reported: 11/07/05 11:48
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5K04012 - EPA 5035 / EPA 8260B**

Matrix Spike (5K04012-MS1)	Source: MOK0116-01			Prepared & Analyzed: 11/04/05						
tert-Amyl methyl ether	13.8	5.0	ug/kg	15.0	0.15	91	80-130			
Benzene	5.65	5.0	"	5.16	0.80	94	65-125			
tert-Butyl alcohol	136	20	"	143	ND	95	80-135			
Di-isopropyl ether	14.6	5.0	"	15.1	ND	97	85-115			
1,2-Dibromoethane (EDB)	14.5	5.0	"	14.9	ND	97	85-130			
1,2-Dichloroethane	12.4	5.0	"	14.7	ND	84	63-124			
Ethanol	125	100	"	142	ND	88	35-150			
Ethyl tert-butyl ether	14.0	5.0	"	15.0	ND	93	80-125			
Ethylbenzene	6.97	5.0	"	7.54	ND	92	80-135			
Methyl tert-butyl ether	5.65	5.0	"	7.02	ND	80	75-115			
Toluene	37.6	5.0	"	37.2	ND	101	85-125			
Xylenes (total)	38.2	5.0	"	41.2	ND	93	80-140			
Surrogate: Dibromofluoromethane	3.58		"	5.00		72	55-125			
Surrogate: 1,2-Dichloroethane-d4	3.72		"	5.00		74	60-125			
Surrogate: 1,2-Dichloroethane-d4	3.72		"	5.00		74	60-125			
Surrogate: Toluene-d8	4.87		"	5.00		97	65-130			

Matrix Spike Dup (5K04012-MSD1)	Source: MOK0116-01			Prepared & Analyzed: 11/04/05						
tert-Amyl methyl ether	14.0	5.0	ug/kg	15.0	0.15	92	80-130	1	25	
Benzene	5.62	5.0	"	5.16	0.80	93	65-125	0.5	20	
tert-Butyl alcohol	141	20	"	143	ND	99	80-135	4	20	
Di-isopropyl ether	15.0	5.0	"	15.1	ND	99	85-115	3	20	
1,2-Dibromoethane (EDB)	14.3	5.0	"	14.9	ND	96	85-130	1	15	
1,2-Dichloroethane	12.4	5.0	"	14.7	ND	84	63-124	0	25	
Ethanol	150	100	"	142	ND	106	35-150	18	40	
Ethyl tert-butyl ether	14.2	5.0	"	15.0	ND	95	80-125	1	25	
Ethylbenzene	7.03	5.0	"	7.54	ND	93	80-135	0.9	20	
Methyl tert-butyl ether	5.80	5.0	"	7.02	ND	83	75-115	3	35	
Toluene	39.1	5.0	"	37.2	ND	105	85-125	4	15	
Xylenes (total)	39.2	5.0	"	41.2	ND	95	80-140	3	20	
Surrogate: Dibromofluoromethane	3.92		"	5.00		78	55-125			
Surrogate: 1,2-Dichloroethane-d4	3.73		"	5.00		75	60-125			
Surrogate: 1,2-Dichloroethane-d4	3.73		"	5.00		75	60-125			
Surrogate: Toluene-d8	4.98		"	5.00		109	65-130			

Sequoia Analytical - Morgan Hill

The results of this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Geologica Inc [Sn FSCO] 594 Howard St. suite 400 San Francisco CA, 94105	Project:Zaccor:002 Project Number:Grand St. Marina Project Manager:Gene Suemnicht	MOK0153 Reported: 11/07/05 11:48
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**Notes and Definitions**

SPCM	The concentration indicated for this analyte is derived from a single point calibration with no MDL study.
S09	The recovery of this surrogate is outside control limits due to sample dilution which was required by high analyte concentration in the sample and/or matrix interference.
S04	The surrogate recovery for this sample is above control limits due to interference from the sample matrix.
QM05	The spike recovery was below control limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QM02	The spike recovery was below control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QL01	The LCS recovery was above the control limit by 3%.
QC20	The RPD was outside control limits.
HC-12	Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



# APPENDIX C

**CITY OF ALAMEDA**  
 2263 SANTA CLARA AVENUE, ROOM 190  
 ALAMEDA, CA 94501

(510) 747-6800  
 FAX (510) 747-6804

**Fire Permit: F05-0119**

<u>Applicant Information</u>	<u>Contractor Information</u>	<u>Owner Information</u>
ZACCOR CORPORATION 2900 MAIN STREET ALAMEDA, CA 94501 510-522-6210	ZACCOR CORPORATION 2900 MAIN STREET ALAMEDA, CA 94501 510-522-6210	ENCINAL MARINA LTD 2099 GRAND ST ALAMEDA, CA 94501

<u>Project Information</u>		
Status: ISSUED	Applied: 10/12/2005	Issued: 10/18/2005
Type: Fire Permit	Finalcd:	
Category: NA		
Sub-Type: NA		
Parcel Number: 072-0380-003-00		Valuation: \$73,000.00
Job Address: 2099 GRAND ST		
Work Description: REMOVE & DISPOSE OF 2 UNDERGROUND 12,000 GALLON TANKS (1 DIESEL/1GAS)		

**INSPECTIONS**

Building: (510) 747-6830 (7:30-9:30 AM)	Electrical: (510) 747-6830 (7:30-9:30 AM)
Plumbing & Mechanical: (510) 747-6830 (7:30-9:30 AM)	Fire: (510) 337-2120
	Design Review: (510) 747-6850

<u>ITEM #</u>	<u>FEE DESCRIPTION</u>	<u>ACCOUNT CODE</u>	<u>UNITS</u>	<u>FEE AMOUNT</u>	<u>PAID</u>
250	250-PERMIT FILING FEE (per activity)	4140-37450 (1050)	1	\$40.00	\$40.00
530	530-Tanks Remove Commercial (each)	3220-37260 (6200)	2	\$750.00	\$750.00
620	620-Records Management Fee (each)	469409-37900 (6210)	5	\$17.50	\$17.50
965	965-Community Planning Fee (Enter 1)	4140-33064 (8765)	1	\$219.00	\$219.00
2999	Technology Fee	4140-33063 (1051)	1	\$39.50	\$39.50
<b>Total Fees:</b>					<b>\$1,066.00</b>

<u>RECEIPT #</u>	<u>PAYMENT METHOD</u>	<u>CHECK #</u>	<u>COMMENTS/PAYEE</u>	<u>RECEIPT DATE</u>	<u>RECEIPT AMT</u>
425437	Credit Card		JEFFREY ZACCOR	10/12/2005	\$1,066.00
<b>Total Payments:</b>					<b>\$1,066.00</b>
<b>Balance Due:</b>					<b>\$0.00</b>

Permit #: **F05-0119**

**CITY OF ALAMEDA**  
**2263 SANTA CLARA AVENUE, ROOM 190**  
**ALAMEDA, CA 94501**

Inspection Card

Address: 2099 GRAND ST

ISSUED: 10/18/2005  
VALUATION: \$73,000.00

Owner: ENCINAL MARINA LTD, 2099 GRAND ST, ALAMEDA, CA 94501

Contractor: ZACCOR CORPORATION, 2900 MAIN STREET, ALAMEDA, CA 94501, 510-522-6210

Work Description: REMOVE & DISPOSE OF 2 UNDERGROUND 12,000 GALLON TANKS (1 DIESEL/1 GAS)

Foundations:

Sheetrock / Interior Lath:

Ground Plumbing:

(Required before taping or plastering)

Rough Electric:

Exterior Lath:

(Required before Stucco)

Rough Plumbing:

DESIGN REVIEW: (YES) (NO) BY

Final

Rough Heating & Ventilation:

Gas Test:

Kelly Test:

Sub Floor:

Sewer Repair / Replacement:

Frame:

Final - Electric:

Final - Fire Department: KR 10/24/05

Insulation

Final Plumbing:

Certificate

Final Heating & Ventilation:

**\*\* Comments \*\***

Final - Building:

Do not occupy structure until Certification of Occupancy has been issued. For Certificate of Occupancy to be issued, a copy of the inspection card with all Finals needs to be filed with the Permit Center, Room 190, City Hall, Alameda, CA

**\*\*SMOKE ALARMS REQUIRED-CBC Section 310.9.1.2\*\***

"When the valuation of an addition, alteration, or repair to a Group R Occupancy exceeds \$1,000 and a permit is required, or when one or more sleeping rooms are added or created in existing Group R Occupancies, smoke alarms shall be installed in accordance with Sections 310.9.1.3, 310.9.1.4 and section 310.9.1.5 . . ."

INSPECTIONS (SAME DAY) - CALL 7:30-9:30 A.M. ONLY

INSPECTIONS (MUST BE SCHEDULED)

Building: (510) 747-6830

Fire: (510) 337-2120

Plumbing & Mechanical: (510) 747-6830

Design Review: (510) 747-6850

Electrical: (510) 747-6830

6. Contractor ZACCOR COMPANIES, INC.  
Address 2900 MAIN STREET, SUITE 2100  
City, State Alameda, CA Zip 94501 Phone 510.522.6210  
License Type Contractor, C21, A, HAZ, ASB ID# 478799

7. Consultant (if applicable) \_\_\_\_\_  
Address \_\_\_\_\_  
City, State \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_

8. Main Contact Person for Investigation (if applicable)  
Name JOE DEN BESTE Title GENERAL MANAGER  
Company ZACCOR COMPANIES, INC.  
Phone 510 385 6945

9. Number of underground tanks being closed with this plan 2  
Length of piping being removed under this plan 1000 feet  
Total number underground tanks at this facility (\*\*confirmed with owner or operator) 2

10. State Registered Hazardous Waste Transporters/Facilities (See Instructions).

a) Product/Residual Sludge/Rinsate Transporter  
Name NRC Environmental Services EPA I.D. No. CAR 0000 30114  
Hauler License No. 0104989 License Exp. Date July 31, 2006  
Address 1605 Ferry Point  
City, State Alameda, CA Zip 94501

b) Product/Residual Sludge/Rinsate Disposal Site  
Name EVERGREEN ENVIRONMENTAL EPA I.D. No. CA0940887418  
Address 6890 SMITH AVE  
City, State NEWARK CA Zip 94560



c) Tank and Piping Transporter N/A  
Name \_\_\_\_\_ EPA I.D. No. N/A  
Hauler License No. \_\_\_\_\_ License Exp. Date \_\_\_\_\_  
Address \_\_\_\_\_  
City, State \_\_\_\_\_ Zip \_\_\_\_\_

d) Tank and Piping Disposal Site Recycling Site  
Name Alco Iron + Metal EPA I.D. No. N/A  
Address 1091 Dodittle Dr  
City, State San Leandro, CA 94577 Zip 94577

11. Sample Collector  
Name Geologica Inc  
Company \_\_\_\_\_  
Address 2625 Alcatraz Ave, Site 504  
City, State Berkeley, CA Zip 94705 Phone 595-1421

12. Laboratory  
Name \_\_\_\_\_  
Company SEQUOIA ANALYTICAL  
Address 404 N. WIGET LN  
City, State WALNUT CREEK, CA Zip \_\_\_\_\_  
State Certification No. #1271

13. Have tank(s) or piping leaked in the past? Yes [ ] No [ ] Unknown [x]  
If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

14. Describe method(s) to be used for rendering tank(s) inert:  
RINSE & CLEAN / VENTILATION  
\_\_\_\_\_  
\_\_\_\_\_

Before tank(s) are pumped out and inerted, all associated piping must be flushed back into the tank(s). All accessible piping must then be removed. Inaccessible piping must be permanently plugged using grout.

The Bay Area Air Quality Management District, (415) 771-6000, along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of a combustible gas indicator to verify tank inertness. It is the contractor's responsibility to have a functional combustible gas indicator on-site to verify that the tank(s) is inerted.

15. Tank History and Sampling Information \*\*\* (See Instructions) \*\*\*

Tank		Material to be sampled (tank contents, soil, groundwater)	Location and Depth of Sample(s)
Capacity (gallons)	Use History include date last used (estimated)		
12,000 D 12,000 G	Fuel Dock Service, closed	Service, May 15, 2005  SOIL  GROUNDWATER	BELOW TANK BOTTOMS  APX 12 FEET.  EACH END OF TANK  <del>SOIL-H<sub>2</sub>O INTERFACE SIDEWAYS</del>

One soil sample must be collected for every 20 linear feet of underground piping that is removed. A groundwater sample must be collected if any groundwater is present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (estimated)	Sampling Plan

**Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.**

Will the excavated soil be returned to the excavation immediately after tank removal?  yes [ ] no [ ] unknown

If yes, explain reasoning LIMITED SPACE IN AREA. SAFETY CONCERNS.

If unknown at this point in time, please be aware that excavated soil may not be returned to the excavation without prior approval from this office. This means that the contractor, consultant, or responsible party must communicate with the Specialist IN ADVANCE of backfilling activities.

16. Chemical methods and associated detection limits to be used for analyzing sample(s):

**The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits shall be followed.**

See Table 2, Recommended Minimum Verification Analyses for Underground Tank Leaks.

Contaminant Sought	EPA or Other Sample Preparation Method Number	EPA or Other Analysis Method Number	Method Detection Limit
GASOLINE	SW-446 TPH <sub>8</sub> 8015/8260 BTEX 8260 ED <sub>8</sub> ED <sub>4</sub> 8260 MTBE, ETBE } 8260 TAME, PIR } 8260	SEE TABLE 2 ATTACHED	
DIESEL	TPH <sub>8</sub> BTEX ED <sub>8</sub> ED <sub>4</sub> MTBE, ETBE } 8260 TAME, PIR } 8260		

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate copy

Name of Insurer State COMPENSATION INSURANCE FUND

19. Submit Plot Plan **\*\*\* (See Instructions) \*\*\***

20. Enclose Deposit (See Instructions)

21. Report all leaks or contamination to this office within 5 days of discovery. The written report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report (URL) form.

22. Submit a closure report to this office within 60 days of the tank removal. The closure report must contain all information listed in item 22 of the instructions.

23. Submit State (Underground Storage Tank Permit Application) Forms A and B (one-B form for each UST to be removed) (mark box 8 for "tank removed" in the upper right hand corner).

# UNDERGROUND STORAGE TANK SYSTEM INSTALLATION INSPECTION REPORT

Facility Name: Grand Harbor Fuel Dock

Address: 2099 GRAND STREET City: ALAMEDA Zip: 94501

Project Contact: JOE DENBESTE / SCOTT Contact Phone No.: 510-385-5795

Item Inspected	Inspection Date	Inspector Sign-Off	Time On Site
Signs.			
Fire extinguishers.			
Site safety plan on-site			
PIPING TEST @ 25 PSI FOR ONE HOUR	<del>START TIME</del> 8:30 am	10/21/05	L.S.
	<del>END TIME</del> 10:00 am	10/21/05	L.S.
	<del>START TIME</del> 25 psi	<del>END TIME</del> 25 psi	5.5
gasoline	LEL 0	O <sub>2</sub> <del>5.1</del>	2:05
diesel	LEL 0	O <sub>2</sub> 5.1	2:10
<i>MAR</i>			
Other (specify).			

Comments/Special Conditions:

OCT 3 2005

 SR0008699

**Geologica**

---

**From:** "Weston, Robert, Env. Health" <robert.weston@acgov.org>  
**To:** "Gene Suemnicht" <gsuemnicht@geologica.net>  
**Sent:** Wednesday, November 09, 2005 12:58 PM  
**Subject:** RE: Grand Marina

Gene,

After a review of the information in the reports it appears that the source removal from Location 4 was successful.

Since the extent of over excavation is limited by the location of the sales building it appears that backfilling at this time is the next step.

I will await the reports on the tank closure.

Robert Weston  
Alameda County Department of Environmental Health  
510 567-6781

**CONFIDENTIALITY NOTICE:** This electronic mail transmission may contain privileged information and/or confidential information only for the use by the intended recipients. Any usage, distribution, copying or disclosure by any other person, other than the intended recipient is strictly prohibited and may be subject to civil action and/or criminal penalties. If you have received this e-mail transmission in error, please notify the sender by e-mail or by telephone and delete the transmission.

-----Original Message-----

**From:** Gene Suemnicht [mailto:gsuemnicht@geologica.net]  
**Sent:** Wednesday, November 09, 2005 10:22 AM  
**To:** Weston, Robert, Env. Health  
**Subject:** Grand Marina

An analytical summary and latest lab report for the Grand Marina UST work attached. Sample designations OEx- 1 and 2 are from the western pit wall

after the over excavating along the existing abandoned utility lines.

The

levels of IPH are considerably reduced. The elevated Pb is still evident in

OEx-3 taken from the pump deeper in the pit formerly occupied by the metal drip tank pan beneath the pump housing.

With your approval, we would like to fill the pit and continue evaluating the Pb near the pump area

Based on our earlier conversation, I plan to submit a proposal to the

Marina partners to clean up the Pb and install monitoring wells (3) to evaluate the dispersion of TPH related to the tanks. Please call me (707) 799-8097 to discuss the options. Thanks.



# APPENDIX D



Dec. 1. 2005 2:29PM ecology control industries

No. 2925 P. 2

DAY OR NIGHT

CERTIFICATE

TELEPHONE

CERTIFIED SERVICES COMPANY

(610) 235-1393

255 Parr Boulevard · Richmond, California 94801

CUSTOMER
Zaccor
JOB. NO 52T1985

2099 Grand Ave.  
Alameda, Ca

FOR: ECOLOGY CONTROL INC

TANK NO: 32796

LOCATION: RICHMOND

DATE: 10/27/05 TIME: 3:45pm

TEST METHOD: VISUAL GASTECH/1314 SMPN

LAST PRODUCT Diesel

This is to certify that I have personally determined that this is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE : 12,000 GALLON

CONDITION: SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1% ECOLOGY CONTROL INDUSTRIES

HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED

AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.

ECOLOGY CONTROL INDUSTRIES HAS THE APPROPRIATE PERMITS FOR AND HAS ACCEPTED

THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

**STANDARD SAFETY DESIGNATION**

**SAFE FOR MEN:** Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) In the judgment of the Inspector's certificate

**SAFE FOR FIRE:** Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) in the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE

TITLE

INSPECTOR

State of California—Environmental Protection Agency  
Form Approved OMB No. 2050-0039 (Expires 3-31-99)  
Please print or type. Form designed for use on 8 1/2" (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control  
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>CAD00918233428589</b>		Modified Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address <b>ENCINAL MARINA LPB GRAND MARINA 2099 GRAND ST. ALAMEDA CA 94501</b>				State Manifest Document Number <b>24528589</b>					
4. Generator's Phone <b>510 865-1200</b>				A. State Generator's ID					
5. Transporter 1 Company Name <b>Ecology Control Industries</b>		6. US EPA ID Number <b>CAD982030173</b>		C. State Transporter's ID (Reserved)					
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone <b>510 235-1393</b>		E. State Transporter's ID (Reserved)	
9. Designated Facility Name and Site Address <b>Ecology Control Industries 255 Parr Boulevard Richmond CA 94801</b>				10. US EPA ID Number <b>CAD009466392</b>		F. Transporter's Phone		G. State Facility's ID	
						H. Facility's Phone <b>510 235-1393</b>			
11. USDOT Description (including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers No. Type	13. Total Quantity	14. Unit Wt./Vol	15. Waste Number
a. Non-RCRA Hazardous Waste, Solid (EMPTY STORAGE TANK(S))						001 TP 20000	P	State 512	EPA/Other NONE
b.								State	EPA/Other
c.								State	EPA/Other
d.								State	EPA/Other
16. Additional Descriptions for Materials Listed Above						K. Handling Codes for Waste Listed Above			
a. QTY 1 EMPTY STORAGE TANK # 32796						a. 01	b.	c.	d.
b. ECL JOB# 5271985									
13. Special Handling Instructions and Additional Information Wear appropriate protective equipment while handling. Weights or volumes are approximate. 24 Hour emergency telephone number (900) 321-5479 (ECT Dispatcher). DOT ERG# 11a) SITE ADDRESS: 2099 Grand St Alameda, Ca									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this shipment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in full respects in proper condition for transport by highway according to applicable International and national governmental regulations.  If on a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name <b>RAYMOND Corral</b>				Signature <i>[Signature]</i>		Month Day Year <b>10 20 05</b>			
17. Transporter 1 Acknowledgment of Receipt of Materials									
Printed/Typed Name <b>FERNANDO Quinn</b>				Signature <i>[Signature]</i>		Month Day Year <b>10 21 05</b>			
18. Transporter 2 Acknowledgment of Receipt of Materials									
Printed/Typed Name				Signature		Month Day Year			
19. Discrepancy Indication Space									
20. Facility Owner or Operator Certification of receipt of hazardous material covered by this manifest except as noted in item 10									
Printed/Typed Name <b>James Wilcox</b>				Signature <i>[Signature]</i>		Month Day Year <b>10 21 05</b>			

DO NOT WRITE BELOW THIS LINE.

Dec. 1. 2005 2:29PM ecology control industries

No. 2325 P. 1

DAY OR NIGHT

CERTIFICATE

TELEPHONE

CERTIFIED SERVICES COMPANY

(510) 235-1393

265 Parr Boulevard - Richmond, California 94801

CUSTOMER
Zaccor
JOB. NO 52T1985

2099 Grand Ave  
Alameda, Ca

FOR: ECOLOGY CONTROL INC.

TANK NO: 32795

LOCATION: RICHMOND

DATE: 11/02/05 TIME: 3:45pm

TEST METHOD: VISUAL GASTECH/1314 SMPN

LAST PRODUCT: UNLEADED GAS

This is to certify that I have personally determined that this is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE: 12,000 GALLON

CONDITION: SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1% ECOLOGY CONTROL INDUSTRIES

HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED

AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.

ECOLOGY CONTROL INDUSTRIES HAS THE APPROPRIATE PERMIT'S FOR AND HAS ACCEPTED

THE TANK SHIPPED TO US FOR PROCESSING.

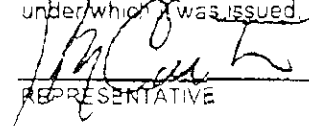
In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or it in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur

**STANDARD SAFETY DESIGNATION**

**SAFE FOR MEN:** Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) In the judgment of the Inspector's certificate,

**SAFE FOR FIRE:** Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) in the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

  
REPRESENTATIVE

TITLE

  
INSPECTOR

State of California—Environmental Protection Agency  
Form Approved OMB No. 2050-0039 (Expires 7-30-97)  
Place date and time. Form designed for use on a 172-pitch typewriter.

See instructions on back of page 6.

Department of Toxic Substances Control  
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7350

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		Generator's US EPA ID No. CA111010118239162815818		Manifest Document No. 2815818	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address ENCINAL MARINA LPA Grand Marina 2099 Grand St Alameda, CA 94501				A. State Manifest Document Number 24528588			
4. Generator's Phone (510) 465-1200				B. State Generator's ID			
5. Transporter 1 Company Name Ecology Control Industries				C. State Transporter's ID (Reserved)			
6. US EPA ID Number CA1D191821031011713				D. Transporter's Phone 510 235-1383			
7. Transporter 2 Company Name				E. State Transporter's ID (Reserved)			
8. US EPA ID Number				F. Transporter's Phone			
9. Designated Facility Name and Site Address Ecology Control Industries 255 Parr Boulevard Richmond CA 94904				G. State Facility's ID			
10. US EPA ID Number CA1D101094161631912				H. Facility's Phone 510 235-1383			
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity		14. Unit Wt/Vol	
a. Non-RCRA Hazardous Waste, Solid (EMPTY STORAGE TANK(S))		No. Type		Quantity		1. Waste Number	
		0101 TP		200000		State 512 EPA/Other NONE	
b.						State EPA/Other	
c.						State EPA/Other	
d.						State EPA/Other	
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above			
a. QTY 1 EMPTY STORAGE TANK # 32295				a. 01			
b. ECI JOB# 527795				b.			
c.				c.			
d.				d.			
15. Special Handling Instructions and Additional Information Wear appropriate protective equipment while handling. Weights or volumes are approximate. 24 Hour emergency telephone number (800) 321-5479 (ECI Dispatcher). DOT ERG# 11- SITE ADDRESS: 2099 Grand St Alameda, CA							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name RAYMOND Grand Marina				Signature <i>[Signature]</i>		Month Day Year 10 20 05	
17. Transporter 1 Acknowledgment of Receipt of Materials Printed/Typed Name KEGHE CHRIS				Signature <i>[Signature]</i>		Month Day Year 10 20 05	
18. Transporter 2 Acknowledgment of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space							
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19 Printed/Typed Name James Wilcox							
Signature <i>[Signature]</i>				Month Day Year 10 21 05			

DO NOT WRITE BELOW THIS LINE.



# APPENDIX E



Photo 1 – Exposed gasoline UST at Grand Marina.



Photo 2 – Preparing for tank removal at Grand Marina



Photo 3 – Diesel UST removed and heading for the transport truck.



Photo 4 - Gasoline UST removed and being lifted to transport truck.



Photo 5 - View southeast of water in the bottom of the UST excavation pit.



Photo 6 – View southeast of the supply and vent line pit. Foreground clipboard for scale.