ETIC ENGINEERING

SUPPLEMENTAL SITE INVESTIGATION REPORT

FORMER COX CADILLAC
230 BAY PLACE
OAKLAND, CALIFORNIA

Prepared For:

The Greater Bay Trust Company
as trustees of the:
Robert Shepard Trust,
Brian F. Shepard Trust,
Douglas C. Shepard Trust, and
Lisa C. Shepard Trust

Prepared By:

ETIC Engineering, Inc
1333 Broadway, Suite 1015
Oakland, CA 94612

January 23, 2004

Supplemental Site Investigation Report

Former Cox Cadillac
230 Bay Place
Oakland, California

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Senior Project Manager

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SITE CONTACTS

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1.0 INTRODUCTION

This Supplemental Site Investigation Report has been prepared by ETIC Engineering, Inc. (ETIC) for the former Cox Cadillac Facility in Oakland, California, on behalf of the Greater Bay Trust Company, trustee for the Robert Shepard Trust, Brian F. Shepard Trust, Douglas C. Shepard Trust, and the Lisa C. Shepard Trust, the former owners of the site. The site is currently owned by the Bond CC Oakland, LLC. This report presents the results of the supplemental site investigation conducted at the Former Cox Cadillac site (Site).

The supplemental investigation was conducted as per the regulatory approved workplan prepared by PES Environmental, Inc (PES, 2003a)[1] and the associated addendum (PES 2003b) with modifications made by the Alameda County Environmental Heath Services (ACEHS) Agency in the form of a letter dated June 20, 2003.[2]. The objectives of the supplemental investigation were to characterize the probable onsite or offsite sources of the hydrocarbon and methyl tert-butyl ether (MTBE) groundwater plume at the Site, delineate the lateral extent of the plume, and characterize its chemical composition. The scope of work included:

- A comprehensive survey of onsite conditions, including evaluating soils that may be a source of hydrocarbons to groundwater to the northwest of the former tank and piping excavations;
- Collection of groundwater data in the vicinity of the utility trenches in the cross gradient and downgradient directions from the Site;
- Evaluation of the groundwater plume in the vicinity of well MW1 and beneath the existing building, and
- Delineation of lateral extent of any MTBE migration/contamination.

The supplemental site investigation activities were conducted at the site from 10 October to 26 November 2003. Location of the supplemental investigation borings are shown on Figure 2. Analytical results of the soil and groundwater grab samples are provided in the attached tables and figures and are discussed in subsequent sections of this report. Field investigation protocols, field data, and laboratory analytical reports are provided in the attached appendixes.

1 PES Environmental, Inc. 2003a. *Workplan Supplemental Site Investigation, Former Cox Cadillac Facility, 230 Bay Place, Oakland, California.* LOP Case RO-0000148, January 24.
2 PES Environmental, Inc. 2003b. *Addendum to Workplan Supplemental Site Investigation, Former Cox Cadillac Facility, 230 Bay Place, Oakland, California. LOP Case RO-0000148*, May 21.

2.0 SITE LOCATION AND BACKGROUND INFORMATION

2.1 Location

The former Cox Cadillac facility is located at 230 Bay Place, Oakland, California, on the northeast corner of the intersection of Harrison Street and Bay Place (Figure 1). The property is bound by Harrison Street on the northwest, Bay Place on the southwest and Vernon Street on the southeast. Land use in the area is mixed commercial and high-density residential.

The site is located in approximately 2 miles east of the San Francisco Bay. The nearest body of water is Lake Merritt, which is located approximately 1,000 feet south of the site.

2.2 Site Use and Previous Investigations

The site is nearly two-acres in size and contains a 30,000 square foot vacant building that was used for automobile sales and services, including storage, maintenance, repair and painting. Approximately 6,500 square feet of the building was used as a sales showroom. The rest of the site is a paved parking lot. The site is entirely enclosed by a chain-link fence.

The site contained one 3,000-gallon waste oil UST, one 1,050-gallon mineral spirit UST, and one 10,000-gallon gasoline UST. The USTs were removed from the property between 1988 and 1994. The site history presented herein is summarized from the *UST Closure Reports* prepared by PES (PES,1992)[3] and Eisenberg, Olivieri, & Associates (EOA,1994)[4] and the *Workplan Monitoring Well Installation, Resumption of Enhanced Bio-Remediation, and Resumption of Quarterly Sampling* prepared by PES (PES, 2001)[5]. A summary of the UST removal activities and associated investigations is presented below.

- In December 1988, the 3,000-gallon waste oil UST, located in the paved parking area south of the Cox Cadillac building (Figure 2), was excavated and removed by DECON Environmental Services (DECON) of Hayward, California. Approximately 20 cubic yards of soil was removed from the waste oil UST excavation. During the 1988 UST removal, holes were observed in the waste oil UST and separate phase hydrocarbons (SPH) were observed on the groundwater in the bottom of the excavation.

- In September 1992, the 1,050-gallon mineral spirit UST, located beneath the sidewalk adjacent to Harrison Street, was excavated and removed by CKC, Inc. Approximately 12

3 PES Environmental, Inc. 1992. *Underground Mineral Spirits Tank Closure Report, Bill Cox Cadillac, 230 Bay Street, Oakland, California.* November 13.
4 Eisenberg, Olivieri, & Associates. 1994. *Report of UST Closure Activities, 230 Bay Place, Oakland, California.* February.
5 PES Environmental, Inc. 2001. *Workplan Monitoring Well Installation, Resumption of Enhanced Bio-Remediation, and Resumption of Quarterly Sampling Former Cox Cadillac Facility, 230 Bay Place, Oakland, California.* August 29.

cubic yards of non-hazardous soil was off-hauled as part of the removal activities. No evidence of soil or groundwater contamination was observed or detected.

- Monitoring well MW1 and temporary monitoring wells TW-1 through TW-7 were installed in 1993 to investigate the subsurface conditions following the removal of the waste oil UST. Groundwater samples from the wells contained elevated levels of total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and total xylenes (BTEX). The highest concentrations were detected near the 10,000-gallon gasoline UST and the associated piping. A hydrocarbon analysis (performed by Friedman & Bruya, Inc.) of a sample of the gasoline in the UST versus the gasoline detected in well MW1 indicated that the "fresh" gasoline in well MW1 did not match the gasoline in the UST.

- In January 1994, the 10,000-gallon gasoline UST and the associated piping, located south of and adjacent to the Cox Cadillac building (Figure 2), were excavated and removed by DECON. Field observations during the excavation identified evidence of past leakage of gasoline (soil discoloration and odor) in the soil and groundwater of the piping trench and UST backfill. The excavation was backfilled with pea gravel from the bottom of the excavation up to 4 feet bgs.

- In response to a request by the Alameda County Environmental Health Services (ACEHS), PES conducted additional excavation activities, installed additional monitoring wells, and conducted initial interim groundwater remediation. In July 1997, an additional 50 cubic yards of hydrocarbon-impacted soil was excavated from beneath the former product piping. Some impacted soil near the building was left in-place because of stability concerns for the adjacent building.

- Five monitoring wells were used for the injection of enriched groundwater during a 1-year pilot program from January 1999 to January 2000. The pilot program consisted of injecting a solution of potable water, hydrogen peroxide, and a blend of nutrients. Along with the pilot program, Oxygen Release Compound (ORC) socks were installed in the wells. The pilot bioremediation program was effective in reducing concentrations of petroleum hydrocarbons in groundwater from monitoring wells MW-1 and TW-6.

- Quarterly groundwater monitoring has been performed at the site since 1993. Results of the most recent groundwater monitoring completed in October 2003 shows more than 1,000 µg/L TPH-g in monitoring wells MW1, MW2, TW5 and TW7. Benzene concentrations range from below laboratory detection limits to 4,400 µg/L (TW5) and methyl tert-butyl ether (MTBE) concentrations range from below laboratory detection limits to 3,000 µg/L (MW2).

2.3 Regional Geology and Hydrogeology

The region is underlain by the Quaternary age Temescal and Alameda Formations. The Temescal Formation consists of inter-fingering layers of clayey gravel, sandy silty clay, and various clay-silt-sand mixtures. The Temescal varies in thickness to a maximum depth of approximately 60 feet and is underlain by the Alameda Formation, which consists of unconsolidated continental and marine gravels, sand, silt, and clay, with some shells and organic material in various places. The Alameda Formation has a maximum known thickness of 1,050 feet (Radbruck, 1957)[6].

The site is located in the East Bay Plain Groundwater Basin. Regional groundwater flow is to the west, in the general direction of the San Francisco Bay (RWQCB, 1995)[7].

2.4 Site Geology and Hydrogeology

The lithology at the site is derived from previous investigations and supplemented with data from this investigation. In general, the site is underlain by 1 to 4 feet of fill consisting of a mixture of brick, concrete and gravel. Locally, a suspected concrete slab is encountered at a depth of 2.5 to 3 ft. bgs. Groundwater was first encountered at approximately 10 to 12 feet below ground surface (bgs).

Depth to groundwater measurements at the site were collected in October 2003 and were used to construct the groundwater elevation contour map shown on Figure 3. The average depth of groundwater is 4.5 feet below ground surface (bgs) suggesting that groundwater maybe semi-confined. Figure 3 shows recent groundwater flow direction for the shallow water-bearing zone beneath the site. The groundwater flow direction at the Site is towards the southwest, with an average hydraulic gradient of approximately 0.06 foot/foot. This is consistent with previous investigations.

6: Radbruck, Dorothy H. 1957. *Areal and Engineering Geology of the Oakland West Quadrangle, California.* USGS-Miscellaneous Geologic Investigation Map I-239

7 : California Regional Water Quality Control Board, 1995. *Water Quality Control Plan, San Francisco Bay Region (Region 2)*, June 21.

3.0 SUPPLEMENTAL SITE INVESTIGATION

Before beginning the field activities the proposed boring locations were marked and Underground Service Alert was contacted. ETIC subcontracted Subdynamic of San Jose, California, a private subsurface utility locator, to survey the proposed boring locations for subsurface utilities. Boring locations are shown on Figure 2. A Drilling permit was obtained from the Alameda County Department of Public Works and an encroachment permit for the field work on Bay Place was obtained from the City of Oakland Public Works Department. The borings were first cleared by hand-augering and probing up to 5 bgs prior to drilling.

The supplemental site investigation consisted of the following activities:

- Four hand auger borings (UB1-UB4) were advanced adjacent to utility trenches on Bay Place to collect groundwater grab samples.
- Nine borings (GP1 through GP7 and step-out borings GP2A and GP4A) were advanced within the Cox Cadillac building footprint and two borings GP8 and GP9 were advanced outside in the vicinity of monitoring MW1 to collect depth discrete soil and groundwater grab samples.
- Soil samples were collected from the dual tube borings and hand-augured borings.
- Groundwater grab samples were collected from select borings.
- Selected soil and groundwater grab samples were analyzed for TPH-g, BTEX, MTBE, t-Butanol (TBA), di-isopropyl ether (DIPE), ethyl t-butyl ether (ETBE), t-amyl methyl ether (TAME); ethylene dibromide (EDB) and 1, 2-dichloroethane (1, 2-DCA).

3.1 Offsite Investigation-Bay Place Utility Trenches

3.1.1 Hand Augered Soil Borings

On 10 October 2003, ETIC advanced four offsite borings adjacent to storm drain utility trenches along Bay Place to collect offsite groundwater grab samples. The purpose of this investigation was to evaluate the offsite extent of the hydrocarbon groundwater plume and to evaluate if the utility trenches were serving as preferential migration pathways. The borings were advanced by hand augering to a maximum depth of 10 feet bgs or first encountered groundwater. Upon completion, each boring was backfilled with a cement grout.

Groundwater was expected to be shallow (3 to 5 feet bgs) based on previous investigations; however, boring UB4 was advanced to a depth of approximately 10 feet bgs and no groundwater was encountered. The boring was terminated due to the limitation of the hand-augering equipment. No soil or groundwater sample was collected from this boring.

Boring UB3 was terminated at a depth of 5 feet bgs because an obstruction was encountered during the hand augering. The depth to groundwater could not be achieved; therefore, a soil sample was

collected from the hand auger and was put into a stainless steel tube and submitted to Severn Trent Laboratories, Ltd (STL) of Pleasanton, California, a California certified laboratory, for chemical analysis.

Borings UB1 and UB2 were completed to 10 feet bgs and groundwater grab samples were collected.

3.1.3 Groundwater Grab Samples

Groundwater grab samples were collected from UB1 and UB2 at depths of approximately 10 feet bgs using a factory cleaned disposable bailer. The samples were placed into preserved 40-ml volatile organic analysis (VOA) vials and submitted to STL for analysis. Groundwater sample collection protocols are described in Appendix A.

3.2 Onsite Investigation-Cox Cadillac Building and Monitoring Well MW1

3.2.1 Drilling of Soil Borings

Between 25 and 26 November 2003, soil borings GP1 through GP6, and step-out borings GP2A and GP4A were advanced by Vironex Environmental of San Leandro, California (C57 License #705327), using a limited-access Geoprobe single tube and a Geoprobe 6610 Dual Tube (DT) tract rig. The borings were advanced using hydraulic push method and were completed to depths ranging from 4 to 15 feet bgs. The borings were located inside the south end of the Cox Cadillac building, adjacent to the former gasoline UST and associated piping, to evaluate if hydrocarbons had impacted the soil and groundwater beneath the building.

At borings GP3, GP4 and step-out boring GP4A hand-augering could not clear beyond 2.5 feet bgs. The obstruction was identified as concrete pieces or a buried concrete slab. Subsequent attempts to penetrate beyond this depth using the concrete corer and limited access drill rig were unsuccessful and the borings were terminated.

The borings were logged to the total depth and selected soil samples were collected from each boring for laboratory analysis. Soil boring and sampling protocols are summarized in Appendix A.

3.2.2 Soil Sample Collection

Soil samples were collected in four of the soil borings at shallow depths (3 to 4 feet bgs) and in a couple of select borings (GP2 and GP6) a second soil sample was collected at depth (approximately 10 to 15 feet bgs). The soil samples were collected in polyethylene terephthalate glycol liners, examined for soil characteristics, and screened in the field with an organic vapor analyzer (OVA) to determine the relative hydrocarbon content. Lithologic description and OVA measurements are shown on the soil boring logs presented in Appendix B. Selected soil samples for chemical analysis

were sealed with Teflon tape, capped, labeled, and placed in a cooler filled with ice and submitted to the onsite mobile laboratory or STL for analysis.

A black, sticky tar-like substance was identified at a depth of approximately 2.5 to 3.0 ft bgs in boring GP2A. The tar-like substance had a strong odor (OVA reading of 148 part per million [ppm]) and was approximately one-half foot thick. No sample of the tar-like substance was collected, however, a soil sample was collected immediately below the tar-like substance (3.5 to 4.0 feet bgs) and was analyzed for TPH-g, BTEX, MTBE, TAME, TBA, DIPE, and ETBE. The results are presented in Section 4.

Upon removal of sampling equipment, each boring was grouted with a cement grout containing less than 5 percent pure sodium bentonite.

3.2.3 Groundwater Grab Sampling

Borings GP7 through GP9 were proposed as hydropunch borings designed to evaluate the quality of the groundwater in the vicinity of monitoring well MW1. Due to the composition of the fill material, concrete pieces and buried concrete slabs in some locations, it was not feasible to advance the hydropunch unit. An attempt to drive the hydropunch unit at boring GP9 resulted in damaging the tip and the unit had to be retracted. In addition, groundwater was very slow to recharge into each bore hole; therefore, temporary well points were installed to facilitate groundwater grab sample collection.

Groundwater grab samples were collected using factory cleaned tubing with a check valve. The tube was manually stimulated to collect the groundwater samples. The samples were put into 40-ml VOA vials, labeled, and placed in a cooler filled with ice. Groundwater sample collection protocols are described in Appendix A.

4.0 SUPPLEMENTAL INVESTIGATION RESULTS

Soil and groundwater analytical results from the supplemental site investigation are summarized in Tables 1 and 2 and are shown on figures 4 through 7. Copies of the STL analytical reports and chain-of-custody documentation are provided in Appendix C. A discussion of the analytical results is provided below.

4.1 Offsite Soil and Groundwater Sample Results

4.1.1 Soil Sample

The soil sample collected from boringUB3 at a depth of 5 feet bgs was analyzed for TPH-g by modified EPA Method 8015, and for BTEX, MTBE, TBA, DIPE, ETBE, TAME, EDB, and 1,2-DCA by EPA Method 8260B by STL.

- Benzene and ethylbenzene were detected at 0.0093 milligram per kilogram (mg/kg) and 0.0092 mg/kg, respectively.
- No other analytes were detected at or above laboratory reporting limits.

4.1.2 Groundwater Samples

Two groundwater grab samples were collected for laboratory analysis from boring UB1 and UB2. The groundwater grab samples were submitted STL and analyzed for TPH-g by modified EPA Method 8015, and for BTEX, MTBE, TBA, DIPE, ETBE, TAME, EDB, and 1,2-DCA by EPA Method 8260B.

- TPH-g and MTBE were detected in boring UB2 at concentrations of 14,000 µg/L and 37 µg/L, respectively.
- Toluene, total xylenes, and MTBE were detected in boring UB1 at concentrations of 1.5 µg/L, 2.0 µg/L, and 0.84 µg/L, respectively.
- No other analytes were detected above laboratory detection limits.

4.2 Onsite Soil and Groundwater Sampling Results

4.2.1 Soil Sampling Results

Selected soil samples were collected for laboratory analysis from borings GP1, GP2, GP2A GP5, and GP6. Soil samples collected from borings GP1 and GP2 were analyzed onsite by TEG mobile laboratory, of Rancho Cordova, California. The samples were analyzed for TPH-g by modified EPA Method 8015, and for BTEX, MTBE, TBA, DIPE, ETBE, and TAME by EPA Method 8260B. The soil samples from borings GP2A, GP5, and GP6 were submitted to STL and analyzed for TPH-g, BTEX, MTBE, TBA, DIPE, ETBE, TAME, EDB, and 1,2-DCA by EPA Method 8260B.

- Maximum TPH-g concentrations were detected in boring GP2 (4 feet bgs) and GP2A (3.5 to 4 feet bgs) at 810 mg/kg and 430 mg/kg, respectively. A deeper soil sample in boring GP2 (10 feet bgs) contained TPH-g at 110 mg/kg.
- Maximum BTEX concentrations include; benzene at 33 mg/kg in boring GP2A (3.5-4 feet bgs), toluene at 32 mg/kg in GP2 (10-10.3 feet bgs), ethylbenzene at 23 mg/kg in GP2 (3.5-4 feet bgs), and total xylenes at 79 mg/kg in GP2 (3.5-4 feet bgs).
- MTBE was detected at a maximum concentration of 3.0 mg/kg in boring GP1 (9.5-10 feet bgs).
- 1,2-DCA was detected in one sample at a concentration of 0.025 mg/kg in boring GP6 (14.5-15 feet bgs).
- No other analytes were detected above laboratory detection limits.

4.2.2 Groundwater Sampling Results

A total of six groundwater grab samples were collected from borings GP1, GP2A, and GP6-GP9. The groundwater grab sample from boring GP1 was submitted to the TEG mobile laboratory and was analyzed for TPH-g by modified EPA Method 8015, and for BTEX, MTBE, TBA, DIPE, ETBE, and TAME by EPA Method 8260B. The other groundwater grab samples were submitted to STL and analyzed for TPH-g, BTEX, MTBE, and for TBA, DIPE, ETBE, TAME, EDB, and 1,2-DCA by EPA Method 8260B.

- TPH-g was detected at concentrations of 7,500 µg/L, 32,000 µg/L, and 67,000 µg/L in borings GP1, GP2A, and GP6, respectively.
- Maximum BTEX concentrations were detected in boring GP6, these included benzene at 9,500 µg/L, toluene at 5,700 µg/L, ethylbenzene at 1,800 µg/L, and total xylenes at 6,100 µg/L.
- MTBE was detected in two samples at concentrations of 7,300 µg/L (GP2A) and 5,600 µg/L (GP1).
- 1,2-DCA was detected in two samples at concentrations of 180 µg/L (GP6) and 0.73 µg/L (GP7).
- EDB was detected in one sample at a concentration of 150 µg/L (GP6).
- No other analytes were detected above laboratory detection limits.

5.0 SUMMARY AND CONCLUSIONS

The data collected in the Bay Place utility trench investigation suggests groundwater is encountered at depths of 10 feet or deeper and as such is likely below the depth of the utility trench backfill. The analytical results from the groundwater samples suggest that the downgradient edge of the hydrocarbon and MTBE plume extends offsite toward the edge of the sidewalk on Bay Place, but does not extend far beneath Bay Place.

The soil investigation northwest of the UST and associated piping excavation suggests that locally, residual soil contamination from the UST release is present beneath the building footprint. The results of the groundwater investigation beneath the Cox building indicates that the hydrocarbon and MTBE plume extends beneath the building towards the north and northwest.

The groundwater investigation in the vicinity of well MW1 indicated that no petroleum hydrocarbons or its constituents were detected upgradient of well MW1.

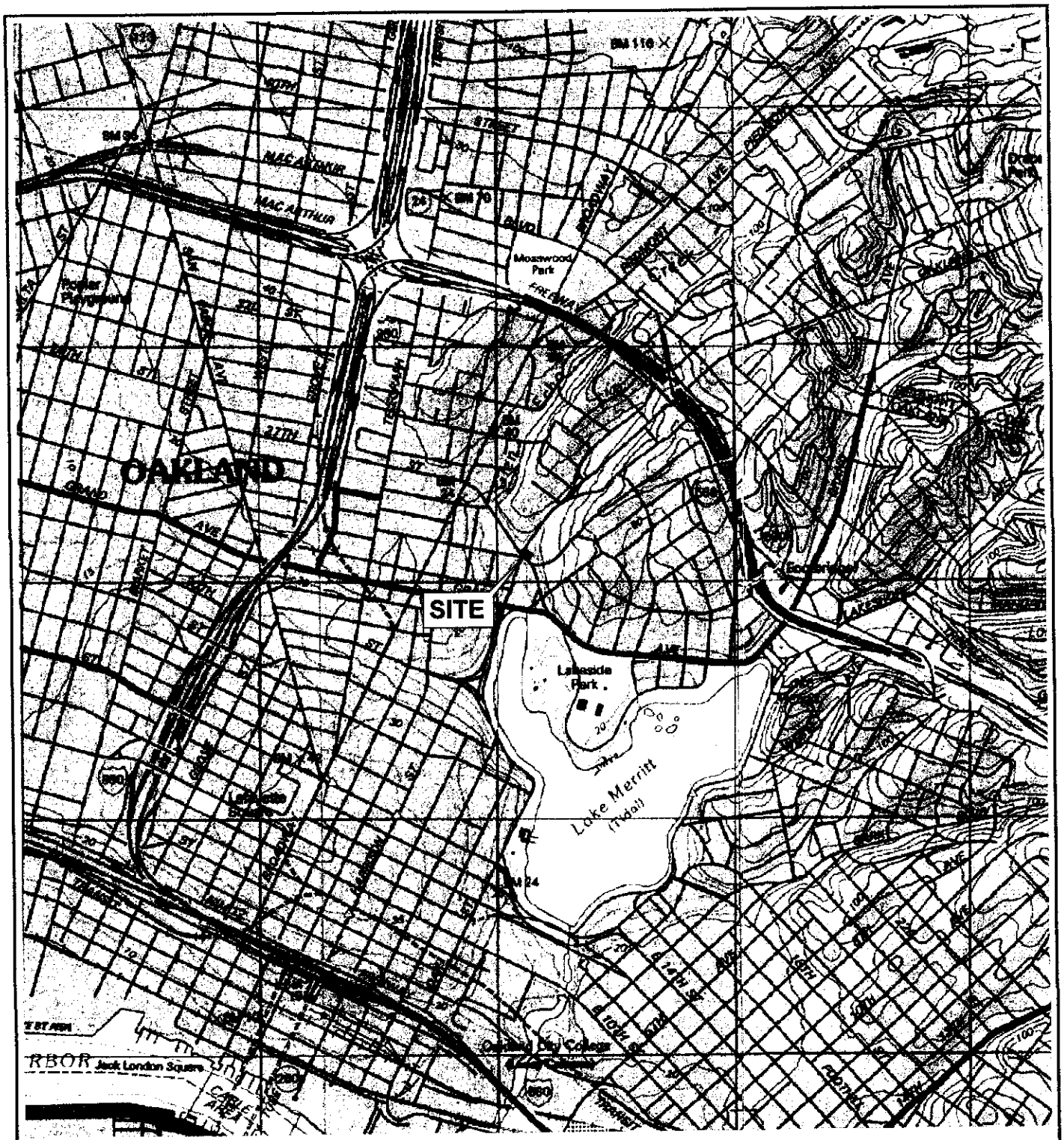
Figures 5, 6, and 7 illustrate the distribution of three principal contaminants beneath the site; TPH-g, benzene and MTBE, respectively. These maps were constructed using the data collected in this supplemental investigation together with analytical data from the October 2003 groundwater monitoring event. To summarize:

- The TPH-g plume map (Figure 5) shows the highest concentrations located in the vicinity of the fuel dispenser and product lines and disperses downgradient towards well MW2. Boring UB1 in the middle of Bay Place did not detect TPH-g.
- The benzene plume map (Figure 6) shows the highest concentrations in the area of the fuel dispenser and former gasoline UST and disperses downgradient in the direction of well MW2. Benzene was not detected in Boring UB1 in the middle of Bay Place.
- The MTBE plume map (Figure 7) shows the highest concentrations located toward the downgradient edge of the plume (boring GP1 and well MW2). Boring UB1 detected MTBE just above the method detection limit.

6.0 RECOMMENDATIONS

Based on the results of the supplemental site investigation presented in this report, it is recommended that an evaluation of potential remedial alternatives be performed to reduce the hydrocarbon mass near the former gasoline UST and at the downgradient edge of the hydrocarbon and MTBE plume. Following selection of the appropriate remedial alternative a Corrective Action Plan should be prepared in order to outline implementation of the selected remedial technology and groundwater monitoring at the Site, and to define risk-based cleanup objectives.

Figures



Map Source: USGS Topography Map

N

0 2,000

Approx. Scale (feet)

FILENAME: SITEPLAN1203.DWG 01/16/03

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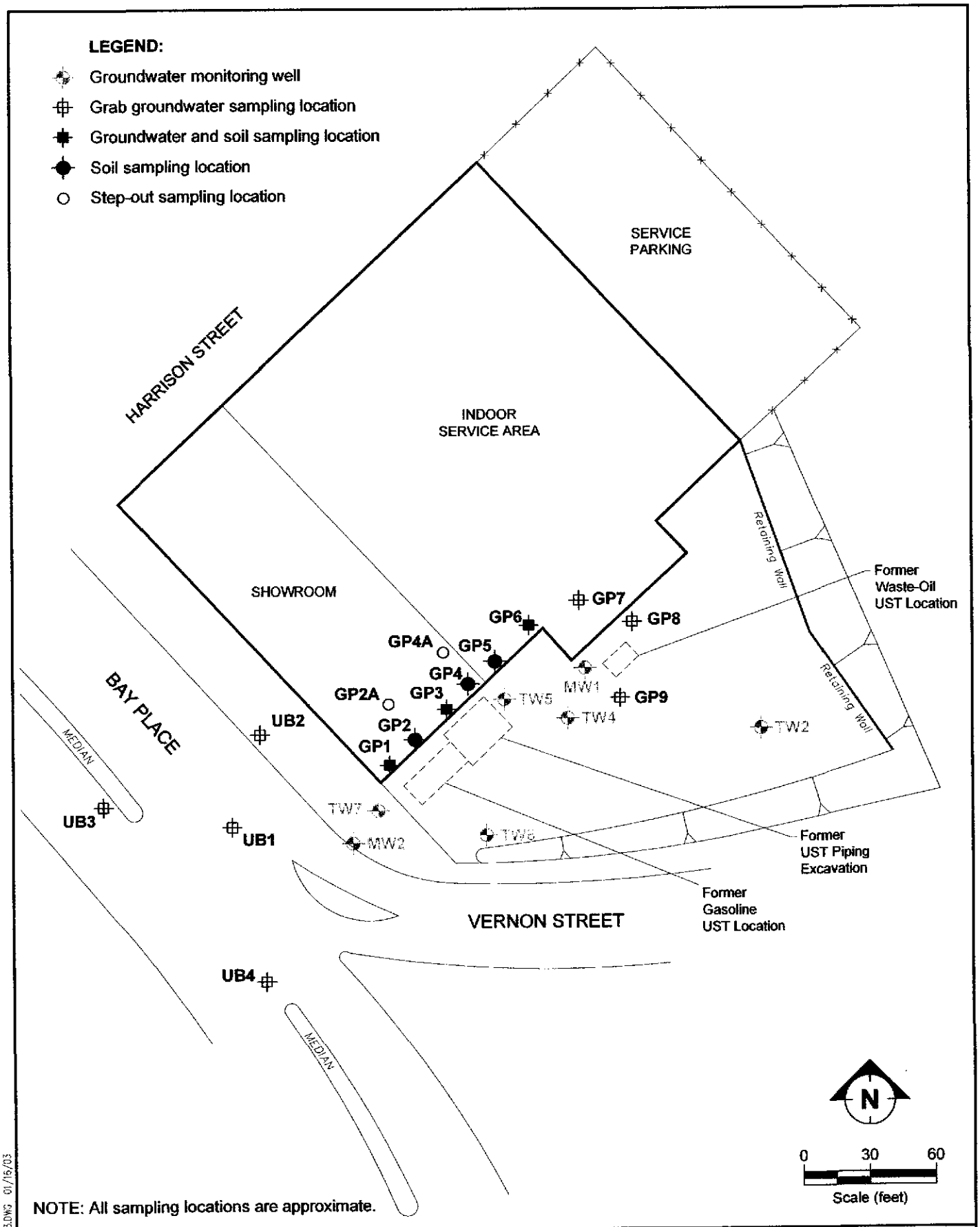
SITE VICINITY MAP
FORMER COX CADILLAC
230 BAY PLACE
OAKLAND, CALIFORNIA

FIGURE: 1



FILENAME: SITEPLAN1203.DWG 01/15/03

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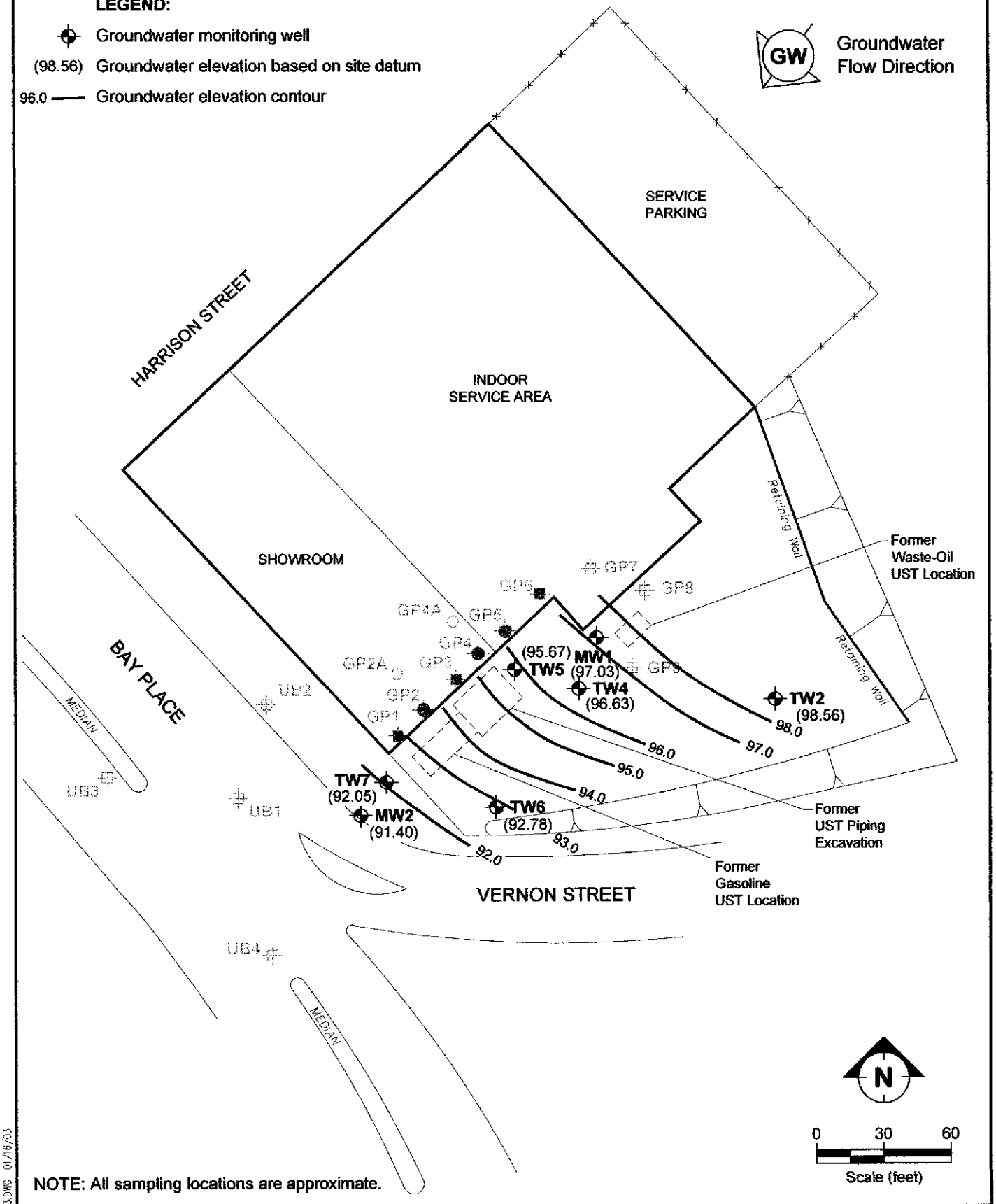
SITE PLAN SHOWING SAMPLING LOCATIONS
SUPPLEMENTAL SITE INVESTIGATION
FORMER COX CADILLAC
230 BAY PLACE, OAKLAND, CALIFORNIA

FIGURE: 2



FILENAME: SITEPLAN1203.DWG 01/16/03

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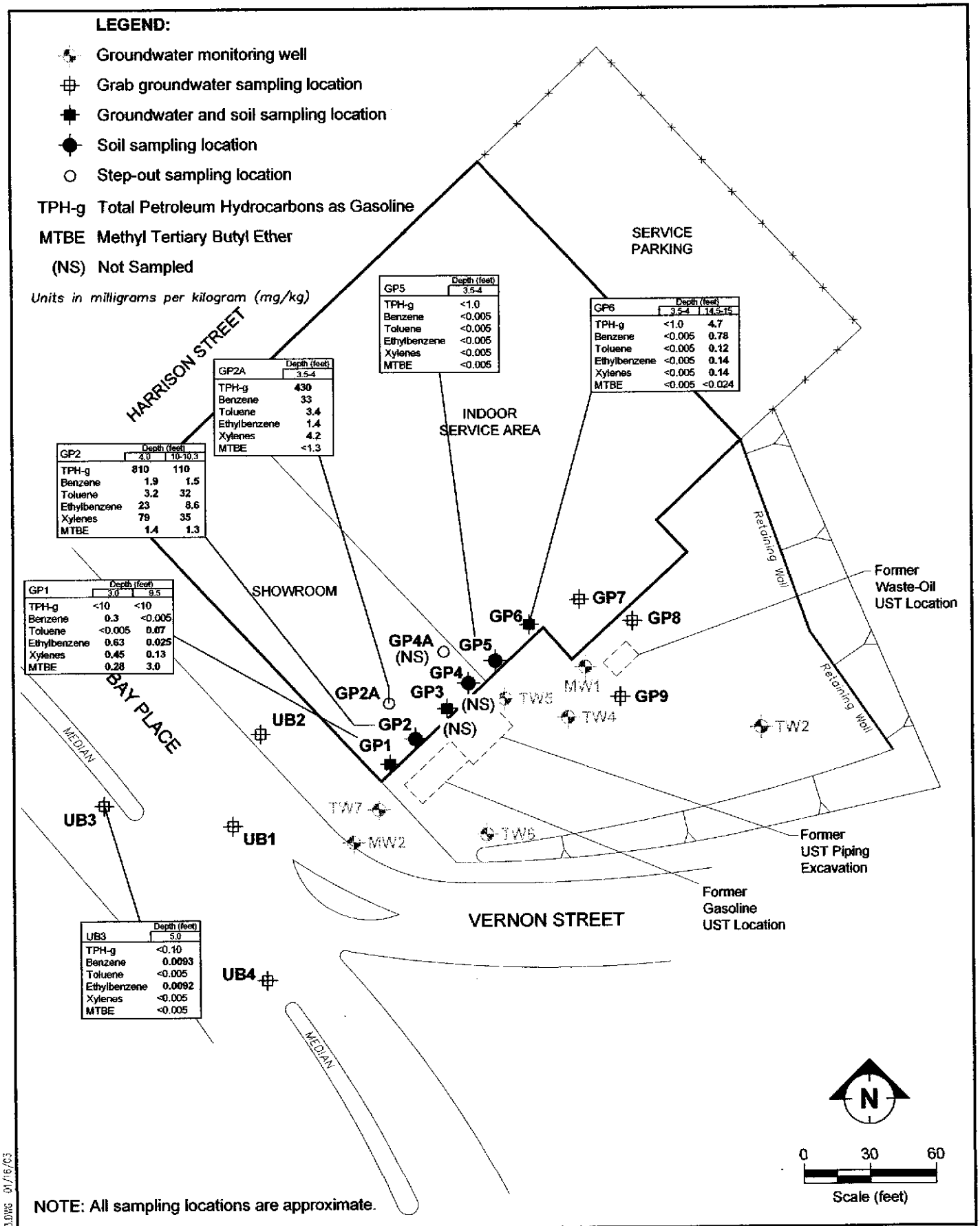
SITE PLAN SHOWING GROUNDWATER ELEVATION DATA
SUPPLEMENTAL SITE INVESTIGATION
FORMER COX CADILLAC
230 BAY PLACE, OAKLAND, CALIFORNIA, 22 OCTOBER 2003

FIGURE: 3



NOTE: All sampling locations are approximate.

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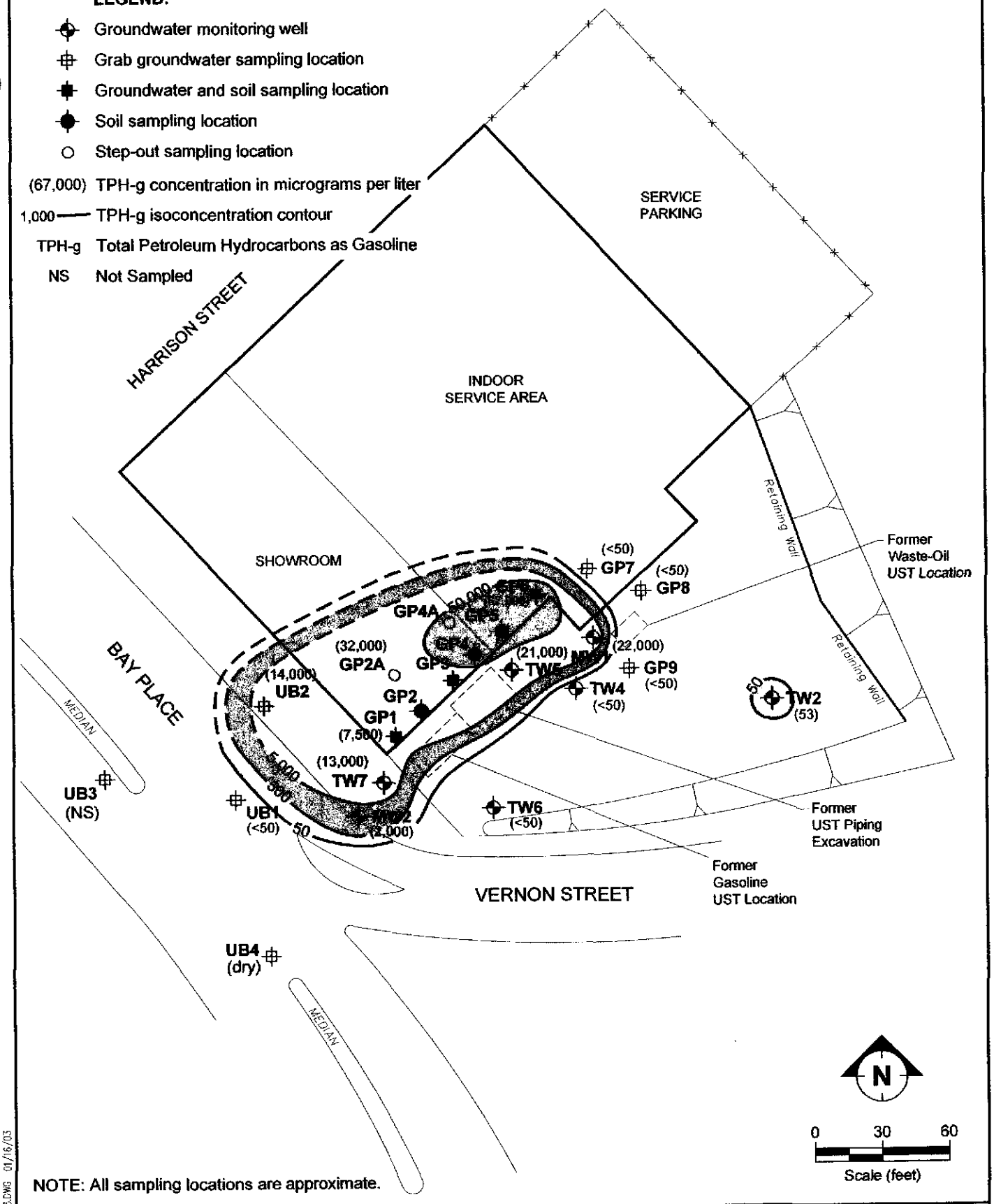
SITE PLAN SHOWING SOIL SAMPLING RESULTS
SUPPLEMENTAL SITE INVESTIGATION
FORMER COX CADILLAC
230 BAY PLACE, OAKLAND, CALIFORNIA

FIGURE: 4

FILENAME: SITEPLAN1203.DWG 01/16/03



NOTE: All sampling locations are approximate.

FILENAME: SITEPLAN1203.DWG 01/16/03

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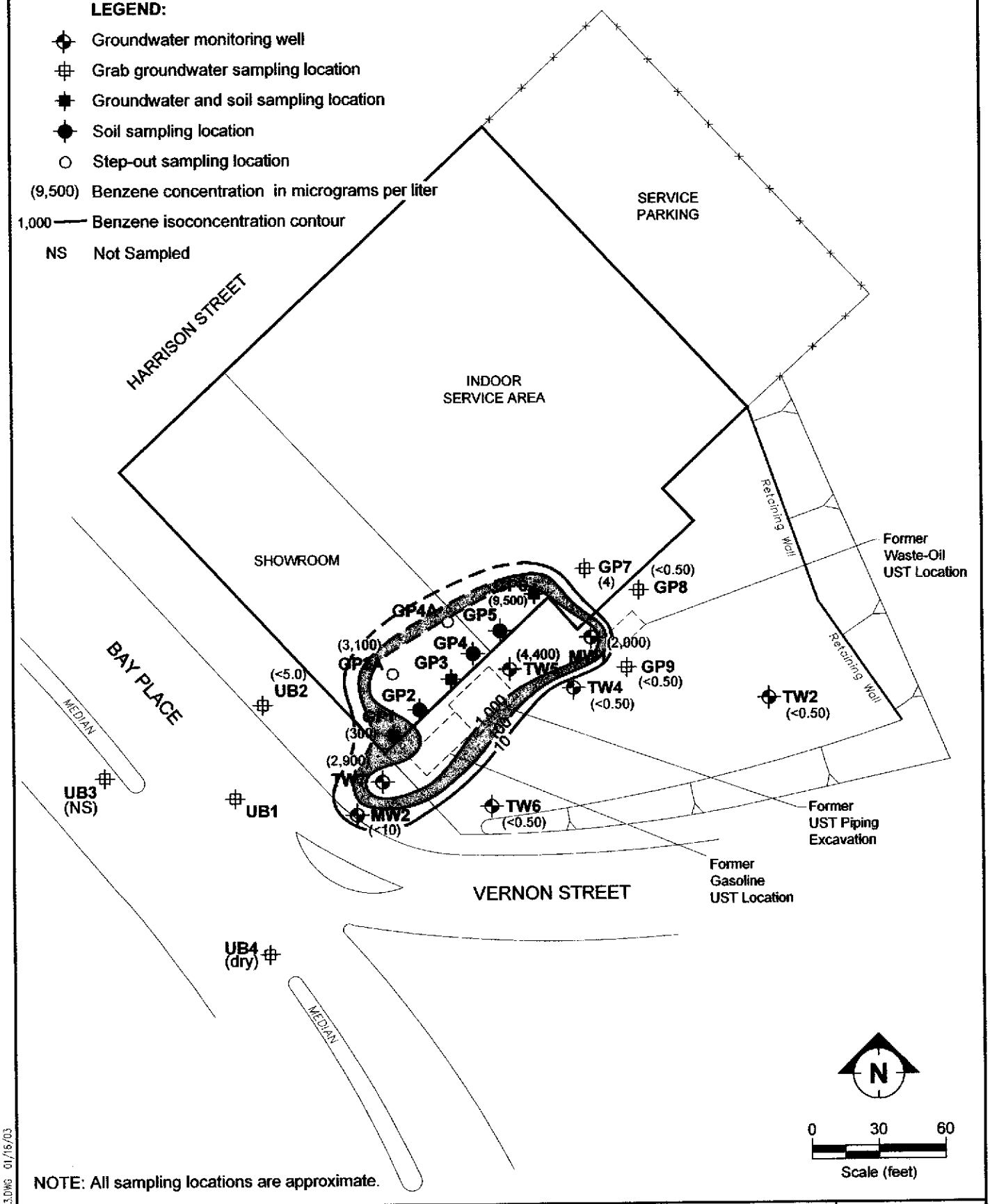
SITE PLAN SHOWING TPH-g CONCENTRATION CONTOURS
SUPPLEMENTAL SITE INVESTIGATION
FORMER COX CADILLAC
230 BAY PLACE, OAKLAND, CALIFORNIA

FIGURE: 5



NOTE: All sampling locations are approximate.

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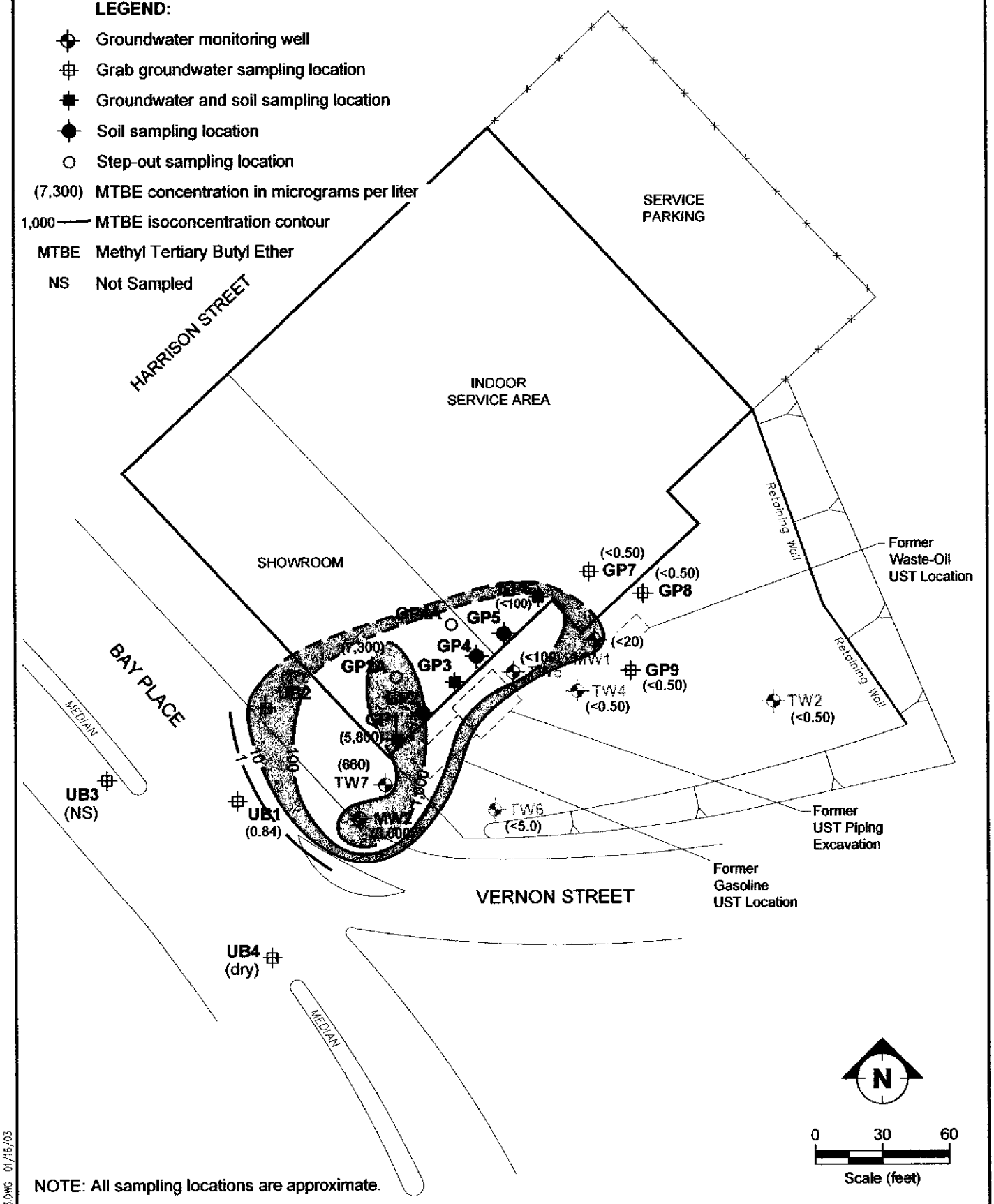
SITE PLAN SHOWING BENZENE CONCENTRATION CONTOURS
SUPPLEMENTAL SITE INVESTIGATION
FORMER COX CADILLAC
230 BAY PLACE, OAKLAND, CALIFORNIA

FIGURE: 6

FILENAME: SITEPLAN1203.DWG 01/16/03



NOTE: All sampling locations are approximate.

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SITE PLAN SHOWING MTBE CONCENTRATION CONTOURS
SUPPLEMENTAL SITE INVESTIGATION
FORMER COX CADILLAC
230 BAY PLACE, OAKLAND, CALIFORNIA

FIGURE: 7

FILENAME: SITEPLAN1203.DWG 01/16/03

Tables

Table 1
Soil Analytical Data
Former Cox Cadillac Site
230 Bay Place
Oakland, California

Well Number	Sample Date	Sample Depth (feet)	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE
GP1	11/25/2003	3.5	<10	**0.30**	<0.005	**0.55**	**0.43**	**0.28**	NA	NA	<0.005	<0.005	<0.005	<0.005
GP1 (Dup)	11/25/2003	3.5	<10	**0.31**	<0.005	**0.63**	**0.45**	**0.23**	NA	NA	<0.005	<0.005	<0.005	<0.005
GP1	11/25/2003	9.5	<10	**0.016**	**0.065**	**0.018**	**0.091**	**3.0***	NA	NA	<0.005	<0.005	<0.005	<0.005
GP2	11/25/2003	4.0	**810**	**1.9**	**3.2**	**23**	**79***	**1.4**	NA	NA	<0.005	<0.005	**0.53**	<0.005
GP2	11/25/2003	10-10.3	**110**	**1.5**	**32**	**8.6**	**35**	**1.3**	NA	NA	<0.005	<0.005	<0.005	<0.005
GP2A	11/26/2003	3.5-4	**430**	**33**	**3.4**	**1.4**	**4.2**	<1.3	<1.3	<1.3	<1.3	<6.3	<2.5	<1.3
GP5	11/26/2003	3.5-4	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005
GP6	11/26/2003	3.5-4	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.005
GP6	11/26/2003	14.5-15	**4.7**	**0.78**	**0.12**	**0.14**	**0.14**	<0.024	**0.025**	<0.024	<0.024	<0.047	<0.047	<0.024
UB3	10/10/2003	5.0	<0.10	**0.0093**	<0.005	**0.0092**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.50

Notes:

TPHg - Total Petroleum Hydrocarbons as gasoline
MTBE - Methyl tert-butyl ether
DCA - Dichloroethane
EDB - Ethylene dibromide
TAME - Tert-amyl methyl ether
TBA - Tert-butyl alcohol
DIPE - Di-isopropyl ether
ETBE - Ethyl tert-butyl ether
mg/kg = Milligrams per kilograms.
< = Not detected at or above indicated laboratory reporting limit.
NA= Not Analyzed

*-indicates 5:1 dilution factor for this compound

Table 2
Grab Groundwater Analytical Data
Former Cox Cadillac Site
230 Bay Place
Oakland, CA

Sample Number	Sample Date	Sample Depth (feet)	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	Ethanol
GP1	11/25/2003	10	**7,500**	**300**	**470**	<1.0	**420**	**5,800**	NA	NA	<1.0	<10	<1.0	<1.0	NA
GP2A	11/26/2003	10	**32,000**	**3,100**	**84**	**1,300**	<100	**7,300**	<50	<50	<50	<500	<100	<50	NA
GP6	11/26/2003	15	**67,000**	**9,500**	**5,700**	**1,800**	**6,100**	<100	**180**	**150**	<100	<1,000	<200	<100	NA
GP7	11/26/2003	13	<50	**4.0**	**0.70**	<0.50	<0.50	<0.50	**0.73**	<0.50	<0.50	<5.0	<1.0	<0.50	NA
GP8	11/26/2003	15	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	NA
GP9	11/26/2003	14	<50	<0.50	**0.55**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	NA
UB1	10/10/2003	10	<50	<0.50	**1.5**	<0.50	**2.0**	**0.84**	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	<25
UB2	10/10/2003	10	**14,000**	<5.0	<5.0	<5.0	<5.0	**37**	<5.0	<5.0	<5.0	<50	<10	<5.0	<250

Notes:

Bold denotes detection above laboratory detection limit.
All analtyical values reported in micrograms per liter.
TPHg - Total Petroleum Hydrocarbons as gasoline
MTBE - Methyl tert-butyl ether
DCA - Dichloroethane
EDB - Ethylene dibromide
TAME - Tert-amyl methyl ether
TBA - Tert-butyl alcohol
DIPE - Di-isopropyl ether
ETBE - Ethyl tert-butyl ether
< = Not detected at or above indicated laboratory reporting limit.
NA = Not Analyzed

Appendix A

Field Protocols

PROTOCOLS FOR INSTALLATION, SAMPLING, AND ABANDONMENT OF SINGLE TUBE DIRECT PUSH BORINGS

SINGLE TUBE SOIL CORING PROCEDURES

All boreholes are marked for Underground Service Alert (USA) personnel, and USA is contacted at least 48 hours prior to drilling. A licensed utility line locator is subcontracted by ETIC to clear the marked boring location for drilling.

Soil samples are collected for lithologic and chemical analysis using a direct driven single tube soil coring system. A hydraulic hammer drives sampling rods into the ground to collect continuous or discrete soil cores. As the rods are advanced, soil is driven into an approximately 1.5-inch-diameter sample barrel that is attached to the end of the rods. Soil samples are collected in sleeves inside the sample barrel as the rods are advanced. After being driven 2 to 4 feet (depending on the sample interval and the length of the sample barrel), the rods are removed from the borehole. The sleeves containing the soil samples are removed from the sample barrel, and can then be preserved for chemical analyses or used for lithologic identification. Samples to be preserved for chemical analyses are sealed with Teflon tape and caps, and placed in a cooler with ice. The soil is scanned with a flame ionization detector or a photo-ionization detector. After adding new sleeves, the drive sampler and rods are then lowered back into the borehole to the previous depth and the process is repeated until the desired depth is reached.

All drive casing, sample barrels, rods, and tools are cleaned with Alconox or equivalent detergent and deionized water. All soil is contained in drums or stockpiles for later disposal.

GROUNDWATER SAMPLING PROCEDURES

After the targeted water-bearing zone has been penetrated, the sample barrel is removed to allow groundwater to flow into the borehole. Small-diameter well casing with 0.010-inch slotted well screen or equivalent may be installed in the borehole to facilitate the collection of groundwater samples. Groundwater samples may then be collected with a bailer, peristaltic pump, bladder pump or inertial pump until adequate sample volume is obtained.

Groundwater samples are preserved, stored in an ice-filled cooler, and are delivered, under chain-of-custody, to a laboratory certified by the California Department of Health Services (DHS) for hazardous materials analysis.

BOREHOLE GROUTING

On completion of sampling, each borehole is abandoned with a cement grout containing less than 5 percent pure sodium bentonite. The grout is allowed to free-fall in the boring or pumped through a grouting tube positioned at the bottom of the borehole depending on the subsurface conditions and/or the requirements of the local oversight agency. Sealed boreholes are completed at the surface to match the surrounding conditions.

Appendix B

Soil Boring Logs

ETIC
Engineering, Inc.

LOG OF SOIL BORING: **GP1**

COORDINATES:
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Vironex
LICENSE NUMBER: 705327

CLIENT	SITE NUMBER	LOCATION
Hanson-Bridgett	TMCOX	230 Bay Place Oakland, CA

DRILLING AND SAMPLING METHODS: Hand auger to 4 feet bgs. Geoprobe Badger.

				START	FINISH
WATER LEVEL					
TIME				TIME 0841	TIME 1041
DATE				DATE 11/25/03	DATE 11/25/03
REFERENCE					

SURFACE CONDITIONS: Concrete 6".

DESCRIPTION BY: K. Brandt

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)
				0
				1
				2
				3
24	12	-	23.3	4
		-		5
		-		6
24	24	-		7
		-		8
24	24	-	15.1	9
		-		10
			47.2	11
				12
				13
				14
				15
				16
				17
				18
				19
				20

AIR SAMPLE | WATER SAMPLE | SOIL SAMPLE | RECOVERED | GRAPHIC LOG

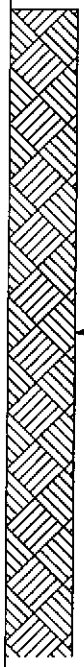
PAVERS: (2").
CONCRETE: (3").

SILTY CLAY: light olive brown (2.5Y 5/4), firm, medium plasticity, damp.

SILTY CLAY: yellowish brown (10YR 5/6), firm, minor medium sand, damp.

COLOR CHANGE: dark gray (10YR 4/1), SANDY CLAY.
CLAYEY SAND: yellowish brown (10YR 5/6), dense, low plasticity, rare gravel, fine to very fine sand, damp to moist.
CLAY: dark yellowish brown (10YR 3/6), firm, medium plasticity, minor gravel up to 1", damp to moist.
SANDY CLAYEY GRAVEL: dark yellowish brown (10YR 3/6), low plastic fines, medium sand, gravel up to 2", damp to moist.
Boring terminated at 10 feet bgs.

DETAILS



LOG OF SOIL BORING TMCOX.GPJ ETIC.GDT 12/17/03

ETIC
Engineering, Inc.

LOG OF SOIL BORING: **GP2**

COORDINATES:
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Vironex
LICENSE NUMBER: 705327

CLIENT	SITE NUMBER	LOCATION
Hanson-Bridgett	TMCOX	230 Bay Place Oakland, CA

DRILLING AND SAMPLING METHODS: Hand auger to 4 feet bgs. Geoprobe Badger.

				START	FINISH
WATER LEVEL					
TIME				TIME 0900	TIME 1107
DATE				DATE 11/25/03	DATE 11/25/03
REFERENCE					

SURFACE CONDITIONS: Concrete 6".

DESCRIPTION BY: K. Brandt

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION
				0		PAVERS (2"). CONCRETE (4"). SANDY GRAVEL: bits of red bricks and concrete, fine sand, gravel, non-plastic fines, dry.
				1		
				2		
				3		
24	24	-	580	4		CLAY SILTY SAND: olive (5Y 4/3), fine to medium sand, fine gravel, low plastic fines, damp.
		-		5		
		-		6		
36	36	-		7		SILTY SAND: dark yellowish brown (10YR 3/6), fine gravel, low plastic fines, white medium to coarse sand, damp.
		-	419			
		-		8		CLAY: yellowish brown (10YR 5/6), firm to hard, low to medium plasticity.
				9		
36	36	-				
		-		10		Becomes soft, wet, increase in fine to medium sand and gravel up to 1/4". SILTY CLAY: yellowish brown (10YR 5/6), hard, low to medium plasticity, rare very fine to fine sand, moist.
		-		11		
			907			
				12		Boring terminated at 12 feet bgs.
				13		
				14		
				15		
				16		
				17		
				18		
				19		
				20		

DETAILS

Cement Grout 0 to 12 feet bgs.

LOG OF SOIL BORING TMCOX.GPJ ETIC.GDT 12/17/03

ETIC
Engineering, Inc.

LOG OF SOIL BORING: **GP2A**

COORDINATES:
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Vironex
LICENSE NUMBER: 705327

CLIENT	SITE NUMBER	LOCATION
Hanson-Bridgett	TMCOX	230 Bay Place Oakland, CA

DRILLING AND SAMPLING METHODS: Hand auger to 4 feet bgs. Macro core with 6610DT Tract Rig.

				START	FINISH
WATER LEVEL					
TIME				TIME 1520	TIME 1640
DATE				DATE 11/26/03	DATE 11/26/03
REFERENCE					

SURFACE CONDITIONS: Concrete 6".

DESCRIPTION BY: K. Brandt

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)
				0
				1
				2
			148	3
				4
60	60	-		5
		-		6
		-		7
				8
12	12	-		9
		-		10
		-		11
				12
				13
				14
				15
				16
				17
				18
				19
				20

AIR SAMPLE | WATER SAMPLE | SOIL SAMPLE | RECOVERED | GRAPHIC LOG

PAVERS (2").
CONCRETE (6").
GRAVEL FILL: bricks, angular gravel up to 6", fine sand, non-plastic fines, dry.

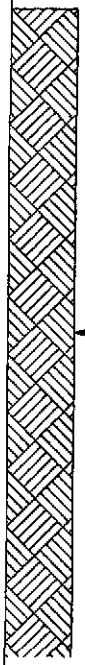
SILT: black (2.5Y 2.5/1), sticky, plastic due to "tar" like substance, damp.

SANDY SILT: olive (5Y 5/4), soft, low plasticity, very fine to fine sand, damp.

CLAYEY SILT/SILTY CLAY: dark brown (2.5Y 4/3), soft to firm, low plasticity, damp.

Boring terminated at 10 feet bgs.

DETAILS



← Cement Grout 0 to 10 feet bgs.

LOG OF SOIL BORING TMCOX.GPJ ETIC.GDT 12/17/03

ETIC
Engineering, Inc.

LOG OF SOIL BORING: **GP5**

COORDINATES:
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Vironex
LICENSE NUMBER: 705327

CLIENT	SITE NUMBER	LOCATION
Hanson-Bridgett	TMCOX	230 Bay Place Oakland, CA

DRILLING AND SAMPLING METHODS: Hand auger to 4 feet bgs. Macro core with 6610DT Tract Rig.

				START	FINISH
WATER LEVEL	▽ 3.5				
TIME	0900			TIME 0830	TIME 0900
DATE	11/26/03			DATE 11/26/03	DATE 11/26/03
REFERENCE	GS				

SURFACE CONDITIONS: Concrete 6".

DESCRIPTION BY: K. Brandt

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG
				0					
				1					
				2					
				3					
				4					
			0	5					
				6					
				7					
				8					
				9					
				10					
				11					
				12					
				13					
				14					
				15					
				16					
				17					
				18					
				19					
				20					

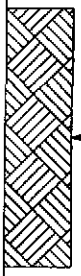
CONRETE: (6").

SILT: brownish yellow (10YR 6/6), soft, low *plasticity, minor fine sand*, dry.

GRAVEL WITH SAND ANS SILT: fine to medium sand, red brick pieces up to 2", minor clay, damp.

SILT: black (2.5Y 2.5/1), soft, non-plastic, organic, saturated.
Boring terminated at 4 feet bgs.

DETAILS



Cement Grout 0 to 4 feet bgs.

LOG OF SOIL BORING TMCOX.GPJ ETIC.GDT 12/17/03

ETIC
Engineering, Inc.

LOG OF SOIL BORING: **GP6**

COORDINATES:
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Vironex
LICENSE NUMBER: 705327

CLIENT	SITE NUMBER	LOCATION
Hanson-Bridgett	TMCOX	230 Bay Place Oakland, CA

DRILLING AND SAMPLING METHODS: Hand auger to 4 feet bgs. Macro core with 6610DT Tract Rig.

				START	FINISH
WATER LEVEL					
TIME				TIME 0916	TIME 1040
DATE				DATE 11/26/03	DATE 11/26/03
REFERENCE					

SURFACE CONDITIONS: Concrete 6".

DESCRIPTION BY: K. Brandt

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION	DETAILS
				0		CONCRETE: (6").	
				1			
				2		SILT: dark grayish brown (2.5Y 4/2), soft, low plasticity, minor gravel up to 1/2", minor very fine sand, dry.	
				3			
			0	4			
60	60	-		5			
		-		6		SILT WITH CLAY: brown (10YR 5/3), firm, low to medium plasticity, dry.	
		-		7			Cement Grout 0 to 15 feet bgs.
				8			
				9			
60	60	-		10			
		-		11			
		-		12		SILTY SAND: yellowish brown (10YR 5/6), firm/dense, minor silt, non-plastic fines, damp.	
				13			
				14			
			22	15		Boring terminated at 15 feet bgs.	
				16			
				17			
				18			
				19			
				20			

LOG OF SOIL BORING TMCOX.GPJ ETIC.GDT 12/17/03

ETIC
Engineering, Inc.

LOG OF SOIL BORING: **GP7**

COORDINATES:
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Vironex
LICENSE NUMBER: 705327

CLIENT	SITE NUMBER	LOCATION
Hanson-Bridgett	TMCOX	230 Bay Place Oakland, CA

DRILLING AND SAMPLING METHODS: Hand auger to 4 feet bgs. Macro core with 6610DT Tract Rig.

				START	FINISH
WATER LEVEL					
TIME				TIME 1050	TIME 1145
DATE				DATE 11/26/03	DATE 11/26/03
REFERENCE					

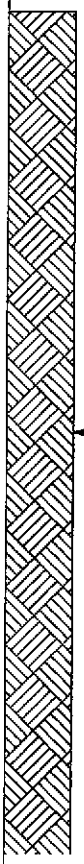
SURFACE CONDITIONS: Concrete 6".

DESCRIPTION BY: K. Brandt

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION
				0		CONCRETE (6").
				1		SILT: dark grayish brown (2.5Y 4/2), soft, low plasticity, minor gravel up to 1/2", minor very fine sand.
				2		
				3		
				4		SANDY SILT: light olive brown (2.5Y 5/4), loose, soft, low plastic fines, very fine sand, damp.
36	36	-		5		
		-		6		CLAYEY SILT: light olive brown (2.5Y 5/4), firm, low to medium plasticity, carbonate nodules, dry.
		-		7		
				8		
60	60	-		9		
		-		10		
		-		11		ORGANIC SILTY CLAY WITH SAND: yellowish brown (10YR 5/4), hard, low plasticity, dry.
				12		
			0.3	13		Boring terminated at 13 feet bgs.
				14		
				15		
				16		
				17		
				18		
				19		
				20		

AIR SAMPLE | WATER SAMPLE | SOIL SAMPLE | RECOVERED

DETAILS



Cement Grout 0 to 13 feet bgs.

LOG OF SOIL BORING TMCOX.GPJ ETIC.GDT 12/17/03

ETIC
Engineering, Inc.

LOG OF SOIL BORING: **GP8**

COORDINATES:
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Vironex
LICENSE NUMBER: 705327

CLIENT	SITE NUMBER	LOCATION
Hanson-Bridgett	TMCOX	230 Bay Place Oakland, CA

DRILLING AND SAMPLING METHODS: Hand auger to 4 feet bgs. Macro core with 6610DT Tract Rig.

				START	FINISH
WATER LEVEL					
TIME				TIME 1220	TIME 1300
DATE				DATE 11/26/03	DATE 11/26/03
REFERENCE					

SURFACE CONDITIONS: Asphalt.

DESCRIPTION BY: K. Brandt

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG	DESCRIPTION	DETAILS
				0						ASPHALT (2"). *SANDY SILT: light olive brown (2.5Y 5/4), soft to firm, low plasticity, very fine sand, dsmp.*	
60	60	-		5						SILTY CLAY: yellowish brown (10YR 5/4), hard, non-plastic to low plasticity, minor black very fine to fine sand, dry. Increase in silt.	Cement Grout 0 to 15 feet bgs.
60	60	-		10						MEdium plasticity, dry. Increase in silt, crumbly.	
			0.2	15						SILTY SAND: yellowish brown (10YR 5/4), soft, low plasticity, very fine to fine sand, damp to moist. Boring terminated at 15 feet bgs.	
				20							

LOG OF SOIL BORING TMCOX.GPJ ETIC.GDT 12/17/03

Appendix C

Laboratory Analytical Reports

teg

TRANSGLOBAL
ENVIRONMENTAL
GEOCHEMISTRY

19 December 2003

Ms. Kathy Brandt
ETIC Engineering
13333 Broadway, Suite 1015
Oakland, CA 94612

SUBJECT: DATA REPORT - ETIC Engineering
230 Bay Place, Oakland, California

TEG Project # 31125E

Ms. Brandt:

Please find enclosed a data report for the samples analyzed from the above referenced project for ETIC Engineering. The samples were analyzed on site in TEG's DHS certified mobile laboratory (#2012). TEG conducted a total of 12 analyses on 1 water and 4 soil samples.

-- 5 analyses on soils for BTEX and oxygenates by EPA method 8260B.

-- 5 analyses on soils for total petroleum hydrocarbons by EPA method mod8015.

-- 1 analyses on waters for BTEX and oxygenates by EPA method 8260B.

-- 1 analyses on waters for total petroleum hydrocarbons by EPA method mod8015.

The results of the analyses are summarized in the enclosed tables. Applicable detection limits and QA/QC data are included in the tables.

TEG appreciates the opportunity to have provided analytical services to ETIC Engineering on this project. If you have any further questions relating to these data or report, please do not hesitate to contact us.

Sincerely,

Mark Jerpbak
Director, TEG-Northern California

TEG Project #31125E

ETIC ENGINEERING
230 BAY PLACE - Oakland, California

BTEX, OXYGENATES (EPA method 8260B) & TPH (EPA method 8015m) Analyses of SOIL

SAMPLE NUMBER:			Blank	GP1-3.5'	GP1-3.5' dup	GP1-9.5	GP2-4	GP2-10-10.3
COLLECTION DATE:				11/25/03	11/25/03	11/25/03	11/25/03	11/25/03
ANALYSIS DATE:			11/25/03	11/25/03	11/25/03	11/25/03	11/25/03	11/25/03
DILUTION FACTOR:			1	5	5	1	100	100
		RL						
Benzene	(ug/Kg)	5.0	nd	300	310	16	1900	15000
Toluene	(ug/Kg)	5.0	nd	nd	nd	65	3200	32000
Ethylbenzene	(ug/Kg)	5.0	nd	550	630	18	23000	8600
Total Xylenes	(ug/Kg)	5.0	nd	430	450	91	79000*	35000
Tert-Butanol (TBA)	(ug/Kg)	50	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	(ug/Kg)	5.0	nd	280	230	3000* (5)	1400	1300
Diisopropyl ether (DIPE)	(ug/Kg)	5.0	nd	nd	nd	nd	530	nd
Ethyl-t-butyl ether (ETBE)	(ug/Kg)	5.0	nd	nd	nd	nd	nd	nd
Tert-amyl methyl ether (TAME)	(ug/Kg)	5.0	nd	nd	nd	nd	nd	nd
TPH-gasoline (C5-C11)	(mg/Kg)	10	nd	nd	nd	nd	810	110
Surrogate Recovery:								
DBFM			84%	85%	89%	94%	82%	81%
1,2-DCA-d4			95%	90%	91%	98%	88%	90%
Toluene-d8			85%	106%	108%	97%	108%	99%

'nd' INDICATES NOT DETECTED AT LISTED REPORTING LIMITS
'RL' INDICATES REPORTING LIMITS AT A DILUTION FACTOR = 1
'(5)' INDICATES 5:1 DILUTION FACTOR FOR THIS COMPOUND
'*' INDICATES COMPOUND BEYOND CALIBRATION RANGE

ANALYSES PERFORMED IN TEG-Northern California's DHS CERTIFIED LAB
ANALYSES PERFORMED BY: Christina Leonard
DATA REVIEWED BY: Mr. Leif Jonsson

11350 Monier Park Place, Rancho Cordova, CA 95742 Phone: (916) 853-8010 Fax: (916) 853-8020

TEG Project #31125E

ETIC ENGINEERING
230 BAY PLACE - Oakland, California

BTEX, OXYGENATES, (EPA method 8260B) & TPH (EPA method 8015m) Analyses of WATER

SAMPLE NUMBER:			Blank	GP1-10
COLLECTION DATE:			11/25/03	11/25/03
ANALYSIS DATE:			11/25/03	11/25/03
DILUTION FACTOR:			1	200
		RL		
Benzene	(ug/L)	1.0	nd	300
Toluene	(ug/L)	1.0	nd	470
Ethylbenzene	(ug/L)	1.0	nd	nd
Total Xylenes	(ug/L)	1.0	nd	420
Tert-Butanol (TBA)	(ug/L)	10	nd	nd
Methyl-t-butyl ether (MTBE)	(ug/L)	1.0	nd	5800
Diisopropyl ether (DIPE)	(ug/L)	1.0	nd	nd
Ethyl-t-butyl ether (ETBE)	(ug/L)	1.0	nd	nd
Tert-amyl methyl ether (TAME)	(ug/L)	1.0	nd	nd
TPH-gasoline (C5-C11)	(ug/L)	50	nd	7500
Surrogate Recovery:				
DBFM			106%	126%
Toluene-d8			115%	123%
1,4-BFB			99%	136%

'nd' INDICATES NOT DETECTED AT LISTED REPORTING LIMITS
'RL' INDICATES REPORTING LIMITS AT A DILUTION FACTOR = 1

ANALYSES PERFORMED IN TEG-Northern California's DHS CERTIFIED LAB
ANALYSES PERFORMED BY: Christina Leonard
DATA REVIEWED BY: Mr. Leif Jonsson

11350 Monier Park Place, Rancho Cordova, CA 95742 Phone: (916) 853-8010 Fax: (916) 853-8020

ETIC ENGINEERING
230 BAY PLACE - Oakland, California

TEG Project #31125E

QA/QC DATA - LCS / LCSD ANALYSES - SOIL

	DATE ANALYZED	MTBE ug/kg	BENZENE ug/kg	TOLUENE ug/kg	ETHYLBEN ug/kg	XYLENES ug/kg	TPH GAS mg/kg
Clean Sand							
Spiked Conc.	11/25/03	20.0	20.0	20.0	20.0	60.0	200
Measured Conc.		21.9	23.1	25.1	22.3	67.2	208
% Recovery		110%	116%	126%	112%	112%	104%
Spiked Conc.	11/25/03	20.0	20.0	20.0	20.0	60.0	200
Measured Conc.		19.5	21.7	23.2	20.3	60.5	184
% Recovery		98%	109%	116%	102%	101%	92%
RPD		11.6%	6.3%	7.9%	9.4%	10.4%	12.2%

ACCEPTABLE RPD LIMIT = 15%

ANALYSES PERFORMED IN TEG-Northern California's DHS CERTIFIED LAB

ANALYSES PERFORMED BY: Christina Leonard

QA/QC DATA - LCS / LCSD ANALYSES - WATER

	DATE ANALYZED	MTBE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYLBEN ug/l	XYLENES ug/l	TPH GAS ug/l
Spiked Conc.	11/25/03	10.0	10.0	10.0	10.0	30.0	2000
Measured Conc.		11.3	11.9	12.5	11.1	34.2	1811
% Recovery		113%	119%	125%	111%	114%	91%
Spiked Conc.	11/25/03	10.0	10.0	10.0	10.0	30.0	2000
Measured Conc.		11.6	11.5	11.9	11.1	33.9	1859
% Recovery		116%	115%	119%	111%	113%	93%
RPD		2.6%	3.4%	4.9%	0.0%	0.9%	2.6%

ACCEPTABLE RPD LIMIT = 15%

ANALYSES PERFORMED IN TEG-Northern California's DHS CERTIFIED LAB

ANALYSES PERFORMED BY: Christina Leonard

11350 Monier Park Place, Rancho Cordova, CA 95742 Phone: (916) 853-8010 Fax: (916) 853-8020

TEG Northern California Inc.

11350 Monier Park Place Ph: 916.853.8010
Rancho Cordova, CA 95742 Fax: 916.853.8020

Chain of Custody Record

Page: 1 of 1

Client: ETIC Engineering
Address: 1333 Broadway Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 cell Fax: (510) 208-1604

Project Manager: Kathy Brandt
TEG Project #: 3125E Client Project #:
Location: 230 Bay Place Oakland, California
Collector: Kathy Brandt Date of Collection: 11/25/03

Sample Designation	Depth	Time	Sample Matrix	Container Type	EPA 8021 (BTEX)	EPA 8021 (BTEX & MTBE)	EPA 8021	EPA 8010	EPA 8260B	8260B (halogenated hydrocarbons)	5 Oxygenates, BTEX (8260B)	TPH 8015mod (gas)	TPH 8015mod (diesel)	TPH 8015mod (motor oil)	Field Notes	# of containers
GP1-3.5'	3.5	912	Soil	Plastic Sl.						X	X					1
GP1-9.5'	9.5	947	Soil	Plastic Sl.						X	X					1
GP1-10	10	1035	Water	Amber Vials						X	X					6
GP2-4	4	1056	Soil	Plastic Sl.						X	X					1
GP2-10-16.3	10	1107	Soil	Plastic Sl.						X	X					1
END																

Relinquished by:	Date / Time	Received by	Date / Time
Katharine Brandt	11/25/03 1507	[signature]	11/25/03 1507
Relinquished by:	Date / Time	Received by	Date / Time
Relinquished by:	Date / Time	Received by	Date / Time

Sample Receipt:

Good Condition?	Y
Cold?	Y
Seals Intact?	Y
Total Number of Containers	10

Remarks:

Distribution: White - Lab, Yellow - File, Pink - Originator

Sample disposal instructions: __ *TEG disposal @ $4.00 ea.* __ *Return to client* __ *Pickup*

SEVERN TRENT STL

Submission#: 2003-11-0924

ETIC Oakland

December 05, 2003

1333 Broadway, Suite 1015
Oakland, CA 94612

Attn.: Bryan Gilbert

Project#: TMCOX.4
Project: Cox Cadillac

Dear Mr. Gilbert,

Attached is our report for your samples received on 11/26/2003 18:20
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 01/10/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,

Vincent Vancil
Project Manager

SEVERN TRENT STL

Submission #: 2003-11-0924

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GP6-3.5-4`	11/26/2003 09:54	Soil	1
GP6-14.5-15`	11/26/2003 10:31	Soil	2
GP5-3.5-4`	11/26/2003 09:04	Soil	3

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**GP6-3.5-4**	Lab ID:	2003-11-0924 - 1
Sampled:	11/26/2003 09:54	Extracted:	11/29/2003 18:04
Matrix:	Soil	QC Batch#:	2003/11/29-1A.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1000	ug/Kg	1.00	11/29/2003 18:04	
tert-Butyl alcohol (TBA)	ND	10	ug/Kg	1.00	11/29/2003 18:04	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/Kg	1.00	11/29/2003 18:04	
Di-isopropyl Ether (DIPE)	ND	10	ug/Kg	1.00	11/29/2003 18:04	
Ethyl tert-butyl ether (ETBE)	ND	5.0	ug/Kg	1.00	11/29/2003 18:04	
tert-Amyl methyl ether (TAME)	ND	5.0	ug/Kg	1.00	11/29/2003 18:04	
1,2-DCA	ND	5.0	ug/Kg	1.00	11/29/2003 18:04	
EDB	ND	5.0	ug/Kg	1.00	11/29/2003 18:04	
Benzene	ND	5.0	ug/Kg	1.00	11/29/2003 18:04	
Toluene	ND	5.0	ug/Kg	1.00	11/29/2003 18:04	
Ethyl benzene	ND	5.0	ug/Kg	1.00	11/29/2003 18:04	
Total xylenes	ND	5.0	ug/Kg	1.00	11/29/2003 18:04	
Surrogate(s)						
1,2-Dichloroethane-d4	90.2	70	%	1.00	11/29/2003 18:04	
Toluene-d8	97.3	81	%	1.00	11/29/2003 18:04	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**GP6-14.5-15**	Lab ID:	2003-11-0924 - 2
Sampled:	11/26/2003 10:31	Extracted:	12/2/2003 15:15
Matrix:	Soil	QC Batch#:	2003/12/02-1A.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	4700	4700	ug/Kg	4.72	12/02/2003 15:15	
tert-Butyl alcohol (TBA)	ND	47	ug/Kg	4.72	12/02/2003 15:15	
Methyl tert-butyl ether (MTBE)	ND	24	ug/Kg	4.72	12/02/2003 15:15	
Di-isopropyl Ether (DIPE)	ND	47	ug/Kg	4.72	12/02/2003 15:15	
Ethyl tert-butyl ether (ETBE)	ND	24	ug/Kg	4.72	12/02/2003 15:15	
tert-Amyl methyl ether (TAME)	ND	24	ug/Kg	4.72	12/02/2003 15:15	
1,2-DCA	25	24	ug/Kg	4.72	12/02/2003 15:15	
EDB	ND	24	ug/Kg	4.72	12/02/2003 15:15	
Benzene	780	24	ug/Kg	4.72	12/02/2003 15:15	
Toluene	120	24	ug/Kg	4.72	12/02/2003 15:15	
Ethyl benzene	140	24	ug/Kg	4.72	12/02/2003 15:15	
Total xylenes	140	24	ug/Kg	4.72	12/02/2003 15:15	
Surrogate(s)						
1,2-Dichloroethane-d4	87.6	70	%	4.72	12/02/2003 15:15	
Toluene-d8	94.3	81	%	4.72	12/02/2003 15:15	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**GP5-3.5-4`**	Lab ID:	2003-11-0924 - 3
Sampled:	11/26/2003 09:04	Extracted:	11/29/2003 18:41
Matrix:	Soil	QC Batch#:	2003/11/29-1A.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1000	ug/Kg	1.00	11/29/2003 18:41	
tert-Butyl alcohol (TBA)	ND	10	ug/Kg	1.00	11/29/2003 18:41	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/Kg	1.00	11/29/2003 18:41	
Di-isopropyl Ether (DIPE)	ND	10	ug/Kg	1.00	11/29/2003 18:41	
Ethyl tert-butyl ether (ETBE)	ND	5.0	ug/Kg	1.00	11/29/2003 18:41	
tert-Amyl methyl ether (TAME)	ND	5.0	ug/Kg	1.00	11/29/2003 18:41	
1,2-DCA	ND	5.0	ug/Kg	1.00	11/29/2003 18:41	
EDB	ND	5.0	ug/Kg	1.00	11/29/2003 18:41	
Benzene	ND	5.0	ug/Kg	1.00	11/29/2003 18:41	
Toluene	ND	5.0	ug/Kg	1.00	11/29/2003 18:41	
Ethyl benzene	ND	5.0	ug/Kg	1.00	11/29/2003 18:41	
Total xylenes	ND	5.0	ug/Kg	1.00	11/29/2003 18:41	
Surrogate(s)						
1,2-Dichloroethane-d4	96.9	70	%	1.00	11/29/2003 18:41	
Toluene-d8	91.3	81	%	1.00	11/29/2003 18:41	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Soil

QC Batch # 2003/11/29-1A.69

MB: 2003/11/29-1A.69-018

Date Extracted: 11/29/2003 12:18

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1000	ug/Kg	11/29/2003 12:18	
Benzene	ND	5.0	ug/Kg	11/29/2003 12:18	
Toluene	ND	5.0	ug/Kg	11/29/2003 12:18	
Ethyl benzene	ND	5.0	ug/Kg	11/29/2003 12:18	
Total xylenes	ND	5.0	ug/Kg	11/29/2003 12:18	
tert-Butyl alcohol (TBA)	ND	10.0	ug/Kg	11/29/2003 12:18	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/Kg	11/29/2003 12:18	
Di-isopropyl Ether (DIPE)	ND	10.0	ug/Kg	11/29/2003 12:18	
Ethyl tert-butyl ether (ETBE)	ND	5.0	ug/Kg	11/29/2003 12:18	
tert-Amyl methyl ether (TAME)	ND	5.0	ug/Kg	11/29/2003 12:18	
1,2-DCA	ND	5.0	ug/Kg	11/29/2003 12:18	
EDB	ND	5.0	ug/Kg	11/29/2003 12:18	
Surrogates(s)					
1,2-Dichloroethane-d4	84.8	70-121	%	11/29/2003 12:18	
Toluene-d8	93.5	81-117	%	11/29/2003 12:18	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Soil

QC Batch # 2003/12/02-1A.69

MB: 2003/12/02-1A.69-028

Date Extracted: 12/02/2003 10:28

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1000	ug/Kg	12/02/2003 10:28	
Benzene	ND	5.0	ug/Kg	12/02/2003 10:28	
Toluene	ND	5.0	ug/Kg	12/02/2003 10:28	
Ethyl benzene	ND	5.0	ug/Kg	12/02/2003 10:28	
Total xylenes	ND	5.0	ug/Kg	12/02/2003 10:28	
tert-Butyl alcohol (TBA)	ND	10.0	ug/Kg	12/02/2003 10:28	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/Kg	12/02/2003 10:28	
Di-isopropyl Ether (DIPE)	ND	10.0	ug/Kg	12/02/2003 10:28	
Ethyl tert-butyl ether (ETBE)	ND	5.0	ug/Kg	12/02/2003 10:28	
tert-Amyl methyl ether (TAME)	ND	5.0	ug/Kg	12/02/2003 10:28	
1,2-DCA	ND	5.0	ug/Kg	12/02/2003 10:28	
EDB	ND	5.0	ug/Kg	12/02/2003 10:28	
Surrogates(s)					
1,2-Dichloroethane-d4	92.2	70-121	%	12/02/2003 10:28	
Toluene-d8	98.7	81-117	%	12/02/2003 10:28	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Soil** **QC Batch # 2003/11/29-1A.69**

LCS 2003/11/29-1A.69-060 Extracted: 11/29/2003 Analyzed: 11/29/2003 11:41

LCSD 2003/11/29-1A.69-059 Extracted: 11/29/2003 Analyzed: 11/29/2003 11:59

Compound	Conc. ug/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	48.6	47.2	50	97.2	96.7	0.5	69-129	20		
Toluene	52.4	48.5	50	104.8	99.4	5.3	70-130	20		
Methyl tert-butyl ether (MTBE)	47.2	45.2	50	94.4	92.6	1.9	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	432	413	500	86.4	82.6		70-121			
Toluene-d8	482	448	500	96.4	89.6		81-117			

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Soil** **QC Batch # 2003/12/02-1A.69**

LCS 2003/12/02-1A.69-050 Extracted: 12/02/2003 Analyzed: 12/02/2003 09:50

LCSD 2003/12/02-1A.69-008 Extracted: 12/02/2003 Analyzed: 12/02/2003 10:08

Compound	Conc. ug/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	44.0	44.9	50	88.0	89.8	2.0	69-129	20		
Toluene	45.0	50.7	50	90.0	101.4	11.9	70-130	20		
Methyl tert-butyl ether (MTBE)	39.0	38.9	50	78.0	77.8	0.3	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	455	445	500	91.0	89.0		70-121			
Toluene-d8	445	521	500	89.0	104.2		81-117			

SEVERN TRENT STL

Submission #: 2003-11-0924

Gas/BTEXFuel Oxygenates by 8260B (High Level)

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GP2A-3.5-4`	11/26/2003 15:58	Soil	4

Gas/BTEXFuel Oxygenates by 8260B (High Level)

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**GP2A-3.5-4`**	Lab ID:	2003-11-0924 - 4
Sampled:	11/26/2003 15:58	Extracted:	12/1/2003 11:30
Matrix:	Soil	QC Batch#:	2003/12/01-03.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	430000	130000	ug/Kg	2.50	12/04/2003 11:37	
Benzene	33000	1300	ug/Kg	2.50	12/04/2003 11:37	
Toluene	3400	1300	ug/Kg	2.50	12/04/2003 11:37	
Ethyl benzene	1400	1300	ug/Kg	2.50	12/04/2003 11:37	
Total xylenes	4200	1300	ug/Kg	2.50	12/04/2003 11:37	
tert-Butyl alcohol (TBA)	ND	6300	ug/Kg	2.50	12/04/2003 11:37	
Methyl tert-butyl ether (MTBE)	ND	1300	ug/Kg	2.50	12/04/2003 11:37	
Di-isopropyl Ether (DIPE)	ND	2500	ug/Kg	2.50	12/04/2003 11:37	
Ethyl tert-butyl ether (ETBE)	ND	1300	ug/Kg	2.50	12/04/2003 11:37	
tert-Amyl methyl ether (TAME)	ND	1300	ug/Kg	2.50	12/04/2003 11:37	
1,2-DCA	ND	1300	ug/Kg	2.50	12/04/2003 11:37	
EDB	ND	1300	ug/Kg	2.50	12/04/2003 11:37	
Surrogate(s)						
1,2-Dichloroethane-d4	NA	70-121	%	2.50	12/04/2003 11:37	sd
Toluene-d8	NA	81-117	%	2.50	12/04/2003 11:37	sd

Gas/BTEXFuel Oxygenates by 8260B (High Level)

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Batch QC Report

Prep(s): 5030B — Test(s): 8260B

Method Blank — **Soil** — **QC Batch # 2003/12/01-03.66**

MB: 2003/12/01-03.66-036 — Date Extracted: 12/01/2003 13:36

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	mg/Kg	12/01/2003 13:36	
Benzene	ND	0.50	mg/Kg	12/01/2003 13:36	
Toluene	ND	0.50	mg/Kg	12/01/2003 13:36	
Ethyl benzene	ND	0.50	mg/Kg	12/01/2003 13:36	
Total xylenes	ND	0.50	mg/Kg	12/01/2003 13:36	
tert-Butyl alcohol (TBA)	ND	2.5	mg/Kg	12/01/2003 13:36	
Methyl tert-butyl ether (MTBE)	ND	0.50	mg/Kg	12/01/2003 13:36	
Di-isopropyl Ether (DIPE)	ND	1.0	mg/Kg	12/01/2003 13:36	
Ethyl tert-butyl ether (ETBE)	ND	0.50	mg/Kg	12/01/2003 13:36	
tert-Amyl methyl ether (TAME)	ND	0.50	mg/Kg	12/01/2003 13:36	
1,2-DCA	ND	0.50	mg/Kg	12/01/2003 13:36	
EDB	ND	0.50	mg/Kg	12/01/2003 13:36	
Surrogates(s)					
1,2-Dichloroethane-d4	98.0	76-130	%	12/01/2003 13:36	
Toluene-d8	94.8	78-115	%	12/01/2003 13:36	

Gas/BTEXFuel Oxygenates by 8260B (High Level)

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Soil** **QC Batch # 2003/12/01-03.66**

LCS 2003/12/01-03.66-048 Extracted: 12/01/2003 Analyzed: 12/01/2003 12:48

LCSD 2003/12/01-03.66-012 Extracted: 12/01/2003 Analyzed: 12/01/2003 13:12

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	9360	9530	10000	93.6	95.3	1.8	69-129	20		
Toluene	9460	9610	10000	94.6	96.1	1.6	70-130	20		
Methyl tert-butyl ether (MTBE)	9120	9140	10000	91.2	91.4	0.2	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	244	251	250	97.6	100.4		76-130			
Toluene-d8	231	243	250	92.4	97.2		78-115			

Gas/BTEXFuel Oxygenates by 8260B (High Level)

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Legend and Notes

Result Flag

sd

Surrogate recovery not reportable due to required dilution.

SEVERN TRENT STL

Submission #: 2003-11-0924

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GP7-13`	11/26/2003 12:30	Water	5
GP2A-10`	11/26/2003 16:40	Water	6
GP8-15`	11/26/2003 13:10	Water	7
GP9-14`	11/26/2003 16:30	Water	9
GP6-15`	11/26/2003 10:40	Water	10

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

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Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**GP7-13`**	Lab ID:	2003-11-0924 - 5
Sampled:	11/26/2003 12:30	Extracted:	12/3/2003 19:30
Matrix:	Water	QC Batch#:	2003/12/03-03.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/03/2003 19:30	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	12/03/2003 19:30	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	12/03/2003 19:30	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	12/03/2003 19:30	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	12/03/2003 19:30	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	12/03/2003 19:30	
1,2-DCA	0.73	0.50	ug/L	1.00	12/03/2003 19:30	
EDB	ND	0.50	ug/L	1.00	12/03/2003 19:30	
Benzene	4.0	0.50	ug/L	1.00	12/03/2003 19:30	
Toluene	0.70	0.50	ug/L	1.00	12/03/2003 19:30	
Ethylbenzene	ND	0.50	ug/L	1.00	12/03/2003 19:30	
Total xylenes	ND	1.0	ug/L	1.00	12/03/2003 19:30	
Surrogate(s)						
1,2-Dichloroethane-d4	95.9	76	%	1.00	12/03/2003 19:30	
Toluene-d8	101.2	88	%	1.00	12/03/2003 19:30	

Fuel Oxygenates by 8260B

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Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**GP2A-10`**	Lab ID:	2003-11-0924 - 6
Sampled:	11/26/2003 16:40	Extracted:	12/3/2003 19:49
Matrix:	Water	QC Batch#:	2003/12/03-03.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	32000	5000	ug/L	100.00	12/03/2003 19:49	
tert-Butyl alcohol (TBA)	ND	500	ug/L	100.00	12/03/2003 19:49	
Methyl tert-butyl ether (MTBE)	7300	50	ug/L	100.00	12/03/2003 19:49	
Di-isopropyl Ether (DIPE)	ND	100	ug/L	100.00	12/03/2003 19:49	
Ethyl tert-butyl ether (ETBE)	ND	50	ug/L	100.00	12/03/2003 19:49	
tert-Amyl methyl ether (TAME)	ND	50	ug/L	100.00	12/03/2003 19:49	
1,2-DCA	ND	50	ug/L	100.00	12/03/2003 19:49	
EDB	ND	50	ug/L	100.00	12/03/2003 19:49	
Benzene	3100	50	ug/L	100.00	12/03/2003 19:49	
Toluene	84	50	ug/L	100.00	12/03/2003 19:49	
Ethylbenzene	1300	50	ug/L	100.00	12/03/2003 19:49	
Total xylenes	ND	100	ug/L	100.00	12/03/2003 19:49	
Surrogate(s)						
1,2-Dichloroethane-d4	100.7	76	%	100.00	12/03/2003 19:49	
Toluene-d8	96.4	88	%	100.00	12/03/2003 19:49	

Fuel Oxygenates by 8260B

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Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Prep(s): 5030B
Sample ID: **GP8-15**
Sampled: 11/26/2003 13:10
Matrix: Water

Test(s): 8260B
Lab ID: 2003-11-0924 - 7
Extracted: 12/3/2003 20:07
QC Batch#: 2003/12/03-03.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/03/2003 20:07	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	12/03/2003 20:07	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	12/03/2003 20:07	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	12/03/2003 20:07	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	12/03/2003 20:07	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	12/03/2003 20:07	
1,2-DCA	ND	0.50	ug/L	1.00	12/03/2003 20:07	
EDB	ND	0.50	ug/L	1.00	12/03/2003 20:07	
Benzene	ND	0.50	ug/L	1.00	12/03/2003 20:07	
Toluene	ND	0.50	ug/L	1.00	12/03/2003 20:07	
Ethylbenzene	ND	0.50	ug/L	1.00	12/03/2003 20:07	
Total xylenes	ND	1.0	ug/L	1.00	12/03/2003 20:07	
Surrogate(s)						
1,2-Dichloroethane-d4	103.2	76	%	1.00	12/03/2003 20:07	
Toluene-d8	90.9	88	%	1.00	12/03/2003 20:07	

Fuel Oxygenates by 8260B

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Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**GP9-14**	Lab ID:	2003-11-0924 - 9
Sampled:	11/26/2003 16:30	Extracted:	12/3/2003 20:26
Matrix:	Water	QC Batch#:	2003/12/03-03.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/03/2003 20:26	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	12/03/2003 20:26	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	12/03/2003 20:26	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	12/03/2003 20:26	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	12/03/2003 20:26	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	12/03/2003 20:26	
1,2-DCA	ND	0.50	ug/L	1.00	12/03/2003 20:26	
EDB	ND	0.50	ug/L	1.00	12/03/2003 20:26	
Benzene	ND	0.50	ug/L	1.00	12/03/2003 20:26	
Toluene	0.55	0.50	ug/L	1.00	12/03/2003 20:26	
Ethylbenzene	ND	0.50	ug/L	1.00	12/03/2003 20:26	
Total xylenes	ND	1.0	ug/L	1.00	12/03/2003 20:26	
Surrogate(s)						
1,2-Dichloroethane-d4	100.3	76	%	1.00	12/03/2003 20:26	
Toluene-d8	97.8	88	%	1.00	12/03/2003 20:26	

Fuel Oxygenates by 8260B

ETIC Oakland

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Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**GP6-15**	Lab ID:	2003-11-0924 - 10
Sampled:	11/26/2003 10:40	Extracted:	12/3/2003 20:44
Matrix:	Water	QC Batch#:	2003/12/03-03.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	67000	10000	ug/L	200.00	12/03/2003 20:44	
tert-Butyl alcohol (TBA)	ND	1000	ug/L	200.00	12/03/2003 20:44	
Methyl tert-butyl ether (MTBE)	ND	100	ug/L	200.00	12/03/2003 20:44	
Di-isopropyl Ether (DIPE)	ND	200	ug/L	200.00	12/03/2003 20:44	
Ethyl tert-butyl ether (ETBE)	ND	100	ug/L	200.00	12/03/2003 20:44	
tert-Amyl methyl ether (TAME)	ND	100	ug/L	200.00	12/03/2003 20:44	
1,2-DCA	180	100	ug/L	200.00	12/03/2003 20:44	
EDB	150	100	ug/L	200.00	12/03/2003 20:44	
Benzene	9500	100	ug/L	200.00	12/03/2003 20:44	
Toluene	5700	100	ug/L	200.00	12/03/2003 20:44	
Ethylbenzene	1800	100	ug/L	200.00	12/03/2003 20:44	
Total xylenes	6100	200	ug/L	200.00	12/03/2003 20:44	
Surrogate(s)						
1,2-Dichloroethane-d4	112.6	76	%	200.00	12/03/2003 20:44	
Toluene-d8	91.0	88	%	200.00	12/03/2003 20:44	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2003/12/03-03.69

MB: 2003/12/03-03.69-047

Date Extracted: 12/03/2003 17:47

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	12/03/2003 17:47	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	12/03/2003 17:47	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	12/03/2003 17:47	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	12/03/2003 17:47	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	12/03/2003 17:47	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	12/03/2003 17:47	
1,2-DCA	ND	0.5	ug/L	12/03/2003 17:47	
EDB	ND	0.5	ug/L	12/03/2003 17:47	
Benzene	ND	0.5	ug/L	12/03/2003 17:47	
Toluene	ND	0.5	ug/L	12/03/2003 17:47	
Ethylbenzene	ND	0.5	ug/L	12/03/2003 17:47	
Total xylenes	ND	1.0	ug/L	12/03/2003 17:47	
Surrogates(s)					
1,2-Dichloroethane-d4	84.2	76-114	%	12/03/2003 17:47	
Toluene-d8	95.4	88-110	%	12/03/2003 17:47	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Bryan Gilbert

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Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.4
Cox Cadillac

Received: 11/26/2003 18:20

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2003/12/03-03.69**

LCS 2003/12/03-03.69-007 Extracted: 12/03/2003 Analyzed: 12/03/2003 17:07

LCSD 2003/12/03-03.69-029 Extracted: 12/03/2003 Analyzed: 12/03/2003 17:29

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	22.5	21.1	25.0	90.0	84.4	6.4	65-165	20		
Benzene	20.6	19.4	25.0	82.4	77.6	6.0	69-129	20		
Toluene	26.4	23.0	25.0	105.6	92.0	13.8	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	425	421	500	85.0	84.2		76-114			
Toluene-d8	524	443	500	104.8	88.6		88-110			

SEVERN TRENT **STL**

2003-11-0924

STL San Francisco Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: www.stl-inc.com

Reference #: 80692

Date 11/26/03 Page 1 of 1

Report To

Attn: Bryan Gilbert
Company: ETIC Eng
Address: 1333 Broadway
Phone: (510) 208-1616 Email: BGilbert@etic-eng.com
Bill To: ETIC
Sampled By: Bryan Gilbert
Attn:
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Pres.	TPH EPA 8015/8021 ☐ 8260B Gas w/ ☐ BTEX ☐ MTBE	Purgeable Aromatics BTEX EPA - ☐ 8021 ☐ 8260B	TEPH EPA 8015M ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	Fuel Tests EPA 8260B: ☐ Gas ☐ BTEX ☐ Five Oxygenates (DIPE, TAME, TBA, ETBE, TAA) ☐ Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☐ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	☐ W.E.T (STLC) ☐ TCLP	☐ Hexavalent Chromium ☐ pH (24h hold time for H_2O)	☐ Spec Cond. ☐ Alkalinity ☐ TSS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4		HOLD			Number of Containers
GP6-3.5-4'	11/26	954	S	—	X			X																		
GP6-14.5-15'	11/26	1031	S	—	X			X																		
GP5-3.5-4'	11/26	904	S	—	X			X																		
GP2A-3.5-4'	11/26	1558	S	—	X			X																		
GP7-13'	11/26	1230	W	HCl	X			X																		
GP2A-10'	11/26	1648	W	HCl	X			X																		
GP8-15'	11/26	1310	W	HCl	X			X																		
GP5-4'	11/26	900	W	HCl	8015	HOLD		BTEX		HOLD																
GP9-14'	11/26	1630	W	HCl	X			X																	X	
GP6-15'	11/26	1040	W	HCl	X			X																		

Project Info.

Project Name: Fox Cadillac
Project#: TMCOX.4
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 4.0
Conforms to record:

TAT: (5 Day) 72h 48h 24h Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank Fund EDF ☐ Global ID ___

Special Instructions / Comments:

HOLD GP5-4'; Run TPH-g by 8015 and MTBE, Qy's BTEX by 8021B for rest.

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 18:20	Signature: Time:	Signature: Time:
Printed Name: BRYAN GILBERT Date: 11/26	Printed Name: Date:	Printed Name: Date:
Company: ETIC	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: Time:	Signature: Time:	Signature: [signature] Time: 1820
Printed Name: Date:	Printed Name: Date:	Printed Name: M. VILLANUEVA Date: 11/26/03
Company:	Company:	Company: STL SF

Rev 07/02

SEVERN TRENT STL

STL San Francisco

Sample Receipt Checklist

Submission #:2003- 11 - 0924

Checklist completed by: (initials) DSH Date: 11/29/03

Courier name: ☐ STL San Francisco ☒ Client _____

Custody seals intact on shipping container/samples	Yes____ No____	Not Present ✓
Chain of custody present?	Yes ✓	No____
Chain of custody signed when relinquished and received?	Yes ✓	No____
Chain of custody agrees with sample labels?	Yes ✓	No____
Samples in proper container/bottle?	Yes ✓	No____
Sample containers intact?	Yes ✓	No____
Sufficient sample volume for indicated test?	Yes____	No ✓ (1)
All samples received within holding time?	Yes ✓	No____
Container/Temp Blank temperature in compliance (4^{o} C ± 2)?	Temp: 4.0 °C Yes ✓	No____
	Ice Present Yes ✓	No____
Water - VOA vials have zero headspace?	No VOA vials submitted____ Yes ✓	No____

(if bubble is present, refer to approximate bubble size and itemize in comments as **S** (small ~O), **M** (medium ~ O) or L (large ~ O)

Water - **pH acceptable upon receipt?** ☒ Yes ☐ No

☐ **pH adjusted**– Preservative used: ☐ HNO_3 ☐ HCl ☐ H_2SO_4 ☐ NaOH ☐ ZnOAc –**Lot #(s)** _____

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: (1) Sample GP9-14' - rec'd 1 voa only

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) _____ Date: ____/____/03

Client contacted: ☐ Yes ☐ No

Summary of discussion:

Corrective Action (per PM/Client):