THRIFTY OIL CO.

September 25, 2008

O.90644

Local #RO0000004
RWQCB #01-1478

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

RE: **Former Thrifty Oil Co. Station #049**
3400 San Pablo Avenue
Oakland, CA 94612
Feasibility Study and Corrective Action Plan

Dear Mr. Plunkett:

Presented herein is the Feasibility Study and Corrective Action Plan prepared by GeoHydrologic Consultants, Inc. for former Thrifty Oil Co. (Thrifty) Station #049 located at 3400 San Pablo Avenue, Oakland, California **(Figure 1)**. This report was prepared in response to the Alameda County Environmental Health Care Services letter dated July 29, 2008.

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. Bobby Lu, P.G.
File

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Feasibility Study and Corrective Action Plan

Former Thrifty Oil Co. Station No. 049
3400 San Pablo Avenue
Oakland, California

RWQCB File No. 01-1478
Facility Global ID No. T0600101365

September 22, 2008
GHC 1508

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

Prepared by
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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 a Feasibility Study and Corrective Action Plan (FS/CAP) for Thrifty Station No. 049 located at 3400 San Pablo Avenue in Oakland, California ("the Site"; **Figure 1**). The oversight agency for the soil and groundwater remediation at this Site is the ACHCA. The requirements for the FS/CAP were set forth in the ACHCA letter to Thrifty dated July 29, 2008 in response to the *Workplan for Bi-Weekly Mobile Dual Phase Vapor Extraction (DPE) Events,* submitted by Thrifty on April 22, 2008.

The purpose of the FS/CAP, in accordance with Title 23 California Code of Regulations, Section 2725, is to provide a comprehensive summary of historic assessment and remedial work to date, and to discuss the feasibility of cost-effective technologies to remove petroleum hydrocarbon concentrations in soil and groundwater present beneath the Site.

2.0 SITE DESCRIPTION

The Site is an active service station located at the northeast corner of the intersection of San Pablo Avenue and 34th Street in the City of Oakland, California. The Site consists of two active dispenser islands, a cashier's booth, 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 within the San Francisco Bay structural depression of the Coast Ranges Physiographic Province in central Alameda County, California. Bedrock in the region consists of sedimentary, metasedimentary, volcanic, and intrusive rocks of Jurassic through Tertiary geologic age. Quaternary marine and alluvial sediments blanket the downwarped bedrock within the basin in which the Site is located. Based on previous drilling activities performed, the soils beneath the Site consist mainly of silty, sandy, and gravelly clays to 25 feet below ground surface.

Geologic cross sections are included as **Figures 3A, 3B,** and **3C**. The lines of cross section are shown in **Figure 2**. Historic and recent soil laboratory analytical results are located in **Table 1A and 1B**.

3.1.2 Hydrogeology

The Site 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 generally occurs beneath the Site at depths ranging from approximately 4 to 7 feet below ground surface (bgs), which is shown in **Table 2A,** along with historic and recent groundwater sample laboratory analytical results. A groundwater elevation contour map based on the July 16, 2008 monitoring data indicates that groundwater flows to the west-southwest at an approximate gradient of 0.0321 feet/foot (**Figure 5**).

3.2 Production Well/Utility Location Survey

Based on the Groundwater Production Well and Utility Conduit Survey Report conducted by AGE, dated October 21, 2003, well driller's reports were found for seven water wells located within a one-mile radius of the Site, with four of the seven wells having been located. The nearest groundwater production well is located approximately 900 feet west of the Site. No other sensitive receptors were identified visually; however, three additional leaking underground storage tanks (LUST) sites were located adjacent to the Site, with the nearest LUST site located 50 feet north of the Site at a Shell station. The East Bay Municipal Utilities Department (EBMUD) provides the water and sewer service for the Site and has no municipal wells in the area. The Utility Conduit Survey concluded that two main trenches border the Site, which follow 34th Street and San Pablo Avenue. The approximate locations of utilities including water service, storm line drain, sanitary sewer line, gas main, and underground electric service are shown in **Figure 2**.

3.3 Previous Site Assessment Activities

An initial site assessment was conducted by Groundwater Technology in August of 1986 and consisted of advancing three soil borings and installing three 2-inch monitoring wells to 15 feet bgs. Only the samples from SB-1 and MW-3 were found to contain detectable hydrocarbons (67 and 22 parts per million (ppm), respectively). However, these concentrations were below the SFRWQCB's ESLs for TPHg in shallow soil.

A follow-up assessment in November 1986 was conducted by Woodward-Clyde Consultants and consisted of installing four monitoring wells (MW-4 through MW-7). Wells MW-4 and MW-7 were constructed as 4-inch diameter wells to allow them to be used for extraction activities, if required, while MW-5 and MW-6 were constructed as 2-inch diameter wells. Free product was found to be present in MW-1 at a thickness of approximately 0.3 feet. Soil samples were taken at the approximate location of the water table at a depth of 7 feet in all of the borings except for MW-5 where a sample could not be recovered. Only the samples from MW-4 and MW-7 exhibited hydrocarbon odors and

were submitted to a laboratory for analysis. Only the sample from MW-4 was found to have detectable levels of total petroleum hydrocarbons (TPH) of 1,200 ppm, which is above the ESL of 100 mg/kg, and total benzene, toluene, xylenes, ethylbenzene, and xylenes (BTEX) of 107 ppm, which is higher than the highest individual BTEX constituent ESL (3.3 mg/kg for ethylbenzene). Water samples were taken from each newly installed well and submitted for laboratory analysis. Only the water samples from MW-4 and MW-7 had detectable levels of TPH of 97 and 38 ppm, respectively, and total BTEX of 18.8 and 13.9 ppm, respectively. The SFRWQCB's BPOs for TPHg, benzene, toluene, ethylbenzene, and xylenes in groundwater are 100 µg/L, 1.0 µg/L, 40 µg/L, 30 µg/L, and 20 µg/L, respectively.

Soil borings B-1 through B-5 were completed to total a depth of 16 feet (except for B-4 which was completed to 4 feet) on September 11, 1987 by Interstate Soils Sampling under an engineering geologist from Hydrotech. Laboratory analysis was performed on soil samples from borings B-2 and B-3 because they had the highest field-measured readings. TPH was present at the five foot interval of B-2 at a concentration of 3,600 mg/kg, which is higher than the ESL (100 mg/kg). The ten foot interval of B-2 and all of B-3 was non-detect.

On March 23, 1998, four gasoline USTs and their associated piping were removed from the Site. The USTs were 10,000-gallon and 8,000-gallon capacity and were constructed of single-walled steel. On March 27, 1998, two 20,000-gallon double-walled USTs were installed at the Site. Approximately 1,093 tons of impacted soil was excavated. Soil samples and groundwater samples were collected and analyzed. Areas of significant petroleum hydrocarbon impact were the former UST basin and the product piping trenches. TPH concentrations were detected between 9.5 mg/kg in soil sample P-5 to 4,900 mg/kg in soil sample P-4. The ESL for TPHg in soil is 100 mg/kg.

On January 6, 2004, AGE completed four offsite soil borings (B-1 through B-4) to a total depth of 20 feet bgs. TPH as gasoline (TPHg) was detected in B-2 at the five foot interval at a concentration of 654 mg/kg and in B-4 at the five foot interval at 30 mg/kg. The ESL for TPHg in soil is 100 mg/kg.

In a transmittal letter dated March 11, 2004, Thrifty submitted preliminary soil and groundwater data from the four offsite soil borings (B-1 through B-4) and onsite well replacement activities performed by AGE. Post-initial remediation concentrations of TPHg were detected in samples B2-5 (654 mg/kg) and B4-5 (30 mg/kg), benzene concentrations detected ranged from 0.0018J mg/kg in B1-5 to 0.016 mg/kg in B1-10, and MTBE concentrations ranged from 0.0055 mg/kg in B2-20 to 1.32 mg/kg in B3-15. The ESLs for TPHg, benzene, and MTBE in soil are 100 mg/kg, 0.044 mg/kg, and 0.023 mg/kg, respectively. In a letter dated March 19, 2004, the ACHCA requested that Thrifty prepare a workplan to address the offsite contamination detected during the January 2004 site assessment conducted by AGE. After further discussing the scope of work with the ACHCA in an e-mail dated April 27, 2004, Thrifty submitted a workplan to install one onsite (MW-10) and two offsite wells (MW-8 and MW-9) downgradient of the Site (**Figure 2**). The ACHCA responded in an e-mail dated May 4, 2004, requesting additional borings to delineate the plume to the west and southwest of the Site. Thrifty

submitted a revised Workplan for Additional Offsite Assessment dated May 7, 2004 that included two additional borings (SB-5 and SB-6) to the southwest of the Site (**Figure 2**). In a letter dated May 17, 2004, the ACHCA approved the May 7, 2004 workplan with the request that additional borings be considered if soil and groundwater samples indicate significant hydrocarbon contamination. Thrifty has selected GHC to conduct site assessment activities. GHC had obtained well permits and information regarding the process of obtaining an encroachment permit from the City of Oakland Public Works Department (COPWD). Thrifty to date has not been able to obtain an encroachment permit or access agreements from the COPWD.

On May 18, 2007, ACHCA sent a letter to Thrifty with technical comments regarding the dissolved hydrocarbon plume characterization, proposed soil boring installation and soil sampling, well installation and development, preferential pathway study, soil and groundwater chemical analysis, and site conceptual model development. ACHCA has requested the preparation of a Revised Workplan for Soil and Groundwater Investigation with Revised Site Conceptual Model and Updated Preferential Pathway Study and Soil and Groundwater Investigation Report.

On July 18, 2007, Thrifty submitted a Revised Workplan for Additional Off-Site Assessment (Workplan). The Workplan proposed three offsite soil borings, three offsite groundwater wells, and one onsite groundwater well. The Workplan also proposed completing a revised preferential pathway study and revised site conceptual model. On August 7, 2007 the ACHCA provided approval of the Workplan.

In a letter dated August 7, 2007, ACHCA requested that Thrifty provide an explanation for the inconsistent groundwater monitoring data observed in the analytical results of groundwater samples collected during the first and second quarter 2007. On August 21, 2007 Thrifty submitted an Explanation of Fluctuating Dissolved-Phase Hydrocarbon Concentrations in response to the August 7, 2007 ACHCA letter.

The Revised Workplan, Additional Off-Site Assessment, Thrifty Oil Co. Station No. 049, ARCO Products Company Station #9535, 3400 San Pablo Avenue, Oakland, California (Revised Workplan) dated July 18, 2007 prepared by Equipoise (EQC) was submitted to the ACHCA to address the ACHCA request. On August 7, 2007 the ACHCS conditionally approved the Revised Workplan.

On August 8, 2007 Thrifty contacted the City of Oakland and requested an encroachment permit application package for the proposed offsite groundwater well locations on San Pablo Avenue, Oakland.

Thrifty's legal representatives have had numerous communications with the City of Oakland Attorneys Office regarding encroachment permit requirements but to date no agreement has been reached.

On September 13, 2007 EQC on behalf of Thrifty submitted a Request for Extension letter to the ACHCA. EQC had submitted requests to both the DWR and ACPW for production well information needed for the Revised Preferential Pathway Study. As of

September 13, 2007 EQC had not received a response from either agency and therefore requested that the ACHCA provide an extension of the due date of the requested report.

On September 27, 2007, Thrifty submitted an Encroachment Permit Delays and Request for Revised Well and Soil Borings Locations letter to the ACHCA. The letter indicated that Thrifty was still negotiating with the City of Oakland regarding the encroachment permits for the wells proposed in San Pablo Avenue, Oakland, but requested that the ACHCA consider revised well locations (which were proposed on private property).

On November 6, 2007, ACHCA sent a letter to Thrifty responding to Thrifty's September 27, 2007 letter and indicated that moving the monitoring wells MW-8, MW-9, and MW-11 to adjacent private properties was acceptable provided the new locations of the monitoring wells are as close as practicable to the sidewalk at each location.

On November 13, 2007, EQC submitted the Revised Preferential Pathway Study (PPS) which discussed the results of the nearby well survey.

Thrifty and EQC identified and contacted the property owners for the three proposed offsite well locations (MW-8, MW-9, and MW-11). Site access agreements were sent via certified mail to each property owner on December 7, 2007.

In concurrently sent letters dated January 31, 2008, Steven Plunkett of the ACHCA informed the adjacent property owners that they were required to execute the access agreements sent by Thrifty otherwise they could potentially be responsible for the cost of environmental assessments on their properties.

On February 12, 2008, Thrifty received an executed access agreement from Vern Lenberg LLC (executed by Mr. Vernon Coleman) for the property located at 3431 San Pablo Avenue, Oakland, California.

On March 5, 2008, Thrifty spoke to Mr. Kelvin Tse (the owner of the property located at 3315 San Pablo Avenue, Oakland, California). During the telephone conversation Mr. Tse requested that Thrifty supply: 1) an assurance that the proposed groundwater well be installed as close as possible to the northern corner of your property; 2) an explanation of why Thrifty has proposed to install a groundwater well on your property and the details of the sampling and chemical analysis Thrifty will conduct during the installation and during quarterly groundwater sampling events, and 3) a guarantee that Thrifty will mitigate contamination encountered during our investigation at the above mentioned property. On March 5, 2008 Thrifty sent an email summarizing the telephone conversation to Mr. Tse with an attached copy of the Third Quarter 2007 Status Report, for Thrifty Station No. 049. On March 12, 2008 Thrifty sent a letter to Mr. Tse in response to his request on March 5, 2008 for information and guarantees. Included in Thrifty's letter were documents that Thrifty acquired from online databases that indicated Mr. Kelvin Tse and Ms. Linda Tse are the only legal owners of the above mentioned property.

The access agreement Thrifty sent to the Moriah Christian Fellowship Baptist Church, Inc located at 3354 San Pablo Avenue, Oakland, California, 94608, was returned to Thrifty on March 14, 2008. It appears that the post office attempted delivery of the package on December 13, 2007 and March 8, 2008, and finally returned it to Thrifty with a "final notice" and "unable to forward" stamps on the front of the package. Thrifty called the United States Postal Service (USPS) at 800-275-8777 and they confirmed that the stamps on the front of the envelope indicated that the package had not been received by the addressee and the package had probably been classified as abandoned, and therefore returned to Thrifty. A short examination of the returned envelope showed that the seals applied on the envelope as part of the certified mail features were broken which suggests that somewhere, someone searched the contents of the envelope. Thrifty conducted a search on the United States Postal Service website to track the package (tracking number 7007 0710 0005 2435 5749) and discovered that the only recorded delivery of the package was its return to Thrifty on March 14, 2008 at 8:49 AM.

On April 21, 2008, a Thrifty representative contacted Mr. Kelvin Tse to request that he return an executed copy of the access agreement that had been mailed to him on March 12, 2008. During the conversation with Kelvin Tse once again insisted that his brother, Mr. Jack Chi Tse, was an owner of the property located at 3315 San Pablo Avenue, Oakland, California. On April 21, 2008, Thrifty completed an additional property title database search, results of the search identified Mr. Jack Chi Tse as an owner of the property located at 3315 San Pablo Avenue, Oakland California. On April 22, 2008, Thrifty mailed a revised access agreement (which included Mr. Jack Chi Tse) to Mr. Kelvin Tse and Mr. Jack Chi Tse. In early May 2008, executed access agreements were received by Thrifty from Mr. Jack Tse and Mr. and Mrs. Kelvin Tse and on May 19, 2008 Thrifty executed the agreements and mailed copies back to the respective parties.

On June 25, 2008, Steven Plunkett of ACHCA contacted Simon Tregurtha (a Thrifty representative) via the telephone and stated he had recently been in contact with a representative of the Moriah Christian Fellowship Baptist Church (the Church) regarding the placement of a groundwater monitoring well on their property. Steven Plunkett said that the Church representative had indicated they would be reviewing the access agreement and would return a signed copy to Thrifty in the near future. As soon as Thrifty receives the executed access agreement from the Church, they will schedule the installation of the three proposed off-site groundwater monitoring wells.

A summary of soil sample results is included as **Table 1A**, and soil sample results for oxygenates is included as **Table 1B**. Historic groundwater data is tabulated in **Table 2A**, and historic oxygenates in groundwater data is tabulated in **Table 2B**. A summary table of well completion details for all historic wells completed at the Site is included as **Table 3**. **Figures 4A** through **4C** represent contaminant concentrations of total petroleum hydrocarbons as gasoline, benzene, and MTBE in soil pre-remediation (0 – 10 feet bgs), respectively; **Figures 4D** through **4F** represent contaminant concentrations of total petroleum hydrocarbons as gasoline, benzene, and MTBE in soil pre-remediation (11 – 20 feet bgs), respectively; **Figures 4G** through **4I** represent contaminant concentrations of total petroleum hydrocarbons as gasoline, benzene, and MTBE in soil post-remediation (0 – 10 feet bgs), respectively; **Figures 4J** through **4L** represent contaminant

concentrations of total petroleum hydrocarbons as gasoline, benzene, and MTBE in soil post-remediation (11 – 20 feet bgs), respectively. Copies of the historic soil boring logs and well completion logs are included in **Appendix A**. The SFRWQCB's ESLs for soil and BPOs for groundwater are included in **Appendix B**.

As stated in the Second Quarter 2008, Status Report submitted by Thrifty dated June 26, 2008, based on historical laboratory groundwater analytical data, Thrifty believes that the petroleum hydrocarbon plume associated with the adjacent Shell Station has migrated into the subsurface soils and groundwater of the Thrifty Station No. 049 property. Thrifty suggests that the ACHCA request Shell to take measures to mitigate the southern migration of their hydrocarbon plume. Second Quarter 2008 groundwater analytical data from the Shell service station wells indicate the maximum concentration of TPHg, benzene, and MTBE were detected in MW-2 at 20,000 µg/L, 2,100 µg/L, and 200 µg/L, respectively. Concentrations of TPHg and MTBE were detected in Shell well MW-5 which is located directly north and adjacent to the Thrifty Station No. 049. The contaminants in groundwater (pre-remediation) for TPHg, benzene, and MTBE are illustrated in **Figures 6D** through **6F**; the contaminants in groundwater (post remediation) are illustrated in **Figures 6A** through **6C**.

3.4 Previous Remedial Activities

Site remedial activities were initiated in April 1991. The remediation system consists of a groundwater treatment system using activated carbon, with groundwater extraction from well RW-1. System operational data is included in **Appendix C**. On April 4, 2003, the system was shut off for upgrade activities after producing and treating approximately 1,445,088 gallons of water. As of June 24, 2008, the upgraded system produced and treated approximately 398,608 gallons of groundwater, and the old system and upgraded system produced and treated a combined cumulative system total of 1,843,696 gallons of groundwater since the system startup (April 1991).

Thrifty selected Advance GeoEnvironmental (AGE) to conduct remedial system upgrade activities including installation of a new treatment compound, installation of new piping, connection of piping to the replacement well network, and the operation and maintenance of the upgraded groundwater pump and treat system. In January 2004, AGE abandoned wells MW-2, MW-4, and RW-1 and replaced them with wells MW-2R, MW-4R, and RW-1R.

The upgraded remediation system was restarted by AGE for continuous operation on June 21, 2004. The primary components of the upgraded system within the treatment compound consist of an air compressor, 500-gallon settling tank, control panel, and three 200-pound granular activated carbon canisters. The upgraded system is removing groundwater from extraction wells MW-2R, MW-4R, and RW-1R that are each equipped with downhole submersible pumps.

On January 12, 2005, system operations and maintenance duties were assumed by EMC from AGE. According to EMC, as of June 24, 2008, the old system and upgraded system

produced and treated a cumulative system total of 1,843,696 gallons (**Appendix C**). System influent and effluent analytical results are also included in **Appendix C**.

4.0 VOLUME ESTIMATES

4.1 TPHg Estimated Volumes in Soil

GHC estimates the mass of before remediation based upon TPHg in soil beneath the Site (0 – 10 ft. bgs) to be approximately 4,150 pounds (**Figures 4A** and **4D**); the mass of post-remediation remediation based upon TPHg in soil beneath the Site (0 – 10 ft. bgs) to be approximately 5,061 pounds (**Figures 4G** and **4J**). The historic soil data for the Site (**Table 1**) were used to calculate the mass of this compound in the subsurface. For the purposes of this calculation, the soil density was assumed to be 120 pound per cubic foot, an area of 80 feet by 80 feet, and that no TPHg contamination was observed below 10 feet.

4.2 TPHg Estimated Volumes in Groundwater

GHC estimates the mass of TPHg in the groundwater plume (one pore volume) before remediation to be approximately 6.06 gallons (**Figure 6D**). GHC estimates the mass of TPHg in the groundwater plume (one pore volume) during the 3rd Quarter 2008 (post remediation) to be approximately 1.93 gallons (**Figure 6A**). As mentioned earlier, seven water wells are located within a one-mile radius of the Site, with four of the seven wells having been located. The nearest groundwater production well is located approximately 900 feet west of the Site.

Based on the most recent groundwater sampling results collected during the 3rd quarter 2008 (July 16, 2008), the maximum TPHg concentrations detected were in MW-4R (33,400 µg/L), maximum benzene concentration (236 µg/L) was detected in MW-4R, and the maximum MTBE concentration (148 µg/L) was detected in MW-2R. The contaminants in groundwater (pre-remediation) for TPHg, benzene, and MTBE are illustrated in **Figures 6D** through **6F**; the contaminants in groundwater (post remediation) are illustrated in **Figures 6A** through **6C**. Field sampling data sheets and laboratory reports and chain-of-custody documentation for the 3rd Quarter 2008 were submitted by Thrifty under separate cover.

5.0 FEASIBILITY STUDY

The feasibility study below discusses and evaluates five remedial technologies, and suggests the most cost-effective technology to remove petroleum hydrocarbon concentrations in soil and groundwater that are present beneath the Site.

5.1 Remedial Action Objectives

5.1.1 Remedial Action Objectives – Soil & Groundwater

Remedial action objectives for both soil and groundwater at the Site are as follows:

- protection of human health and the environment
- attainment of applicable cleanup standards
- reduction or elimination, to the extent practicable, of further releases that may pose threats to human health or the environment

5.1.2 Clean Up Levels – Soil & Groundwater

San Francisco Bay Regional Water Quality Control Board's (SFRWQCB) environmental screening levels (ESLs) are attached in Appendix **B** and chemicals of concern ESLs are summarized in the table below:

ESLs

Compound	In Soils (<3 Meters bgs) (mg/kg) commercial/residential use	In Soils (>3 Meters bgs) (mg/kg) commercial/residential use	In Groundwater (ug/l)
Benzene	0.044/0.044	0.044/0.044	1
Toluene	2.9/2.9	2.9/2.9	40
Ethylbenzene	3.3/3.3	3.3/3.3	30
Total Xylenes	2.3/2.3	2.3/2.3	20
MtBE	0.03/0.03	0.03/0.03	5
TPHg	100/100	100/100	100

5.2 Contaminants of Concern

The contaminants of concern in both soil and groundwater at the Site include fuel hydrocarbons which include TPHg, benzene, and MTBE. Contaminant concentrations are greatest in the area of wells MW-2R, MW-4R, and RW-1R near the existing USTs. **Figures 4G** through **4I** represent contaminant concentrations of total petroleum hydrocarbons as gasoline, benzene, and MTBE in soil post remediation (0 – 10 feet bgs), respectively; **Figures 4J** through **4L** represent contaminant concentrations of total petroleum hydrocarbons as gasoline, benzene, and MTBE in soil post-remediation (11 – 20 feet bgs), respectively. The contaminants in groundwater (post remediation) based upon the July 16, 2008 quarterly monitoring event are illustrated in **Figures 6A** through **6C**.

Cleanup goals for groundwater are assumed to (MCLs) for benzene and MTBE in drinking water or cleanup to technically feasible concentrations if MCLs cannot be practically achieved. It is believed that natural attenuation will achieve applicable cleanup levels for benzene, but that active remediation may be required to reach applicable cleanup goals for MTBE.

5.3 Evaluation of Remedial Alternatives

Five potential remedial alternatives were evaluated for remediation of petroleum hydrocarbon (TPHg, benzene, and MTBE) affected soil and groundwater at the Site.

The remedy selection factors considered were:

- long-term effectiveness and permanence of the alternative
- reduction of toxicity, mobility or volume
- short-term risks to public health, workers, and the environment
- ease or difficulty of implementing the alternative
- cost

The results of the alternative screening analysis are briefly described in the following sections.

5.3.1 No Action

The "no action" alternative is a baseline for comparison with other alternatives, and is considered in accordance with CCR and U.S. EPA guidance. With this option, no remedial technologies would be implemented except for periodic environmental monitoring, and operation of the existing groundwater extraction and treatment system would be discontinued. Future use of groundwater would be limited, as necessary, using institutional controls. This alternative assumes that monitoring of groundwater quality similar to the monitoring program currently in place would continue. Monitoring would

include continued periodic measurement of water levels and collection and analysis of groundwater samples from monitoring wells at the Site. Monitoring would continue until clean up objectives are reached. Under this alternative, percolating rainwater or perched water in flow would likely transport petroleum hydrocarbons in groundwater downgradient. Clean up objectives would eventually be reached through natural processes such as biodegradation, adsorption, and dilution; and over time, petroleum hydrocarbon concentrations would be reduced in groundwater. The "no action" alternative would not meet short-term risks (groundwater would be above drinking water MCLs), reduction of toxicity, mobility, or volume (would allow for continued migration of petroleum affected groundwater offsite), nor overall protection of human health (municipal water supplies if impacted the possibility would exist for a human health risk), therefore it is not considered applicable for this Site.

Estimated Cost: $200,000 - $300,000 Estimated Duration: 20 – 30 years.

5.3.2 Monitored Natural Attenuation

Monitored natural attenuation (MNA) is an effective technology for addressing degradable low concentration fuel hydrocarbons in soil and ground water. MNA reduces ground water and soil concentrations to compliance concentrations when concentrations are already low or following the implementation of active remedial action. MNA is most effective in moderate to very granular soils where oxygen flow through the ground water and soils is sufficient to maintain biological degradation activity. Natural attenuation also depends upon dispersion, diffusion, volatilization, and adsorption. However, for petroleum hydrocarbons, biodegradation is the most significant natural attenuation mechanism. Natural attenuation is considered a destructive technology since it results in a reduction of contaminant mass over time. This alternative would not meet short-term risks (removal of petroleum hydrocarbons from groundwater would take a long time), nor cause a reduction of toxicity, mobility, or volume (no active containment of the dissolved phase plume) and overall protection of human health (removal of petroleum hydrocarbons and lowering concentrations from dissolved phase plume to MCLs would take a long time), therefore the long-term effectiveness is in question.

Estimated Cost: $300,000 - $600,000 Estimated Duration: 15 – 30 years.

5.3.3 Excavation

Excavation of petroleum hydrocarbon-affected soil in the source area at wells MW-2R, MW-4R, and RW-1R would not be an effective solution for remediation at the Site. Due to the proximity of the source area to the pump islands, USTs, and major cross streets, the effective depth of the excavation would be restricted. Therefore, the reduction in volume of contaminated soil would be insufficient to achieve the designated cleanup levels. Extensive excavation would also disrupt daily business at the service station, due to the invasive nature and size of heavy equipment. Complete excavation of impact soils would require shoring, removal of all above ground and below ground petroleum dispensing infrastructure, the depth of the excavation would be a significant safety concern, and the

petroleum dispensing infrastructure would need to be reinstalled. Also the dissolved phase petroleum concentrations would not be actively remediated with this alternative. Costs are moderate however these constraints make this alternative costly and a safety concern, therefore this technology is not favored.

Estimated Cost: $750,000 - $950,000 Estimated Duration: 3-4 months.

5.3.4 Continued Interim Remedial Action - Groundwater Extraction (Pump and Treat)

Groundwater pump and treat is a long proven remedial technology providing both removal of dissolved phase groundwater contaminants and hydraulic control of the dissolved phase plume. The remedial alternative also provides plume containment to curtail any offsite migration. This technology requires the use of a groundwater extraction pump and extracted water treatment (through carbon filtration) prior to permitted discharge to the sanitary sewer or storm drain. In April 1991, remediation at the Site began with startup of the groundwater extraction and remediation system consisting of a groundwater treatment system using activated carbon, with groundwater extraction from well RW-1. An upgraded remediation system was restarted in June 2004 with an air compressor, 500-gallon settling tank, control panel, and three 200-pound granular activated carbon canisters. The upgraded system removed groundwater from extraction wells MW-2R, MW-4R, and RW-1R that are each equipped with downhole submersible pumps. As of June 24, 2008, the upgraded system produced and treated a cumulative system total of 1,843,696 gallons of extracted groundwater from beneath the Site.

This alternative would meet short-term risks (removal of petroleum hydrocarbons from groundwater), reduction of toxicity, mobility, or volume (continued containment of the dissolved phase plume) and overall protection of human health (removal of petroleum hydrocarbons and lowering concentrations from dissolved phase plume to MCLs). However, the vadose zone above the water table would still contain residual petroleum hydrocarbon concentrations that could continue to impact the water-bearing zone, therefore the long-term effectiveness is in question.

Estimated Cost: $30,000 - $200,000 Estimated Duration: Approximately 1.5 to 10 Years

5.3.5 Multi-Phase Extraction (MPE) Events

To obtain soil vapor extraction (SVE) and removal of petroleum hydrocarbons from the vadose zone, a mobile SVE rig equipped with a liquid knockout pot having an automatic transfer pump, manual and automatic dilution air control, and a positive displacement blower, and a propane fired thermal oxidizer with a Bay Area Air Quality Management District (BAAQMD) various locations permit for destruction of extracted vapors are connected to MPE extraction wells. Soil vapor extraction would occur in the unsaturated (vadose) zone via a vacuum applied to the soil to induce the controlled flow of air and remove volatile and some semivolatile contaminants from the soil. Soil vapor extraction will also extend and address the saturated zone exposed to vapor extraction by lowering

the water table via the existing downhole pumps. The gas leaving the soil would be treated by thermal or granular activated carbon to recover or destroy the contaminants. For groundwater extraction the existing down-hole pumps that would be used to lower the groundwater table to expose the vadose zone in the MPE wells. The extracted groundwater would be treated through the existing granular activated carbon unit under authorization of the sewer discharge permit. The MPE events are performed at maximum flow rates to arrive at a better understanding of airflow characteristics, ROI, effect of the vacuum on the water table and volume of groundwater extracted, and changes in concentration at each well.

Costs are considered low to moderate, depending on the number of MPE events required, and this approach is technically feasible because of the ease in mobilization compared to a fixed system, and the low residual concentrations of petroleum hydrocarbons remaining in soil and groundwater at wells MW-2R, MW-4R, and RW-1R at this Site.

Estimated Cost: $20,000 - $100,000 Estimated Duration: 6 months -1 year.

5.4 Selection of Remedial Alternative

No action, monitored natural attenuation, and excavation, were not considered as effective remediation alternatives. Continued operation of the existing groundwater extraction pump and treat system would perform plume containment but would leave residual petroleum hydrocarbon concentrations in the vadose zone which could continue to leach into groundwater. For the above reasons, GHC and Thrifty recommend a 5-day 24-hour MPE event as the selected alternative for the site.

6.0 CORRECTIVE ACTION PLAN

Based on the available data it appears that a 5-day 24-hour MPE event is a very effective remedial approach for the Site and will therefore be considered the primary methodology for treatment of the remaining residual petroleum hydrocarbon concentrations in wells MW-2R, MW-4R, and RW-1R. GHC believes that a mobile MPE event utilizing a mobile SVE unit and the existing groundwater extraction and treatment system is the most viable remedial option available for removal of petroleum hydrocarbon at the Site.

GHC proposes that a 5-day 24-hour MPE event be performed with combined soil vapor and groundwater extraction on wells MW-2R, MW-4R, and RW-1R; wells MW-1, MW-3, and MW-7 would serve as observation wells. Wells MW-2R, MW-4R, and RW-1R were chosen because they have served as groundwater extraction wells for a number of years with the existing groundwater extraction and treatment system and hence are connected to the conveyance piping network for immediate use during the proposed 5-day 24-hour MPE event. A mobile SVE rig and the existing groundwater extraction and treatment system will be used for this remedial action. The SVE rig component of the MPE system will be capable of a flowrate of 250 actual cubic feet per minute (acfm at 60° F and 14.7 psi) and total vacuum up to 15 inches of mercury (in.Hg). The SVE rig will be equipped with a liquid knockout pot having an automatic transfer pump, manual

and automatic dilution air control, and a positive displacement blower, and a propane fired thermal oxidizer with a BAAQMD various locations permit for destruction of extracted vapors. Destruction efficiency for non-methane hydrocarbons was 99%+ will be calculated using a PID calibrated with hexane. During the 5-day MPE event, groundwater extraction will be executed by the existing down-hole pumps that would be used to lower the groundwater table to expose the vadose zone in the MPE wells MW-2R, MW-4R, and RW-1R. The extracted groundwater as well as the groundwater accumulated in the SVE's knockout pot would be treated through the existing granular activated carbon unit under authorization of the sewer discharge permit.

The following provides a description of field data collection activities, laboratory analysis, and reporting that will be performed in association with the MPE event:

- Influent vapor concentrations in wells MW-2R, MW-4R, and RW-1R will be measured (using a PID calibrated with hexane gas) at the beginning of the MPE event at every hour thereafter. Other parameters such as manifold applied vacuum (inches of Hg), system flow rate (scfm), system flow temperature (degrees Fahrenheit), and wellhead vacuum will also be recorded every two hours. Vapor samples will be collected from the influent stream of wells MW-2R, MW-4R, and RW-1R one hour after start up of the MPE event, and at the end of the second, third, and fifth days of the event. The vapor samples (collected in tedlar bags) will be sent to Associated Laboratories to be analyzed for petroleum hydrocarbons as gasoline using EPA Method 8015M, and for BTEX, MTBE, and other oxygenates using EPA Method 8260B.

- Depth to water will be recorded for wells MW-2R, MW-4R, and RW-1R before the start of the MPE event and the end of each day of the event.

- A groundwater sample will collected from wells MW-2R, MW-4R, and RW-1R immediately before start up of the MPE event and the end of the 5-day event. The water samples will be sent to Associated Laboratories to be analyzed for petroleum hydrocarbons as gasoline using EPA Method 8015M, and for BTEX, MTBE, and other oxygenates using EPA Method 8260B.

- Vacuum drawdown and depth to water will be measured in the observation wells (MW-1, MW-3, and MW-7) at the beginning, mid-point, and end of each day of the event.

- A MPE summary report will be submitted to the agency four weeks following the completion of the MPE event. The report will include all pertinent operating data as well as the laboratory results and hydrocarbon mass recovered (pounds) and removal rate (pounds/hour) based on laboratory results, as well as total gallons of groundwater recovered. The report will also include recommendations regarding potential future corrective action, or site closure, whichever is warranted.

- Before commencing field work a Health and Safety plan will be submitted to the ACHCA.

Quarterly groundwater monitoring will continue to be used to establish the quality of groundwater beneath the Site over time and to monitor the effectiveness of soil and groundwater remediation activities. Remediation will be deemed complete once petroleum hydrocarbon vapor and groundwater concentrations reach asymptotic levels or MDLs, respectively. If the MPE remediation event shows that petroleum hydrocarbon concentrations remain above the target clean up levels, additional MPE events will be proposed in the MPE status report.

6.1 Closure Sampling

Quarterly groundwater monitoring will continue to be used to establish the quality of groundwater beneath the Site over time and to monitor the effectiveness of groundwater remediation activities. Once asymptotic vapor concentrations are reached and maintained, and groundwater goals are reached, soil confirmation sampling will be performed.

6.2 Conclusions

The Site has residual petroleum hydrocarbon concentrations in soil and groundwater at wells MW-2R, MW-4R, and RW-1R at the Site. Thrifty believes these residual concentrations can be effectively removed from site soil and groundwater by remediation via a 5-day MPE event extracting from wells MW-2R, MW-4R, and RW-1R, and once these remedial activities are completed Thrifty will either pursue closure activities for this low risk site and site closure approval from the ACHCA, or propose additional MPE events for the Site.

7.0 REFERENCES

Thrifty Oil Co., *Workplan for Bi-Weekly Mobile Dual Phase Vapor Extraction (DPE) Events,* April 22, 2008. TOC SS #049, located at 3400 San Pablo Avenue, Oakland, California.

Thrifty Oil Co., *Second Quarter 2008 Status Report,* June 26, 2008. TOC SS #049, located at 3400 San Pablo Avenue, Oakland, California.

Blaine Tech Services Inc., *Second Quarter 2008 Groundwater Monitoring Report,* May 8, 2008. Shell/Current AmeriGas Service Station, located at 3420 San Pablo Avenue, Oakland, California.

Geohydrologic Consultants, *Site Conceptual Model and Plume Travel Time Report*, May 3, 2006. TOC SS #049, located at 3400 San Pablo Avenue, Oakland, California.

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.

9-22-2008

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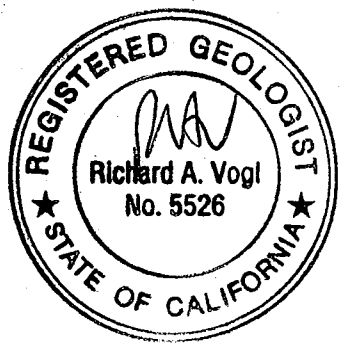
Date



TABLES

SUMMARY TABLE
CURRENT PERIOD GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA, 94612
T0600101365

WELL	STATUS	Monit./ Sampl. Date	ANALYTICAL PARAMETERS										MONITORING PARAMETERS				ELEVATION		WELL SCREEN (feet)
			TPHg (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	DTP (feet)	DTW (feet)	DTB (feet)	PT (feet)	CASING (feet)	GW (feet)	
MW-1	ACT	07/16/08	<6.6	<0.18	<0.24	<0.21	1.2 J	<0.19	<0.20	<0.23	<0.19	<5.2	NP	6.96	17.73	0.00	31.55	24.59	5 - 25
MW-2R	ACT	07/16/08	15,100	62	600	186	1,280	148	<0.20	<0.23	<0.19	9.5 J	NP	5.26	16.80	0.00	30.49	25.23	5 - 20
MW-3	ACT	07/16/08	<6.6	<0.18	1.0 J	<0.21	1.5 J	<0.19	<0.20	<0.23	<0.19	10	NP	7.23	24.14	0.00	31.15	23.92	5 - 25
MW-4R	ACT	07/16/08	33,400	236	2,030	1,030	6,990	6.6	<0.20	<0.23	<0.19	18	NP	5.05	19.65	0.00	30.23	25.18	5 - 20
MW-5	ACT	07/16/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	<0.20	<0.23	<0.19	<5.2	NP	6.08	13.75	0.00	32.30	26.22	4 - 14
MW-6	ACT	07/16/08	<6.6	<0.18	3.0 J	<0.21	2.7 J	<0.19	<0.20	<0.23	<0.19	<5.2	NP	3.84	13.06	0.00	33.14	29.30	4 - 14
MW-7	ACT	07/16/08	<6.6	<0.18	2.1 J	<0.21	5.6	<0.19	<0.20	<0.23	<0.19	<5.2	NP	5.86	13.52	0.00	31.61	25.75	4 - 14
RW-1R	ACT	07/16/08	5,140	35	315	94	761	3.0	<0.20	<0.23	<0.19	<5.2	NP	5.65	19.10	0.00	30.59	24.94	5 - 20

NOTE:

ACT	Groundwater well currently used for monitoring	TPHg	= Total Petroleum Hydrocarbons as gasoline	MTBE	= Methyl-tert-butyl ether	DTP	= Depth To Product	" - " = Not analyzed / Not available
INACT	Groundwater well is NOT included in monitoring program	TPHd	= Total Petroleum Hydrocarbons as diesel	DIPE	= Isopropyl ether	DTW	= Depth To Water	" < " = Less than detection level indicated
DRY	Groundwater well is dry and cannot be sampled	B	= Benzene	ETBE	= Ethyl-tert-butyl ether	DTB	= Depth To Bottom	" J " = Flag indicating value between MDL & PQL
NOACC	Presently no access to groundwater well	T	= Toluene	TAME	= Tert-amyl methyl ether	PT	= Product Thickness	
DEST	Well has been properly destroyed, no longer a conduit to subsurfac	E	= Ethylbenzene	TBA	= Tertiary butyl alcohol	GW	= Groundwater	NP = No free product
AB	Groundwater well is abandoned, but not yet destroyed	X	= Total Xylenes					

TABLE 1A

Historic and Recent Soil Sample Laboratory Analytical Results

Thrifty Oil Station #049 - Oakland, CA

GHC - 1330

Sample ID	Date Sampled	ANALYTICAL PARAMETERS					
		TPHg (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	MTBE (mg/Kg)
ESLs shallow soil (≤3m bgs)		*100*	*0.044*	*2.9*	*3.3*	*2.3*	*0.023*
ESLs deep soil (>3m bgs)		*100*	*0.044*	*2.9*	*3.3*	*2.3*	*0.023*
MW-1	7/31/1986	ND					
MW-2	7/31/1986	ND					
MW-3(4-4.5 ft)	7/31/1986	22					
SB-1	7/31/1986	ND					
SB-2(9-9.5 ft)	7/31/1986	67					
SB-3	7/31/1986	ND					
MW-4(6.75 ft)	11/14/1986	1,200	12				
MW-5	11/14/1986						
MW-6	11/14/1986						
MW-7(6.50 ft)	11/14/1986	ND	ND				
B-1	9/11/1987						
B-2(5 ft)	9/11/1987	3,600					
B-3	9/11/1987	ND					
B-4	9/11/1987						
B-5	9/11/1987						
T-1	3/23/1998	430	3.0	<1.2	7.3	7.5	<6.2
T-2	3/23/1998	31	0.74	0.15	0.65	1.1	4.7
T-3	3/23/1998	73	0.34	<0.10	<0.10	0.56	<0.50
T-4	3/23/1998	1,600	9.3	17	22	100	27
P-1	3/23/1998	27	0.36	0.054	0.53	0.10	13
P-2	3/23/1998	1,800	3.4	3.1	11	21	6.0
P-3	3/23/1998	14	0.28	0.023	0.048	0.16	2.8
P-4	3/23/1998	3,900	19	42	53	330	22
P-5	3/23/1998	9.5	0.15	0.080	0.031	0.12	0.066
B1-5	10/6/2004	<0.401	0.0018J	<0.00042	<0.00041	<0.0008	0.097
B1-10	10/6/2004	<0.401	0.016	<0.00042	0.0023J	0.001J	0.411
B1-15	10/6/2004	<0.401	<0.00039	<0.00042	<0.00041	<0.0008	0.053
B1-20	10/6/2004	<0.401	<0.00039	<0.00042	<0.00041	<0.0008	0.019
B2-5	10/6/2004	654	<0.0195	<0.021	5.89	31.3	0.140J
B2-10	10/6/2004	<0.401	<0.00039	<0.00042	<0.00041	0.007	0.939
B2-15	10/6/2004	<0.401	<0.00039	<0.00042	0.0014J	0.0084	0.22
B2-20	10/6/2004	<0.401	<0.00039	<0.00042	<0.00041	<0.0008	0.0055
B3-10	10/6/2004	<0.401	<0.00039	<0.00042	<0.00041	0.0035J	0.609
B3-15	10/6/2004	<0.401	0.0021J	0.0061	0.0041J	0.02	1.32
B3-20	10/6/2004	<0.401	<0.00039	<0.00042	<0.00041	0.0032J	1.06
B4-5	10/6/2004	30	0.0023J	<0.00042	0.0018J	0.0035J	0.024
B4-10	10/6/2004	<0.041	<0.00039	<0.00042	<0.00041	<0.0008	1.07
B4-15	10/6/2004	<0.041	<0.00039	<0.00042	<0.00041	<0.0008	0.121
B4-20	10/6/2004	<0.401	<0.00039	<0.00042	<0.00041	<0.0008	0.42

NOTES: TPHg analyzed by EPA Method 8015M

BTEX and MTBE analysis by EPA Method 8260B

"<" = Less than the specified laboratory detection limit

"J" = Trace

* = Total Recoverable Petroleum Hydrocarbons

= Not analyzed

ESLs = Environmental Screening Levels

3m bgs = 3 meters (10 feet) below ground surface

TABLE 1B
Historic and Recent Soil Sample Laboratory Analytical Results
Other Oxygenates
Thrifty Oil Station #049 - Oakland, CA
GHC - 1330

Sample ID	Date Sampled	ANALYTICAL PARAMETERS			
		DIPE (mg/Kg)	ETBE (mg/Kg)	TAME (mg/Kg)	TBA (mg/Kg)
B1-5	10/6/2004	<0.00082	<0.00077	<0.00061	**0.132**
B1-10	10/6/2004	<0.00082	<0.00077	**0.024**	**0.304**
B1-15	10/6/2004	<0.00082	<0.00077	<0.00061	**0.012J**
B1-20	10/6/2004	<0.00082	<0.00077	<0.00061	<0.005
B2-5	10/6/2004	<0.041	<0.0385	<0.0305	<0.250
B2-10	10/6/2004	<0.00082	<0.00077	**0.011**	**0.339**
B2-15	10/6/2004	**0.0016J**	<0.00077	**0.0011J**	**0.038J**
B2-20	10/6/2004	<0.00082	<0.00077	<0.00061	<0.005
B3-10	10/6/2004	<0.00082	<0.00077	**0.0024J**	**0.488**
B3-15	10/6/2004	<0.00082	<0.00077	**0.025**	**0.263**
B3-20	10/6/2004	<0.00082	<0.00077	**0.025**	**0.175**
B4-5	10/6/2004	<0.00082	<0.00077	<0.00061	**0.013J**
B4-10	10/6/2004	<0.00082	<0.00077	**0.0028J**	**0.496**
B4-15	10/6/2004	<0.00082	<0.00077	<0.00061	**0.019J**
B4-20	10/6/2004	<0.00082	<0.00077	<0.00061	**0.070**

NOTES: Oxygenate analysis by EPA Method 8260B
"<" = Less than the specified laboratory detection limit
"J" = Trace
DIPE = Di IsoPropyl Ether
ETBE = Ethyl Tert Butyl Ether
TAME = Tert Amyl Methyl Ether
TBA = Tert Butyl Alcohol

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
MONITORING WELL #MW-1				***Screen Interval = 5 to 25 feet***							
01/09/92	-	-	-	-	-	-	NP	5.54	0.00	98.03	92.49
04/13/92	-	-	-	-	-	-	NP	5.86	0.00	98.03	92.17
10/05/92	-	-	-	-	-	-	NP	9.39	0.00	98.03	88.64
01/06/93	-	-	-	-	-	-	NP	4.76	0.00	98.03	93.27
04/26/93	-	-	-	-	-	-	NP	4.96	0.00	98.03	93.07
01/04/94	-	-	-	-	-	-	NP	7.00	0.00	98.03	91.03
04/05/94	-	-	-	-	-	-	NP	6.44	0.00	98.03	91.59
10/09/95	44,000	4,500	4,300	1,700	10,000	-	-	-	-	98.03	-
01/08/96	21,000	1,200	150	34	4,800	-	NP	6.15	0.00	98.03	91.88
04/08/96	4,700	80	110	10	910	-	NP	5.40	0.00	98.03	92.63
07/22/96	7,000	280	130	<3.0	2,100	440	NP	5.50	0.00	98.03	92.53
10/16/96	120	<0.3	<0.3	<0.3	<0.5	180	NP	6.02	0.00	98.03	92.01
01/22/97	160	<0.3	<0.3	<0.3	<0.5	360	NP	4.40	0.00	98.03	93.63
04/21/97	20,000	420	140	5.8	840	55,000	NP	6.30	0.00	98.03	91.73
07/14/97	13,000	<0.3	<0.3	<0.3	<0.55	30,000	NP	5.92	0.00	98.03	92.11
10/07/97	-	-	-	-	-	-	7.70	7.71	0.01	98.03	90.33
01/15/98	<50	0.3	<0.3	<0.3	<0.5	-	NP	4.40	0.00	98.03	93.63
04/23/98	540	<0.3	<0.3	<0.3	<0.5	<20	NP	8.10	0.00	98.03	89.93
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	5.55	0.00	98.03	92.48
10/14/98	50	1.4	0.56	<0.3	11	22	NP	7.05	0.00	98.03	90.98
01/21/99	<50	0.59	<0.3	<0.3	<0.5	<5.0	NP	4.10	0.00	98.03	93.93
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	4.30	0.00	98.03	93.73
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	5.54	0.00	98.03	92.49
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.13	0.00	98.03	91.90
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.04	0.00	98.03	91.99
04/05/00	<50	<0.25	<0.25	<0.25	<0.5	<5.0	NP	4.03	0.00	98.03	94.00
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	4.00	0.00	98.03	94.03
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.53	0.00	98.03	92.50
01/17/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.97	0.00	98.03	94.06
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.98	0.00	98.03	94.05
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.51	0.00	98.03	92.52
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.97	0.00	98.03	94.06
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.95	0.00	98.03	94.08
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	2.42	0.00	98.03	95.61
07/31/02	<50	<0.18	1.3	<0.18	<0.26	<0.24	NP	5.49	0.00	98.03	92.54
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	16	NP	6.13	0.00	98.03	91.90
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	2.45	0.00	98.03	95.58
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	7.02	0.00	98.03	91.01
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.15	0.00	98.03	92.88
10/20/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	5.13	0.00	98.03	92.90
01/14/04	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	3.92	0.00	98.03	94.11
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	4.54	0.00	98.03	93.49
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	7.01	0.00	98.03	91.02
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.46	0.00	98.03	92.57
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.48	0.00	98.03	92.55
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.99	0.00	98.03	91.04
07/20/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.42	0.00	98.03	91.61
10/19/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.98	0.00	98.03	91.05
01/24/06	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	4.56	0.00	98.03	93.47
04/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	3.93	0.00	98.03	94.10
07/19/06	17,100	21	279	388	2,010	128	NP	5.92	0.00	98.03	92.11
09/15/06	<5.6	<0.32	<0.10	<0.24	<0.30	33	NP	6.38	0.00	98.03	91.65
10/18/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.99	0.00	98.03	91.04

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
01/17/07	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.40	0.00	31.55	26.15
04/18/07	<5.6	<0.32	<0.10	<0.24	<0.3	7.1	NP	5.46	0.00	31.55	26.09
07/18/07	<5.6	<0.18	<0.24	<0.21	<0.45	4.9	NP	5.92	0.00	31.55	25.63
10/17/07	<5.6	<0.18	<0.24	<0.21	<0.45	1.6	NP	5.46	0.00	31.55	26.09
01/16/08	<5.6	<0.18	<0.24	<0.21	<0.45	1.3	NP	5.46	0.00	31.55	26.09
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.45	0.00	31.55	26.10
07/16/08	<6.6	<0.18	<0.24	<0.21	1.2 J	<0.19	NP	6.96	0.00	31.55	24.59
MONITORING WELL #MW-2				***Screen Interval = 5 to 25 feet***							
01/09/92	-	-	-	-	-	-	NP	5.35	0.00	97.44	92.09
04/13/92	-	-	-	-	-	-	NP	7.42	0.00	97.44	90.02
10/05/92	-	-	-	-	-	-	NP	12.15	0.00	97.44	85.29
01/06/93	-	-	-	-	-	-	NP	5.46	0.00	97.44	91.98
04/26/93	-	-	-	-	-	-	NP	5.15	0.00	97.44	92.29
01/04/94	-	-	-	-	-	-	NP	9.45	0.00	97.44	87.99
04/05/94	-	-	-	-	-	-	NP	8.23	0.00	97.44	89.21
10/09/95	33,000	6,000	390	1,700	4,900	-	-	-	-	97.44	-
01/08/96	<50	0.32	<0.3	0.41	2.1	-	NP	5.60	0.00	97.44	91.84
04/08/96	10,000	490	210	210	830	-	NP	5.43	0.00	97.44	92.01
07/22/96	60,000	6,500	1,000	1,500	10,000	8,500	NP	5.65	0.00	97.44	91.79
10/16/96	6,500	12	0.34	0.72	110	4,700	NP	5.82	0.00	97.44	91.62
01/22/97	3,200	<0.3	0.46	0.37	<0.5	8,000	NP	4.30	0.00	97.44	93.14
04/21/97	66,000	5,300	1,000	2,300	14,000	30,000	NP	5.80	0.00	97.44	91.64
07/14/97	17,000	1.8	4.6	4.6	350	24,000	NP	8.92	0.00	97.44	88.52
10/07/97	220,000	5,200	1,700	3,800	15,000	-	NP	6.80	0.00	97.44	90.64
01/19/98	25,000	5.4	2.2	2.1	240	-	NP	8.50	0.00	97.44	88.94
04/23/98	7,700	<0.3	0.55	0.38	4.9	28,000	NP	7.60	0.00	97.44	89.84
07/20/98	430,000	4,200	10,000	5,400	28,000	77,000	NP	6.94	0.00	97.44	90.50
1014/98	27,000	<0.3	4.5	4.1	4.6	65,000	NP	8.45	0.00	97.44	88.99
01/21/99	16,000	7.6	9.8	4.2	310	* 49,000 / 42,000	NP	6.95	0.00	97.44	90.49
04/15/99	20,000	<0.3	<0.3	<0.3	<0.5	* 31,000 / 30,000	NP	8.45	0.00	97.44	88.99
07/26/99	6,700	<6.0	<6.0	<6.0	<10	*11,000 / 15,000	NP	6.94	0.00	97.44	90.50
10/13/99	7,600	<3.0	3.7	<3.0	11	11,000	NP	5.48	0.00	97.44	91.96
01/20/00	7,500	<6.0	<6.0	<6.0	<10	*14,000 / 16,000	NP	5.84	0.00	97.44	91.60
04/05/00	10,400	<0.25	<0.25	<0.25	<0.5	*10,000 / 14,400	NP	5.41	0.00	97.44	92.03
07/19/00	130	<0.3	<0.3	<0.3	<0.6	*9,620 / 6,520	NP	5.40	0.00	97.44	92.04
10/18/00	150	<0.18	<0.14	<0.18	<0.26	*9,090 / 6,560	NP	6.91	0.00	97.44	90.53
01/17/01	75	<0.18	2.0	2.0	3.0	*8,650 / 9,710	NP	5.41	0.00	97.44	92.03
04/19/01	4,380	<0.18	<0.14	<0.18	<0.26	8,890	NP	5.40	0.00	97.44	92.04
07/18/01	3,260	<0.18	<0.14	<0.18	2.0	*7960 / 1,710	NP	6.92	0.00	97.44	90.52
10/10/01	1,760	<0.18	<0.14	<0.18	<0.26	*2,980 / 2,600	NP	3.87	0.00	97.44	93.57
01/30/02	1,770	<0.18	1.0	1.0	2.0	*2,560 / 1,590	NP	8.45	0.00	97.44	88.99
04/17/02	1,470	1.0	<0.14	<0.18	<0.26	*2,460 / 2,080	NP	8.45	0.00	97.44	88.99
07/31/02	3,910	<0.18	1.2	<0.18	2.1	*2,090 / 1,740	NP	9.98	0.00	97.44	87.46
11/14/02	39,400	1,680	728	173	5,120	8,270	NP	5.40	0.00	97.44	92.04
01/29/03	22,100	746	76	<1.0	2,840	8,220	NP	8.43	0.00	97.44	89.01
04/23/03	19,500	<0.8	<0.4	<0.4	<1.2	9,580	NP	5.38	0.00	97.44	92.06
07/10/03	29,900	<2.2	<3.2	<3.1	<4.0	6,690	NP	5.10	0.00	97.44	92.34
10/20/03	13,000	4.79	<0.02	<0.02	<0.06	*6,330 / 5,980	NP	5.10	0.00	97.44	92.34
				WELL ABANDONED 01/2004							
MONITORING WELL #MW-2R				***Screen Interval = 5 to 20 feet***							
02/03/04							-	-	-	-	-

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
04/08/04	11,600	304	16 J	55	427	4,170	NP	4.58	0.00	-	-
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.72	0.00	-	-
10/20/04	20,900	3,180	2,970	259	1,240	92	NP	3.72	0.00	-	-
01/19/05	18,900	537	250	866	2,290	3,340	NP	4.50	0.00	-	-
04/20/05	13,100	<2.2	<3.2	<3.1	<4.0	563	NP	5.27	0.00	-	-
07/07/05	2,500	70	7.6	<0.24	160	1,930	-	-	-	-	-
07/20/05	4,260	392	15 J	175	100	742	NP	6.12	0.00	-	-
10/19/05	321	<0.32	<0.10	<0.24	<0.30	423	NP	5.28	0.00	-	-
01/24/06	3,200	34	331	87	510	86	NP	4.58	0.00	-	-
04/19/06	22,100	440	4,240	234	1,530	195	NP	3.38	0.00	-	-
07/19/06	15,800	377	629	627	578	530	NP	8.10	0.00	-	-
09/15/06	-	-	-	-	-	-	-	-	-	-	-
10/18/06	57,600	75	5,730	1,770	7,820	263	NP	5.28	0.00	-	-
01/17/07	117,000	254	15,200	4,840	28,800	300	NP	6.82	0.00	30.49	23.67
04/18/07	896	<0.32	<0.10	<0.24	117	49	NP	7.60	0.00	30.49	22.89
07/18/07	2,290	106	3.7 J	2.2 J	160	146	NP	5.62	0.00	30.49	24.87
10/17/07	313	<0.18	5.9	1.6 J	20	162	NP	3.41	0.00	30.49	27.08
01/16/08	77	<0.18	<0.24	<0.21	<0.45	105	NP	4.51	0.00	30.49	25.98
04/22/08	30,300	165	3,660	2,060	11,400	<19	NP	7.59	0.00	30.49	22.90
07/16/08	15,100	62	600	186	1,280	148	NP	5.26	0.00	30.49	25.23
MONITORING WELL #MW-3				***Screen Interval = 5 to 25 feet***							
01/09/92	-	-	-	-	-	-	NP	17.60	0.00	97.69	80.09
04/13/92	-	-	-	-	-	-	NP	17.40	0.00	97.69	80.29
10/05/92	-	-	-	-	-	-	NP	17.35	0.00	97.69	80.34
01/06/93	-	-	-	-	-	-	NP	17.40	0.00	97.69	80.29
04/26/93	-	-	-	-	-	-	NP	17.90	0.00	97.69	79.79
01/04/94	-	-	-	-	-	-	NP	17.60	0.00	97.69	80.09
04/05/94	-	-	-	-	-	-	NP	16.25	0.00	97.69	81.44
01/08/96	-	-	-	-	-	-	NP	7.11	0.00	97.69	90.58
04/08/96	8,800	610	31	530	900	-	NP	7.20	0.00	97.69	90.49
07/22/96	38,000	4,100	1,500	1,600	5,400	2,600	NP	6.82	0.00	97.69	90.87
10/16/96	2,400	<0.3	<0.3	<0.3	<0.5	3,800	NP	6.84	0.00	97.69	90.85
01/22/97	2,200	<0.3	<0.3	<0.3	<0.5	5,500	NP	4.80	0.00	97.69	92.89
04/21/97	15,000	1,500	36	260	710	11,000	NP	9.40	0.00	97.69	88.29
07/14/97	5,400	0.45	<0.3	<0.3	<0.5	14,000	NP	10.92	0.00	97.69	86.77
10/07/97	8,800	0.39	<0.3	<0.3	0.88	-	NP	11.95	0.00	97.69	85.74
01/19/98	22,000	1,300	15	20	310	-	NP	7.85	0.00	97.69	89.84
04/23/98	9,200	3.9	3.1	5.7	9.8	16,000	NP	11.20	0.00	97.69	86.49
07/20/98	750	0.41	1.4	0.47	1.8	2,800	NP	7.36	0.00	97.69	90.33
10/14/98	750	<0.3	<0.3	<0.3	<0.5	15,000	NP	11.95	0.00	97.69	85.74
01/21/99	4,700	0.32	<0.3	<0.3	<0.5	* 12,000 / 16,000	NP	10.45	0.00	97.69	87.24
04/15/99	7,900	0.59	0.69	<0.3	0.94	* 11,000 / 14,000	NP	7.86	0.00	97.69	89.83
07/26/99	5,200	<3.0	<3.0	<3.0	<5.0	*9,600 / 11,000	NP	10.40	0.00	97.69	87.29
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	7.09	0.00	97.69	90.60
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.86	0.00	97.69	90.83
04/05/00	<50	0.8	<0.25	<0.25	<0.5	*5.6 / <5.0	NP	8.85	0.00	97.69	88.84
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	8.86	0.00	97.69	88.83
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	7.32	0.00	97.69	90.37
01/17/01	<50	<0.18	2.0	<0.18	1.0	*39 / 39	NP	5.40	0.00	97.69	92.29
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	8.87	0.00	97.69	88.82
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	7.32	0.00	97.69	90.37
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	8.87	0.00	97.69	88.82

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.78	0.00	97.69	91.91
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	7.31	0.00	97.69	90.38
07/31/02	138	1.1	1.2	<0.18	<0.26	<0.24	NP	5.76	0.00	97.69	91.93
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	21	NP	5.73	0.00	97.69	91.96
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	16	NP	7.30	0.00	97.69	90.39
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	16	NP	5.76	0.00	97.69	91.93
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	11	NP	5.63	0.00	97.69	92.06
10/20/03	13,700	4.13	<0.02	<0.02	<0.06	*6,570 / 4,920	NP	5.61	0.00	97.69	92.08
01/14/04	1,160	2.0	2.2	6.1	7.8	*1,510 / 767	NP	4.23	0.00	97.69	93.46
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.48	0.00	97.69	92.21
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.66	0.00	97.69	91.03
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	4.20	0.00	97.69	93.49
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.74	0.00	97.69	91.95
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	7.23	0.00	97.69	90.46
07/20/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.82	0.00	97.69	90.87
10/19/05	<2.9	<0.32	<0.10	<0.24	<0.30	7.0	NP	7.26	0.00	97.69	90.43
01/24/06	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.50	0.00	97.69	92.19
04/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.72	0.00	97.69	91.97
07/19/06	12,900	539	744	169	296	1,640	NP	5.63	0.00	97.69	92.06
09/15/06	1,750	4.3	68	11	90	502	NP	6.62	0.00	97.69	91.07
10/18/06	75	<0.32	<0.10	1.1 J	1.1 J	47	NP	5.72	0.00	97.69	91.97
01/17/07	<5.6	<0.32	2.1 J	<0.24	1.0 J	13	NP	5.73	0.00	31.15	25.42
04/18/07	<5.6	<0.32	2.0 J	<0.24	6.2	11	NP	5.74	0.00	31.15	25.41
07/18/07	<5.6	<0.18	2.2 J	<0.21	1.3 J	5.3	NP	8.36	0.00	31.15	22.79
10/17/07	<5.6	1.0	<0.24	<0.21	<0.45	1.5	NP	5.74	0.00	31.15	25.41
01/16/08	<5.6	<0.18	<0.24	<0.21	<0.45	1.3	NP	5.73	0.00	31.15	25.42
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	1.2	NP	5.73	0.00	31.15	25.42
07/16/08	<6.6	<0.18	1.0 J	<0.21	1.5 J	<0.19	NP	7.23	0.00	31.15	23.92
MONITORING WELL #MW-4				***Screen Interval = 4 to 14 feet***							
01/09/92	-	-	-	-	-	-	NP	5.25	0.00	97.33	92.08
04/13/92	-	-	-	-	-	-	NP	6.40	0.00	97.33	90.93
10/05/92	-	-	-	-	-	-	NP	9.95	0.00	97.33	87.38
01/06/93	-	-	-	-	-	-	NP	4.10	0.00	97.33	93.23
04/26/93	-	-	-	-	-	-	NP	4.84	0.00	97.33	92.49
01/04/94	-	-	-	-	-	-	NP	9.05	0.00	97.33	88.28
04/05/94	-	-	-	-	-	-	NP	8.10	0.00	97.33	89.23
10/09/95	63,000	9,000	2,100	2,500	9,600	-	-	-	-	97.33	-
01/08/96	23,000	2,200	830	880	3,600	-	NP	5.57	0.00	97.33	91.76
04/08/96	56,000	5,000	2,500	2,600	11,000	-	NP	5.36	0.00	97.33	91.97
07/22/96	33,000	3,700	1,600	1,400	6,000	2,400	NP	4.80	0.00	97.33	92.53
10/16/96	2,800	7.8	0.60	0.41	52	2,000	NP	5.47	0.00	97.33	91.86
01/22/97	1,400	<0.3	<0.3	<0.3	<0.5	3,100	NP	5.15	0.00	97.33	92.18
04/21/97	-	-	-	-	-	-	5.30	6.36	1.06	97.33	91.77
07/14/97	-	-	-	-	-	-	5.21	5.24	0.03	97.33	92.11
10/07/97	-	-	-	-	-	-	7.80	7.82	0.02	97.33	89.53
01/15/98	-	-	-	-	-	-	6.60	6.68	0.08	97.33	90.71
04/23/98	-	-	-	-	-	-	5.30	6.36	1.06	97.33	91.77
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.05	0.00	97.33	91.28
10/14/98	3,100	86	23	2.0	520	1,100	NP	6.85	0.00	97.33	90.48
01/21/99	9,100	3.2	5.6	1.8	130	* 24,000 / 17,000	NP	6.10	0.00	97.33	91.23
04/15/99	14,000	<0.3	0.71	<0.3	<0.5	* 20,000 / 22,000	NP	6.05	0.00	97.33	91.28
07/26/99	4,500	<6.0	<6	<6	<10	*8,700 / 9,800	NP	6.07	0.00	97.33	91.26

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
10/13/99	410	<0.3	0.63	<0.3	<0.5	660	NP	5.54	0.00	97.33	91.79
01/20/00	770	<0.3	<0.3	<0.3	<0.5	*2,400 / 1,900	NP	5.49	0.00	97.33	91.84
04/05/00	61,200	0.9	<0.25	<0.25	<0.5	*18,500 / 21,900	NP	5.30	0.00	97.33	92.03
07/19/00	96,600	1,770	1,760	2,690	8,730	21,900 / 9,740 J	NP	5.29	0.00	97.33	92.04
10/18/00	34,900	698	1,010	607	4,130	*27,800 / 15,900	NP	6.02	0.00	97.33	91.31
01/17/01	29,100	799	930	614	3,400	*24,300 / 31,400	NP	4.88	0.00	97.33	92.45
04/19/01	103,000	4,880	3,980	3,260	11,800	66,900	NP	4.89	0.00	97.33	92.44
07/18/01	52,200	3,320	2,090	440	5,520	*55,500 / 16,800	NP	6.04	0.00	97.33	91.29
10/10/01	8,580	6.1	14	5.3	70	*40,100 / 30,000	NP	4.51	0.00	97.33	92.82
01/30/02	36,500	<0.18	3.0	1.0	3.0	*43,000 / 24,900	NP	4.51	0.00	97.33	92.82
04/17/02	12,900	8.0	1.0	<0.18	1.0	16,000 / 13,600	NP	4.51	0.00	97.33	92.82
07/31/02	19,300	<0.18	1.2	1.5	2.6	*13,200 / 10,100	NP	5.26	0.00	97.33	92.07
11/14/02	36,200	1,720	940	235	6,190	8,280	NP	5.27	0.00	97.33	92.06
01/29/03	13,000	444	39	<0.4	1,200	8,160	NP	4.50	0.00	97.33	92.83
04/23/03	7,430	130	5.7	<0.2	387	5,830	NP	4.80	0.00	97.33	92.53
07/10/03	16,200	<2.2	<3.2	<3.1	<4.0	3,930	NP	4.55	0.00	97.33	92.78
10/20/03	6,040	672	384	3.4	444	*3,780 / 3,220	NP	4.56	0.00	97.33	92.77
WELL ABANDONED 01/2004											
MONITORING WELL #MW-4R				***Screen Interval = 5 to 20 feet***							
02/03/04							-	-	-	-	-
04/08/04	37,900	819	424	159	3,190	18,400	NP	4.96	0.00	-	-
07/21/04	14,500	<2.2	<3.2	<3.1	39 J	18,900	NP	6.60	0.00	-	-
10/20/04	66,000	6,390	6,560	672	3,290	13,300	NP	3.38	0.00	-	-
01/19/05	17,600	513	240	855	2,230	3,310	NP	4.32	0.00	-	-
04/20/05	19,200	190	109	452	974	1,870	NP	4.72	0.00	-	-
07/07/05	11,500	233	68	369	875	2,350	-	-	-	-	-
07/20/05	11,300	251	90	154	1,460	1,280	NP	6.08	0.00	-	-
10/19/05	1,310	<0.32	<0.10	<0.24	<0.30	1,160	NP	5.08	0.00	-	-
01/24/06	41,300	391	2,310	871	5,430	388	NP	4.98	0.00	-	-
04/19/06	26,100	399	1,290	254	3,350	732	NP	4.72	0.00	-	-
07/19/06	34,500	38	1,120	251	3,950	115	NP	6.84	0.00	-	-
09/15/06	-	-	-	-	-	-	-	-	-	-	-
10/18/06	37,000	<32	3,910	1,350	5,770	389	NP	5.85	0.00	-	-
01/17/07	211,000	223	22,800	5,670	33,800	<126	NP	6.62	0.00	30.23	23.61
04/18/07	13,000	52	2,300	97 J	5,140	102	NP	7.02	0.00	30.23	23.21
07/18/07	2,510	88	1.7 J	<0.21	107	124	NP	5.36	0.00	30.23	24.87
10/17/07	580	<0.18	24	3.9 J	81	120	NP	4.72	0.00	30.23	25.51
01/16/08	2,040	14	5.6	33	97	107	NP	4.34	0.00	30.23	25.89
04/22/08	1,310	24	329	111	582	<1.9	NP	7.00	0.00	30.23	23.23
07/16/08	33,400	236	2,030	1,030	6,990	6.6	NP	5.05	0.00	30.23	25.18
MONITORING WELL #MW-5				***Screen Interval = 4 to 14 feet***							
01/09/92	-	-	-	-	-	-	NP	5.32	0.00	98.85	93.53
04/13/92	-	-	-	-	-	-	NP	4.82	0.00	98.85	94.03
10/0/92	-	-	-	-	-	-	NP	8.78	0.00	98.85	90.07
01/06/93	-	-	-	-	-	-	NP	3.46	0.00	98.85	95.39
04/26/93	-	-	-	-	-	-	NP	4.66	0.00	98.85	94.19
01/04/94	-	-	-	-	-	-	NP	6.36	0.00	98.85	92.49
04/05/94	-	-	-	-	-	-	NP	5.94	0.00	98.85	92.91
07/12/95	<100	<0.5	<0.5	<0.5	<1.0	-	-	-	-	98.85	-
10/09/95	440	31	11	19	84	-	-	-	-	98.85	-
01/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	NP	6.63	0.00	98.85	92.22

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
04/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	NP	5.22	0.00	98.85	93.63
07/22/96	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	6.62	0.00	98.85	92.23
10/16/96	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	6.12	0.00	98.85	92.73
01/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	5.17	0.00	98.85	93.68
04/21/97	73	2.5	0.34	0.74	3.8	21	NP	6.64	0.00	98.85	92.21
07/14/97	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	6.67	0.00	98.85	92.18
10/07/97	130	<0.3	<0.3	<0.3	<0.5	-	NP	8.20	0.00	98.85	90.65
01/19/98	85	<0.3	<0.3	<0.3	<0.5	-	NP	1.55	0.00	98.85	97.30
04/23/98	220	0.39	<0.3	<0.3	<0.5	350	NP	8.10	0.00	98.85	90.75
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.30	0.00	98.85	92.55
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	7.65	0.00	98.85	91.20
01/21/99	<50	<0.3	<0.3	<0.3	<0.5	*6.7 / <5.0	NP	6.15	0.00	98.85	92.70
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	1.60	0.00	98.85	97.25
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.13	0.00	98.85	92.72
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.61	0.00	98.85	92.24
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.14	0.00	98.85	92.71
04/05/00	<50	0.5	<0.25	<0.25	<0.5	*5.4 / <5.0	NP	4.58	0.00	98.85	94.27
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	4.59	0.00	98.85	94.26
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	6.28	0.00	98.85	92.57
01/17/01	<50	<0.18	<0.14	<0.18	1.0	*5.0 / 4.8	NP	4.58	0.00	98.85	94.27
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	4.58	0.00	98.85	94.27
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	6.12	0.00	98.85	92.73
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	4.58	0.00	98.85	94.27
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	4.48	0.00	98.85	94.37
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	4.58	0.00	98.85	94.27
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	6.10	0.00	98.85	92.75
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	9.0	NP	6.11	0.00	98.85	92.74
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	7.1	NP	4.55	0.00	98.85	94.30
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	7.9	NP	3.03	0.00	98.85	95.82
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	7.4	NP	5.25	0.00	98.85	93.60
10/20/03	<15	<0.04	<0.02	<0.02	<0.06	*9.11 / 9.2	NP	5.25	0.00	98.85	93.60
01/14/04	<15	<0.04	<0.02	<0.02	<0.06	*8.2 / 4.1	NP	3.03	0.00	98.85	95.82
04/08/04	797	<0.22	<0.32	<0.31	<0.4	635	NP	4.35	0.00	98.85	94.50
07/21/04	548	<0.22	<0.32	<0.31	<0.4	788	NP	5.56	0.00	98.85	93.29
10/20/04	901	<0.22	<0.32	<0.31	<0.4	734	NP	4.15	0.00	98.85	94.70
01/19/05	350	<0.22	<0.32	<0.31	<0.4	860	NP	4.57	0.00	98.85	94.28
04/20/05	718	<0.22	<0.32	<0.31	<0.4	848	NP	6.10	0.00	98.85	92.75
07/20/05	255	<0.32	<0.10	<0.24	<0.30	274	NP	5.76	0.00	98.85	93.09
10/19/05	225	<0.32	<0.10	<0.24	<0.30	300	NP	6.10	0.00	98.85	92.75
01/24/06	681	<0.32	<0.10	<0.24	<0.30	334	NP	4.34	0.00	98.85	94.51
04/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	4.58	0.00	98.85	94.27
07/19/06	3,500	11	584	52	208	<0.63	NP	5.56	0.00	98.85	93.29
09/15/06	<5.6	<0.32	<0.10	<0.24	<0.30	1.8	NP	5.81	0.00	98.85	93.04
10/18/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.08	0.00	98.85	92.77
01/17/07	162	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.09	0.00	32.30	26.21
04/18/07	<5.6	<0.32	<0.10	<0.24	<0.3	<0.63	NP	6.09	0.00	32.30	26.21
07/18/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	6.52	0.00	32.30	25.78
10/17/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.55	0.00	32.30	27.75
01/16/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.56	0.00	32.30	27.74
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	6.11	0.00	32.30	26.19
07/16/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	6.08	0.00	32.30	26.22

MONITORING WELL #MW-6 ***Screen Interval = 4 to 14 feet***

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
01/09/92	-	-	-	-	-	-	NP	6.30	0.00	99.67	93.37
04/13/92	-	-	-	-	-	-	NP	5.47	0.00	99.67	94.20
10/05/92	-	-	-	-	-	-	NP	9.85	0.00	99.67	89.82
01/06/93	-	-	-	-	-	-	NP	4.16	0.00	99.67	95.51
04/26/93	-	-	-	-	-	-	NP	5.75	0.00	99.67	93.92
01/14/94	-	-	-	-	-	-	NP	7.20	0.00	99.67	92.47
04/05/94	-	-	-	-	-	-	NP	6.76	0.00	99.67	92.91
07/10/95	<100	<0.5	0.9	<0.5	1.1	-	-	-	-	99.67	-
10/09/95	250	4.8	5.6	11	58	-	-	-	-	99.67	-
01/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	NP	6.16	0.00	99.67	93.51
04/08/96	230	4.6	4.7	3.2	33	-	NP	4.60	0.00	99.67	95.07
07/22/96	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	7.30	0.00	99.67	92.37
10/16/96	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	5.82	0.00	99.67	93.85
01/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	4.40	0.00	99.67	95.27
04/21/97	130	<0.3	<0.3	<0.3	<0.5	<20	NP	7.10	0.00	99.67	92.57
07/14/97	<50	<0.3	<0.3	<0.3	0.70	<20	NP	7.35	0.00	99.67	92.32
10/07/97	<50	0.78	0.3	<0.3	<0.5	-	NP	6.98	0.00	99.67	92.69
01/23/98	<50	<0.3	<0.3	<0.3	<0.5	-	NP	2.35	0.00	99.67	97.32
04/23/98	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	6.90	0.00	99.67	92.77
07/20/98	<50	<0.3	1.1	<0.3	1.4	<5.0	NP	5.45	0.00	99.67	94.22
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	4.95	0.00	99.67	94.72
01/21/99	<50	0.35	0.62	<0.3	<0.5	<5.0	NP	3.90	0.00	99.67	95.77
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	2.35	0.00	99.67	97.32
07/26/99	1,000	<0.3	<0.3	<0.3	<0.5	*2,300 / 3,900	NP	3.93	0.00	99.67	95.74
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.15	0.00	99.67	93.52
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	*42 / 41	NP	5.84	0.00	99.67	93.83
04/05/00	4,600	338	2.8	1.2	55.2	*282 / 230	NP	3.89	0.00	99.67	95.78
07/19/00	60	1.0	2.0	<0.3	<0.6	*87 / 76	NP	3.07	0.00	99.67	96.60
10/18/00	-	-	-	-	-	-	-	-	-	99.67	-
01/17/01	103	<0.18	2.0	<0.18	3.0	*78 / 106	NP	3.87	0.00	99.67	95.80
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.86	0.00	99.67	95.81
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.40	0.00	99.67	94.27
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.86	0.00	99.67	95.81
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.86	0.00	99.67	95.81
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.86	0.00	99.67	95.81
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.40	0.00	99.67	94.27
11/14/02	140	3.2	<0.18	5.2	<0.4	111	NP	5.42	0.00	99.67	94.25
01/29/03	694 J	<0.04	<0.02	<0.02	<0.06	630	NP	3.88	0.00	99.67	95.79
04/23/03	1,550	<0.04	<0.02	<0.02	<0.06	578	NP	3.86	0.00	99.67	95.81
07/10/03	1,670	<0.22	<0.32	<0.31	<0.4	509	NP	5.31	0.00	99.67	94.36
10/20/03	1,320	<0.04	<0.02	<0.02	<0.06	*656 / 662	NP	5.30	0.00	99.67	94.37
01/14/04	272	<0.04	<0.02	<0.02	<0.06	*304 / 180	NP	3.82	0.00	99.67	95.85
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.18	0.00	99.67	94.49
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.42	0.00	99.67	93.25
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.62	0.00	99.67	94.05
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.40	0.00	99.67	94.27
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.41	0.00	99.67	94.26
07/20/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	4.07	0.00	99.67	95.60
10/19/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	3.86	0.00	99.67	95.81
01/24/06	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.20	0.00	99.67	94.47
04/19/06	78	<0.32	<0.10	<0.24	<0.30	201	NP	3.87	0.00	99.67	95.80
07/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.54	0.00	99.67	93.13
09/15/06	-	-	-	-	-	-	-	-	-	-	-
10/18/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.40	0.00	99.67	94.27

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
01/17/07	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.40	0.00	33.14	27.74
04/18/07	2,110	29	357	37	914	<0.63	NP	5.40	0.00	33.14	27.74
07/18/07	65	<0.18	<0.24	<0.21	<0.45	<0.19	NP	7.38	0.00	33.14	25.76
10/17/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	3.86	0.00	33.14	29.28
01/16/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.39	0.00	33.14	27.75
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.42	0.00	33.14	27.72
07/16/08	<6.6	<0.18	3.0 J	<0.21	2.7 J	<0.19	NP	3.84	0.00	33.14	29.30
MONITORING WELL #MW-7				***Screen Interval = 4 to 14 feet***							
01/09/92	-	-	-	-	-	-	NP	6.30	0.00	99.02	92.72
04/13/92	-	-	-	-	-	-	NP	6.68	0.00	99.02	92.34
10/05/92	-	-	-	-	-	-	NP	9.60	0.00	99.02	89.42
01/06/93	-	-	-	-	-	-	NP	13.90	0.00	99.02	85.12
04/26/93	-	-	-	-	-	-	NP	5.55	0.00	99.02	93.47
01/04/94	-	-	-	-	-	-	NP	7.58	0.00	99.02	91.44
04/05/94	-	-	-	-	-	-	NP	6.66	0.00	99.02	92.36
10/09/95	27,000	2,400	140	1,700	2,700	-	-	-	-	99.02	-
01/08/96	13,000	800	42	540	860	-	NP	6.94	0.00	99.02	92.08
04/08/94	9,100	840	31	690	1,200	-	NP	5.48	0.00	99.02	93.54
07/22/96	11,000	1,700	22	660	700	840	NP	6.60	0.00	99.02	92.42
10/16/96	180	<0.3	<0.3	<0.3	<0.5	270	NP	6.42	0.00	99.02	92.60
01/22/97	130	<0.3	<0.3	<0.3	<0.5	470	NP	5.70	0.00	99.02	93.32
04/21/97	10,000	1,400	27	820	490	1,100	NP	5.30	0.00	99.02	93.72
07/14/97	8,200	660	15	230	270	560	NP	7.90	0.00	99.02	91.12
10/07/97	7,700	480	15	8.4	350	-	NP	7.70	0.00	99.02	91.32
01/19/98	1,400	20	0.74	0.46	4.4	-	NP	6.05	0.00	99.02	92.97
04/23/98	590	<0.3	<0.3	<0.3	<0.5	1,700	NP	7.60	0.00	99.02	91.42
07/20/98	4,900	570	150	300	500	1,500	NP	5.30	0.00	99.02	93.72
10/14/98	1,100	1.0	<0.3	<0.3	5.3	2,000	NP	8.60	0.00	99.02	90.42
01/21/99	570	0.32	<0.3	<0.3	<0.5	* 1,500 / 1,700	NP	6.70	0.00	99.02	92.32
04/15/99	770	<0.3	<0.3	<0.3	<0.5	* 1,400 / 1,200	NP	6.07	0.00	99.02	92.95
07/26/99	500	<0.3	<0.3	<0.3	<0.5	*710 / 950	NP	7.86	0.00	99.02	91.16
10/13/99	<50	<0.3	0.44	<0.3	0.62	<5.0	NP	6.93	0.00	99.02	92.09
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	*5.0 / <5.0	NP	6.44	0.00	99.02	92.58
04/05/00	5,670	415	19	1.7	60.1	*329 / 194	NP	7.86	0.00	99.02	91.16
07/19/00	1,350	14	<3.0	<3.0	10	*237 / 120	NP	7.10	0.00	99.02	91.92
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	*63 / 41.1	NP	5.28	0.00	99.02	93.74
01/17/01	<50	<0.18	<0.14	<0.18	3.0	*57 / 81	NP	5.27	0.00	99.02	93.75
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	66	NP	7.86	0.00	99.02	91.16
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	*9.0 / 3.5	NP	6.30	0.00	99.02	92.72
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	*9.4 / 7.9	NP	8.23	0.00	99.02	90.79
01/30/02	2,590	40	9.0	8.0	6.0	*45 / 22	NP	5.14	0.00	99.02	93.88
04/17/02	51	<0.18	<0.14	<0.18	<0.26	*58 / 45	NP	5.53	0.00	99.02	93.49
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	*39 / 33	NP	5.93	0.00	99.02	93.09
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	6,8	NP	5.92	0.00	99.02	93.10
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	5.51	0.00	99.02	93.51
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	5.14	0.00	99.02	93.88
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.03	0.00	99.02	93.99
10/20/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	5.01	0.00	99.02	94.01
01/14/04	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	4.38	0.00	99.02	94.64
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	4.86	0.00	99.02	94.16
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.82	0.00	99.02	92.20
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.71	0.00	99.02	93.31

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	4.77	0.00	99.02	94.25
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.54	0.00	99.02	93.48
07/20/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.80	0.00	99.02	92.22
10/19/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.89	0.00	99.02	93.13
01/24/06	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	4.89	0.00	99.02	94.13
04/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	2.9	NP	5.13	0.00	99.02	93.89
07/19/06	3,430	58	28 J	<2.4	447	528	NP	6.31	0.00	99.02	92.71
09/15/06	<5.6	<0.32	<0.10	<0.24	<0.30	16	NP	6.72	0.00	99.02	92.30
10/18/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.13	0.00	99.02	93.89
01/17/07	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.62	0.00	31.61	24.99
04/18/07	<5.6	<0.32	<0.10	<0.24	<0.3	<0.63	NP	5.86	0.00	31.61	25.75
07/18/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	6.82	0.00	31.61	24.79
10/17/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.87	0.00	31.61	25.74
01/06/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.79	0.00	31.61	26.82
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.84	0.00	31.61	25.77
07/16/08	<6.6	<0.18	2.1 J	<0.21	5.6	<0.19	NP	5.86	0.00	31.61	25.75
MONITORING WELL #RW-1				***Screen Interval = 5 to 20 feet***							
01/09/92	-	-	-	-	-	-	NP	14.00	0.00	-	-
04/13/92	-	-	-	-	-	-	NP	14.00	0.00	-	-
10/05/92	-	-	-	-	-	-	NP	15.05	0.00	-	-
01/06/93	-	-	-	-	-	-	NP	5.43	0.00	-	-
04/26/93	-	-	-	-	-	-	NP	13.20	0.00	-	-
0104/94	-	-	-	-	-	-	NP	14.30	0.00	-	-
04/05/94	-	-	-	-	-	-	NP	14.13	0.00	-	-
01/08/96	-	-	-	-	-	-	NP	14.22	0.00	-	-
04/08/96	-	-	-	-	-	-	NP	14.33	0.00	-	-
07/22/96	8,100	530	84	120	860	-	NP	14.27	0.00	-	-
10/16/96	-	-	-	-	-	-	NP	13.10	0.00	-	-
01/22/97	-	-	-	-	-	-	NP	16.97	0.00	-	-
10/07/97	-	-	-	-	-	-	NP	14.20	0.00	-	-
01/15/98	-	-	-	-	-	-	NP	15.60	0.00	-	-
04/23/98	81,000	0.72	1.4	3.2	5.7	270,000	NP	14.20	0.00	-	-
07/20/98	-	-	-	-	-	-	NP	14.30	0.00	-	-
10/14/98	-	-	-	-	-	-	NP	11.20	0.00	-	-
01/21/99	-	-	-	-	-	-	-	-	-	-	-
04/15/99	-	-	-	-	-	-	NP	13.10	0.00	-	-
07/26/99	4,400	<3.0	<3.0	<3.0	<5.0	*6,800 / 9,000	NP	13.83	0.00	-	-
10/13/99	-	-	-	-	-	-	-	-	-	-	-
01/20/00	-	-	-	-	-	-	NP	13.22	0.00	-	-
04/05/00	-	-	-	-	-	-	-	-	-	-	-
07/19/00	-	-	-	-	-	-	NP	13.25	0.00	-	-
10/18/00	-	-	-	-	-	-	NP	11.14	0.00	-	-
01/17/01	-	-	-	-	-	-	NP	11.12	0.00	-	-
04/19/01	-	-	-	-	-	-	-	-	-	-	-
07/18/01	-	-	-	-	-	-	NP	11.20	0.00	-	-
10/10/01	-	-	-	-	-	-	NP	11.20	0.00	-	-
01/30/02	-	-	-	-	-	-	NP	12.30	0.00	-	-
04/17/02	-	-	-	-	-	-	NP	14.30	0.00	-	-
07/31/02	-	-	-	-	-	-	NP	14.21	0.00	-	-
11/14/02	-	-	-	-	-	-	NP	14.13	0.00	-	-
01/29/03	-	-	-	-	-	-	NP	13.12	0.00	-	-
04/23/03	-	-	-	-	-	-	-	No Access	-	-	-

TABLE 2A
GROUNDWATER DATA
THRIFTY OIL STATION #049, OAKLAND, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT	DEPTH TO GROUNDWATER	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
07/10/03	-	-	-	-	-	-	-	No Access	-	-	-
10/20/03	-	-	-	-	-	-	-	No Access	-	-	-
WELL ABANDONED 01/2004											
MONITORING WELL #RW-1R				***Screen Interval = 5 to 20 feet***							
02/03/04							-	-	-	-	-
04/08/04	6,740	42	32 J	<3.1	1,160	239	NP	4.76	0.00	-	-
07/21/04	118	<0.22	<0.32	<0.31	<0.4	107	NP	6.85	0.00	-	-
10/20/04	29,900	3,850	4,010	381	1,920	103	NP	4.28	0.00	-	-
01/19/05	13,400	272	243	24 J	2,230	2,110	NP	4.54	0.00	-	-
04/20/05	1,220	<0.22	<0.32	<0.31	<0.4	1,580	NP	4.95	0.00	-	-
07/07/05	6,490	410	74	84	620	2,560	-	-	-	-	-
07/20/05	4,900	133	52	<2.4	750	465	NP	6.32	0.00	-	-
10/19/05	572	<0.32	<0.10	<0.24	<0.30	417	NP	5.68	0.00	-	-
01/24/06	14,500	192	1,150	342	2,980	432	NP	4.78	0.00	-	-
04/19/06	7,430	94	411	<2.4	1,820	571	NP	4.94	0.00	-	-
07/19/06	5,020	55	17 J	<2.4	457	636	NP	7.10	0.00	-	-
09/15/06	-	-	-	-	-	-	-	-	-	-	-
10/18/06	41,500	63	4,710	1,510	6,390	343	NP	6.06	0.00	-	-
01/17/07	164,000	249	25,300	6,040	35,200	217	NP	6.83	0.00	30.59	23.76
04/18/07	13,000	<16	2,230	121 J	5,070	92	NP	7.22	0.00	30.59	23.37
07/18/07	3,930	90	64	291	437	117	NP	5.76	0.00	30.59	24.83
10/17/07	993	<0.18	22	4.7 J	85	108	NP	4.93	0.00	30.59	25.66
01/16/08	1,990	14	5.6	33	99	108	NP	4.56	0.00	30.59	26.03
04/22/08	22,400	330	2,350	517	3,250	15	NP	7.23	0.00	30.59	23.36
07/16/08	5,140	35	315	94	761	3.0	NP	5.65	0.00	30.59	24.94

NOTE: * MTBE 8020 / 8260
ND = Nondetectable
NP = No free hydrocarbon product
" - " = Not analyzed / Not available

Benzene, toluene, ethlybenzene, and xylene analyzed by EPA method 8020.
Total petroleum hydrocarbons (TPH) analyzed by EPA method 8015 modified for gasoline
Methyl-tert Butyl Ether (MTBE) analyzed by EPA method 8020 or 8260
On 7/21/04, 4/08/04, 7/10/03 & 11/14/02, BTEX and MTBE done by 8260B

TABLE 2B
ADDITIONAL GROUNDWATER DATA
THRIFTY OIL STATION # 049, OAKLAND, CA.

DATE SAMPLED	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (mg/L)	Methanol (mg/L)
MONITORING WELL # MW-1						
11/14/02	<0.2	<0.12	<0.16	<10 .	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	<0.28	<10	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	<0.28	12	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<0.29	<0.17	<0.28	<10	<20	<20
07/19/06	<2.9	<1.7	<2.8	<100	-	-
09/15/06	<0.29	<0.17	<0.28	<10	-	-
10/18/06	<0.29	<0.17	<0.28	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	<10	-	-
07/18/07	<0.20	<0.23	<0.19	<10	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-
01/16/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-
MONITORING WELL #MW-2						
11/14/02	<2.0	<1.2	111	341	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<2.9	<1.7	59	449	-	-
10/20/03	-	-	-	-	-	-
	WELL ABANDONED 01/2004					
MONITORING WELL #MW-2R						
02/03/04	<0.29	<0.17	76	1,610	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/07/05	<0.29	<0.17	37	1,130	-	-
07/20/05	<0.29	<0.17	95	151	<20	<20
10/19/05	<0.29	<0.17	13	33	<20	<20
01/24/06	<0.29	<0.17	<0.28	42	<20	<20
04/19/06	<5.8	<3.4	<5.6	<200	<20	<20
07/19/06	<2.9	<1.7	68	113	-	-
09/15/06	-	-	-	-	-	-
10/18/06	<2.9	<1.7	<2.8	174.0	-	-
01/17/07	<58	<34	<52	<2000	-	-
04/18/07	<0.29	<0.17	5.2	122.0	-	-
07/18/07	<0.20	<0.23	<0.19	39	-	-
10/17/07	<0.20	<0.23	11	119	-	-
01/16/08	<0.20	<0.23	2.9	<10	-	-
04/22/08	<20	<23	<19	<1,000	-	-
07/16/08	<0.20	<0.23	<0.19	9.5 J	-	-
MONITORING WELL # MW-3						
11/14/02	<0.2	<0.12	<0.16	<10	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	<0.28	<10	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-

TABLE 2B
ADDITIONAL GROUNDWATER DATA
THRIFTY OIL STATION # 049, OAKLAND, CA.

DATE SAMPLED	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol *(mg/L)*	Methanol *(mg/L)*
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	<0.28	<10	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<0.29	<0.17	<0.28	<10	<20	<20
07/19/06	<2.9	<1.7	173	128	-	-
09/15/06	<0.29	<0.17	38	<10	-	-
10/18/06	<0.29	<0.17	2.8	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	18	-	-
07/18/07	<0.20	<0.23	<0.19	11	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-
01/16/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	10	-	-
MONITORING WELL # MW-4						
11/14/02	<2.0	<1.2	106	281	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<2.9	<1.7	35	<100	-	-
10/20/03	-	-	-	-	-	-
	WELL ABANDONED 01/2004					
MONITORING WELL # MW-4R						
02/03/04	<0.29	<0.17	209	1,350	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/07/05	<0.29	<0.17	57	167	-	-
07/20/05	<0.29	<0.17	<0.28	369	<20	<20
10/19/05	<0.29	<0.17	39	335	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<2.9	<1.7	36	231	<20	<20
07/19/06	<2.9	<1.7	<2.8	<100	-	-
09/15/06	-	-	-	-	-	-
10/18/06	<29	<17	<28	<1000	-	-
01/17/07	<58	<34	<52	<2000	-	-
04/18/07	<14.5	<8.5	<14	<500	-	-
07/18/07	<0.20	<0.23	<0.19	20	-	-
10/17/07	<0.20	<0.23	3.9	89	-	-
01/16/08	<0.20	<0.23	<0.19	25	-	-
04/22/08	<2.0	<2.3	<1.9	<100	-	-
07/16/08	<0.20	<0.23	<0.19	18	-	-
MONITORING WELL # MW-5						
11/14/02	<0.2	<0.12	<0.16	<10	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	<0.28	<10	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	1.4	<10	<20	<20
01/24/06	<0.29	<0.17	1.2	19	<20	<20
04/19/06	<0.29	<0.17	<0.28	<10	<20	<20
07/19/06	<0.29	<0.17	<0.28	<10	-	-
09/15/06	<0.29	<0.17	<0.28	<10	-	-

TABLE 2B
ADDITIONAL GROUNDWATER DATA
THRIFTY OIL STATION # 049, OAKLAND, CA.

DATE SAMPLED	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (mg/L)	Methanol (mg/L)
10/18/06	<0.29	<0.17	<0.28	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	<10	-	-
07/18/07	<0.20	<0.23	<0.19	<10	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-
01/16/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-
MONITORING WELL # MW-6						
11/14/02	<0.2	<0.12	<0.16	<10	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	2.1	38	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-		-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	<0.28	<10	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<0.29	<0.17	<0.28	13	<20	<20
07/19/06	<0.29	<0.17	<0.28	<10	-	-
09/15/06	-	-	-	-	-	-
10/18/06	<0.29	<0.17	<0.28	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	<10	-	-
07/18/07	<0.20	<0.23	<0.19	<10	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-
01/16/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-
MONITORING WELL # MW-7						
11/14/02	<0.2	<0.12	<0.16	<10	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	<0.28	<10	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	<0.28	<10	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<0.29	<0.17	<0.28	<10	<20	<20
07/19/06	<2.9	<1.7	25	216	-	-
09/15/06	<0.29	<0.17	<0.28	<10	-	-
10/18/06	<0.29	<0.17	<0.28	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	<10	-	-
07/18/07	<0.20	<0.23	<0.19	<10	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-
01/06/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-
MONITORING WELL # RW-1R						
02/03/04	<0.29	<0.17	53	1,370	-	-
04/08/04	-	-	-	-	-	-

TABLE 2B
ADDITIONAL GROUNDWATER DATA
THRIFTY OIL STATION # 049, OAKLAND, CA.

DATE SAMPLED	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol *(mg/L)*	Methanol *(mg/L)*
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/07/05	<0.29	<0.17	71	1,740	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	9.6	65	<20	<20
01/24/06	<2.9	<1.7	<2.8	156	<20	<20
04/19/06	<2.9	<1.7	11	206	<20	<20
07/19/06	<2.9	<1.7	<2.8	217	-	-
09/15/06	-	-	-	-	-	-
10/18/06	<2.9	<1.7	<2.8	209	-	-
01/17/07	<58	<34	<52	<2000	-	-
04/18/07	<14.5	<8.5	<14	<500	-	-
07/18/07	<2.0	<2.3	<1.9	<100	-	-
10/17/07	<0.20	<0.23	<0.19	81	-	-
01/16/08	<0.20	<0.23	<0.19	31	-	-
04/22/08	<2.0	<2.3	<1.9	<100	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-

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

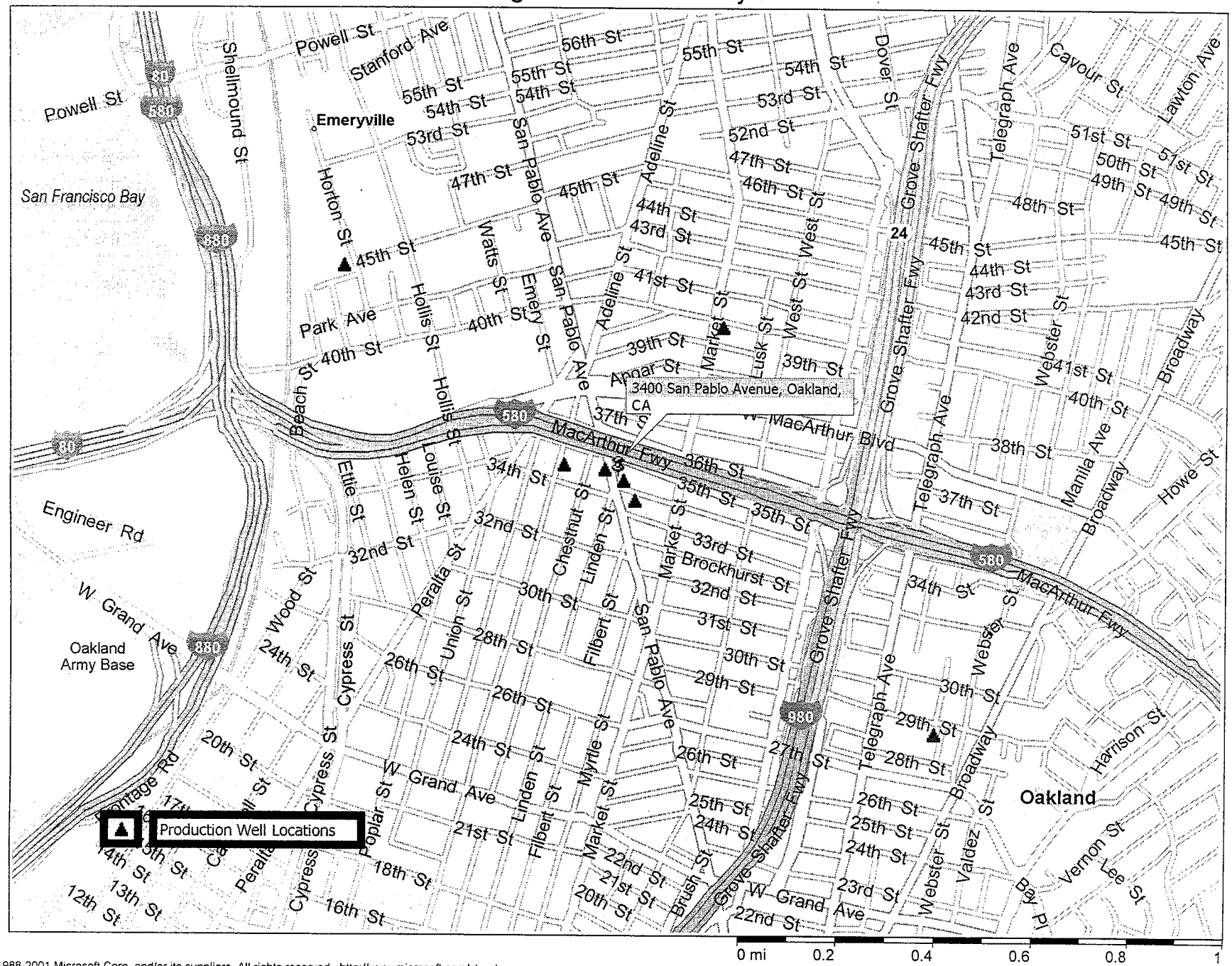
TABLE 3
WELL COMPLETION DETAILS
Thrifty Oil Station #049 - Oakland, CA
GHC - 1330

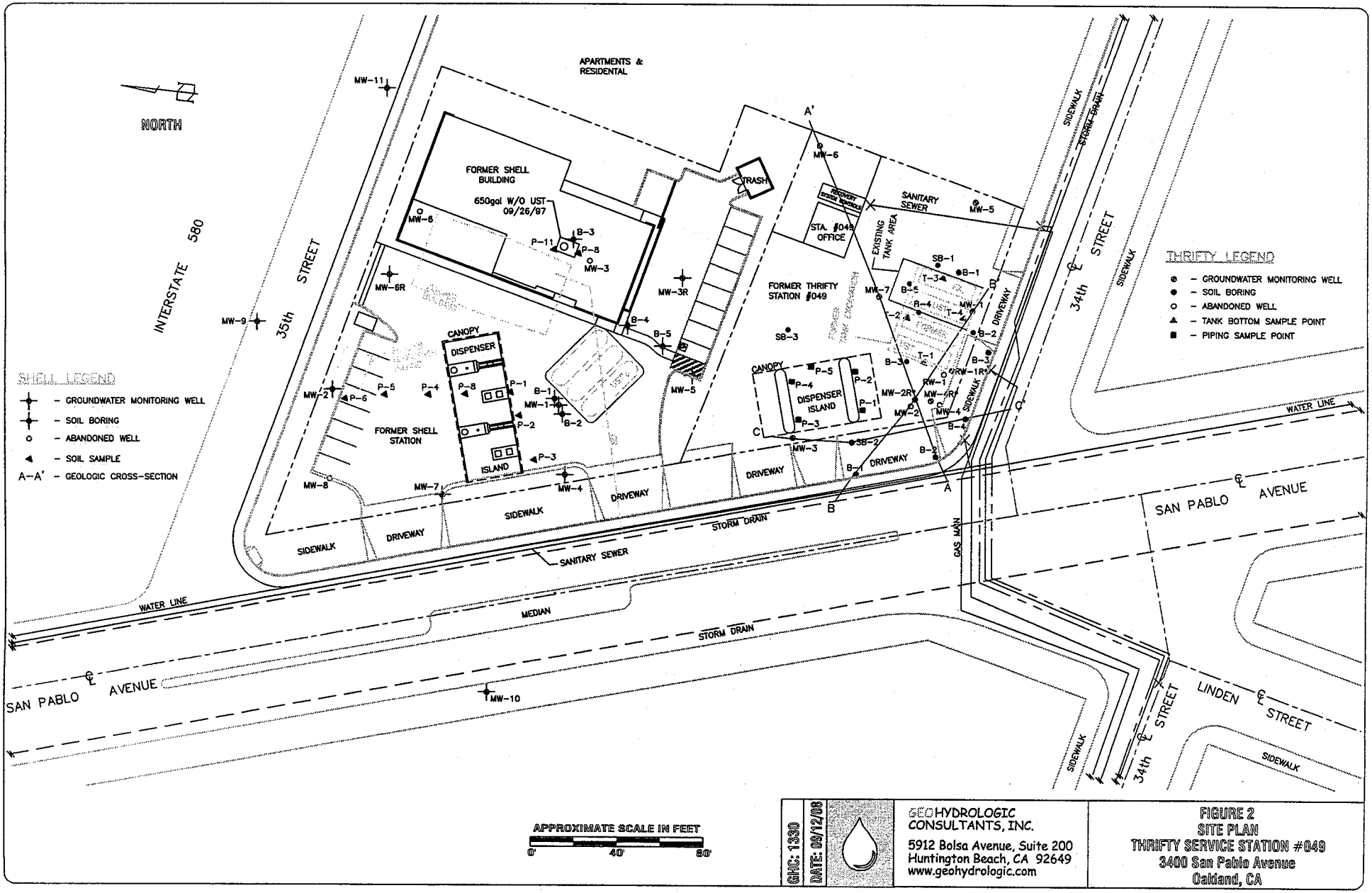
Well ID	Date Constructed	Total Depth	Casing Diameter	Screen Interval	TOC Elevation *
MW-1	07/31/86	25'	2-inch	5-25'	98.03
MW-2	07/31/86	25'	2-inch	5-25'	abandoned
MW-3	07/31/86	25'	2-inch	5-25'	97.69
MW-4	11/14/86	14'	4-inch	4-14'	abandoned
MW-5	11/14/86	14'	2-inch	4-14'	93.53
MW-6	11/14/86	14'	2-inch	4-14'	93.37
MW-7	11/14/86	14'	4-inch	4-14'	92.72
RW-1	1992	20'	4-inch	5-20'	abandoned
RW-1R	01/15/04	20'	4-inch	5-20'	-
MW-2R	01/15/04	20'	2-inch	5-20'	-
MW-4R	01/15/04	20'	4-inch	5-20'	-

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

FIGURES

Figure 1 - Site Vicinity





GHC: 1330 DATE: 09/12/08

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FIGURE 2
SITE PLAN
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA

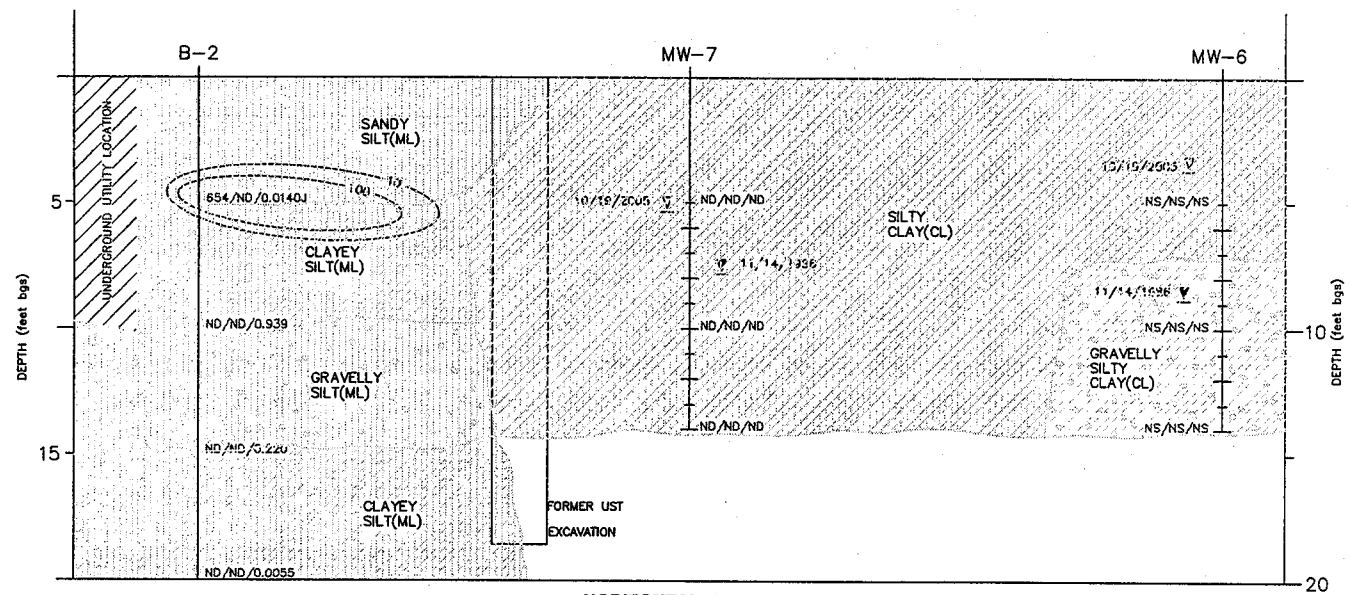
VIEW NORTHWEST

A

A'

SOUTHWEST

NORTHEAST



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

APPROXIMATE SCALE IN FEET

0' 20' 40'

LEGEND

▼ – RECENT ENCOUNTERED

▽ – 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

— 100 — – TPHg IN SOIL CONTOUR IN mg/Kg

GHC: 1330 DATE: 04/27/06

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FIGURE 3A
GEOLOGIC CROSS-SECTION A-A'
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA

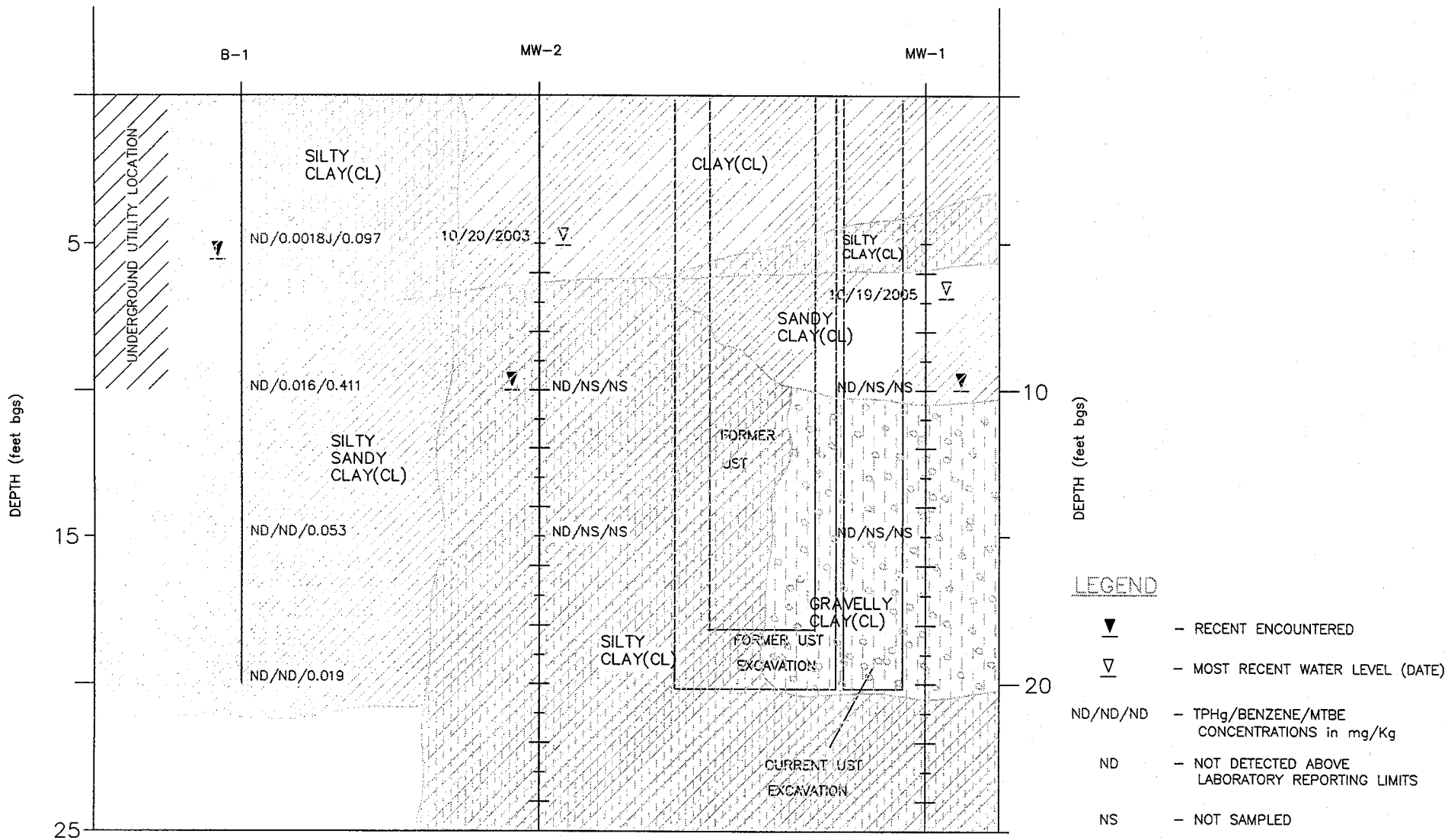
VIEW NORTHEAST

B

B'

NORTHWEST

SOUTHEAST



LEGEND

- ▼ – RECENT ENCOUNTERED
- ▽ – 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

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

APPROXIMATE SCALE IN FEET

0' 20' 40'

GHC: 1330

DATE: 04/27/06

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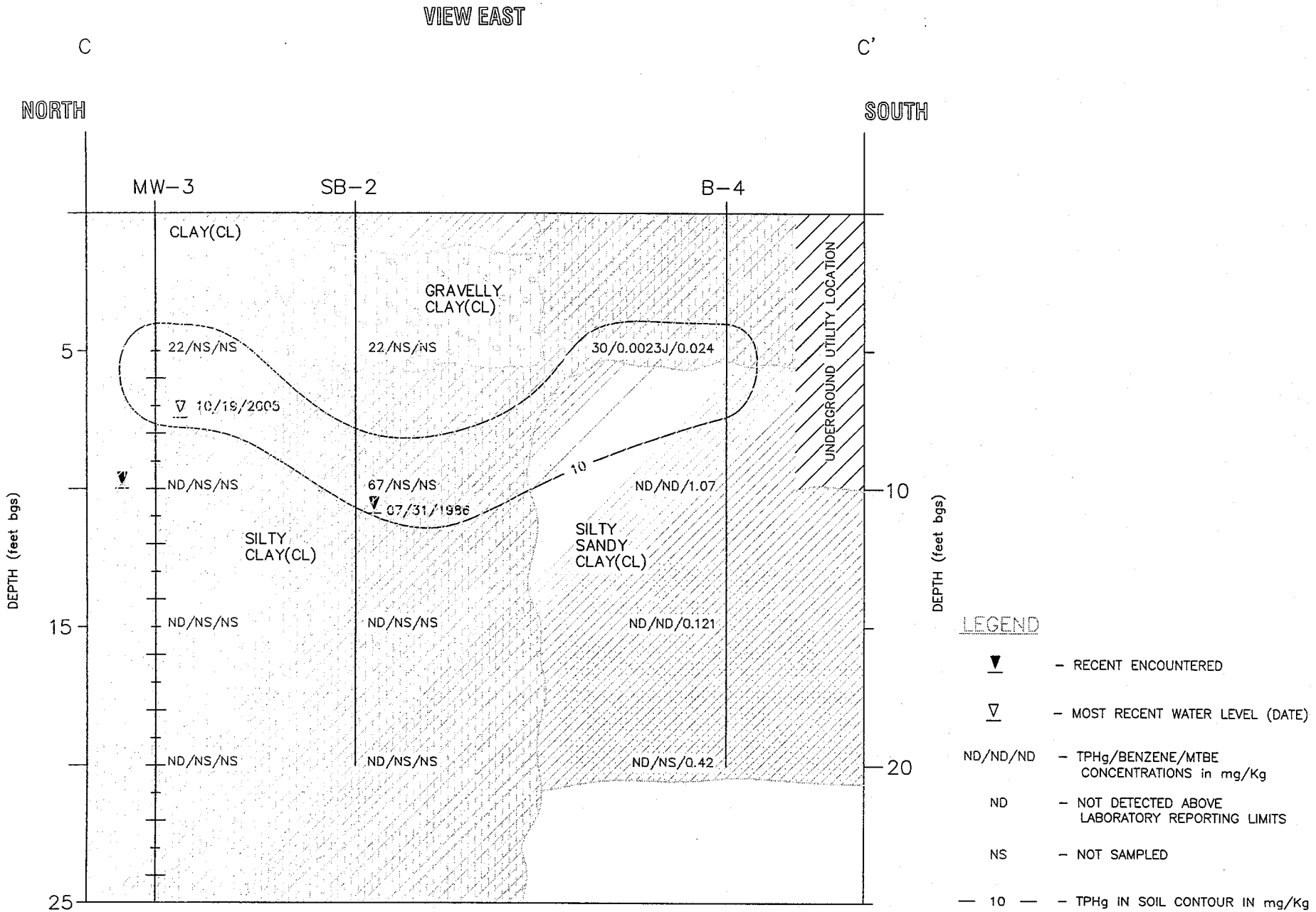
FIGURE 3B
GEOLOGIC CROSS-SECTION B-B'
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



GHC: 1330 | DATE: 04/27/06

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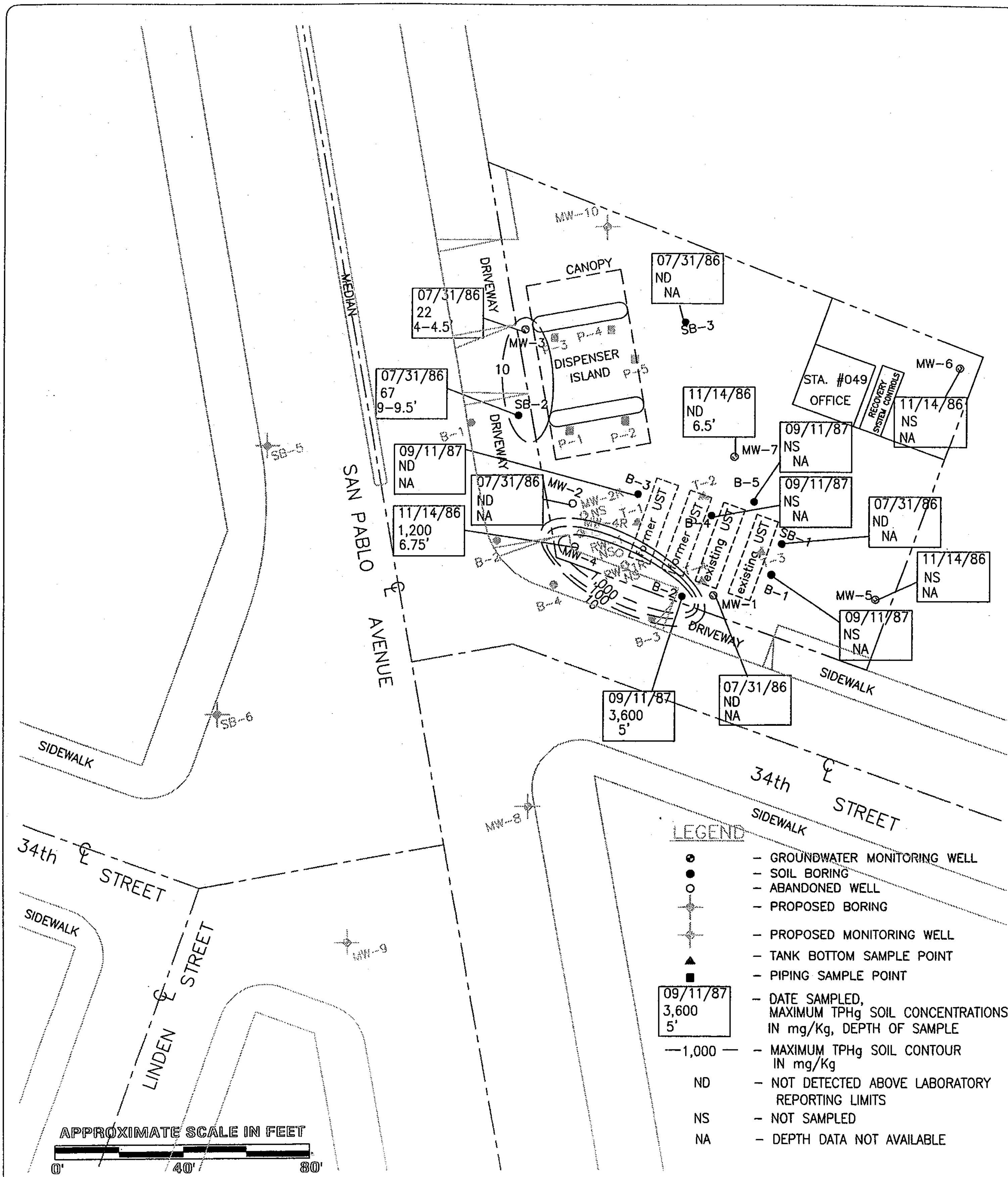
FIGURE 3C
GEOLOGIC CROSS-SECTION C-C'
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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DATE: 01/25/06

FIGURE 4A
DISTRIBUTION OF TPHg IN SOIL
(Pre-Remediation, 0-10 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA

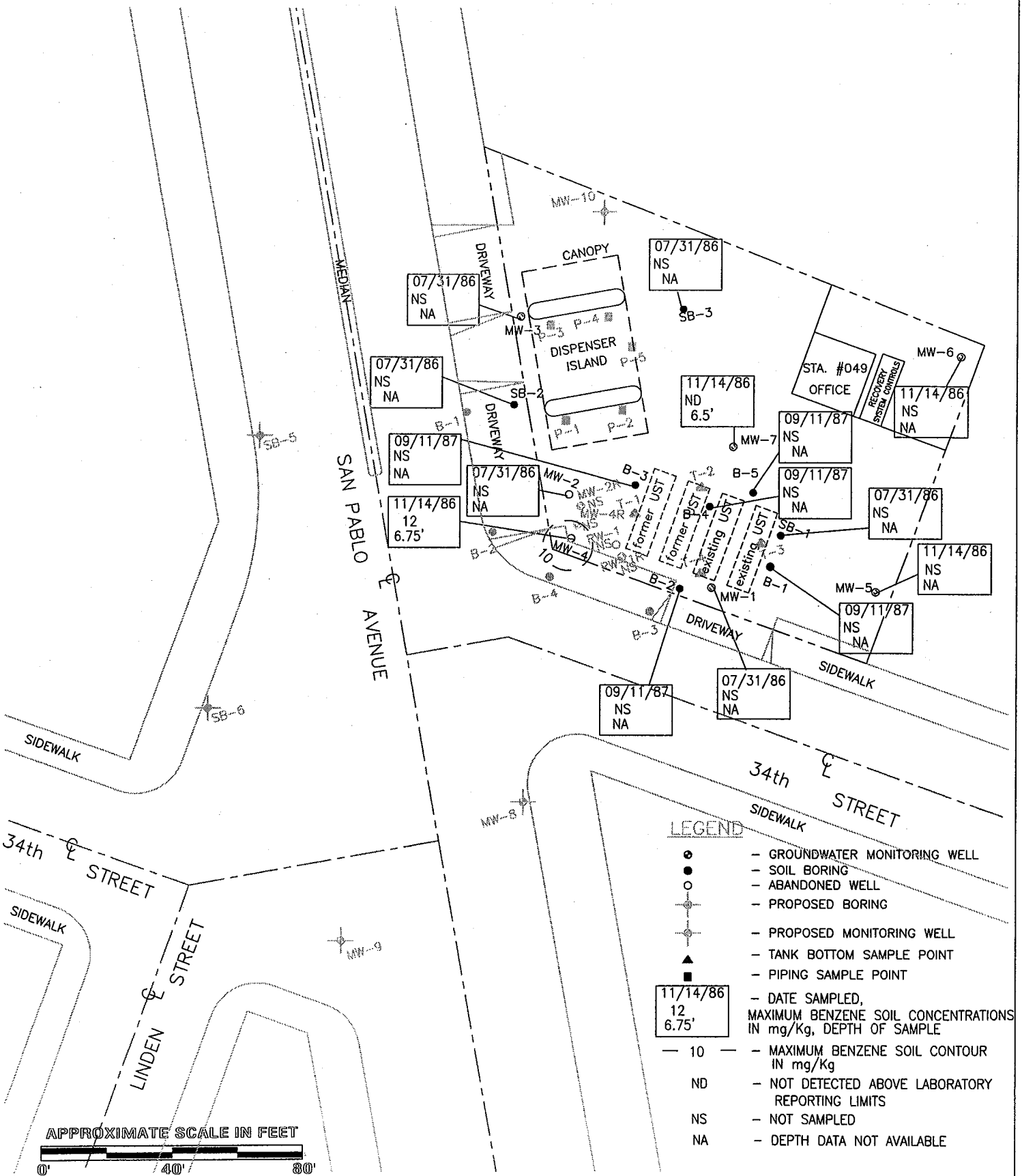

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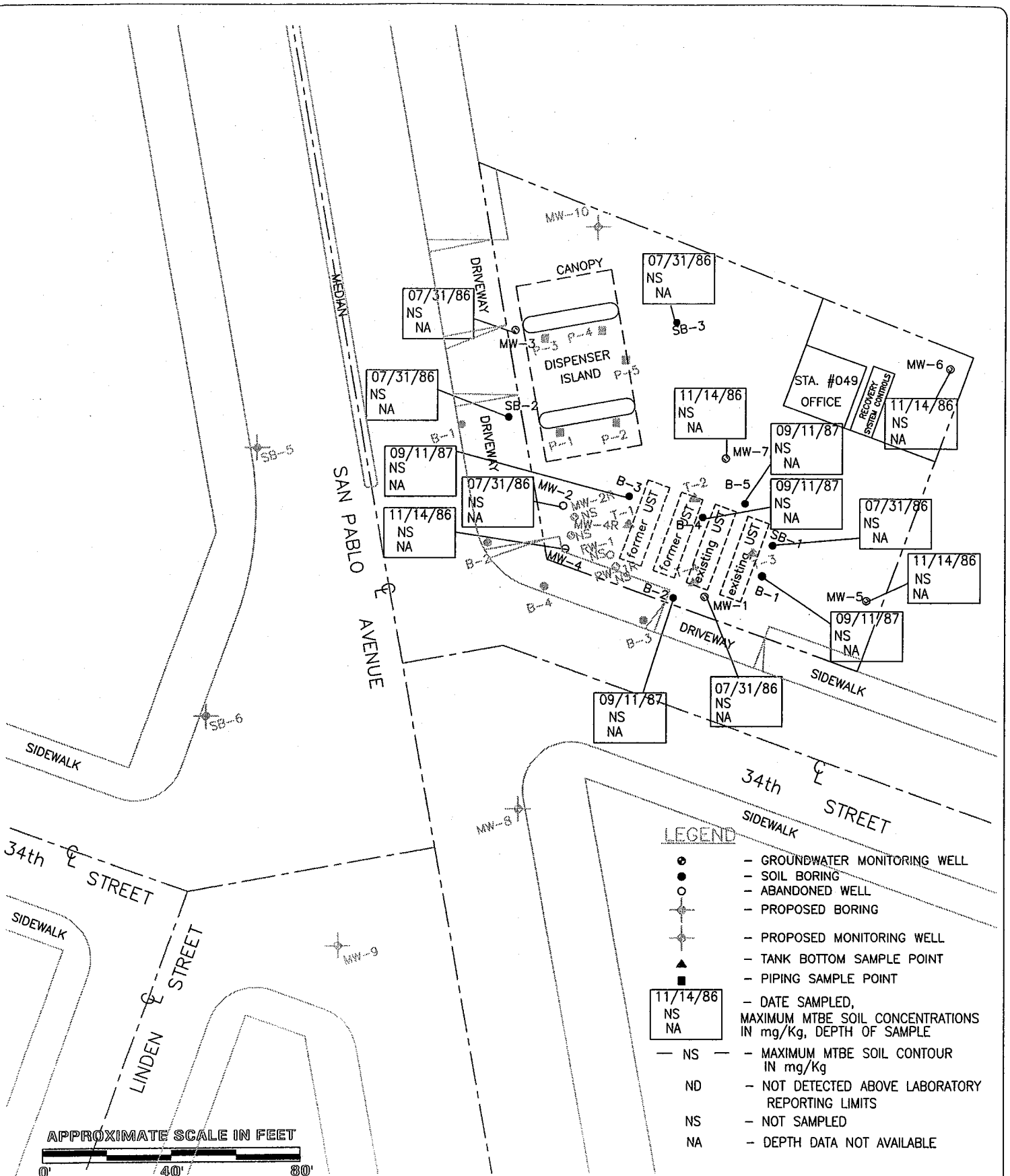
FIGURE 4B
DISTRIBUTION OF BENZENE IN SOIL
(Pre-Remediation, 0-10 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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DATE: 01/25/06

FIGURE 4C
DISTRIBUTION OF MTBE IN SOIL
(Pre-Remediation, 0-10 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA

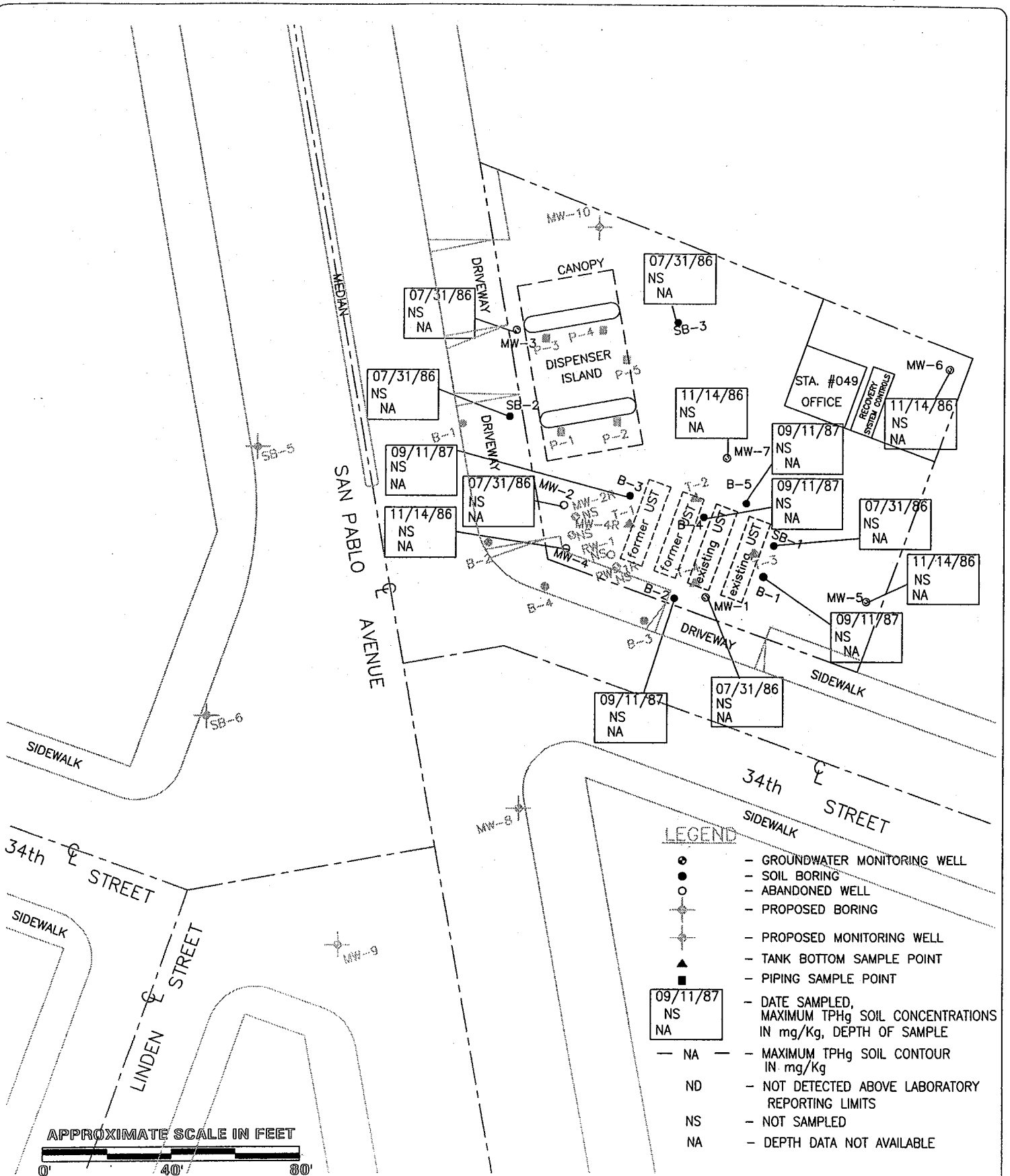

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FIGURE 4D
DISTRIBUTION OF TPHg IN SOIL
(Pre-Remediation, 11-20 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA

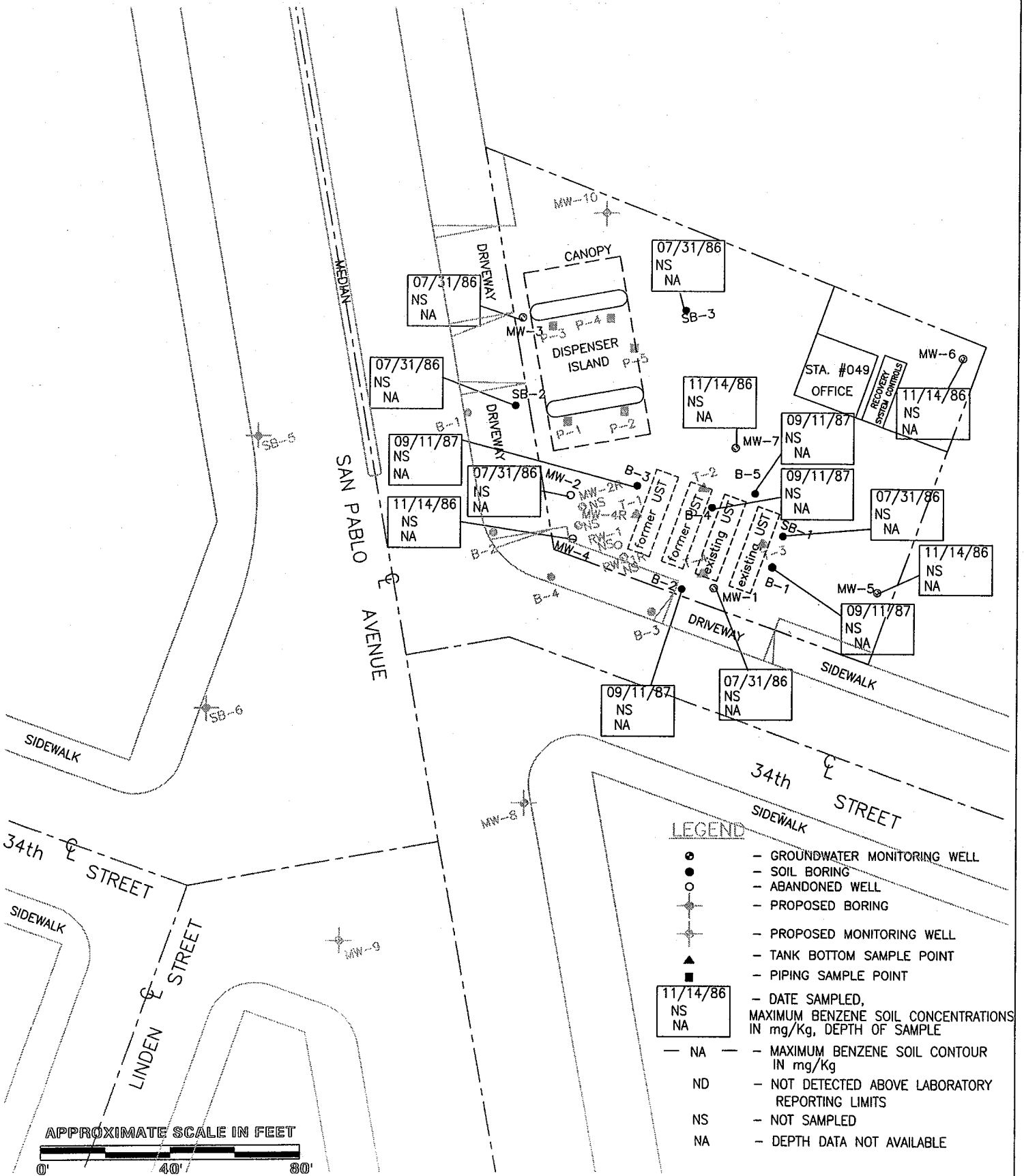

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FIGURE 4E
DISTRIBUTION OF BENZENE IN SOIL
(Pre-Remediation, 11-20 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA

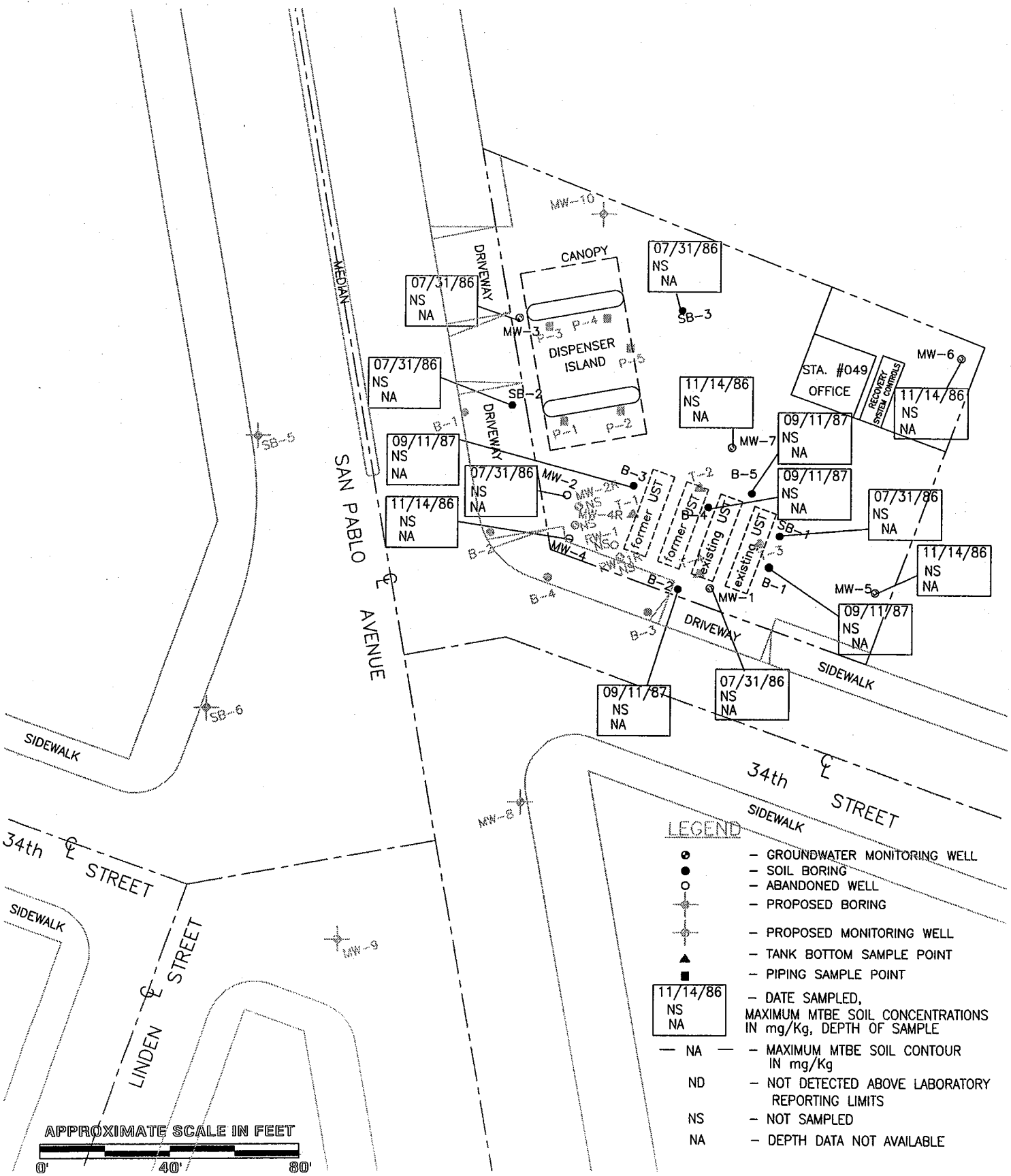

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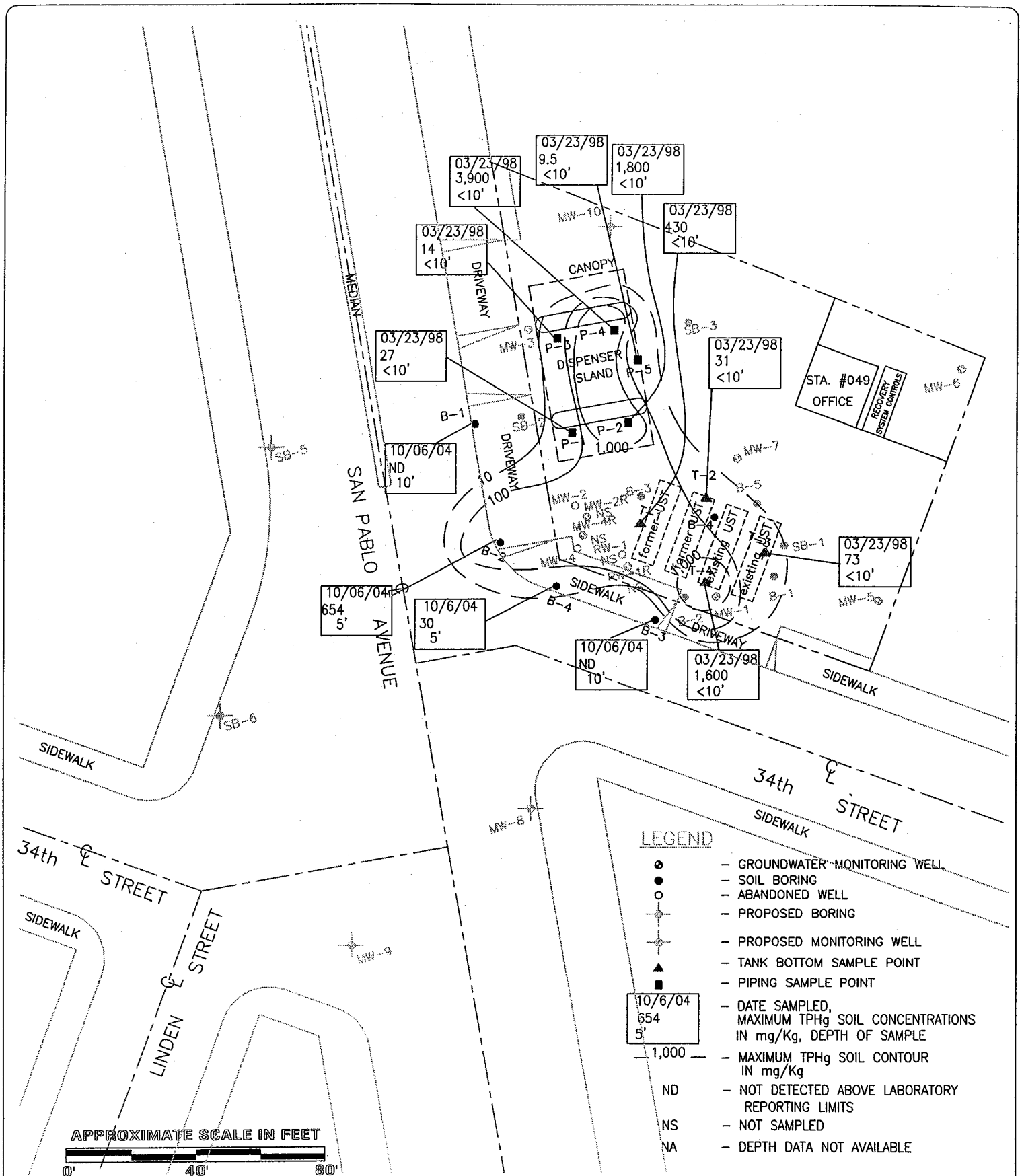
FIGURE 4F
DISTRIBUTION OF MTBE IN SOIL
(Pre-Remediation, 11-20 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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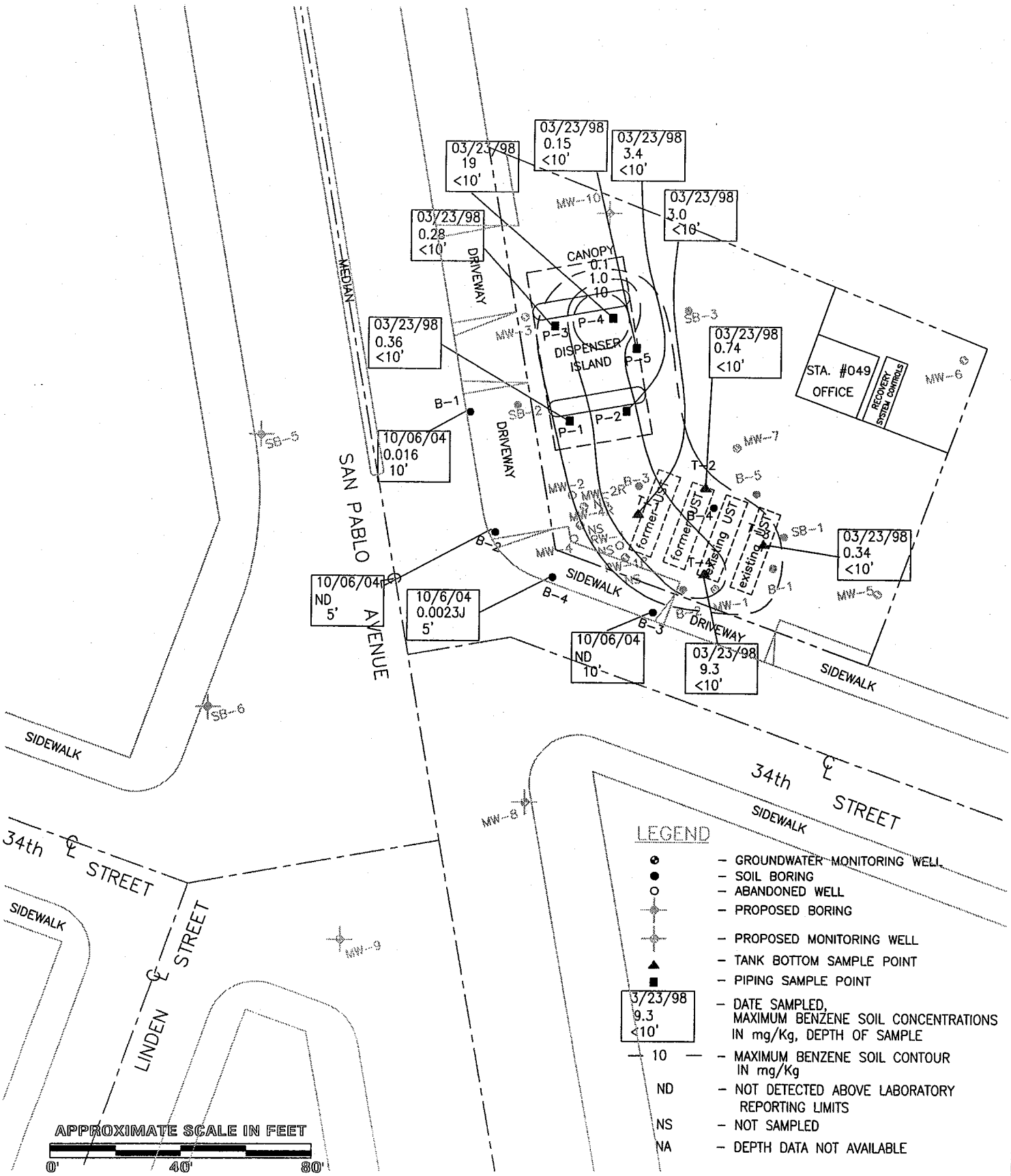
DATE: 01/25/06

FIGURE 4G
DISTRIBUTION OF TPHg IN SOIL
(Post-Remediation, 0-10 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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DATE: 01/25/06

FIGURE 4H
DISTRIBUTION OF BENZENE IN SOIL
(Post-Remediation, 0-10 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA

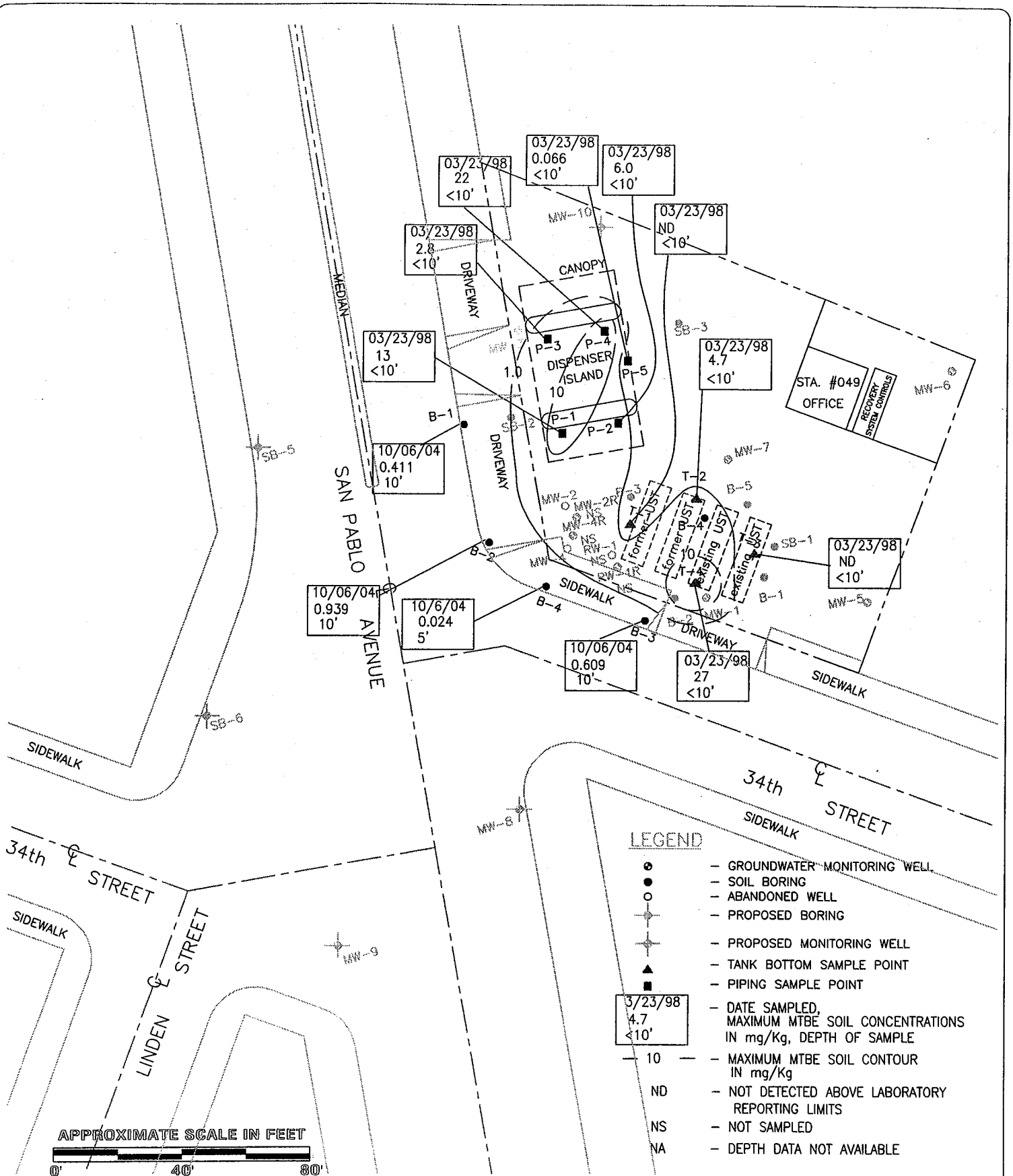

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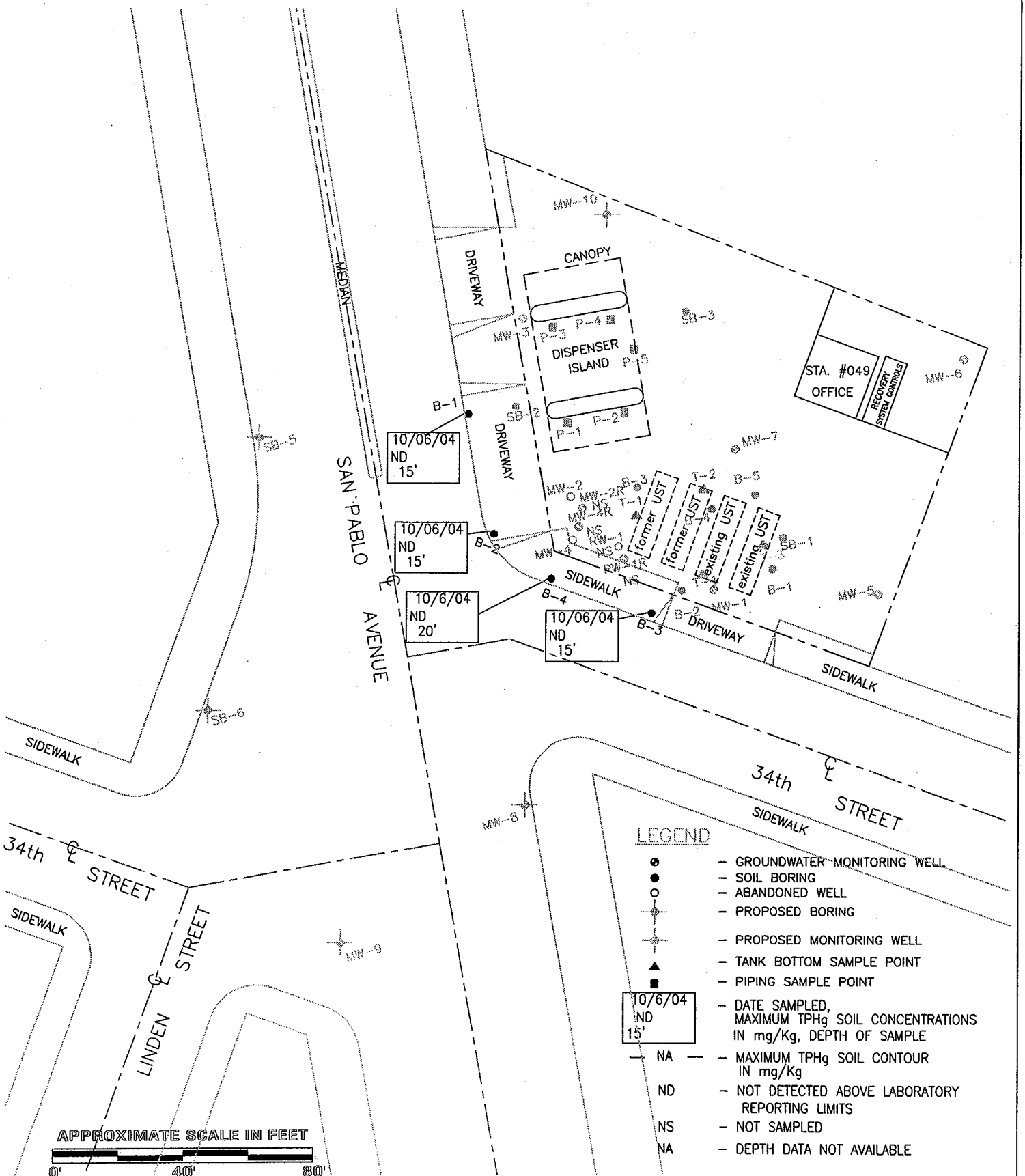
FIGURE 4I
DISTRIBUTION OF MTBE IN SOIL
(Post-Remediation, 0-10 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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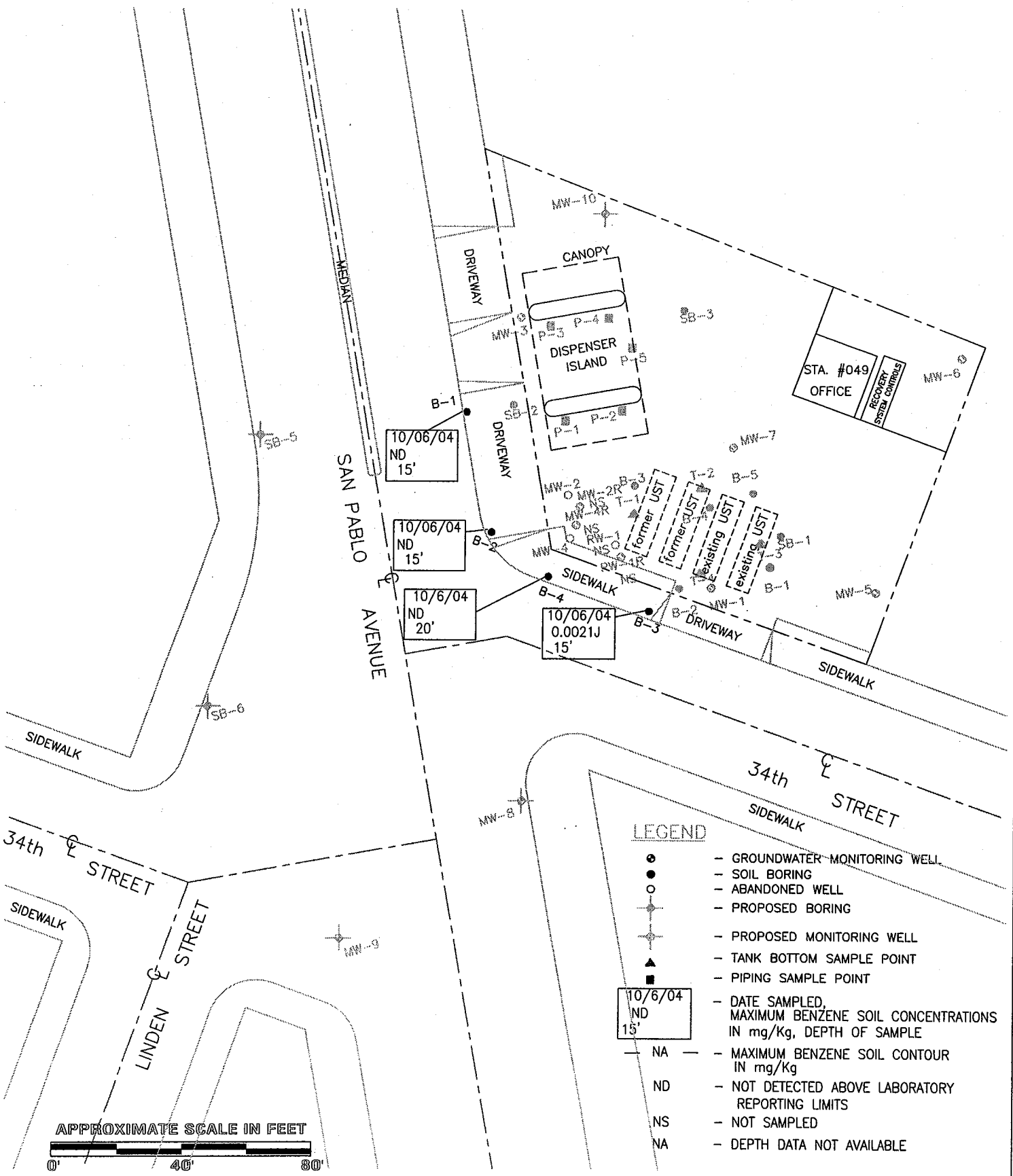
DATE: 01/25/06

FIGURE 4J
DISTRIBUTION OF TPHg IN SOIL
(Post-Remediation, 11-20 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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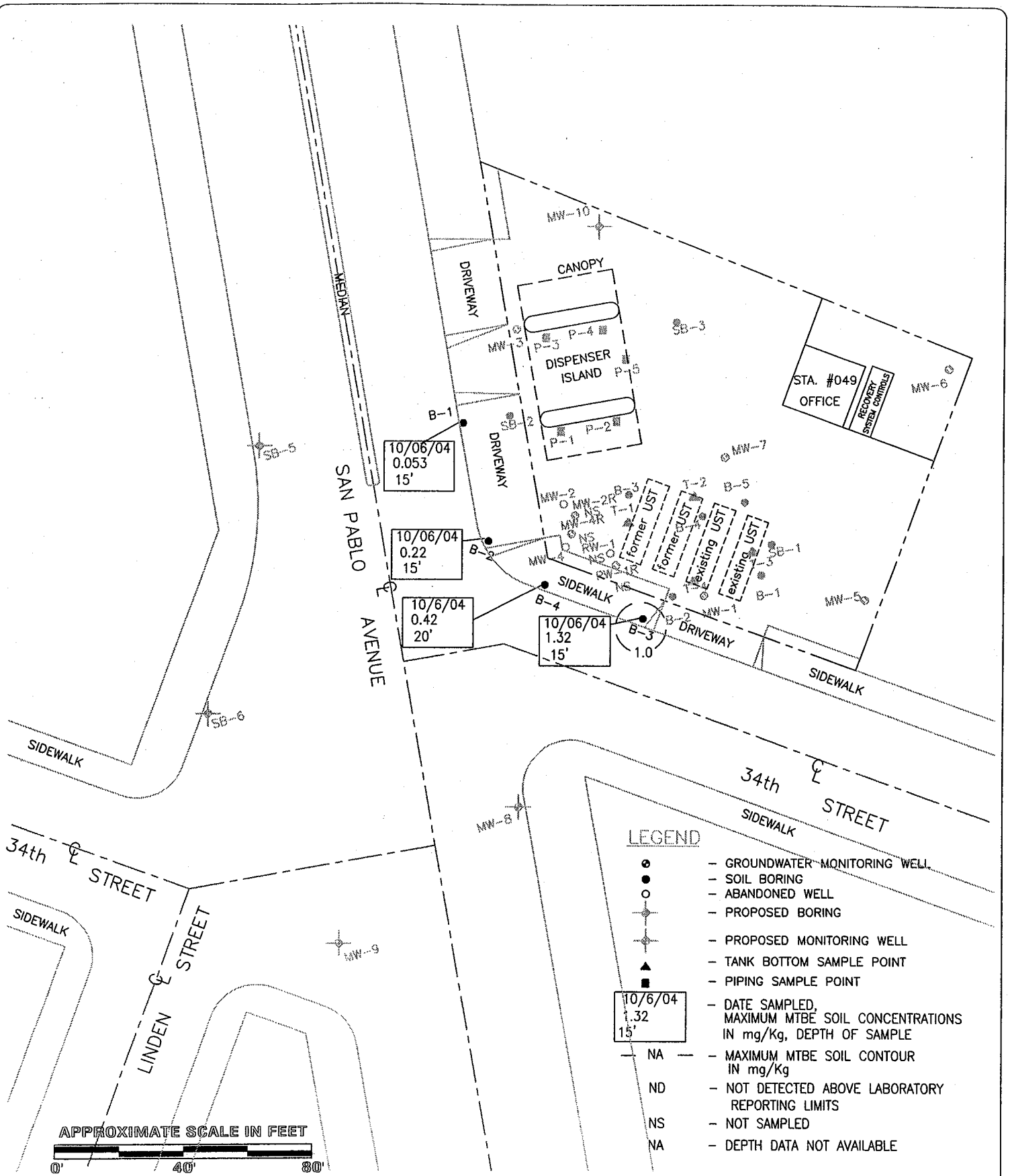
DATE: 01/25/06

FIGURE 4K
DISTRIBUTION OF BENZENE IN SOIL
(Post-Remediation, 11-20 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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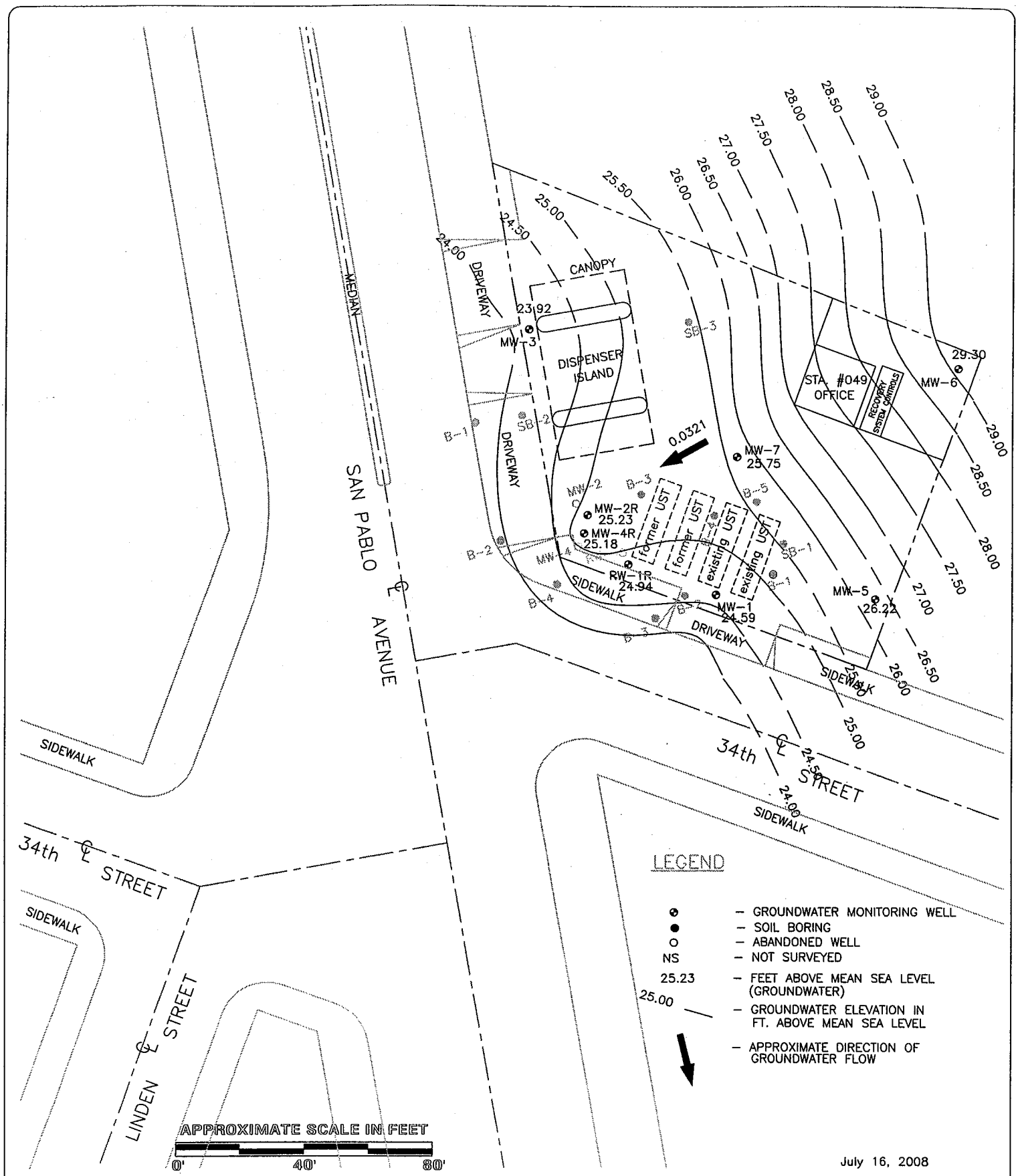
GHC: 1330

DATE: 01/25/06

FIGURE 4L
DISTRIBUTION OF MTBE IN SOIL
(Post-Remediation, 11-20 Feet Below Ground Surface)
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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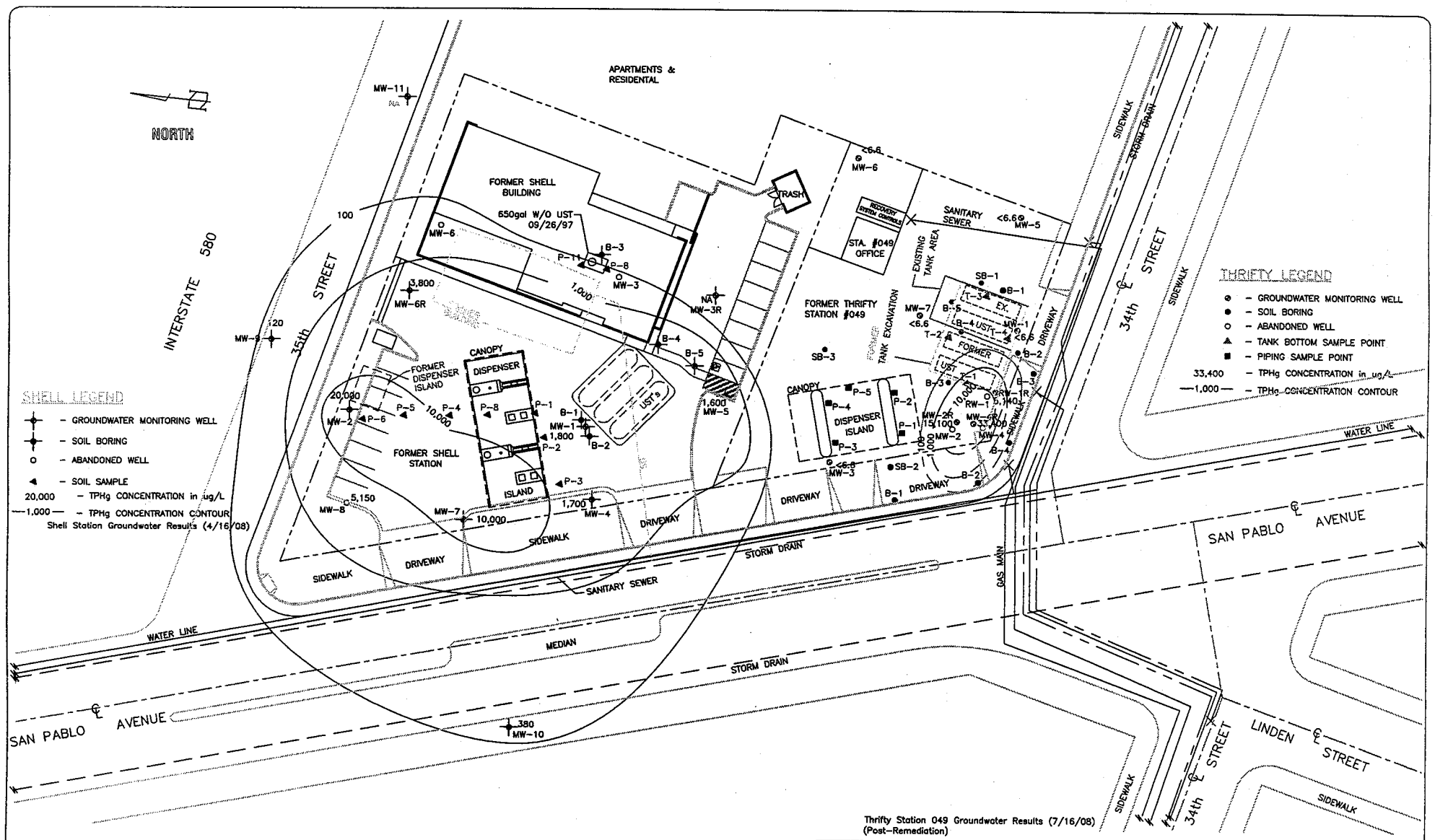
NORTH

GHC: 1508

DATE: 09/09/08

FIGURE 5
GROUNDWATER ELEVATION CONTOUR MAP
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



GHC: 1330 DATE: 09/12/08

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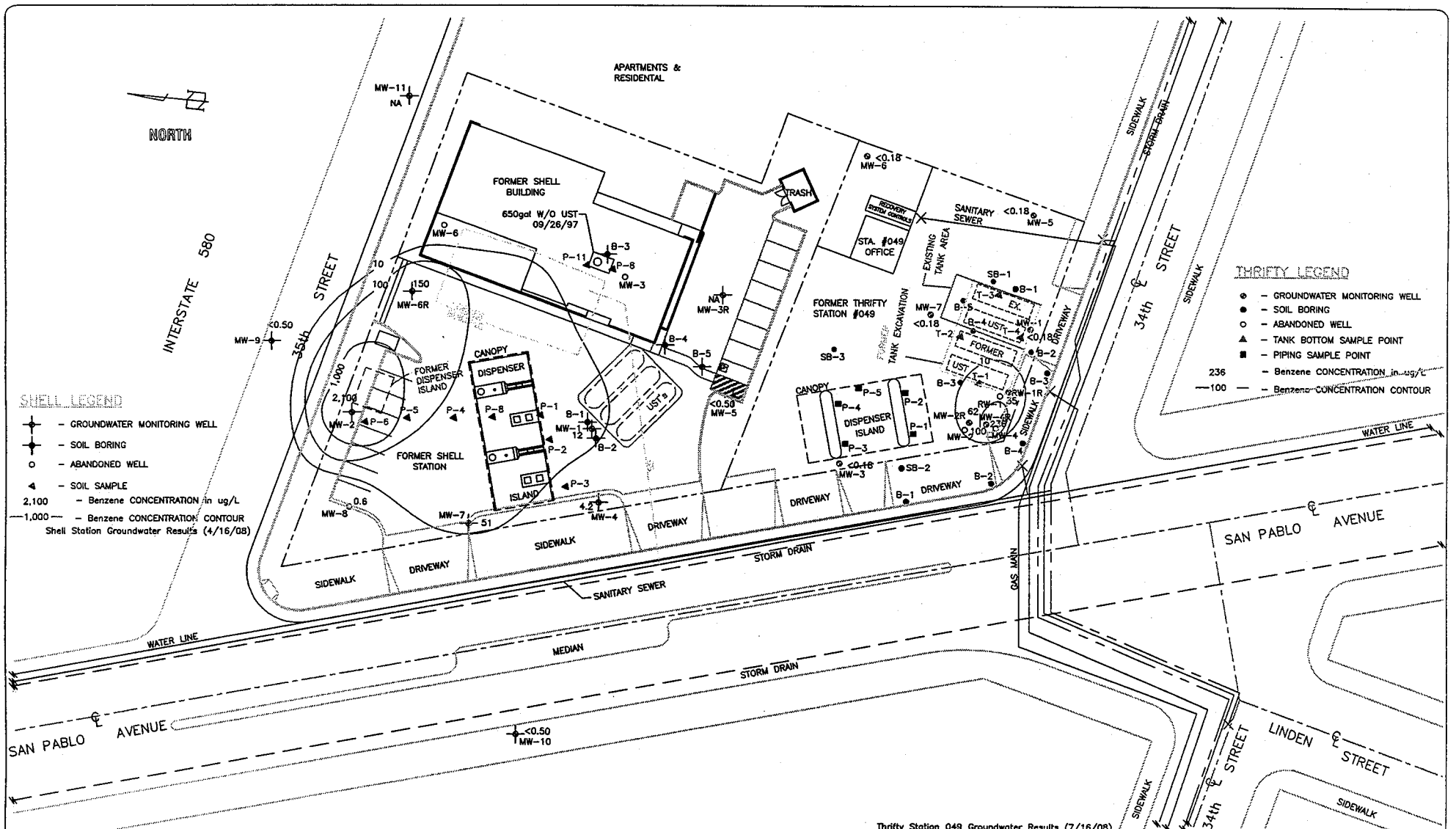
FIGURE 6A
DISTRIBUTION OF TPHg IN GROUNDWATER
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



GHC: 1330 | DATE: 09/12/08

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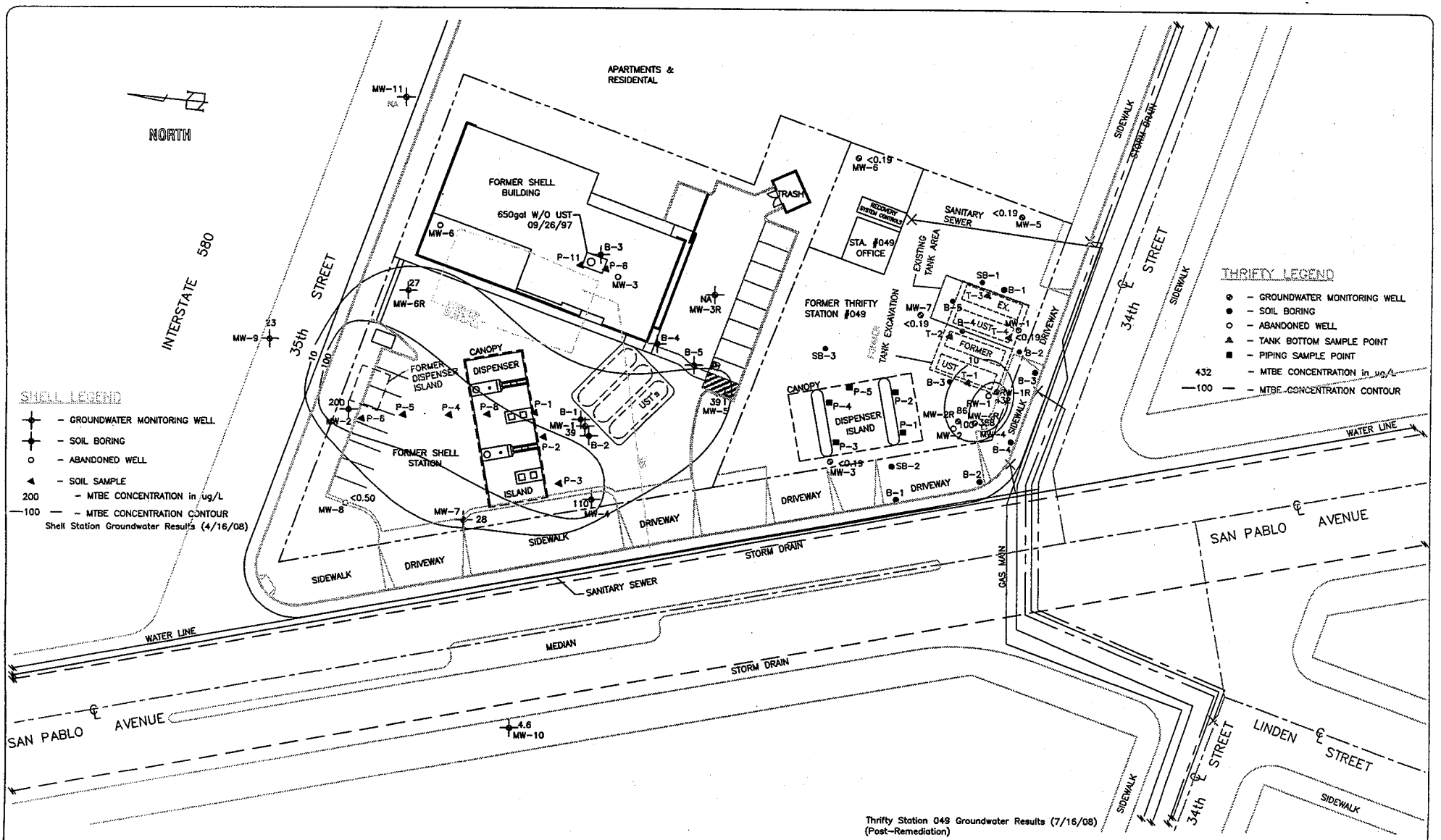
FIGURE 6B
DISTRIBUTION OF Benzene IN GROUNDWATER
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



GHC: 1330

DATE: 09/12/08

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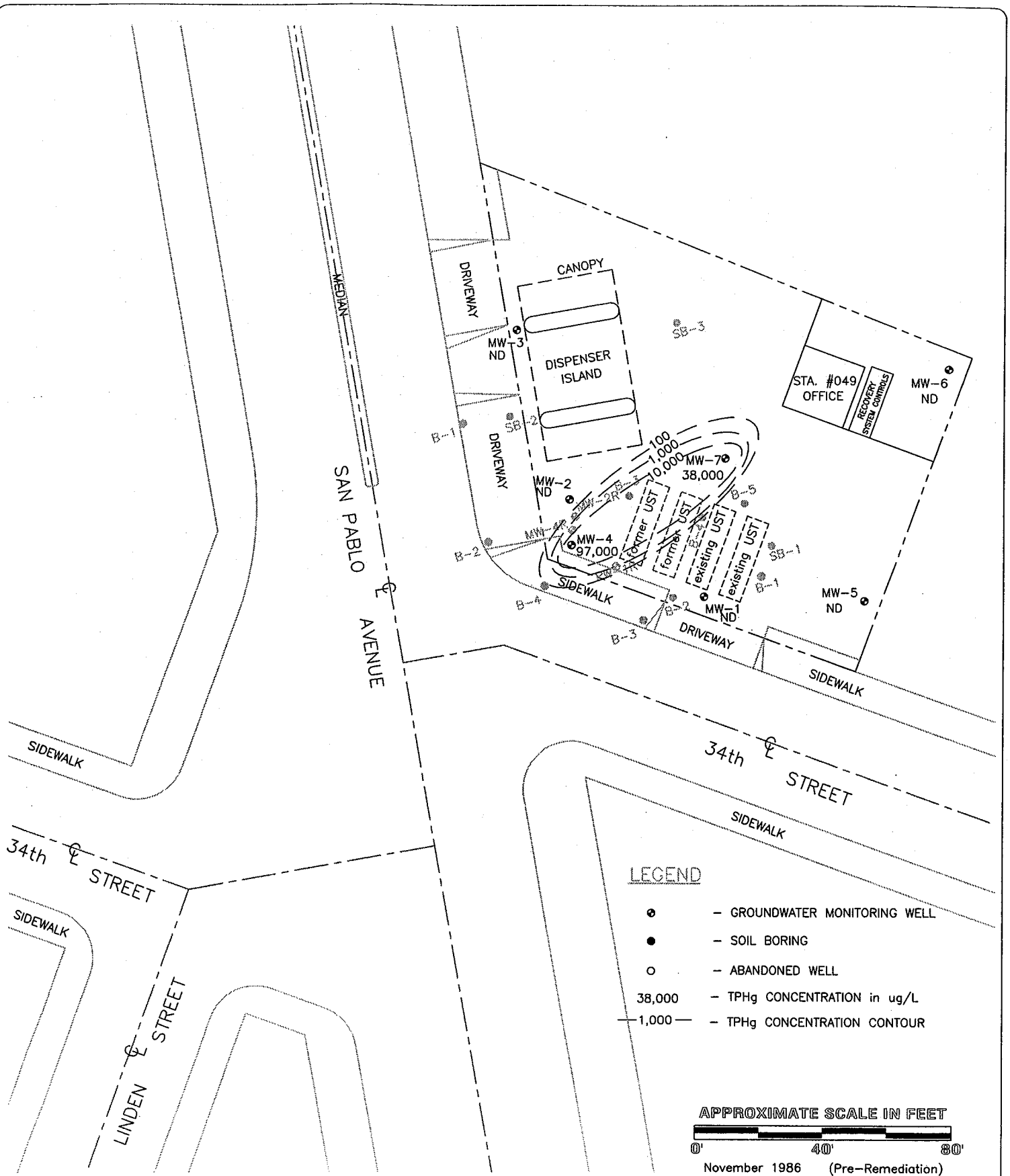
FIGURE 6C
DISTRIBUTION OF MTBE IN GROUNDWATER
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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DATE: 01/25/06

FIGURE 6D
DISTRIBUTION OF TPHg IN GROUNDWATER
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA

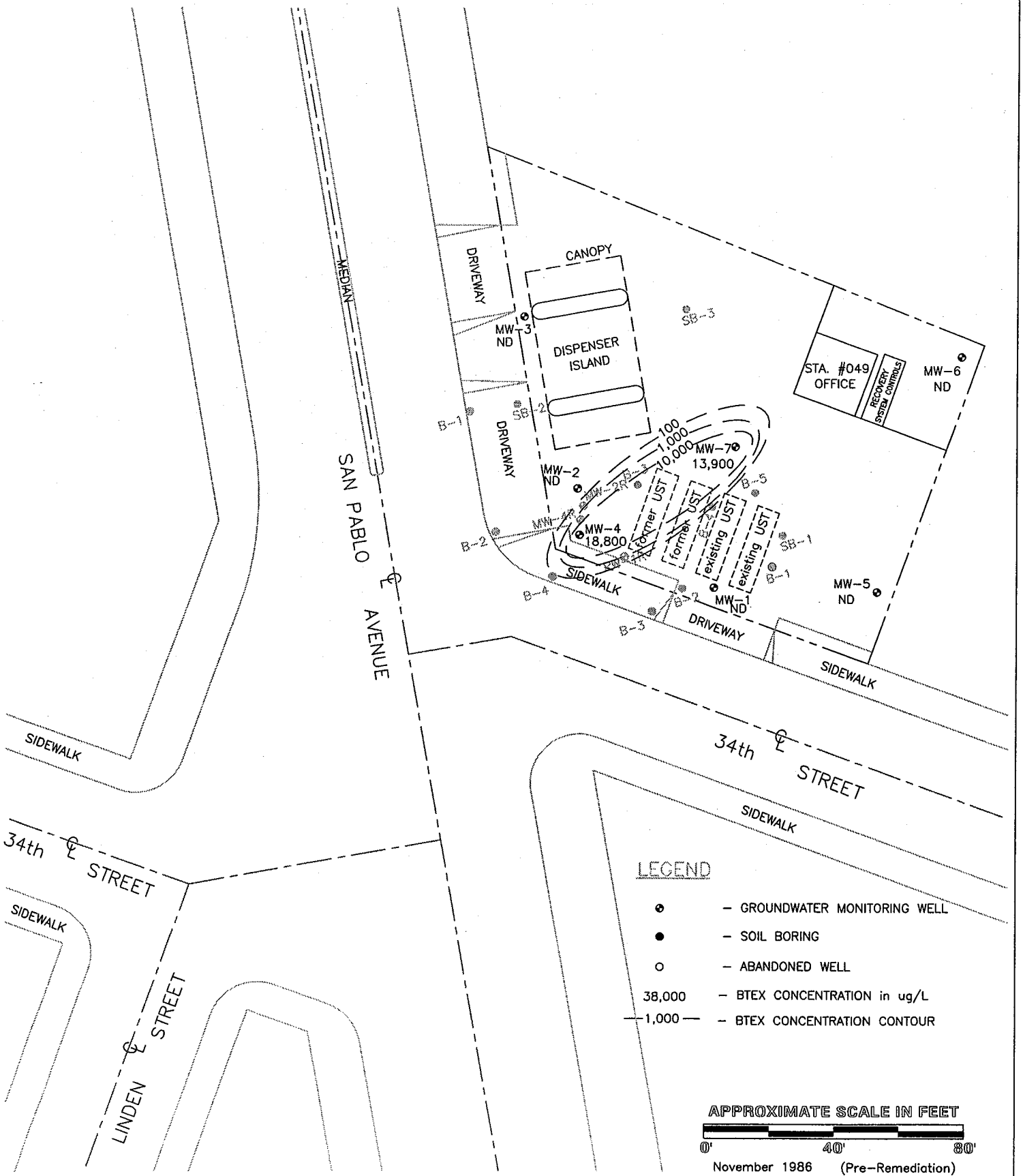

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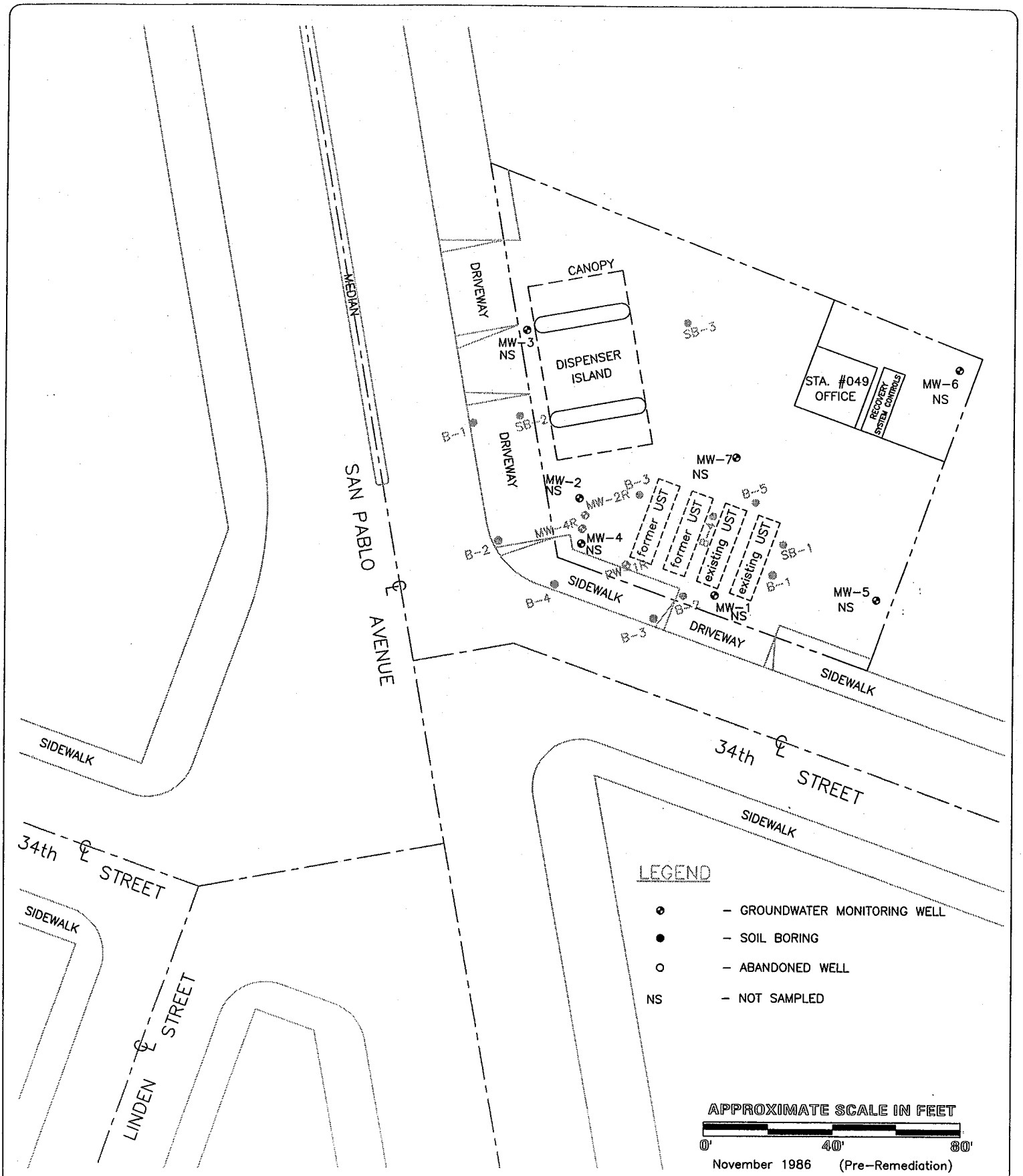
FIGURE 6E
DISTRIBUTION OF BTEX IN GROUNDWATER
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA



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DATE: 01/25/06

FIGURE 6F
DISTRIBUTION OF MTBE IN GROUNDWATER
THRIFTY SERVICE STATION #049
3400 San Pablo Avenue
Oakland, CA

APPENDICES

APPENDIX A

Historic and Recent Soil Boring and Well Completion Logs

GROUNDWATER TECHNOLOGY

Division of Oil Recovery Systems, Inc.

Drilling Log

Well Number MW 1

Project Arco/San Pablo Owner Arco Petroleum

Location 3400 San Pablo Ave. Project Number 20-8126

Date Drilled 7/31/86 Total Depth of Hole 25 ft. Diameter 8 in.

Surface Elevation _____ Water Level, Initial _____ 24-hrs. _____

Screen: Dia. 2 in. Length 20 ft. Slot Size .020

Casing: Dia. 2 in. Length 5 ft. Type PVC

Drilling Company Sierra Pacific Drilling Method H. S. Auger

Driller L. Pera Log by B. Channell

Sketch Map

Notes

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0		PID			Concrete
1				CL	Black clay, stiff, damp, no odor
2					
3				CL	Green gray clay, stiff, damp, moderate odor
4					
5				CL	Brown silty clay, stiff, damp, moderate odor
6					
7				CL	Brown sandy clay; soft, wet, pebbles, moderate odor
8		3 ppm	A 12		
9			16		Grey gravel and brown clay, dry, crumbly, moderate
10			27		▼ 7/31/86 odor
11					
12				GC	
13		0 ppm	B		Gray gravel in brown clay, soft, wet, no odor
14			9		
15			8		
16			7		
17					
18					
19					
20				CL	Brown silty clay, stiff, dry, no odor
21					
22					
23					
24					
25					

GROUNDWATER TECHNOLOGY

Division of Oil Recovery Systems, Inc.

Drilling Log

Well Number MW-2

Project Arco/San Pablo Owner Arco Petroleum

Location 3400 San Pablo Ave. Project Number 20-8126

Date Drilled 7/31/86 Total Depth of Hole 25 ft. Diameter 8 in.

Surface Elevation _____ Water Level, Initial _____ 24-hrs. _____

Screen: Dia. 2 in. Length 20 ft. Slot Size .020

Casing: Dia. 2 in. Length 5 ft. Type PVC

Drilling Company Sierra Pacific Drilling Method H. S. Auger

Driller L. Pera Log by B. Channell

Sketch Map

Notes

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0		PID			Concrete
1					Black clay, stiff, dry, no odor
2					
3					Green gray clay, stiff, camp, moderate odor
4				CL	
5					
6					Brown clay, soft, moist, pebbles, moderate odor
7					
8					
9		12 ppm	A 5 6 7		Brown silty clay, stiff, pockets of water, minor pebbles, no odor
10					▼ 7/31/86
11					
12					
13		7 ppm	B		
14			3 4 6		
15					
16				CL	Brown silty clay, very stiff, damp, no odor
17					
18					
19					
20					
21					
22					
23					
24					
25					

GROUNDWATER TECHNOLOGY

Division of Oil Recovery Systems, Inc.

Drilling Log

Well Number MW 3.

Project Arco/San Pablo Owner Arco Petroleum

Location 3400 San Pablo Ave. Project Number 20-8126

Date Drilled 7/31/86 Total Depth of Hole 25 ft. Diameter 8 in.

Surface Elevation _____ Water Level, Initial _____ 24-hrs. _____

Screen: Dia. 2 in. Length 20 ft Slot Size .020 in.

Casing: Dia. 2 in. Length 5 ft. Type PVC

Drilling Company Sierra Pacific Drilling Method H. S. Auger

Driller L. Pera Log by B. Channell

Sketch Map

Notes

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0		PID			Concrete
1				CL	Black clay, stiff, damp, slight odor
2					
3		15 ppm	A 4 4 4		
4					Gray silty clay, soft, damp, minor gravel, moderate odor
5				CL	
6					
7					
8		15 ppm	B 4 4 6		Brown silty clay, stiff, damp, pebbles, slight odor
9					
10					▼ 7/31/86
11					
12					
13		0 ppm	C 4 5 7		
14					
15				CL	Brown silty clay, stiff, dry, no odor
16					
17					
18					
19		0 ppm	D 5 7 13		
20					
21					
22					
23					
24					
25					

GROUNDWATER TECHNOLOGY
Division of Oil Recovery Systems, Inc.

SOIL BORING SB 1

Drilling Log

Project Arco/San Pablo Owner Arco Petroleum
Location 3400 San Pablo Ave. Project Number 20-8126
Date Drilled 7/31/86 Total Depth of Hole 20ft Diameter 8 in.
Surface Elevation ____ Water Level, Initial ____ 24-hrs. ____
Screen: Dia. ____ Length ____ Slot Size ____
Casing: Dia. ____ Length ____ Type ____
Drilling Company Sierra Pacific Drilling Method H. S. Auger
Driller L. Pera Log by B. Channell

Sketch Map

Notes

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0		PID			Asphalt
1				CL	Black clay, damp, semi-stiff, no odor
2					
3					
4				CL	Green gray clay, stiff, damp, no odor
5					
6					
7					
8		55 ppm	A 6		Green gray sandy clay, moderately stiff, wet in
9			7	CL	places, moderate odor
10			21		7/31/86
11					Brown silty clay, stiff, dry, no odor
12					
13		0 ppm	B 3		
14			5		
15			6	CL	
16					
17					Brown silty clay, very stiff, damp, minor pebbles, no odor
18					
19		0 ppm	C 5 12 14		
20					
21					
22					
23					
24					
25					

02100144

GROUNDWATER TECHNOLOGY
Division of Oil Recovery Systems, Inc.

SOIL BORING SB-2

Drilling Log

Project Arco/San Pablo Owner Arco Petroleum
Location 3400 San Pablo Ave. Project Number 20-8126
Date Drilled 7/31/86 Total Depth of Hole 20 ft Diameter 8 in.
Surface Elevation ____ Water Level, Initial ____ 24-hrs. ____
Screen: Dia. ____ Length ____ Slot Size ____
Casing: Dia. ____ Length ____ Type ____
Drilling Company Sierra Pacific Drilling Method H. S. Auger
Driller L. Pera Log by B. Channell

Sketch Map

Notes

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0		PID			Concrete
1				CL	Black clay, stiff, damp, no odor
2					
3		11 ppm	A	GC	Gray gravel and brown clay, damp, moderate odor
4			5		
5			7		
6			12		
7					
8		7 ppm	B		Brown silty clay, stiff, damp, minor pebbles, slight odor
9			4		
10			5		
11			6		▼ 7/31/86
12					
13		0 ppm	C	CL	
14			4		
15			5		Brown silty clay, very stiff, dry, no odor
16			5		
17					
18		0 ppm	D		
19			5		
20			10		
21			12		
22					
23					
24					
25					

GROUNDWATER TECHNOLOGY
Division of Oil Recovery Systems, Inc.

SOIL BORING SB 3 — s Drilling Log

Project Arco/San Pablo — Owner Arco Petroleum
Location 3400 San Pablo Ave. — Project Number 20-8126
Date Drilled 7/31/86 — Total Depth of Hole 20 ft — Diameter 8 in.
Surface Elevation ____ — Water Level, Initial ____ — 24-hrs. ____
Screen: Dia. ____ — Length ____ — Slot Size ____
Casing: Dia. ____ — Length ____ — Type ____
Drilling Company Sierra Pacific — Drilling Method H. S. Auger
Driller L. Pera — Log by Lynn Pera

Sketch Map

Notes

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0					Concrete
1					Black silty clay, stiff, damp, slight hydrocarbon odor
2					
3					Greenish gray fine sandy clay with gravel, stiff, moist, slight odor
4		28 ppm	A 5 7 11		
5					
6					Greenish brown fine sandy clay, medium stiff, moist,
7					
8					Brown sandy clay with gravel, stiff, moist
9		12 ppm	B 5 7 7		
10				CL	
11					
12					
13					Grayish brown sandy clay, stiff, moist
14		0ppm	C 3 6 8		
15					
16					▼ 7/31/86
17					
18					(grades orange-brown)
19		0ppm	D 5 7 10		
20					
21					
22					
23					
24					
25					

02100144

No.: 90386A

11-14-86

Elevation.

DEPTH IN FEET	SAMPLE NUMBER	LOG & SAMPLE	PENE. RESIS. / FT.	DESCRIPTION	WELL DESIGN: #3 SAND 4"ID-0.02SLOT
				Existing Ground Surface	
0				Concrete Slab and Base	
1				Black Silty Clayey Fill - Dry - No Odor	
2					
3				Olive Silty Clay - Moist - No Odor	
4					
5				Light Green Silty Clay w/ Brown Mottling - Moist - Moderate HC Odor	
6	4-1		14		
7				Olive Silty Sandy Clay - Very Moist - Slight to Moderate HC Odor	
8					
9					
10					
11				Light Brown Silty Sandy Clay - Very Moist - No Odor	
12					
13					
14					
15				Bottom of Boring at 15 ft.	
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					

Figure 2 - Test Boring Log No. B-1
- Monitoring Well No. MW-4

Woodward-Clyde Consultants

NO.: 90386A

11-14-86

Elevation.

DEPTH IN FEET	SAMPLE NUMBER	LOG & SAMPLE	PENE. RESIS. / FT.	DESCRIPTION	WELL DESIGN: #3 SAND 2"ID-0.02SLOT
				Existing Ground Surface	
0				AC Pavement and Base	
1				Black Silty Clay Fill	
2					
3				Brown Silty Loam - Dry - No Odor	
4					
5				Light Green Silty Clay w/ Some Sand - Moist - No Odor	
6	5-1		50		
7				Same as Above Except More Moisture - No Odor - No Recovery From Sample	
8					
9				Brown Silty Gravelly Clay - Moist - No Odor	
10					
11					
12				Same as Above Except No Gravel	
13					
14					
15				Bottom of Boring at 15 ft.	
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					

Figure 3 - Test Boring Log No. B-2
- Monitoring Well No. MW-5

Woodward-Clyde Consultants

No.: 90386A

11-14-86

Elevation.

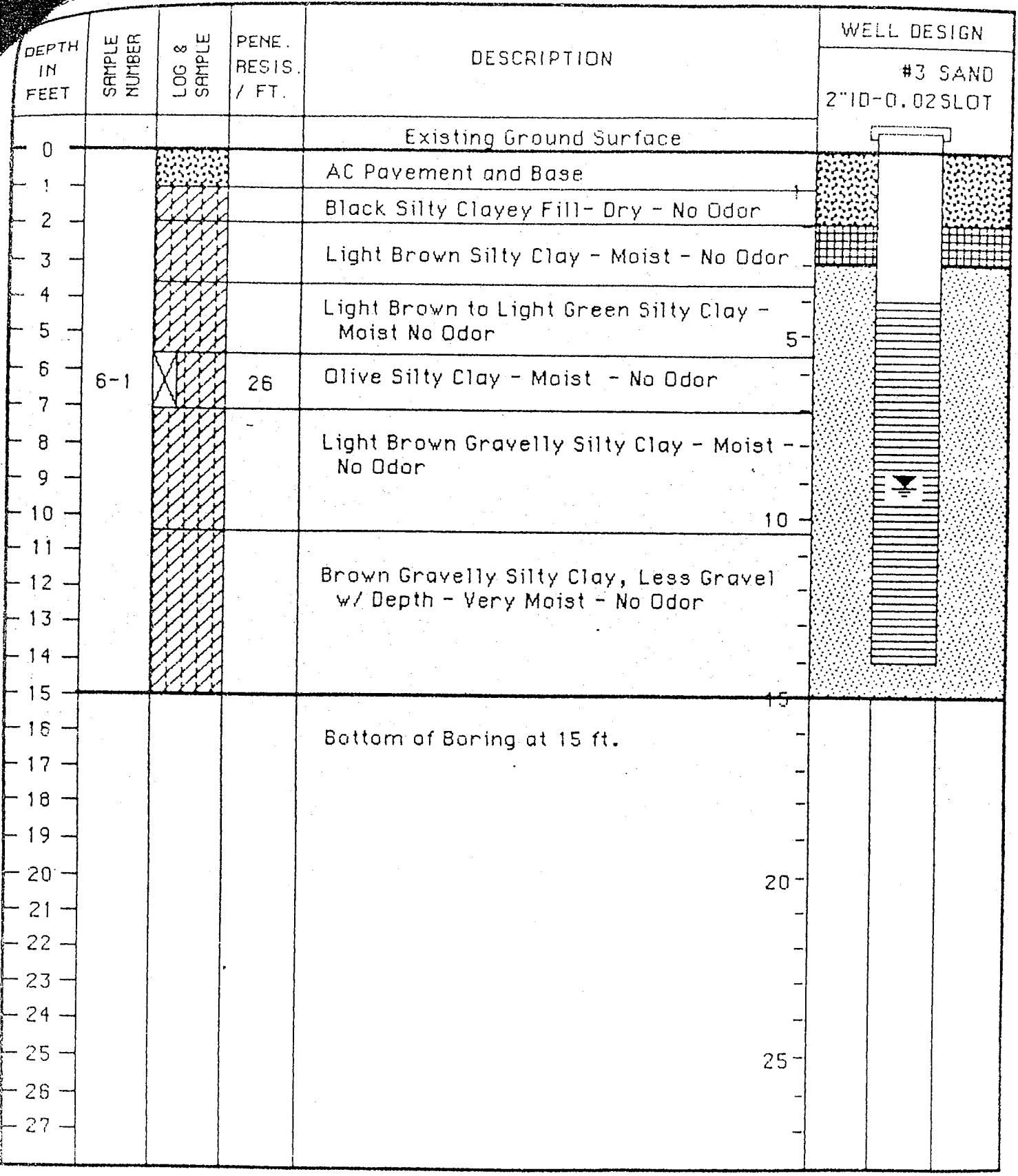

Figure 4 - Test Boring Log No. B-3
- Monitoring Well No. MW-6

Woodward-Clyde Consultants

No.: 90386A

11-14-86

Elevation.

DEPTH IN FEET	SAMPLE NUMBER	LOG & SAMPLE	PENE. RESIS. / FT.	DESCRIPTION	WELL DESIGN: #3 SAND 4"ID-0.02SLOT
				Existing Ground Surface	
0				AC Pavement and Base	
1				Black Silty Clayey Fill - Dry - No Odor	
2				Olive Silty Clay - Moist - Possible HC Odor	
3					
4					
5				Light Blue/Green Silty Clay - Moist - No Odor	
6	7-1		20	Lt.Green/Brown Silty Clay-Slight HC Odor	
7					
8				Light Brown Silty Clay - Moist - Slight HC Odor	
9					
10				- Some Gravel	
11					
12				Brown Silty Clay w/ Less Gravel and Some Sand - Moist - No Odor	
13					
14					
15					
16				Bottom of Boring at 15 ft.	
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					

Figure 5 - Test Boring Log No. B-7
- Monitoring Well No. MW-7

Woodward-Clyde Consultants

DATE OBSERVED: 9-11-87 METHOD OF DRILLING: HOLLOW STEM AUGER

LOGGED BY: SAW GROUND ELEVATION: 30' LOCATION: SEE PLOT PLAN FIGURE 1

BORING NO. B-1

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	DESCRIPTION	SOIL TEST GASTECHTOR READING in ppm
0							CONCRETE COVER	
							NATURAL GROUND: WEATHERED BEDROCK: Dark Brown CLAY with silt, moist, no petroleum odor	
5		26					@ 5' color change to grey-green, becomes very stiff, petroleum odor noted	225 ppm
10		38					@ 10' becomes hard, petroleum odor noted	225 ppm
15		16					@ 15' Groundwater Present	
20							TOTAL DEPTH: 16 FEET	
25							GROUNDWATER @ 15 FEET	
30								
35								
40								

JOB NO.: [illegible] LOG OF BORING FIGURE: B-1

DATE OBSERVED: 9-11-87 METHOD OF DRILLING: HOLLOW STEM AUGER

LOGGED BY: SAW GROUND ELEVATION: 30' LOCATION: SEE PLOT PLAN FIGURE 1

BORING NO. B-2

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	DESCRIPTION	SOIL TEST GASTECHTOR READING in ppm
0								
5	SM	23					FILL: Brown fine silty SAND, dry slight petroleum odor @ 5' strong petroleum odor noted	500 ppm
10	Ss	24					NATURAL GROUND: BEDROCK: Grey-green weathered SILTSTONE, very moist to wet, very stiff, no petroleum odor noted	125 ppm
15		24					@ 15' Groundwater noted	
20							TOTAL DEPTH: 16 FEET GROUNDWATER @ 15 FEET	
25								
30								
35								
40								

JOB NO. [illegible] LOG OF BORING FIGURE [illegible]

DATE OBSERVED: 9-11-87 METHOD OF DRILLING: HOLLOW STEM AUGER

LOGGED BY: SAW GROUND ELEVATION: 30' LOCATION: SEE PLOT PLAN FIGURE B-1

BORING NO. B-3

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	DESCRIPTION	SOIL TEST GASTECHTOR READING in ppm
0							CONCRETE COVER	
	CL						FILL: Black to dark brown, CLAY with silt, moist, stiff, slight petroleum odor	
5	Ss	28					BEDROCK: Green weathered SILTSTONE, moist very stiff, petroleum odor noted	220 ppm
10		8					@ 10' color changed to brown, petroleum odor noted	500 ppm
							@ 12' becomes wet, no petroleum odor noted	
15							@ 15' Groundwater noted	
20							TOTAL DEPTH: 16 FEET	
							GROUNDWATER @ 15 FEET	
25								
30								
35								
40								

JOB NO. [illegible] LOG OF BORING FIGURE B-3

DATE OBSERVED: 9-11-87 METHOD OF DRILLING: HOLLOW STEM AUGER

LOGGED BY: SAW GROUND ELEVATION: 30' LOCATION: SEE PLOT PLAN FIGURE 1

BORING NO. B-4

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	DESCRIPTION	SOIL TEST GASTECHTOR READING in ppm
0							CONCRETE COVER	
	ML CL						FILL: Black CLAY and SILT, moist stiff, strong petroleum odor	500 ppm
5							@ 4' boring terminated due to presence of subsurface vent lines, no damage	
							TOTAL DEPTH: 4 FEET	
							NO GROUNDWATER	
10								
15								
20								
25								
30								
35								
40								

JOB NO: LOG OF BORING FIGURE:

DATE OBSERVED: 9-29-87 METHOD OF DRILLING: HOLLOW STEM AUGER

LOGGED BY: SAW GROUND ELEVATION: 30' LOCATION: SEE PLOT PLAN FIGURE B-1

BORING NO. B-5

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	DESCRIPTION	SOIL TEST GASTECHTOR READING
0							6" concrete cover	
							FILL: Gray-green silty SAND with gravel	
5		24					Dark brown to black silty CLAY to clayey SILT, moist, very stiff, no petroleum odor.	50 ppm
10	Ss	50					NATURAL GROUND: BEDROCK: Gray-green weathered SILTSTONE, moist, very stiff to hard, strong petroleum odor.	480 ppm
15		32					@ 15' groundwater noted	30 ppm
							TOTAL DEPTH 16 FEET GROUNDWATER AT 15 FEET	
20								
25								
30								
35								
40								

JOB NO.: LOG OF BORING FIGURE:

Project: Thrifty 49	Project No.: AGE-NC-	BORING NO.: B-1
Site Address:	Total Depth: 20	
	Date: 1-6-04	
Drilling Co.: Enviro Probe	Logged by: CAM	Page 1 of 1
Rig/Auger Type:	Reviewed by:	

Depth (feet)	Sample ID	Blow Counts (per 6")	OVA Reading (ppm)	USCS Class	Graphic Log	Lithologic Description
5	B-1-5	1339	24.5			100% Recover odor Blue-grey Silty Sand moist poorly graded fine grained
10	B-1-10	1345	22.5			100% Recover odor Orange Brown Clay High consistency low to moderate plasticity low toughness Sl. moist to moist
15	B-1-15	1352	3.1			100% Recover Orange Brown clay moist low consistency/toughness high moderate plasticity
20	B-1-20	1403	1.2			100% Recover Brown Silty Clay High consistency low plasticity moderate toughness Sl moist
						No Water Sample @ 1421

Advanced
GeoEnvironmental, Inc.

Project:- Thrifty 49	Project No.: AGE-NC-	BORING NO.:
Site Address:	Total Depth: 20	B-2
	Date: 1-6-04	
Drilling Co.: Enviroprobe	Logged by: CAM	Page 1 of 1
Rig/Auger Type:	Reviewed by:	

Depth (feet)	Sample ID	Blow Counts (per 6")	OVA Reading (ppm)	USCS Class	Graphic Log	Lithologic Description
5		1238	919.0			100% Recover odor Grey Sandy Silt low Consistency/Toughness/dry moist
10		1244	7.5			100% Recover odor Grey Brown clayey Silt High ~~Consistency~~ toughness low plasticity moderate toughness moist
15		1252	4.1			100% Recover Orange Brown 10-20% Gravely Silt gravel ¼" low consistency moist low toughness low to med plasticity
20		1302	1.2			100% Recover orange Brown ~~Silt~~ clayey Silt High consistency low plasticity moderate toughness moist
					B-2-WS	@ 1306

Advanced
GeoEnvironmental, Inc.

Project: Thrifty Station #049	Project No.: AGE-NC-	BORING NO.: B-3
Site Address: 3400 San Pablo Ave Oakland	Total Depth: 20	
	Date: 01-06-04	
Drilling Co.: Enviroprobe	Logged by: CBM	Page 1 of 1
Rig/Auger Type: Geo Probe	Reviewed by:	

Depth (feet)	Sample ID	Blow Counts (per 6")	OVA Reading (ppm)	USCS Class	Graphic Log	Lithologic Description
5	B-3-5 1021		38.1			No Sample Recovery Soil to Soft. Fell out of brass. Small amount of soil remained, high contamination, strong odor, saturated with a sheen.
10	B-3-10 1028		67.2			Odor brown/black Gravely 100% Recover Blue Gray Gravely Silt low consistency low toughness low to medium plasticity moist Grave ¼"
15	B-3-15 1035		15.2			Brown, wet, odor 100% Recover Orange Brown (Rust) Silty Gravel Sub Angular, moderately sorted Very moist
20	B-3-20 1049		10.4			Brown moist 100% Recover light Brown Clay High consistency Low plasticity Medium toughness
						B-3-WS @ 1056

Advanced GeoEnvironmental, Inc.

Project: Thrifty 44	Project No.: AGE-NC-	BORING NO.: B-4
Site Address:	Total Depth: 20	
	Date: 1-6-04	
Drilling Co.: Enviro probe	Logged by: CRM	Page 1 of 1
Rig/Auger Type:	Reviewed by:	

Depth (feet)	Sample ID	Blow Counts (per 6")	OVA Reading (ppm)	USCS Class	Graphic Log	Lithologic Description
5	B-4-5	1126	11.8			25% Recovery odor brown + Gray Graveley silt low toughness moist low plasticity/ toughness
10	B-4-10	1133	49.2			100% Recover Blue grey Silty gravel gravel 1/2" well to moderately sorted moist
15	B-4-15	1140	2.1			100% Recover odor Orange Brown Silt very moist low consistency/ toughness moderate to high plasticity
20	B-4-20	1149	1.6			100% Recover ~~Orange Brown Clay~~ ~~High toughness~~ consistency moderate toughness med-low plasticity
						B-4-WS @ 1201

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Project: Thrifty 49	Project No.: AGE-NC-	BORING NO.: RW-1R
Site Address:	Total Depth: 20	
	Date: 1-15-04	
Drilling Co.: Cascade	Logged by: CRM	Page 1 of 1
Rig/Auger Type:	Reviewed by:	

Depth (feet)	Sample ID	Blow Counts (per 6")	OVA Reading (ppm)	USCS Class	Graphic Log	Lithologic Description
5	RW1R-5 RW2 1228	11-12-14				
10	RW1R-10 1233	9-11-11				
15	1239 RW1R-15	13-15-15				
20	1244 RW1R-20	12-15-17				

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Project: Thrifty 49	Project No.: AGE-NC-	BORING NO.: MW-4R
Site Address:	Total Depth: 20	
	Date: 1-15-04	
Drilling Co.: Cascade	Logged by: CRM	Page 1 of 1
Rig/Auger Type:	Reviewed by:	

Depth (feet)	Sample ID	Blow Counts (per 6")	OVA Reading (ppm)	USCS Class	Graphic Log	Lithologic Description
5	1033 MW4R-5	12-13-14				
10	1040 MW4R-10	12-14-15				95 % Recover
15	1051 MW4R-15	10-14-15				80 % Recover
20	1103 MW4R-20	7-11-16				50 % Recover

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Project: Thrifty Station #049	Project No.: AGE-NC-	BORING NO.: MW-2R
Site Address: 3400 San Pablo Ave	Total Depth: 20'	
	Date: 1-15-04	
Drilling Co.: Cascade	Logged by: CRM	Page 1 of 1
Rig/Auger Type: CMT-75	Reviewed by:	

Depth (feet)	Sample ID	Blow Counts (per 6")	OVA Reading (ppm)	USCS Class	Graphic Log	Lithologic Description
5	0918 ~~0920~~ MW2R-5	13-13-18				
10	0923 MW2R-10	12-15-16				
15	0927 MW2R-15	11-11-16				
20	0931 MW2R-20					

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APPENDIX B

ESLs for Soils 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	[1]Shallow Soil		[3]Groundwater (ug/L)
	[2]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)ANTHTRACENE	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	[1]Shallow Soil		[3]Groundwater (ug/L)
	[2]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

	[1]Shallow Soil		
CHEMICAL PARAMETER	[2]Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	[3]Groundwater (ug/L)
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	[1]Shallow Soil		[3]Groundwater (ug/L)
	[2]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	[1]Deep Soil		[3]Groundwater (ug/L)
	[2]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	[1]Deep Soil		[3]Groundwater (ug/L)
	[2]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

	[1]Deep Soil		
CHEMICAL PARAMETER	[2]Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	[3]Groundwater (ug/L)
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	[1]Deep Soil		[3]Groundwater (ug/L)
	[2]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 C

Remediation System Operational Data

TABLE 1
GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM
Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
4/8/1991	1,310	0	-	-	<0.3	<0.3	<0.3	<0.9	-	910	2000	160	2000	-
4/15/1991	1,434	124	18	-	<0.3	<0.3	<0.3	<0.3	-	2800	4600	310	5000	-
4/22/1991	1,510	200	11	-	<15	<15	<15	<45	-	3100	3300	<15	2800	-
4/29/1991	1,660	350	21	-	<0.3	<0.3	<0.3	<0.9	-	3600	4500	300	5000	-
5/6/1991	1,740	430	11	-	<0.3	<0.3	<0.3	<0.9	-	3600	3500	300	3800	-
5/13/1991	1,880	570	20	-	<0.3	<0.3	<0.3	<0.9	-	3300	3200	230	3900	-
5/20/1991	2,010	700	19	-	<0.3	<0.3	<0.3	<0.9	-	3300	3400	260	5100	-
5/28/1991	2,050	740	5	-	<0.3	<0.3	<0.3	<0.9	-	2900	3000	230	4200	-
6/3/1991	2,110	800	10	-	<0.3	<0.3	<0.3	<0.9	-	2500	2100	110	2800	-
6/10/1991	2,160	850	7	-	<0.3	<0.3	<0.3	<0.9	-	1800	1700	120	2100	-
6/17/1991	2,219	909	8	-	<0.3	<0.3	<0.3	<0.9	-	2100	1900	170	2700	-
6/24/1991	2,263	953	6	-	<0.3	<0.3	<0.3	<0.9	-	2100	1800	150	2700	-
07/01/91	2,313	1,003	7	-	<0.5	<0.5	<1	<1	-	2,700	2,000	150	2,900	-
07/08/91	2,700	1,390	55	-	<0.5	<0.5	<1	<1	-	4,000	2,500	130	4,400	-
07/15/91	2,872	1,562	25	-	<0.5	<0.5	<1	<1	-	3,100	1,900	140	3,200	-
07/22/91	3,144	1,834	39	-	<0.5	<0.5	<1	<1	-	3,400	2,100	110	2,800	-
07/29/91	3,220	1,910	11	-	<0.5	<0.5	<1	<1	-	5,100	2,200	180	2,700	-
08/05/91	3,348	2,038	18	-	<0.5	<0.5	<1	<1	-	5,100	3,900	400	4,200	-
08/12/91	3,472	2,162	18	-	<0.5	<0.5	<1	<1	-	11,000	6,200	440	8,400	-
08/19/91	3,548	2,238	11	-	<0.5	<0.5	<1	<1	-	4,500	2,400	130	2,600	-
08/26/91	3,655	2,345	15	-	<0.5	<0.5	<1	<1	-	4,400	2,500	260	3,600	-
09/09/91	3,822	2,512	12	-	<0.5	<0.5	<1	<1	-	5,200	3,000	390	3,700	-
09/16/91	3,884	2,574	9	-	<0.5	<0.5	<1	<1	-	4,100	2,000	460	4,900	-
09/23/91	4,013	2,703	18	-	<0.5	<0.5	<1	<1	-	4,600	1,600	710	6,400	-
09/30/91	4,092	2,782	11	-	<0.5	<0.5	<1	<1	-	5,700	2,000	380	6,200	-
10/07/91	4,131	2,821	6	System shut down		-	-	-	-					-
10/14/91	4,195	2,885	9	-	<0.5	<0.5	<1	<1	-	4,400	2,000	370	8,100	-
10/21/91	4,406	3,096	30	-	<0.5	<0.5	<1	<1	-	2,300	1,100	190	4,200	-
10/28/91	4,474	3,164	10	-	<0.5	<0.5	<1	<1	-	6,400	4,100	620	6,100	-
11/03/91	4,613	3,303	23	-	<0.5	<0.5	<1	<1	-	6,100	2,800	200	5,600	-
11/11/91	4,700	3,390	11	-	<0.5	<0.5	<1	<1	-	6,500	2,300	<30	4,900	-
11/18/91	4,887	3,577	27	-	<0.5	<0.5	<1	<1	-	5,600	2,500	300	4,600	-
11/25/91	5,042	3,732	22	-	<0.5	<0.5	<1	<1	-	5,400	2,800	230	5,700	-
12/03/91	5,263	3,953	28	-	<0.5	<0.5	<1	<1	-	7,200	3,300	490	5,500	-
12/09/91	5,362	4,052	17	-	<0.5	<0.5	<1	<1	-	4,400	1,700	140	3,900	-
12/16/91	5,486	4,176	18	-	<0.5	<0.5	<0.5	<0.5	-	4,700	2,300	310	4,600	-
12/23/91	5,516	4,206	4	-	<0.5	<0.5	<0.5	<0.5	-	4,000	2,200	290	5,900	-
12/30/91	5,575	4,265	8	-	<0.5	<0.5	<0.5	<0.5	-	5,200	2,500	350	5,800	-
01/15/92	5,720	4,410	9	-	<0.5	<0.5	<0.5	<0.5	-	3,400	1,900	300	6,300	-
02/10/92	6,264	4,954	21	-	<0.5	<0.5	<0.5	<0.5	-	5,800	2,800	320	7,200	-
03/09/92	8,520	7,210	81	<200	<0.5	1.6	<0.5	<0.5	47,000	7,100	4,800	630	10,300	-

7/15/2008

TABLE 1
GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM
Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
04/13/92	22,888	21,578	411	<200	<0.5	<0.5	<0.5	<0.5	29,000	4,500	2,200	160	4,800	-
05/11/92	24,920	23,610	73	<200	<0.5	<0.5	<0.5	<0.5	22,000	4,300	1,500	130	3,800	-
06/01/92	28,330	27,020	162	<200	<0.5	<0.5	<0.5	<0.5	18,000	3,400	1,500	660	4,200	-
07/13/92	72,675	27,020	-	-	<0.5	<0.5	<0.5	<0.5	-	1,800	750	150	5,600	-
07/13/92	72,675	27,020	-	The system pumped air and flowmeter jumped from 30,000 gallons to 70,000 gallons.					-	-	-	-	-	-
08/17/92	75,046	29,391	68	-	<0.5	<0.5	<0.5	<0.5	-	1,100	350	200	1,100	-
09/14/92	75,582	29,927	19	-	<0.5	<0.5	<0.5	<1	-	2,100	520	<25	3,500	-
10/05/92	75,680	30,025	5	<200	<0.5	<0.5	<0.5	<1	19,000	1,700	270	<25	4,000	-
11/09/92	77,280	31,625	46	-	<0.5	<0.5	<0.5	<0.5	-	4,000	1,400	120	5,900	-
12/14/92	79,420	33,765	61	-	<0.5	<0.5	<0.5	<1	-	7,300	4,900	1,800	16,000	-
01/04/93	84,720	39,065	252	-	<0.5	<0.5	<0.5	<1	-	5,400	2,100	450	7,800	-
02/15/93	102,689	57,034	428	<200	<0.5	<0.5	<0.5	<1	41,000	6,600	3,200	260	9,600	-
02/22/93	146,430	57,034	-	The system pumped air and flowmeter jumped from 102,689 gallons to 146,430 gallons.					-	-	-	-	-	-
03/08/93	147,500	58,104	76	-	<0.5	<0.5	<0.5	<1	-	7,400	3,400	56	11,000	-
04/26/93	151,200	61,804	76	<100	<0.5	<0.5	<0.5	<1	36,000	4,300	2,200	420	8,300	-
04/26/93	151,200	61,804	-	Shut down system for repair			-	-	-	-	-	-	-	-
07/21/93	151,240	61,844	0	Restart the system		-	-	-	-	-	-	-	-	-
08/11/93	151,650	62,254	20	-	<0.5	<0.5	<0.5	<1	-	6,500	2,300	390	6,200	-
09/16/93	154,005	64,609	65	<60	<0.3	<0.3	<0.3	<0.6	43,000	2,300	320	<4.4	2,900	-
10/04/93	154,896	65,500	50	<60	<0.3	<0.3	<0.3	<0.6	33,000	2,900	470	6.9	3,500	-
11/05/93	157,431	68,035	79	<50	<0.3	<0.3	<0.3	<0.5	15,000	1,100	27	<0.3	920	-
12/03/93	159,324	69,928	68	<50	<0.3	<0.3	<0.3	<0.5	16,000	1,100	88	<6.6	2,300	-
01/06/94	166,440	77,044	209	-	<0.3	<0.3	<0.3	<0.5	-	3,800	730	<13	1,200	-
02/03/94	170,720	81,324	153	-	<0.3	<0.3	<0.3	<0.5	-	3,600	610	<4.4	4,800	-
03/03/94	178,168	88,772	266	-	<0.3	<0.3	<0.3	<0.5	-	2,800	2,000	270	3,400	-
04/07/94	185,670	96,274	214	<50	<0.3	<0.3	<0.3	<0.5	26,000	2,200	550	<6.6	1,900	-
05/12/94	188,840	99,444	91	<50	<0.3	<0.3	<0.3	<0.5	4,600	100	10	8.4	280	-
06/16/94	194,680	105,284	167	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	-
07/11/94	199,135	109,739	178	<50	<0.3	<0.3	<0.3	<0.5	4,000	220	<2.6	<2.6	320	-
08/04/94	200,910	111,514	74	<50	<0.3	<0.3	<0.3	<0.5	7,800	480	6.2	<0.3	630	-
09/15/94	203,450	114,054	60	<50	<0.3	<0.3	<0.3	<0.5	3,200	150	2.4	2.6	170	-
10/10/94	205,210	115,814	70	<50	<0.3	<0.3	<0.5	<0.5	1,300	8.6	1.5	1.1	15	-
11/07/94	206,060	116,664	30	<50	<0.3	<0.3	<0.5	<0.5	170	1.5	<0.3	<0.5	0.5	-
12/05/94	207,093	117,697	37	<50	<0.3	<0.3	<0.5	<0.5	75	1.3	<0.3	<0.5	<0.5	-
01/09/95	207,293	117,897	6	<50	<0.3	<0.3	<0.5	<0.5	<50	<0.3	<0.3	<0.5	<0.5	-
02/01/95	207,650	118,254	16	<50	<0.3	<0.3	<0.5	<0.5	<50	<0.3	<0.3	<0.5	<0.5	-
02/06/95	207,810	118,414	32	<50	<0.3	<0.3	<0.5	<0.5	<50	2.7	<0.3	<0.5	<0.5	-
03/10/95	208,430	119,034	19	<100	<0.5	<0.5	<0.5	<1	<100	<0.5	<0.5	<0.5	<1	-
04/10/95	208,564	119,168	4	<100	<0.5	<0.5	<0.5	<1	3,300	180	7.6	2.1	150	-

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Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
05/08/95	208,608	119,212	2	<100	<0.5	<0.5	<0.5	<1	11,000	640	9.2	<5	1,100	-
06/05/95	208,926	119,530	11	<100	<0.5	<0.5	<0.5	<1	5,100	270	2.2	<0.5	49	-
07/10/95	214,182	124,786	150	<100	<0.5	<0.5	<0.5	<1	13,000	1,600	120	24	1,300	-
08/07/95	221,876	132,480	275	Shut down system for repair			-	-	-	-	-	-	-	-
08/28/95	221,997	132,601	6	Restart the system		-	-	-	-	-	-	-	-	-
09/06/95	222,003	132,607	1	<100	<0.5	<0.5	<0.5	<1	2,300	<0.5	<0.5	<0.5	<1	-
10/09/95	222,343	132,947	10	<100	<0.5	<0.5	<0.5	<1	2,000	5.6	0.77	0.66	3.8	-
11/06/95	222,704	133,308	13	<50	0.3	0.31	<0.3	0.68	3,000	27	1.7	3.7	48	-
12/11/95	223,792	134,396	31	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	0.96	-
01/08/96	224,661	135,265	31	970	<0.3	<0.3	<0.3	0.67	1,800	39	<0.3	<0.3	<0.5	-
02/12/96	227,812	138,416	90	<50	10	0.37	<0.3	0.53	3,300	190	<7.5	<7.5	20	-
03/12/96	229,301	139,905	51	<50	<0.3	<0.3	<0.3	<0.5	2,700	250	2.3	<1.5	<2.5	-
04/08/96	242,320	152,924	482	<50	<0.3	<0.3	<0.3	<0.5	1,000	90	5	<0.3	67	-
05/06/96	247,840	158,444	197	100	<0.3	<0.3	<0.3	<0.5	15,000	2,200	600	32	2,400	-
06/03/96	248,423	159,027	21	Shut down system for carbon change			-	-	-	-	-	-	-	-
08/08/96	248,423	159,027	-	Start-up system		-	-	-	-	-	-	-	-	-
08/20/96	248,630	159,234	17	<50	<0.3	<0.3	<0.3	<0.5	2,100	24	<0.3	<0.3	49	-
09/23/96	259,030	169,634	306	<50	<0.3	<0.3	<0.3	<0.5	4,100	260	<3	<3	34	-
10/16/96	263,610	174,214	199	<50	<0.3	<0.3	<0.3	<0.5	2,700	220	3.8	<0.6	44	-
11/19/96	263,986	174,590	11	<50	<0.3	<0.3	<0.3	<0.5	1,200	<0.3	<0.3	<0.3	<0.5	-
12/16/96	264,210	174,814	8	<50	<0.3	<0.3	<0.3	1.5	29,000	410	2,300	120	1,100	-
01/22/97	266,220	176,824	54	<50	<0.3	<0.3	<0.3	<0.5	68,000	<0.3	<0.3	<0.3	<0.5	-
02/24/97	267,030	177,634	25	<50	<0.3	<0.3	<0.3	<0.5	51,000	3,500	3,200	390	2,200	-
03/17/97	267,230	177,834	10	<50	<0.3	<0.3	<0.3	<0.5	89,000	<6	11	<6	14	-
04/21/97	267,415	178,019	5	<50	<0.3	<0.3	<0.3	<0.5	61,000	730	18	130	360	-
05/22/97	276,535	187,139	294	<50	<0.3	<0.3	<0.3	<0.5	850	1.3	<0.3	0.4	4.6	-
06/23/97	281,214	191,818	146	-	-	-	-	-	-	-	-	-	-	-
07/14/97	284,210	194,814	143	<50	<0.3	<0.3	<0.3	<0.5	6,600	<0.3	0.59	<0.3	9	-
08/18/97	298,610	209,214	411	-	-	-	-	-	-	-	-	-	-	-
09/15/97	301,043	211,647	87	-	-	-	-	-	-	-	-	-	-	-
10/07/97	333,480	244,084	1,474	<50	<0.3	<0.3	<0.3	<0.5	94,000	<0.3	<0.3	<0.3	<0.5	-
11/17/97	334,286	244,890	20	-	-	-	-	-	-	-	-	-	-	-
12/08/97	334,382	244,986	5	-	-	-	-	-	-	-	-	-	-	-
12/12/97	334,382	244,986	-	Shut down system due to stolen equipment				-	-	-	-	-	-	-
04/08/98	334,382	244,986	-	<50	<0.3	<0.3	<0.3	<0.5	3,100	12	1	<0.3	490	2,600
05/11/98	334,382	244,986	-	-	-	-	-	-	-	-	-	-	-	-
06/22/98	334,382	244,986	-	-	-	-	-	-	-	-	-	-	-	-
07/20/98	334,382	244,986	-	<50	<0.3	<0.3	<0.3	<0.5	52,000	8	0.52	0.83	1.5	-
08/03/98	346,521	257,125	867	Shut down system for carbon canisters replacement				-	-	-	-	-	-	-
09/17/98	354,985	265,589	188	-	-	-	-	-	-	-	-	-	-	-
10/14/98	358,015	268,619	112	<50	<0.3	<0.3	<0.3	1.6	3,100	45	13	3.5	350	-

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Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
11/05/98	359,600	270,204	72	System shut down due to vandalism and stolen equipment					-	-	-	-	-	-
11/20/98	359,600	270,204	-	Restart	-	-	-	-	-	-	-	-	-	-
12/11/98	369,452	280,056	469	-	-	-	-	-	-	-	-	-	-	-
12/24/98	-	280,056	-	No reading, meter broken		-	-	-	-	-	-	-	-	-
01/15/99	0	280,056	-	Replaced Flowmeter started at 0			-	-	-	-	-	-	-	-
01/21/99	986	281,042	164	57	<0.3	<0.3	<0.3	0.76	380	6.2	1	<0.3	9.1	-
02/12/99	1,971	282,027	45	-	-	-	-	-	-	-	-	-	-	-
03/12/99	4,390	284,446	86	-	-	-	-	-	-	-	-	-	-	-
04/15/99	8,595	288,651	124	<50	<0.3	<0.3	<0.3	<0.5	410	1.6	0.78	<0.3	5	*580 / 330
05/04/99	9,410	289,466	43	-	-	-	-	-	-	-	-	-	-	-
05/18/99	9,410	289,466	-	Shut down system for pump controller repair by manufacturer					-	-	-	-	-	-
09/20/99	9,411	289,467	0	Restart the system		-	-	-	-	-	-	-	-	-
09/24/99	9,412	289,468	0	-	-	-	-	-	-	-	-	-	-	-
10/13/99	9,510	289,566	5	<50	<0.3	<0.3	<0.3	<0.5	6,000	<0.3	<0.3	<0.3	<0.5	13,000
11/12/99	9,702	289,758	6	-	-	-	-	-	-	-	-	-	-	-
12/17/99	9,894	289,950	5	-	-	-	-	-	-	-	-	-	-	-
01/20/00	10,052	290,108	5	<50	<0.3	<0.3	<0.3	<0.5	<50	<0.3	<0.3	<0.3	<0.5	-
02/17/00	10,157	290,213	4	-	-	-	-	-	-	-	-	-	-	-
03/13/00	10,355	290,411	8	-	-	-	-	-	-	-	-	-	-	-
04/05/00	10,546	290,602	8	72.7	1.8	4.1	0.7	6.7	119,000	2,360	6,440	6,240	25,200	*30,800 / 21,800
05/19/00	11,072	291,128	12	Shut down system for carbon drum replacement				-	-	-	-	-	-	-
06/05/00	11,075	291,131	0	Restart the system		-	-	-	-	-	-	-	-	-
06/14/00	11,132	291,188	6	<50	<0.3	<0.3	<0.3	<0.6	<1,000	<6	<6	<6	14	24,500
07/06/00	11,362	291,418	10	Shut down system for carbon replacement				-	-	-	-	-	-	-
07/17/00	0	291,418	-	Restart the system after carbon change, repipe and flowmeter change (starting at 0.0)										
07/24/00	411	291,829	59	<50	<0.3	<0.3	<0.3	<0.6	205	<0.3	1	<0.3	<0.6	*99 / 104
08/21/00	8,193	299,611	278	-	-	-	-	-	-	-	-	-	-	-
09/18/00	27,251	318,669	681	-	-	-	-	-	-	-	-	-	-	-
10/18/00	54,280	345,698	901	<50	<0.18	<0.14	<0.18	<0.26	357,000	2,380	2,960	1,290	6,850	9,630
10/30/00	64,610	356,028	861	-	-	-	-	-	-	-	-	-	-	-
11/27/00	79,870	371,288	545	-	-	-	-	-	-	-	-	-	-	-
12/22/00	99,240	390,658	775	-	-	-	-	-	-	-	-	-	-	-
01/17/01	101,250	392,668	77	<50	<0.18	<0.14	<0.18	<0.26	24,700	783	373	2	3,480	15,000
02/23/01	144,120	435,538	1,159	-	-	-	-	-	-	-	-	-	-	-
03/30/01	195,400	486,818	1,465	-	-	-	-	-	-	-	-	-	-	-
04/06/01	199,090	490,508	527	System shut down for carbon replacement; Replaced on 4/11/01, restart on 4/13/01.										
04/20/01	207,050	498,468	569	88	<0.18	<0.14	<0.18	<0.26	36,500	855	716	659	1,570	11,400
04/27/01	210,640	502,058	513	System shut down for repair/replacement of compressor's pressure switch and exhaust valve										

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Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
04/30/01	210,640	502,058	-	320	<0.18	<0.14	<0.18	<0.26	7,620	268	22	10	124	*13,600/9,130
05/11/01	210,640	502,058	-	Replaced pressure switch on 5/7/01, system still off for carbon replacement.					-	-	-	-	-	-
05/21/01	210,640	502,058	-	Restart the system		-	-	-	-	-	-	-	-	-
05/30/01	226,830	518,248	1,799	<50	<0.18	<0.14	<0.18	<0.26	96,600	4,980	1,660	2,770	11,300	*53,600/41,600
06/29/01	267,230	558,648	1,347	-	-	-	-	-	-	-	-	-	-	-
07/11/01	310,010	601,428	3,565	<50	<0.18	<0.14	<0.18	<0.26	162,000	<0.18	4,140	4,760	24,000	<0.24
08/17/01	441,270	732,688	3,548	-	-	-	-	-	-	-	-	-	-	-
09/28/01	498,310	789,728	1,358	-	-	-	-	-	-	-	-	-	-	-
10/03/01	503,930	795,348	1,124	<50	<0.18	<0.14	<0.18	<0.26	31,600	<1.8	150	294	5,280	<2.4
11/12/01	664,700	956,118	4,019	-	-	-	-	-	-	-	-	-	-	-
12/28/01	706,300	997,718	904	-	-	-	-	-	-	-	-	-	-	-
01/11/02	721,050	1,012,468	1,054	System shut down for carbon replacement				-	-	-	-	-	-	-
01/21/02	721,050	1,012,468	-	Restart the system		-	-	-	-	-	-	-	-	-
02/01/02	731,320	1,022,738	934	<100	<0.3	<0.3	<0.3	<0.6	1,172	1	1	1	6	<5
02/22/02	751,340	1,042,758	953	-	-	-	-	-	-	-	-	-	-	-
03/27/02	813,240	1,104,658	1,876	-	-	-	-	-	-	-	-	-	-	-
04/12/02	835,170	1,126,588	1,371	<50	<0.18	<0.14	<0.18	<0.26	12,100	5	1	<0.18	<0.26	18,400
04/26/02	918,670	1,210,088	5,964	System shut down		-	-	-	-	-	-	-	-	-
05/10/02	918,680	1,210,098	1	Restart	-	-	-	-	-	-	-	-	-	-
05/17/02	928,670	1,220,088	1,427	-	-	-	-	-	-	-	-	-	-	-
06/03/02	-	-	-	<50	<0.18	<0.14	<0.18	<0.26	Split-sample results during EBMUD inspection & sampling					
06/07/02	971,240	1,262,658	2,027	-	-	-	-	-	-	-	-	-	-	-
06/28/02	1,012,150	1,303,568	1,948	-	-	-	-	-	-	-	-	-	-	-
07/15/02	1,045,670	1,337,088	1,972	<50	<0.18	<0.14	<0.18	<0.26	10,600	<0.18	<0.14	<0.18	<0.26	10,000
07/31/02	1,052,380	1,343,798	419	System shut down for carbon replacement				-	-	-	-	-	-	-
08/16/02	1,052,390	1,343,808	1	Restart	-	-	-	-	-	-	-	-	-	-
08/30/02	1,057,310	1,348,728	351	-	-	-	-	-	-	-	-	-	-	-
09/20/02	1,061,730	1,353,148	210	<50	< 0.1	< 0.15	< 0.06	-	Split-sample results during EBMUD inspection & sampling					
09/27/02	1,064,020	1,355,438	327	-	-	-	-	-	-	-	-	-	-	-
10/04/02	1,069,130	1,360,548	730	<50	<0.18	<0.14	<0.18	<0.26	4,500	<0.18	<0.14	<0.18	<0.26	2,570
10/25/02	1,082,500	1,373,918	637	-	-	-	-	-	-	-	-	-	-	-
11/29/02	1,108,680	1,400,098	748	-	-	-	-	-	-	-	-	-	-	-
12/27/02	1,123,890	1,415,308	543	-	-	-	-	-	-	-	-	-	-	-
01/03/03	1,128,910	1,420,328	717	System shut down for carbon replacement				-	-	-	-	-	-	-
01/10/03	1,128,970	1,420,388	9	Restart	-	-	-	-	-	-	-	-	-	-
01/17/03	1,132,560	1,423,978	513	<50	<0.14	<0.07	<0.08	1.1	32,400	11	64	<0.8	6,050	706
01/31/03	1,143,290	1,434,708	766	<15	<0.04	0.58	<0.02	1.1	22,700	14	34	18	5,160	550
02/14/03	1,153,670	1,445,088	741	System shut down for carbon replacement				-	-	-	-	-	-	-
04/04/03	1,153,670	1,445,088	-	System kept off and dismantled for upgrade				-	-	-	-	-	-	-
06/18/04	0.0	1,445,088	-	Startup of upgraded system				-	-	-	-	-	-	-

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Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
06/21/04	2,322.2	1,447,410	774	-	< 0.22	< 0.32	< 0.31	< 0.4	-	-	-	-	-	-
06/23/04	3,361.0	1,448,449	519	-	< 0.14	< 0.16	< 0.18	< 0.45	-	-	-	-	-	-
06/25/04	4,398.0	1,449,486	519	-	< 0.14	< 0.16	< 0.18	< 0.45	-	-	-	-	-	-
07/01/04	6,395.7	1,451,484	333	-	-	-	-	-	-	-	-	-	-	-
07/09/04	8,606.5	1,453,695	276	-	-	-	-	-	-	-	-	-	-	-
07/19/04	11,130.0	1,456,218	252	-	-	-	-	-	-	-	-	-	-	-
07/29/04	11,346.0	1,456,434	22	-	-	-	-	-	-	-	-	-	-	-
08/09/04	12,511.0	1,457,599	106	-	-	-	-	-	-	-	-	-	-	-
08/30/04	19,294.0	1,464,382	323	-	-	-	-	-	27,000	201	247	< 0.18	2,060	11,300
09/03/04	20,211.0	1,465,299	229	-	< 0.14	< 0.16	< 0.18	< 0.45	-	-	-	-	-	-
09/21/04	24,766.0	1,469,854	253	-	-	-	-	-	18,900	280	290	27	3,600	9,810
10/07/04	28,244.9	1,473,333	217	-	< 0.14	< 0.16	< 0.18	< 0.45	-	-	-	-	-	-
10/18/04	28,288.1	1,473,376	4	-	< 0.14	< 0.16	< 0.18	< 0.45	24,100	221	151	74	3,100	11,800
10/21/04	28,463.5	1,473,552	58	-	-	-	-	-	Split-sample results during EBMUD inspection & sampling					
10/28/04	34,435.8	1,479,524	853	-	-	-	-	-	-	-	-	-	-	-
11/02/04	37,200.4	1,482,288	553	-	-	-	-	-	-	-	-	-	-	-
11/09/04	39,902.6	1,484,991	386	-	-	-	-	-	-	-	-	-	-	-
11/17/04	43,165.9	1,488,254	408	-	-	-	-	-	29,500	564	628	173	4,550	11,800
11/22/04	43,760.3	1,488,848	119	-	-	-	-	-	-	-	-	-	-	-
12/03/04	43,827.9	1,488,916	6	-	-	-	-	-	-	-	-	-	-	-
12/09/04	43,862.7	1,488,951	6	-	-	-	-	-	-	-	-	-	-	-
12/17/04	44,034.6	1,489,123	21	-	-	-	-	-	-	-	-	-	-	-
12/23/04	45,408.0	1,490,496	229	-	<0.14	<0.16	<0.18	1.2	23,200	473	256	488	2,100	6,080
12/29/04	47,405.4	1,492,493	333	-	-	-	-	-	-	-	-	-	-	-
01/07/05	54,048.5	1,499,137	738	-	-	-	-	-	-	-	-	-	-	-
01/12/05	56,143.5	1,501,232	419	EMC took over operation and maintenance of system				-	-	-	-	-	-	-
01/14/05	56,307.2	1,501,395	82	Carbon change		-	-	-	-	-	-	-	-	-
01/19/05	56,307.2	1,501,395	-	Restarted after carbon change			-	-	-	-	-	-	-	-
01/27/05	57,610.1	1,502,698	163	<15	<0.14	1.1	<0.18	<0.45	4,850	189	205	255	1,450	966
02/03/05	63,253.1	1,508,341	806	-	-	-	-	-	-	-	-	-	-	-
02/11/05	65,739.0	1,510,827	311	-	-	-	-	-	-	-	-	-	-	-
02/18/05	67,326.3	1,512,414	227	-	-	-	-	-	-	-	-	-	-	-
02/24/05	67,392.1	1,512,480	11	-	-	-	-	-	-	-	-	-	-	-
03/09/05	67,984.2	1,513,072	46	-	-	-	-	-	-	-	-	-	-	-
03/17/05	69,219.3	1,514,307	154	-	-	-	-	-	-	-	-	-	-	-
03/23/05	70,454.2	1,515,542	206	-	-	-	-	-	-	-	-	-	-	-
03/30/05	71,783.1	1,516,871	190	-	-	-	-	-	-	-	-	-	-	-
04/06/05	75,721.2	1,520,809	563	<15	<0.14	0.91	<0.18	<0.45	10,900	247	112	356	892	2,010
04/07/05	-	-	-	<15	< 0.14	< 0.16	<0.18	< 0.45	Split-sample results during EBMUD inspection & sampling					
04/14/05	79,730.2	1,524,818	501	System was turned off for QWS			-	-	-	-	-	-	-	-
04/21/05	79,885.1	1,524,973	22	Restarted system		-	-	-	-	-	-	-	-	-

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				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
04/27/05	80,674.2	1,525,762	132	-	-	-	-	-	-	-	-	-	-	-
05/12/05	83,901.3	1,528,989	215	-	-	-	-	-	-	-	-	-	-	-
05/20/05	84,601.7	1,529,690	88	-	-	-	-	-	-	-	-	-	-	-
05/27/05	86,432.1	1,531,520	261	-	-	-	-	-	-	-	-	-	-	-
06/02/05	87,654.3	1,532,742	204	-	-	-	-	-	-	-	-	-	-	-
06/09/05	87,981.1	1,533,069	47	-	-	-	-	-	-	-	-	-	-	-
06/16/05	88,340.0	1,533,428	51	-	-	-	-	-	-	-	-	-	-	-
06/16/05	0.0	1,533,428	-	Changed battery for flow meter (reset to 0.0 gallons)					-	-	-	-	-	-
06/23/05	2,914.2	1,536,342	416	-	-	-	-	-	-	-	-	-	-	-
06/28/05	4,751.3	1,538,179	367	-	-	-	-	-	-	-	-	-	-	-
07/07/05	7,125.7	1,540,554	264	<2.9	<0.17	<0.22	<0.14	<0.38	7,530	301	71 J	132	800	2,580
07/12/05	8,534.3	1,541,962	282	-	-	-	-	-	-	-	-	-	-	-
07/19/05	9,145.3	1,542,573	87	-	-	-	-	-	-	-	-	-	-	-
07/26/05	10,570.5	1,543,999	204	System was turned off for QWS and carbon change				-	-	-	-	-	-	-
08/03/05	10,572.1	1,544,000	0	Restarted system		-	-	-	-	-	-	-	-	-
08/09/05	10,827.1	1,544,255	43	-	-	-	-	-	-	-	-	-	-	-
08/19/05	-	-	-	-	<0.05	<0.07	<0.08	<0.33	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)					
08/19/05	11,219.6	1,544,648	39	-	<0.10	<0.15	<0.06	<0.40	Split-sample results during EBMUD inspection & sampling					-
08/23/05	11,311.2	1,544,739	23	-	-	-	-	-	-	-	-	-	-	-
09/07/05	11,713.1	1,545,141	27	-	-	-	-	-	-	-	-	-	-	-
09/13/05	11,816.3	1,545,244	17	-	-	-	-	-	-	-	-	-	-	-
09/20/05	11,930.2	1,545,358	16	-	-	-	-	-	-	-	-	-	-	-
09/26/05	12,241.6	1,545,670	52	-	-	-	-	-	-	-	-	-	-	-
10/04/05	12,314.2	1,545,742	9	<2.9	<0.17	<0.22	<0.14	<0.38	4,250	129	113	3.9 J	237	2,120
10/11/05	12,578.6	1,546,007	38	-	-	-	-	-	-	-	-	-	-	-
10/17/05	12,781.3	1,546,209	34	System was turned off for QWS			-	-	-	-	-	-	-	-
10/21/05	12,796.1	1,546,224	4	Restarted system		-	-	-	-	-	-	-	-	-
11/01/05	13,383.2	1,546,811	53	-	-	-	-	-	-	-	-	-	-	-
11/08/05	13,399.2	1,546,827	2	-	<0.10	<0.15	<0.06	<0.40	Split-sample results during EBMUD inspection & sampling					
11/08/05	-	-	-	-					Outlet sampling results from EBMUD (sample collected by EBMUD inspector)					
11/16/05	13,807.4	1,547,235	51	-	-	-	-	-	-	-	-	-	-	-
11/23/05	0.0	1,547,235	-	Changed battery for flow meter (reset to 0.0 gallons)				-	-	-	-	-	-	-
11/29/05	717.2	1,547,953	120	-	-	-	-	-	-	-	-	-	-	-
12/07/05	1,038.1	1,548,274	40	-	-	-	-	-	-	-	-	-	-	-
12/14/05	1,669.4	1,548,905	90	-	-	-	-	-	-	-	-	-	-	-
12/20/05	1,874.3	1,549,110	34	-	-	-	-	-	-	-	-	-	-	-
12/28/05	2,022.1	1,549,258	18	-	-	-	-	-	-	-	-	-	-	-
01/04/06	4,413.3	1,551,649	342	-	-	-	-	-	-	-	-	-	-	-
01/10/06	5,614.3	1,552,850	200	<2.9	<0.32	<0.1	<0.24	<0.3	12,000	16	51	2.3 J	1,300	338
01/18/06	6,414.4	1,553,650	100	-	-	-	-	-	-	-	-	-	-	-
01/20/06	6,728.3	1,553,964	157	System was turned off for QWS and carbon change				-	-	-	-	-	-	-

TABLE 1
GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM
Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
01/27/06	6,731.2	1,553,967	0	Restarted system		-	-	-	-	-	-	-	-	-
01/31/06	6,842.3	1,554,078	28	-	-	-	-	-	-	-	-	-	-	-
02/01/06	-	-	-	-	<0.70	<0.67	<0.65	<2.0	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)					
02/01/06	6,903.0	1,554,138	61	-	<0.17	<0.22	<0.14	<0.38	Split-sample results during EBMUD inspection & sampling					
02/01/06	-	-	-	-					Outlet sampling results from EBMUD (sample collected by EBMUD inspector)					
02/01/06	0.0	1,554,138	-	Changed battery for flow meter (reset to 0.0 gallons)				-	-	-	-	-	-	-
02/07/06	308	1,554,447	51	-	-	-	-	-	-	-	-	-	-	-
02/21/06	978	1,555,116	48	-	-	-	-	-	-	-	-	-	-	-
02/24/06	1,268	1,555,406	97	-	-	-	-	-	-	-	-	-	-	-
02/24/06	10	1,555,406	-	Replaced flow meter with nonresettable analog type, start with 10					-	-	-	-	-	-
02/28/06	978	1,556,374	242	-	-	-	-	-	-	-	-	-	-	-
03/07/06	3,254	1,558,650	325	-	-	-	-	-	-	-	-	-	-	-
03/14/06	4,672	1,560,068	203	-	-	-	-	-	-	-	-	-	-	-
03/21/06	6,793	1,562,189	303	-	-	-	-	-	-	-	-	-	-	-
03/28/06	8,214	1,563,610	203	-	-	-	-	-	-	-	-	-	-	-
04/04/06	12,513	1,567,909	614	<5.6	<0.32	<0.1	<0.24	<0.3	2,580	15	5.0	<0.24	193	341
04/11/06	15,720	1,571,116	458	-	-	-	-	-	-	-	-	-	-	-
04/18/06	21,010	1,576,406	756	System was turned off for QWS			-	-	-	-	-	-	-	-
04/21/06	21,030	1,576,426	7	Restarted system		-	-	-	-	-	-	-	-	-
04/25/06	22,410	1,577,806	345	-	-	-	-	-	-	-	-	-	-	-
04/26/06	23,010	1,578,406	600	Turned off system for carbon change			-	-	-	-	-	-	-	-
05/02/06	23,030	1,578,426	3	Restarted after carbon change			-	-	-	-	-	-	-	-
05/09/06	27,710	1,583,106	669	-	-	-	-	-	-	-	-	-	-	-
05/17/06	28,900	1,584,296	149	-	-	-	-	-	-	-	-	-	-	-
05/23/06	31,430	1,586,826	422	<5.6	<0.32	<0.1	<0.24	<0.3	1,020,000	3,330	111,000	7,440	38,400	<630
05/31/06	37,710	1,593,106	785	-	-	-	-	-	-	-	-	-	-	-
06/09/06	39,890	1,595,286	242	-	-	-	-	-	71,000	520	16,300	820	6,840	-
06/13/06	40,460	1,595,856	143	-	-	-	-	-	-	-	-	-	-	-
06/21/06	41,240	1,596,636	98	-	-	-	-	-	-	-	-	-	-	-
06/27/06	42,360	1,597,756	187	-	-	-	-	-	-	-	-	-	-	-
07/11/06	46,380	1,601,776	287	<5.6	<0.32	<0.10	<0.24	<0.30	8070	18	385	73	1530	40
07/18/06	47,270	1,602,666	127	System was turned off for QWS			-	-	-	-	-	-	-	-
07/25/06	47,280	1,602,676	1	Restarted system		-	-	-	-	-	-	-	-	-
08/01/06	47,860	1,603,256	83	-	-	-	-	-	-	-	-	-	-	-
08/18/06	50,000	1,605,396	126	-	-	-	-	-	-	-	-	-	-	-
08/22/06	50,060	1,605,456	15	-	-	-	-	-	-	-	-	-	-	-
08/29/06	50,940	1,606,336	126	-	-	-	-	-	-	-	-	-	-	-
09/06/06	51,360	1,606,756	53	-	-	-	-	-	-	-	-	-	-	-
09/12/06	53,150	1,608,546	298	-	-	-	-	-	-	-	-	-	-	-
09/14/06	53,730	1,609,126	290	System was turned off for groundwater well sampling				-	-	-	-	-	-	-
09/19/06	53,940	1,609,336	42	Restarted system		-	-	-	53,600	59	3,630	4,510	7,400	96

TABLE 1
GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM
Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
09/27/06	54,160	1,609,556	28	-	-	-	-	-	-	-	-	-	-	-
10/04/06	54,370	1,609,766	30	<5.6	<0.32	<0.10	<0.24	<0.30	573	14	34	44	97	230
10/13/06	56,380	1,611,776	223					-	-	-	-	-	-	-
10/17/06	56,780	1,612,176	100	System was turned off for groundwater well sampling				-	-	-	-	-	-	-
10/27/06	56,780	1,612,176	-	Restarted system		-	-	-	-	-	-	-	-	-
10/31/06	57,010	1,612,406	35	-	-	-	-	-	-	-	-	-	-	-
11/07/06	58,720	1,614,116	244	-	-	-	-	-	-	-	-	-	-	-
11/16/06	59,010	1,614,406	32	-	-	-	-	-	-	-	-	-	-	-
11/22/06	59,100	1,614,496	15	-	-	-	-	-	-	-	-	-	-	-
11/30/06	61,302	1,616,698	275	-	-	-	-	-	-	-	-	-	-	-
12/06/06	61,860	1,617,256	93	-	-	-	-	-	-	-	-	-	-	-
12/13/06	61,930	1,617,326	10	System was shut down for maintenance			-	-						
01/03/07	61,930	1,617,326	-	Restarted system		-	-	-	-	-	-	-	-	-
01/05/07	62,140	1,617,536	105	-	-	-	-	-	-	-	-	-	-	-
01/09/07	62,870	1,618,266	183	-	-	-	-	-	-	-	-	-	-	-
01/16/07	63,140	1,618,536	39	<5.6	<0.17	<0.22	<0.14	<0.38	144,000	<64.0	12,100	4,650	28,300	<126
01/25/07	63,740	1,619,136	67	Restarted system (shut down on 1/16/07 for groundwater sampling.)					-	-	-	-	-	-
01/30/07	64,140	1,619,536	80	-	-	-	-	-	-	-	-	-	-	-
02/02/07	64,530	1,619,926	130	Shut down for carbon change-out			-	-	-	-	-	-	-	-
02/09/07	64,540	1,619,936	1	Restarted after carbon change-out			-	-	-	-	-	-	-	-
02/13/07	64,920	1,620,316	95	-	-	-	-	-	-	-	-	-	-	-
02/19/07	65,213	1,620,609	49	-	-	-	-	-	-	-	-	-	-	-
02/28/07	65,730	1,621,126	57	-	-	-	-	-	-	-	-	-	-	-
03/08/07	66,370	1,621,766	80	-	-	-	-	-	-	-	-	-	-	-
03/13/07	67,240	1,622,636	174	-	-	-	-	-	-	-	-	-	-	-
03/20/07	68,410	1,623,806	167	-	-	-	-	-	-	-	-	-	-	-
03/27/07	68,630	1,624,026	31	-	-	-	-	-	-	-	-	-	-	-
04/03/07	68,900	1,624,296	39	-	-	-	-	-	-	-	-	-	-	-
04/10/07	69,780	1,625,176	126	<5.6	<0.17	<0.22	<0.14	<0.38	4,390	30	514	45 J	595	51
04/13/07	69,940	1,625,336	53	System was turned off for groundwater well sampling				-	-	-	-	-	-	-
04/20/07	69,940	1,625,336	-	Restarted system		-	-	-	-	-	-	-	-	-
04/26/07	70,130	1,625,526	32	-	-	-	-	-	-	-	-	-	-	-
05/02/07	-	-	-	-	<0.7	<0.67	<0.65	<1.3	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)					
05/02/07	71,300	1,626,696	195	<5.6	<0.17	<0.22	<0.14	<0.38	Split-sample results during EBMUD inspection & sampling					
05/08/07	71,630	1,627,026	55	-	-	-	-	-	-	-	-	-	-	-
05/17/07	72,710	1,628,106	120	-	-	-	-	-	-	-	-	-	-	-
05/24/07	73,120	1,628,516	59	-	-	-	-	-	-	-	-	-	-	-
06/01/07	75,340	1,630,736	278	-	-	-	-	-	-	-	-	-	-	-
06/14/07	76,840	1,632,236	115	-	-	-	-	-	-	-	-	-	-	-
06/19/07	77,234	1,632,630	79	-	-	-	-	-	-	-	-	-	-	-
06/21/07	77,289	1,632,685	28	-	-	-	-	-	416,000	3,330	49,400	7,250	39,700	<19

TABLE 1
GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM
Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
06/28/07	77,690	1,633,086	57	-	-	-	-	-	-	-	-	-	-	-
07/03/07	80,230	1,635,626	508	-	-	-	-	-	-	-	-	-	-	-
07/10/07	86,310	1,641,706	869	-	-	-	-	-	-	-	-	-	-	-
07/17/07	87,620	1,643,016	187	System was turned off for groundwater well sampling				-	-	-	-	-	-	-
07/20/07	87,620	1,643,016	-	Restarted system		-	-	-	-	-	-	-	-	-
07/24/07	87,930	1,643,326	78	-	-	-	-	-	-	-	-	-	-	-
07/31/07	88,260	1,643,656	47	-	-	-	-	-	-	-	-	-	-	-
08/07/07	88,930	1,644,326	96	-	-	-	-	-	-	-	-	-	-	-
08/14/07	89,620	1,645,016	99	-	-	-	-	-	-	-	-	-	-	-
08/21/07	91,200	1,646,596	226	54	<0.15	<0.12	<0.09	<0.26	-	-	-	-	-	-
08/30/07	92,300	1,647,696	122	-	-	-	-	-	-	-	-	-	-	-
09/05/07	92,720	1,648,116	70	Shut down for carbon change-out			-	-	-	-	-	-	-	-
09/11/07	92,720	1,648,116	-	-	-	-	-	-	-	-	-	-	-	-
09/17/07	92,760	1,648,156	7	Restart system after carbon change-out			-	-	-	-	-	-	-	-
09/24/07	100,590	1,655,986	1,119	-	-	-	-	-	-	-	-	-	-	-
10/02/07	109,100	1,664,496	1,064	-	-	-	-	-	-	-	-	-	-	-
10/10/07	118,640	1,674,036	1,193	-	-	-	-	-	-	-	-	-	-	-
10/16/07	124,630	1,680,026	998	Shut down for QWS		-	-	-	-	-	-	-	-	-
10/19/07	124,690	1,680,086	20	Restart system after QWS		-	-	-	-	-	-	-	-	-
10/23/07	124,860	1,680,256	43	-	-	-	-	-	-	-	-	-	-	-
10/30/07	127,680	1,683,076	403	-	-	-	-	-	-	-	-	-	-	-
11/20/07	139,850	1,695,246	580	<5.6	<0.15	<0.12	<0.09	<0.26	251	<0.18	<0.24	1.8 J	6.1	138
11/30/07	154,320	1,709,716	1,447	-	-	-	-	-	-	-	-	-	-	-
12/04/07	154,400	1,709,796	20	-	-	-	-	-	-	-	-	-	-	-
12/14/07	164,210	1,719,606	981	-	-	-	-	-	12,400	302	2170	853	5090	<1.9
12/21/07	167,300	1,722,696	441	-	-	-	-	-	-	-	-	-	-	-
12/28/07	169,420	1,724,816	303	-	-	-	-	-	-	-	-	-	-	-
01/02/08	172,430	1,727,826	602	-	-	-	-	-	-	-	-	-	-	-
01/11/08	178,960	1,734,356	726	-	-	-	-	-	-	-	-	-	-	-
01/15/08	179,240	1,734,636	70	<5.6	<0.15	<0.12	<0.09	<0.26	793	31	32	16	46	63
01/18/08	179,240	1,734,636	-	Restart system after QWS		-	-	-	-	-	-	-	-	-
01/25/08	188,920	1,744,316	1,383	-	-	-	-	-	-	-	-	-	-	-
02/01/08	192,200	1,747,596	469	-	-	-	-	-	-	-	-	-	-	-
02/05/08	195,150	1,750,546	738	-	-	-	-	-	444	2.4	137	21	100	84
02/15/08	195,570	1,750,966	42	-	-	-	-	-	-	-	-	-	-	-
02/22/08	198,380	1,753,776	401	-	-	-	-	-	-	-	-	-	-	-
02/29/08	203,160	1,758,556	683	-	-	-	-	-	-	-	-	-	-	-
03/07/08	210,490	1,765,886	1,047	-	-	-	-	-	-	-	-	-	-	-
03/12/08	216,700	1,772,096	1,242	<5.6	<0.15	<0.12	<0.09	<0.26	111	<0.18	<0.24	<0.21	7.8	23
03/25/08	233,240	1,788,636	1,272	-	-	-	-	-	-	-	-	-	-	-
03/27/08	233,970	1,789,366	365	-	-	-	-	-	-	-	-	-	-	-

TABLE 1
GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM
Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	OUTLET / EFFLUENT (ug/L)					INLET / INFLUENT (ug/L)					
				TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE
04/23/08	234,000	1,789,396	1	<6.6	<0.15	<0.12	<0.09	<0.26	-	-	-	-	-	-
05/01/08	245,000	1,800,396	1,375	-	-	-	-	-	-	-	-	-	-	-
05/06/08	254,850	1,810,246	1,970	-	-	-	-	-	-	-	-	-	-	-
05/13/08	258,100	1,813,496	464	-	-	-	-	-	29,200	219	3,130	913	4,860	<3.8
05/20/08	267,970	1,823,366	1,410	-	-	-	-	-	-	-	-	-	-	-
05/28/08	277,550	1,832,946	1,198	-	-	-	-	-	-	-	-	-	-	-
06/04/08	277,400	1,832,796	(21)	-	-	-	-	-	-	-	-	-	-	-
06/10/08	279,680	1,835,076	380	-	-	-	-	-	-	-	-	-	-	-
06/17/08	279,690	1,835,086	1	-	-	-	-	-	-	-	-	-	-	-
06/24/08	288,300	1,843,696	1,230	-	-	-	-	-	19,700	78	416	210	1,120	5.9

WD PERMIT LIMITS:	*NE*	*5.0*	*5.0*	*5.0*	*5.0*

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 8021/8260

Total Hydrocarbons Removed = From 4/8/91 to 2/10/92, the influent TPHg is assumed to be 47,000 (3/9/92)

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.