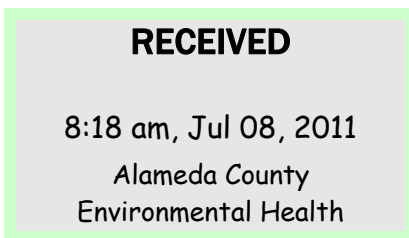


# THRIFTY OIL CO.

June 15, 2011

Mr. Paresh Khatri  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, CA 94502



O.114247

Local #RO0000004  
RWQCB #01-1478

**Re: Former Thrifty Oil Co. Station #063**  
**6125 Telegraph Avenue**  
**Oakland, California 94502**  
***Additional Site Assessment Report and Request for Closure***

Dear Mr. Khatri:

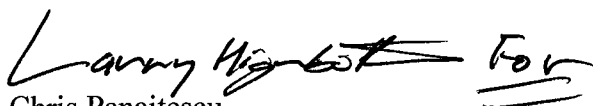
The enclosed *Additional Site Assessment Report and Request for Closure* report dated June 9, 2011, and prepared by GeoHydrologic Consultants, Inc. summarizes the results of the site assessment activities conducted on April 18 and 19, 2011, for former Thrifty Oil Co. (Thrifty) Station No. 063 located at 6125 Telegraph Avenue, Oakland, California (**Figure 1**). The site assessment activities included the collection of soil, soil vapor and groundwater samples from on and off-site locations (**Figure 2**). Analytical results for the soil vapor samples collected during site assessment activities indicate that site conditions pose no significant risk to human health. Analytical results for the soil and groundwater samples collected during site assessment activities indicate that impacted soil is very limited and the groundwater plume is limited in concentration and extent and shrinking.

Based upon the results of the above-mentioned site assessment activities, Thrifty respectfully requests low-risk regulatory case closure.

I declare, under penalty of perjury, that the information and/or recommendations contained in this document and enclosure are true and correct to the best of my knowledge.

Should you have any questions regarding this report, please contact Simon Tregurtha at (562) 921-3581 Ext. 260, or myself at Ext. 390.

Respectfully submitted,

  
Chris Panaitescu  
General Manager  
Environmental Affairs

cc: BP West Coast Products LLC, Mr. John Skance  
File



**Additional Site Assessment Report  
And Request for Closure**

**Thrifty Oil Co. Station No. 063  
6125 Telegraph Avenue  
Oakland, California**

**RWQCB File No. 01-1479  
Facility Global ID No. T0600101366**

**June 9, 2011  
GHC 1687**

Prepared for  
Thrifty Oil Co.  
13116 Imperial Highway  
Santa Fe Springs, California 90670

Prepared by  
**GeoHydrologic Consultants, Inc.**  
PO Box 2234  
Huntington Beach, California 92647

**CONTENTS**

CERTIFICATION ..... III

1.0 INTRODUCTION ..... 1

2.0 SITE DESCRIPTION ..... 1

3.0 SITE CHARACTERIZATION DATA ..... 1

    3.1 Geology/Hydrogeology ..... 1

        3.1.1 Geology ..... 1

        3.1.2 Hydrogeology ..... 2

        3.1.3 Production Well Survey ..... 2

    3.2 Sensitive Receptor Survey ..... 2

    3.3 Previous Site Assessment and Remediation Activities ..... 3

4.0 ADDITIONAL SITE ASSESSMENT ACTIVITIES ..... 5

    4.1 Soil Gas Survey ..... 6

        4.1.1 Vapor Risk Assessment ..... 7

    4.2 Soil Sampling Activities ..... 8

    4.3 Groundwater Sample Procedures and Results ..... 9

5.0 CONCLUSIONS AND RECOMMENDATIONS ..... 10

**TABLES**

- 1 Historic Soil Sample Laboratory Analytical Results
- 2A Historic Groundwater Sample Laboratory Analytical Results
- 2B Historic Groundwater Sample Laboratory Analytical Results – Other Oxygenates
- 3 Well Completion Details
- 4 Groundwater System Recovery Data
- 5 Soil Vapor Analytical Results

## FIGURES

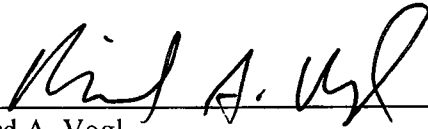
- 1 Site Vicinity
- 2 Site Plan
- 3A Geologic Cross-Section A-A'
- 3B Geologic Cross-Section B-B'
- 3C Geologic Cross-Section C-C'
- 3D Geologic Cross-Section D-D'
- 4A Distribution of TPHg in Soil (Post-Remediation, 0-10 Feet Below Ground Surface)
- 4B Distribution of Benzene in Soil (Post-Remediation, 0-10 Feet Below Ground Surface)
- 4C Distribution of MTBE in Soil (Post-Remediation, 0-10 Feet Below Ground Surface)
- 4D Distribution of TPHg in Soil (Post-Remediation, 11-20 Feet Below Ground Surface)
- 4E Distribution of Benzene in Soil (Post-Remediation, 11-20 Feet Below Ground Surface)
- 4F Distribution of MTBE in Soil (Post-Remediation, 11-20 Feet Below Ground Surface)
- 5 Groundwater Elevation Contour Map
- 6A Distribution of TPHg in Groundwater (Post-Remediation)
- 6B Distribution of Benzene in Groundwater (Post-Remediation)
- 6C Distribution of MTBE in Groundwater (Post-Remediation)
- 6D Distribution of TBA in Groundwater (Post-Remediation)

## APPENDICES

- A Current Boring Logs
- B Alameda County Soil Boring Permits
- C ESLs for Soil and Basin Plan Objectives for Groundwater
- D Existing and Potential Beneficial Uses of Groundwater in Identified Basins
- E Soil Vapor Analytical Report and Chain-of-Custody Documents
- F Soil Sample Laboratory Analytical Report and Chain-of-Custody Documents
- G Groundwater Sample Laboratory Analytical Report and Chain-of-Custody Documents
- H DTSC Soil Vapor Risk Model Run

## CERTIFICATION

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by a GeoHydrologic Consultants, Inc. California Registered Geologist.



6-8-2011

Richard A. Vogl

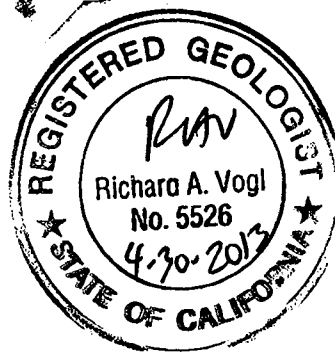
Date

Principal Hydrogeologist

California Registered Geologist (5526)

California Certified Hydrogeologist (47)

California Certified Engineering Geologist (2036)



## 1.0 INTRODUCTION

On behalf of Thrifty Oil Co. (Thrifty), GeoHydrologic Consultants, Inc. (GHC) has prepared this report to fulfill the requirements of the Alameda County Health Care Agency (ACHCA), which required Thrifty to prepare an Additional Site Assessment Report for Thrifty Station No. 063 located at 6125 Telegraph Avenue in Oakland, California (“the Site”; **Figure 1**). The requirements of this work were set forth in the ACHCA’s letter to Thrifty dated December 29, 2008 and Thrifty’s *Additional Site Assessment Workplan* (ASAW) dated February 18, 2009 and *Addendum to the Additional Site Assessment Workplan* (AASAW) dated September 13, 2010 and *Thrifty’s Revised Addendum to Additional Site Assessment Workplan* dated November 18, 2010. These documents were approved by the ACHCA in their letters to Thrifty dated September 30, 2010 and January 6, 2011. The purpose of this work was to complete an additional site assessment for the site as requested by the ACHCA.

## 2.0 SITE DESCRIPTION

The Site is an active service station located at the southwest corner of the intersection of Telegraph Avenue and 62<sup>nd</sup> Street in the City of Oakland, California. The Site consists of two active pump islands, a service station building, and two 20,000-gallon double-walled underground storage tanks (USTs) (**Figure 2**).

## 3.0 SITE CHARACTERIZATION DATA

### 3.1 Geology / Hydrogeology

#### 3.1.1 Geology

The Site is located at 6125 Telegraph Avenue in the City of Oakland (**Figure 1**) at an elevation of approximately 145 feet above mean sea level. Local topography slopes to the southwest at approximately 0.025 feet/foot. The Site is located within the San Francisco Bay structural depression of the Coast Ranges Physiographic Province in north-central Alameda County, California. The Site is situated in the flatland region between the San Francisco Bay and the Oakland Hills. This flatland region is comprised of Quaternary alluvium and estuarine bay and marsh deposits. Bedrock in the area consists of sedimentary, metasedimentary, volcanic, and intrusive rocks of Jurassic through Tertiary geologic age. Quaternary-age marine and alluvial sediments blanket the downwarped bedrock within the basin in which the Site is located. Shallow groundwater is locally present within the Quaternary sediments. The Site is underlain by Holocene alluvium and marsh deposits comprised of silts and clay. Soil types encountered during site investigation activities consisted predominantly of clay, sandy clay, silty clay, silt, sandy silt, and silty sand from the ground surface to the total depth of investigation (30 feet).

Geologic cross sections are included as **Figures 3A, 3B, 3C, and 3D**. The lines of cross section are shown in **Figure 2**.

### 3.1.2 Hydrogeology

The area of investigation lies within the East Bay Plain groundwater basin which consists of two main water bearing units. The primary unit is comprised of unconsolidated alluvial deposits of Late Quaternary age and a secondary, older semi-consolidated deposit of Tertiary-Quaternary age. Groundwater within these deposits is both confined and unconfined, with the majority of the aquifers being confined. The Site is within the Berkeley alluvial plain sub area of the Bay Plains Groundwater Basin.

Groundwater is present beneath the Site under unconfined conditions at depths ranging from approximately 10.12 feet bgs in MW-6 to 14.09 feet bgs in MW-5 (**Table 2A**). A groundwater elevation contour map based on the November 10, 2010 monitoring data indicates that groundwater flows to the west-southwest at an approximate gradient of 0.06 feet/foot (**Figure 5**).

### 3.1.3 Production Well Survey

In 1986, Woodward Clyde Consultants (WCC) conducted a production well survey. Records found indicated that approximately five wells exist within a one mile radius of the Site. Two of the wells in the area are, or were, used for industrial purposes, two for irrigation, and one for domestic use. No municipal wells were identified anywhere near the Site. The closest well is the domestic well located approximately  $\frac{1}{4}$  mile (approximately 1,300 feet) to the south of the Site. The closest well in the downgradient direction is an irrigation well located  $\frac{1}{2}$  mile (approximately 2,640 feet) to the west-northwest of the Site. *Through phone correspondence on April 12, 2006 with James Yoo of the County of Alameda Public Works Agency, it was found that no production wells have been installed near the Site since WCC conducted their production well survey, and that there are no closer wells than the ones described above.*

## 3.2 Sensitive Receptor Survey

Based on the production well survey conducted by WCC, the closest sensitive receptor is a domestic well located approximately  $\frac{1}{4}$  mile (approximately 1,300 feet) to the south of the Site. There appear to be no sensitive receptors such as surface water bodies within at least a half mile radius of the Site. The San Francisco Regional Water Quality Control Board's (SFRWQCB) Basin Plan indicates that groundwater within the basin has existing beneficial uses for municipal and domestic water supply, industrial process water supply, industrial service water supply, and agricultural water supply (**Appendix D**).

### 3.3 Previous Site Assessment and Remediation Activities

An initial site assessment was conducted by Groundwater Technology from June through August of 1986 which consisted of advancing three soil borings and installing three 2-inch monitoring wells (MW-1 through MW-3) to 30 feet bgs. Soil samples were taken at five foot intervals in all borings beginning at a depth of 6 to 8 feet. The samples taken at a depth of 14 to 14.5 in borings MW-2 and MW-3 and at a depth of 17 to 17.5 feet in boring MW-1 were submitted for laboratory analysis. The sample from MW-2 was found to contain 735 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPHg) while samples from MW-1 and MW-3 contained 471.5 ppm and 52 ppm, respectively. Benzene concentrations in the three wells ranged from 5.4 ppm to 12.6 ppm. Groundwater samples were collected and TPHg was detected in MW-4 at 100 ppm. The SFRWQCB Environmental Screening Levels (ESLs) for TPHg, benzene, toluene, ethylbenzene, xylenes, and MTBE in soil are 100 mg/kg, 0.044 mg/kg, 2.9 mg/kg, 3.3 mg/kg, 2.3 mg/kg, and 0.023 mg/kg, respectively. The presence of free product was observed in all three wells at a thickness of 0.01 feet in MW-1, 0.84 feet in MW-2, and 0.46 feet in MW-3.

A follow-up assessment in November 1986 was conducted by Woodward-Clyde Consultants (WCC) and consisted of advancing three 30-foot deep borings and installing three monitoring wells (MW-4 through MW-6). Soil samples were taken at five foot intervals down to the water table in all borings. Only those samples exhibiting signs of contamination and/or located at the water table were submitted for laboratory analysis. TPHg and benzene were detected in MW-4 at the 16 foot interval at concentrations of 1,100 mg/kg and 13 mg/kg, respectively (TPHg soil ESL is 100 mg/kg). Groundwater samples were collected and TPHg was detected in MW-4 at 100 ppm (TPHg Regional Board Basin Plan Groundwater Objective (BPO) is 100 µg/L). The presence of free product was observed in MW-1 through MW-3, which supported a previous assumption that some free product was still present in the tank backfill. The original product thicknesses were greater, but a manual bailing recovery program implemented by Thrifty had reduced the thicknesses considerably. The presence of product in MW-2 was likely due to its close proximity to the backfill while the product in MW-3 was probably a result of it being located downgradient of the backfill. The low permeability nature of the clayey substrate surrounding the tank pit area would have tended to contain, within the backfill, any free product that may have accumulated from occasional overfills or historical leaks.

On September 11, 1987, a limited subsurface investigation was conducted by Hydrotech Consultants, Inc. Four soil borings were advanced to 20 feet bgs and soil samples were taken at five foot intervals. Laboratory analysis was performed on soil samples recovered from B-1 at the 10 and 20 foot intervals. Both soil samples analyzed contained less than 10 mg/kg TPHg.

In October 1987, Thrifty started free product recovery and groundwater monitoring activities. Free product was extracted from wells MW-1 through MW-4 using hand bailing method.



In October 1989, WWC installed a six-inch diameter recovery well. A total fluids ejector pump system was placed in the recovery well. The system pumps extracted groundwater and floating product through the oil/water separator, then to a holding tank, and finally through a pair of activated carbon filters to remove the dissolved hydrocarbons before being discharged into the sanitary sewer. A discharge permit was obtained from East Bay Municipal Utility District (EBMUD) prior to discharging the treated water.

On June 11 and 12, 1997, a baselining subsurface investigation was conducted by Pacific Environmental Group, Inc. Seven soil borings were advanced to 20 feet bgs (TDD-1 through TDD-5, TDD-8 and TDD-9) and two soil borings were advanced to 10 feet bgs (TDD-6 and TDD-7) and soil samples were collected at five foot intervals. TPHg was detected in boring TDD-6 at the five foot interval at a concentration of 550 mg/kg, and in borings TDD-1 through TDD-4 at the 15 foot interval at concentrations of 480 mg/kg, 37.0 mg/kg, 7.5 mg/kg, and 36 mg/kg, respectively (TPHg soil ESL is 100 mg/kg). Benzene concentrations ranged from below the laboratory method detection limit (MDL) to 2.5 mg/kg in TDD-6 at the five foot interval (benzene soil ESL is 0.044 mg/kg). MTBE concentrations ranged from below the MDL to 12 mg/kg in TDD-3 at the 15 foot interval (MTBE soil ESL is 0.023 mg/kg). MTBE was not confirmed using EPA method 8260B.

On February 4, 1998, three gasoline USTs and their associated piping were removed from the Site under the supervision of Pacific Environmental Group, Inc. The tanks consisted of two 10,000-gallon and one 12,000-gallon capacity USTs and were constructed of steel coated with fiberglass. On February 10, 1998, two 20,000-gallon double-walled USTs were installed at the Site. Approximately 977 tons of impacted soil was excavated and disposed of offsite. Soil samples were collected and analyzed. Areas of petroleum hydrocarbon impacted soil were present in the former UST basin and the product piping trenches. TPHg concentrations from the former UST excavation ranged from below the laboratory MDL in T-3 to 260 mg/kg in T-2. TPHg concentrations from the piping samples ranged from below the laboratory MDL in P-3 to 1,200 mg/kg in P-2 (TPHg ESL for soil is 100 mg/kg).

In July 2002, Thrifty proposed connecting groundwater monitoring well MW-4 to the existing remediation system to enhance the reduction of petroleum hydrocarbons in groundwater. Since it had been more than two years with no response from the ACHCA, on July 14, 2004 Thrifty notified the ACHCA that it intended to proceed with connecting well MW-4 to the remediation system. Thrifty retained Advanced GeoEnvironmental, Inc. to connect well MW-4 to the remediation system.

The system was shut down for repairs to the pump controller of the system on January 20, 2005. Since the pump controller for well MW-3 was old and was considered irreparable, the pump for MW-3 was replaced with a control-less submersible pump instead of an above ground pump. During the preparation for pump upgrade for MW-3 in February 2005, it was also found that the hoses and tubing between MW-3 and the compound needed to be replaced due to their age. Repairs to the existing system were done in conjunction with the system upgrade (adding new extraction well).

The system was upgraded in the 2<sup>nd</sup> Quarter 2005, consisting of a pump replacement in well MW-3 and adding of well MW-4 to the extraction well array. On May 10, 2005, the system was restarted with a new pump in well MW-3; and on May 13, 2005, a pump was installed in well MW-4. The pump in well MW-4 was started on May 20, 2005.

Site remedial activities were initiated in April 1991. The upgraded remediation system consists of a Groundwater Treatment System that extracts groundwater from monitoring wells MW-3 and MW-4 with treatment using activated carbon. As of December 22, 2010, the groundwater treatment system has treated approximately 3,359,909 gallons of groundwater since start-up (April 1991). System operational data is included in **Table 4**. Ongoing environmental activities at the site include weekly system maintenance; quarterly water sampling from the system's inlet and outlet; and quarterly groundwater monitoring, sampling, and reporting to ACHCA. One 5-day and one 30-day mobile DPE events conducted in May and September 2010 removed 308 pounds of hydrocarbons and 18,290 gallons of groundwater.

Historic soil sample results are included in **Table 1** and historic groundwater sample results are included in **Tables 2A** and **2B**. Groundwater monitoring well completion data is summarized in **Table 3**. The ESLs for soil and the BPOs for groundwater are included in **Appendix C**.

#### **4.0 ADDITIONAL SITE ASSESSMENT ACTIVITIES**

The requirements of this work were set forth in the ACHCA's letter to Thrifty dated December 29, 2008 and Thrifty's *Additional Site Assessment Workplan (ASAW)* dated February 18, 2009 and *Addendum to the Additional Site Assessment Workplan (AASAW)* dated September 13, 2010. These documents were approved by the ACHCA in their letter to Thrifty dated September 30, 2010.

On April 18 and 19, 2011, the following site assessment activities were conducted.

- On April 18, 2011 GHC oversaw the installation of six soil gas vapor probes (SV-1 through SV-6), with soil vapor samples collected from a depth of three feet below grade at each probe location. Three soil borings, SB-2, SB-3, and SB-4 were completed by Test America Drilling, Inc. to a total depth of 30 feet bgs using a CPT rig. Soil borings were also completed at SV-5 and SV-6 locations by hand auger to a total depth of approximately 11 feet below grade and a grab groundwater sample was collected from each of these boreholes.
- On April 19, 2011 GHC oversaw the installation of soil boring SB-1, SB-5, and SB-6 by Test America Drilling, Inc. using a limited access geoprobe hydraulic push rig. Soil samples were collected from these three borings at 5 foot intervals to a total depth of 30 feet bgs, and a grab groundwater sample was collected from each of these boreholes. Soil boring SB-4 was not installed in the location proposed in the ASAW due to surface and subsurface obstructions and so was moved approximately 10 feet to the south and inside the boundary of the adjacent

property (6101 Telegraph Avenue property). The soil gas/soil boring locations are depicted in **Figure 2**.

Soil boring logs for borings SB-1 through SB-6, and SV-5 and SV-6, are included in **Appendix A**. Soil samples were analyzed by Associated Laboratories of Orange, California, which is a state certified laboratory, for TPHg using EPA Method 8015B and for volatile organics including BTEX, MTBE, additional oxygenates using EPA Method 8260B. Grab groundwater samples were also analyzed by Associated Laboratories of Orange, California, which is a state certified laboratory, for TPHg using EPA Method 8015B and for volatile organics including BTEX, MTBE, additional oxygenates using EPA Method 8260B. The soil vapor samples were analyzed by an onsite mobile laboratory (Optimal Technology) for volatile organic compound at TPHg by EPA Method 8260B and for fixed gases including methane, carbon dioxide, and oxygen. The soil sampling protocol is described in detail in section 4.1 below.

All soil sampling equipment was washed with non-phosphate detergent and triple rinsed between each sample to avoid any cross-contamination. All soil samples were collected in brass rings or acetate liners, covered with Teflon sheeting, capped, labeled, and placed in an iced cooler for delivery to the laboratory under strict chain-of-custody procedures.

All boreholes were backfilled with portland cement and an Alameda County Health Care Agency representative was onsite to witness the boring sealing process. Prior to installation boring permits were obtained from the ACHCA, copies are included in **Appendix B**. Soil boring completion logs for the soil borings are included in **Appendix A**.

#### 4.1 Soil Gas Survey

Soil vapor samples were obtained from six locations (SV-1 through SV-6) in areas shown on **Figure 2** located throughout the site property and surrounding properties on April 18, 2011. Soil boring permits were obtained from the ACHCA prior to conducting the vapor survey (**Appendix B**).

Soil vapor samples were collected and analyzed by Optimal Technology a state of California certified mobile laboratory. A stainless-steel hand auger equipped with 2.5-inch diameter bucket was used by Test America Drilling to drill each of the six borings to a depth of 3 feet below grade. A new 0.25-inch I.D. Teflon™ tubing with a micro-porous screen were inserted into the borehole to the appropriate depths and a sand pack was poured around the probe. The remaining annulus was filled with bentonite granules to the ground surface and hydrated to seal off each probe. The probes were allowed to equilibrate for a minimum of 30 minutes prior to collecting the soil vapor sample. The vapor samples were collected by Optimal Technology from each of the soil vapor probes via a new Teflon syringe for direct injection into the GC/MS for analysis. A purge test was performed by extracting one purge volume, three purge volumes, and seven purge volumes and analyzing each vapor sample from soil vapor point SV-3. All three purge volumes from SV-3 resulted in no

detectable analytes of concern therefore three purge volumes was the method selected for use at the Site. Following purging a syringe sample was collected for each location, labeled, and delivered directly to the onsite mobile laboratory which is certified by the State of California for the test procedures performed.

Hand auger equipment was cleaned between each sample probe location and new Teflon™ tubing was used for each probe location. A tracer compound (isobutene) was placed on the ground surface next to each soil vapor probe to ensure that there was no short circuiting through the probe hole to the surface. If the tracer compound was detected in any of the samples analyzed (which it was not) the probe would have been re-installed and re-sampled. Following collection of the soil vapor samples, the Teflon tubing was removed from the borehole and the surface was capped with asphalt to match the existing grade.

Soil vapor samples were analyzed by the mobile laboratory for Total Petroleum Hydrocarbons as gasoline (TPHg) and the full list of volatile organic compounds (VOCs) including but not limited to BTEX, MTBE, additional oxygenates, and naphthalene by EPA Method 8260B using a GC/MS. Fixed gases were also analyzed for each vapor sample and included methane, carbon dioxide, and oxygen. A duplicate soil vapor sample (SV-4 Dup) was collected and analyzed and an ambient air blank was collected and analyzed for quality control measures.

The soil vapor survey was conducted in accordance with the California Department of Toxic Substances Control's *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* dated December 15, 2004 (Revised February 7, 2005) including the use of proper sampling protocols and minimum laboratory detection limits (was not to be higher than five hundred times the acceptable indoor air concentrations) and procedures.

Laboratory analysis indicated that all the soil vapor samples did not contain detectable concentrations of any of the analytes of concern. The duplicate sample, SV-4 Dup, was also non-detect for all analytes of concern, and the ambient air blank was non-detect for all analytes of concern. The soil vapor sample analysis indicated that methane concentrations were below the laboratory method detection limit in the vapor samples collected, carbon dioxide concentrations ranged from 0.5% to 3.7%, and oxygen concentrations ranged 14.0% to 20.0%. The soil vapor analytical results are summarized in **Table 5** and the laboratory analytical report and chain-of-custody documents are included in **Appendix E**.

#### 4.1.1 Vapor Risk Assessment

The laboratory results from the vapor samples were used to evaluate the potential health risk to occupants of the buildings or surrounding area. The risk assessment was performed according to the updated and revised California Department of Toxic Substances Control (DTSC) *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* guidelines using the DTSC Soil Gas Risk Model using the appropriate soil type (sandy clay loam) for the Site.

Since all 6 soil vapor sample locations did not contain any detectable concentrations of any of the analytes of concern, it can be concluded that the carcinogenic risk and hazard quotient for vapor intrusion to indoor air is not measurable and therefore is below the acceptable carcinogenic risk of  $1.0 \times 10^{-6}$  and acceptable hazard quotient of 1.0, for benzene, or any of the other analytes of potential concern.

A risk model run was prepared for a benzene concentration assuming an estimated concentration to be equal to the laboratory method detection limit in order to determine the associated risk with these potential concentrations if they were actually present. The soil type used in the model was sandy clay loam which is a conservative estimate for the Site soils. The model run is included in **Appendix H**. Based on the results of this model run, it was determined that the carcinogenic health risk for benzene to be  $3.2 \times 10^{-7}$  and the non-carcinogenic hazard quotient for vapor intrusion to indoor air was calculated using this same assumed concentration to be 0.00085, which are both well below the acceptable carcinogenic risk of  $1.0 \times 10^{-6}$  and the hazard quotient of 1.0 for benzene at this concentration.

## 4.2 Soil Sampling Activities

Soil samples were analyzed from soil boring SB-1 through SB-6 from a depth of 5 feet to 30 feet bgs (SB1-5, SB1-10, SB1-15, SB1-20, SB1-25, SB1-30, etc.). Soil borings SB-1 and SB-3 were located on the station property, soil borings SB-2 and SB-4 were located on the adjacent property to the south, and soil borings SB-5 and SB-6 were located offsite to the west on Racine Street (**Figure 2**). Soil boring SB-4 was originally planned to be drilled on the service station property, however the recent installation of station vapor line piping in this area of the site along with the close proximity of the USTs, made this location un-drillable, therefore the boring was placed just to the south of the proposed location on the adjacent parcel approximately 10 feet from the original proposed location.

Of the twelve soil samples collected from borings SB-1 and SB-3 located onsite, only one soil sample, SB3-15, contained detectable concentrations of TPHg at a concentrations of 95 milligrams per kilogram (mg/kg). Ethylbenzene and xylenes were also only detected in one soil sample, the same sample SB3-15 at concentrations of 0.165 J mg/kg and 0.063 J mg/kg, respectively. The "J" denotes that the concentration was detected above the laboratory method detection limit but below the laboratory reporting limit. MTBE was detected in two soil samples from these two borings, SB1-30 and SB3-30, both below the water table, at concentrations of 0.0083 mg/kg and 0.0053 mg/kg, respectively. TBA was detected in three soil samples from these two borings, SB1-15, SB1-30, and SB3-5, at concentrations of 0.010mg/kg, 0.023 mg/kg, and 0.044 mg/kg, respectively. The remaining analytes of concern, benzene, toluene, DIPE, ETBE, and TAME were not detected above the laboratory method detection limit in these soil samples.

Of the twelve soil samples collected from borings SB-2 and SB-4 located on the adjacent parcel to the south, only one soil sample, SB4-15, contained detectable concentrations of TPHg at a concentrations of 13 mg/kg. Ethylbenzene and xylenes were also detected in this soil sample at concentrations of 0.900 mg/kg and 0.344 mg/kg, respectively. Ethylbenzene and xylenes were also detected in soils samples SB2-15 and SB4-30 at

concentrations of 0.088 mg/kg (ethylbenzene) and 0.017 mg/kg (xylenes) and 0.0035 J mg/kg (ethylbenzene) and 0.0024 J mg/kg (xylenes), respectively. TBA was detected in four soil samples from these two borings, SB2-25, SB2-30, SB4-25, and SB4-30, at concentrations of 0.0025 J mg/kg, 0.011 mg/kg, 0.002 J mg/kg, and 0.0074 mg/kg, respectively, which were all collected from beneath the water table. The remaining analytes of concern, benzene, toluene, MTBE, DIPE, ETBE, and TAME were not detected above the laboratory method detection limit in these soil samples.

Of the twelve soil samples collected from borings SB-5 and SB-6 located offsite to the west on Racine Street, only three soil samples, all collected from SB-6 (SB6-10, SB6-15, and SB6-20), contained detectable concentrations of DIPE at concentrations of 0.0011 J mg/kg, 0.035 mg/kg, and 0.0035 mg/kg, respectively. The remaining analytes of concern, TPHg, benzene, toluene, ethylbenzene, xylenes, MTBE, ETBE, TAME, and TBA were not detected above the laboratory method detection limit in these soil samples.

Soil sample results are summarized in **Table 1** along with historic soil sample results. Soil sample results are depicted in **Figures 4A** through **4F**. Soil sample laboratory analytical reports and chain-of-custody documents are included in **Appendix F**.

### 4.3 Groundwater Sample Procedures and Results

Soil borings were also completed at SV-5 and SV-6 locations by hand auger to a total depth of approximately 11 feet below grade and a grab groundwater sample was collected from each of these boreholes on April 18, 2011. On April 19, 2011 GHC oversaw the installation of soil boring SB-1, SB-5, and SB-6 by Test America Drilling, Inc. using a limited access geoprobe hydraulic push rig. A grab groundwater sample was collected from each of these boreholes. Grab groundwater samples were collected using a disposable bailer and new string either directly from the borehole (SV-5 and SV-6) or from a temporary 1-inch diameter PVC screen and casing inserted in the borehole to facilitate groundwater sample collected.

Groundwater was encountered in borings SV-5 and SV-6 at a depth of approximately 11 feet and 9 feet below grade, respectively. In borings SB-1, SB-5, and SB-6, a groundwater sample was attempted to be collected at depths of 15, 20, and 25 feet below grade, however groundwater did not enter these boreholes until a total depth of 30 feet was obtained, therefore, the depth specific groundwater samples proposed for the shallower depths from soil borings SB-1, SB-5, and SB-6 could not be collected, even after waiting approximately 20 to 30 minutes for the water to enter the borehole at these shallower depths. The water samples were collected in a new disposable bailer at each location and decanted into laboratory supplied 40 ml glass VOA bottles preserved with hydrochloric acid, labeled, and placed in a chilled ice chest for direct delivery to Associated Laboratories of Orange, California under strict chain-of-custody procedures.

The groundwater sample collected from offsite boring SV-5 did not contain detectable concentrations of TPHg, BTEX, MTBE, TBA, DIPE, ETBE, or TAME. The groundwater sample collected from offsite boring SV-6 did not contain detectable concentrations of

TPHg, BTEX, TBA, DIPE, ETBE, or TAME however did contain low concentrations of MTBE at 1.3 micrograms per liter ( $\mu\text{g/L}$ ).

The groundwater sample collected from onsite boring SB-1 did not contain detectable concentrations of TPHg, BTEX, DIPE, ETBE, or TAME however did contain low concentrations of MTBE at 11  $\mu\text{g/L}$  and TBA at 11  $\mu\text{g/L}$ .

The groundwater sample collected from offsite boring SB-5 located in Racine Street did not contain detectable concentrations of TPHg, BTEX, MTBE, TBA, DIPE, ETBE, or TAME. The groundwater sample collected from offsite boring SB-6 located in Racine Street did not contain detectable concentrations of TPHg, BTEX, MTBE, TBA, ETBE, or TAME however did contain low concentrations of DIPE at 2.9  $\mu\text{g/L}$ .

Groundwater grab sample results are summarized in Table 2A and 2B along with historic groundwater samples collected from the monitoring wells at the site. Groundwater sample results are depicted in **Figure 6A, 6B, 6C, and 6D** for TPHg, benzene, MTBE, and TBA, respectively. Groundwater sample laboratory analytical reports and chain-of-custody documents are included in **Appendix G**.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

Remedial activities have been progressing for over 19 plus years at the Site. As of December 22, 2010, the groundwater treatment system treated approximately 3,359,909 gallons of groundwater since start-up in April 1991. Additional remedial efforts include the removal of 977 tons of hydrocarbon impacted soils during UST removal in 1998, and removal of 308 pounds of hydrocarbons and 18,290 gallons of groundwater during mobile DPE events in year 2010. The quarterly groundwater monitoring results confirm that the contaminant plume is attenuating and that groundwater concentrations have been decreasing over time.

On April 18, 2011 GHC oversaw the installation of six soil gas vapor probes (SV-1 through SV-6), with soil vapor samples collected from a depth of three feet below grade at each probe location. Three soil borings, SB-2, SB-3, and SB-4 were completed to a total depth of 30 feet bgs using a CPT rig. Soil borings were also completed at SV-5 and SV-6 locations by hand auger to a total depth of approximately 11 feet below grade and a grab groundwater sample was collected from each of these boreholes. On April 19, 2011 GHC oversaw the installation of soil boring SB-1, SB-5, and SB-6 using a limited access geoprobe hydraulic push rig. Soil samples were collected from these three borings at 5 foot intervals to a total depth of 30 feet bgs, and a grab groundwater sample was collected from each of these boreholes.

Laboratory analysis indicated that all six of the soil vapor samples did not contain detectable concentrations of any of the analytes of concern. A risk model run was prepared for a benzene concentration assuming an estimated concentration to be equal to the laboratory method detection limit in order to determine the associated risk with these

potential concentrations if they were actually present. The soil type used in the model was sandy clay loam which is a conservative estimate for the Site soils. Based on the results of this model run, it was determined that the carcinogenic health risk for benzene  $3.2 \times 10^{-7}$  and the non-carcinogenic hazard quotient for vapor intrusion to indoor air was calculated using this same assumed concentration to be 0.00085, which are both well below the acceptable carcinogenic risk of  $1.0 \times 10^{-6}$  and the hazard quotient of 1.0 for benzene at this concentration.

Of the twelve soil samples collected from borings SB-1 and SB-3 located onsite, only one soil sample, SB3-15, contained detectable concentrations of TPHg at a concentrations of 95 mg/kg. Ethylbenzene and xylenes were also only detected in soil sample SB3-15 at concentrations of 0.165 J mg/kg and 0.063 J mg/kg, respectively. MTBE was detected in two soil samples, SB1-30 and SB3-30, both below the water table, at concentrations of 0.0083 mg/kg and 0.0053 mg/kg, respectively. TBA was detected in three soil samples, SB1-15, SB1-30, and SB3-5, at concentrations of 0.010mg/kg, 0.023 mg/kg, and 0.044 mg/kg, respectively. The remaining analytes of concern, benzene, toluene, DIPE, ETBE, and TAME were not detected above the laboratory method detection limit in these soil samples.

Of the twelve soil samples collected from borings SB-2 and SB-4 located on the adjacent parcel to the south, only one soil sample, SB4-15, contained detectable concentrations of TPHg at a concentrations of 13 mg/kg. Ethylbenzene and xylenes were also detected in this soil sample at concentrations of 0.900 mg/kg and 0.344 mg/kg, respectively. Ethylbenzene and xylenes were also detected in soils samples SB2-15 and SB4-30 at concentrations of 0.088 mg/kg (ethylbenzene) and 0.017 mg/kg (xylenes) and 0.0035 J mg/kg (ethylbenzene) and 0.0024 J mg/kg (xylenes), respectively. TBA was detected in four soil samples, SB2-25, SB2-30, SB4-25, and SB4-30, at concentrations of 0.0025 J mg/kg, 0.011 mg/kg, 0.002 J mg/kg, and 0.0074 mg/kg, respectively, which were all collected from beneath the water table. The remaining analytes of concern, benzene, toluene, MTBE, DIPE, ETBE, and TAME were not detected above the laboratory method detection limit in these soil samples.

Of the twelve soil samples collected from borings SB-5 and SB-6 located offsite to the west on Racine Street, only three soil samples, all collected from SB-6 (SB6-10, SB6-15, and SB6-20), contained detectable concentrations of DIPE at concentrations of 0.0011 J mg/kg, 0.035 mg/kg, and 0.0035 mg/kg, respectively. The remaining analytes of concern, TPHg, benzene, toluene, ethylbenzene, xylenes, MTBE, ETBE, TAME, and TBA were not detected above the laboratory method detection limit in these soil samples.

The groundwater sample collected from offsite boring SV-5 did not contain detectable concentrations of any of the analytes of concern. The groundwater sample collected from offsite boring SV-6 only contained low concentrations of MTBE at 1.3 µg/L. The groundwater sample collected from onsite boring SB-1 only contained low concentrations of MTBE at 11 µg/L and TBA at 11 µg/L. The groundwater sample collected from offsite boring SB-5 located in Racine Street did not contain detectable concentrations of any of the analytes of concern. The groundwater sample collected from offsite boring SB-6 located in Racine Street only contained low concentrations of DIPE at 2.9 µg/L. Based on



these recent groundwater sampling results, it appears that the groundwater plume has been successfully delineated and the groundwater plume is limited in concentration and aerial extent.

There are no sensitive receptors or groundwater production wells identified within 1,000 feet of the Site. Remedial efforts have successfully removed source area contamination. Based on the non-detectable concentrations that were present in all six soil vapor samples which indicate no significant risk to humans or other receptors at the Site or on surrounding properties, along with recent soil sample and offsite grab groundwater sample results obtained from the Site which indicate that impacted soil is very limited in concentration and extent (attenuated to a clay soil) and the groundwater plume is limited in concentration and extent and shrinking, GHC, on behalf of Thrifty, requests low-risk regulatory case closure for all soil and groundwater activities at this Site.

# **TABLES**

**TABLE 1**  
**Historic Soil Sample Laboratory Analytical Results**  
 Thrifty Oil Station #063 - Oakland, CA  
 GHC - 1332

Sample ID	Date Sampled	ANALYTICAL PARAMETERS									
		TPHg (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	DIPE (mg/Kg)	ETBE (mg/Kg)	TAME (mg/Kg)	TBA (mg/Kg)	MTBE (mg/Kg)
<b>ESLs shallow soil (&lt; 3m bgs)</b>		<b>100</b>	<b>0.044</b>	<b>2.9</b>	<b>3.3</b>	<b>2.3</b>					<b>0.023</b>
<b>ESLs deep soil (&gt;3m bgs)</b>		<b>100</b>	<b>0.044</b>	<b>2.9</b>	<b>3.3</b>	<b>2.3</b>					<b>0.023</b>
MW1-17	6/21/1986	471	7.6	6.3	7.3	39.7	-	-	-	-	-
MW2-14	6/21/1986	735	12.6	26.4	10.7	64.3	-	-	-	-	-
MW3-14	6/21/1986	52	5.4	1.9	1.3	6.9	-	-	-	-	-
MW4-10	11/13/1986	<10	<0.5	<0.5	-	<0.5	-	-	-	-	-
MW4-16	11/13/1986	1100	13.0	14.0	-	34.0	-	-	-	-	-
MW5-16	11/13/1986	<10	<0.5	<0.5	-	<0.5	-	-	-	-	-
MW6-15	11/13/1986	<10	<0.5	<0.5	-	<0.5	-	-	-	-	-
C-1	11/13/1986	58	<0.5	5.8	-	<0.5	-	-	-	-	-
B1-5	9/11/1987	-	-	-	-	-	-	-	-	-	-
B1-10	9/11/1987	<10	-	-	-	-	-	-	-	-	-
B1-15	9/11/1987	-	-	-	-	-	-	-	-	-	-
B1-20	9/11/1987	<10	-	-	-	-	-	-	-	-	-
B2-5	9/11/1987	-	-	-	-	-	-	-	-	-	-
B2-10	9/11/1987	-	-	-	-	-	-	-	-	-	-
B2-15	9/11/1987	-	-	-	-	-	-	-	-	-	-
B2-20	9/11/1987	-	-	-	-	-	-	-	-	-	-
B3-5	9/11/1987	-	-	-	-	-	-	-	-	-	-
B3-10	9/11/1987	-	-	-	-	-	-	-	-	-	-
B3-15	9/11/1987	-	-	-	-	-	-	-	-	-	-
B3-20	9/11/1987	-	-	-	-	-	-	-	-	-	-
B4-5	9/11/1987	-	-	-	-	-	-	-	-	-	-
B4-10	9/11/1987	-	-	-	-	-	-	-	-	-	-
B4-15	9/11/1987	-	-	-	-	-	-	-	-	-	-
B4-20	9/11/1987	-	-	-	-	-	-	-	-	-	-
TDD1-15	6/11/1997	480	2.3	<0.75	7.0	42	-	-	-	-	1.7
TDD1-20	6/11/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD2-15	6/11/1997	37.0	0.19	0.13	0.61	1.9	-	-	-	-	<1.0
TDD2-20	6/11/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD3-15	6/11/1997	7.5	0.043	<0.015	0.044	<0.045	-	-	-	-	12
TDD3-20	6/11/1997	<1.0	0.11	<0.0050	0.0070	<0.015	-	-	-	-	3.2
TDD4-15	6/11/1997	36	0.41	<0.038	0.39	1.2	-	-	-	-	14
TDD4-20	6/11/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	1.4
TDD5-10	6/12/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD5-20	6/12/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD6-5	6/11/1997	550	2.5	5.5	9.7	50	-	-	-	-	6.0
TDD6-10	6/11/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD7-5	6/11/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD7-10	6/11/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD8-10	6/12/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD8-20	6/12/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD9-5	6/12/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD9-10	6/12/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
TDD9-20	6/12/1997	<1.0	<0.0050	<0.0050	<0.0050	<0.015	-	-	-	-	<1.0
T-1(8')	2/4/1998	61	0.085	1.3	0.77	4.6	-	-	-	-	0.60
T-2(8')	2/4/1998	260	<0.03	0.18	3.0	1.1	-	-	-	-	<0.3
T-3(8')	2/4/1998	<1.0	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.05
T-4(8')	2/4/1998	2	<0.005	<0.005	<0.005	0.01	-	-	-	-	0.07
UST-10	2/4/1998	210	<0.12	<0.5	0.71	1.1	-	-	-	-	<1.2
P-1	2/4/1998	49	0.071	0.39	0.44	2.6	-	-	-	-	<0.25
P-2	2/4/1998	1,200	1.7	24	21	96	-	-	-	-	15
P-3	2/4/1998	<5	0.062	0.092	0.031	0.098	-	-	-	-	9.4
P-4	2/4/1998	310	1.6	25	7.4	47	-	-	-	-	26
P-5	2/4/1998	920	6.5	35	15	78	-	-	-	-	13
P-6	2/4/1998	330	1.9	5.5	8.3	38	-	-	-	-	<2.5
SS-1	2/4/1998	<1.0	<0.005	<0.005	<0.005	0.022	-	-	-	-	0.56
SS-2	2/4/1998	<1.0	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.05
SS-3	2/4/1998	<1.0	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.05
SS-4	2/4/1998	<1.0	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.05
SS-5	2/4/1998	<1.0	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.05
SS-6	2/4/1998	<1.0	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.05
SS-7	2/4/1998	<1.0	<0.005	0.009	<0.005	0.008	-	-	-	-	<0.05
SS-8	2/4/1998	<1.0	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.05
SS-9	2/4/1998	<1.0	<0.005	0.006	<0.005	0.017	-	-	-	-	<0.05
SS-10	2/4/1998	<1.0	<0.005	<0.005	<0.005	0.016	-	-	-	-	<0.05
SS-11	2/4/1998	<1.0	<0.005	0.007	<0.005	0.007	-	-	-	-	<0.05
SS-12	2/4/1998	<1.0	<0.005	0.032	0.017	0.19	-	-	-	-	0.56
SS-13	2/4/1998	2,700	4.03	66	42	220	-	-	-	-	6.4

**TABLE 1**  
**Historic Soil Sample Laboratory Analytical Results**  
 Thrifty Oil Station #063 - Oakland, CA  
 GHC - 1332

Sample ID	Date Sampled	ANALYTICAL PARAMETERS									
		TPHg (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	DIPE (mg/Kg)	ETBE (mg/Kg)	TAME (mg/Kg)	TBA (mg/Kg)	MTBE (mg/Kg)
SS-14	2/4/1998	4	<0.005	0.74	0.047	0.33	-	-	-	-	0.86
SS-15	2/4/1998	3,600	4.2	78	49	260	-	-	-	-	7.3
SS-16	2/4/1998	2,100	2.4	41	27	130	-	-	-	-	5.2
SS-17	2/4/1998	2,900	3.8	67	42	230	-	-	-	-	4.7
SS-19	2/4/1998	15	0.04	0.055	0.1	0.42	-	-	-	-	0.45
SS-20	2/4/1998	270	<0.12	1.9	2.7	16	-	-	-	-	<1.2
SS-21	2/4/1998	86	<0.05	0.6	0.75	4.2	-	-	-	-	<0.5
SS-22	2/4/1998	240	0.25	4.1	3.3	19	-	-	-	-	<1.2
SS-23	2/4/1998	1	<0.005	0.007	0.007	0.082	-	-	-	-	0.1
MW-7-5	2/22/2007	<0.022	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
MW-7-10	2/22/2007	<0.022	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
MW-7-15	2/22/2007	710	<0.00032	<0.00038	5.9	10.8	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
MW-7-18	2/22/2007	13	<0.00032	<0.00038	4.7	9.0	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
MW-8-5	2/22/2007	<0.022	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
MW-8-10	2/22/2007	<0.022	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
MW-8-15	2/22/2007	<0.022	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
MW-8-18	2/22/2007	<0.022	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB1-5	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB1-10	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB1-15	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	0.010	<0.00035
SB1-20	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB1-25	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB1-30	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	0.023	0.0083
SB2-5	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB2-10	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB2-15	4/18/2011	<0.018	<0.00032	<0.00038	0.088	0.017	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB2-20	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB2-25	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	0.0025 J
SB2-30	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	0.011
SB3-5	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	0.044	<0.00035
SB3-10	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB3-15	4/18/2011	95	<0.009	<0.0085	0.165 J	0.063 J	<0.0085	<0.0125	<0.0065	<0.440	<0.0085
SB3-20	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB3-25	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB3-30	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	0.0053
SB4-5	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB4-10	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB4-15	4/18/2011	13	<0.009	<0.0085	0.900	0.344	<0.0085	<0.0125	<0.0065	<0.440	<0.0085
SB4-20	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB4-25	4/18/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	0.002 J
SB4-30	4/18/2011	<0.018	<0.00032	<0.00038	0.0035 J	0.0024 J	<0.00082	<0.00077	<0.00061	<0.005	0.0074
SB5-5	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB5-10	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB5-15	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB5-20	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB5-25	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB5-30	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB6-5	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB6-10	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	0.0011 J	<0.00077	<0.00061	<0.005	<0.00035
SB6-15	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	0.035	<0.00077	<0.00061	<0.005	<0.00035
SB6-20	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	0.0035	<0.00077	<0.00061	<0.005	<0.00035
SB6-25	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035
SB6-30	4/19/2011	<0.018	<0.00032	<0.00038	<0.00032	<0.0007	<0.00082	<0.00077	<0.00061	<0.005	<0.00035

**NOTES:** TPHg analyzed by EPA Method 8015M      ESLs = Environmental Screening Levels  
 BTEX and MTBE analysis by EPA Method 8260B    3m bgs = 3 meters (10 feet) below ground surface  
 "<" = Less than the specified laboratory detection limit  
 "J" = Trace  
 \* = Total Recoverable Petroleum Hydrocarbons  
 - = Not analyzed

**TABLE 2A  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, OAKLAND, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
<b>MONITORING WELL #MW-1</b>											
Screen Interval = 15 to 30 feet						Casing Diameter = 2 inches					
11/21/86	-	-	-	-	-	-	NP	15.42	0.00	99.34	83.92
07/22/91	-	-	-	-	-	-	FILM	20.41	0.00	99.34	78.93
10/24/91	-	-	-	-	-	-	SHEEN	19.06	0.00	99.34	80.28
01/22/92	-	-	-	-	-	-	SHEEN	18.78	0.00	99.34	80.56
03/24/92	-	-	-	-	-	-	SHEEN	13.55	0.00	99.34	85.79
07/15/92	-	-	-	-	-	-	FILM	18.90	0.00	99.34	80.44
10/05/92	-	-	-	-	-	-	FILM	20.50	0.00	99.34	78.84
01/06/93	-	-	-	-	-	-	FILM	14.93	0.00	99.34	84.41
07/13/93	-	-	-	-	-	-	FILM	15.44	0.00	99.34	83.90
10/11/93	-	-	-	-	-	-	FILM	20.36	0.00	99.34	78.98
01/11/94	-	-	-	-	-	-	FILM	19.50	0.00	99.34	79.84
04/12/94	-	-	-	-	-	-	FILM	18.10	0.00	99.34	81.24
07/14/94	-	-	-	-	-	-	FILM	20.03	0.00	99.34	79.31
01/15/96	11,000	2,800	150	780	770	-	NP	19.02	0.00	99.34	80.32
04/15/96	17,000	3,600	330	1,500	3,400	-	NP	18.82	0.00	99.34	80.52
07/15/96	12,000	1,300	200	1,200	4,600	250	NP	#N/A	-	-	-
10/09/96	-	-	-	-	-	-	NP	14.87	0.00	99.34	84.47
01/13/97	27,000	810	6,000	570	4,100	2,700	NP	10.20	0.00	99.34	89.14
04/14/97	2,900	3.0	2.9	<0.3	1.7	9,900	NP	#N/A	-	-	-
07/07/97	5,200	0.57	0.57	<0.3	0.71	16,000	NP	18.75	0.00	99.34	80.59
10/16/97	680	<0.3	0.55	<0.3	<0.5	-	NP	17.92	0.00	99.34	81.42
01/07/98	42,000	980	2,800	1,200	5,200	1.3	NP	9.80	0.00	99.34	89.54
04/06/98	7,100	700	340	170	2,600	1,000	NP	9.60	0.00	99.34	89.74
07/14/98	19,000	2,100	400	890	5,800	1,600	NP	13.70	0.00	99.34	85.64
10/15/98	490	<0.3	<0.3	<0.3	<0.5	1,300	NP	15.25	0.00	99.34	84.09
01/20/99	350	<0.3	<0.3	<0.3	<0.5	* 670 / 820	NP	12.20	0.00	99.34	87.14
04/16/99	320	<0.3	<0.3	<0.3	<0.5	* 540 / 630	NP	12.20	0.00	99.34	87.14
07/14/99	290	<0.3	<0.3	<0.3	<0.5	*590 / 580	NP	13.75	0.00	99.34	85.59
10/07/99	130	<0.3	<0.3	<0.3	<0.5	270	NP	12.15	0.00	99.34	87.19
01/26/00	13,000	460	54	290	3,700	940	NP	13.14	0.00	99.34	86.20
04/19/00	546	<0.25	<0.25	<0.25	<0.5	*430 / 606	NP	10.63	0.00	99.34	88.71
05/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	9.11	0.00	99.34	90.23
07/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	9.10	0.00	99.34	90.24
10/25/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	9.08	0.00	99.34	90.26
01/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	12.16	0.00	99.34	87.18
04/23/01	18,100	740	55	650	4,000	*1,850 / 842	NP	10.60	0.00	99.34	88.74
07/16/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	9.07	0.00	99.34	90.27
10/17/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	12.16	0.00	99.34	87.18
01/23/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	15.23	0.00	99.34	84.11
04/10/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	15.17	0.00	99.34	84.17
07/24/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	16.71	0.00	99.34	82.63
10/30/02	<50	2.2	<0.14	<0.18	<0.26	13	NP	15.16	0.00	99.34	84.18
01/15/03	465 J	<0.14	<0.07	<0.08	<0.35	147	NP	16.70	0.00	99.34	82.64
04/16/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	15.16	0.00	99.34	84.18
07/14/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	13.64	0.00	99.34	85.70
10/08/03	761	11	<0.32	1.4 J	2.9 J	653	NP	15.50	0.00	99.34	83.84
01/15/04	853	<0.04	<0.02	<0.02	<0.06	*1,100 / 558	NP	14.20	0.00	99.34	85.14
04/14/04	494	<2.2	<3.2	<3.1	<4.0	843	NP	12.93	0.00	99.34	86.41
07/29/04	1,040	<2.2	<3.2	<3.1	<4.0	1,070	NP	14.73	0.00	99.34	84.61
10/14/04	3,250	266	<0.32	59	78	811	NP	15.26	0.00	99.34	84.08
01/06/05	197	<0.22	<0.32	<0.31	<0.4	406	NP	15.14	0.00	99.34	84.20
04/13/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	9.40	0.00	99.34	89.94
07/27/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	16.65	0.00	99.34	82.69

**TABLE 2A  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, OAKLAND, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
10/12/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	18.19	0.00	99.34	81.15
01/19/06	1,380	58	<0.10	62	113	33	NP	9.37	0.00	99.34	89.97
04/12/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	10.02	0.00	99.34	89.32
07/26/06	8,850	151	649	178	778	133	NP	15.18	0.00	99.34	84.16
10/25/06	<5.6	<0.32	<0.10	<0.24	<0.3	75	NP	15.13	0.00	99.34	84.21
01/24/07	<5.6	<0.32	3.1 J	1.2 J	6.4	<0.63	NP	13.60	0.00	148.43	134.83
04/24/07	3,090	133	3.2 J	114	116	72	NP	15.61	0.00	148.43	132.82
07/25/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.67	0.00	148.43	133.76
10/24/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.26	0.00	148.43	134.17
01/23/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	15.60	0.00	148.43	132.83
04/29/08	<6.6	<0.18	1.4 J	<0.21	1.4 J	<0.19	NP	16.32	0.00	148.43	132.11
07/30/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	15.04	0.00	148.43	133.39
10/29/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.23	0.00	148.43	134.20
01/29/09	<6.6	<0.18	1.3 J	<0.21	<0.45	<0.19	NP	14.24	0.00	148.43	134.19
05/06/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	15.52	0.00	148.43	132.91
12/14/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.28	0.00	148.43	134.15
05/19/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.04	0.00	148.43	136.39
11/10/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.92	0.00	148.43	135.51

**MONITORING WELL #MW-2**

Screen Interval = 15 to 30 feet

11/21/86	-	-	-	-	-	-	0.11	14.90	14.79	100.01	96.28
07/22/91	-	-	-	-	-	-	0.38	17.84	17.46	100.01	95.35
10/24/91	-	-	-	-	-	-	16.97	17.00	0.03	100.01	83.03
01/22/92	-	-	-	-	-	-	FILM	16.72	0.00	100.01	83.29
03/24/92	-	-	-	-	-	-	11.98	15.81	3.83	100.01	87.09
07/15/92	-	-	-	-	-	-	FILM	16.37	0.00	100.01	83.64
10/05/92	-	-	-	-	-	-	18.09	18.41	0.32	100.01	81.84
01/06/93	-	-	-	-	-	-	FILM	12.37	0.00	100.01	87.64
07/13/93	-	-	-	-	-	-	FILM	15.19	0.00	100.01	84.82
10/11/93	-	-	-	-	-	-	0.10	18.05	17.95	100.01	95.51
01/11/94	-	-	-	-	-	-	0.03	16.98	16.95	100.01	95.83
04/12/94	-	-	-	-	-	-	FILM	15.54	0.00	100.01	84.47
07/14/94	-	-	-	-	-	-	FILM	17.93	0.00	100.01	82.08
01/15/96	7,100	720	280	48	660	-	NP	17.20	0.00	100.01	82.81
04/15/96	11,000	600	59	420	870	-	NP	17.26	0.00	100.01	82.75
07/15/96	19,000	360	51	610	1,600	<250	#N/A	-	-	-	-
10/09/96	-	-	-	-	-	-	NP	14.42	0.00	100.01	85.59
01/13/97	11,000	230	30	91	700	56	NP	10.25	0.00	100.01	89.76
04/14/97	141	1.2	0.33	0.44	<0.5	20	#N/A	-	-	-	-
07/07/97	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	17.20	0.00	100.01	82.81
10/16/97	<50	<0.3	<0.3	<0.3	<0.5	-	NP	16.20	0.00	100.01	83.81
01/07/98	-	-	-	-	-	-	16.18	16.26	0.08	100.01	83.81

Well Abandoned 1/30/98

**MONITORING WELL #MW-3**

Screen Interval = 15 to 30 feet

(GROUNDWATER SYSTEM'S PUMPING WELL)

Casing Diameter = 6 inches

11/21/86	-	100	5.1	<1.0	25	-	0.10	16.25	16.15	99.76	95.70
07/22/91	-	-	-	-	-	-	NP	24.00	0.00	99.76	75.76
10/24/91	-	-	-	-	-	-	NP	18.10	0.00	99.76	81.66
01/22/92	-	-	-	-	-	-	SHEEN	25.80	0.00	99.76	73.96
03/24/92	-	-	-	-	-	-	NP	15.60	0.00	99.76	84.16
07/15/92	-	-	-	-	-	-	FILM	25.10	0.00	99.76	74.66
10/05/92	-	-	-	-	-	-	NP	25.20	0.00	99.76	74.56
01/06/93	-	-	-	-	-	-	NP	25.45	0.00	99.76	74.31

**TABLE 2A  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, OAKLAND, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
07/13/93	-	-	-	-	-	-	NP	14.24	0.00	99.76	85.52
10/11/93	-	-	-	-	-	-	NP	25.60	0.00	99.76	74.16
01/11/94	-	-	-	-	-	-	NP	25.90	0.00	99.76	73.86
04/12/94	-	-	-	-	-	-	NP	25.70	0.00	99.76	74.06
07/14/94	-	-	-	-	-	-	NP	25.10	0.00	99.76	74.66
01/15/96	-	-	-	-	-	-	NP	26.04	0.00	99.76	73.72
04/15/96	-	-	-	-	-	-	NP	21.03	0.00	99.76	78.73
07/15/96	5,900	240	30	270	730	780	#N/A	-	-	-	-
10/09/96	-	-	-	-	-	-	NP	21.43	0.00	99.76	78.33
01/13/97	-	-	-	-	-	-	NP	11.20	0.00	99.76	88.56
07/07/97	-	-	-	-	-	-	NP	23.40	0.00	99.76	76.36
10/16/97	-	-	-	-	-	-	NP	22.30	0.00	99.76	77.46
01/07/98	-	-	-	-	-	-	NP	20.10	0.00	99.76	79.66
07/14/98	-	-	-	-	-	-	NP	14.40	0.00	99.76	85.36
10/15/98	-	-	-	-	-	-	#N/A	-	-	-	-
01/20/99	-	-	-	-	-	-	#N/A	-	-	-	-
04/16/99	-	-	-	-	-	-	NP	11.20	0.00	99.76	88.56
07/14/99	5,600	9.6	1.3	3.5	8.1	*14,000 / 14,000	NP	25.87	0.00	99.76	73.89
10/07/99	-	-	-	-	-	-	NP	15.40	0.00	99.76	84.36
01/26/00	-	-	-	-	-	-	NP	14.25	0.00	99.76	85.51
04/19/00	-	-	-	-	-	-	NP	14.20	0.00	99.76	85.56
05/26/00	-	-	-	-	-	-	NP	15.12	0.00	99.76	84.64
07/26/00	-	-	-	-	-	-	NP	14.30	0.00	99.76	85.46
10/25/00	-	-	-	-	-	-	NP	14.32	0.00	99.76	85.44
01/10/01	-	-	-	-	-	-	NP	13.46	0.00	99.76	86.30
04/23/01	-	-	-	-	-	-	#N/A	-	-	-	-
07/16/01	-	-	-	-	-	-	NP	12.80	0.00	99.76	86.96
10/17/01	-	-	-	-	-	-	NP	15.30	0.00	99.76	84.46
01/23/02	-	-	-	-	-	-	#N/A	-	-	-	-
04/10/02	-	-	-	-	-	-	NP	13.22	0.00	99.76	86.54
07/24/02	-	-	-	-	-	-	NP	14.32	0.00	99.76	85.44
10/30/02	-	-	-	-	-	-	NP	16.20	0.00	99.76	83.56
01/15/03	-	-	-	-	-	-	NP	14.10	0.00	99.76	85.66
04/16/03	-	-	-	-	-	-	#N/A	-	-	99.76	-
07/14/03	2,490	<0.22	<0.32	<0.31	1.3 J	2,050	NP	18.30	0.00	99.76	81.46
10/08/03	3,330	<0.22	<0.32	<0.31	<0.4	4,070	NP	16.65	0.00	99.76	83.11
01/15/04	102	2.1	3.5	<0.02	12	*28 / 17	NP	14.18	0.00	99.76	85.58
04/14/04	464	63	18	<0.31	16	189	NP	13.45	0.00	99.76	86.32
07/29/04	1,560	74	<3.2	30 J	<4.0	729	NP	15.94	0.00	99.76	83.82
10/14/04	2,490	25	<0.32	<0.31	<0.4	2,530	NP	16.11	0.00	99.76	83.65
01/06/05	394	12	<0.32	1.5 J	<0.4	51	NP	15.61	0.00	99.76	84.15
04/13/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	9.19	0.00	99.76	90.57
07/27/05	383	5.6	<0.10	17	2.4 J	125	NP	16.63	0.00	99.76	83.13
10/12/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	16.97	0.00	99.76	82.79
01/19/06	2,050	93	2.2 J	103	55	273	NP	10.92	0.00	99.76	88.84
04/12/06	70	<0.32	<0.10	<0.24	<0.30	265	NP	12.55	0.00	99.76	87.21
07/26/06	228	<0.32	<0.10	<0.24	26	389	NP	14.94	0.00	99.76	84.82
10/25/06	87,100	26	4,880	2,390	18,500	<6.3	NP	17.49	0.00	99.76	82.27
01/24/07	4,770	1.5	98	86	604	<0.63	NP	13.40	0.00	148.94	135.54
04/24/07	15,700	42	<2.4	404	1,250	<1.9	NP	16.76	0.00	148.94	132.18
07/25/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	15.72	0.00	148.94	133.22
10/24/07	2,100	120	1.5 J	36	4.0 J	499	NP	15.43	0.00	148.94	133.51
01/23/08	59	<0.18	<0.24	<0.21	3.2 J	25	NP	15.43	0.00	148.94	133.51
04/29/08	1,770	34	273	60	361	11	NP	16.30	0.00	148.94	132.64

**TABLE 2A  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, OAKLAND, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
07/30/08	<6.6	<0.18	<0.24	<0.21	1.9 J	<0.19	NP	15.61	0.00	148.94	133.33
10/29/08	13,500	84	1,190	615	4,080	28	NP	15.42	0.00	148.94	133.52
01/29/09	2,510	81	449	67	448	<1.9	NP	15.40	0.00	148.94	133.54
05/06/09	119	<0.18	2.3 J	2.7 J	22	10	NP	15.26	0.00	148.94	133.68
12/14/09	17,400	118	970	362	2,670	<0.19	NP	15.45	0.00	148.94	133.49
05/19/10	133	<0.18	<0.24	<0.21	<0.45	5.2	NP	12.52	0.00	148.94	136.42
11/10/10	84	<0.18	<0.24	<0.21	2.6 J	51	NP	13.42	0.00	148.94	135.52
<b>MONITORING WELL #MW-4</b>											
Screen Interval = 9 to 29 feet											
Casing Diameter = 2 inches											
11/21/86	100,000	3,200	2,700	2,400	14,000	-	FILM	16.22	0.00	99.48	83.26
07/22/91	-	-	-	-	-	-	21.35	21.80	0.45	99.48	78.02
10/24/91	-	-	-	-	-	-	SHEEN	20.02	0.00	99.48	79.46
01/22/92	-	-	-	-	-	-	SHEEN	19.78	0.00	99.48	79.70
03/24/92	-	-	-	-	-	-	FILM	13.94	0.00	99.48	85.54
07/15/92	-	-	-	-	-	-	FILM	19.27	0.00	99.48	80.21
10/05/92	-	-	-	-	-	-	FILM	21.44	0.00	99.48	78.04
01/06/93	-	-	-	-	-	-	FILM	14.08	0.00	99.48	85.40
07/13/93	-	-	-	-	-	-	FILM	16.09	0.00	99.48	83.39
10/11/93	-	-	-	-	-	-	FILM	21.33	0.00	99.48	78.15
01/11/94	-	-	-	-	-	-	FILM	20.45	0.00	99.48	79.03
04/12/94	-	-	-	-	-	-	FILM	19.05	0.00	99.48	80.43
07/14/94	-	-	-	-	-	-	FILM	20.41	0.00	99.48	79.07
01/15/96	5,000	370	38	300	390	-	NP	19.89	0.00	99.48	79.59
04/15/96	38,000	300	78	540	470	-	NP	19.62	0.00	99.48	79.86
07/15/96	13,000	880	69	820	1,100	3,600	#N/A	-	-	-	-
10/09/96	-	-	-	-	-	-	NP	15.32	0.00	99.48	84.16
01/13/97	47,000	2,500	2,500	1,100	2,800	70,000	NP	10.80	0.00	99.48	88.68
04/14/97	8,700	<0.3	0.45	<0.3	0.64	29,000	#N/A	-	-	-	-
07/07/97	12,000	<0.3	<0.3	<0.3	<0.5	-	NP	18.80	0.00	99.48	80.68
10/16/97	770	<0.3	<0.3	<0.3	<0.5	-	NP	17.76	0.00	99.48	81.72
01/07/98	75,000	3,000	900	1,400	2,500	110	NP	11.60	0.00	99.48	87.88
04/08/98	18,000	1,200	130	710	1,400	22,000	NP	10.10	0.00	99.48	89.38
07/14/98	21,000	1,300	58	1,200	1,100	23,000	NP	16.30	0.00	99.48	83.18
10/15/98	9,100	1.1	0.62	<0.3	<0.5	30,000	NP	16.90	0.00	99.48	82.58
01/20/99	16,000	<0.3	0.91	0.72	1.4	* 43,000 / 42,000	NP	15.35	0.00	100.48	85.13
04/16/99	17,000	0.48	0.92	0.54	1.4	* 28,000 / 26,000	NP	15.30	0.00	100.48	85.18
07/14/99	8,500	<6.0	<6.0	<6.0	<10	*21,000 / 16,000	NP	18.40	0.00	100.48	82.08
10/07/99	2,500	<1.5	3.1	<1.5	<2.5	4,800	NP	16.89	0.00	100.48	83.59
01/26/00	9,900	350	9.0	460	460	2,800	NP	12.62	0.00	100.48	87.86
04/19/00	8,990	0.7	<0.25	<0.25	<0.5	*3,240 / 5,450	NP	12.28	0.00	100.48	88.20
05/26/00	94	<0.3	<0.3	<0.3	<0.6	*746 / 419	NP	13.81	0.00	100.48	86.67
07/26/00	<50	<0.3	<0.3	<0.3	<0.6	3,110 / 2,060	NP	12.29	0.00	100.48	88.19
10/25/00	2,480	<0.18	<0.14	<0.18	<0.26	*3,690 / 3,040	NP	12.26	0.00	100.48	88.22
01/10/01	<50	<0.18	2.0	<0.18	1.0	962	NP	10.75	0.00	100.48	89.73
04/23/01	482	<0.18	<0.14	<0.18	<0.26	*875 / 453	NP	12.26	0.00	100.48	88.22
07/16/01	71,700	9,440	12,600	514	8,980	*1,330 / 389	NP	13.80	0.00	100.48	86.68
10/17/01	13,500	1,950	425	<5.94	1,110	*829 / 329	NP	16.87	0.00	100.48	83.61
01/23/02	12,100	196	57	68	2,090	*688/738	NP	12.28	0.00	100.48	88.20
04/10/02	655	7.0	8.0	1.0	1.0	587	NP	13.80	0.00	100.48	86.68
07/24/02	17,400	<0.18	1.9	1.4	2.2	12,800	NP	15.33	0.00	100.48	85.15
10/30/02	17,300	400	47	748	131	12,300	NP	17.00	0.00	100.48	83.48
01/15/03	23,000	568	39	832	268	18,300	NP	16.84	0.00	100.48	83.64
04/16/03	15,800	411	15	26	14	18,200	NP	16.86	0.00	100.48	83.62



**TABLE 2A  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, OAKLAND, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
07/14/03	13,300	145	26	2.8 J	12	17,600	NP	10.69	0.00	100.48	89.79
10/08/03	12,500	64	<3.2	359	24 J	11,400	NP	16.32	0.00	100.48	84.16
01/15/04	12,300	11	4.4	66	4.0	*17,000 / 9,560	NP	14.67	0.00	100.48	85.81
04/14/04	7,340	<11	<16	<15.5	<20	13,500	NP	13.68	0.00	100.48	86.80
07/29/04	5,400	<2.2	<3.2	57	<4.0	6,730	NP	15.50	0.00	100.48	84.40
10/14/04	10,200	197	<3.2	233	13 J	3,940	NP	16.08	0.00	100.48	84.98
01/06/05	4,880	60	<3.2	74	<4.0	4,760	NP	15.24	0.00	100.48	85.24
04/13/05	2,780	57	35	20	251	3,650	NP	9.64	0.00	100.48	90.84
07/27/05	1,990	<0.32	<0.10	<0.24	<0.30	2,590	NP	16.79	0.00	100.48	83.69
10/12/05	25,700	177	<1.0	941	<3.0	4,810	NP	16.78	0.00	100.48	83.70
01/19/06	4,780	96	1.9 J	183	57	210	NP	10.46	0.00	100.48	90.02
04/12/06	1,860	<0.32	<0.10	<0.24	<0.30	192	NP	12.69	0.00	100.48	87.79
07/26/06	6,390	133	343	94	363	1,160	NP	15.18	0.00	100.48	85.30
10/25/06	12,100	51	162	<2.4	2,380	2,050	NP	14.88	0.00	100.48	85.60
01/24/07	21,600	2.9	256	205	1,710	123	NP	13.74	0.00	148.88	135.14
04/24/07	1,840	25	<0.24	80	14	754	NP	16.67	0.00	148.88	132.21
07/25/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	15.44	0.00	148.88	133.44
10/24/07	106	13	<0.24	1.4 J	<0.45	44	NP	15.17	0.00	148.88	133.71
01/23/08	1,520	41	100	18	152	428	NP	16.57	0.00	148.88	132.31
04/29/08	4,340	76	498	138	817	<1.9	NP	17.58	0.00	148.88	131.30
07/30/08	1,280	28	105	26	150	<0.19	NP	16.54	0.00	148.88	132.34
10/29/08	31,500	130	1,870	926	5,510	<19	NP	15.14	0.00	148.88	133.74
01/29/09	184,000	1,620	30,600	5,250	24,000	<4.75	NP	15.15	0.00	148.88	133.73
02/16/09	42,900	525	5,570	<5.25	7,560	<4.75	NP	11.38	0.00	148.88	137.50
05/06/09	2,660	8.7	184	76	452	3.4	NP	16.53	0.00	148.88	132.35
12/14/09	65,600	384.0	3,610	1,290	9,340	<0.19	NP	15.21	0.00	148.88	133.67
05/19/10	1,870	50	<0.24	105	1.8 J	10	NP	12.40	0.00	148.88	136.48
11/10/10	469	<0.18	<0.24	1.1 J	15	96	NP	13.65	0.00	148.88	135.23
<b>MONITORING WELL #MW-5</b>											
Screen Interval = 7 to 27 feet						Casing Diameter = 4 inches					
11/21/86	<1,000	4.8	2.1	<0.5	7.4	-	NP	16.10	0.00	100.98	84.88
07/22/91	-	<0.5	1.6	<1.0	2.0	-	NP	18.20	0.00	100.98	82.78
10/24/91	-	-	-	-	-	-	NP	17.67	0.00	100.98	83.31
01/22/92	600	21.0	8.0	2.0	17.0	-	-	#N/A	-	-	-
03/24/92	-	-	-	-	-	-	NP	12.98	0.00	100.98	88.00
07/15/92	<200	<0.5	<0.5	<0.5	<0.5	<0.5	NP	17.29	0.00	100.98	83.69
10/05/92	-	-	-	-	-	-	NP	18.92	0.00	100.98	82.06
01/06/93	300	2.7	<0.5	1.3	26.0	-	NP	13.12	0.00	100.98	87.86
07/13/93	<100	1.1	0.5	1.0	1.5	-	NP	16.15	0.00	100.98	84.83
10/11/93	130	1.2	<0.3	<0.3	<0.6	-	NP	18.75	0.00	100.98	82.23
01/11/94	<50	1.5	<0.3	<0.3	<0.5	-	NP	17.80	0.00	100.98	83.18
04/12/94	<50	<0.3	<0.3	<0.3	<0.5	-	NP	13.59	0.00	100.98	87.39
07/14/94	<50	0.42	<0.3	<0.3	<0.5	-	NP	18.26	0.00	100.98	82.72
07/15/95	100	1.2	<0.5	0.8	<1.0	-	-	#N/A	-	-	-
01/15/96	1,900	21	13	6.2	6.8	-	NP	13.09	0.00	100.98	87.89
04/15/96	250	5.1	2.7	1.7	1.1	-	NP	13.16	0.00	100.98	87.82
07/15/96	270	6.5	1.4	1.8	1.4	230	-	#N/A	-	-	-
10/09/96	-	-	-	-	-	-	NP	15.37	0.00	100.98	85.61
01/13/97	25,000	780	5,700	560	4,000	24,000	NP	10.90	0.00	100.98	90.08
04/14/97	6,300	260	1,600	28	550	9,000	-	#N/A	-	-	-
07/07/97	7,500	300	1,500	12	110	16,000	NP	14.70	0.00	100.98	86.28
10/16/97	4,600	<0.3	0.65	<0.3	<0.5	-	NP	13.60	0.00	100.98	87.38
01/07/98	2,700	33	11	37	580	7.3	NP	10.97	0.00	100.98	90.01

**TABLE 2A  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, OAKLAND, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
04/08/98	300	9.1	<0.3	<0.3	<0.5	650	NP	10.90	0.00	100.98	90.08
07/14/98	670	5.9	<0.3	<0.3	0.53	2,300	NP	15.20	0.00	100.98	85.78
10/15/98	<50	<0.3	<0.3	<0.3	<0.5	19	NP	15.90	0.00	100.98	85.08
01/20/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	15.20	0.00	101.98	86.78
04/16/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	15.25	0.00	101.98	86.73
07/14/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	15.96	0.00	101.98	86.02
10/07/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	16.33	0.00	101.98	85.65
01/26/00	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	14.80	0.00	101.98	87.18
04/19/00	965	<0.25	<0.25	<0.25	<0.5	<5.0	NP	10.97	0.00	101.98	91.01
05/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	14.43	0.00	101.98	87.55
07/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	14.02	0.00	101.98	87.96
10/25/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	14.04	0.00	101.98	87.94
01/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	14.80	0.00	101.98	87.18
04/23/01	<50	<0.18	<0.14	<0.18	<0.26	*10 / 4.2	NP	10.97	0.00	101.98	91.01
07/16/01	3,360	430	603	53	429	*41 / 4.2	NP	14.80	0.00	101.98	87.18
10/17/01	<50	<0.18	<0.14	<0.18	<0.26	*16 / 5.2	NP	16.71	0.00	101.98	85.27
01/23/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	14.80	0.00	101.98	87.18
04/10/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	14.42	0.00	101.98	87.56
07/24/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	14.78	0.00	101.98	87.20
10/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	15.93	0.00	101.98	86.05
01/15/03	<50	<0.14	<0.07	<0.08	<0.35	<2.0	NP	15.55	0.00	101.98	86.43
04/16/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	15.55	0.00	101.98	86.43
07/14/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	15.93	0.00	101.98	86.05
10/08/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	16.35	0.00	101.98	85.63
01/15/04	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	15.06	0.00	101.98	86.92
04/14/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	13.96	0.00	101.98	88.02
07/29/04	659	<2.2	<3.2	<3.1	<4.0	606	NP	15.60	0.00	101.98	86.38
10/14/04	411	<0.22	<0.32	<0.31	<0.4	425	NP	16.17	0.00	101.98	85.81
01/06/05	433	<0.22	<0.32	<0.31	<0.4	491	NP	15.52	0.00	101.98	86.46
04/13/05	161	<0.22	<0.32	<0.31	<0.4	465	NP	10.12	0.00	101.98	91.86
07/27/05	237	<0.32	<0.10	<0.24	<0.30	243	NP	16.66	0.00	101.98	85.32
10/12/05	149	<0.32	<0.10	<0.24	<0.30	183	NP	16.66	0.00	101.98	85.32
01/19/06	66	<0.32	<0.10	<0.24	<0.30	5.9	NP	9.96	0.00	101.98	92.02
04/12/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	11.69	0.00	101.98	90.29
07/26/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	15.53	0.00	101.98	86.45
10/25/06	<5.6	<0.32	<0.10	<0.24	<0.3	<0.63	NP	12.96	0.00	101.98	89.02
01/24/07	60	<0.32	16	3.8 J	17	<0.63	NP	14.37	0.00	149.62	135.25
04/24/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.12	0.00	149.62	135.50
07/25/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	17.06	0.00	149.62	132.56
10/24/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	16.50	0.00	149.62	133.12
01/23/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.16	0.00	149.62	135.46
04/29/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.89	0.00	149.62	134.73
07/30/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	15.96	0.00	149.62	133.66
10/29/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	16.47	0.00	149.62	133.15
01/29/09	<6.6	<0.18	1.9 J	<0.21	<0.45	<0.19	NP	16.47	0.00	149.62	133.15
05/06/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.09	0.00	149.62	135.53
12/14/09	131	2.4	14	2.6 J	14	<0.19	NP	16.53	0.00	149.62	133.09
05/19/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.01	0.00	149.62	135.61
11/10/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.09	0.00	149.62	135.53

**TABLE 2A  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, OAKLAND, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
<b>MONITORING WELL #MW-6</b>											
Screen Interval = 7 to 27 feet						Casing Diameter = 4 inches					
11/21/86	<1,000	<2.0	<2.0	<2.0	<2.0	-	NP	12.64	0.00	99.44	86.80
07/22/91	-	-	-	-	-	-		#N/A	-	-	-
01/22/92	<200	<0.5	<0.5	<0.5	1.5	-		#N/A	-	-	-
03/24/92	-	-	-	-	-	-	NP	10.04	0.00	99.44	89.40
07/15/92	<200	<0.5	<0.5	<0.5	<0.5	-	NP	13.29	0.00	99.44	86.15
10/05/92	-	-	-	-	-	-	NP	14.69	0.00	99.44	84.75
01/06/93	<200	<0.5	<0.5	<0.5	<1.0	-	NP	10.87	0.00	99.44	88.57
07/13/93	<100	<0.5	<0.5	<0.5	<1.0	-	NP	13.10	0.00	99.44	86.34
10/11/93	<60	<0.3	<0.3	<0.3	<0.6	-	NP	14.43	0.00	99.44	85.01
01/11/94	<50	<0.3	<0.3	<0.3	<0.5	-	NP	13.56	0.00	99.44	85.88
04/12/94	<50	<0.3	<0.3	<0.3	<0.3	-	NP	12.10	0.00	99.44	87.34
07/14/94	<50	<0.3	<0.3	<0.3	<0.3	-	NP	14.16	0.00	99.44	85.28
07/15/95	140	<0.5	<0.5	<0.5	<1	-		#N/A	-	-	-
01/15/96	56	0.38	0.33	<0.3	<0.5	-	NP	14.29	0.00	99.44	85.15
04/15/96	96	4.5	<0.3	<0.3	0.53	-	NP	14.32	0.00	99.44	85.12
07/15/96	140	2.4	0.44	<0.3	0.70	110		#N/A	-	-	-
10/09/96	-	-	-	-	-	-	NP	12.09	0.00	99.44	87.35
01/13/97	210	<0.3	1.2	<0.3	0.68	270	NP	9.85	0.00	99.44	89.59
04/14/97	<50	<0.3	<0.3	<0.3	<0.5	<20		#N/A	-	-	-
07/07/97	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	14.20	0.00	99.44	85.24
10/16/97	<50	<0.3	<0.3	<0.3	<0.5	-	NP	13.10	0.00	99.44	86.34
01/07/98	<50	<0.3	<0.3	<0.3	<0.5	0.10	NP	9.80	0.00	99.44	89.64
07/14/98	330	<0.3	<0.3	<0.3	<0.5	380	NP	12.30	0.00	99.44	87.14
10/15/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	14.30	0.00	99.44	85.14
01/20/99	<50	0.47	<0.3	<0.3	<0.5	<5.0	NP	13.60	0.00	100.44	86.84
04/16/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	13.50	0.00	100.44	86.94
07/14/99	<50	<0.3	<0.3	<0.3	<0.5	*5.4 / <5.0	NP	14.65	0.00	100.44	85.79
10/07/99	<50	<0.3	0.96	0.35	1.8	<5.0	NP	15.39	0.00	100.44	85.05
01/26/00	<50	<0.3	<0.3	<0.3	0.63	<5.0	NP	13.85	0.00	100.44	86.59
04/19/00	83.1	<0.25	<0.25	<0.25	<0.5	*11 / <5.0	NP	9.65	0.00	100.44	90.79
05/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	13.10	0.00	100.44	87.34
07/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	12.35	0.00	100.44	88.09
10/25/00	<50	<0.18	<0.14	<0.18	<0.26	*7 / 10	NP	12.30	0.00	100.44	88.14
01/10/01	<50	<0.18	<0.14	<0.18	<0.26	78	NP	13.45	0.00	100.44	86.99
04/23/01	<50	<0.18	<0.14	<0.18	<0.26	*9 / 4	NP	9.65	0.00	100.44	90.79
07/16/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	13.09	0.00	100.44	87.35
10/17/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	15.37	0.00	100.44	85.07
01/23/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	13.27	0.00	100.44	87.17
04/10/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	13.07	0.00	100.44	87.37
07/24/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	13.86	0.00	100.44	86.58
10/30/02	<50	1.6	<0.14	<0.18	<0.26	6.4	NP	14.20	0.00	100.44	86.24
01/15/03	<50	<0.14	<0.07	<0.08	0.84	<2.0	NP	15.35	0.00	100.44	85.09
04/16/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	14.58	0.00	100.44	85.86
07/14/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	15.35	0.00	100.44	85.09
10/08/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	13.80	0.00	100.44	86.64
01/15/04	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	13.51	0.00	100.44	86.93
04/14/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	11.62	0.00	100.44	88.82
07/29/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	13.12	0.00	100.44	87.32
10/14/04	346	<0.22	<0.32	<0.31	<0.4	159	NP	13.53	0.00	100.44	86.91
01/06/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	13.02	0.00	100.44	87.42
04/13/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	9.32	0.00	100.44	91.12
07/27/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	13.17	0.00	100.44	87.27
10/12/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	14.55	0.00	100.44	85.89

**TABLE 2A  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, OAKLAND, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
01/19/06	72	<0.32	<0.10	<0.24	<0.30	12	NP	8.74	0.00	100.44	91.70
04/12/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	9.96	0.00	100.44	90.48
07/26/06	55	<0.32	<0.10	<0.24	<0.30	57	NP	12.56	0.00	100.44	87.88
10/25/06	<5.6	<0.32	<0.10	<0.24	<0.3	<0.63	NP	13.00	0.00	100.44	87.44
01/24/07	<5.6	<0.32	2.2 J	1.1 J	5.6	<0.63	NP	11.87	0.00	148.38	136.51
04/24/07	<5.6	<0.18	<0.24	<0.21	1.5 J	5.7	NP	10.63	0.00	148.38	137.75
07/25/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	13.04	0.00	148.38	135.34
10/24/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.53	0.00	148.38	135.85
01/23/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	10.70	0.00	148.38	137.68
04/29/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	11.43	0.00	148.38	136.95
07/30/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	13.36	0.00	148.38	135.02
10/29/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.51	0.00	148.38	135.87
01/29/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.50	0.00	148.38	135.88
05/06/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	10.63	0.00	148.38	137.75
12/14/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.55	0.00	148.38	135.83
05/19/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	10.56	0.00	148.38	137.82
11/10/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	10.12	0.00	148.38	138.26
<b>MONITORING WELL #MW-7</b>											
Screen Interval = 8 to 18 feet											
Casing Diameter = 2 inches											
03/05/07	3,110	16	<0.10	125	725	10	NP	10.84	0.00	148.20	137.36
04/24/07	15,500	42	<2.4	381	1,230	<1.9	NP	15.03	0.00	148.20	133.17
07/25/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	15.03	0.00	148.20	133.17
10/24/07	1,100	72	<0.24	18	1.6 J	221	NP	14.54	0.00	148.20	133.66
01/23/08	149	<0.18	14	4.4 J	25	<0.19	NP	15.00	0.00	148.20	133.20
04/29/08	978	<0.18	4.2 J	25	165	<0.19	NP	13.14	0.00	148.20	135.06
07/30/08	181	<0.18	<0.24	<0.21	22	<0.19	NP	15.13	0.00	148.20	133.07
10/29/08	13,200	108	987	400	2,550	<0.19	NP	14.52	0.00	148.20	133.68
01/29/09	11,100	176	1,360	374	2,380	<1.9	NP	14.51	0.00	148.20	133.69
05/06/09	15,400	241	1,110	342	1,660	<1.9	NP	12.33	0.00	148.20	135.87
12/14/09	39,900	271	3,240	1,420	8,890	<19.0	NP	12.42	0.00	148.20	135.78
05/19/10	3,360	18	88	64	379	12	NP	12.56	0.00	148.20	135.64
11/10/10	29,800	1.0	1.3 J	2,400	10,300	3.0	NP	13.43	0.00	148.20	134.77
<b>MONITORING WELL #MW-8</b>											
Screen Interval = 8 to 18 feet											
Casing Diameter = 2 inches											
03/05/07	<5.6	<0.32	<0.10	<0.24	<0.3	22	NP	11.90	0.00	147.31	135.41
04/24/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.37	0.00	147.31	134.94
07/25/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	13.42	0.00	147.31	133.89
10/24/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.93	0.00	147.31	134.38
01/23/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.40	0.00	147.31	134.91
04/29/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	15.73	0.00	147.31	131.58
07/30/08	<6.6	<0.18	1.3 J	<0.21	1.1 J	<0.19	NP	13.50	0.00	147.31	133.81
10/29/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.92	0.00	147.31	134.39
01/29/09	<6.6	<0.18	4.8 J	<0.21	1.7 J	<0.19	NP	12.89	0.00	147.31	134.42
05/06/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	14.93	0.00	147.31	132.38

**TABLE 2A  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, OAKLAND, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
12/14/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.95	0.00	147.31	134.36
05/19/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	15.14	0.00	147.31	132.17
11/10/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	12.36	0.00	147.31	134.95
<b>SV-5 Grab Groundwater Sample</b>											
04/18/11	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	-	-	-	-
<b>SV-6 Grab Groundwater Sample</b>											
04/18/11	<6.6	<0.18	<0.24	<0.21	<0.45	1.3	NP	-	-	-	-
<b>SB-1 Grab Groundwater Sample</b>											
04/19/11	<6.6	<0.18	<0.24	<0.21	<0.45	11	NP	-	-	-	-
<b>SB-5 Grab Groundwater Sample</b>											
04/19/11	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	-	-	-	-
<b>SB-6 Grab Groundwater Sample</b>											
04/19/11	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	-	-	-	-

**NOTE:** Monitoring wells MW-1 through MW-8 were surveyed on 3/5/2007

^ Top of casing elevation estimated to be 6 inches below well rim

NP = No free hydrocarbon product

" - " = Not analyzed / Not available

\* MTBE 8020 / 8260

Benzene, toluene, ethylbenzene, and xylene analyzed by EPA method 8020/8021B.

Total petroleum hydrocarbons (TPH) analyzed by EPA method 8015 modified for gasoline

Methyl-tert Butyl Ether (MTBE) analyzed by EPA method 8020/8021B

On 10/8/03 & 7/14/2003, BTEX and MTBE analyzed by 8260B

Beginning 4/14/2004, BTEX and MTBE analyzed by 8260B

**TABLE 2B  
OXYGENATE DATA IN GROUNDWATER  
THRIFTY OIL STATION # 063, OAKLAND, CA.**

DATE SAMPLED	OXYGENATES					
	Di-isopropyl Ether (DIPE) (ug/L)	Ethyl-Tert-Butyl Ether (ETBE) (ug/L)	Tert-Amyl Methyl Ether (TAME) (ug/L)	Tert-Butyl Alcohol (TBA) (ug/L)	Ethanol (ETH) (mg/L)	Methanol (METH) (mg/L)
<b>MONITORING WELL # MW-1</b>						
10/16/97	<20	<20	<20	3,900		
01/07/98	<20	<20	92	<500		
04/03/98	<20	<20	65	<500		
07/14/03	<0.29	<0.17	<0.28	<10		
10/08/03	<0.29	<0.17	15	487		
01/15/04	-	-	-	-		
04/14/04	-	-	-	-		
07/29/04	-	-	-	-		
10/14/04	-	-	-	-		
07/27/05	<0.29	<0.17	<0.28	<10	<20	<20
10/12/05	<0.29	<0.17	<0.28	<10	<20	<20
01/19/06	<0.29	<0.17	<0.28	27	<20	<20
04/12/06	<0.29	<0.17	<0.28	<10	<20	<20
07/26/06	<2.9	<1.7	<2.8	121	-	-
10/25/06	<0.29	<0.17	2.4	11	-	-
01/24/07	<0.29	<0.17	<0.28	<10	-	-
04/24/07	<0.20	<0.23	<0.19	54	-	-
07/25/07	<0.20	<0.23	<0.19	<10	-	-
10/24/07	<0.20	<0.23	<0.19	<10	-	-
01/23/08	<0.20	<0.23	<0.19	<10	-	-
04/29/08	<0.20	<0.23	<0.19	<10	-	-
07/30/08	<0.20	<0.23	<0.19	<5.2	-	-
10/29/08	<0.20	<0.23	<0.19	<5.2	-	-
01/29/09	<0.20	<0.23	<0.19	<5.2	-	-
05/06/09	<0.20	<0.23	<0.19	<5.2	-	-
12/14/09	<0.20	<0.23	<0.19	<5.2	-	-
05/19/10	<0.20	<0.23	<0.19	<5.2	-	-
11/10/10	<0.20	<0.23	<0.19	<5.2	-	-
<b>MONITORING WELL # MW-2</b>						
10/16/97	<20	<20	<20	<500		
Well Abandoned 1/30/98						
<b>MONITORING WELL # MW-3 (GROUNDWATER SYSTEM'S PUMPING WELL)</b>						
10/16/97	-	-	-	-		
01/07/98	-	-	-	-		
04/03/98	-	-	-	-		
07/14/03	<0.29	<0.17	24	608		
10/08/03	<0.29	<0.17	30	<10		
01/15/04	-	-	-	-		
04/14/04	-	-	-	-		
07/29/04	-	-	-	-		
10/14/04	-	-	-	-		
07/27/05	<0.29	<0.17	<0.28	24	<20	<20
10/12/05	<0.29	<0.17	<0.28	<10	<20	<20
01/19/06	<0.29	<0.17	3.9	167	<20	<20
04/12/06	<0.29	<0.17	2.5	17	<20	<20
07/26/06	<0.29	<0.17	3.2	205	-	-
10/25/06	<2.9	<1.7	<2.8	<100	-	-
01/24/07	<0.29	<0.17	<0.28	70	-	-
04/24/07	<2.0	<2.3	<1.9	<18	-	-
07/25/07	<0.20	<0.23	<0.19	<10	-	-
10/24/07	<0.20	<0.23	<0.19	1790	-	-
01/23/08	<0.20	<0.23	<0.19	38	-	-
04/29/08	<0.20	<0.23	<0.19	<10	-	-
07/30/08	<0.20	<0.23	<0.19	<5.2	-	-
10/29/08	<0.20	<0.23	<0.19	81	-	-
01/29/09	<2.0	<2.3	<1.9	<52	-	-
05/06/09	<0.20	<0.23	<0.19	<5.2	-	-
12/14/09	<0.20	<0.23	<0.19	<5.2	-	-
05/19/10	<0.20	<0.23	<0.19	<5.2	-	-
11/10/10	<0.20	<0.23	<0.19	158	-	-

**TABLE 2B  
OXYGENATE DATA IN GROUNDWATER  
THRIFTY OIL STATION # 063, OAKLAND, CA.**

DATE SAMPLED	OXYGENATES					
	Di-isopropyl Ether (DIPE) (ug/L)	Ethyl-Tert-Butyl Ether (ETBE) (ug/L)	Tert-Amyl Methyl Ether (TAME) (ug/L)	Tert-Butyl Alcohol (TBA) (ug/L)	Ethaanol (ETH) (mg/L)	Methanol (METH) (mg/L)
<b>MONITORING WELL # MW-4</b>						
10/16/97	<20	<20	<20	14,000		
01/07/98	<20	<20	230	<500		
04/03/98	<200	<200	<200	<5,000		
07/14/03	<0.29	<0.17	62	2,490		
10/08/03	<2.9	<1.7	101	<100		
01/15/04	-	-	-	-		
04/14/04	-	-	-	-		
07/29/04	-	-	-	-		
10/14/04	-	-	-	-		
07/27/05	<0.29	<0.17	<0.28	<10	<20	<20
10/12/05	<2.9	<1.7	<2.8	1,340	<20	<20
01/19/06	<0.29	<0.17	<0.28	138	<20	<20
04/12/06	<0.29	<0.17	<0.28	163	<20	<20
07/26/06	<2.9	<1.7	16	836	-	-
10/25/06	<2.9	<1.7	18	1060	-	-
01/24/07	<0.29	<0.17	<0.28	139	-	-
04/24/07	<0.20	<0.23	11	776	-	-
07/25/07	<0.20	<0.23	<0.19	<10	-	-
10/24/07	<0.20	<0.23	<0.19	62	-	-
01/23/08	<0.20	<0.23	7.3	1,520	-	-
04/29/08	<2.0	<2.3	<1.9	<100	-	-
07/30/08	<0.20	<0.23	<0.19	20	-	-
10/29/08	<20	<23	<19	<520	-	-
01/29/09	<5.0	<5.75	<4.75	<130	-	-
02/16/09	<5.0	<5.75	<4.75	<130	-	-
05/06/09	<0.20	<0.23	<0.19	<5.2	-	-
12/14/09	<0.20	<0.23	<0.19	<5.2	-	-
05/19/10	<0.20	<0.23	<0.19	50	-	-
11/10/10	<0.20	<0.23	6.1	739	-	-
<b>MONITORING WELL # MW-5</b>						
10/16/97	<20	<20	<20	4,700		
01/07/98	<20	<20	<20	<500		
04/03/98	<20	<20	<20	<500		
07/14/03	<0.29	<0.17	<0.28	<10		
10/08/03	<0.29	<0.17	<0.28	<10		
01/15/04	-	-	-	-		
04/14/04	-	-	-	-		
07/29/04	-	-	-	-		
10/14/04	-	-	-	-		
07/27/05	<0.29	<0.17	<0.28	<10	<20	<20
10/12/05	<0.29	<0.17	<0.28	<10	<20	<20
01/19/06	<0.29	<0.17	<0.28	<10	<20	<20
04/12/06	<0.29	<0.17	<0.28	<10	<20	<20
07/26/06	<0.29	<0.17	<0.28	<10	-	-
10/25/06	<0.29	<0.17	<0.28	<10	-	-
01/24/07	<0.29	<0.17	<0.28	<10	-	-
04/24/07	<0.20	<0.23	<0.19	<1.8	-	-
07/25/07	<0.20	<0.23	<0.19	<10	-	-
10/24/07	<0.20	<0.23	<0.19	<10	-	-
01/23/08	<0.20	<0.23	<0.19	<10	-	-
04/29/08	<0.20	<0.23	<0.19	<10	-	-
07/30/08	<0.20	<0.23	<0.19	<5.2	-	-
10/29/08	<0.20	<0.23	<0.19	<5.2	-	-
01/29/09	<0.20	<0.23	<0.19	<5.2	-	-
05/06/09	<0.20	<0.23	<0.19	<5.2	-	-
12/14/09	<0.20	<0.23	<0.19	<5.2	-	-
05/19/10	<0.20	<0.23	<0.19	<5.2	-	-
11/10/10	<0.20	<0.23	<0.19	23	-	-

**TABLE 2B  
OXYGENATE DATA IN GROUNDWATER  
THRIFTY OIL STATION # 063, OAKLAND, CA.**

DATE SAMPLED	OXYGENATES					
	Di-isopropyl Ether (DIPE) (ug/L)	Ethyl-Tert-Butyl Ether (ETBE) (ug/L)	Tert-Amyl Methyl Ether (TAME) (ug/L)	Tert-Butyl Alcohol (TBA) (ug/L)	Ethanol (ETH) (mg/L)	Methanol (METH) (mg/L)
<b>MONITORING WELL # MW-6</b>						
10/16/97	<20	<20	<20	<500		
01/07/98	<20	<20	40	<500		
04/03/98	-	-	-	-		
07/14/03	<0.29	<0.17	<0.28	<10		
10/08/03	<0.29	<0.17	<0.28	<10		
01/15/04	-	-	-	-		
04/14/04	-	-	-	-		
07/29/04	-	-	-	-		
10/14/04	-	-	-	-		
07/27/05	<0.29	<0.17	<0.28	<10	<20	<20
10/12/05	<0.29	<0.17	<0.28	<10	<20	<20
01/19/06	<0.29	<0.17	2.7	<10	<20	<20
04/12/06	<0.29	<0.17	<0.28	<10	<20	<20
07/26/06	<0.29	<0.17	47	<10	-	-
10/25/06	<0.29	<0.17	<0.28	<10	-	-
01/24/07	<0.29	<0.17	<0.28	<10	-	-
04/24/07	<0.20	<0.23	2.4	<1.8	-	-
07/25/07	<0.20	<0.23	<0.19	<10	-	-
10/24/07	<0.20	<0.23	<0.19	<10	-	-
01/23/08	<0.20	<0.23	<0.19	<10	-	-
04/29/08	<0.20	<0.23	<0.19	<10	-	-
07/30/08	<0.20	<0.23	<0.19	<5.2	-	-
10/29/08	<0.20	<0.23	<0.19	<5.2	-	-
01/29/09	<0.20	<0.23	<0.19	<5.2	-	-
05/06/09	<0.20	<0.23	<0.19	<5.2	-	-
12/14/09	<0.20	<0.23	<0.19	<5.2	-	-
05/19/10	<0.20	<0.23	<0.19	<5.2	-	-
11/10/10	<0.20	<0.23	<0.19	<5.2	-	-
<b>MONITORING WELL # MW-7</b>						
03/05/07	<0.29	<0.17	<0.28	<10	<20	<20
04/24/07	<2.0	<2.3	<1.9	<18	-	-
07/25/07	<0.20	<0.23	<0.19	<10	-	-
10/24/07	<0.20	<0.23	<0.19	1120	-	-
01/23/08	<0.20	<0.23	<0.19	<10	-	-
04/29/08	<0.20	<0.23	<0.19	<10	-	-
07/30/08	<0.20	<0.23	<0.19	<5.2	-	-
10/29/08	<0.20	<0.23	<0.19	<5.2	-	-
01/29/09	<2.0	<2.3	<1.9	<52	-	-
05/06/09	<2.0	<2.3	<1.9	<52.0	-	-
12/14/09	<20.0	<23.0	<19.0	<520.0	-	-
05/19/10	<0.20	<0.23	<0.19	<5.2	-	-
11/10/10	<0.20	<0.23	<0.19	<5.2	-	-
<b>MONITORING WELL # MW-8</b>						
03/05/07	<0.29	<0.17	<0.28	<10	<20	<20
04/24/07	<0.20	<0.23	<0.19	<1.8	-	-
10/24/07	<0.20	<0.23	<0.19	<10	-	-
07/25/07	<0.20	<0.23	<0.19	<10	-	-
01/23/08	<0.20	<0.23	<0.19	<10	-	-
04/29/08	<0.20	<0.23	<0.19	<10	-	-
07/30/08	<0.20	<0.23	<0.19	<5.2	-	-
10/29/08	<0.20	<0.23	<0.19	<5.2	-	-
01/29/09	<0.20	<0.23	<0.19	<5.2	-	-
05/06/09	<0.20	<0.23	<0.19	<5.2	-	-
12/14/09	<0.20	<0.23	<0.19	<5.2	-	-
05/19/10	<0.20	<0.23	<0.19	<5.2	-	-
11/10/10	<0.20	<0.23	<0.19	<5.2	-	-
<b>SV-5 Grab Groundwater Sample</b>						
04/18/11	<0.20	<0.23	<0.19	<5.2	-	-



**TABLE 2B  
OXYGENATE DATA IN GROUNDWATER  
THRIFTY OIL STATION # 063, OAKLAND, CA.**

DATE SAMPLED	OXYGENATES					
	Di-isopropyl Ether (DIPE) (ug/L)	Ethyl-Tert-Butyl Ether (ETBE) (ug/L)	Tert-Amyl Methyl Ether (TAME) (ug/L)	Tert-Butyl Alcohol (TBA) (ug/L)	Ethaanol (ETH) (mg/L)	Methanol (METH) (mg/L)
<b>SV-6 Grab Groundwater Sample</b>						
04/18/11	<0.20	<0.23	<0.19	<5.2	-	-
<b>SB-1 Grab Groundwater Sample</b>						
04/19/11	<0.20	<0.23	<0.19	11	-	-
<b>SB-5 Grab Groundwater Sample</b>						
04/19/11	<0.20	<0.23	<0.19	<5.2	-	-
<b>SB-6 Grab Groundwater Sample</b>						
04/19/11	2.9	<0.23	<0.19	<5.2	-	-

**NOTE:** DIPE, ETBE, TAME, TBA analyzed by EPA Method 8260/8260B

**TABLE 3**  
**WELL COMPLETION DETAILS**  
 Thrifty Oil Station #063 - Oakland, CA  
 GHC - 1332

Well ID	Date Constructed	Total Depth	Casing Diameter	Screen Interval	TOC Elevation *
MW-1	06/21/86	30 ft	2 - inch	15-30 ft	99.34
MW-2	06/21/86	30 ft	2 - inch	15-30 ft	abandoned
MW-3	06/21/86	30 ft	2 - inch	15-30 ft	99.76
MW-4	11/13/86	29 ft	4 - inch	9-29 ft	99.48
MW-5	11/13/86	27 ft	4 - inch	7-27 ft	100.98
MW-6	11/13/86	27 ft	4 - inch	7-27 ft	99.44
MW-7	02/22/07	18 ft	2 - inch	8-18 ft	148.20
MW-8	02/22/07	18 ft	2 - inch	8-18 ft	147.31

**NOTES:** \* Feet above mean sea level  
 - = Not surveyed

**TABLE 4**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT				
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L
4/8/1991	1,669	0	-	-	<0.3	<0.3	<0.3	<0.9	-	1300	120	<7.5	1300
4/15/1991	5,742	4,073	582	-	<0.3	<0.3	<0.3	<0.3	-	700	140	<15	500
4/22/1991	10,240	8,571	643	-	<0.3	<0.3	<0.3	<0.9	-	850	100	34	860
4/29/1991	15,510	13,841	753	-	<0.3	<0.3	<0.3	<0.9	-	220	8.4	<0.3	42
5/6/1991	20,200	18,531	670	-	<0.3	<0.3	<0.3	<0.9	-	280	0.8	<0.3	56
5/13/1991	24,430	22,761	604	-	<0.3	<0.3	<0.3	<0.9	-	190	5.6	<0.3	37
5/20/1991	28,480	26,811	579	-	<0.3	<0.3	<0.3	<0.9	-	150	0.83	1.4	29
5/28/1991	29,310	27,641	104	-	<0.3	<0.3	<0.3	<0.9	-	<0.3	<0.3	<0.3	<0.9
6/3/1991	33,080	31,411	628	-	<0.3	<0.3	<0.3	<0.9	-	58	4	<0.3	33
6/10/1991	36,939	35,270	551	-	<0.3	<0.3	<0.3	<0.9	-	45	<0.3	<0.3	16
6/17/1991	40,673	39,004	533	-	<0.3	<0.3	<0.3	<0.9	-	69	4.9	0.9	21
6/24/1991	44,453	42,784	540	-	<0.3	<0.3	<0.3	<0.9	-	5.4	2	<0.3	6.6
7/1/1991	48,173	46,504	531	-	<0.5	<0.5	<1	<1	-	14	15	<1	9.1
7/8/1991	51,681	50,012	501	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	6.9
7/15/1991	55,186	53,517	501	-	<0.5	<0.5	<1	<1	-	<0.5	0.6	<1	6.3
7/22/1991	62,150	60,481	995	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	2.6
7/29/1991	62,150	60,481	-	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	1.2	19
8/5/1991	63,241	61,572	156	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	<1
8/12/1991	66,091	64,422	407	-	<0.5	<0.5	<1	<1	-	2.6	<0.5	<1	12
8/19/1991	67,649	65,980	223	-	<0.5	<0.5	<1	<1	-	20	3.3	2.8	70
8/26/1991	70,514	68,845	409	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	1.2	19
9/9/1991	70,564	68,895	4	-	<0.5	<0.5	<1	<1	-	270	10	13	69
9/16/1991	73,526	71,857	423	System shut down due to damaged compressor pump									
10/7/1991	73,526	71,857	-	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	3.8
10/14/1991	74,516	72,847	141	-	<0.5	<0.5	<1	<1	-	60	1.1	<1	23
10/21/1991	76,091	74,422	225	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	<1
10/28/1991	83,242	81,573	1,022	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	14
11/3/1991	83,242	81,573	-	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	3.1
11/11/1991	84,351	82,682	139	-	<0.5	<0.5	<1	<1	-	99	1.9	<1	14
11/18/1991	85,647	83,978	185	-	<0.5	<0.5	<1	<1	-	42	1	1	10
11/25/1991	89,512	87,843	552	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	3.9
12/3/1991	93,407	91,738	487	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	3.8
12/9/1991	96,210	94,541	467	-	<0.5	<0.5	<1	<1	-	<0.5	<0.5	<1	3.2
12/16/1991	99,045	97,376	405	-	<0.5	<0.5	<0.5	<0.5	-	1.3	<0.5	<0.5	1.5
12/23/1991	102,334	100,665	470	-	<0.5	<0.5	<0.5	<0.5	-	1.7	<0.5	<0.5	2.4
12/30/1991	105,124	103,455	399	-	<0.5	<0.5	<0.5	<0.5	-	22.6	1.2	0.7	4.9
1/15/1992	115,691	114,022	660	-	<0.5	<0.5	<0.5	<0.5	-	130	11	<0.5	50
2/10/1992	124,846	123,177	352	-	<0.5	<0.5	<0.5	<0.5	-	20	0.51	<0.5	3.6
3/9/1992	149,965	148,286	897	<200	<0.5	<0.5	<0.5	<0.5	12,000	2,100	400	170	2,100
4/13/1992	168,567	166,898	531	<200	<0.5	<0.5	<0.5	<0.5	2,100	280	3.9	<2.5	98
5/11/1992	187,170	185,501	664	<200	<0.5	0.7	<0.5	<0.5	<200	<0.5	<0.5	<0.5	<0.5
6/8/1992	190,490	188,821	119	-	<0.5	<0.5	<0.5	<0.5	-	44	3.7	0.7	64
7/6/1992	197,080	195,411	235	-	-	-	-	-	-	-	-	-	-
7/13/1992	197,890	196,221	116	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
7/13/1992	197,890	196,221	-	System shut down for repair of electrical motor									
8/10/1992	197,890	196,221	-	Restart the system									
8/17/1992	201,300	199,631	487	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
9/14/1992	209,647	207,978	298	-	<0.5	<0.5	<0.5	<1	-	<0.5	<0.5	<0.5	<1
10/5/1992	217,360	215,691	367	<200	<0.5	<0.5	<0.5	<1	<200	<0.5	<0.5	<0.5	<1
11/09/92	225,780	224,111	241	-	<0.5	<0.5	<0.5	<1	-	1.1	0.5	<0.5	10
12/14/92	243,048	241,379	493	-	<0.5	<0.5	<0.5	<1	-	720	46	<10	1,700
01/04/93	252,510	250,841	451	-	<0.5	<0.5	<0.5	<1	-	400	32	<25	520
02/15/93	266,210	264,541	326	<200	<0.5	<0.5	<0.5	<1	9,000	1,400	330	260	1,200

**TABLE 4**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT					
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	
03/08/93	269,330	267,661	149	-	<0.5	<0.5	<0.5	<1	-	1,100	150	7.5	1,000	
04/26/93	271,290	269,621	40	<100	<0.5	<0.5	<0.5	<1	7,200	1,100	100	25	780	
04/26/93	271,290	269,621	-	System shut down fo repair										
07/15/93	272,577	270,908	16	Restart the system										
08/11/93	284,230	282,561	432	-	<0.5	<0.5	<0.5	<1	-	1.3	<0.5	<0.5	1.6	
09/16/93	298,832	297,163	406	<60	<0.3	<0.3	<0.3	<0.6	<60	<0.3	<0.3	<0.3	<0.6	
10/08/93	305,641	303,972	310	-	-	-	-	-	-	-	-	-	-	
10/11/93	307,068	305,399	476	<60	<0.3	<0.3	<0.3	<0.6	<60	<0.3	<0.3	<0.3	<0.6	
10/15/93	308,495	306,826	357	-	-	-	-	-	-	-	-	-	-	
11/12/93	318,203	316,534	347	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	
12/10/93	329,947	328,278	419	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	
01/13/94	345,860	344,191	468	-	<0.3	<0.3	<0.3	<0.5	-	<0.3	<0.3	<0.3	<0.5	
02/10/94	359,662	357,993	493	-	<0.3	<0.3	<0.3	<0.5	-	430	41	36	480	
02/18/94	618,620	357,993	-	Changed air filters. The water flowmeter jumped from 359,662 to 618,620.										
03/10/94	627,540	366,913	446	-	<0.3	<0.3	<0.3	<0.5	-	<0.3	<0.3	<0.3	7.7	
04/14/94	645,330	384,703	508	<50	<0.3	<0.3	<0.3	<0.5	170	1.5	<0.3	0.38	0.73	
05/19/94	653,520	392,893	234	<50	<0.3	<0.3	<0.3	<0.5	1,500	46	4.1	0.5	84	
06/16/94	664,015	403,888	375	<50	<0.3	<0.3	<0.3	<0.5	12,000	860	37	<13	1,600	
07/14/94	672,750	412,123	312	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	
08/11/94	681,920	421,293	328	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	
09/15/94	692,083	431,456	290	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	
10/17/94	699,979	439,352	247	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	
11/14/94	712,539	451,912	449	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	
12/19/94	734,620	473,993	631	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	
01/10/95	742,072	481,445	339	-	-	-	-	-	-	-	-	-	-	
01/16/95	742,074	481,447	0	System shut down for repair of compressor pump										
02/06/95	742,074	481,447	-	Restart the system										
02/13/95	744,063	483,436	284	<50	<0.3	<0.3	<0.5	<0.5	<50	<0.3	<0.3	<0.5	<0.5	
03/13/95	758,930	498,303	531	<100	<0.5	<0.5	<0.5	<1	1,300	<0.5	<0.5	<0.5	<1	
04/17/95	768,276	507,649	267	<100	<0.5	<0.5	<0.5	<1	6,200	410	73	97	280	
05/15/95	780,716	520,089	444	<100	<0.5	<0.5	<0.5	<1	1,300	0.6	<0.5	<0.5	<1	
06/12/95	784,514	523,887	136	<100	<0.5	<0.5	<0.5	<1	<100	<0.5	<0.5	<0.5	<1	
07/18/95	794,158	533,531	268	<100	<0.5	<0.5	<0.5	<1	1,100	<0.5	<0.5	<0.5	<1	
08/14/95	795,216	534,589	39	<100	<0.5	<0.5	<0.5	<1	170	<0.5	<0.5	<0.5	<1	
09/06/95	797,631	537,004	105	<100	<0.5	<0.5	<0.5	<1	1,320	<0.5	<0.5	<0.5	<1	
10/17/95	800,316	539,689	65	<100	<0.5	<0.5	<0.5	<1	2,400	26	2.7	3.9	46	
11/20/95	806,264	545,637	175	150	<0.3	<0.3	<0.3	<0.5	450	0.31	<0.3	<0.3	<0.5	
12/11/95	809,236	548,609	142	300	<0.3	<0.3	<0.3	0.59	470	<0.3	<0.3	<0.3	<0.5	
01/15/96	822,734	562,107	386	510	<0.3	<0.3	<0.3	<0.5	900	0.39	<0.3	<0.3	<0.5	
02/19/96	848,213	587,586	728	800	<0.3	0.57	<0.3	0.83	1700	23	3.7	<0.3	80	
03/19/96	849,587	588,960	47	930	<0.3	<0.3	<0.3	<0.5	1,600	5.5	1.4	<0.3	94	
04/15/96	852,042	591,415	91	990	<0.3	<0.3	<0.3	<0.5	1,100	0.43	<0.3	<0.3	<0.5	
05/13/96	890,214	629,587	1,363	840	<0.3	<0.3	<0.3	<0.5	910	<0.3	<0.3	<0.3	<0.5	
05/13/96	890,214	629,587	-	System shut down for carbon change										
06/14/96	890,214	629,587	-	Restart the system										
06/18/96	890,818	630,191	151	<50	<0.3	<0.3	<0.3	<0.5	1,000	92	8.7	3.4	55	
07/01/96	892,781	632,154	151	-	-	-	-	-	-	-	-	-	-	
07/08/96	894,210	633,583	204	System shut down due to burglary and damaged air compressor										
08/05/96	894,210	633,583	-	Restart the system										
08/13/96	896,220	635,593	251	<50	<0.3	<0.3	<0.3	<0.5	3,500	160	110	220	650	
09/23/96	899,410	638,783	78	<50	<0.3	<0.3	<0.3	<0.5	<50	0.49	<0.3	<0.3	<0.5	
10/09/96	899,845	639,218	27	<50	<0.3	<0.3	<0.3	<0.5	730	1.7	0.42	2.1	2.5	
11/11/96	901,348	640,721	46	<50	<0.3	<0.3	<0.3	<0.5	81	<0.3	<0.3	<0.3	<0.5	

**TABLE 4**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT				
				TPH-g	B	T	E	X	TPH-g	B	T	E	X
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
12/09/96	901,576	640,949	8	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5
01/13/97	904,630	644,003	87	<50	<0.3	<0.3	<0.3	<0.5	13,000	590	250	180	850
02/10/97	912,610	651,983	285	82	<0.3	0.38	<0.3	<0.5	700	0.92	0.75	<0.3	4.1
03/10/97	921,020	660,393	300	<50	<0.3	<0.3	<0.3	<0.5	600	<0.3	<0.3	<0.3	<0.5
04/14/97	932,410	671,783	325	<50	<0.3	<0.3	<0.3	<0.5	4,400	<0.3	<0.3	<0.3	<0.5
05/12/97	941,028	680,401	308	<50	<0.3	<0.3	<0.3	<0.5	5,600	7.3	0.32	<0.3	17
06/23/97	943,183	682,556	51	-	-	-	-	-	-	-	-	-	-
07/07/97	945,821	685,194	188	<50	<0.3	<0.3	<0.3	<0.5	1,500	3.4	<0.3	<0.3	26
08/04/97	951,020	690,393	186	-	-	-	-	-	-	-	-	-	-
09/02/97	957,933	697,306	238	System shut down due to stolen air compressor					-	-	-	-	-
10/06/97	961,030	700,403	91	-	-	-	-	-	-	-	-	-	-
10/16/97	961,077	700,450	5	<50	<0.3	<0.3	<0.3	<0.5	550	<0.3	<0.3	<0.3	<0.5
11/17/97	970,920	710,293	308	-	-	-	-	-	-	-	-	-	-
12/23/97	986,016	725,389	419	-	-	-	-	-	-	-	-	-	-
01/05/98	991,520	730,893	423	-	-	-	-	-	-	-	-	-	-
01/07/98	992,365	731,738	423	<50	<0.3	<0.3	<0.3	<0.5	65,000	690	8,400	3,100	20,000
02/02/98	996,874	736,247	173	-	-	-	-	-	-	-	-	-	-
02/09/98	-	736,247	-	System shut down due to the UST replacement and station remodeling					-	-	-	-	-
02/17/98	-	736,247	-	<50	<0.3	<0.3	<0.3	<0.5	35,000	150	<15	<15	8,900
04/13/98	53,000	736,247	-	Replaced carbons and restarted system with new meter (53,000)					-	-	-	-	-
4/13 - 6/1/98	-	736,247	-	System was undergoing several maintenance / piping / hose replacement					-	-	-	-	-
06/01/98	53,780	737,027	16	-	-	-	-	-	-	-	-	-	-
07/14/98	56,905	740,152	73	<50	<0.3	<0.3	<0.3	<0.5	3,500	14	0.56	<0.3	26
08/13/98	59,426	742,673	84	-	-	-	-	-	-	-	-	-	-
09/11/98	62,356	745,603	101	-	-	-	-	-	-	-	-	-	-
10/15/98	62,714	745,961	11	<50	<0.3	<0.3	<0.3	<0.5	2,200	21	4	<0.3	100
11/06/98	62,952	746,199	11	-	-	-	-	-	-	-	-	-	-
11/20/98	-	746,199	-	System shut down for flowmeter replacement					-	-	-	-	-
12/01/98	0.0	746,199	-	Restart the system with flowmeter at 000					-	-	-	-	-
12/31/98	5,340.0	751,539	178	-	-	-	-	-	-	-	-	-	-
01/11/99	15,020.0	761,219	880	System shut down					-	-	-	-	-
1/11 - 2/1/99	-	761,219	-	System was undergoing maintenance for the compressor					-	-	-	-	-
01/20/99	-	761,219	-	<50	<0.3	<0.3	<0.3	<0.5	110	0.43	0.42	<0.3	<0.5
02/01/99	15,600.0	761,799	28	Restart system					-	-	-	-	-
02/12/99	22,840.0	769,039	658	-	-	-	-	-	-	-	-	-	-
02/22/99	22,840.0	769,039	-	System shut down for carbon canister replacement					-	-	-	-	-
03/26/99	22,840.0	769,039	-	Restart the system					-	-	-	-	-
03/31/99	24,620.0	770,819	356	-	-	-	-	-	-	-	-	-	-
04/16/99	29,605.0	775,804	312	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5
05/11/99	36,010.0	782,209	256	-	-	-	-	-	-	-	-	-	-
05/25/99	46,000.0	792,199	714	System shut down due to carbon canister leaking					-	-	-	-	-
09/02/99	46,000.0	792,199	-	Restart system					-	-	-	-	-
09/17/99	46,217.0	792,416	14	-	-	-	-	-	-	-	-	-	-
10/07/99	46,809.0	793,008	30	<50	<0.3	<0.3	<0.3	<0.5	65	<0.3	<0.3	<0.3	<0.5
10/21/99	47,278.0	793,477	34	System shut down for carbon change					-	-	-	-	-
11/24/99	47,283.0	793,482	0	Restart system					-	-	-	-	-
12/30/99	49,386.0	795,585	58	-	-	-	-	-	-	-	-	-	-
01/26/00	50,569.0	796,768	44	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5
02/25/00	51,983.0	798,182	47	-	-	-	-	-	-	-	-	-	-
03/24/00	54,603.0	800,802	94	-	-	-	-	-	-	-	-	-	-
04/19/00	56,754.0	802,953	83	<5	<0.25	<0.25	<0.25	<0.5	<50	1.3	<0.25	<0.25	<0.5
04/30/00	58,022.0	804,221	115	-	-	-	-	-	-	-	-	-	-
05/26/00	60,086.0	806,285	79	-	-	-	-	-	923	<0.6	2	85	80

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 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT				
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L
06/16/00	61,889.0	808,088	86	<50	<0.3	<0.3	<0.3	<0.6	3,820	<0.3	<0.3	<0.3	<0.6
07/26/00	65,987.0	812,186	102	<50	<0.3	<0.3	<0.3	<0.6	<50	<0.3	<0.3	<0.3	<0.6
08/25/00	68,630.0	814,829	88	-	-	-	-	-	-	-	-	-	-
09/29/00	85,661.0	831,860	487	-	-	-	-	-	-	-	-	-	-
10/13/00	96,212.0	842,411	754	-	-	-	-	-	-	-	-	-	-
10/20/00	99,700.0	845,899	498	Shut down system for QWS and replaced flowmeter starting at 000 (old meter estimated at 99,700). Sytem restarted on 10/25/00 after QWS									
10/25/00	00	845,899	-	<50	<0.18	<0.14	<0.18	<0.26	17,100	111	121	141	972
10/27/00	2,160	848,059	1,080	-	-	-	-	-	-	-	-	-	-
11/03/00	7,420	853,319	751	-	-	-	-	-	-	-	-	-	-
11/24/00	16,560	862,459	435	-	-	-	-	-	-	-	-	-	-
12/22/00	51,530	897,429	1,249	-	-	-	-	-	-	-	-	-	-
01/10/01	54,520	900,419	157	<50	<0.18	<0.14	<0.18	<0.26	10,000	384	223	<0.18	1,330
02/19/01	99,640	945,539	1,128	-	-	-	-	-	-	-	-	-	-
03/19/01	144,170	990,069	1,590	-	-	-	-	-	-	-	-	-	-
04/09/01	167,050	1,012,949	1,090	378	<0.18	<0.14	<0.18	<0.26	4,040	191	4	42	38
04/13/01	169,210	1,015,109	540	Shut down system for replacement of carbon drums									
04/18/01	169,210	1,015,109	-	Restart system									
04/23/01	177,140	1,023,039	1,586	93	<0.18	<0.14	<0.18	<0.26	1,400	<0.18	<0.14	<0.18	<0.26
05/02/01	186,800	1,032,699	1,073	Shut down system for carbon change									
05/18/01	186,900	1,032,799	6	Restart system									
05/30/01	200,850	1,046,749	1,163	<50	<0.18	<0.14	<0.18	<0.26	3,100	15	<0.14	1	2
06/25/01	266,720	1,112,619	2,533	-	-	-	-	-	-	-	-	-	-
07/09/01	278,760	1,124,659	860	<50	<0.18	<0.14	<0.18	<0.26	748	15	<0.14	2	2.7
08/13/01	399,700	1,245,599	3,455	-	-	-	-	-	-	-	-	-	-
09/24/01	451,240	1,297,139	1,227	-	-	-	-	-	-	-	-	-	-
10/01/01	488,310	1,334,209	5,296	<50	<0.18	<0.14	<0.18	<0.26	956	1.2	<0.14	<0.18	<0.26
11/12/01	636,260	1,482,159	3,523	-	-	-	-	-	-	-	-	-	-
12/31/01	674,080	1,519,979	772	-	-	-	-	-	-	-	-	-	-
01/14/02	688,450	1,534,349	1,026	<50	<0.18	<0.14	<0.18	<0.26	232	1	1	<0.18	<0.26
02/18/02	738,420	1,584,319	1,428	-	-	-	-	-	-	-	-	-	-
03/25/02	814,570	1,660,469	2,176	-	-	-	-	-	-	-	-	-	-
04/08/02	828,510	1,674,409	996	<50	<0.18	<0.14	<0.18	<0.26	105	<0.18	<0.14	<0.18	<0.26
04/22/02	895,910	1,741,809	4,814	-	-	-	-	-	-	-	-	-	-
05/06/02	895,920	1,741,819	1	System off; Restart									
05/13/02	929,130	1,775,029	4,744	-	-	-	-	-	-	-	-	-	-
06/03/02	-	1,839,639	-	-	<0.5	<0.7	<0.8	<3.3	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)				
06/03/02	993,740	1,839,639	3,077	<50	<0.18	<0.14	<0.18	<0.26	Split-sample results (sample collected by us)				
06/24/02	1,001,590	1,847,489	374	-	-	-	-	-	-	-	-	-	-
07/08/02	-	1,847,489	-	<50	<0.18	<0.14	<0.18	<0.26	4,710	1	1.2	<0.18	2
07/12/02	1,051,430	1,897,329	2,769	-	-	-	-	-	-	-	-	-	-
07/29/02	1,052,820	1,898,719	82	System shut down for carbon change									
08/16/02	1,052,820	1,898,719	-	Restart									
08/30/02	1,069,050	1,914,949	1,159	-	-	-	-	-	-	-	-	-	-
09/20/02	-	1,952,309	-	-	<0.5	<0.7	<0.8	<3.3	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)				
09/20/02	1,106,410	1,952,309	1,779	<50	<0.1	<0.15	<0.06	-	Split-sample results (sample collected by us, analysis by EPA 624 & 8015M)				
09/30/02	1,110,180	1,956,079	377	-	-	-	-	-	-	-	-	-	-
10/07/02	1,114,720	1,960,619	649	<50	<0.18	<0.14	<0.18	<0.26	128	<0.18	<0.14	<0.18	<0.26
10/28/02	1,127,540	1,973,439	610	-	-	-	-	-	-	-	-	-	-
11/25/02	1,149,730	1,995,629	793	-	-	-	-	-	-	-	-	-	-
12/20/02	1,166,840	2,012,739	684	-	-	-	-	-	-	-	-	-	-
12/30/02	1,173,420	2,019,319	658	-	-	-	-	-	-	-	-	-	-
01/06/03	1,182,610	2,028,509	1,313	<50	<0.14	1.2	<0.08	2.4	9,860	<1.4	29	14	2,420
01/13/03	1,189,320	2,035,219	959	Shut down for QWS									

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Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT					
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	
01/15/03	1,189,320	2,035,219	-	Restart										
02/24/03	1,223,450	2,069,349	853	-	-	-	-	-	-	-	-	-	-	-
03/10/03	1,238,640	2,084,539	1,085	-	-	-	-	-	-	-	-	-	-	-
03/17/03	1,257,710	2,103,609	2,724	System off	-	-	-	-	-	-	-	-	-	-
03/28/03	1,257,710	2,103,609	-	Restart	-	-	-	-	-	-	-	-	-	-
03/31/03	1,266,150	2,112,049	2,813	-	-	-	-	-	-	-	-	-	-	-
04/02/03	1,272,100	2,117,999	2,975	-	-	-	-	-	-	-	-	-	-	-
04/07/03	1,286,160	2,132,059	2,812	<15	<0.04	2.2	<0.02	<0.06	14,000	20	20	2.2	14	
04/14/03	1,294,060	2,139,959	1,129	System shut down for QWS										
04/16/03	1,294,080	2,139,979	10	Restart	-	-	-	-	-	-	-	-	-	-
04/21/03	1,299,660	2,145,559	1,116	-	-	-	-	-	-	-	-	-	-	-
04/28/03	1,302,140	2,148,039	354	-	-	-	-	-	-	-	-	-	-	-
05/05/03	1,302,710	2,148,609	81	System shut down for carbon change										
05/07/03	1,302,710	2,148,609	-	Restart	-	-	-	-	-	-	-	-	-	-
05/12/03	1,303,230	2,149,129	104	-	-	-	-	-	-	-	-	-	-	-
05/19/03	1,318,460	2,164,359	2,176	-	-	-	-	-	-	-	-	-	-	-
05/30/03	1,321,830	2,167,729	306	-	-	-	-	-	-	-	-	-	-	-
06/02/03	1,327,490	2,173,389	1,887	-	-	-	-	-	-	-	-	-	-	-
06/09/03	1,336,370	2,182,269	1,269	-	-	-	-	-	-	-	-	-	-	-
06/16/03	1,347,480	2,193,379	1,587	-	-	-	-	-	-	-	-	-	-	-
06/23/03	1,359,690	2,205,589	1,744	-	-	-	-	-	-	-	-	-	-	-
07/01/03	1,366,090	2,211,989	800	-	-	-	-	-	-	-	-	-	-	-
07/07/03	1,369,730	2,215,629	607	System shut down for QWS										
07/15/03	1,369,730	2,215,629	-	Restart	-	-	-	-	-	-	-	-	-	-
07/21/03	1,382,630	2,228,529	2,150	<15	<0.04	1.0	<0.02	<0.06	7,710	<0.04	<0.02	<0.02	<0.06	
07/28/03	1,389,840	2,235,739	1,030	-	-	-	-	-	-	-	-	-	-	-
08/04/03	1,408,710	2,254,609	2,696	-	-	-	-	-	-	-	-	-	-	-
08/15/03	1,411,520	2,257,419	255	System shut down for carbon change										
08/29/03	1,411,560	2,257,459	3	Restart	-	-	-	-	-	-	-	-	-	-
09/03/03	1,419,210	2,265,109	1,530	-	-	-	-	-	-	-	-	-	-	-
09/12/03	1,423,620	2,269,419	479	-	-	-	-	-	-	-	-	-	-	-
09/15/03	1,427,810	2,273,709	1,430	-	-	-	-	-	-	-	-	-	-	-
09/22/03	1,429,700	2,275,599	270	System shut down for installation of new 24-hour timer										
09/26/03	1,429,700	2,275,599	-	Restart	-	-	-	-	-	-	-	-	-	-
09/29/03	1,430,560	2,276,459	287	-	-	-	-	-	-	-	-	-	-	-
10/06/03	1,431,140	2,277,039	83	System shut down for QWS										
10/08/03	1,431,140	2,277,039	-	Restart	-	-	-	-	-	-	-	-	-	-
10/10/03	-	-	-	-	< 0.50	< 0.70	< 0.80	< 3.30	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)					
10/10/03	1,432,290	2,278,189	575	<15	<0.04	<0.02	<0.02	<0.06	16,200	<0.04	4.4	4.8	46	
10/17/03	1,433,790	2,279,689	214	-	-	-	-	-	-	-	-	-	-	-
10/22/03	-	-	-	-	< 0.50	< 0.70	< 0.80	< 3.30	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)					
10/22/03	1,434,590	2,280,489	160	<15	<0.04	<0.02	<0.02	<0.06	Split-sample results (sample collected by us)					
10/27/03	1,435,610	2,281,509	204	-	-	-	-	-	-	-	-	-	-	-
11/03/03	1,438,740	2,284,639	447	-	-	-	-	-	-	-	-	-	-	-
11/14/03	1,443,620	2,289,519	444	-	-	-	-	-	-	-	-	-	-	-
11/21/03	1,447,510	2,293,409	556	-	-	-	-	-	-	-	-	-	-	-
12/05/03	1,452,410	2,298,309	350	-	-	-	-	-	-	-	-	-	-	-
12/09/03	1,458,320	2,304,219	1,478	-	-	-	-	-	-	-	-	-	-	-
12/17/03	1,462,410	2,308,309	511	-	-	-	-	-	-	-	-	-	-	-
12/26/03	1,468,630	2,314,529	691	-	-	-	-	-	-	-	-	-	-	-
12/31/03	1,469,710	2,315,609	216	-	-	-	-	-	-	-	-	-	-	-
01/06/04	1,472,000	2,317,899	382	<15	<0.04	<0.02	<0.02	<0.06	7,900	658	1,560	62	1,090	
01/14/04	1,474,650	2,320,549	331	System shut down for QWS; Restarted 1/15/04										

**TABLE 4**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT				
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L
01/28/04	-	-	-	-	< 0.50	< 0.70	< 0.80	< 3.30	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)				
01/28/04	1,485,790	2,331,689	857	<15	<0.04	<0.02	<0.02	<0.06	Split-sample results (sample collected by us)				
02/04/04	1,492,340	2,338,239	936	-	-	-	-	-	-	-	-	-	-
02/10/04	1,494,550	2,340,449	368	-	-	-	-	-	-	-	-	-	-
02/20/04	1,498,790	2,344,689	424	-	-	-	-	-	-	-	-	-	-
02/25/04	1,499,360	2,345,259	114	-	-	-	-	-	-	-	-	-	-
03/03/04	1,514,700	2,360,599	2,191	-	-	-	-	-	-	-	-	-	-
03/09/04	1,517,300	2,363,199	433	-	-	-	-	-	-	-	-	-	-
03/17/04	1,519,100	2,364,999	225	-	-	-	-	-	-	-	-	-	-
03/24/04	1,524,600	2,370,499	786	-	-	-	-	-	-	-	-	-	-
04/01/04	1,529,300	2,375,199	588	-	-	-	-	-	-	-	-	-	-
04/07/04	1,531,200	2,377,099	317	<15	<0.22	<0.32	<0.31	<0.4	1,380	113	93	16	76
04/14/04	1,533,000	2,378,899	257	System shut down for QWS on 4/7; Restarted 4/14					-	-	-	-	-
04/22/04	1,576,400	2,422,299	5,425	-	-	-	-	-	-	-	-	-	-
04/28/04	1,623,500	2,469,399	7,850	-	-	-	-	-	-	-	-	-	-
05/06/04	1,668,920	2,514,819	5,678	-	-	-	-	-	-	-	-	-	-
05/13/04	1,691,100	2,536,999	3,169	-	-	-	-	-	-	-	-	-	-
05/20/04	1,726,500	2,572,399	5,057	-	-	-	-	-	-	-	-	-	-
05/28/04	1,748,910	2,594,809	2,801	-	-	-	-	-	-	-	-	-	-
06/04/04	1,749,320	2,595,219	59	Found system off; for replacement of on and off switch					-	-	-	-	-
06/11/04	1,749,320	2,595,219	-	Restarted					-	-	-	-	-
06/16/04	1,751,910	2,597,809	518	-	-	-	-	-	-	-	-	-	-
06/22/04	1,753,550	2,599,449	273	-	-	-	-	-	-	-	-	-	-
07/02/04	1,756,530	2,602,429	298	-	-	-	-	-	-	-	-	-	-
07/08/04	1,759,110	2,605,009	430	<15	<0.22	<0.32	<0.31	<0.4	652	31	<0.32	<0.31	2.1J
07/15/04	1,759,260	2,605,159	21	-	-	-	-	-	-	-	-	-	-
07/22/04	1,760,630	2,606,529	196	-	-	-	-	-	-	-	-	-	-
07/28/04	1,762,810	2,608,709	363	Shut down system for carbon change					-	-	-	-	-
08/05/04	1,762,810	2,608,709	-	Restarted					-	-	-	-	-
08/12/04	1,765,370	2,611,269	366	-	-	-	-	-	-	-	-	-	-
08/20/04	1,767,950	2,613,849	323	-	-	-	-	-	-	-	-	-	-
08/27/04	1,771,100	2,616,999	450	-	-	-	-	-	-	-	-	-	-
09/03/04	1,773,750	2,619,649	379	-	-	-	-	-	-	-	-	-	-
09/07/04	1,777,590	2,623,489	960	-	-	-	-	-	-	-	-	-	-
09/10/04	1,778,460	2,624,359	290	Shut down system due to operator vacation					-	-	-	-	-
09/29/04	1,778,460	2,624,359	-	Restarted					-	-	-	-	-
10/06/04	1,779,260	2,625,159	114	<15	<0.22	<0.32	<0.31	<0.4	<15	<0.22	<0.32	<0.31	<0.4
10/12/04	1,782,540	2,628,439	547	Shut down system for QWS					-	-	-	-	-
10/21/04	1,782,680	2,628,579	16	Restarted					-	-	-	-	-
10/27/04	1,784,630	2,630,529	325	-	-	-	-	-	-	-	-	-	-
11/03/04	1,784,680	2,630,579	7	-	-	-	-	-	-	-	-	-	-
11/11/04	1,787,490	2,633,389	351	-	-	-	-	-	-	-	-	-	-
11/19/04	1,789,350	2,635,249	233	-	-	-	-	-	-	-	-	-	-
12/01/04	1,789,800	2,635,699	38	-	-	-	-	-	-	-	-	-	-
12/10/04	1,792,780	2,638,679	331	-	-	-	-	-	-	-	-	-	-
12/15/04	1,795,460	2,641,359	536	-	-	-	-	-	-	-	-	-	-
12/22/04	1,798,000	2,643,899	363	-	-	-	-	-	-	-	-	-	-
12/29/04	1,800,580	2,646,479	369	-	-	-	-	-	-	-	-	-	-
01/05/05	1,803,140	2,649,039	366	<15	<0.22	<0.32	<0.31	<0.4	291	9.1	<0.32	1.2 J	<0.4
01/13/05	1,803,290	2,649,189	19	System turned off for QWS on 1/5/05; Restarted on 1/13/05					-	-	-	-	-
01/20/05	1,804,020	2,649,919	104	Shut down system for repair and upgrade					-	-	-	-	-
04/30/05	1,804,020	2,649,919	-	System still off pending repairs and upgrade					-	-	-	-	-
05/10/05	1,804,020	2,649,919	-	Restarted system with MW-3 only					-	-	-	-	-



**TABLE 4**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT				
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L
05/20/05	1,805,010	2,650,909	99	Added MW-4 to the system					-	-	-	-	-
05/26/05	1,807,630	2,653,529	437	-	-	-	-	-	-	-	-	-	
06/03/05	1,812,100	2,657,999	559	-	-	-	-	-	-	-	-	-	
06/10/05	1,816,540	2,662,439	634	-	-	-	-	-	-	-	-	-	
06/17/05	1,819,870	2,665,769	476	Compressor needs repair					-	-	-	-	
06/24/05	1,823,140	2,669,039	467	Replace with new pump MW-3					-	-	-	-	
06/29/05	1,827,540	2,673,439	880	-	-	-	-	-	-	-	-	-	
07/08/05	1,829,830	2,675,729	254	-	-	-	-	-	-	-	-	-	
07/14/05	1,829,970	2,675,869	23	<2.9	<0.17	<0.22	<0.14	<0.38	4,270	130	3.6 J	348	188
07/22/05	1,832,760	2,678,659	349	-	-	-	-	-	-	-	-	-	
07/26/05	1,833,920	2,679,819	290	Shut down system for QWS					-	-	-	-	
08/05/05	1,833,970	2,679,869	5	Restart sytem after QWS					-	-	-	-	
08/09/05	1,836,930	2,682,829	740	-	-	-	-	-	-	-	-	-	
08/19/05	1,837,560	2,683,459	63	-	<0.10	<0.15	<0.06	<0.40	Split-sample results during EBMUD inspection & sampling				
08/25/05	1,837,920	2,683,819	60	Shut down system for carbon change					-	-	-	-	
09/01/05	1,837,980	2,683,879	9	Restarted					-	-	-	-	
09/09/05	1,838,530	2,684,429	69	-	-	-	-	-	-	-	-	-	
09/16/05	1,841,230	2,687,129	386	-	-	-	-	-	-	-	-	-	
09/23/05	1,843,410	2,689,309	311	-	-	-	-	-	-	-	-	-	
09/30/05	1,844,820	2,690,719	201	-	-	-	-	-	-	-	-	-	
10/06/05	1,845,250	2,691,149	72	<2.9	<0.10	<0.15	<0.06	<0.40	2,410	<3.2	<1.0	28 J	<3.0
10/11/05	1,846,030	2,691,929	156	System turned off for QWS on 10/11/05; Restarted on 10/14/05					-	-	-	-	
10/14/05	-	-	-	-	<0.05	<0.07	<0.08	<0.33	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)				
10/14/05	1,846,590	2,692,489	187	-	<0.10	<0.15	<0.06	<0.40	Split-sample results during EBMUD inspection & sampling				
10/21/05	1,847,810	2,693,709	174	-	-	-	-	-	-	-	-	-	
11/02/05	1,849,720	2,695,619	159	-	-	-	-	-	-	-	-	-	
11/08/05	-	-	-	-	<0.05	0.62	<0.08	<0.33	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)				
11/10/05	1,850,760	2,696,659	130	-	-	-	-	-	-	-	-	-	
11/17/05	1,851,420	2,697,319	94	-	-	-	-	-	-	-	-	-	
11/23/05	1,854,560	2,700,459	523	-	-	-	-	-	-	-	-	-	
11/30/05	1,856,650	2,702,549	299	-	-	-	-	-	-	-	-	-	
12/09/05	1,858,340	2,704,239	188	-	-	-	-	-	-	-	-	-	
12/15/05	1,859,780	2,705,679	240	-	-	-	-	-	-	-	-	-	
12/22/05	1,860,420	2,706,319	91	-	-	-	-	-	-	-	-	-	
12/30/05	1,862,470	2,708,369	256	-	-	-	-	-	-	-	-	-	
01/06/06	1,866,760	2,712,659	613	-	-	-	-	-	-	-	-	-	
01/11/06	1,867,740	2,713,639	196	698	<0.32	<0.10	<0.24	<0.30	6,120	210	<0.10	419	130
01/18/06	1,870,240	2,716,139	357	Shut down system for QWS and carbon change					-	-	-	-	
01/27/06	1,870,280	2,716,179	4	Restarted after QWS and carbon change					-	-	-	-	
02/01/06	-	-	-	-	<0.70	<0.67	<0.65	<2.0	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)				
02/01/06	1,870,530	2,716,429	50	-	<0.17	<0.22	<0.14	<0.38	Split-sample results during EBMUD inspection & sampling				
02/10/06	1,877,370	2,723,269	760	-	-	-	-	-	-	-	-	-	
02/17/06	1,879,230	2,725,129	266	-	-	-	-	-	-	-	-	-	
02/24/06	1,880,710	2,726,609	211	-	-	-	-	-	-	-	-	-	
03/01/06	1,882,270	2,728,169	312	-	-	-	-	-	-	-	-	-	
03/10/06	1,889,370	2,735,269	789	-	-	-	-	-	-	-	-	-	
03/17/06	1,889,660	2,735,559	41	-	-	-	-	-	-	-	-	-	
03/21/06	1,890,930	2,736,829	318	-	-	-	-	-	-	-	-	-	
03/29/06	1,891,880	2,737,779	119	-	-	-	-	-	-	-	-	-	
04/05/06	1,893,340	2,739,239	209	<5.6	<0.32	<0.10	<0.24	<0.30	1,520	72	<0.10	199	28
04/11/06	1,895,480	2,741,379	357	-	-	-	-	-	-	-	-	-	
04/11/06	-	2,741,379	-	Shut down system for QWS					-	-	-	-	
04/14/06	1,895,490	2,741,389	3	Restart sytem after QWS					-	-	-	-	

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**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT					
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	
04/21/06	1,897,130	2,743,029	234	-	-	-	-	-	-	-	-	-	-	
04/26/06	1,898,330	2,744,229	240	-	-	-	-	-	-	-	-	-	-	
05/03/06	1,900,240	2,746,139	273	-	-	-	-	-	-	-	-	-	-	
05/12/06	1,903,700	2,749,599	384	-	-	-	-	-	-	-	-	-	-	
05/19/06	1,905,570	2,751,469	267	-	-	-	-	-	-	-	-	-	-	
05/23/06	1,907,810	2,753,709	560	<5.6	<0.32	<0.10	<0.24	<0.30	683,000	3,600	135,000	25,100	165,000	
05/26/06	1,909,780	2,755,679	657	-	-	-	-	-	-	-	-	-	-	
06/02/06	1,911,010	2,756,909	176	-	-	-	-	-	-	-	-	-	-	
06/09/06	1,912,670	2,758,569	237	-	-	-	-	-	-	-	-	-	-	
06/16/06	1,914,330	2,760,229	237	-	-	-	-	-	77,300	668	19,300	1,660	8,800	
06/23/06	1,917,210	2,763,109	411	-	-	-	-	-	-	-	-	-	-	
06/27/06	1,919,740	2,765,639	633	-	-	-	-	-	-	-	-	-	-	
07/06/06	1,921,470	2,767,369	192	3,730	44	874	26	503	4,450	8.6 J	99	34 J	149	
07/14/06	1,921,980	2,767,879	64	-	-	-	-	-	-	-	-	-	-	
07/18/06	1,922,070	2,767,969	23	Shut down system for carbon change					-	-	-	-	-	-
08/04/06	1,922,090	2,767,989	1	System restarted after carbon change					-	-	-	-	-	-
08/04/06	1,922,090	2,767,989	1	<5.6	<0.32	<0.10	<0.24	<0.30	763	<0.32	<0.10	<0.24	<0.30	
08/18/06	1,928,690	2,774,589	471	-	-	-	-	-	-	-	-	-	-	
08/25/06	1,929,580	2,775,479	127	-	-	-	-	-	-	-	-	-	-	
09/01/06	1,932,440	2,778,339	409	-	-	-	-	-	-	-	-	-	-	
09/08/06	1,936,240	2,782,139	543	-	-	-	-	-	-	-	-	-	-	
09/14/06	1,938,420	2,784,319	363	-	-	-	-	-	-	-	-	-	-	
09/20/06	1,939,710	2,785,609	215	-	-	-	-	-	-	-	-	-	-	
10/04/06	1,942,100	2,787,999	171	<5.6	<0.32	<0.10	<0.24	1.1 J	14,400	78	1,110	440	1,440	
10/13/06	1,945,320	2,791,219	358	-	-	-	-	-	-	-	-	-	-	
10/19/06	1,947,230	2,793,129	318	-	-	-	-	-	-	-	-	-	-	
10/24/06	1,948,670	2,794,569	288	Shut down system for QWS					-	-	-	-	-	-
10/27/06	1,948,670	2,794,569	-	Restart system after QWS					-	-	-	-	-	-
11/01/06	1,949,120	2,795,019	90	-	-	-	-	-	-	-	-	-	-	
11/09/06	1,951,030	2,796,929	239	-	-	-	-	-	-	-	-	-	-	
11/16/06	1,951,817	2,797,716	112	-	-	-	-	-	-	-	-	-	-	
11/22/06	1,952,010	2,797,909	32	-	-	-	-	-	-	-	-	-	-	
11/30/06	1,956,730	2,802,629	590	Shut down system for maintenance					-	-	-	-	-	-
12/01/06	1,956,730	2,802,629	-	Restarted system					-	-	-	-	-	-
12/07/06	1,958,510	2,804,409	297	-	-	-	-	-	-	-	-	-	-	
12/12/06	1,959,720	2,805,619	242	Shut down system due to operator vacation					-	-	-	-	-	-
01/03/07	1,959,230	2,805,129	(22)	Restarted system					-	-	-	-	-	-
01/05/07	1,959,670	2,805,569	220	-	-	-	-	-	-	-	-	-	-	
01/11/07	1,961,280	2,807,179	268	-	-	-	-	-	-	-	-	-	-	
01/18/07	1,963,200	2,809,099	274	System shut down for QWS					-	-	-	-	-	-
01/24/07	1,963,200	2,809,099	-	<5.6	<0.17	<0.22	<0.14	<0.38	8,920	<1.6	115	91	612	
01/25/07	1,963,860	2,809,759	660	-	-	-	-	-	-	-	-	-	-	
02/02/07	1,967,120	2,813,019	408	-	-	-	-	-	-	-	-	-	-	
02/06/07	1,969,320	2,815,219	550	-	-	-	-	-	-	-	-	-	-	
02/16/07	1,971,040	2,816,939	172	-	-	-	-	-	-	-	-	-	-	
02/19/07	1,971,780	2,817,659	240	-	-	-	-	-	-	-	-	-	-	
02/28/07	1,978,320	2,824,219	729	-	-	-	-	-	-	-	-	-	-	
03/16/07	1,983,620	2,829,519	331	-	-	-	-	-	-	-	-	-	-	
03/23/07	1,985,120	2,831,019	214	-	-	-	-	-	-	-	-	-	-	
03/30/07	1,987,330	2,833,229	316	-	-	-	-	-	-	-	-	-	-	
04/05/07	1,989,120	2,835,019	298	-	-	-	-	-	-	-	-	-	-	
04/12/07	1,991,300	2,837,199	311	<5.6	<0.17	<0.22	<0.14	<0.38	6,640	43	916	296	1,810	
04/20/07	1,992,720	2,838,619	178	Shut down system for QWS					-	-	-	-	-	-

**TABLE 4**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT				
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L
04/27/07	1,992,730	2,838,629	1	Restart sytem after QWS									
05/03/07	1,994,500	2,840,399	295	-	-	-	-	-	-	-	-	-	-
05/10/07	2,002,410	2,848,309	1,130	-	-	-	-	-	-	-	-	-	-
05/17/07	2,004,320	2,850,219	273	-	-	-	-	-	-	-	-	-	-
05/25/07	2,004,810	2,850,709	61	-	-	-	-	-	-	-	-	-	-
06/01/07	2,005,210	2,851,109	57	-	-	-	-	-	-	-	-	-	-
06/14/07	2,006,540	2,852,439	102	-	-	-	-	-	-	-	-	-	-
06/19/07	2,008,320	2,854,219	356	-	-	-	-	-	-	-	-	-	-
06/21/07	2,008,740	2,854,639	210	-	-	-	-	-	15,800	186	1,890	410	2,060
06/29/07	2,016,480	2,862,379	968	-	-	-	-	-	-	-	-	-	-
07/06/07	2,014,260	2,864,599	317	-	-	-	-	-	-	-	-	-	-
07/13/07	2,013,420	2,865,439	120	-	-	-	-	-	-	-	-	-	-
07/20/07	2,015,230	2,867,249	259	-	-	-	-	-	-	-	-	-	-
07/24/07	2,015,620	2,867,639	98	Shut down system for QWS					-	-	-	-	-
07/27/07	2,015,670	2,867,689	17	Restart sytem after QWS					-	-	-	-	-
08/03/07	2,016,310	2,868,329	91	-	-	-	-	-	-	-	-	-	-
08/10/07	2,017,430	2,869,449	160	-	-	-	-	-	-	-	-	-	-
08/17/07	2,017,960	2,869,979	76	<5.6	<0.15	<0.12	<0.09	<0.26	-	-	-	-	-
08/24/07	2,018,100	2,870,119	20	-	-	-	-	-	-	-	-	-	-
08/31/07	2,018,210	2,870,229	16	-	-	-	-	-	-	-	-	-	-
09/07/07	2,018,630	2,870,649	60	Shut down system for repairs					-	-	-	-	-
09/14/07	2,019,810	2,871,829	169	Restart system					-	-	-	-	-
09/21/07	2,027,200	2,879,219	1,056	-	-	-	-	-	-	-	-	-	-
09/28/07	2,031,500	2,883,519	614	-	-	-	-	-	-	-	-	-	-
10/05/07	2,038,620	2,890,639	1,017	-	-	-	-	-	-	-	-	-	-
10/12/07	2,042,100	2,894,119	497	-	-	-	-	-	-	-	-	-	-
10/19/07	2,049,120	2,901,139	1,003	-	-	-	-	-	-	-	-	-	-
10/23/07	2,051,240	2,903,259	530	Shut down system for QWS					-	-	-	-	-
10/26/07	2,053,410	2,905,429	723	Restart sytem after QWS					-	-	-	-	-
11/06/07	2,064,180	2,915,199	979	<5.6	<0.15	<0.12	<0.09	<0.26	Split-sample results during EBMUD inspection & sampling				
11/20/07	2,075,400	2,927,419	801	<5.6	<0.15	<0.12	<0.09	<0.26	2,240	84	<0.24	46	5.7
11/30/07	2,082,110	2,934,129	671	-	-	-	-	-	-	-	-	-	-
12/14/07	2,086,930	2,938,949	344	-	-	-	-	-	3,980	102	869	229	1400
12/21/07	2,091,340	2,943,359	630	-	-	-	-	-	-	-	-	-	-
12/28/07	2,094,210	2,946,229	410	-	-	-	-	-	-	-	-	-	-
01/04/08	2,097,490	2,949,509	469	-	-	-	-	-	-	-	-	-	-
01/11/08	2,106,370	2,958,389	1,269	Shut down system for QWS					-	-	-	-	-
01/15/08	-	-	-	<5.6	<0.15	<0.12	<0.09	<0.26	804	54	3.2 J	45	11
01/25/08	2,109,820	2,961,839	246	Restart sytem after QWS					-	-	-	-	-
02/01/08	2,119,680	2,971,699	1,409	-	-	-	-	-	-	-	-	-	-
02/08/08	2,129,200	2,981,219	1,360	-	-	-	-	-	-	-	-	-	-
02/15/08	2,138,190	2,990,209	1,284	-	-	-	-	-	97,800	183	16,900	3,510	20,400
02/22/08	2,139,640	2,991,659	207	-	-	-	-	-	-	-	-	-	-
02/29/08	2,143,260	2,995,279	517	-	-	-	-	-	-	-	-	-	-
03/05/08	2,148,020	3,000,039	952	-	-	-	-	-	-	-	-	-	-
03/14/08	2,163,950	3,015,969	1,770	-	-	-	-	-	6,160	36	1,070	18	1,290
03/26/08	2,164,230	3,016,249	23	-	-	-	-	-	-	-	-	-	-
03/27/08	2,165,320	3,017,339	1,090	-	-	-	-	-	-	-	-	-	-
04/23/08	2,165,360	3,017,379	1.5	<6.6	<0.15	<0.12	<0.09	<0.26	-	-	-	-	-
05/02/08	2,174,340	3,026,359	998	-	-	-	-	-	-	-	-	-	-
05/09/08	2,186,620	3,038,639	1,754	-	-	-	-	-	-	-	-	-	-
05/16/08	2,196,620	3,048,639	1,429	-	-	-	-	-	-	-	-	-	-
05/23/08	2,196,620	3,048,639	-	-	-	-	-	-	-	-	-	-	-

**TABLE 4**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT				
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L
06/05/08	2,196,620	3,048,639	-	-	-	-	-	-	-	-	-	-	-
06/10/08	2,198,960	3,050,979	468	-	-	-	-	-	-	-	-	-	-
06/20/08	2,205,410	3,057,429	645	-	-	-	-	-	-	-	-	-	-
06/25/08	2,213,010	3,065,029	1,520	-	-	-	-	-	-	-	-	-	-
07/03/08	2,221,620	3,073,639	1,076	-	-	-	-	-	26,600	54	721	629	4,320
07/09/08	2,230,580	3,082,599	1,493	<6.6	<0.18	<0.24	<0.21	<0.45	6,220	103	655	188	1,040
07/18/08	2,231,140	3,083,159	62	-	-	-	-	-	-	-	-	-	-
07/25/08	2,237,110	3,089,129	853	-	-	-	-	-	-	-	-	-	-
08/04/08	2,237,120	3,089,139	1.0	-	-	-	-	-	-	-	-	-	-
08/08/08	2,240,350	3,092,369	808	-	-	-	-	-	-	-	-	-	-
08/20/08	2,249,810	3,101,829	788	-	-	-	-	-	9,480	65	1,080	375	2,120
08/24/08	2,255,420	3,107,439	1,403	-	-	-	-	-	-	-	-	-	-
09/04/08	2,261,960	3,113,979	595	-	-	-	-	-	-	-	-	-	-
09/11/08	2,264,120	3,116,139	309	-	-	-	-	-	-	-	-	-	-
09/18/08	2,270,870	3,122,889	964	-	-	-	-	-	-	-	-	-	-
09/24/08	-	-	-	-	-	-	-	-	-	-	-	-	-
09/24/08	2,270,960	3,122,979	15	<6.6	<0.51	<0.51	<0.41	< 1.3 / < 0.37	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)				
09/26/08	2,272,540	3,124,559	790	-	<0.18	<0.24	<0.21	<0.45	Split-sample results during EBMUD inspection & sampling				
10/03/08	2,280,060	3,132,079	1,074	-	-	-	-	-	-	-	-	-	-
10/08/08	2,286,630	3,138,649	1,314	-	-	-	-	-	-	-	-	-	-
10/16/08	2,294,110	3,146,129	935	-	-	-	-	-	-	-	-	-	-
10/28/08	2,307,750	3,159,769	1,137	-	-	-	-	-	-	-	-	-	-
11/07/08	2,316,370	3,168,389	862	-	-	-	-	-	8,490	100	1,130	308	1,680
11/14/08	2,322,890	3,174,909	931	-	-	-	-	-	-	-	-	-	-
11/21/08	2,330,420	3,182,439	1,076	-	-	-	-	-	-	-	-	-	-
11/26/08	2,337,570	3,189,589	1,430	-	-	-	-	-	-	-	-	-	-
12/05/08	2,344,350	3,196,369	753	-	-	-	-	-	-	-	-	-	-
12/10/08	2,351,080	3,203,099	1,346	-	-	-	-	-	-	-	-	-	-
12/18/08	2,358,770	3,210,789	961	-	-	-	-	-	-	-	-	-	-
12/19/08	2,358,920	3,210,939	150	-	-	-	-	-	-	-	-	-	-
12/23/08	2,366,510	3,218,529	1,898	<6.6	<0.18	<0.24	<0.21	<0.45	-	-	-	-	-
01/06/09	2,382,280	3,234,299	1,126	-	-	-	-	-	8,230	60	1,730	279	1,720
01/07/09	2,382,410	3,234,429	130	-	-	-	-	-	-	-	-	-	-
01/12/09	2,391,510	3,243,529	1,820	-	-	-	-	-	-	-	-	-	-
01/19/09	2,398,100	3,250,119	941	-	-	-	-	-	-	-	-	-	-
01/28/09	2,408,760	3,260,779	1,184	Shut down system for QWS					-	-	-	-	-
01/30/09	2,408,790	3,260,809	15	Restart system after QWS					-	-	-	-	-
02/04/09	2,415,390	3,267,409	1,320	-	-	-	-	-	-	-	-	-	-
02/11/09	2,424,020	3,276,039	1,233	-	-	-	-	-	-	-	-	-	-
02/13/09	2,424,210	3,276,229	95	System found off because of power failure, left system off for resampling of MW-4					-	-	-	-	-
02/24/09	2,424,210	3,276,229	-	Restart system after resampling of MW-4					-	-	-	-	-
03/03/09	2,424,510	3,276,529	43	-	-	-	-	-	-	-	-	-	-
03/08/09	2,425,820	3,277,839	262	-	-	-	-	-	-	-	-	-	-
03/11/09	2,426,810	3,278,829	330	-	-	-	-	-	-	-	-	-	-
03/18/09	2,427,010	3,279,029	29	Found system off. Air Compressor switch tripped					-	-	-	-	-
03/25/09	2,427,640	3,279,659	90	-	-	-	-	-	-	-	-	-	-
03/30/09	2,428,090	3,280,109	90	-	-	-	-	-	-	-	-	-	-
04/13/09	2,429,710	3,281,729	116	-	-	-	-	-	-	-	-	-	-
04/23/09	2,431,060	3,283,079	135	-	-	-	-	-	-	-	-	-	-
04/27/09	2,431,770	3,283,789	178	-	-	-	-	-	8,180	49	976	299	2,160
05/05/09	2,432,710	3,284,729	118	Shut down system for QWS					-	-	-	-	-
05/07/09	2,432,760	3,284,779	25	Restart system after QWS					-	-	-	-	-
05/12/09	2,433,180	3,285,199	84	System shut down for carbon change					-	-	-	-	-

**TABLE 4**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT				
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L
05/29/09	2,433,290	3,285,309	6	System restarted after carbon change					-	-	-	-	-
06/08/09	2,434,090	3,286,109	80	-	-	-	-	-	-	-	-	-	
06/15/09	2,434,720	3,286,739	90	<6.6	<0.18	<0.24	<0.21	<0.45	1,310	191	94	2.9 J	101
06/16/09	2,434,830	3,286,849	110	-	-	-	-	-	-	-	-	-	
06/22/09	2,435,510	3,287,529	113	Replaced pressure switch, System restarted					-	-	-	-	-
07/06/09	2,436,320	3,288,339	58	-	-	-	-	-	-	-	-	-	
07/14/09	2,437,200	3,289,219	110	-	-	-	-	-	-	-	-	-	
07/20/09	2,437,950	3,289,969	125	-	-	-	-	-	-	-	-	-	
07/29/09	2,438,670	3,290,689	80	-	-	-	-	-	-	-	-	-	
08/03/09	2,439,360	3,291,379	138	-	-	-	-	-	-	-	-	-	
08/11/09	2,439,980	3,291,999	78	-	-	-	-	-	-	-	-	-	
08/18/09	2,440,700	3,292,719	103	-	-	-	-	-	-	-	-	-	
08/25/09	2,441,210	3,293,229	73	-	-	-	-	-	-	-	-	-	
09/01/09	2,442,070	3,294,089	123	-	-	-	-	-	-	-	-	-	
09/09/09	2,442,820	3,294,839	94	-	-	-	-	-	-	-	-	-	
09/14/09	-	-	-	-	<0.51	< 0.51	< 0.41	< 1.3 / < 0.37	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)				
09/14/09	2,443,040	3,295,059	44	<6.6	<0.23	<0.23	<0.26	<0.81	Split-sample results during EBMUD inspection & sampling				
09/22/09	2,443,780	3,295,799	93	Shut down system for maintenance					-	-	-	-	-
09/25/09	2,443,790	3,295,809	3	Restart system after maintenance					-	-	-	-	-
09/30/09	2,444,430	3,296,449	128	-	-	-	-	-	-	-	-	-	
10/09/09	2,445,290	3,297,309	96	-	-	-	-	-	-	-	-	-	
10/15/09	2,445,970	3,297,989	113	-	-	-	-	-	-	-	-	-	
10/20/09	2,446,620	3,298,639	130	-	-	-	-	-	-	-	-	-	
10/28/09	2,447,640	3,299,659	128	-	-	-	-	-	-	-	-	-	
11/02/09	2,448,390	3,300,409	150	-	-	-	-	-	-	-	-	-	
11/09/09	2,449,210	3,301,229	117	-	-	-	-	-	-	-	-	-	
11/16/09	2,449,930	3,301,949	103	-	-	-	-	-	-	-	-	-	
11/23/09	2,450,800	3,302,819	124	-	-	-	-	-	-	-	-	-	
11/30/09	2,451,420	3,303,439	89	-	-	-	-	-	-	-	-	-	
12/07/09	2,451,660	3,303,679	34	-	-	-	-	-	-	-	-	-	
12/10/09	2,451,990	3,304,009	110	<6.6	<0.18	<0.24	<0.21	<0.45	15,400	177	1560	481	2920
12/11/09	2,451,990	3,304,009	-	System Shut down for QWS					-	-	-	-	-
12/17/09	2,452,040	3,304,059	7	Restart system after QWS					-	-	-	-	-
12/21/09	2,452,410	3,304,429	93	-	-	-	-	-	-	-	-	-	
12/28/09	2,453,430	3,305,449	146	-	-	-	-	-	-	-	-	-	
01/04/10	2,454,210	3,306,229	111	-	-	-	-	-	-	-	-	-	
01/11/10	2,455,100	3,307,119	127	-	-	-	-	-	-	-	-	-	
01/18/10	2,456,220	3,308,239	160	-	-	-	-	-	-	-	-	-	
01/25/10	2,457,200	3,309,219	140	-	-	-	-	-	-	-	-	-	
02/01/10	2,458,090	3,310,109	127	-	-	-	-	-	-	-	-	-	
02/11/10	2,459,320	3,311,339	123	<6.6	<0.18	<0.24	<0.21	<0.45	-	-	-	-	
02/15/10	2,459,750	3,311,769	108	-	-	-	-	-	-	-	-	-	
02/22/10	2,460,460	3,312,479	101	-	-	-	-	-	-	-	-	-	
03/01/10	2,461,530	3,313,549	153	-	-	-	-	-	-	-	-	-	
03/08/10	2,462,510	3,314,529	140	-	-	-	-	-	-	-	-	-	
03/15/10	2,463,370	3,315,389	123	-	-	-	-	-	-	-	-	-	
03/23/10	2,464,280	3,316,299	114	-	-	-	-	-	-	-	-	-	
04/01/10	2,465,250	3,317,269	108	-	-	-	-	-	-	-	-	-	
04/06/10	2,466,110	3,318,129	172	-	-	-	-	-	-	-	-	-	
04/14/10	2,466,980	3,318,999	109	-	-	-	-	-	-	-	-	-	
04/20/10	2,467,780	3,319,799	133	-	-	-	-	-	-	-	-	-	

**TABLE 4**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT					INLET / INFLUENT				
				TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L	TPH-g ug/L	B ug/L	T ug/L	E ug/L	X ug/L
04/28/10	2,468,590	3,320,609	101	-	-	-	-	-	-	-	-	-	-
05/11/10	2,474,780	3,326,799	476	-	-	-	-	-	-	-	-	-	-
05/12/10	2,474,910	3,326,929	130	-	-	-	-	-	-	-	-	-	-
05/18/10	2,475,880	3,327,899	162	System shutdown for QWS.									
05/20/10	2,476,060	3,328,079	90	System restarted after QWS.									
05/27/10	2,477,040	3,329,059	140	-	-	-	-	-	-	-	-	-	-
06/03/10	2,478,140	3,330,159	157	-	-	-	-	-	-	-	-	-	-
06/08/10	2,479,370	3,331,389	246	-	-	-	-	-	-	-	-	-	-
06/15/10	2,480,350	3,332,369	140	-	-	-	-	-	-	-	-	-	-
06/23/10	2,481,130	3,333,149	98	-	-	-	-	-	-	-	-	-	-
07/02/10	2,481,990	3,334,009	96	-	-	-	-	-	-	-	-	-	-
07/07/10	2,482,860	3,334,879	174	-	-	-	-	-	-	-	-	-	-
07/13/10	2,483,780	3,335,799	153	-	-	-	-	-	-	-	-	-	-
07/20/10	2,484,760	3,336,779	140	-	-	-	-	-	-	-	-	-	-
07/23/10	2,484,940	3,336,959	60	-	-	-	-	-	-	-	-	-	-
07/27/10	2,485,420	3,337,439	120	-	-	-	-	-	7,270	11	570	29	494
08/04/10	2,486,070	3,338,089	81	-	-	-	-	-	-	-	-	-	-
08/10/10	2,486,690	3,338,709	103	-	-	-	-	-	-	-	-	-	-
08/11/10	2,486,850	3,338,869	160	-	-	-	-	-	-	-	-	-	-
08/17/10	2,487,710	3,339,729	143	-	-	-	-	-	1,130	11	71	17	101
08/25/10	2,488,270	3,340,289	70	-	-	-	-	-	-	-	-	-	-
08/31/10	2,489,030	3,341,049	127	-	-	-	-	-	-	-	-	-	-
09/09/10	2,489,710	3,341,729	76	System shut down for pilot test.									
10/14/10	2,502,160	3,354,179	356	System Restarted after pilot test.									
10/21/10	2,502,300	3,354,319	20	-	-	-	-	-	-	-	-	-	-
10/26/10	2,502,350	3,354,369	10	-	-	-	-	-	10,100	61	1,120	339	1,930
11/02/10	2,502,400	3,354,419	7	-	-	-	-	-	-	-	-	-	-
11/04/10	2,502,600	3,354,619	100	System shutdown for QWS.									
11/11/10	2,502,800	3,354,819	29	System restarted after QWS.									
11/18/10	2,503,090	3,355,109	41	-	-	-	-	-	-	-	-	-	-
11/24/10	2,503,730	3,355,749	107	-	-	-	-	-	-	-	-	-	-
11/30/10	2,504,450	3,356,469	120	-	-	-	-	-	-	-	-	-	-
12/07/10	2,505,310	3,357,329	123	-	-	-	-	-	-	-	-	-	-
12/15/10	2,506,430	3,358,449	140	-	-	-	-	-	-	-	-	-	-
12/16/10	2,506,570	3,358,589	140	-	-	-	-	-	-	-	-	-	-
12/22/10	2,507,890	3,359,909	220	-	-	-	-	-	528	1.5	3.1	0.6	8.5
				-	-	-	-	-	-	-	-	-	-

<b>WD PERMIT LIMITS:</b>	<b>NE</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>
--------------------------	-----------	------------	------------	------------	------------

**Note:** < = less than laboratory detection level indicated  
 - = no sample / not analyzed  
 NE = Permit Limit not established

TPH is analyzed by EPA Method 8015 M  
 BTEX is analyzed by EPA Method 8021 or 8260  
 \*MTBE by 8020 / 8260

In February 2000, the total cumulative discharge amount was corrected to reflect all system maintenance and flowmeter changeouts since the startup of the system. The total number may be different from previous versions of this table.

**TABLE 5**  
**SOIL VAPOR SAMPLE LABORATORY ANALYTICAL RESULTS**  
 THRIFTY OIL STATION #063 - Oakland, CA  
 GHC 1687

SAMPLE ID	DATE SAMPLE	ANALYTICAL PARAMETERS								
		TPHg ( $\mu\text{g}/\text{m}^3$ )	Benzene ( $\mu\text{g}/\text{m}^3$ )	Toluene ( $\mu\text{g}/\text{m}^3$ )	Ethylbenzene ( $\mu\text{g}/\text{m}^3$ )	Xylenes ( $\mu\text{g}/\text{m}^3$ )	MTBE ( $\mu\text{g}/\text{m}^3$ )	Carbon Dioxide %	Oxygen %	Methane %
SV-1	04/18/11	<1,000	<10	<1,000	<1,000	<1,000	<1,000	0.7	19.7	0.0
SV-2	04/18/11	<1,000	<10	<1,000	<1,000	<1,000	<1,000	1.2	18.6	0.0
SV-3 (1 PV)	04/18/11	<1,000	<10	<1,000	<1,000	<1,000	<1,000	1.8	18.5	0.0
SV-3 (3 PV)	04/18/11	<1,000	<10	<1,000	<1,000	<1,000	<1,000	1.8	18.5	0.0
SV-3 (7 PV)	04/18/11	<1,000	<10	<1,000	<1,000	<1,000	<1,000	1.8	18.5	0.0
SV-4	04/18/11	<1,000	<10	<1,000	<1,000	<1,000	<1,000	3.7	14	0.0
SV-4 (Dup)	04/18/11	<1,000	<10	<1,000	<1,000	<1,000	<1,000	3.7	14	0.0
SV-5	04/18/11	<1,000	<10	<1,000	<1,000	<1,000	<1,000	0.5	20	0.0
SV-6	04/18/11	<1,000	<10	<1,000	<1,000	<1,000	<1,000	0.6	19.6	0.0

**NOTES:**

TPHg = Gasoline Range Organics

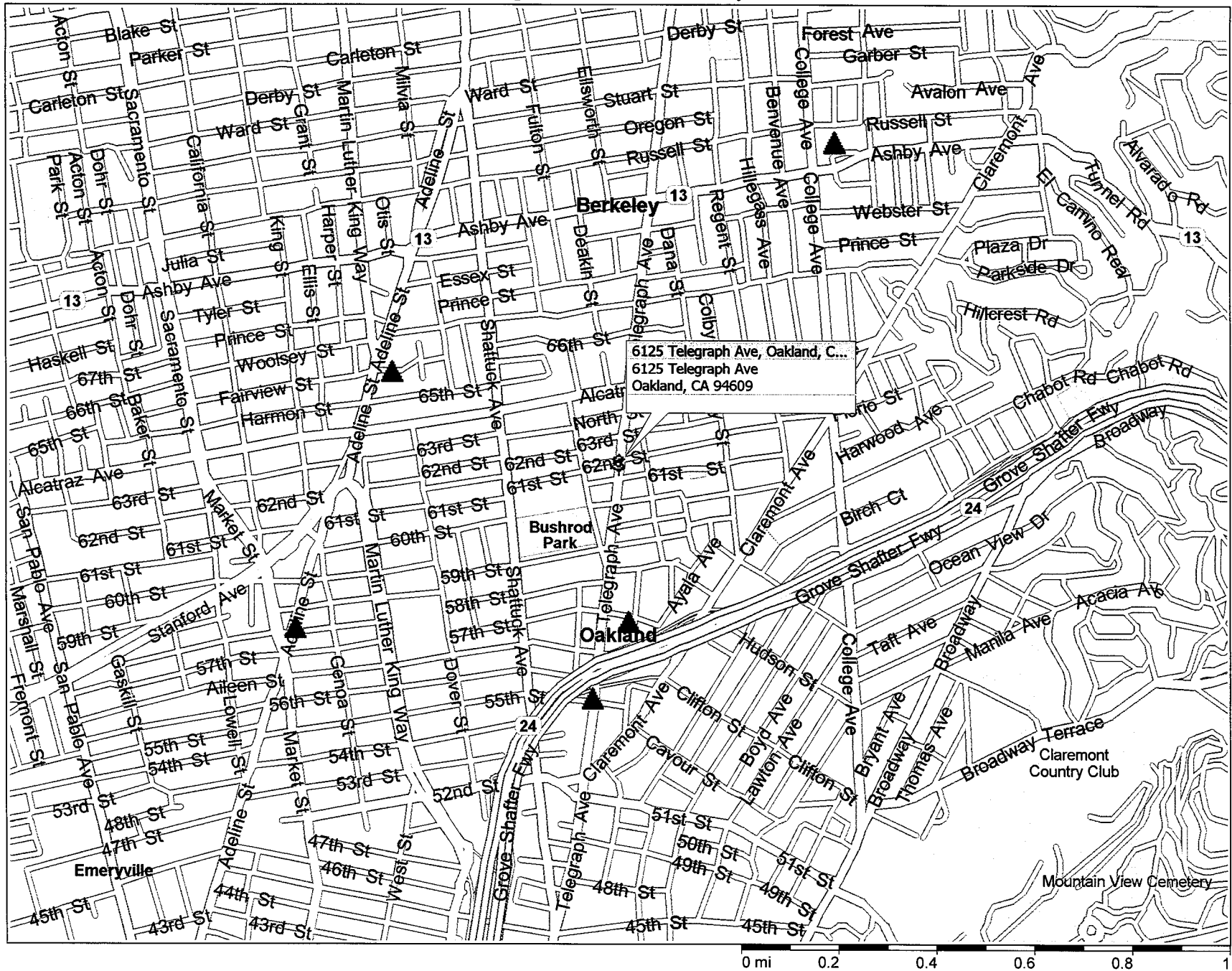
" < " = Less than the laboratory detection limit

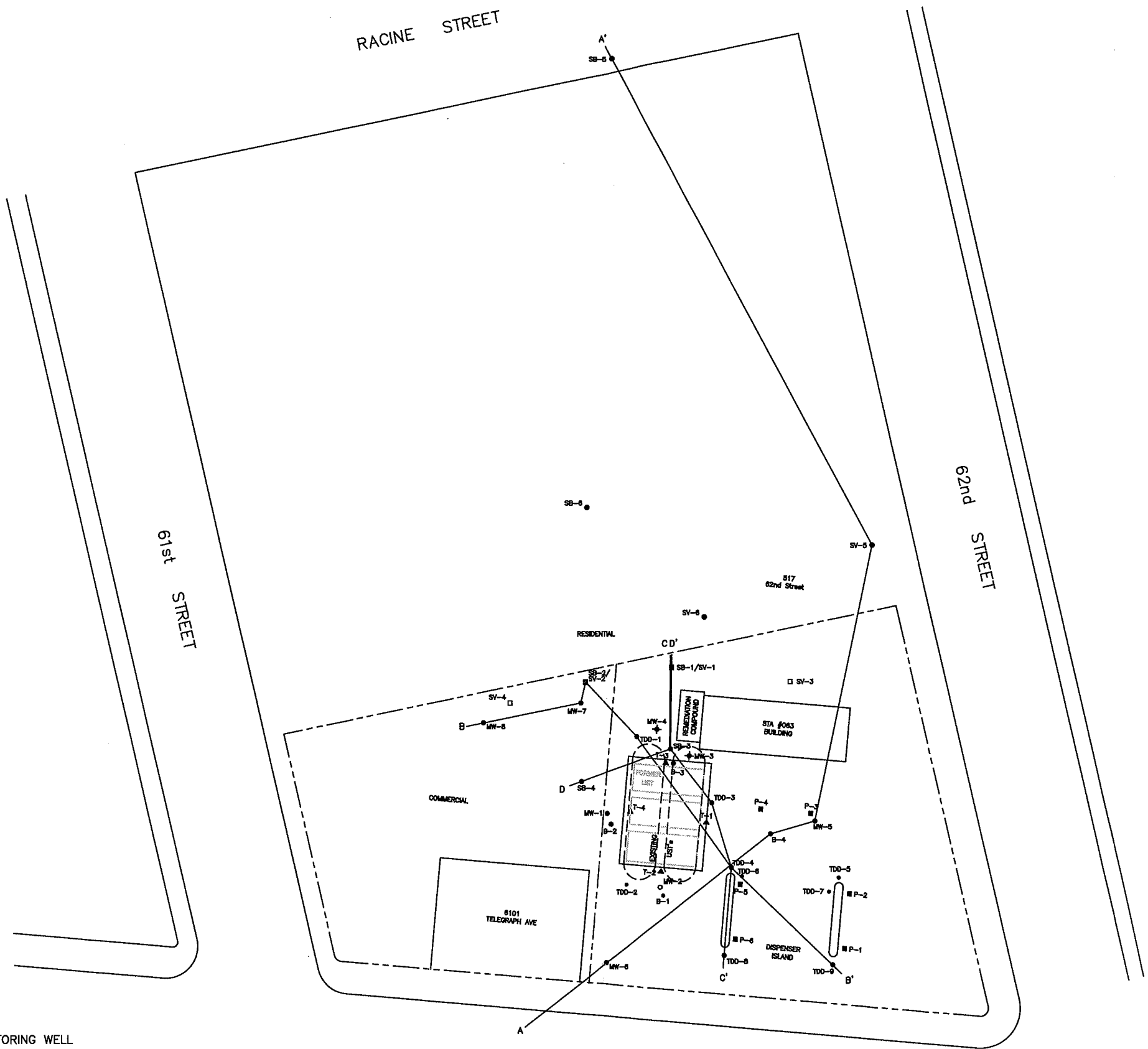
All other VOCs not listed were not detected above the laboratory method detection limit

# FIGURES



Figure 1 - Site Vicinity





**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL
- A-A' - GEOLOGIC CROSS-SECTION

APPROXIMATE SCALE IN FEET



GHC: 1687

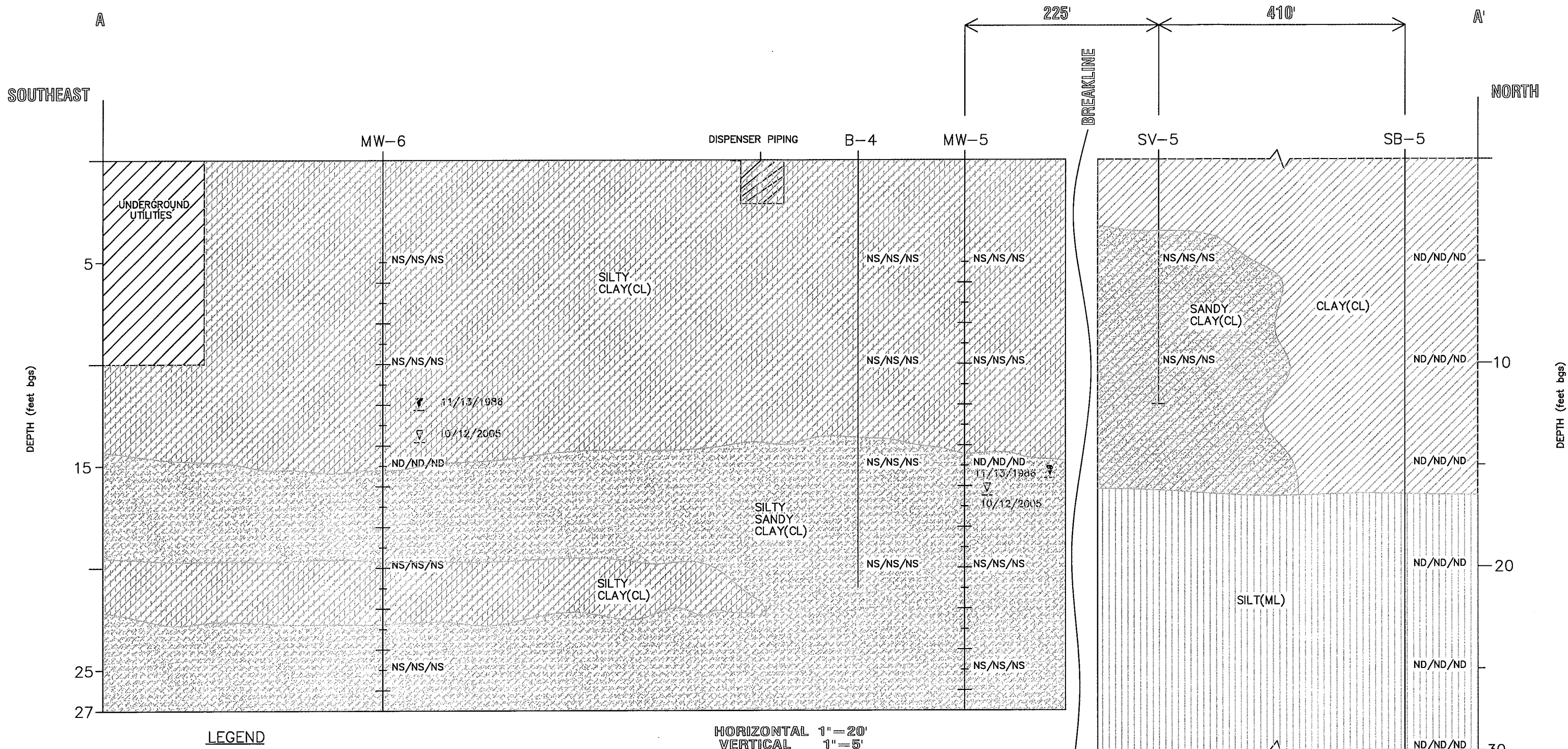
DATE: 05/16/11



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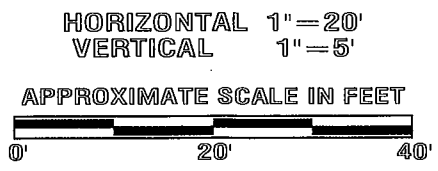
FIGURE 2  
SITE PLAN  
THRIFTY SERVICE STATION #063  
6125 Telegraph Avenue  
Oakland, CA

VIEW SOUTHWEST



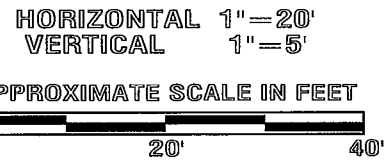
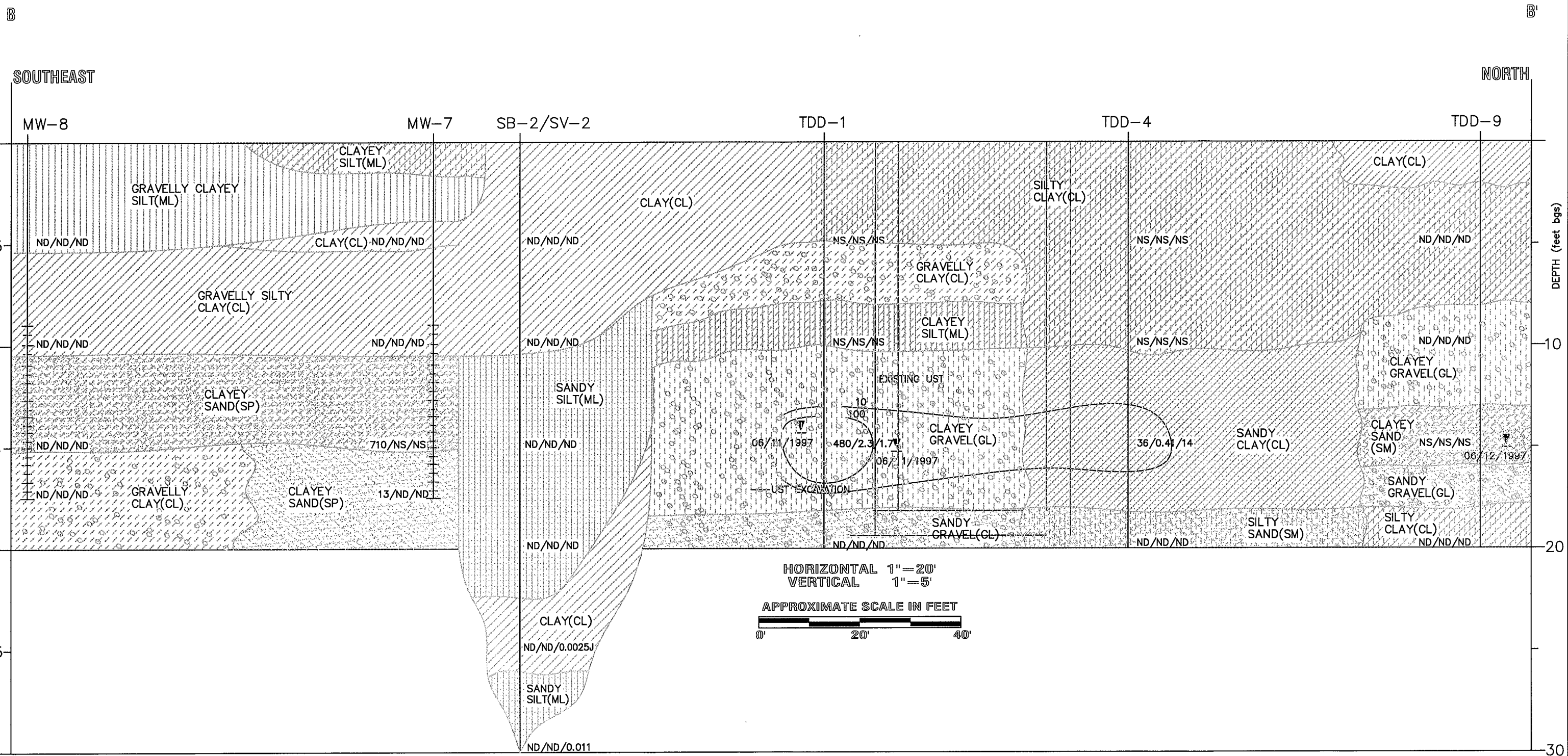
LEGEND

- ▼ - WATER LEVEL AT TIME OF DRILLING (DATE)
- ▽ - WATER LEVEL MOST RECENT (DATE)
- ND/ND/ND - TPHg/BENZENE/MTBE CONCENTRATIONS in mg/Kg
- ND - NOT DETECTED ABOVE LABORATORY REPORTING LIMITS
- NS - NOT SAMPLED



GHC: XXX DATE: 05/16/11		GEOHYDROLOGIC CONSULTANTS, INC. PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com	FIGURE 3A GEOLOGIC CROSS-SECTION A-A' THRIFTY SERVICE STATION #063 6125 Telegraph Avenue Oakland, CA

VIEW SOUTHWEST



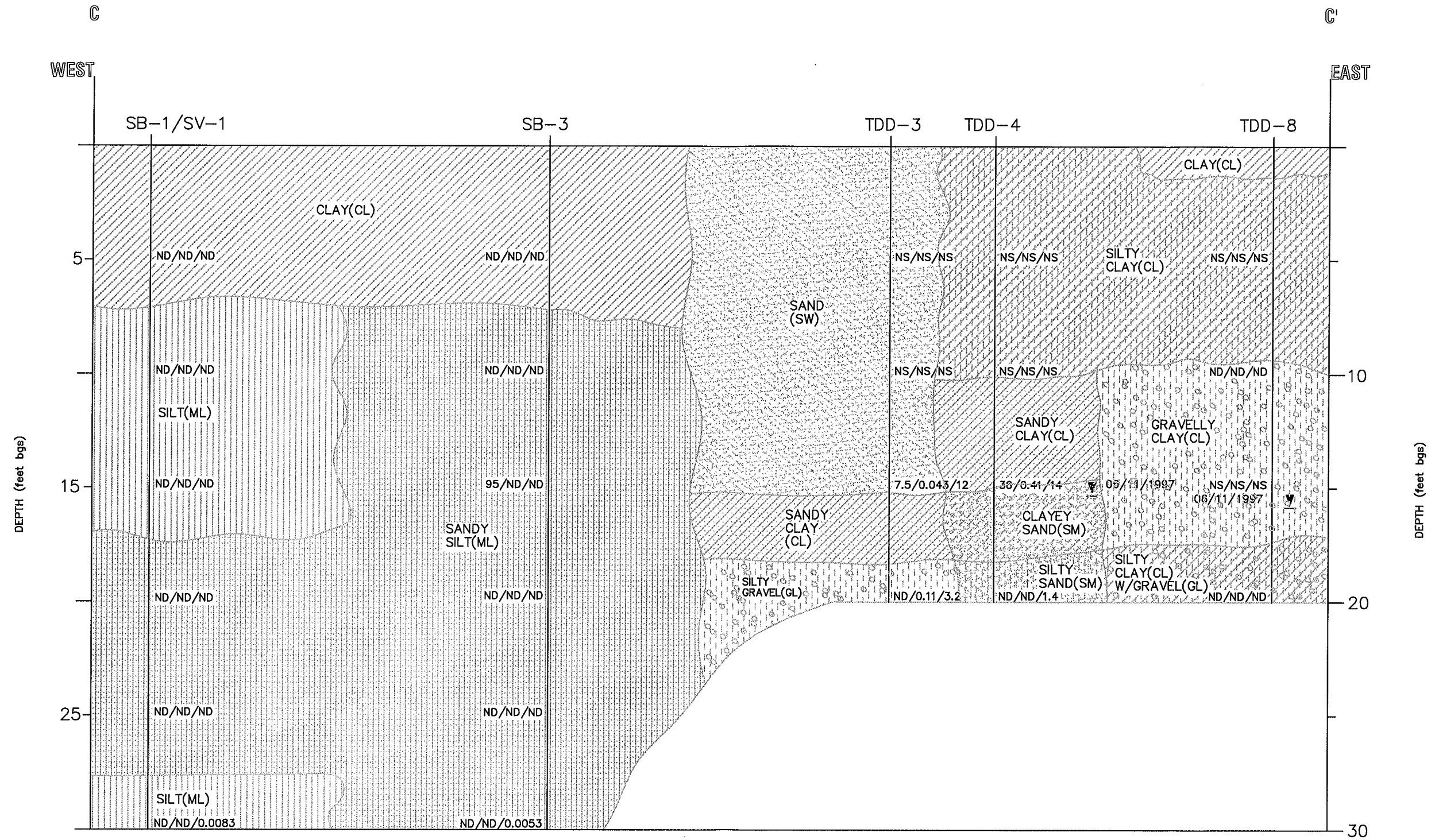
LEGEND

- ▼ - WATER LEVEL AT TIME OF DRILLING (DATE)
- ▽ - WATER LEVEL MOST RECENT (DATE)
- ND/ND/ND - TPHg/BENZENE/MTBE CONCENTRATIONS in mg/Kg
- ND - NOT DETECTED ABOVE LABORATORY REPORTING LIMITS
- NS - NOT SAMPLED
- 100 - - TPHg SOIL CONTOUR in mg/L

GHC: 1687 DATE: 06/13/11		GEOHYDROLOGIC CONSULTANTS, INC. PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com	FIGURE 3B GEOLOGIC CROSS-SECTION B-B' THRIFTY SERVICE STATION #063 6125 Telegraph Avenue Oakland, CA
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VIEW NORTH



HORIZONTAL 1"=20'  
VERTICAL 1"=5'



LEGEND

- ▼ - WATER LEVEL AT TIME OF DRILLING (DATE)
- ∇ - MOST RECENT WATER LEVEL (DATE)
- ND/ND/ND - TPHg/BENZENE/MTBE CONCENTRATIONS in mg/Kg
- ND - NOT DETECTED ABOVE LABORATORY REPORTING LIMITS
- NS - NOT SAMPLED

GHC: 1687

DATE: 06/13/11

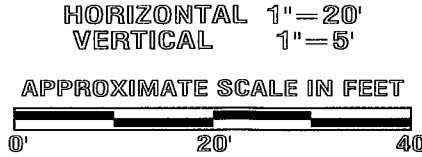
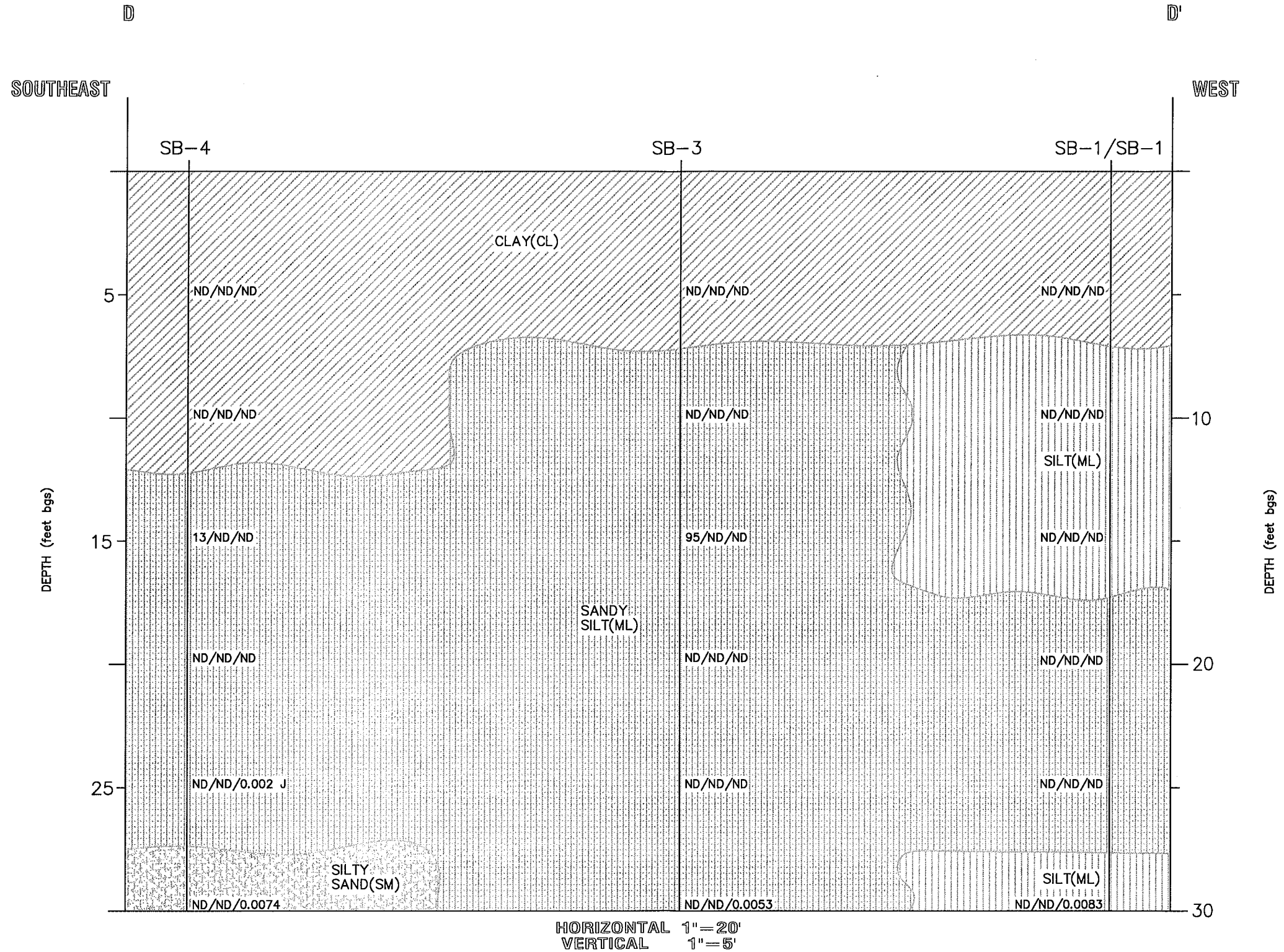


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FIGURE 3C  
GEOLOGIC CROSS-SECTION C-C'  
THRIFTY SERVICE STATION #063  
6125 Telegraph Avenue  
Oakland, CA

VIEW SOUTHWEST



LEGEND

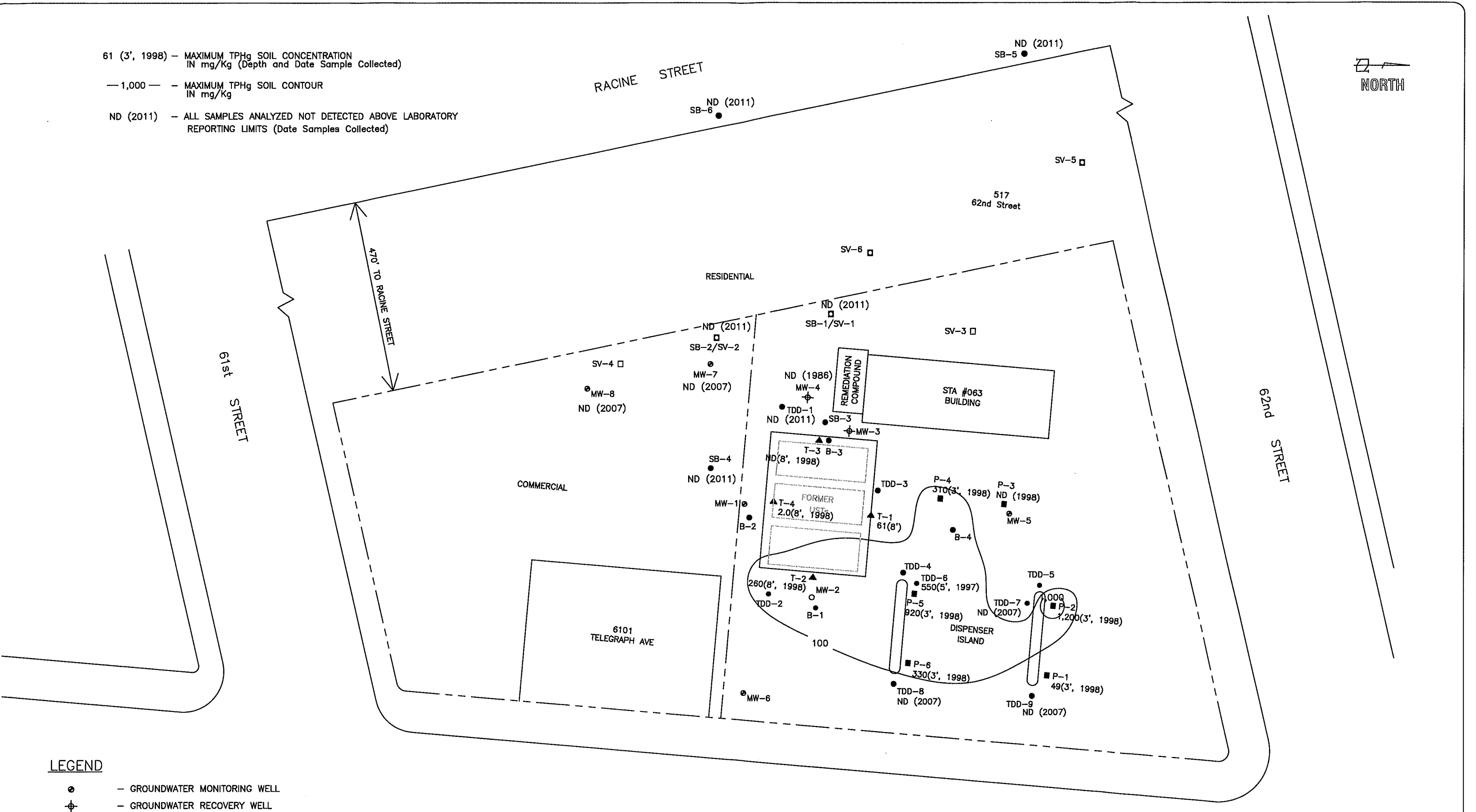
- WATER LEVEL AT TIME OF DRILLING (DATE)
- WATER LEVEL MOST RECENT (DATE)
- ND/ND/ND - TPHg/BENZENE/MTBE CONCENTRATIONS in mg/Kg
- ND - NOT DETECTED ABOVE LABORATORY REPORTING LIMITS
- NS - NOT SAMPLED
- 100 - - TPHg SOIL CONTOUR in mg/L

GHC: 1687 DATE: 06/13/11		GEOHYDROLOGIC CONSULTANTS, INC. PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com	FIGURE 3D GEOLOGIC CROSS-SECTION D-D' THRIFTY SERVICE STATION #063 6125 Telegraph Avenue Oakland, CA
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61 (3', 1998) - MAXIMUM TPHg SOIL CONCENTRATION  
IN mg/Kg (Depth and Date Sample Collected)

— 1,000 — - MAXIMUM TPHg SOIL CONTOUR  
IN mg/Kg

ND (2011) - ALL SAMPLES ANALYZED NOT DETECTED ABOVE LABORATORY  
REPORTING LIMITS (Date Samples Collected)



**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL



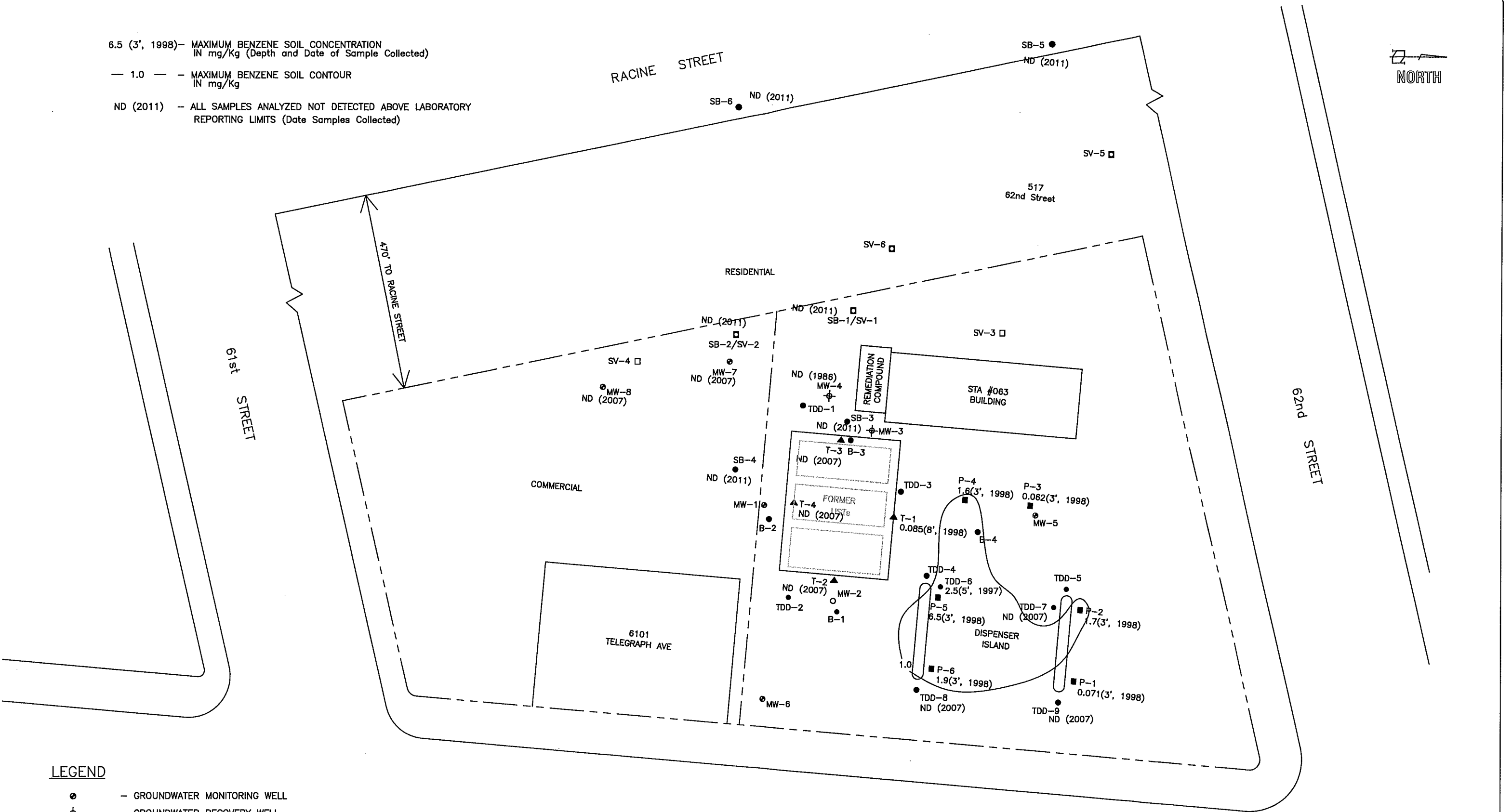
Post-Remediation (0-10 feet below ground surface)

GHC: 1687 DATE: 05/16/11		<b>GEOHYDROLOGIC CONSULTANTS, INC.</b> PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com	<b>FIGURE 4A</b> DISTRIBUTION of TPHg in SOIL THRIFTY SERVICE STATION #063 6125 Telegraph Avenue Oakland, CA
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6.5 (3', 1998) - MAXIMUM BENZENE SOIL CONCENTRATION IN mg/Kg (Depth and Date of Sample Collected)

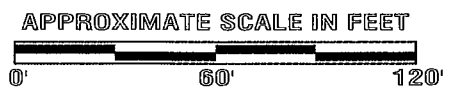
— 1.0 — - MAXIMUM BENZENE SOIL CONTOUR IN mg/Kg

ND (2011) - ALL SAMPLES ANALYZED NOT DETECTED ABOVE LABORATORY REPORTING LIMITS (Date Samples Collected)



**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL



Post-Remediation (0-10 feet below ground surface)

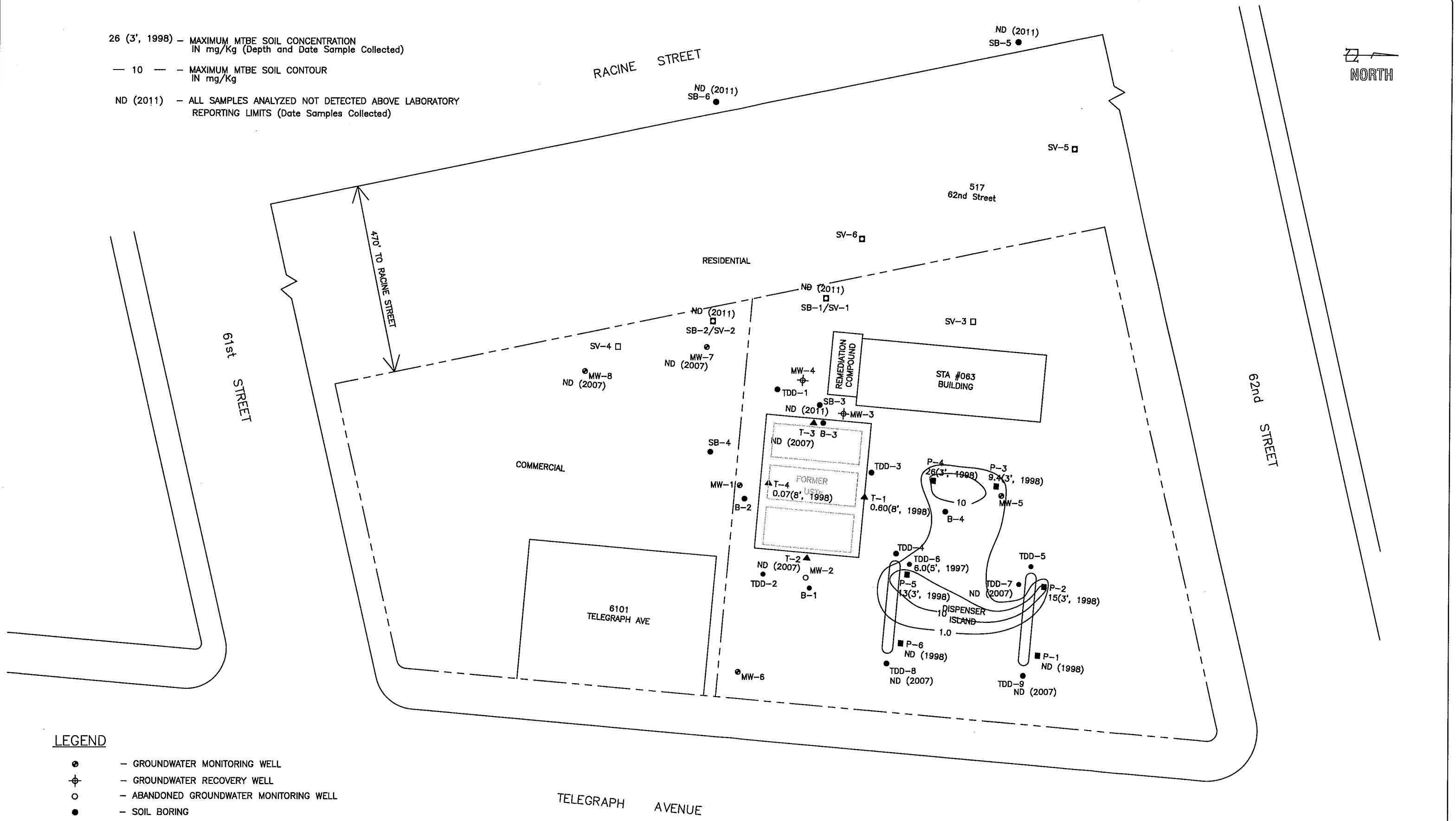
GHC: 1687 DATE: 05/16/11		<b>GEOHYDROLOGIC CONSULTANTS, INC.</b> PO Box 2234 Huntington Beach, CA 92647 <a href="http://www.geohydrologic.com">www.geohydrologic.com</a>	<b>FIGURE 4B</b> DISTRIBUTION of BENZENE in SOIL THRIFTY SERVICE STATION #063 6125 Telegraph Avenue Oakland, CA
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26 (3', 1998) - MAXIMUM MTBE SOIL CONCENTRATION  
IN mg/Kg (Depth and Date Sample Collected)

— 10 — - MAXIMUM MTBE SOIL CONTOUR  
IN mg/Kg

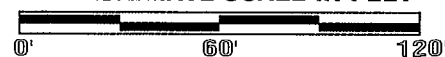
ND (2011) - ALL SAMPLES ANALYZED NOT DETECTED ABOVE LABORATORY  
REPORTING LIMITS (Date Samples Collected)



**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL

APPROXIMATE SCALE IN FEET



Post-Remediation (0-10 feet below ground surface)

GHC: 1671

DATE: 05/16/11



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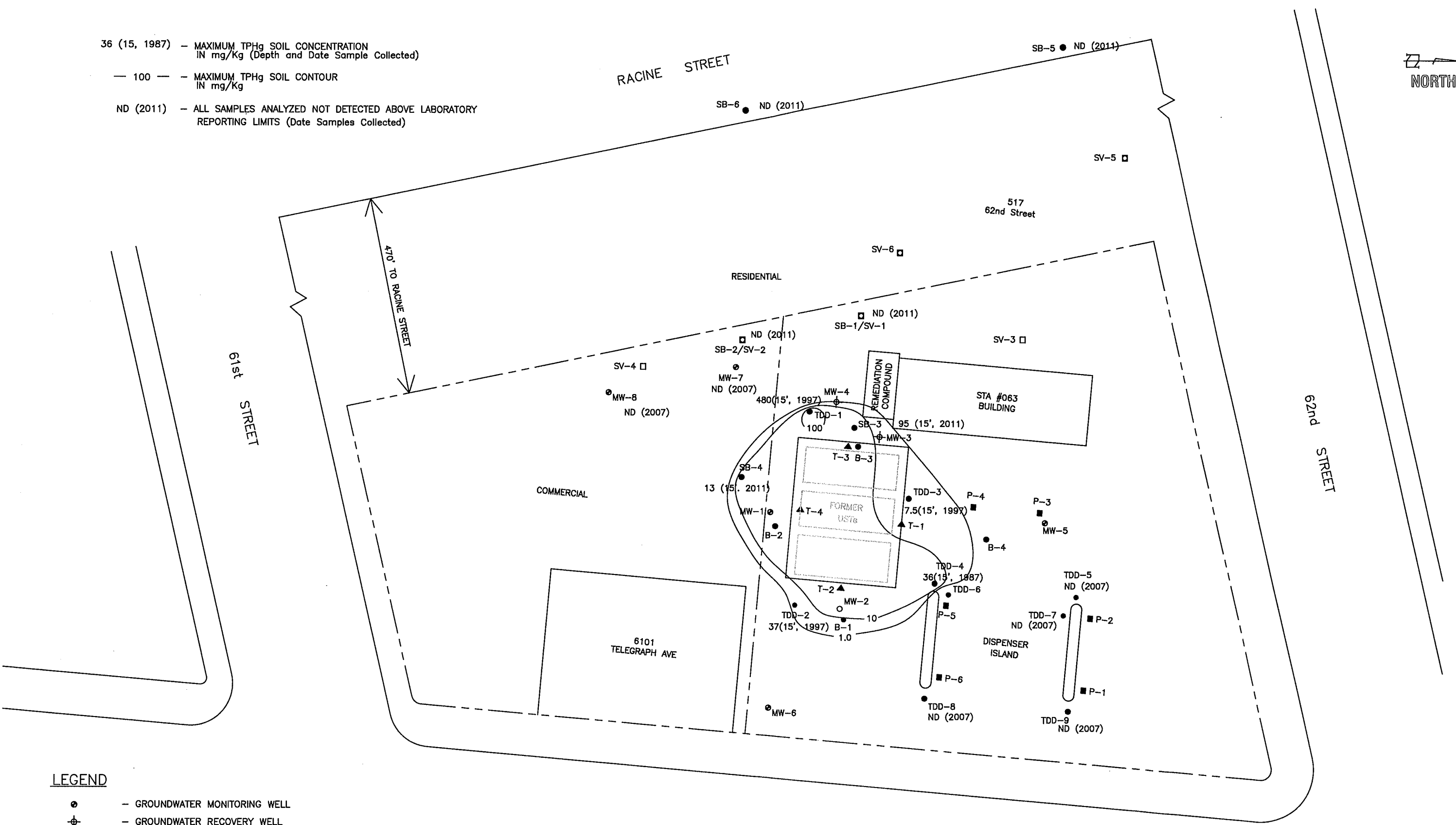
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**FIGURE 4C**  
DISTRIBUTION of MTBE in SOIL  
THRIFTY SERVICE STATION #063  
6125 Telegraph Avenue  
Oakland, CA

36 (15, 1987) - MAXIMUM TPHg SOIL CONCENTRATION  
IN mg/Kg (Depth and Date Sample Collected)

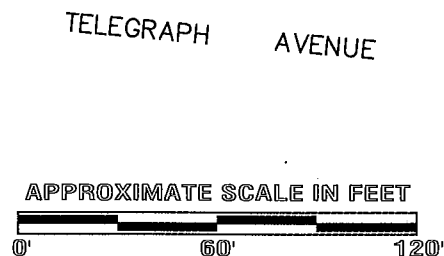
— 100 — - MAXIMUM TPHg SOIL CONTOUR  
IN mg/Kg

ND (2011) - ALL SAMPLES ANALYZED NOT DETECTED ABOVE LABORATORY  
REPORTING LIMITS (Date Samples Collected)



**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL



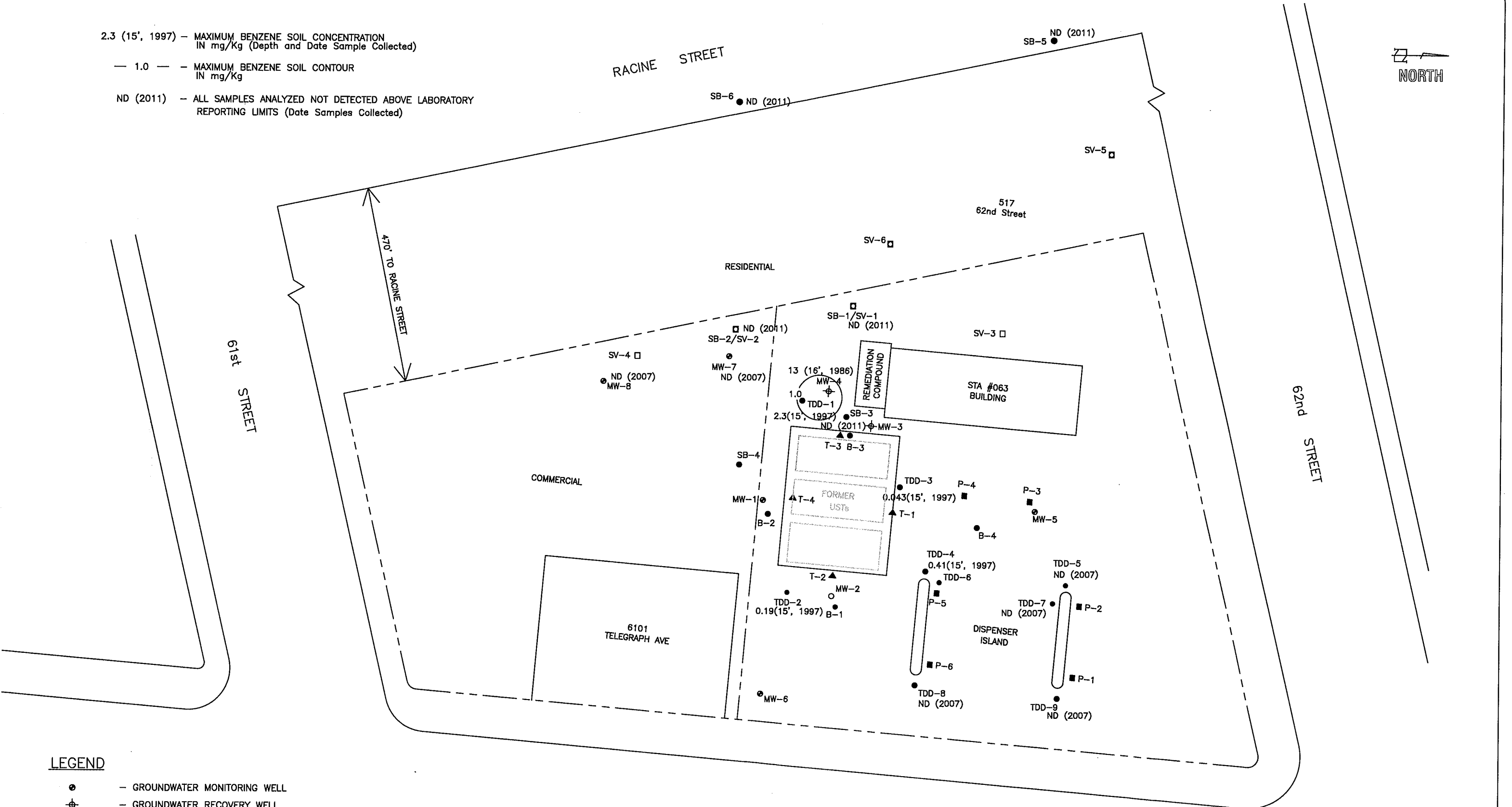
Post-Remediation (11-30' feet below ground surface)

GHC: 1687 DATE: 05/16/11		<b>GEOHYDROLOGIC CONSULTANTS, INC.</b> PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com	<b>FIGURE 4D</b> DISTRIBUTION of TPHg in SOIL THRIFTY SERVICE STATION #063 6125 Telegraph Avenue Oakland, CA
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2.3 (15', 1997) - MAXIMUM BENZENE SOIL CONCENTRATION  
IN mg/Kg (Depth and Date Sample Collected)

— 1.0 — - MAXIMUM BENZENE SOIL CONTOUR  
IN mg/Kg

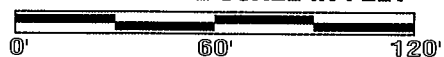
ND (2011) - ALL SAMPLES ANALYZED NOT DETECTED ABOVE LABORATORY  
REPORTING LIMITS (Date Samples Collected)



**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL

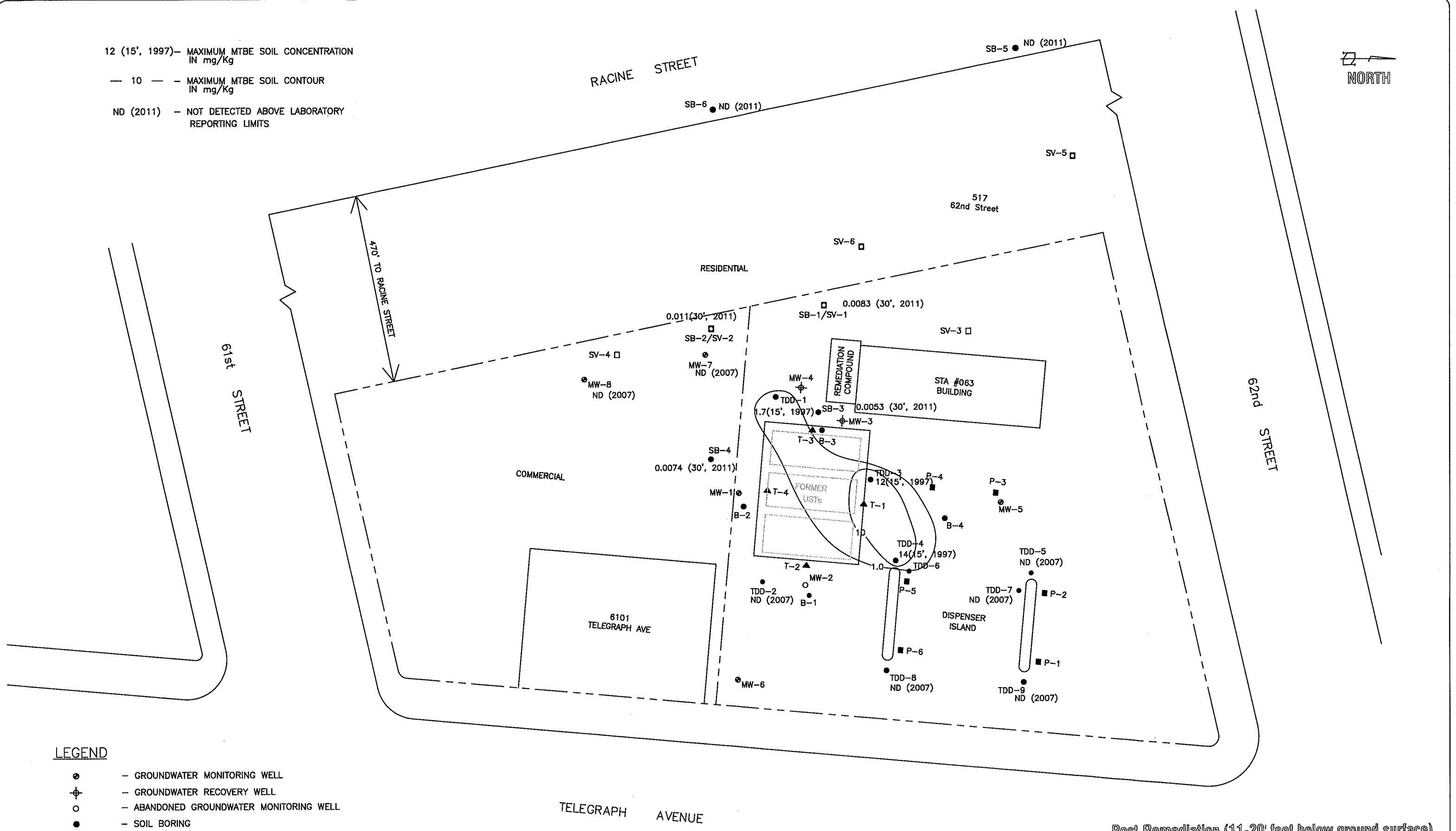
APPROXIMATE SCALE IN FEET



Post-Remediation (11-20' feet below ground surface)

<p>GHC: 1687 DATE: 05/16/11</p>		<p><b>GEOHYDROLOGIC CONSULTANTS, INC.</b> PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com</p>	<p><b>FIGURE 4E</b> DISTRIBUTION of BENZENE in SOIL THRIFTY SERVICE STATION #063 6125 Telegraph Avenue Oakland, CA</p>
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12 (15', 1997) - MAXIMUM MTBE SOIL CONCENTRATION IN mg/Kg  
 - 10 - MAXIMUM MTBE SOIL CONTOUR IN mg/Kg  
 ND (2011) - NOT DETECTED ABOVE LABORATORY REPORTING LIMITS



**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL



Post-Remediation (11-20' feet below ground surface)

GHC: 1687 DATE: 05/16/11		<b>GEOHYDROLOGIC CONSULTANTS, INC.</b> PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com	<b>FIGURE 4F</b> <b>DISTRIBUTION of MTBE in SOIL</b> <b>THRIFTY SERVICE STATION #063</b> 6125 Telegraph Avenue Oakland, CA
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RESIDENTIAL

62ND STREET

RESIDENTIAL

REMEDIA  
TION  
COMPOUND

STA #063  
BLDG

135-52

MW-4  
135-23

B

MW-5  
135-53

B-4

DISPENSER  
ISLAND

MW-1  
135-51

134-77  
MW-7

6101  
TELEGRAPH AVE.

134-95  
MW-8  
COMMERCIAL

MW-2  
135-26

MW-6

RESIDENTIAL

61ST STREET

TELEGRAPH AVENUE

EXPLANATION

- ⊕ GROUNDWATER MONITORING WELL
- ⊕ GROUNDWATER RECOVERY WELL
- ⊕ ABANDONED GROUNDWATER MONITORING WELL
- ⊕ SOIL BORING

0 30  
APPROXIMATE SCALE  
IN FEET

Groundwater gauging conducted on 11-10-10  
Elevations reported in feet above mean sea level  
\* = not used to determine groundwater contour lines

Groundwater Elevation Contour Map

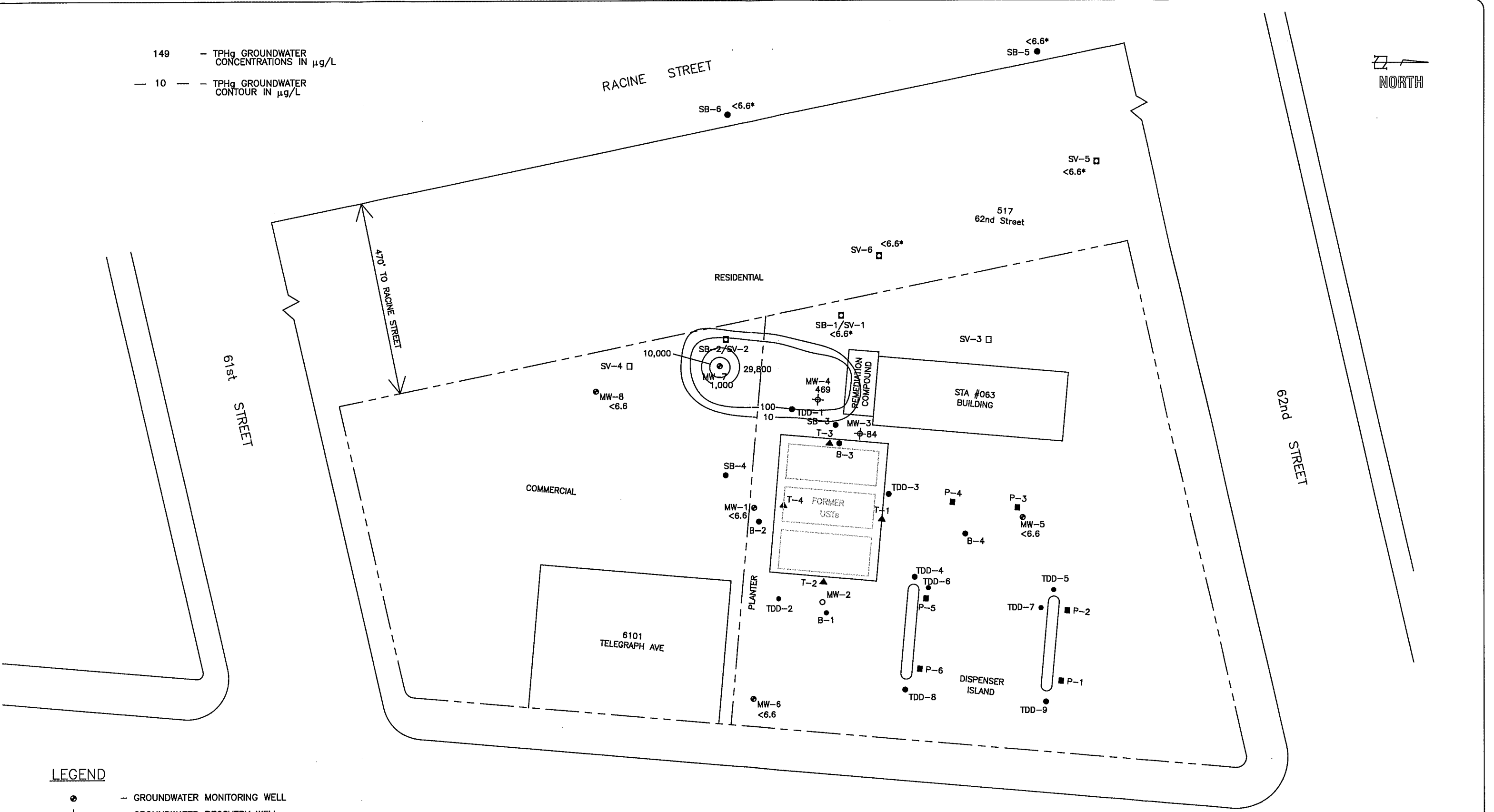
Thrifty Station No. 063  
6126 Telegraph Avenue  
Oakland, California

FIGURE: 5  
SHEET: of  
REVISION NO: 0  
DATE: 03/07

PROJECT NO.



149 - TPHg GROUNDWATER CONCENTRATIONS IN  $\mu\text{g/L}$   
 - 10 - - TPHg GROUNDWATER CONTOUR IN  $\mu\text{g/L}$



**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL

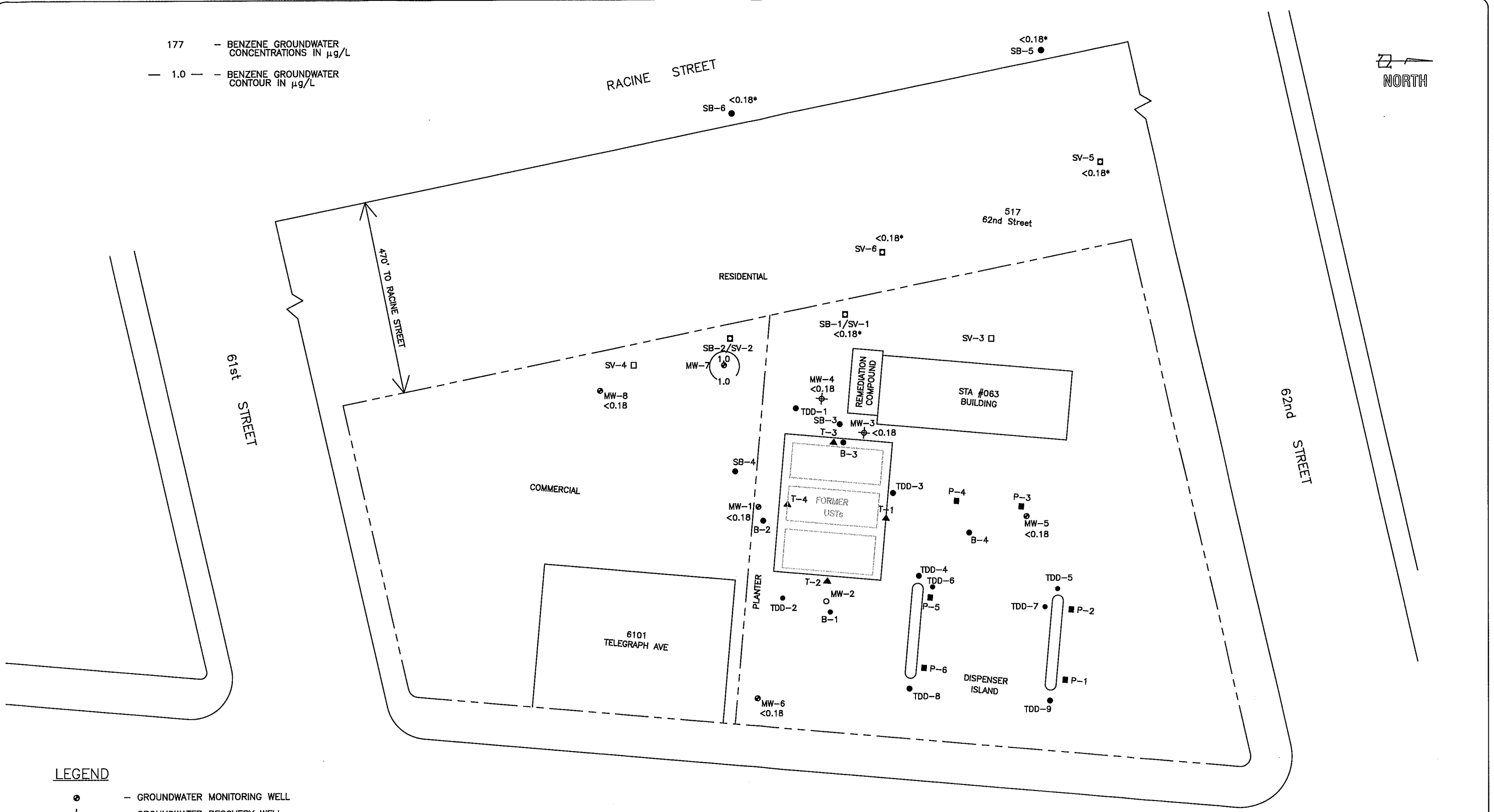


GHC: 1687  
 DATE: 05/16/11

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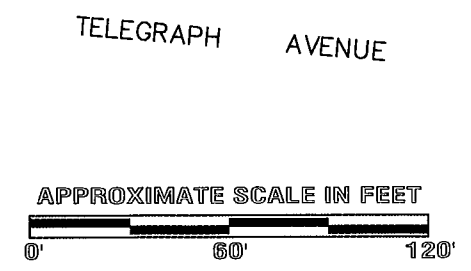
**FIGURE 6A**  
 DISTRIBUTION of TPHg in GROUNDWATER  
 THRIFTY SERVICE STATION #063  
 6125 Telegraph Avenue  
 Oakland, CA

177 - BENZENE GROUNDWATER CONCENTRATIONS IN  $\mu\text{g/L}$   
 - 1.0 - - BENZENE GROUNDWATER CONTOUR IN  $\mu\text{g/L}$



**LEGEND**

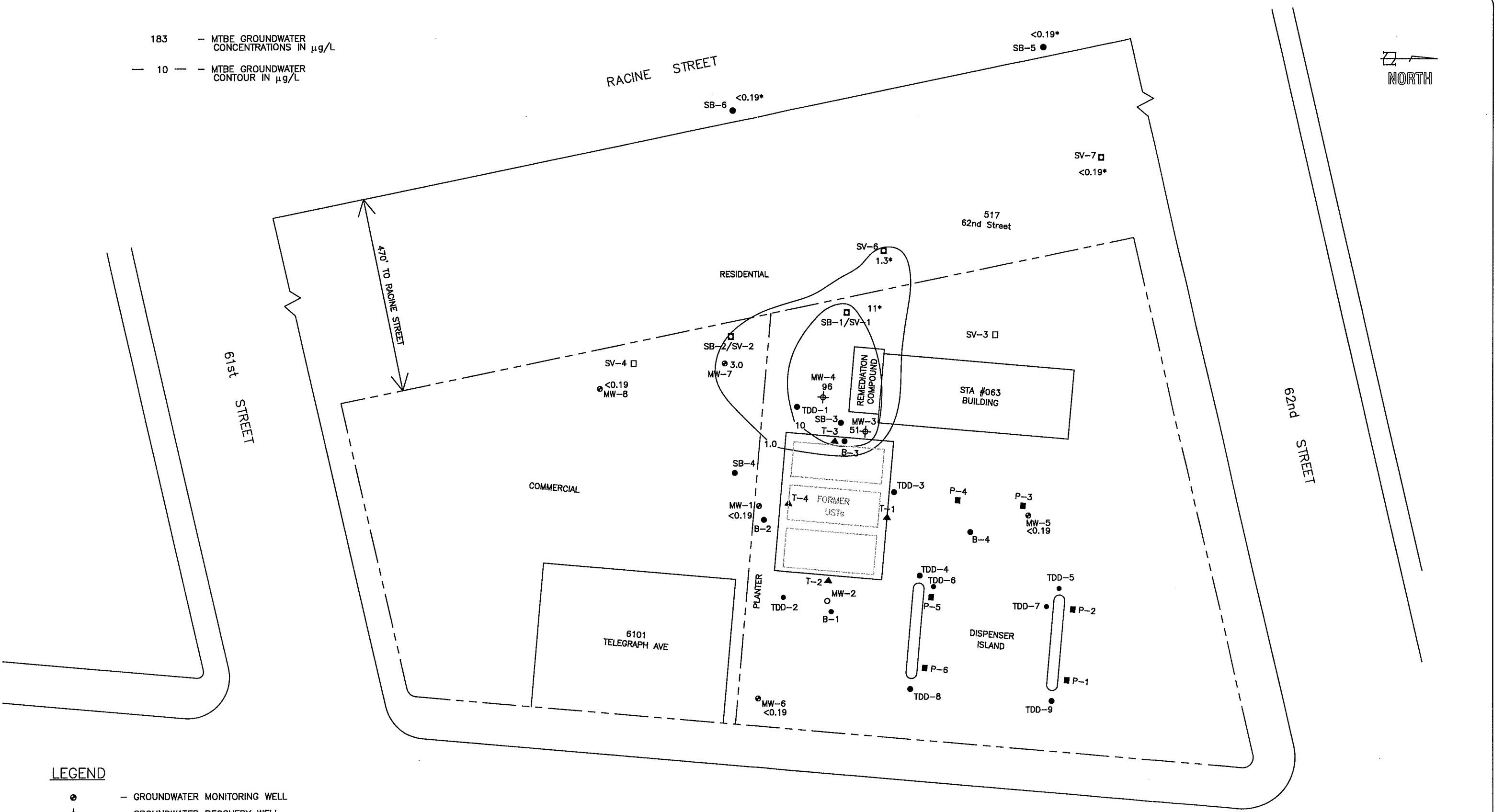
- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL



GROUNDWATER SAMPLES COLLECTED November 10, 2010 and April 19, 2011\*

GHC: 1687 DATE: 05/16/11		<b>GEOHYDROLOGIC CONSULTANTS, INC.</b> PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com	<b>FIGURE 6B</b> <b>DISTRIBUTION of BENZENE in GROUNDWATER</b> <b>THRIFTY SERVICE STATION #063</b> 6125 Telegraph Avenue Oakland, CA
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183 - MTBE GROUNDWATER CONCENTRATIONS IN  $\mu\text{g/L}$   
 - 10 - MTBE GROUNDWATER CONTOUR IN  $\mu\text{g/L}$



**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL



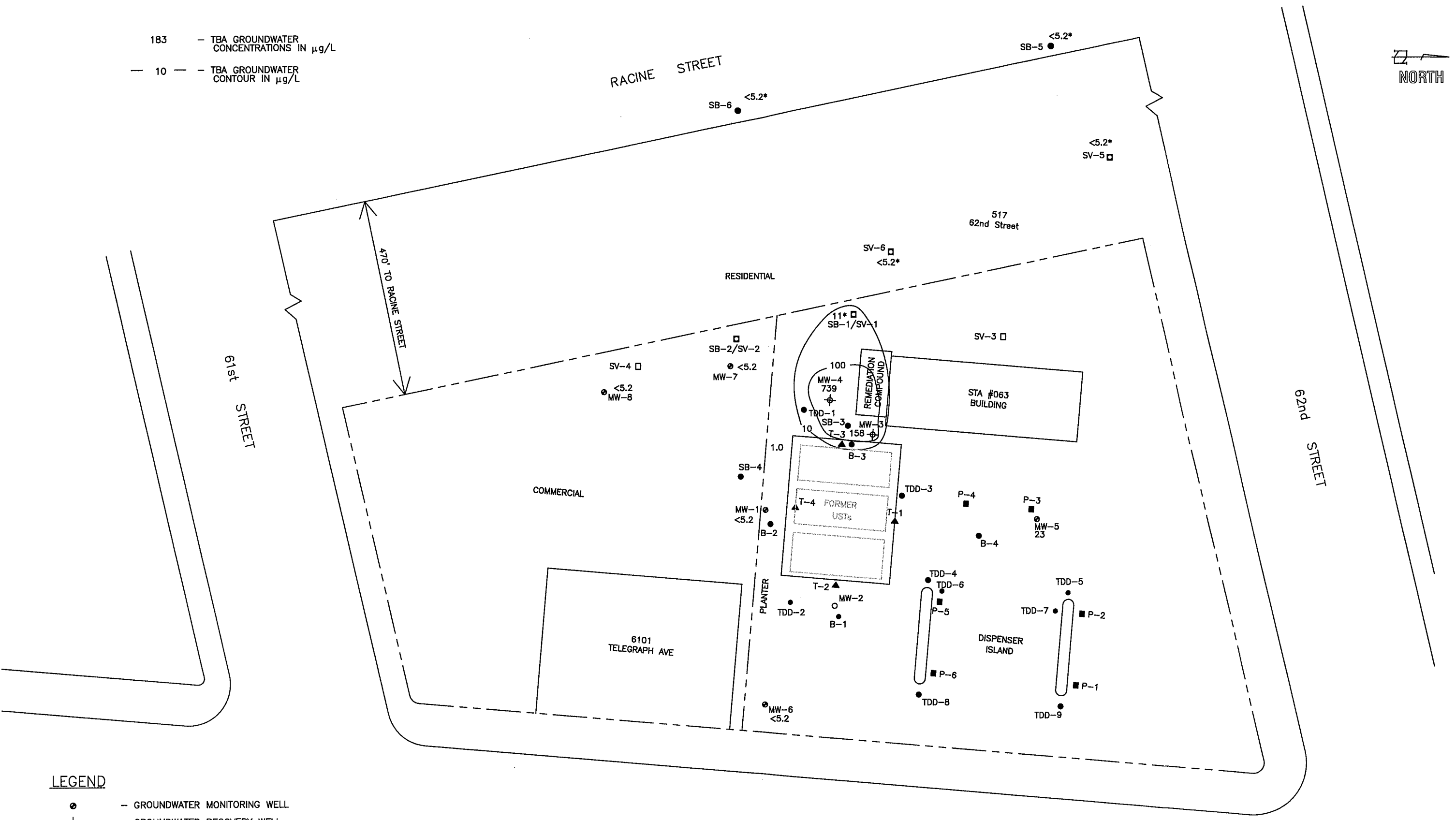
GROUNDWATER SAMPLES COLLECTED November 10, 2010 and April 19, 2011\*

GHC: 1687 DATE: 05/16/11		<b>GEOHYDROLOGIC CONSULTANTS, INC.</b> PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com	<b>FIGURE 6C</b> <b>DISTRIBUTION of MTBE in GROUNDWATER</b> <b>THRIFTY SERVICE STATION #063</b> 6125 Telegraph Avenue Oakland, CA



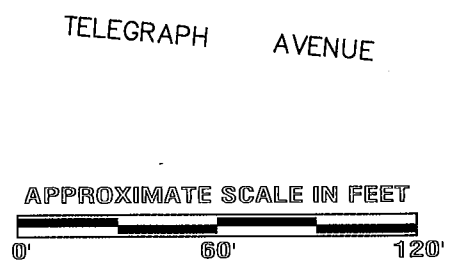


183 - TBA GROUNDWATER CONCENTRATIONS IN  $\mu\text{g/L}$   
 10 - TBA GROUNDWATER CONTOUR IN  $\mu\text{g/L}$



**LEGEND**

- - GROUNDWATER MONITORING WELL
- ⊕ - GROUNDWATER RECOVERY WELL
- - ABANDONED GROUNDWATER MONITORING WELL
- - SOIL BORING
- ▲ - TANK BOTTOM SAMPLE POINT
- - PIPING SAMPLE POINT
- - SOIL BORING/SOIL VAPOR PROBE WELL
- - VAPOR PROBE WELL



GROUNDWATER SAMPLES COLLECTED November 10, 2010 and April 19, 2011\*

GHC: 1687 DATE: 05/16/11		GEOHYDROLOGIC CONSULTANTS, INC. PO Box 2234 Huntington Beach, CA 92647 www.geohydrologic.com	<b>FIGURE 6D</b> DISTRIBUTION of TBA in GROUNDWATER THRIFTY SERVICE STATION #063 6125 Telegraph Avenue Oakland, CA

# APPENDICES

**APPENDIX A**

**Current Boring Logs**

Boring/Well Number: SB-1  
 Project: TOC 063  
 Location: 6125 Telegraph Road, Oakland, Ca.  
 Date Drilled: 04/19/11  
 Surface Elevation: Not surveyed  
 Screen: DIA. NA Length: NA  
 Casing: DIA. NA Length: NA  
 Drilling Company: Pencore Drilling for Test America  
 Driller: Yakova

Page: 1 of 1  
 Owner: Thrifty Oil Co.  
 Project Number: 1687  
 Total Depth of Hole: 30 feet  
 Depth to Water: NA  
 Slot Size: NA  
 Type: Limited Access Rig, 7822DT  
 Drill Method: Direct Push  
 Log By: Daniel Bergin, Richard Vogl

	Depth (ft)	Sample Interval	Blows/ 6" N/A	Graphic Log	Soil Description	PID	Sample ID
Concrete	0 - 1				Clay (CL): Dark Yellowish Brown (10yr, 3/4), slightly moist, clay, trace fine and medium sand, moderate plasticity. Organic Clay, Very Dark Grey (10yr, 3/1), at 3-4 feet bgs		
2.25" Borehole	1 - 30						
Portland Grout	3 - 5				" (10yr, 4/4), no organics	4.9	SB1-5
	5 - 10				Silt (ML): Dark Brown (10yr, 3/3), slightly moist, silt, trace very fine to fine sand, trace clay, moderate plasticity	5.7	SB1-10
	10 - 15				Silt (ML): Olive Grey (5Y, 4,2), slightly moist, silt, trace fine sand, moderately plastic (no groundwater sample the hole was left open for 20 minutes at a depth of 15-18 feet)	588.0	SB1-15
	15 - 20				Sandy Silt (ML): Dark Brown (10yr, 3/3), slightly moist, silt, 15-30% fine to medium sand, trace poorly rounded gravel, moderate plasticity	14.9	SB1-20
Portland Grout	20 - 25				" Brown (10yr, 4/3), slightly moist, silt, 15-30% very fine to fine sand, trace medium and coarse grain sand, moderate plasticity,	7.5	SB1-25
	25 - 30				Silt (ML): Yellowish Brown (10yr, 5/4), slightly moist, silt, trace clay, very low plasticity	9.7	SB1-30

Boring/Well Number: SB-2  
 Project: TOC 063  
 Location: 6101 Telegraph Road, Oakland, Ca.  
 Date Drilled: 04/18/11  
 Surface Elevation: Not surveyed  
 Screen: DIA. NA Length: NA  
 Casing: DIA. NA Length: NA  
 Drilling Company: Test America  
 Driller: Mike

Page: 1 of 1  
 Owner: Thrifty Oil Co.  
 Project Number: 1687  
 Total Depth of Hole: 30 feet  
 Depth to Water: NA  
 Slot Size: NA  
 Type: CPT Rig  
 Drill Method: Direct Push  
 Log By: Daniel Bergin

	Depth (ft)	Sample Interval	Blows/ 6" N/A	Graphic Log	Soil Description	PID	Sample ID
Concrete	0 - 1						
1.125" Borehole	1 - 30						
Portland Grout	3 - 5				Clay (CL): Brown (10yr, 5/3), slightly moist, clay, moderate plasticity	3.9	SB2-5
	5 - 10				Clay (CL): Dark Yellowish Brown (10yr, 4/4), slightly moist, trace medium to coarse sand, trace fine poorly rounded gravel, moderate plasticity	5.1	SB2-10
	10 - 15				Sandy Silt (ML): Very Dark Grayish Brown (10yr, 3/2), slightly moist, silt, 15-30% very fine to fine sand, trace medium and coarse sand, trace fine semi-angular to poorly rounded gravel, moderate plasticity	454	SB2-15
Portland Grout	15 - 20				Sandy Silt (ML): Dark Brown (10yr, 3/3), slightly moist, silt, trace very fine to medium sand, trace coarse sand, moderate plasticity	10.5	SB2-20
	20 - 25				Clay (CL): Dark Yellow (10yr, 4/6), slightly moist, clay, moderate plasticity	14.7	SB2-25
	25 - 30				Sandy Silt (ML): Yellowish Brown (10yr, 5/6), moist, silt, 20-40% very fine to fine sand, moderate plasticity	8.2	SB2-30

Boring/Well Number: SB-3  
 Project: TOC 063  
 Location: 6125 Telegraph Road, Oakland, Ca.  
 Date Drilled: 04/18/11  
 Surface Elevation: Not surveyed  
 Screen: DIA. NA Length: NA  
 Casing: DIA. NA Length: NA  
 Drilling Company: Test America  
 Driller: Mike

Page: 1 of 1  
 Owner: Thrifty Oil Co.  
 Project Number: 1687  
 Total Depth of Hole: 30 feet  
 Depth to Water: 26 ft  
 Slot Size: NA  
 Type: CPT Rig  
 Drill Method: Direct Push  
 Log By: Daniel Bergin

	Depth (ft)	Sample Interval	Blows/ 6" N/A	Graphic Log	Soil Description	PID	Sample ID
Concrete	0				Clay (CL): Dark Brown (10yr, 3/3), slightly moist, clay, trace fine to coarse sand, trace fine semi-angular gravel, moderate plasticity (layer of organic clay)		
1.125" Borehole							
Portland Grout	5				Clay (CL): Brown (10yr, 4/3), slightly moist, clay, trace fine to coarse sand, trace semi-angular gravel, moderate plasticity	1.1	SB3-5
	10				Sandy Silt (ML): Very Dark Grayish Brown (10yr, 3/2), slightly moist, silt, 15-30% very fine to medium sand, trace coarse sand, trace fine semi-angular gravel, moderate plasticity	2.7	SB3-10
	15				" " " " " "	9999/over	SB3-15
	20				Sandy Silt (ML): Dark Yellowish Brown (10yr, 3/4), slightly moist, silt, 5-15% very fine to medium sand, trace clay, trace coarse, moderate plasticity, 21 feet- slightly moist, 15-40% very fine to medium sand, trace coarse sand, trace fine poorly rounded gravel, moderate plasticity	1.8	SB3-20
Portland Grout	25				" " " " " "	7.9	SB3-25
	30				Wet, 30-40% very fine to fine sand, trace medium and coarse sand, low to moderate plasticity		
					Sandy Silt (ML): Dark Yellowish Brown (10yr, 3/6), slightly moist, silt, 20-40% very fine to medium sand, trace coarse sand, moderate plasticity	23.8	SB3-30

Boring/Well Number: SB-4  
 Project: TOC 083  
 Location: 8101 Telegraph Road, Oakland, Ca.  
 Date Drilled: 04/18/11  
 Surface Elevation: Not surveyed  
 Screen: DIA. NA Length: NA  
 Casing: DIA. NA Length: NA  
 Drilling Company: Test America  
 Driller: Mike

Page: 1 of 1  
 Owner: Thrifty Oil Co.  
 Project Number: 1887  
 Total Depth of Hole: 30 feet  
 Depth to Water: NA  
 Slot Size: NA  
 Type: CVT Rig  
 Drill Method: Direct Push  
 Log By: Daniel Bergin

	Depth (ft)	Sample Interval	Blows/ 6" N/A	Graphic Log	Soil Description	PID	Sample ID
Concrete							
1.125" Borehole							
Portland Grout							
	5				Clay (CL): Yellowish Brown (10yr, 5/4), slightly moist, clay, trace fine to coarse sand, trace fine poorly rounded and flat semi-angular gravel, moderate plasticity	4.5	SB4-5
	10				Clay (CL): Gray (10yr, 5/1), slightly moist, clay, trace fine to coarse sand, moderate plasticity	5.2	SB4-10
	15				Sandy Silt (ML): Very Dark Grayish Brown (10yr, 3/2), slightly moist, silt, 10-20% very fine to medium sand, trace coarse sand, trace fine poorly rounded gravel, moderate plasticity	362	SB4-15
Portland Grout	20				" " Dark Yellowish Brown (10yr, 3/6), slightly moist, 30-40% very fine to fine sand, moderate plasticity	7.5	SB4-20
	25				" " (10yr, 3/4), 30-40% very fine to fine sand, trace medium and coarse sand	4.9	SB4-25
	30				Silty Sand (SM): Dark Yellowish Brown (10yr, 4/6), slightly moist, very fine to medium sand, 15-25% silt, trace coarse sand	13.1	SB4-30

Boring/Well Number: SB-5  
 Project: TOC 063  
 Location: Racine Street, Oakland, Ca.  
 Date Drilled: 04/19/11  
 Surface Elevation: Not surveyed  
 Screen: DIA. NA Length: NA  
 Casing: DIA. NA Length: NA  
 Drilling Company: Pencore Drilling for Test America  
 Driller: Yakova

Page: 1 of 1  
 Owner: Thrifty Oil Co.  
 Project Number: 1687  
 Total Depth of Hole: 30 feet  
 Depth to Water: 27 ft  
 Slot Size: NA  
 Type: Limited Access Rig, 7822DT  
 Drill Method: Direct Push  
 Log By: Daniel Bergin, Richard Vogl

Depth (ft)	Sample Interval	Blows/ 6" N/A	Graphic Log	Soil Description	PID	Sample ID
0 - 30				Clay (CL): Dark Yellowish Brown (10yr, 4/4), slightly moist, clay, trace fine sand, trace fine angular gravel, moderate plasticity (asphalt was underlain by cobbles) (note-fine angular gravel may be from the cobbles)		
5				No gravel	3.5	SB5-5
10				(10yr, 4/6), trace very fine to medium sand, low to moderate plasticity	4.8	SB5-10
15				No medium sand, moderate plasticity	5.4	SB5-15
20				Silt (ML): Dark Yellowish Brown (10yr, 4/6), moist, silt, trace fine sand, moderate plasticity	4.7	SB5-20
25				Moist, silt, trace fine to coarse sand, trace fine poorly rounded gravel, moderate plasticity	6.6	SB5-25
30				(10yr, 4/4), wet, trace fine sand	9.1	SB5-30
						Water Sample 12:30

Concrete

2.25" Borehole

Portland Grout

Portland Grout





Boring/Well Number: SB-6  
 Project: TOC 083  
 Location: Racine Street, Oakland, Ca.  
 Date Drilled: 04/19/11  
 Surface Elevation: Not surveyed  
 Screen: DIA. NA Length: NA  
 Casing: DIA. NA Length: NA  
 Drilling Company: Pencore Drilling for Test America  
 Driller: Yakova

Page: 1 of 1  
 Owner: Thrifty Oil Co.  
 Project Number: 1687  
 Total Depth of Hole: 30 feet  
 Depth to Water: 27 ft  
 Slot Size: NA  
 Type: Limited Access Rig, 7822DT  
 Drill Method: Direct Push  
 Log By: Daniel Berglin, Richard Vogl

	Depth (ft)	Sample Interval	Blows/ 6" N/A	Graphic Log	Soil Description	PID	Sample ID
Concrete					Clay (CL): Very Dark Greenish Grey (Gley 1, 4/10y, 4/1), slightly moist, clay, trace fine to coarse sand, low plasticity (asphalt was underlain by cobbles)		
2.25" Borehole							
Portland Grout					" " Very Dark Green (Gley 1 4/10Y (4/1)), moderate plasticity	4.2	SB6-5
	5						
					" " Brown (10yr, 3/6), trace very fine to coarse sand, trace rounded gravel, moderate plasticity	7.3	SB6-10
	10						
					Silt (ML): Dark Yellowish Brown (10 YR, 3/6), silt, slightly moist, trace clay, trace fine sand, moderate plasticity	7.1	SB6-15
	15						
					Yellowish Brown (10 YR 3/4)	10.8	SB6-20
Portland Grout							
	20						
					Dark Yellowish Brown (10 YR 4/6), moist, trace fine and medium sand, high plasticity	10.2	SB6-25
	25						
					Sandy Silt (ML): Dark Yellowish Brown (10 YR 3/6), moist, 20-40% very fine to medium sand, trace coarse sand, trace fine poorly rounded gravel, nonplastic	10.1	SB6-30
	30						Water Sample 14:30

Boring/Well Number: SV-5  
 Project: TOC 063  
 Location: 517 62nd Street, Oakland, Ca.  
 Date Drilled: 04/18/11  
 Surface Elevation: Not surveyed  
 Screen: DIA. NA Length: NA  
 Casing: DIA. NA Length: NA  
 Drilling Company: Test America  
 Driller: NA

Page: 1 of 1  
 Owner: Thrifty Oil Co.  
 Project Number: 1687  
 Total Depth of Hole: 11 feet  
 Depth to Water: 10.5 ft  
 Slot Size: NA  
 Type: NA  
 Drill Method: Hand Auger  
 Log By: Richard Vogl

	Depth (ft)	Sample Interval	Blows/ 6" N/A	Graphic Log	Soil Description	PID	Sample ID
	<p>5</p> <p>10</p>				<p>Organic Clay (CL): Black, low to medium plasticity (high organic matter)</p> <p>Sandy Clay (CL): Brown to Gray Mottled, moist, little very fine to medium sand, trace gravel to 1/4 inch dia., low to moderate plasticity</p> <p>Saturated "</p>		<p>Water Sample 14:30</p>

Boring/Well Number: SV-6  
 Project: TOC 063  
 Location: 517 62nd Street, Oakland, Ca.  
 Date Drilled: 04/18/11  
 Surface Elevation: Not surveyed  
 Screen: DIA. NA Length: NA  
 Casing: DIA. NA Length: NA  
 Drilling Company: Test America  
 Driller: NA

Page: 1 of 1  
 Owner: Thrifty Oil Co.  
 Project Number: 1687  
 Total Depth of Hole: 11 feet  
 Depth to Water: 9.5 ft  
 Slot Size: NA  
 Type: NA  
 Drill Method: Hand Auger  
 Log By: Richard Vogl

	Depth (ft)	Sample Interval	Blows/ 6" N/A	Graphic Log	Soil Description	PID	Sample ID
	<p>5</p> <p>10</p>		<p>N/A</p>		<p>Organic Clay (CL): Black, low to medium plasticity (high organic matter)</p> <p>Sandy Clay (CL): Brown to Gray Mottled, moist, little very fine to medium sand, trace gravel to 1/4 inch dia., low to moderate plasticity</p> <p>" " " "</p> <p>Saturated, water in boring to approximately 9.5 feet bgs.</p> <p>11:30 04/18/11 drilled with the rod and jackhammer, refusal at 5 feet, switched to hand auger</p>		<p>Water Sample 13:20</p>

**APPENDIX B**

**Alameda County Soil Boring Permits**

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 03/22/2011 By jamesy

Permit Numbers: W2011-0179  
Permits Valid from 03/28/2011 to 04/01/2011

Application Id: 1300819135780  
Site Location: 6101 Telegraph Ave, Oakland, CA  
Project Start Date: 03/28/2011  
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

City of Project Site:Oakland

Completion Date:04/01/2011

Applicant: Environ Strategy - Skip or Dane  
1 Technology Dr, Ste B-123, Irvine, CA 92618  
Property Owner: Thrifty Oil Co.  
13116 Imperial Hwy, Santa Fe Springs, CA 90670  
Client: \*\* same as Property Owner \*\*

Phone: 949-486-0884

Phone: 562-921-3581

Receipt Number: WR2011-0080 Total Due: \$265.00  
Payer Name : Earth Management Total Amount Paid: \$265.00  
Paid By: CHECK PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Geotechnical Study/CPT's - 2 Boreholes  
Driller: Test America - Lic #: 819548 - Method: other

Work Total: \$265.00

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2011-0179	03/22/2011	06/26/2011	2	6.00 in.	30.00 ft

### Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
5. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24

## **Alameda County Public Works Agency - Water Resources Well Permit**

hours prior to drilling.

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

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# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 03/22/2011 By jamesy**

**Permit Numbers: W2011-0180**  
**Permits Valid from 03/28/2011 to 04/01/2011**

**Application Id:** 1300818575164  
**Site Location:** 517 62nd St, Oakland, CA  
**Project Start Date:** 03/28/2011  
**Assigned Inspector:** Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

**City of Project Site:**Oakland  
**Completion Date:**04/01/2011

**Applicant:** Environ Strategy - Skip or Dane Dane  
1 Technology Dr, Ste. B-123, Irvine, CA 92618  
**Property Owner:** Thirfty Oil Co  
13116 Imperial Hwy, Santa Fe Springs, CA 90670  
**Client:** \*\* same as Property Owner \*\*

**Phone:** 949-486-0884  
**Phone:** 562-921-3581

	<b>Total Due:</b>	\$265.00
<b>Receipt Number: WR2011-0081</b>	<b>Total Amount Paid:</b>	\$265.00
<b>Payer Name : Earth Management</b>	<b>Paid By: CHECK</b>	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Borehole(s) for Investigation-Geotechnical Study/CPT's - 2 Boreholes  
Driller: Test America - Lic #: 819548 - Method: hstem

**Work Total: \$265.00**

**Specifications**

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2011-0180	03/22/2011	06/26/2011	2	6.00 in.	12.00 ft

**Specific Work Permit Conditions**

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
  
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
  
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.
  
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
  
5. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24

## Alameda County Public Works Agency - Water Resources Well Permit

hours prior to drilling.

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

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# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 03/22/2011 By jamesy**

**Permit Numbers: W2011-0181**  
**Permits Valid from 03/28/2011 to 04/01/2011**

**Application Id:** 1300826501790  
**Site Location:** 6125 Telegraph Ave, Oakland, CA  
**Project Start Date:** 03/28/2011  
**Assigned Inspector:** Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

**City of Project Site:** Oakland  
**Completion Date:** 04/01/2011

**Applicant:** Environ Strategy - Skip or Dane  
1 Technology Dr, Ste B-123, Irvine, CA 92618  
**Property Owner:** Thrifty Oil Co.  
13116 Imperial Hwy, Santa Fe Springs, CA 90670  
**Client:** \*\* same as Property Owner \*\*

**Phone:** 949-486-0884  
**Phone:** 562-921-3581

	<b>Total Due:</b>	\$265.00
<b>Receipt Number: WR2011-0082</b>	<b>Total Amount Paid:</b>	\$265.00
<b>Payer Name : Earth Management</b>	<b>Paid By: CHECK</b>	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Borehole(s) for Investigation-Geotechnical Study/CPT's - 4 Boreholes  
Driller: Test America - Lic #: 819548 - Method: other

**Work Total: \$265.00**

**Specifications**

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2011-0181	03/22/2011	06/26/2011	4	6.00 in.	30.00 ft

**Specific Work Permit Conditions**

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
5. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24

## **Alameda County Public Works Agency - Water Resources Well Permit**

hours prior to drilling.

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
  7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
  8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
-

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 03/22/2011 By jamesy**

**Permit Numbers: W2011-0182**  
**Permits Valid from 03/28/2011 to 04/01/2011**

**Application Id:** 1300826094828  
**Site Location:** on Racine St, Oakland, CA  
**Project Start Date:** 03/28/2011  
**Assigned Inspector:** Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

**City of Project Site:** Oakland  
**Completion Date:** 04/01/2011

**Applicant:** Environ Strategy - Skip or Dane  
1 Technology Dr, Ste. B-123, Irvine, CA 92618  
**Phone:** 949-486-0884

**Property Owner:** Thrifty Oil Co.  
13116 Imperial Hwy, Santa Fe Springs, CA 90670  
**Phone:** 562-921-3581

**Client:** \*\* same as Property Owner \*\*

	<b>Total Due:</b>	\$265.00
<b>Receipt Number: WR2011-0083</b>	<b>Total Amount Paid:</b>	\$265.00
<b>Payer Name : Earth Management</b>	<b>Paid By: CHECK</b>	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Borehole(s) for Investigation-Geotechnical Study/CPT's - 2 Boreholes  
Driller: Test America - Lic #: 819548 - Method: other

**Work Total: \$265.00**

**Specifications**

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2011-0182	03/22/2011	06/26/2011	2	2.00 in.	30.00 ft

**Specific Work Permit Conditions**

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
5. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24

## **Alameda County Public Works Agency - Water Resources Well Permit**

hours prior to drilling.

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

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**APPENDIX C**

**ESLs for Soil and Basin Plan Objectives for Groundwater**

**TABLE A. ENVIRONMENTAL SCREENING LEVELS (ESLs)  
Shallow Soils (<3m bgs)  
Groundwater IS Current or Potential Source of Drinking Water**

CHEMICAL PARAMETER	<sup>1</sup> Shallow Soil		<sup>3</sup> Groundwater (ug/L)
	<sup>2</sup> Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
ACENAPHTHENE	1.6E+01	1.6E+01	2.0E+01
ACENAPHTHYLENE	1.3E+01	1.3E+01	3.0E+01
ACETONE	5.0E-01	5.0E-01	1.5E+03
ALDRIN	3.2E-02	1.3E-01	2.0E-03
ANTHRACENE	2.8E+00	2.8E+00	7.3E-01
ANTIMONY	6.1E+00	4.0E+01	6.0E+00
ARSENIC	5.5E+00	5.5E+00	3.6E+01
BARIUM	7.5E+02	1.5E+03	1.0E+03
BENZENE	4.4E-02	4.4E-02	1.0E+00
BENZO(a)ANTHRACENE	3.8E-01	1.3E+00	2.7E-02
BENZO(b)FLUORANTHENE	3.8E-01	1.3E+00	2.9E-02
BENZO(k)FLUORANTHENE	3.8E-01	1.3E+00	2.9E-02
BENZO(g,h,i)PERYLENE	2.7E+01	2.7E+01	1.0E-01
BENZO(a)PYRENE	3.8E-02	1.3E-01	1.4E-02
BERYLLIUM	4.0E+00	8.0E+00	2.7E+00
BIPHENYL, 1,1-	6.5E-01	6.5E-01	5.0E-01
BIS(2-CHLOROETHYL)ETHER	1.8E-04	1.8E-04	1.4E-02
BIS(2-CHLOROISOPROPYL)ETHER	5.4E-03	5.4E-03	5.0E-01
BIS(2-ETHYLHEXYL)PHTHALATE	6.6E+01	6.6E+01	4.0E+00
BORON	1.6E+00	2.0E+00	1.6E+00
BROMODICHLOROMETHANE	1.4E-02	3.9E-02	1.0E+02
BROMOFORM	2.2E+00	2.2E+00	1.0E+02
BROMOMETHANE	2.2E-01	3.9E-01	9.8E+00
CADMIUM	1.7E+00	7.4E+00	1.1E+00
CARBON TETRACHLORIDE	1.2E-02	3.4E-02	5.0E-01
CHLORDANE	4.4E-01	1.7E+00	4.0E-03
CHLOROANILINE, p-	5.3E-02	5.3E-02	5.0E+00
CHLOROBENZENE	1.5E+00	1.5E+00	2.5E+01
CHLOROETHANE	6.3E-01	8.5E-01	1.2E+01
CHLOROFORM	8.8E-01	1.9E+00	7.0E+01
CHLOROMETHANE	7.0E-02	2.0E-01	1.3E+00
CHLOROPHENOL, 2-	1.2E-02	1.2E-02	1.8E-01
CHROMIUM (Total)	5.8E+01	5.8E+01	5.0E+01
CHROMIUM III	7.5E+02	7.5E+02	1.8E+02
CHROMIUM VI	1.8E+00	1.8E+00	1.1E+01
CHRYSENE	3.8E+00	1.3E+01	2.9E-01
COBALT	1.0E+01	1.0E+01	3.0E+00
COPPER	2.3E+02	2.3E+02	3.1E+00
CYANIDE (Free)	3.6E-03	3.6E-03	1.0E+00
DIBENZO(a,h)ANTHRACENE	1.1E-01	3.8E-01	8.5E-03
DIBROMOCHLOROMETHANE	1.9E-02	5.4E-02	1.0E+02
1,2-DIBROMO-3-CHLOROPROPANE	4.5E-03	4.5E-03	2.0E-01
DIBROMOETHANE, 1,2-	3.3E-04	3.3E-04	5.0E-02
DICHLOROBENZENE, 1,2-	1.1E+00	1.1E+00	1.0E+01

**TABLE A. ENVIRONMENTAL SCREENING LEVELS (ESLs)  
Shallow Soils (<3m bgs)  
Groundwater IS Current or Potential Source of Drinking Water**

CHEMICAL PARAMETER	<sup>1</sup> Shallow Soil		<sup>3</sup> Groundwater (ug/L)
	<sup>2</sup> Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
DICHLOROBENZENE, 1,3-	7.4E+00	7.4E+00	6.5E+01
DICHLOROBENZENE, 1,4-	4.6E-02	1.3E-01	5.0E+00
DICHLOROBENZIDINE, 3,3-	7.7E-03	7.7E-03	2.9E-02
DICHLORODIPHENYLDICHLOROETHANE (DDD)	2.3E+00	9.0E+00	1.0E-03
DICHLORODIPHENYLDICHLOROETHYLENE (DDE)	1.6E+00	4.0E+00	1.0E-03
DICHLORODIPHENYLTRICHLOROETHANE (DDT)	1.6E+00	4.0E+00	1.0E-03
DICHLOROETHANE, 1,1-	2.0E-01	2.0E-01	5.0E+00
DICHLOROETHANE, 1,2-	4.5E-03	4.5E-03	5.0E-01
DICHLOROETHYLENE, 1,1-	1.0E+00	1.0E+00	6.0E+00
DICHLOROETHYLENE, Cis 1,2-	1.9E-01	1.9E-01	6.0E+00
DICHLOROETHYLENE, Trans 1,2-	6.7E-01	6.7E-01	1.0E+01
DICHLOROPHENOL, 2,4-	3.0E-01	3.0E-01	3.0E-01
DICHLOROPROPANE, 1,2-	5.1E-02	1.2E-01	5.0E+00
DICHLOROPROPENE, 1,3-	3.3E-02	5.9E-02	5.0E-01
DIELDRIN	2.3E-03	2.3E-03	1.9E-03
DIETHYLPHTHALATE	3.5E-02	3.5E-02	1.5E+00
DIMETHYLPHTHALATE	3.5E-02	3.5E-02	1.5E+00
DIMETHYLPHENOL, 2,4-	6.7E-01	6.7E-01	1.0E+02
DINITROPHENOL, 2,4-	4.0E-02	4.0E-02	1.4E+01
DINITROTOLUENE, 2,4-	8.5E-04	8.5E-04	1.1E-01
1,4 DIOXANE	1.8E-03	1.8E-03	3.0E+00
DIOXIN (2,3,7,8-TCDD)	4.6E-06	1.9E-05	5.0E-06
ENDOSULFAN	4.6E-03	4.6E-03	8.7E-03
ENDRIN	6.5E-04	6.5E-04	2.3E-03
ETHANOL	4.5E+01	4.5E+01	5.0E+04
ETHYLBENZENE	3.3E+00	3.3E+00	3.0E+01
FLUORANTHENE	4.0E+01	4.0E+01	8.0E+00
FLUORENE	8.9E+00	8.9E+00	3.9E+00
HEPTACHLOR	1.4E-02	1.4E-02	3.8E-03
HEPTACHLOR EPOXIDE	1.5E-02	1.5E-02	3.8E-03
HEXACHLOROBENZENE	2.7E-01	9.6E-01	1.0E+00
HEXACHLOROBUTADIENE	1.0E+00	1.0E+00	2.1E-01
HEXACHLOROCYCLOHEXANE (gamma) LINDANE	4.9E-02	4.9E-02	8.0E-02
HEXACHLOROETHANE	2.4E+00	2.4E+00	7.0E-01
INDENO(1,2,3-cd)PYRENE	3.8E-01	1.3E+00	2.9E-02
LEAD	1.5E+02	7.5E+02	2.5E+00
MERCURY	3.7E+00	1.0E+01	1.2E-02
METHOXYCHLOR	1.9E+01	1.9E+01	1.9E-02
METHYLENE CHLORIDE	7.7E-02	7.7E-02	5.0E+00
METHYL ETHYL KETONE	3.9E+00	3.9E+00	4.2E+03
METHYL ISOBUTYL KETONE	2.8E+00	2.8E+00	1.2E+02
METHYL MERCURY	1.2E+00	1.0E+01	3.0E-03
METHYLNAPHTHALENE (total 1- & 2-)	2.5E-01	2.5E-01	2.1E+00
METHYL TERT BUTYL ETHER	2.3E-02	2.3E-02	5.0E+00

**TABLE A. ENVIRONMENTAL SCREENING LEVELS (ESLs)  
Shallow Soils (≤3m bgs)  
Groundwater IS Current or Potential Source of Drinking Water**

CHEMICAL PARAMETER	<sup>1</sup> Shallow Soil		<sup>3</sup> Groundwater (ug/L)
	<sup>2</sup> Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
MOLYBDENUM	4.0E+01	4.0E+01	3.5E+01
NAPHTHALENE	4.6E-01	1.5E+00	1.7E+01
NICKEL	1.5E+02	1.5E+02	8.2E+00
PENTACHLOROPHENOL	4.4E+00	5.0E+00	1.0E+00
PERCHLORATE	1.0E-02	1.0E-02	6.0E+00
PHENANTHRENE	1.1E+01	1.1E+01	4.6E+00
PHENOL	7.6E-02	7.6E-02	5.0E+00
POLYCHLORINATED BIPHENYLS (PCBs)	2.2E-01	7.4E-01	1.4E-02
PYRENE	8.5E+01	8.5E+01	2.0E+00
SELENIUM	1.0E+01	1.0E+01	5.0E+00
SILVER	2.0E+01	4.0E+01	1.9E-01
STYRENE	1.5E+00	1.5E+00	1.0E+01
tert-BUTYL ALCOHOL	7.3E-02	7.3E-02	1.2E+01
TETRACHLOROETHANE, 1,1,1,2-	2.4E-02	2.4E-02	1.3E+00
TETRACHLOROETHANE, 1,1,2,2-	9.1E-03	1.8E-02	1.0E+00
TETRACHLOROETHYLENE	8.7E-02	2.4E-01	5.0E+00
THALLIUM	1.0E+00	1.3E+01	2.0E+00
TOLUENE	2.9E+00	2.9E+00	4.0E+01
TOXAPHENE	4.2E-04	4.2E-04	2.0E-04
TPH (gasolines)	1.0E+02	1.0E+02	1.0E+02
TPH (middle distillates)	1.0E+02	1.0E+02	1.0E+02
TPH (residual fuels)	5.0E+02	1.0E+03	1.0E+02
TRICHLOROBENZENE, 1,2,4-	3.8E-01	1.0E+00	2.5E+01
TRICHLOROETHANE, 1,1,1-	7.8E+00	7.8E+00	6.2E+01
TRICHLOROETHANE, 1,1,2-	3.2E-02	7.0E-02	5.0E+00
TRICHLOROETHYLENE	2.6E-01	4.6E-01	5.0E+00
TRICHLOROPHENOL, 2,4,5-	1.8E-01	1.8E-01	1.1E+01
TRICHLOROPHENOL, 2,4,6-	1.7E-01	1.7E-01	5.0E-01
VANADIUM	1.1E+02	2.0E+02	1.5E+01
VINYL CHLORIDE	6.7E-03	1.9E-02	5.0E-01
XYLENES	2.3E+00	2.3E+00	2.0E+01
ZINC	6.0E+02	6.0E+02	8.1E+01



**TABLE A. ENVIRONMENTAL SCREENING LEVELS (ESLs)  
Shallow Soils (<=3m bgs)  
Groundwater IS Current or Potential Source of Drinking Water**

CHEMICAL PARAMETER	<sup>1</sup> Shallow Soil		<sup>3</sup> Groundwater (ug/L)
	<sup>2</sup> Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
Electrical Conductivity (mS/cm, USEPA Method 120.1 MOD)	2.0	4.0	not applicable
Sodium Adsorption Ratio	5.0	12	not applicable

Red: Updated with respect to ESLs presented in July 2003 document.

**Notes:**

1. Shallow soils defined as soils less than or equal to 3 meters (approximately 10 feet) below ground surface.
2. Category "Residential Land Use" generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.)
3. Assumes potential discharge of groundwater into a freshwater, marine or estuary surface water system.

Source of soil ESLs: Refer to Appendix 1, Tables A-1 and A-2.  
Source of groundwater ESLs: Refer to Appendix 1, Table F-1a.  
Soil data should be reported on dry-weight basis (see Appendix 1, Section 6.2).  
Soil ESLs intended to address direct-exposure, groundwater protection, ecologic (urban areas) and nuisance concerns under noted land-use scenarios. Soil gas data should be collected for additional evaluation of potential indoor-air impacts at sites with significant areas of VOC-impacted soil. See Section 2.6 and Table E.  
Groundwater ESLs intended to be address drinking water, surface water, indoor-air and nuisance concerns. Use in conjunction with soil gas screening levels to more closely evaluate potential impacts to indoor-air if groundwater screening levels for this concern approached or exceeded (refer to Section 2.6 and Appendix 1, Table F-1a).  
Aquatic habitat goals for bioaccumulation concerns not considered in selection of groundwater goals (refer to Section 2.7).  
Refer to appendices for summary of ESL components.  
Soil and water ESLs for ethanol based on gross contamination concerns (see Appendix 1, Chapter 5 and related tables).  
TPH -Total Petroleum Hydrocarbons. TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g., BTEX, PAHs, oxidizers, etc.). See Volume 1, Section 2.2 and Appendix 1, Chapter 5.

**TABLE C. ENVIRONMENTAL SCREENING LEVELS (ESLs)**  
**Deep Soils (>3m bgs)**  
**Groundwater IS a Current or Potential Source of Drinking Water**

CHEMICAL PARAMETER	<sup>1</sup> Deep Soil		<sup>3</sup> Groundwater (ug/L)
	<sup>2</sup> Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
ACENAPHTHENE	1.6E+01	1.6E+01	2.0E+01
ACENAPHTHYLENE	1.3E+01	1.3E+01	3.0E+01
ACETONE	5.0E-01	5.0E-01	1.5E+03
ALDRIN	1.5E+00	1.5E+00	2.0E-03
ANTHRACENE	2.8E+00	2.8E+00	7.3E-01
ANTIMONY	2.8E+02	2.8E+02	6.0E+00
ARSENIC	5.5E+00	5.5E+00	3.6E+01
BARIUM	2.5E+03	2.5E+03	1.0E+03
BENZENE	4.4E-02	4.4E-02	1.0E+00
BENZO(a)ANTHRACENE	1.2E+01	1.2E+01	2.7E-02
BENZO(b)FLUORANTHENE	1.5E+01	1.5E+01	2.9E-02
BENZO(k)FLUORANTHENE	2.7E+00	2.7E+00	2.9E-02
BENZO(g,h,i)PERYLENE	2.7E+01	2.7E+01	1.0E-01
BENZO(a)PYRENE	1.5E+00	1.5E+00	1.4E-02
BERYLLIUM	3.6E+01	3.6E+01	2.7E+00
BIPHENYL, 1,1-	6.5E-01	6.5E-01	5.0E-01
BIS(2-CHLOROETHYL)ETHER	1.8E-04	1.8E-04	1.4E-02
BIS(2-CHLOROISOPROPYL)ETHER	5.4E-03	5.4E-03	5.0E-01
BIS(2-ETHYLHEXYL)PHTHALATE	6.6E+01	6.6E+01	4.0E+00
BORON	4.6E+04	4.6E+04	1.6E+00
BROMODICHLOROMETHANE	1.4E-02	3.9E-02	1.0E+02
BROMOFORM	2.2E+00	2.2E+00	1.0E+02
BROMOMETHANE	2.2E-01	3.9E-01	9.8E+00
CADMIUM	3.8E+01	3.8E+01	1.1E+00
CARBON TETRACHLORIDE	1.2E-02	3.4E-02	5.0E-01
CHLORDANE	1.5E+01	1.5E+01	4.0E-03
CHLOROANILINE, p-	5.3E-02	5.3E-02	5.0E+00
CHLOROBENZENE	1.5E+00	1.5E+00	2.5E+01
CHLOROETHANE	6.3E-01	8.5E-01	1.2E+01
CHLOROFORM	2.1E+00	2.1E+00	7.0E+01
CHLOROMETHANE	7.0E-02	2.0E-01	1.3E+00
CHLOROPHENOL, 2-	1.2E-02	1.2E-02	1.8E-01
CHROMIUM (Total)	5.8E+01	5.8E+01	5.0E+01
CHROMIUM III	2.5E+03	5.0E+03	1.8E+02
CHROMIUM VI	1.8E+00	1.8E+00	1.1E+01
CHRYSENE	1.9E+01	1.9E+01	2.9E-01
COBALT	1.0E+01	1.0E+01	3.0E+00
COPPER	2.5E+03	5.0E+03	3.1E+00
CYANIDE (Free)	3.6E-03	3.6E-03	1.0E+00
DIBENZO(a,h)ANTHTRACENE	4.3E+00	4.3E+00	8.5E-03
DIBROMOCHLOROMETHANE	1.9E-02	5.4E-02	1.0E+02
1,2-DIBROMO-3-CHLOROPROPANE	4.5E-03	4.5E-03	2.0E-01
DIBROMOETHANE, 1,2-	3.3E-04	3.3E-04	5.0E-02
DICHLOROBENZENE, 1,2-	1.1E+00	1.1E+00	1.0E+01

**TABLE C. ENVIRONMENTAL SCREENING LEVELS (ESLs)**  
**Deep Soils (>3m bgs)**  
**Groundwater IS a Current or Potential Source of Drinking Water**

CHEMICAL PARAMETER	<sup>1</sup> Deep Soil		<sup>3</sup> Groundwater (ug/L)
	<sup>2</sup> Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
DICHLOROBENZENE, 1,3-	7.4E+00	7.4E+00	6.5E+01
DICHLOROBENZENE, 1,4-	4.6E-02	1.3E-01	5.0E+00
DICHLOROBENZIDINE, 3,3-	7.7E-03	7.7E-03	2.9E-02
DICHLORODIPHENYLDICHLOROETHANE (DDD)	1.1E+02	1.1E+02	1.0E-03
DICHLORODIPHENYLDICHLOROETHYLENE (DDE)	7.6E+01	7.6E+01	1.0E-03
DICHLORODIPHENYLTRICHLOROETHANE (DDT)	4.3E+00	4.3E+00	1.0E-03
DICHLOROETHANE, 1,1-	2.0E-01	2.0E-01	5.0E+00
DICHLOROETHANE, 1,2-	4.5E-03	4.5E-03	5.0E-01
DICHLOROETHYLENE, 1,1-	1.0E+00	1.0E+00	6.0E+00
DICHLOROETHYLENE, Cis 1,2-	1.9E-01	1.9E-01	6.0E+00
DICHLOROETHYLENE, Trans 1,2-	6.7E-01	6.7E-01	1.0E+01
DICHLOROPHENOL, 2,4-	3.0E-01	3.0E-01	3.0E-01
DICHLOROPROPANE, 1,2-	5.1E-02	1.2E-01	5.0E+00
DICHLOROPROPENE, 1,3-	3.3E-02	5.9E-02	5.0E-01
DIELDRIN	2.3E-03	2.3E-03	1.9E-03
DIETHYLPHTHALATE	3.5E-02	3.5E-02	1.5E+00
DIMETHYLPHTHALATE	3.5E-02	3.5E-02	1.5E+00
DIMETHYLPHENOL, 2,4-	6.7E-01	6.7E-01	1.0E+02
DINITROPHENOL, 2,4-	4.0E-02	4.0E-02	1.4E+01
DINITROTOLUENE, 2,4-	8.5E-04	8.5E-04	1.1E-01
1,4 DIOXANE	1.8E-03	1.8E-03	3.0E+00
DIOXIN (2,3,7,8-TCDD)	2.4E-04	2.4E-04	5.0E-06
ENDOSULFAN	4.6E-03	4.6E-03	8.7E-03
ENDRIN	6.5E-04	6.5E-04	2.3E-03
ETHANOL	4.5E+01	4.5E+01	5.0E+04
ETHYLBENZENE	3.3E+00	3.3E+00	3.0E+01
FLUORANTHENE	6.0E+01	6.0E+01	8.0E+00
FLUORENE	8.9E+00	8.9E+00	3.9E+00
HEPTACHLOR	1.4E-02	1.4E-02	3.8E-03
HEPTACHLOR EPOXIDE	1.5E-02	1.5E-02	3.8E-03
HEXACHLOROBENZENE	1.1E+01	1.1E+01	1.0E+00
HEXACHLOROBUTADIENE	1.0E+00	1.0E+00	2.1E-01
HEXACHLOROCYCLOHEXANE (gamma) LINDANE	4.9E-02	4.9E-02	8.0E-02
HEXACHLOROETHANE	2.4E+00	2.4E+00	7.0E-01
INDENO(1,2,3-cd)PYRENE	7.7E+00	7.7E+00	2.9E-02
LEAD	7.5E+02	7.5E+02	2.5E+00
MERCURY	9.8E+01	9.8E+01	1.2E-02
METHOXYCHLOR	1.9E+01	1.9E+01	1.9E-02
METHYLENE CHLORIDE	7.7E-02	7.7E-02	5.0E+00
METHYL ETHYL KETONE	3.9E+00	3.9E+00	4.2E+03
METHYL ISOBUTYL KETONE	2.8E+00	2.8E+00	1.2E+02
METHYL MERCURY	4.1E+01	4.1E+01	3.0E-03
METHYLNAPHTHALENE (total 1- & 2-)	2.5E-01	2.5E-01	2.1E+00
METHYL TERT BUTYL ETHER	2.3E-02	2.3E-02	5.0E+00

**TABLE C. ENVIRONMENTAL SCREENING LEVELS (ESLs)**  
**Deep Soils (>3m bgs)**  
**Groundwater IS a Current or Potential Source of Drinking Water**

CHEMICAL PARAMETER	<sup>1</sup> Deep Soil		<sup>3</sup> Groundwater (ug/L)
	<sup>2</sup> Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
MOLYBDENUM	2.5E+03	3.6E+03	3.5E+01
NAPHTHALENE	4.6E-01	1.5E+00	1.7E+01
NICKEL	1.0E+03	1.0E+03	8.2E+00
PENTACHLOROPHENOL	5.3E+00	5.3E+00	1.0E+00
PERCHLORATE	1.0E-02	1.0E-02	6.0E+00
PHENANTHRENE	1.1E+01	1.1E+01	4.6E+00
PHENOL	7.6E-02	7.6E-02	5.0E+00
POLYCHLORINATED BIPHENYLS (PCBs)	6.3E+00	6.3E+00	1.4E-02
PYRENE	8.5E+01	8.5E+01	2.0E+00
SELENIUM	2.5E+03	3.4E+03	5.0E+00
SILVER	2.5E+03	3.6E+03	1.9E-01
STYRENE	1.5E+00	1.5E+00	1.0E+01
tert-BUTYL ALCOHOL	7.3E-02	7.3E-02	1.2E+01
TETRACHLOROETHANE, 1,1,1,2-	2.4E-02	2.4E-02	1.3E+00
TETRACHLOROETHANE, 1,1,2,2-	9.1E-03	1.8E-02	1.0E+00
TETRACHLOROETHYLENE	8.7E-02	2.4E-01	5.0E+00
THALLIUM	4.7E+01	4.7E+01	2.0E+00
TOLUENE	2.9E+00	2.9E+00	4.0E+01
TOXAPHENE	4.2E-04	4.2E-04	2.0E-04
TPH (gasolines)	1.0E+02	1.0E+02	1.0E+02
TPH (middle distillates)	1.0E+02	1.0E+02	1.0E+02
TPH (residual fuels)	1.0E+03	1.0E+03	1.0E+02
TRICHLOROBENZENE, 1,2,4-	3.8E-01	1.0E+00	2.5E+01
TRICHLOROETHANE, 1,1,1-	7.8E+00	7.8E+00	6.2E+01
TRICHLOROETHANE, 1,1,2-	3.2E-02	7.0E-02	5.0E+00
TRICHLOROETHYLENE	2.6E-01	4.6E-01	5.0E+00
TRICHLOROPHENOL, 2,4,5-	1.8E-01	1.8E-01	1.1E+01
TRICHLOROPHENOL, 2,4,6-	1.7E-01	1.7E-01	5.0E-01
VANADIUM	2.5E+03	5.0E+03	1.5E+01

**TABLE C. ENVIRONMENTAL SCREENING LEVELS (ESLs)  
Deep Soils (>3m bgs)  
Groundwater IS a Current or Potential Source of Drinking Water**

CHEMICAL PARAMETER	<sup>1</sup> Deep Soil		<sup>3</sup> Groundwater (ug/L)
	<sup>2</sup> Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
VINYL CHLORIDE	6.7E-03	1.9E-02	5.0E-01
XYLENES	2.3E+00	2.3E+00	2.0E+01
ZINC	2.5E+03	5.0E+03	8.1E+01
Electrical Conductivity (mS/cm, USEPA Method 120.1 MOD)	not applicable	not applicable	not applicable
Sodium Adsorption Ratio	not applicable	not applicable	not applicable

**Red:** Updated with respect to ESLs presented in July 2003 document.

**Notes:**

1. Deep soils defined as soils greater than 3 meters (approximately 10 feet) below ground surface.
2. Category "Residential Land Use" generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.)
3. Assumes potential discharge of groundwater into a freshwater, marine or estuary surface water system.

Source of soil ESLs: Refer to Appendix 1, Tables C-1 and C-2.  
Source of groundwater ESLs: Refer to Appendix 1, Table F-1a.  
Soil data should be reported on dry-weight basis (see Appendix 1, Section 6.2).  
Soil ESLs intended to address human health, groundwater protection and nuisance concerns under a construction/trench worker exposure scenario and noted land-use scenarios. **Soil gas data should be collected for additional evaluation of potential indoor-air impacts at sites with significant areas of VOC-impacted soil. See Section 2.6 and Table E.**  
Groundwater ESLs intended to be address drinking water, surface water, indoor-air and nuisance concerns. **Use in conjunction with soil gas screening levels to more closely evaluate potential impacts to indoor-air if groundwater screening levels for this concern approached or exceeded (refer to Section 2.6 and Appendix 1, Table F-1a).**  
Aquatic habitat goals for bioaccumulation concerns not considered in selection of groundwater goals (refer to Section 2.7).  
Refer to appendices for summary of ESL components.  
Soil and water ESLs for ethanol based on gross contamination concerns (see Appendix 1, Chapter 5 and related tables).  
TPH -Total Petroleum Hydrocarbons. TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g., BTEX, PAHs, oxidizers, etc.). See Volume 1, Section 2.2 and Appendix 1, Chapter 5.

**APPENDIX D**

**Existing and Potential Beneficial Uses  
of Groundwater in Identified Basins**

**TABLE 2-9 EXISTING AND POTENTIAL BENEFICIAL USES OF GROUNDWATER IN IDENTIFIED BASINS**

GROUNDWATER BASIN	COUNTY	DWR BASIN NO.	MUN <sup>(1)</sup>	PROC <sup>(2)</sup>	IND <sup>(3)</sup>	AGR <sup>(4)</sup>	FRESH <sup>(5)</sup>
Alameda Creek (Niles Cone)	Alameda	2 - 9.01	E <sup>(6)</sup>	E	E	E	E
Castro Valley	Alameda	2 - 8	P <sup>(7)</sup>	P	P	P	P
East Bay Plain	Alameda	2 - 9.01	E	E	E	E	E
Livermore Valley	Alameda	2 - 10	E	E	E	E	E
Sunol Valley	Alameda	2 - 11	E	E	E	E	E
Arroyo Del Hambre Valley	Contra Costa	2 - 31	P	P	P	P	P
Clayton Valley	Contra Costa	2 - 5	E	P	P	P	P
Pittsburg Plain	Contra Costa	2 - 4	P	P	P	P	P
San Ramon Valley	Contra Costa	2 - 7	E	P	P	E	E
Ygnacio Valley	Contra Costa	2 - 6	P	P	P	P	P
Novato Valley	Marin	2 - 30	P	P	P	P	P
Sand Point Area	Marin	2 - 27	E	P	P	P	P
San Rafael	Marin	2 - 29	P	P	P	P	P
Ross Valley	Marin	2 - 28	E	P	P	E	E
Napa Valley	Napa	2.2 & 2 - 2.01	E	E	E	E	E
Islais Valley	San Francisco	2 - 33	P	E	E	P	P
Merced Valley (North)	San Francisco	2 - 35	P	P	P	E	E
San Francisco Sands	San Francisco	2 - 34	E	P	P	E	E
Visitation Valley	San Francisco	2 - 32	P	E	E	P	P
Half Moon Bay Terrace	San Mateo	2 - 22	E	P	P	E	E
Merced Valley (South)	San Mateo	2 - 35A	E	P	P	E	E
Pescadero Valley	San Mateo	2 - 26	E	P	P	E	E
San Gregorio Valley	San Mateo	2 - 24	E	P	P	E	E
San Mateo Plain	San Mateo	2 - 9A	E	E	E	P	P
San Pedro Valley	San Mateo	2 - 36	P	P	P	P	P
Santa Clara Valley (& Coyote)	Santa Clara	2 - 9B	E	E	E	E	E
Suisun/Fairfield Valley	Solano	2 - 3	E	E	E	E	E
Kenwood Valley	Sonoma	2 - 19	E	P	P	E	E
Petaluma Valley	Sonoma	2 - 1	E	P	P	E	E
Sebastopol-Merced Fm. Highlands	Sonoma	2 - 25	E	P	P	E	E
Sonoma Valley	Sonoma	2 - 2.022	E	P	P	E	E

**NOTES:**

- (1) MUN = Municipal and domestic water supply.
- (2) PROC = Industrial process water supply.
- (3) IND = Industrial service water supply.
- (4) AGR = Agricultural water supply.
- (5) FRESH = Freshwater replenishment to surface water.  
(Designation will be determined at a later date; for the interim, a site-by-site determination will be made).
- (6) E = Existing beneficial use; based on available information (see references listed in Table 2-8).
- (7) P = Potential beneficial use; based on available information. There is no known use of the basin for this category; however, the basin could be used for this purpose (see references listed in Table 2-8).

**APPENDIX E**

**Soil Vapor Analytical Report and Chain-of-Custody Documents**





April 19, 2011

Simon Tregurtha  
Thrifty Oil Company  
13116 Imperial Highway  
Santa Fe Springs, CA 90670

Dear Mr. Tregurtha:

This letter presents the results of the soil vapor investigation conducted by Optimal Technology (Optimal), for Thrifty Oil Company on April 18, 2011. The study was performed at Thrifty Oil Station # 063 located at 6125 Telegraph Ave., Oakland, California.

Optimal was contracted to perform a soil vapor survey at this site to screen for possible chlorinated solvents and aromatic hydrocarbons. The primary objective of this soil vapor investigation was to determine if soil vapor contamination is present in the subsurface soil.

### **Gas Sampling Method**

At each sampling location an electric vacuum pump set to draw 0.2 liters per minute (L/min) of soil vapor was attached to the existing well and purged prior to sample collection. Vapor samples were obtained in SGE gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and the vacuum pump. Samples were immediately injected into the gas chromatograph/purge and trap after collection. New tubing was used at each sampling point to prevent cross contamination.

All analyses were performed on a laboratory grade Hewlett Packard model 5890 Series II gas chromatograph equipped with a Hewlett Packard model 5971 Mass Spectra Detector and Tekmar LSC 2000 Purge and Trap as well as a Landtec GA-90. An SGE capillary column using helium as the carrier gas was used to perform all analysis. All results were collected on a personal computer utilizing Hewlett Packard's 5971 MS and chromatographic data collection and handling system.

### **Quality Assurance**

#### *5-Point Calibration*

The initial five point calibration consisted of 20, 50, 100, 200 and 500 ul injections of the calibration standard. A calibration factor on each analyte was generated using a best fit line method using the HP data system. If the  $r^2$  factor generated from this line was not greater than

0.990, an additional five point calibration would have been performed. Method reporting limits were calculated to be 10-1000 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) for the individual compounds and 0.1% for GA-90 tested compounds.

A daily calibration check and end of run calibration check was performed by preparing a calibration solution from a pre-mixed standard supplied by CPI International. The standard contained common halogenated solvents and aromatic hydrocarbons (see Table 1). The individual compound concentrations in the standards ranged between 0.025 nanograms per microliter( $\text{ng}/\mu\text{l}$ ) and 0.25  $\text{ng}/\mu\text{l}$ .

**TABLE 1**

Dichlorodifluoromethane	Carbon Tetrachloride	Chloroethane
Trichlorofluoromethane	1,2-Dichloroethane	Benzene
1,1-Dichloroethene	Trichloroethene	Toluene
Methylene Chloride	1,1,2-Trichloroethane	Ethylbenzene
trans-1,2-Dichloroethene	Tetrachloroethene	m-/p-Xylene
1,1-Dichloroethane	Chloroform	o-Xylene
cis-1,2-Dichloroethene	1,1,1,2-Tetrachloroethane	Vinyl Chloride
1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	Freon 113
4-Methyl-2-Pentanone	Cyclohexane	Acetone
Chlorobenzene	2-Butanone	Tert-Butyl-Alcohol
Methyl-Tert-Butyl-Ether	Ethyl-Tert-Butyl-Ether	Diisopropylether
Tert-Amyl-Methyl-Ether	Isobutane	

#### *Purge Volume Test*

"Purge volume" is the total internal volume of the sampling probe. Three separate purge volumes were tested: 1, 3, and 7 volumes. It was found that 3 volumes were best for this soil vapor survey.

#### *Sample Replicates*

A replicate analysis (duplicate) was run to evaluate the reproducibility of the sampling system and instrument. The difference between samples did not vary more than 20%.

#### *Equipment Blanks*

Blanks were run at the beginning of each workday and after calibrations. The blanks were collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

#### *Tracer Gas*

A tracer gas was applied to the soil gas probes at each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals. Isobutane was used as the tracer gas, found in common shaving cream. No Isobutane was found in any of the samples collected.

**Scope of Work**

To achieve the objective of this investigation a total of 9 vapor samples were collected from 6 locations at the site. Sampling depths, vacuum readings, purge volume and sampling volumes are given on the analytical results page. All the collected vapor samples were analyzed on-site using Optimal's mobile laboratory.

**Subsurface Conditions**

Subsurface soil conditions at this site were predominately clay from ground surface to 3.0 feet below ground surface. These soil conditions offered sampling flows at 0" water vacuum.


**Results**

During this vapor investigation none of the compounds listed in Table 1 above were detected above the listed reporting limits. A complete table of analytical results is included with this report.

**Disclaimer**

All conclusions presented in this letter are based solely on the information collected by the soil vapor survey conducted by Optimal Technology. Soil vapor testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either the soil and/or groundwater. We enjoyed working with you on this project and look forward to future projects. If you have any questions please contact me at (877) 764-5427.

Sincerely,



Attila Baly  
Project Manager



**SOIL VAPOR RESULTS**

**Site Name:** Thrifty Oil Station # 063

6125 Telegraph Ave., Oakland, CA

**Analyst:** A. Baly **Collector:** A. Baly

**Method:** Modified EPA 8260B

**Lab Name:** Optimal Technology

**Inst. ID:** HP-5890 Series II

**Detector:** HP-5971 Mass Spectrometer

**Date:** 4/18/11

**Page:** 1 of 4

SAMPLE ID	BLANK-1	SV-3 PT3V	SV-3 PT1V	SV-3 PT7V	SV-5	SV-6	SV-1	SV-2
Sampling Depth (Ft.)	N/A	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Purge Volume (ml)	N/A	1,770	590	4,130	1,770	1,770	1,770	1,770
Vacuum (in. of Water)	N/A	0	0	0	0	0	0	0
Injection Volume (ul)	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Dilution Factor	1	1	1	1	1	1	1	1
Sample/Injection Time	7:11	9:31	9:52	10:14	10:36	11:00	11:21	11:46

COMPOUND	REP. LIMIT	CONC (ug/m <sup>3</sup> )	CONC (ug/m <sup>3</sup> )	CONC (ug/m <sup>3</sup> )	CONC (ug/m <sup>3</sup> )	CONC (ug/m <sup>3</sup> )	CONC (ug/m <sup>3</sup> )	CONC (ug/m <sup>3</sup> )
Dichlorodifluoromethane	1000	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1000	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1000	ND	ND	ND	ND	ND	ND	ND
Freon 113	1000	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1000	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1000	ND	ND	ND	ND	ND	ND	ND
Chloroform	1000	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1000	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	20	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	40	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	500	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1000	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	100	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1000	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1000	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	10	ND	ND	ND	ND	ND	ND	ND
Acetone	1000	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1000	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1000	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1000	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1000	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	1000	ND	ND	ND	ND	ND	ND	ND
Benzene	10	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	1000	ND	ND	ND	ND	ND	ND	ND
Toluene	1000	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1000	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1000	ND	ND	ND	ND	ND	ND	ND
m/p-Xylene	1000	ND	ND	ND	ND	ND	ND	ND
o-Xylene	1000	ND	ND	ND	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	1000	ND	ND	ND	ND	ND	ND	ND
Ethyl Tert Butyl Ether	1000	ND	ND	ND	ND	ND	ND	ND
MTBE	1000	ND	ND	ND	ND	ND	ND	ND
Tert-Amyl Methyl Ether (TAME)	1000	ND	ND	ND	ND	ND	ND	ND
Tertiary Butyl Alcohol	1000	ND	ND	ND	ND	ND	ND	ND
TPH-g	1000	ND	ND	ND	ND	ND	ND	ND
Isobutane (Tracer Gas)	1000	ND	ND	ND	ND	ND	ND	ND

Note: ND = Below Listed Reporting Limit; PT3V = Purge Test Volume



**OPTIMAL TECHNOLOGY**  
Specializing in Environmental Field Services

**SOIL VAPOR RESULTS**

**Site Name:** Thrifty Oil Station # 063  
6125 Telegraph Ave., Oakland, CA  
**Analyst:** A. Baly **Collector:** A. Baly  
**Method:** Modified EPA 8260B

**Lab Name:** Optimal Technology  
**Inst. ID:** HP-5890 Series II  
**Detector:** HP-5971 Mass Spectrometer

**Date:** 4/18/11  
**Page:** 2 of 4

SAMPLE ID	SV-4	SV-4 Dup						
Sampling Depth (Ft.)	3.0	3.0						
Purge Volume (ml)	1,770	1,770						
Vacuum (in. of Water)	0	0						
Injection Volume (ul)	50,000	50,000						
Dilution Factor	1	1						
Sample/Injection Time	12:06	12:28						

COMPOUND	REP. LIMIT	CONC (ug/m <sup>3</sup> )	CONC (ug/m <sup>3</sup> )					
Dichlorodifluoromethane	1000	ND	ND					
Chloroethane	1000	ND	ND					
Trichlorofluoromethane	1000	ND	ND					
Freon 113	1000	ND	ND					
Methylene Chloride	1000	ND	ND					
1,1-Dichloroethane	1000	ND	ND					
Chloroform	1000	ND	ND					
1,1,1-Trichloroethane	1000	ND	ND					
Carbon Tetrachloride	20	ND	ND					
1,2-Dichloroethane	40	ND	ND					
Trichloroethene (TCE)	500	ND	ND					
1,1,2-Trichloroethane	1000	ND	ND					
Tetrachloroethene (PCE)	100	ND	ND					
1,1,1,2-Tetrachloroethane	1000	ND	ND					
1,1,2,2-Tetrachloroethane	1000	ND	ND					
Vinyl Chloride	10	ND	ND					
Acetone	1000	ND	ND					
1,1-Dichloroethene	1000	ND	ND					
trans-1,2-Dichloroethene	1000	ND	ND					
2-Butanone (MEK)	1000	ND	ND					
cis-1,2-Dichloroethene	1000	ND	ND					
Cyclohexane	1000	ND	ND					
Benzene	10	ND	ND					
4-Methyl-2-Pentanone	1000	ND	ND					
Toluene	1000	ND	ND					
Chlorobenzene	1000	ND	ND					
Ethylbenzene	1000	ND	ND					
m/p-Xylene	1000	ND	ND					
o-Xylene	1000	ND	ND					
Diisopropyl Ether (DIPE)	1000	ND	ND					
Ethyl Tert Butyl Ether	1000	ND	ND					
MTBE	1000	ND	ND					
Tert-Amyl Methyl Ether (TAME)	1000	ND	ND					
Tertiary Butyl Alcohol	1000	ND	ND					
TPH-g	1000	ND	ND					
Isobutane (Tracer Gas)	1000	ND	ND					

Note: ND = Below Listed Reporting Limit



**SOIL VAPOR RESULTS**

**Site Name:** Thrifty Oil Station # 063

6125 Telegraph Ave., Oakland, CA

**Analyst:** A. Baly     **Collector:** A. Baly

**Lab Name:** Optimal Technology

**Inst. ID:** ES418

**Detector:** Landtec GA-90

**Date:** 4/18/11

**Page:** 3 of 4

SAMPLE ID
Sampling Depth (Ft.)
Purge Volume (ml)
Vacuum (in. of Water)
Injection Volume (ul)
Dilution Factor
Sample/Injection Time

BLANK-1	SV-3 PT3V	SV-3 PT1V	SV-3 PT7V	SV-5	SV-6	SV-1	SV-2
N/A	3.0	3.0	3.0	3.0	3.0	3.0	3.0
N/A	1,770	590	4,130	1,770	1,770	1,770	1,770
N/A	0	0	0	0	0	0	0
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7:11	9:31	9:52	10:14	10:36	11:00	11:21	11:46

COMPOUND	REP. LIMIT
Methane	0.1%
Carbon Dioxide	0.1%
Oxygen	0.1%

CONC (%)	CONC (%)	CONC (%)	CONC (%)	CONC (%)	CONC (%)	CONC (%)	CONC (%)
ND	ND	ND	ND	ND	ND	ND	ND
ND	1.8%	1.8%	1.8%	0.5%	0.6%	0.7%	1.2%
20.9%	18.5%	18.5%	18.5%	20.0%	19.6%	19.7%	18.6%

**Note:** ND = Below Listed Reporting Limit; PT3V = Purge Test Volume



**SOIL VAPOR RESULTS**

**Site Name:** Thrifty Oil Station # 063

6125 Telegraph Ave., Oakland, CA

**Analyst:** A. Baly    **Collector:** A. Baly

**Lab Name:** Optimal Technology

**Inst. ID:** ES418

**Detector:** Landtec GA-90

**Date:** 4/18/11

**Page:** 4 of 4

SAMPLE ID
Sampling Depth (Ft.)
Purge Volume (ml)
Vacuum (in. of Water)
Injection Volume (ul)
Dilution Factor
Sample/Injection Time

SV-4	SV-4 Dup						
3.0	3.0						
1,770	1,770						
0	0						
N/A	N/A						
N/A	N/A						
12:06	12:28						

COMPOUND	REP. LIMIT
Methane	0.1%
Carbon Dioxide	0.1%
Oxygen	0.1%

CONC (%)	CONC (%)						
ND	ND						
3.7%	3.7%						
14.0%	14.0%						

**Note:** ND = Below Listed Reporting Limit

**APPENDIX F**

**Soil Sample Laboratory Analytical Report  
and Chain-of-Custody Documents**





**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Thrifty Oil Company (8871)  
ATTN: Simon Tregurtha  
13116 Imperial Hwy.  
P.O. Box 2128  
Santa Fe Springs, CA 90670

LAB REQUEST 273726

REPORTED 04/27/2011

RECEIVED 04/20/2011

PROJECT Station #063  
6125 Telegraph Ave., Oakland

SUBMITTER Client

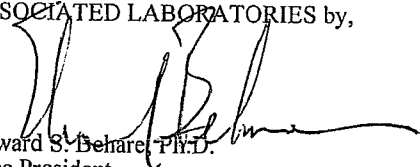
COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
1161374	TOC #063 SB1-5
1161375	TOC #063 SB1-10
1161376	TOC #063 SB1-15
1161377	TOC #063 SB1-20
1161378	TOC #063 SB1-25
1161379	TOC #063 SB1-30
1161380	TOC #063 SB2-5
1161381	TOC #063 SB2-10
1161382	TOC #063 SB2-15
1161383	TOC #063 SB2-20
1161384	TOC #063 SB2-25

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

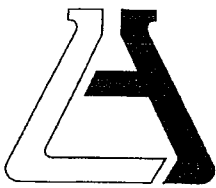
ASSOCIATED LABORATORIES by,

  
Edward S. Behare, Ph.D.  
Vice President

*NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.*

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**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Thrifty Oil Company (8871)  
ATTN: Simon Tregurtha  
13116 Imperial Hwy.  
P.O. Box 2128  
Santa Fe Springs, CA 90670

LAB REQUEST 273726

REPORTED 04/27/2011

RECEIVED 04/20/2011

PROJECT Station #063  
6125 Telegraph Ave., Oakland

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

Client Sample Identification

1161385	TOC #063 SB2-30
1161386	TOC #063 SB3-5
1161387	TOC #063 SB3-10
1161388	TOC #063 SB3-15
1161389	TOC #063 SB3-20
1161390	TOC #063 SB3-25
1161391	TOC #063 SB4-5
1161392	TOC #063 SB4-10
1161393	TOC #063 SB4-15
1161394	TOC #063 SB4-20
1161395	TOC #063 SB4-25

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

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Vice President

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CLIENT Thrifty Oil Company (8871)  
ATTN: Simon Tregurtha  
13116 Imperial Hwy.  
P.O. Box 2128  
Santa Fe Springs, CA 90670

LAB REQUEST 273726

REPORTED 04/27/2011

RECEIVED 04/20/2011

PROJECT Station #063  
6125 Telegraph Ave., Oakland

SUBMITTER Client

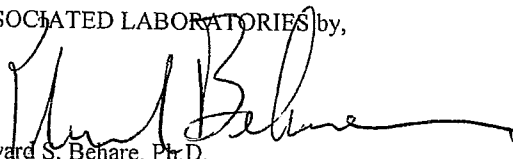
COMMENTS

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<u>Order No.</u>	<u>Client Sample Identification</u>
1161396	TOC #063 SB4-30
1161397	TOC #063 SB5-5
1161398	TOC #063 SB5-10
1161399	TOC #063 SB5-15
1161400	TOC #063 SB5-20
1161401	TOC #063 SB5-25
1161402	TOC #063 SB5-30
1161403	TOC #063 SB6-5
1161404	TOC #063 SB6-10
1161405	TOC #063 SB6-15
1161406	TOC #063 SB6-20

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward S. Behare, Ph.D.  
Vice President

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ATTN: Simon Tregurtha  
13116 Imperial Hwy.  
P.O. Box 2128  
Santa Fe Springs, CA 90670

LAB REQUEST 273726

REPORTED 04/27/2011

RECEIVED 04/20/2011

PROJECT Station #063  
6125 Telegraph Ave., Oakland

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

1161407  
1161408  
1161409  
1161410  
1161411

Client Sample Identification

TOC #063 SB6-25  
TOC #063 SB6-30  
TOC #063 SB3-30  
Laboratory Method Blank  
Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Vice President

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Chemical  
Microbiological  
Environmental

Order #: 1161374

Client Sample ID: TOC #063 SB1-5

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 08:35

Analyte	Result	DF	PQL	MDL Units	Date/Analyst
<b>8260B BTEX/MTBE</b>					
Benzene	ND	1.0	5	0.18 ug/Kg	04/21/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17 ug/Kg	04/21/11 NZ
Ethyl benzene	ND	1.0	5	0.23 ug/Kg	04/21/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25 ug/Kg	04/21/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17 ug/Kg	04/21/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13 ug/Kg	04/21/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8 ug/Kg	04/21/11 NZ
Toluene	ND	1.0	5	0.17 ug/Kg	04/21/11 NZ
Xylenes, total	ND	1.0	5	0.38 ug/Kg	04/21/11 NZ
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	97			%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	119			%	70 - 135
Surr3 - Toluene-d8	97			%	70 - 135
Surr4 - p-Bromofluorobenzene	108			%	70 - 135
<b>8015B - Gasoline</b>					
Gasoline	ND	1.0	3	0.018 mg/Kg	04/22/11 LT
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	67			%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 1 of 38



Order #: 1161375

Client Sample ID: TOC #063 SB1-10

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 08:38

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/21/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/21/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/21/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/21/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/21/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/21/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/21/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/21/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/21/11 NZ
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	104			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	124			%	70 - 135	
Surr3 - Toluene-d8	92			%	70 - 135	
Surr4 - p-Bromofluorobenzene	114			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/22/11 LT
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	68			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 2 of 38



Order #: 1161376

Client Sample ID: TOC #063 SB1-15

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 08:57

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/21/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/21/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/21/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/21/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/21/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/21/11 NZ
Tertiary butyl alcohol (TBA)	10	1.0	10	8.8	ug/Kg	04/21/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/21/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/21/11 NZ

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	104	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	119	%	70 - 135
Surr3 - Toluene-d8	97	%	70 - 135
Surr4 - p-Bromofluorobenzene	103	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/22/11 LT
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Surrogates		Units	Control Limits
p-Bromofluorobenzene (Sur)	116	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 1161377

Client Sample ID: TOC #063 SB1-20

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 09:23

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/21/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/21/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/21/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/21/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/21/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/21/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/21/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/21/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/21/11 NZ
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	100			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	117			%	70 - 135	
Surr3 - Toluene-d8	96			%	70 - 135	
Surr4 - p-Bromofluorobenzene	115			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/22/11 LT
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	83			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 4 of 38





Order #: 1161378

Client Sample ID: TOC #063 SB1-25

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 09:28

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
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**8260B BTEX/MTBE**

Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ

**Surrogates**

				Units	Control Limits
Surr1 - Dibromofluoromethane	111			%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	117			%	70 - 135
Surr3 - Toluene-d8	96			%	70 - 135
Surr4 - p-Bromofluorobenzene	108			%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/22/11 LT
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**Surrogates**

				Units	Control Limits
p-Bromofluorobenzene (Sur)	72			%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 5 of 38



Order #: 1161379

Client Sample ID: TOC #063 SB1-30

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 09:51

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	8.3	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	23	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	103			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	122			%	70 - 135	
Surr3 - Toluene-d8	95			%	70 - 135	
Surr4 - p-Bromofluorobenzene	105			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/22/11 LT
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	62			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 6 of 38



Order #: 1161380

Client Sample ID: TOC #063 SB2-5

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 13:04

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
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**8260B BTEX/MTBE**

Benzene	ND	1.0	5	0.18 ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17 ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23 ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25 ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17 ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13 ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8 ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17 ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38 ug/Kg	04/22/11 NZ

**Surrogates**

		Units	Control Limits
Surr1 - Dibromofluoromethane	97	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	124	%	70 - 135
Surr3 - Toluene-d8	98	%	70 - 135
Surr4 - p-Bromofluorobenzene	111	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018 mg/Kg	04/22/11 LT
----------	----	-----	---	-------------	-------------

**Surrogates**

		Units	Control Limits
p-Bromofluorobenzene (Sur)	75	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace



Order #: 1161381

Client Sample ID: TOC #063 SB2-10

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 13:17

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	98				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	118				%	70 - 135
Surr3 - Toluene-d8	92				%	70 - 135
Surr4 - p-Bromofluorobenzene	116				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	72				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 8 of 38



Order #: 1161382

Client Sample ID: TOC #063 SB2-15

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 13:30

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	88	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	17	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	86				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	104				%	70 - 135
Surr3 - Toluene-d8	95				%	70 - 135
Surr4 - p-Bromofluorobenzene	99				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	79				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace



Order #: 1161383

Client Sample ID: TOC #063 SB2-20

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 13:47

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
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**8260B BTEX/MTBE**

Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ

**Surrogates**

		Units	Control Limits
Surr1 - Dibromofluoromethane	98	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	117	%	70 - 135
Surr3 - Toluene-d8	91	%	70 - 135
Surr4 - p-Bromofluorobenzene	114	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
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**Surrogates**

		Units	Control Limits
p-Bromofluorobenzene (Sur)	77	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 10 of 38



Order #: 1161384

Client Sample ID: TOC #063 SB2-25

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 14:02

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	2.5J	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	101				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	125				%	70 - 135
Surr3 - Toluene-d8	94				%	70 - 135
Surr4 - p-Bromofluorobenzene	106				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	66				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 11 of 38



Order #: 1161385

Matrix: SOLID

Client Sample ID: TOC #063 SB2-30

Date Sampled: 04/18/2011 Time Sampled: 14:18

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	11	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
Surr1 - Dibromofluoromethane	98				Units	Control Limits
Surr2 - 1,2-Dichloroethane-d4	119				%	70 - 135
Surr3 - Toluene-d8	96				%	70 - 135
Surr4 - p-Bromofluorobenzene	112				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
p-Bromofluorobenzene (Sur)	61				Units	Control Limits
					%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 12 of 38





Order #: 1161386

Client Sample ID: TOC #063 SB3-5

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 10:00

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
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8260B BTEX/MTBE

Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	44	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ

Surrogates

		Units	Control Limits
Surr1 - Dibromofluoromethane	99	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	121	%	70 - 135
Surr3 - Toluene-d8	94	%	70 - 135
Surr4 - p-Bromofluorobenzene	109	%	70 - 135

8015B - Gasoline

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
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Surrogates

		Units	Control Limits
p-Bromofluorobenzene (Sur)	71	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace



Order #: 1161387

Client Sample ID: TOC #063 SB3-10

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 10:15

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	94				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	117				%	70 - 135
Surr3 - Toluene-d8	96				%	70 - 135
Surr4 - p-Bromofluorobenzene	107				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	83				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 14 of 38



Order #: 1161388

Client Sample ID: TOC #063 SB3-15

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 10:28

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	50.0	250.0	9.0	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	50.0	100.0	8.5	ug/Kg	04/22/11 NZ
Ethyl benzene	165J	50.0	250.0	11.5	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	50.0	100.0	12.5	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	50.0	250.0	8.5	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	50.0	100.0	6.5	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	50.0	500.0	440.0	ug/Kg	04/22/11 NZ
Toluene	ND	50.0	250.0	8.5	ug/Kg	04/22/11 NZ
Xylenes, total	63J	50.0	250.0	19.0	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	100				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	117				%	70 - 135
Surr3 - Toluene-d8	74				%	70 - 135
Surr4 - p-Bromofluorobenzene	116				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	95	25.0	75.0	0.45	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	117				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 15 of 38



Order #: 1161389

Client Sample ID: TOC #063 SB3-20

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 10:52

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	93	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	113	%	70 - 135
Surr3 - Toluene-d8	95	%	70 - 135
Surr4 - p-Bromofluorobenzene	112	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
p-Bromofluorobenzene (Sur)	77				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 16 of 38



Order #: 1161390

Client Sample ID: TOC #063 SB3-25

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 11:07

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	99				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	115				%	70 - 135
Surr3 - Toluene-d8	94				%	70 - 135
Surr4 - p-Bromofluorobenzene	113				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	73				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 17 of 38



Order #: 1161391

Client Sample ID: TOC #063 SB4-5

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 15:03

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	98	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	115	%	70 - 135
Surr3 - Toluene-d8	91	%	70 - 135
Surr4 - p-Bromofluorobenzene	118	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
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Surrogates		Units	Control Limits
p-Bromofluorobenzene (Sur)	74	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 18 of 38



Order #: 1161392

Client Sample ID: TOC #063 SB4-10

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 15:14

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	96	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	118	%	70 - 135
Surr3 - Toluene-d8	91	%	70 - 135
Surr4 - p-Bromofluorobenzene	112	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
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Surrogates		Units	Control Limits
p-Bromofluorobenzene (Sur)	84	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report



Lab Request 273726 results, page 19 of 38

<b>Order #:</b> 1161393	<b>Client Sample ID:</b> TOC #063 SB4-15
<b>Matrix:</b> SOLID	<b>Date Sampled:</b> 04/18/2011 <b>Time Sampled:</b> 15:30

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	50.0	250.0	9.0	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	50.0	100.0	8.5	ug/Kg	04/22/11 NZ
Ethyl benzene	900	50.0	250.0	11.5	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	50.0	100.0	12.5	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	50.0	250.0	8.5	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	50.0	100.0	6.5	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	50.0	500.0	440.0	ug/Kg	04/22/11 NZ
Toluene	ND	50.0	250.0	8.5	ug/Kg	04/22/11 NZ
Xylenes, total	344	50.0	250.0	19.0	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	99				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	123				%	70 - 135
Surr3 - Toluene-d8	77				%	70 - 135
Surr4 - p-Bromofluorobenzene	119				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	13	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	106				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace





Order #: 1161394

Client Sample ID: TOC #063 SB4-20

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 15:47

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	102	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	118	%	70 - 135
Surr3 - Toluene-d8	96	%	70 - 135
Surr4 - p-Bromofluorobenzene	107	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
p-Bromofluorobenzene (Sur)	64				Units	Control Limits
					%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 21 of 38



<b>Order #:</b> 1161395	<b>Client Sample ID:</b> TOC #063 SB4-25
<b>Matrix:</b> SOLID	<b>Date Sampled:</b> 04/18/2011 <b>Time Sampled:</b> 16:07

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	2.0J	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	97	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	117	%	70 - 135
Surr3 - Toluene-d8	95	%	70 - 135
Surr4 - p-Bromofluorobenzene	111	%	70 - 135

<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT

Surrogates		Units	Control Limits
p-Bromofluorobenzene (Sur)	75	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace



Order #: 1161396

Client Sample ID: TOC #063 SB4-30

Matrix: SOLID

Date Sampled: 04/18/2011 Time Sampled: 16:34

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	3.5J	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	7.4	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	2.4J	1.0	5	0.38	ug/Kg	04/23/11 NZ
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	97			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	114			%	70 - 135	
Surr3 - Toluene-d8	94			%	70 - 135	
Surr4 - p-Bromofluorobenzene	108			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	74			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 23 of 38



Order #: 1161397

Client Sample ID: TOC #063 SB5-5

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 11:33

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	95			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	114			%	70 - 135	
Surr3 - Toluene-d8	95			%	70 - 135	
Surr4 - p-Bromofluorobenzene	107			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	64			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 24 of 38



Order #: 1161398

Client Sample ID: TOC #063 SB5-10

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 11:37

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 LZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 LZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 LZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 LZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 LZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 LZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 LZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 LZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 LZ

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	102	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	123	%	70 - 135
Surr3 - Toluene-d8	97	%	70 - 135
Surr4 - p-Bromofluorobenzene	109	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
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Surrogates		Units	Control Limits
p-Bromofluorobenzene (Sur)	76	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 25 of 38



Order #: 1161399

Client Sample ID: TOC #063 SB5-15

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 11:42

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	98				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	113				%	70 - 135
Surr3 - Toluene-d8	94				%	70 - 135
Surr4 - p-Bromofluorobenzene	109				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	75				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 26 of 38



Order #: 1161400

Client Sample ID: TOC #063 SB5-20

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 11:48

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	97				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	112				%	70 - 135
Surr3 - Toluene-d8	93				%	70 - 135
Surr4 - p-Bromofluorobenzene	111				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	83				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 27 of 38



Order #: 1161401

Client Sample ID: TOC #063 SB5-25

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 11:52

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	100			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	113			%	70 - 135	
Surr3 - Toluene-d8	94			%	70 - 135	
Surr4 - p-Bromofluorobenzene	107			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	79			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 28 of 38





Order #: 1161402

Client Sample ID: TOC #063 SB5-30

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 12:00

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	95			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	116			%	70 - 135	
Surr3 - Toluene-d8	94			%	70 - 135	
Surr4 - p-Bromofluorobenzene	105			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	82			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 29 of 38



Order #: 1161403

Client Sample ID: TOC #063 SB6-5

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 13:43

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ

**Surrogates**

		Units	Control Limits
Surr1 - Dibromofluoromethane	95	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	113	%	70 - 135
Surr3 - Toluene-d8	95	%	70 - 135
Surr4 - p-Bromofluorobenzene	105	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
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**Surrogates**

		Units	Control Limits
p-Bromofluorobenzene (Sur)	84	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 30 of 38



Order #: 1161404

Client Sample ID: TOC #063 SB6-10

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 13:50

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	1.1J	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	98	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	116	%	70 - 135
Surr3 - Toluene-d8	92	%	70 - 135
Surr4 - p-Bromofluorobenzene	112	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
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**Surrogates**

		Units	Control Limits
p-Bromofluorobenzene (Sur)	79	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 31 of 38



Order #: 1161405

Matrix: SOLID

Client Sample ID: TOC #063 SB6-15

Date Sampled: 04/19/2011 Time Sampled: 13:57

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	35	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-terbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	98				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	121				%	70 - 135
Surr3 - Toluene-d8	94				%	70 - 135
Surr4 - p-Bromofluorobenzene	112				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	77				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 32 of 38



Order #: 1161406

Client Sample ID: TOC #063 SB6-20

Matrix: SOLID

Date Sampled: 04/19/2011 Time Sampled: 14:03

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	3.5	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	99	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	117	%	70 - 135
Surr3 - Toluene-d8	95	%	70 - 135
Surr4 - p-Bromofluorobenzene	108	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
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Surrogates		Units	Control Limits
p-Bromofluorobenzene (Sur)	73	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 33 of 38



Order #: 1161407

Matrix: SOLID

Client Sample ID: TOC #063 SB6-25

Date Sampled: 04/19/2011 Time Sampled: 14:07

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	97				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	117				%	70 - 135
Surr3 - Toluene-d8	98				%	70 - 135
Surr4 - p-Bromofluorobenzene	105				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	83				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 34 of 38



Order #: 1161408

Matrix: SOLID

Client Sample ID: TOC #063 SB6-30

Date Sampled: 04/19/2011 Time Sampled: 14:13

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ
<b>Surrogates</b>						
Surr1 - Dibromofluoromethane	96				Units	Control Limits
Surr2 - 1,2-Dichloroethane-d4	118				%	70 - 135
Surr3 - Toluene-d8	94				%	70 - 135
Surr4 - p-Bromofluorobenzene	111				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
p-Bromofluorobenzene (Sur)	71				Units	Control Limits
					%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 35 of 38



Order #: 1161409

Matrix: SOLID

Client Sample ID: TOC #063 SB3-30

Date Sampled: 04/18/2011 Time Sampled: 11:32

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/23/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/23/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/23/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/23/11 NZ
Methyl-tert-butylether (MTBE)	5.3	1.0	5	0.17	ug/Kg	04/23/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/23/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/23/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/23/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/23/11 NZ
<b>Surrogates</b>						
Surr1 - Dibromofluoromethane	98				Units	Control Limits
Surr2 - 1,2-Dichloroethane-d4	118				%	70 - 135
Surr3 - Toluene-d8	95				%	70 - 135
Surr4 - p-Bromofluorobenzene	106				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
p-Bromofluorobenzene (Sur)	77				Units	Control Limits
					%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 36 of 38





Order #: 1161410

Client Sample ID: Laboratory Method Blank

Matrix: SOLID

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/21/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/21/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/21/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/21/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/21/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/21/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/21/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/21/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/21/11 NZ
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
Surr1 - Dibromofluoromethane	98				%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	112				%	70 - 135
Surr3 - Toluene-d8	97				%	70 - 135
Surr4 - p-Bromofluorobenzene	114				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/22/11 LT
<b>Surrogates</b>						
					<b>Units</b>	<b>Control Limits</b>
p-Bromofluorobenzene (Sur)	84				%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 37 of 38



Order #: 1161411

Client Sample ID: Laboratory Method Blank

Matrix: SOLID

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	5	0.18	ug/Kg	04/22/11 NZ
Di-isopropyl ether (DIPE)	ND	1.0	2.0	0.17	ug/Kg	04/22/11 NZ
Ethyl benzene	ND	1.0	5	0.23	ug/Kg	04/22/11 NZ
Ethyl-tertbutylether (ETBE)	ND	1.0	2.0	0.25	ug/Kg	04/22/11 NZ
Methyl-tert-butylether (MTBE)	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Tert-amylmethylether (TAME)	ND	1.0	2.0	0.13	ug/Kg	04/22/11 NZ
Tertiary butyl alcohol (TBA)	ND	1.0	10	8.8	ug/Kg	04/22/11 NZ
Toluene	ND	1.0	5	0.17	ug/Kg	04/22/11 NZ
Xylenes, total	ND	1.0	5	0.38	ug/Kg	04/22/11 NZ
<b>Surrogates</b>						
Surr1 - Dibromofluoromethane	95				Units	Control Limits
Surr2 - 1,2-Dichloroethane-d4	106				%	70 - 135
Surr3 - Toluene-d8	95				%	70 - 135
Surr4 - p-Bromofluorobenzene	117				%	70 - 135
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	3	0.018	mg/Kg	04/23/11 LT
<b>Surrogates</b>						
p-Bromofluorobenzene (Sur)	95				Units	Control Limits
					%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273726 results, page 38 of 38



**ASSOCIATED LABORATORIES  
LCS REPORT FORM**

QC Sample: G6-LCS&LCSD

Matrix: SOIL

Prep. Date: April 23, 2011

Analysis Date 4/23/11-4/24/11

Lab ID#'s in Batch: 273726 .

**LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT**

Reporting Units = mg/kg

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	5.0	4.5	4.6	90	92	2

*ND = Not Detected*

*LCS Result = Lab Control Sample Result*

*%REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate*

*RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate*

<b>%REC LIMITS = 70 - 130</b>
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<b>RPD LIMITS = 30</b>
------------------------

**SURROGATE RECOVERY**

Sample No.	BFB
QC Limit	60-140
Method Blank	95
LCS	113
LCSD	127

*BFB = p-Bromofluorobenzene*

**ASSOCIATED LABORATORIES  
QA REPORT FORM**

QC Sample: 273726-377-5.0ms  
 Batch # 8015g6 0422-S  
 Prep Method 5035  
 Matrix: SOLID  
 Prep. Date: April 22, 2011  
 Analysis Date: 4/22/11-4/23/11  
 Lab ID#'s in Batch: 273726 .  
 Reporting Units = mg/Kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD	QC Limits	
									RPD	%REC
TPH	8015B	ND	5.0	3.8	4.3	76	86	12	30	70-130

**LAB CONTROLLED SPIKE**

Test	Method	Method Blank	Spike Added	LCS Spike	%Rec LCS	QC Limits
						%REC
TPH	8015B	ND	5.0	4.8	96	70-130

**SURROGATE RECOVERY**

Sample No.	Surrogate BFB
QC Limit	60-140
QA Sample	83
MS	110
MSD	100
Method Blank	84
LCS	91

*BFB = p Bromofluorobenzen*

# ASSOCIATED LABORATORIES

## QA / QC EPA Methods 8260 - GCMS # 4

QC Sample ID: 273726-377  
 QC Batch ID: 8260MS#4-0421S  
 Prep Method: 5035  
 Date Prepared: April 21, 2011  
 Date Analyzed: 4/21/2011 - 4/22/2011  
 Sample Matrix: Solid  
 Units: µg/Kg

Lab ID#'s in Batch: 273726, 273758

Compound	Sample Conc.	Spike Added	Spike Res	Dup Res	Spike % Rec	Dup % Rec	RPD	QC RPD	Limits % Rec
1,1-Dichloroethene	0.0	50.0	54.2	52.7	108	105	3	22	59 - 172
MTBE	0.0	50.0	50.6	49.8	101	100	2	24	62 - 137
Benzene	0.0	50.0	56.2	56.4	112	113	0	24	62 - 137
Trichloroethene	0.0	50.0	55.2	57.8	110	116	5	21	66 - 142
Toluene	0.0	50.0	50.4	52.8	101	106	5	21	59 - 139
Chlorobenzene	0.0	50.0	51.6	52.1	103	104	1	21	60 - 133

Sample ID: LCS

Compound	Spike Added	Spike Res	Spike % Rec	Limits % Rec
1,1-Dichloroethene	50.0	44.6	89	59 - 172
MTBE	50.0	50.2	100	62 - 137
Benzene	50.0	46.3	93	62 - 137
Trichloroethene	50.0	45.9	92	66 - 142
Toluene	50.0	44.8	90	59 - 139
Chlorobenzene	50.0	45.6	91	60 - 133

\*=Outside QC limits due to high concentration in sample

If Sample Result > 4 times Spike Added, then "NC"

### Surrogate Recovery

Compound	MB 1 % Rec	MB 2 % Rec	MS % Rec	MSD % Rec	LCS % Rec	Limits % Rec
Dibromofluoromethane	98	96	113	102	102	70 - 135
1,2-Dichloroethane-d4	112	108	128	116	110	70 - 135
Toluene-d8	97	90	93	96	101	70 - 135
p-Bromofluorobenzene	114	113	97	97	103	70 - 135

# ASSOCIATED LABORATORIES

## QA / QC EPA Methods 8260 - GCMS # 4

QC Sample ID: 273726-400  
 QC Batch ID: 8260MS#4-0422S  
 Prep Method: 5035  
 Date Prepared: April 22, 2011  
 Date Analyzed: 4/22/2011 - 4/23/2011  
 Sample Matrix: Solid  
 Units: µg/Kg

Lab ID#'s in Batch: 273726, 273644, 273630

Compound	Sample Conc.	Spike Added	Spike Res	Dup Res	Spike % Rec	Dup % Rec	RPD	QC RPD	Limits % Rec
1,1-Dichloroethene	0.0	50.0	45.2	52.6	90	105	15	22	59 - 172
MTBE	0.0	50.0	41.2	45.0	82	90	9	24	62 - 137
Benzene	0.0	50.0	50.4	52.8	101	106	5	24	62 - 137
Trichloroethene	0.0	50.0	55.3	54.1	111	108	2	21	66 - 142
Toluene	0.0	50.0	49.4	48.3	99	97	2	21	59 - 139
Chlorobenzene	0.0	50.0	47.6	48.4	95	97	2	21	60 - 133

Sample ID: LCS

Compound	Spike Added	Spike Res	Spike % Rec	Limits % Rec
1,1-Dichloroethene	50.0	48.2	96	59 - 172
MTBE	50.0	50.6	101	62 - 137
Benzene	50.0	54.5	109	62 - 137
Trichloroethene	50.0	53.5	107	66 - 142
Toluene	50.0	50.5	101	59 - 139
Chlorobenzene	50.0	50.4	101	60 - 133

\*=Outside QC limits due to high concentration in sample

If Sample Result > 4 times Spike Added, then "NC"

### Surrogate Recovery

Compound	MB 1 % Rec	MB 2 % Rec	MS % Rec	MSD % Rec	LCS % Rec	Limits % Rec
Dibromofluoromethane	95	94	95	100	106	70 - 135
1,2-Dichloroethane-d4	106	108	118	119	124	70 - 135
Toluene-d8	95	94	99	96	97	70 - 135
p-Bromofluorobenzene	117	109	99	102	99	70 - 135

# Chain of Custody Record

FAX Results to G-HC

## ASSOCIATED LABORATORIES

806 North Batavia ■ Orange, CA 92868  
Phone: (714) 771-6900 ■ Fax: (714) 538-1209



273726

Company <u>Thrifty Oil Co.</u>		Phone <u>562 921 3581</u>		A.L. Job No.		Page <u>1</u> of <u>2</u>			
Project Manager <u>Simon Tregurtha</u>		Fax <u>562 921 7570</u>		Analysis Requested <u>TPH, BTEX, MATHE, Lead, other, Oxy generators, by B260B</u>				Test Instructions & Comments	
Project Name <u>TDC 063 Site Assessment</u>		Project #							
Site Name and Address <u>6125 Telegraph Ave Oakland, CA</u>									
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.			
1 SB1-5		4-19-11	8:35	Soil	Acetate liner	ICE	✓		
2 SB1-10		4-19-11	8:38	"	"		✓		
3 SB1-15		4-19-11	8:51	"	"		✓		
4 SB1-20		4-19-11	9:23	"	"		✓		
5 SB1-25		4-19-11	9:28	"	"		✓		
6 SB1-30		4-19-11	9:51	"	"		✓		
7 SB2-5		4-18-11	13:04	"	1 Sample		✓		
8 SB2-10		4-18-11	13:07	"	"		✓		
9 SB2-15		4-18-11	13:30	"	"		✓		
10 SB2-20		4-18-11	13:47	"	"		✓		
11 SB2-25		4-18-11	14:02	"	"		✓		
12 SB2-30		4-18-11	14:18	"	"		✓		
13 SB3-5		4-18-11	10:00	"	"		✓		
14 SB3-10		4-18-11	10:15	"	"		✓		
15 SB3-15		4-18-11	10:28	"	"		✓		
<b>Sample Receipt - To Be Filled By Laboratory</b>				Relinquished by Sampler: <u>HACC</u> 1.		Relinquished by <u>AS1</u> 2.		Relinquished by 3.	
Total Number of Containers		Properly Cooled Y / N / NA		Signature: <u>[Signature]</u>		Signature: <u>[Signature]</u>		Signature:	
Custody Seals Y / N / NA		Samples Intact Y / N / NA		Printed Name: <u>Richard Ong</u>		Printed Name: <u>[Signature]</u>		Printed Name:	
Received in Good Condition Y / N		Samples Accepted Y / N		Date: <u>4/20/11</u> Time: <u>12:00</u>		Date: <u>4/20/11</u> Time: <u>11:30</u>		Date: Time:	
<b>Turn Around Time</b>				Received By: <u>AS1</u> 1.		Received By: <u>[Signature]</u> 153		Received By: 3.	
<input checked="" type="checkbox"/> Normal		<input type="checkbox"/> Rush		Signature: <u>[Signature]</u>		Signature: <u>[Signature]</u>		Signature:	
<input type="checkbox"/> Same Day		<input type="checkbox"/> 48 hrs.		Printed Name: <u>[Signature]</u>		Printed Name: <u>[Signature]</u>		Printed Name:	
<input type="checkbox"/> 24 hrs.		<input type="checkbox"/> 72 hrs.		Date: <u>4/20/11</u> Time: <u>12:00</u>		Date: <u>4/20/11</u> Time: <u>16:00</u>		Date: Time:	



**Chain of Custody Record**

*FAX Results To GHC*

Company <i>Thrifty Oil Co</i>		Phone <i>562 921 3581</i>		A.L. Job No.		Page <i>2</i> of <i>3</i>																	
Project Manager <i>Simon Tregurtha</i>		Fax <i>562 921 7510</i>		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="4">Analysis Requested</th> <th colspan="4">Test Instructions &amp; Comments</th> </tr> <tr> <td style="width:12.5%;"><i>TPH</i></td> <td style="width:12.5%;"><i>BOISM</i></td> <td style="width:12.5%;"><i>BTX</i></td> <td style="width:12.5%;"><i>MTHK</i></td> <td style="width:12.5%;"><i>and other</i></td> <td style="width:12.5%;"><i>hydrocarbons</i></td> <td style="width:12.5%;"><i>by 82605</i></td> <td style="width:12.5%;"></td> </tr> </table>				Analysis Requested				Test Instructions & Comments				<i>TPH</i>	<i>BOISM</i>	<i>BTX</i>	<i>MTHK</i>	<i>and other</i>	<i>hydrocarbons</i>	<i>by 82605</i>	
Analysis Requested								Test Instructions & Comments															
<i>TPH</i>	<i>BOISM</i>	<i>BTX</i>	<i>MTHK</i>	<i>and other</i>	<i>hydrocarbons</i>	<i>by 82605</i>																	
Project Name <i>TEC 063</i>		Project #																					
Site Name and Address <i>6125 Telegraph Ave Oakland, CA</i>																							
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.																	
1	SB3-20	4-18-11	10:52	Soil	1 Stainless	ICE	✓																
2	SB3-25	4-18-11	11:07	"	"	"	✓																
3	SB4-5	4-18-11	15:03	"	"	"	✓																
4	SB4-10	4-18-11	15:14	"	"	"	✓																
5	SB4-15	4-18-11	15:30	"	"	"	✓																
6	SB4-20	4-18-11	15:47	"	"	"	✓																
7	SB4-25	4-18-11	15:07	"	"	"	✓																
8	SB4-30	4-18-11	16:34	"	"	"	✓																
9	SB5-5	4-19-11	11:33	Soil	1 Acetate	"	✓																
10	SB5-10	4-19-11	11:37	"	"	"	✓																
11	SB5-15	4-19-11	11:42	"	"	"	✓																
12	SB5-20	4-19-11	11:48	"	"	"	✓																
13	SB5-25	4-19-11	11:52	"	"	"	✓																
14	SB5-30	4-19-11	12:00	"	"	"	✓																
15	SB6-5	4-19-11	13:43	"	"	"	✓																
<b>Sample Receipt - To Be Filled By Laboratory</b>				Relinquished by 1. <i>Herc</i>		Relinquished by 2. <i>AS1</i>		Relinquished by 3.															
Total Number of Containers		Property Cooled Y / N / NA		Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>		Signature:															
Custody Seals Y / N / NA		Samples Intact Y / N / NA		Printed Name: <i>Richard Vigil</i>		Printed Name: <i>[Signature]</i>		Printed Name:															
Received in Good Condition Y / N		Samples Accepted Y / N		Date: <i>4-20-2011</i> Time: <i>12:00</i>		Date: <i>4/20/11</i> Time: <i>15:30</i>		Date: Time:															
<b>Turn Around Time</b>				Received By: 1. <i>AS1</i>		Received By: 2. <i>[Signature]</i>		Received By: 3.															
<input checked="" type="checkbox"/> Normal		<input type="checkbox"/> Rush		Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>		Signature:															
<input type="checkbox"/> Same Day		<input type="checkbox"/> 48 hrs.		Printed Name: <i>[Signature]</i>		Printed Name: <i>[Signature]</i>		Printed Name:															
<input type="checkbox"/> 24 hrs.		<input type="checkbox"/> 72 hrs.		Date: <i>4/20/11</i> Time: <i>12:00</i>		Date: <i>4/20/11</i> Time: <i>16:00</i>		Date: Time:															





**Chain of Custody Record**

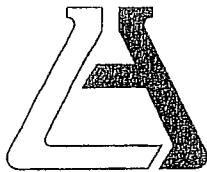
*Fax Results to GTC*

A.L. Job No.

Page 3 of 3

Company <i>Thrifty Oil Co</i>		Phone <i>562 921 3570</i>		Project Manager <i>Simon Trevino</i>		Fax <i>562 921 7510</i>		Analysis Requested		Test Instructions & Comments	
Project Name <i>TOE 063</i>		Project #		Site Name and Address <i>6125 Telegraph Ave Oakland, CA</i>		Project #		Analysis Requested		Test Instructions & Comments	
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPHg	BTEX, nitSE	DOX	By	
1	SB6-10	4-19-11	13:50	Soil	1 Acetate	ICE	✓	✓	✓	By 82603	
2	SB6-15	4-19-11	13:55	"	" inner	"	✓	✓	✓		
3	SB6-20	4-19-11	14:03	"	"	"	✓	✓	✓		
4	SB6-25	4-19-11	14:07	"	"	"	✓	✓	✓		
5	SB6-30	4-19-11	14:13	"	"	"	✓	✓	✓		
6	SB3-30	4-18-11	11:32	"	"	"	✓	✓	✓		
7											
8											
9											
10											
11											
12											
13											
14											
15											

Sample Receipt - To Be Filled By Laboratory				Relinquished by 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers	Properly Cooled Y / N / NA	Custody Seals Y / N / NA	Samples Intact Y / N / NA	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Received in Good Condition Y / N	Samples Accepted Y / N	Date: <i>4-20-2011</i>	Time: <i>12:00</i>	Printed Name: <i>Michael Vogt</i>	Date: <i>4/20/11</i>	Time: <i>11:30</i>	Date: <i>4/20/11</i>	Time: <i>12:00</i>	Date: <i>4/20/11</i>
Turn Around Time				Received By: 1.		Received By: 2.		Received By: 3.	
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	<input type="checkbox"/> Same Day	<input type="checkbox"/> 48 hrs.	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
		<input type="checkbox"/> 24 hrs.	<input type="checkbox"/> 72 hrs.	Printed Name: <i>[Signature]</i>	Printed Name: <i>[Signature]</i>	Printed Name: <i>[Signature]</i>	Printed Name: <i>[Signature]</i>	Printed Name: <i>[Signature]</i>	Printed Name: <i>[Signature]</i>
				Date: <i>4/20/11</i>	Date: <i>4/20/11</i>	Date: <i>4/20/11</i>	Date: <i>4/20/11</i>	Date: <i>4/20/11</i>	Date: <i>4/20/11</i>



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714-771-6900

FAX 714-538-1209

**SAMPLE ACCEPTANCE CHECKLIST**

**Section 1**  
 Client: TOC Project: # 063  
 Date Received: 4/20/11 Sampler's Name: Yes No  
 Sample(s) received in cooler: Yes No (Skip Section 2)  
 Shipping Information:

**Section 2**  
 Was the cooler packed with:  Ice  Ice Packs  Bubble Wrap  Styrofoam  
 Paper  None  Other \_\_\_\_\_  
 Cooler or box temperature: 2.0c  
 (Acceptance range is 2 to 6 Deg. C.)

Section 3	YES	NO	N/A
Was a COC received?	X		
Is it properly completed? (IDs, sampling date and time, signature, test)	X		
Were custody seals present?		X	
If Yes - were they intact?			X
Were all samples sealed in plastic bags?	X		
Did all samples arrive intact? If no, indicate below.	X		
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were correct containers used for the tests required?	X		
Was a sufficient amount of sample sent for tests indicated?	X		
Was there headspace in VOA vials?		X	
Were the containers labeled with correct preservatives?	X		
Was total residual chlorine measured (Fish Bioassay samples only)? *			X

\*: If the answer is no, please inform Fish Bioassay Dept. immediately.

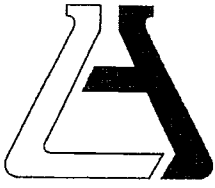
**Section 4**  
 Explanations/Comments

**Section 5**  
 Was Project Manager notified of discrepancies: Y / N N/A

Completed By: M. E. Best Date: 04/20/11

**APPENDIX G**

**Groundwater Sample Laboratory Analytical Report  
and Chain-of-Custody Documents**



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Thrifty Oil Company (8871)  
ATTN: Jeff Suryakusuma  
13116 Imperial Hwy.  
P.O. Box 2128  
Santa Fe Springs, CA 90670

LAB REQUEST 273747

REPORTED 04/25/2011

RECEIVED 04/20/2011

PROJECT Station #063  
6125 Telegraph Ave., Oakland

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

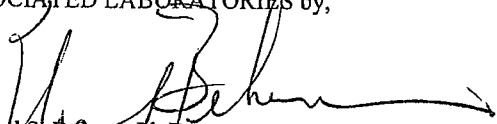
Client Sample Identification

1161588  
1161589  
1161590  
1161591  
1161592  
1161593

TOC #063 SV-5-04182011  
TOC #063 SV-6-04182011  
TOC #063 SB5-04192011  
TOC #063 SB6-04192011  
TOC #063 SB1-30-04192011  
Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward S. Benare, Ph.D.  
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Order #: 1161588

Client Sample ID: TOC #063 SV-5-04182011

Matrix: WATER

Date Sampled: 04/18/2011 Time Sampled: 14:30

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	1	0.18	ug/L	04/23/11 RP
Di-isopropyl ether (DIPE)	ND	1.0	1.0	0.20	ug/L	04/23/11 RP
Ethyl benzene	ND	1.0	5	0.21	ug/L	04/23/11 RP
Ethyl-tertbutylether (ETBE)	ND	1.0	1.0	0.23	ug/L	04/23/11 RP
Methyl-tert-butylether (MTBE)	ND	1.0	1	0.19	ug/L	04/23/11 RP
Tert-amylmethylether (TAME)	ND	1.0	1.0	0.19	ug/L	04/23/11 RP
Tertiary butyl alcohol (TBA)	ND	1.0	10	5.2	ug/L	04/23/11 RP
Toluene	ND	1.0	5	0.24	ug/L	04/23/11 RP
Xylenes, total	ND	1.0	5	0.45	ug/L	04/23/11 RP
<b>Surrogates</b>						
				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	102			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	124			%	70 - 135	
Surr3 - Toluene-d8	95			%	70 - 135	
Surr4 - p-Bromofluorobenzene	105			%	70 - 135	
<b>8015B- Gasoline</b>						
Gasoline	ND	1.0	50	6.6	ug/L	04/24/11 LT
<b>Surrogates</b>						
				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	99			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273747 results, page 1 of 6



Order #: 1161589

Client Sample ID: TOC #063 SV-6-04182011

Matrix: WATER

Date Sampled: 04/18/2011 Time Sampled: 13:20

Analyte	Result	DF	PQL	MDL Units	Date/Analyst
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**8260B BTEX/MTBE**

Benzene	ND	1.0	1	0.18 ug/L	04/23/11 RP
Di-isopropyl ether (DIPE)	ND	1.0	1.0	0.20 ug/L	04/23/11 RP
Ethyl benzene	ND	1.0	5	0.21 ug/L	04/23/11 RP
Ethyl-tertbutylether (ETBE)	ND	1.0	1.0	0.23 ug/L	04/23/11 RP
Methyl-tert-butylether (MTBE)	1.3	1.0	1	0.19 ug/L	04/23/11 RP
Tert-amylmethylether (TAME)	ND	1.0	1.0	0.19 ug/L	04/23/11 RP
Tertiary butyl alcohol (TBA)	ND	1.0	10	5.2 ug/L	04/23/11 RP
Toluene	ND	1.0	5	0.24 ug/L	04/23/11 RP
Xylenes, total	ND	1.0	5	0.45 ug/L	04/23/11 RP

**Surrogates**

		Units	Control Limits
Surr1 - Dibromofluoromethane	100	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	128	%	70 - 135
Surr3 - Toluene-d8	95	%	70 - 135
Surr4 - p-Bromofluorobenzene	102	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	50	6.6 ug/L	04/24/11 LT
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**Surrogates**

		Units	Control Limits
p-Bromofluorobenzene (Sur)	100	%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273747 results, page 2 of 6



Order #: 1161590

Client Sample ID: TOC #063 SB5-04192011

Matrix: WATER

Date Sampled: 04/19/2011 Time Sampled: 12:20

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	1	0.18	ug/L	04/23/11 RP
Di-isopropyl ether (DIPE)	ND	1.0	1.0	0.20	ug/L	04/23/11 RP
Ethyl benzene	ND	1.0	5	0.21	ug/L	04/23/11 RP
Ethyl-tertbutylether (ETBE)	ND	1.0	1.0	0.23	ug/L	04/23/11 RP
Methyl-tert-butylether (MTBE)	ND	1.0	1	0.19	ug/L	04/23/11 RP
Tert-amylmethylether (TAME)	ND	1.0	1.0	0.19	ug/L	04/23/11 RP
Tertiary butyl alcohol (TBA)	ND	1.0	10	5.2	ug/L	04/23/11 RP
Toluene	ND	1.0	5	0.24	ug/L	04/23/11 RP
Xylenes, total	ND	1.0	5	0.45	ug/L	04/23/11 RP
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	100			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	123			%	70 - 135	
Surr3 - Toluene-d8	95			%	70 - 135	
Surr4 - p-Bromofluorobenzene	104			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	50	6.6	ug/L	04/24/11 LT
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	102			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273747 results, page 3 of 6



Order #: 1161591

Client Sample ID: TOC #063 SB6-04192011

Matrix: WATER

Date Sampled: 04/19/2011 Time Sampled: 14:30

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	1	0.18	ug/L	04/23/11 RP
Di-isopropyl ether (DIPE)	2.9	1.0	1.0	0.20	ug/L	04/23/11 RP
Ethyl benzene	ND	1.0	5	0.21	ug/L	04/23/11 RP
Ethyl-tertbutylether (ETBE)	ND	1.0	1.0	0.23	ug/L	04/23/11 RP
Methyl-tert-butylether (MTBE)	ND	1.0	1	0.19	ug/L	04/23/11 RP
Tert-amylmethylether (TAME)	ND	1.0	1.0	0.19	ug/L	04/23/11 RP
Tertiary butyl alcohol (TBA)	ND	1.0	10	5.2	ug/L	04/23/11 RP
Toluene	ND	1.0	5	0.24	ug/L	04/23/11 RP
Xylenes, total	ND	1.0	5	0.45	ug/L	04/23/11 RP
<b>Surrogates</b>						
				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	101			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	124			%	70 - 135	
Surr3 - Toluene-d8	97			%	70 - 135	
Surr4 - p-Bromofluorobenzene	103			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	50	6.6	ug/L	04/24/11 LT
<b>Surrogates</b>						
				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	101			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273747 results, page 4 of 6





Order #: 1161592

Client Sample ID: TOC #063 SB1-30-04192011

Matrix: WATER

Date Sampled: 04/19/2011 Time Sampled: 10:10

Analyte	Result	DF	PQL	MDL Units	Date/Analyst
<b>8260B BTEX/MTBE</b>					
Benzene	ND	1.0	1	0.18 ug/L	04/23/11 RP
Di-isopropyl ether (DIPE)	ND	1.0	1.0	0.20 ug/L	04/23/11 RP
Ethyl benzene	ND	1.0	5	0.21 ug/L	04/23/11 RP
Ethyl-tertbutylether (ETBE)	ND	1.0	1.0	0.23 ug/L	04/23/11 RP
Methyl-tert-butylether (MTBE)	11	1.0	1	0.19 ug/L	04/23/11 RP
Tert-amylmethylether (TAME)	ND	1.0	1.0	0.19 ug/L	04/23/11 RP
Tertiary butyl alcohol (TBA)	11	1.0	10	5.2 ug/L	04/23/11 RP
Toluene	ND	1.0	5	0.24 ug/L	04/23/11 RP
Xylenes, total	ND	1.0	5	0.45 ug/L	04/23/11 RP

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	101	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	126	%	70 - 135
Surr3 - Toluene-d8	96	%	70 - 135
Surr4 - p-Bromofluorobenzene	107	%	70 - 135

**8015B - Gasoline**

Gasoline	ND	1.0	50	6.6 ug/L	04/24/11 LT
<b>Surrogates</b>					
p-Bromofluorobenzene (Sur)	102			%	60 - 140

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273747 results, page 5 of 6



Order #: 1161593

Client Sample ID: Laboratory Method Blank

Matrix: WATER

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE</b>						
Benzene	ND	1.0	1	0.18	ug/L	04/23/11 RP
Di-isopropyl ether (DIPE)	ND	1.0	1.0	0.20	ug/L	04/23/11 RP
Ethyl benzene	ND	1.0	5	0.21	ug/L	04/23/11 RP
Ethyl-tertbutylether (ETBE)	ND	1.0	1.0	0.23	ug/L	04/23/11 RP
Methyl-tert-butylether (MTBE)	ND	1.0	1	0.19	ug/L	04/23/11 RP
Tert-amylmethylether (TAME)	ND	1.0	1.0	0.19	ug/L	04/23/11 RP
Tertiary butyl alcohol (TBA)	ND	1.0	10	5.2	ug/L	04/23/11 RP
Toluene	ND	1.0	5	0.24	ug/L	04/23/11 RP
Xylenes, total	ND	1.0	5	0.45	ug/L	04/23/11 RP
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
Surr1 - Dibromofluoromethane	100			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	124			%	70 - 135	
Surr3 - Toluene-d8	99			%	70 - 135	
Surr4 - p-Bromofluorobenzene	113			%	70 - 135	
<b>8015B - Gasoline</b>						
Gasoline	ND	1.0	50	6.6	ug/L	04/24/11 LT
<b>Surrogates</b>				<b>Units</b>	<b>Control Limits</b>	
p-Bromofluorobenzene (Sur)	98			%	60 - 140	

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 273747 results, page 6 of 6



**ASSOCIATED LABORATORIES  
LCS REPORT FORM**

QC Sample: G5-LCS&LCSD

Matrix: WATER

Prep. Date: April 24, 2011

Analysis Date 4/24/11-4/25/11

Lab ID#'s in Batch: 273635 , 273645 , 273713 , 273711 , 273714 , 273747 , 273757 .

**LAB CONTROLLE SPIKE / LAB CONTROLLED DUPLICATE RESULT**

Reporting Units = µg/L

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	500	442	439	88	88	1

*ND = Not Detected*

*LCS Result = Lab Control Sample Result*

*%REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate*

*RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate*

<b>%REC LIMITS = 70 - 130</b>
-------------------------------

<b>RPD LIMITS = 30</b>
------------------------

**SURROGATE RECOVERY**

Sample No.	BFB
QC Limit	60-140
Method Blank	98
LCS	102
LCSD	104

*BFB = p-Bromofluorobenzene*

# ASSOCIATED LABORATORIES

## QA / QC EPA Methods 8260 GCMS # 3

Sample ID: *LCS / LCSD Water Sample*

Date Prepared: April 22, 2011

Date Analyzed: April 23, 2011

Sample Matrix: Water

Units: µg/L

Lab ID#'s in Batch: 273646, 273651, 273715, 273729, 273792, 273747

Compound	True Value	LCS Res	LCSD Res	LCS % Rec	LCSD % Rec	RPD	QC RPD	Limits % Rec
1,1-Dichloroethene	50.0	53.8	55.2	108	110	3	22	59 - 172
MTBE	50.0	52.6	54.0	105	108	3	24	62 - 137
Benzene	50.0	53.0	53.4	106	107	1	24	62 - 137
Trichloroethene	50.0	49.9	51.7	100	103	4	21	66 - 142
Toluene	50.0	52.6	52.7	105	105	0	21	59 - 139
Chlorobenzene	50.0	54.5	52.9	109	106	3	21	60 - 133

### Surrogate Recovery

Compound	MB1 % Rec	MB2 % Rec		LCS % Rec	LCSD % Rec	Limits % Rec
Dibromofluoromethane	100	99		103	104	70 - 135
1,2-Dichloroethane-d4	124	126		88	86	70 - 135
Toluene-d8	99	96		99	100	70 - 135
p-Bromofluorobenzene	113	101		101	100	70 - 135



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Date 4-20-2011 Page 1 of 1

**CHAIN OF CUSTODY RECORD**

Assigned LR# 273747

CLIENT: <u>Thifty Oil Co</u> <sup>TOC063</sup> ADDRESS: <u>6125 Telegraph Ave</u> <u>Oakland CA</u> Is this the address the final report is to be sent to? Yes <input type="checkbox"/> No <input type="checkbox"/> If "No" list mailing address in "Special Instructions" section at the bottom of this Chain of Custody.	PROJECT IDENTIFICATION/LOCATION:  PURCHASE ORDER #:  SAMPLER: (Print AND Sign) <u>Richard Vogl</u> <u>[Signature]</u>	SAMPLE TURNAROUND TIME: Requested Turnaround Time (CIRCLE ONE)* Priority Charges Apply to Rush Turn Around Times RUSH: Same Day 24 Hr 48 Hr 72 Hr STANDARD: <u>Standard TAT</u> ** (5 to 10 Working Days) Other _____ * Availability of Same Day/24/48/72 Hr TAT Varies Based Upon Test Method Requirements. **Standard TAT Varies According to Analyses.
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CONTACT PERSON: _____ SAMPLED BY (Circle One): Client Assoc. Lab Personnel	PHONE #: <u>(562) 921-3581</u> FAX #: <u>(562) 921-7510</u>	SAMPLE CONDITION INFO - FOR LAB USE ONLY: Samples Intact: Yes <input type="checkbox"/> No <input type="checkbox"/> Sample Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Cooler Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
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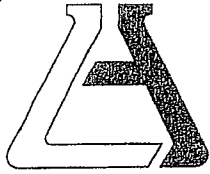
Sample ID	Sample or Location Description	Date	Time	Matrix (See Codes Below)	# of Containers	Preservatives	Test Required
SV-5-04182011		4-18-11	14:30	Water	3 VOA	HCL	TP#9 8015m BTEX, Oxygenates B260B
SV-6-04182011		4-18-11	13:20	"	"	"	"
SB5-04192011		4-19-11	12:20	"	"	"	"
SB6-04192011		4-19-11	14:30	"	"	"	"
SB1-30-04192011		4-19-11	10:10	"	"	"	"

MATRIX: GW=Ground Water DW=Drinking Water WW=Waste Water SW=Storm Water S=Solid/Soil A=Air L=Liquid F=Food (Use the codes shown here to identify the matrix above)

Relinquished by: (Print AND Sign)*** <u>Richard Vogl</u>	Received By: (Print AND Sign) <u>[Signature]</u>	Date/Time: <u>4-20-11 12:00</u>	Special Instructions:  <u>16:00</u>
Relinquished by: (Print AND Sign)*** <u>[Signature]</u>	Received By: (Print AND Sign) <u>M. Cabert</u>	Date/Time: <u>4/20/11</u>	
Relinquished by: (Print AND Sign)*** <u>[Signature]</u>	Received by Lab for Analysis: (Print AND Sign)	Date/Time:	

\*\*\*By signing this Chain of Custody you are authorizing the analyses shown above. Richard Vogl (Print AND Sign)

COC DISTRIBUTION:  
 White with report. Yellow to AL. Pink to Client's Courier.



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714-771-6900

FAX 714-538-1209

**SAMPLE ACCEPTANCE CHECKLIST**

**Section 1** TOC  
 Client: \_\_\_\_\_ Project: # 063  
 Date Received: 4/20/11 Sampler's Name: Yes No  
 Sample(s) received in cooler: Yes No (Skip Section 2)  
 Shipping Information: \_\_\_\_\_

**Section 2**  
 Was the cooler packed with:  Ice  Ice Packs  Bubble Wrap  Styrofoam  
 Paper  None  Other \_\_\_\_\_  
 Cooler or box temperature: 2.0c  
 (Acceptance range is 2 to 6 Deg. C.)

Section 3	YES	NO	N/A
Was a COC received?	X		
Is it properly completed? (IDs, sampling date and time, signature, test)	X		
Were custody seals present?		X	
If Yes - were they intact?			X
Were all samples sealed in plastic bags?	X		
Did all samples arrive intact? If no, indicate below.	X		
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were correct containers used for the tests required?	X		
Was a sufficient amount of sample sent for tests indicated?	X		
Was there headspace in VOA vials?		X	
Were the containers labeled with correct preservatives?	X		
Was total residual chlorine measured (Fish Bioassay samples only)? *			X

\*: If the answer is no, please inform Fish Bioassay Dept. immediately.

**Section 4**  
 Explanations/Comments  
 \_\_\_\_\_  
 \_\_\_\_\_

**Section 5**  
 Was Project Manager notified of discrepancies: Y / N N/A

Completed By: M. Cabert Date: 04/20/11

**APPENDIX H**

**DTSC Soil Vapor Risk Model**

DATA ENTRY SHEET

SG-SCREEN  
PA Version 2.0; 04/

DTSC  
Vapor Intrusion Guidance  
Interim Final 12/04  
(last modified 2/4/09)

Reset to  
Defaults

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., $C_a$ ( $\mu\text{g}/\text{m}^3$ )	OR	ENTER Soil gas conc., $C_a$ (ppmv)	Chemical
71432	1.00E+01			Benzene

MORE  
↓

ENTER Depth below grade to bottom of enclosed space floor, $L_f$ (15 or 200 cm)	ENTER Soil gas sampling depth below grade, $L_s$ (cm)	ENTER Average soil temperature, $T_s$ ( $^{\circ}\text{C}$ )	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, $k_v$ ( $\text{cm}^2$ )
15	91.44	24	SCL		

MORE  
↓

ENTER Vadose zone SCS soil type  Lookup Soil Parameters	ENTER Vadose zone soil dry bulk density, $\rho_b^A$ ( $\text{g}/\text{cm}^3$ )	ENTER Vadose zone soil total porosity, $n^V$ (unitless)	ENTER Vadose zone soil water-filled porosity, $\theta_w^V$ ( $\text{cm}^3/\text{cm}^3$ )	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) $Q_{\text{soil}}$ (L/m)
SCL	1.63	1.33	0.146	5

MORE  
↓

ENTER Averaging time for carcinogens, $AT_C$ (yrs)	ENTER Averaging time for noncarcinogens, $AT_{NC}$ (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END



CHEMICAL PROPERTIES SHEET

Diffusivity in air, $D_a$ ( $\text{cm}^2/\text{s}$ )	Diffusivity in water, $D_w$ ( $\text{cm}^2/\text{s}$ )	Henry's law constant at reference temperature, H ( $\text{atm}\cdot\text{m}^3/\text{mol}$ )	Henry's law constant reference temperature, $T_R$ ( $^\circ\text{C}$ )	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ ( $\text{cal}/\text{mol}$ )	Normal boiling point, $T_B$ ( $^\circ\text{K}$ )	Critical temperature, $T_C$ ( $^\circ\text{K}$ )	Unit risk factor, URF ( $\mu\text{g}/\text{m}^3$ ) <sup>-1</sup>	Reference conc., RFC ( $\text{mg}/\text{m}^3$ )	Molecular weight, MW ( $\text{g}/\text{mol}$ )
8.80E-02	9.80E-06	5.54E-03	25	7,342	353.24	562.16	2.9E-05	3.0E-02	78.11

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, $L_T$ (cm)	Vadose zone soil air-filled porosity, $\theta_a^V$ ( $\text{cm}^3/\text{cm}^3$ )	Vadose zone effective total fluid saturation, $S_{te}$ ( $\text{cm}^3/\text{cm}^3$ )	Vadose zone soil intrinsic permeability, $k_i$ ( $\text{cm}^2$ )	Vadose zone soil relative air permeability, $k_{ra}$ ( $\text{cm}^2$ )	Vadose zone soil effective vapor permeability, $k_v$ ( $\text{cm}^2$ )	Floor-wall seam perimeter, $X_{crack}$ (cm)	Soil gas conc. ( $\mu\text{g}/\text{m}^3$ )	Bldg. ventilation rate, $Q_{building}$ ( $\text{cm}^3/\text{s}$ )
76.44	1.184	0.066	2.09E-09	0.967	2.02E-09	4,000	1.00E+01	3.39E+04

Area of enclosed space below grade, $A_B$ ( $\text{cm}^2$ )	Crack-to-total area ratio, $\eta$ (unitless)	Crack depth below grade, $Z_{crack}$ (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, $H_{TS}$ (atm- $\text{m}^3/\text{mol}$ )	Henry's law constant at ave. soil temperature, $H'_{TS}$ (unitless)	Vapor viscosity at ave. soil temperature, $\mu_{TS}$ (g/cm-s)	Vadose zone effective diffusion coefficient, $D_v^{eff}$ ( $\text{cm}^2/\text{s}$ )	Diffusion path length, $L_d$ (cm)
1.00E+06	5.00E-03	15	7,977	5.29E-03	2.17E-01	1.80E-04	8.73E-02	76.44

Convection path length, $L_p$ (cm)	Source vapor conc., $C_{source}$ ( $\mu\text{g}/\text{m}^3$ )	Crack radius, $r_{crack}$ (cm)	Average vapor flow rate into bldg., $Q_{soil}$ ( $\text{cm}^3/\text{s}$ )	Crack effective diffusion coefficient, $D^{crack}$ ( $\text{cm}^2/\text{s}$ )	Area of crack, $A_{crack}$ ( $\text{cm}^2$ )	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, $\alpha$ (unitless)	Infinite source bldg. conc., $C_{building}$ ( $\mu\text{g}/\text{m}^3$ )
15	1.00E+01	1.25	8.33E+01	8.73E-02	5.00E+03	6.75E+00	2.66E-03	2.66E-02

Unit risk factor, URF ( $\mu\text{g}/\text{m}^3$ ) <sup>-1</sup>	Reference conc., RfC ( $\text{mg}/\text{m}^3$ )
2.9E-05	3.0E-02

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
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3.2E-07	8.5E-04
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MESSAGE SUMMARY BELOW:

END