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**Jennifer C. Sedlachek**
Project Manager

ExxonMobil
*Refining & Supply*

April 13, 2007

Mr. Steven Plunkett
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

**RE: Former Exxon RAS #7-0234/3450 35th Avenue, Oakland, California.**

Dear Mr. Plunkett:

Attached for your review and comment is a copy of the letter report entitled ***Work Plan for Soil and Groundwater Investigation,*** dated April 13, 2007, for the above-referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Petaluma, California, and details proposed activities for the subject site.

In order to remain compliant with the County's March 14, 2007 directive letter, and to meet the deadline specified by the County, Exxon Mobil is submitting this ***Work Plan for Soil and Groundwater Investigation.*** At this time, review of the historical documents for the site is incomplete. Further review of historical documents for the site, combined with the information that will be collected during the investigation proposed in this Work Plan, will assist in determining whether Exxon Mobil's designation as primary RP is appropriate.

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

If you have any questions or comments, please contact me at 510.547.8196.

Sincerely,

Jennifer C. Sedlachek
Project Manager

Attachment: ERI's Work Plan for Soil and Groundwater Investigation, dated April 13, 2007

cc: w/ attachment
Mr. Chuck Headlee, California Regional Water Quality Control Board, San Francisco Bay Region
Mr. Robert C. Ehlers, M.S., P.E., The Valero Companies, Environmental Liability Management

w/o attachment
Ms. Paula Sime, Environmental Resolutions, Inc.

VALUE, QUALITY, RESPONSE

*Southern California*
*Northern California*
*Pacific Northwest*
*Southwest*
*Texas*
*Montana*

April 13, 2007
ERI 247603.W01

Ms. Jennifer C. Sedlachek
ExxonMobil Refining & Supply-Global Remediation
4096 Piedmont Avenue #194
Oakland, California 94611

**SUBJECT** Work Plan for Soil and Groundwater Investigation
Former Exxon Service Station 7-0234
3450 35th Avenue, Oakland, California

Ms. Sedlachek:

At the request of Exxon Mobil Corporation (Exxon Mobil), Environmental Resolutions, Inc. (ERI) prepared this work plan for a soil and groundwater investigation at the subject site. This work plan was prepared in response to a letter from the Alameda County Health Services Agency (the County), dated March 14, 2007, and subsequent conversations and electronic correspondence with the County (Attachment A). The purpose of this investigation is to delineate the lateral and vertical extent of petroleum hydrocarbons in soil and groundwater in the vicinity of the former underground storage tanks (USTs) and northeastern dispenser island at the site.

In their March 14, 2007 letter, the County designated Exxon Mobil as the primary Responsible Party (RP) for the investigation at this site. From 1986 to 2000, Exxon Mobil conducted environmental activities relating to the unauthorized release from the underground storage tanks (USTs) at the site under their ownership. During this time, 14 soil borings and three groundwater monitoring wells were installed at the site. In 2000, the County concurred that site conditions warranted no further action and closed Exxon Mobil's environmental case at the site. At that time, ownership of the site and facilities was transferred to Valero Refining Company (Valero).

The USTs and product piping remained in place under Valero's ownership from 2000 to 2002, and in June 2002 Valero removed the USTs. No documentation of removing remaining product, cleaning and degasing of the USTs has yet been discovered. Additionally, it is unknown whether the product lines were properly cleaned prior to their disconnection and removal. ERI has reviewed historical files at the County, but has been unable to review records from the City of Oakland Fire Department or California Regional Water Quality Control Board (Regional Board) at this time due to the respective agencies' schedules.

During the removal of the USTs and product piping in 2002, a hole was noted in the top of one of the USTs and was attributed to puncturing by the excavator during the removal of overburden materials. If the UST still contained fuel, this puncture may have caused a fuel release. Additionally, if the product lines were not properly cleaned prior to their disconnection, fuel may have leaked from the product lines during their disconnection and removal. These situations could have contributed to dissolved hydrocarbon concentrations in water samples collected from the UST pit and residual hydrocarbon concentrations in soil samples collected from the product line trenches during removal activities in 2002.

In order to remain compliant with the County's March 14, 2007 directive letter, and to meet the deadline specified by the County, Exxon Mobil is submitting this *Work Plan for Soil and Groundwater Investigation*. At this time, review of the historical documents for the site is incomplete. Further review of historical documents for the site, combined with the information that will be collected during the investigation

proposed in this Work Plan, will assist in determining whether Exxon Mobil's designation as primary RP is appropriate.

## SITE BACKGROUND

The site is located on the northeastern corner of 35th Avenue and Quigley Street in Oakland, California (Plate 1). Land use in the vicinity of the site is mixed-use commercial and residential (Plate 2). The site was owned by Exxon Mobil until July 2000 when the property and facilities were sold to Valero. After ownership transfer, Valero did not operate the fuel system or store fuel at the site (Ultramar, 2002). The County issued case closure in 2000.

Three 8,000-gallon gasoline USTs were excavated and removed from the site in 1991 and replaced with three 12,000-gallon gasoline USTs (IT, 1992). In 2002, the three 12,000-gallon gasoline USTs and associated product piping were excavated and removed from the site by Dan Brenton Construction Company on behalf of Valero (TRC, 2002). The locations of the former USTs, dispenser islands, destroyed groundwater monitoring wells, and select site features are shown on Plate 3. Groundwater monitoring was conducted at the site from July 1992 until May 1995 and in September 1999.

### Previous Investigations

Investigations were conducted at the site between 1986 and 2000. Three groundwater monitoring wells (MW1 through MW3) were installed and 14 soil borings (B1 through B10, EB1, EB2, SB1, and SB2) were advanced at the site between 1986 and 1997 (HLA, 1988; Alton, 1991; IT, 1992; and EA, 1997). In June 2000, the wells were destroyed after the County granted case closure (ERI, 2000).

Laboratory analytical results for groundwater samples collected from the wells indicated the presence of total petroleum hydrocarbons as gasoline (TPHg); methyl tertiary butyl ether (MTBE); and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Groundwater monitoring and sampling data are summarized in Table 1. The groundwater elevation data from last groundwater sampling event conducted in the September 1999 and a rose diagram are shown on Plate 4. Well construction details are summarized in Table 2.

### Remedial Measures

In 1991, International Technology Corporation (IT), excavated approximately 1,200 cubic yards of fill material and native soil when the gasoline USTs, dispensers, and product lines were removed and the UST pit was enlarged to accommodate larger new USTs (IT, 1992). Concentrations of TPHg and benzene were detected at up to 5 milligrams per kilogram (mg/kg) and 0.36 mg/kg, respectively, in soil samples collected from the limits of the overexcavation.

In 2002, TRC removed approximately 170 cubic yards of pea gravel and native soil when they removed the three 12,000-gallon USTs (TRC, 2002). Petroleum hydrocarbons were not detected in the four soil samples collected from the sidewalls of the excavation. Concentrations of TPHg (24 mg/kg), benzene (0.057 mg/kg), toluene (0.11 mg/kg), ethylbenzene (0.12 mg/kg), and total xylenes (1.2 mg/kg), and MTBE (0.020 mg/kg) were detected in one of the four dispenser island samples (B at 4.9 feet below ground surface [fbgs]). Laboratory analytical results are summarized in Table 3, and select results are shown on Plate 5.

### Regional Geology and Hydrogeology

The site is located along the eastern margin of the San Francisco Bay within the East Bay Plain (Hickenbottom and Muir, 1988). The surficial deposits in the site vicinity are mapped as alluvial fan and fluvial deposits (Graymer, 2000). The closest surface water body is Peralta Creek located approximately 600 feet northwest of the site. The active northwest trending Hayward fault is located approximately 3/4 mile east of the site.

The East Bay Plain is regionally divided into two major groundwater basins: the San Pablo and the San Francisco Basin. These basins are tectonic depressions that are filled primarily with a sequence of coalescing alluvial fans. The San Francisco Basin is further divided into seven sub-areas. The site is located in the Oakland Sub-Area, which is filled primarily by alluvial deposits that range from 300 to 700 feet thick with no well-defined aquitards (CRWQCB, 1999). Under natural conditions, the direction of groundwater flow in the East Bay Plain is east to west towards San Francisco Bay and correlates with topography.

Groundwater flow direction is predominantly to the southwest towards the San Francisco Bay, consistent with site data and the local topography. Groundwater recharge of the East Bay Plain occurs by infiltration from precipitation, irrigation, pipe leakage, and stream flow.

### Local Geology and Hydrogeology

The local geology and hydrogeology of the site was evaluated using boring logs for borings MW1 through MW3 and groundwater monitoring data. The lithology of the site consists primarily of clays, silty sands, and clayey sands with gravel. Boring logs for borings MW1 through MW3 are presented in Attachment B.

The depth to groundwater beneath the site has varied over time and has ranged from approximately 28.4 fbgs to 37.2 fbgs in wells MW1 through MW3. Cumulative results of groundwater monitoring and sampling indicate that the groundwater flow direction is predominantly towards the southwest. The data from September 20, 1999, indicate that the groundwater flow direction was towards the southwest (ERI, 1999). A rose diagram showing groundwater flow direction is included on Plate 4. Cumulative results of groundwater monitoring and sampling events are provided in Table 1, and well construction details are listed in Table 2.

## SITE CONDITIONS

### Petroleum Hydrocarbon Concentrations in Soil

In 1991, three USTs, associated product lines, and a dispenser island were removed (IT, 1992). Petroleum hydrocarbons were reported in soil samples collected from the southeast corner of the UST cavity and at the northern dispenser island. Approximately 1,200 cubic yards of fill material and native soil were excavated when the gasoline USTs, dispensers, and product lines were removed and the UST pit was enlarged to accommodate larger new USTs (IT, 1992). Concentrations of TPHg and benzene were detected at up to 5 mg/kg and 0.36 mg/kg, respectively in soil samples collected from the limits of the over excavation.

In 2002, three 12,000-gallon USTs and associated product lines were removed (TRC, 2002). Petroleum hydrocarbons were not detected in the four soil samples collected from the sidewalls of the excavation. Concentrations of TPHg (24 mg/kg), benzene (0.057 mg/kg), toluene (0.11 mg/kg), ethylbenzene (0.12 mg/kg) and total xylenes (1.2 mg/kg), and MTBE (0.02 mg/kg) were detected in one of the four dispenser island samples, B at 4.9 feet below ground surface (fbgs).

Soil sample analytical results from 2002 are summarized in Table 3. The locations of the 2002 excavation, tank pit, and product line trench samples are shown on Plate 5.

### Groundwater Conditions

#### Dissolved Constituent Distribution in Groundwater

Groundwater monitoring was conducted at the site from July 1992 until May 1995 and in September 1999. Concentrations of TPHg and benzene have not been detected at concentrations at or above the laboratory reporting limits in the groundwater samples collected downgradient of the former USTs (MW1) since May 1993. Concentrations of TPHg and benzene have not been detected at concentrations at or above the laboratory reporting limits in the groundwater samples collected downgradient of the dispenser islands (MW2) since well installation in 1992. Concentrations of TPHg were first detected in upgradient well MW3 in 1999 at 75.0 µg/L. In 1999, groundwater samples were also analyzed for MTBE; MTBE was

not detected at or above the laboratory reporting limit in groundwater samples from wells MW1 and MW2, but was reported at 1.87 µg/L in well MW3. Groundwater monitoring data are summarized in Table 1. Select analytical results from the September 20, 1999, sampling event are shown on Plate 6.

The wells were destroyed in June 2000 when the County granted closure for the site.

In 2002, during UST removal, water was encountered in the tank pit (TRC, 2002). Concentrations of TPHg, benzene, and MTBE were reported at 5,600 µg/L, 140 µg/L, and 12,000 µg/L, respectively, in the first water sample collected. TRC removed approximately 9,000 gallons of water from the tank pit using a vacuum truck. A sump was dug to 13.5 fbgs to facilitate water removal; a second water sample was collected after the removal of the 9,000 gallons of water, concentrations of TPHg, benzene, and MTBE were reported at 680 µg/L, 2.7 µg/L, and 640 µg/L, respectively. Grab groundwater analytical results are summarized in Table 4.

## PROPOSED INVESTIGATION

### Soil and Groundwater Assessment

To investigate vertical distribution of dissolved concentrations of TPHg, benzene, and MTBE in soil and groundwater, ERI proposes to advance one soil boring (B11) in the vicinity of the former northeastern dispenser island.

To investigate vertical and lateral distribution of dissolved concentrations of TPHg, benzene, and MTBE in soil and groundwater, ERI proposes to advance seven soil borings (B12 through B18) in and around the former tank pit. Proposed soil boring locations are shown on Plate 7.

### Investigation Tasks

ERI and its subcontractors will perform field work in accordance with this work plan, ERI's Field Protocol (Attachment C), and a site-specific health and safety plan. Details of the work scope are described in the following subsections.

#### Task 1: Permitting and Access

ERI will obtain soil boring permits from the Alameda County Public Works Department (Public Works) prior to advancing the borings.

#### Task 2: Subsurface Clearance

To avoid conflicts with existing underground utilities during the advancement of soil borings, ERI will:

- Mark the boring locations and contact Underground Service Alert (USA) at least 48 hours before field work begins.
- Obtain the services of a private utility locator to clear the boring locations of utilities.
- Clear each boring location using hand tools or vacuum excavation equipment to at least 4 fbgs.

#### Task 3: Direct-Push Soil Borings

For collection of soil samples using direct-push equipment, ERI will:

- Obtain the services of a licensed well driller and observe the advancement of borings B11 through B18 using direct-push equipment. Soil borings will be advanced to a maximum depth of approximately 35 fbgs.

- Collect and visually examine soil samples from each boring to construct a boring log and screen soil samples with a photo-ionization detector (PID). Soil samples will be identified using visual and manual methods and classified according to the Unified Soil Classification System (USCS). Soil samples will be collected continuously and retained for laboratory analysis at approximately 5-foot intervals.

- Upon completion of sampling, fill the boring with cement/bentonite grout and refinish the surface to match the surrounding ground conditions.

- Submit soil samples collected from the borings for analysis to a California state-certified analytical laboratory, under Chain-of-Custody protocol. Samples will be analyzed for TPHg using EPA Method 8015B, and BTEX, oxygenated compounds (MTBE, tertiary butyl alcohol [TBA], tertiary amyl methyl ether [TAME], ethyl tertiary butyl ether [ETBE], and di-isopropyl ether [DIPE]), and lead scavengers (1,2-dichloroethane [1,2-DCA] and 1,2-dibromoethane [EDB]) using EPA Method 8260B.

For collection of depth-discrete groundwater samples, ERI will:

- Collect grab groundwater samples from first-encountered groundwater through installation of a temporary polyvinyl chloride (PVC) well screen.

- Collect depth-discrete grab groundwater samples from water-bearing intervals using a Hydropunch® (or similar) sampling device.

- Upon completion of sampling, fill the borings with cement/bentonite grout and refinish the surface to match the surrounding ground conditions.

- Submit grab groundwater samples collected from the borings to a California state-certified analytical laboratory, under Chain-of-Custody protocol. Samples will be analyzed for TPHg using EPA Method 8015B and BTEX, oxygenated compounds (MTBE, TBA, TAME, ETBE, and DIPE), and lead scavengers (1,2-DCA and EDB) using EPA Method 8260B.

**Task 4: Waste Disposal**

Soil and rinsate water generated during the field work will be stored in 55-gallon metal drums at the station. ERI will collect one composite soil sample (four brass sleeves) from the drums for laboratory analysis. Upon receipt of the laboratory analytical results, ERI will evaluate disposal options and coordinate with Exxon Mobil for disposal of the soil and water at an appropriate disposal facility.

**Task 5: Report Preparation and Submittal**

After reviewing the results of the field investigation, ERI will prepare a report documenting the results. The report will include tabulated soil and groundwater analytical data, plates showing the distribution of petroleum hydrocarbons in soil and groundwater, and ERI's conclusions and recommendations.

**DOCUMENT DISTRIBUTION**

ERI recommends that copies of this report be forwarded to the following:

Mr. Steven Plunkett
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Mr. Chuck Headlee
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Mr. Robert C. Ehlers, M.S., P.E.
The Valero Companies
Environmental Liability Management
685 West Third Street
Hanford, California 93230

**LIMITATIONS**

This report was prepared in accordance with generally accepted standards of environmental practice in California at the time this investigation was performed. This report has been prepared for Exxon Mobil, and any reliance on this report by third parties shall be at such party's sole risk.

Please contact Ms. Paula Sime, ERI's project manager for this site, at (707) 766-2000 with any questions regarding this report.


Sincerely,
Environmental Resolutions, Inc.



Paula Sime
Project Manager

Heidi Dieffenbach-Carle
P.G. 6793

Attachments: References

| | |
|---|---|
| Table 1: | Cumulative Groundwater Monitoring and Sampling Data |
| Table 2: | Well Construction Details |
| Table 3: | Laboratory Analytical Results of Soil Samples |
| Table 4: | Laboratory Analytical Results of Grab Groundwater Samples |
| Plate 1: | Site Vicinity Map |
| Plate 2: | Local Area Map |
| Plate 3: | Generalized Site Plan |
| Plate 4: | Groundwater Elevation Map, September 20, 1999 |
| Plate 5: | Select Soil Analytical Results |
| Plate 6: | Select Groundwater Analytical Results, September 20, 1999 |
| Plate 7: | Proposed Soil Boring Locations |
| Attachment A: | Regulatory Correspondence |
| Attachment B: | Boring Logs |
| Attachment C: | Field Protocol |

**REFERENCES**

Alton Geoscience (Alton). 1991. Boring logs B1 through B10.

California Regional Water Quality Control Board San Francisco Bay Region Groundwater Committee (CRWQCB). June 1999. *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, CA.*

EA Engineering (EA). September 1997. *Analytical results for used-oil UST and hydraulic hoist confirmation soil samples.*

Environmental Resolutions, Inc. (ERI). November 1999. *Report of Groundwater Monitoring and Sampling during 3rd Quarter 1999.* ERI job number 247613.

Environmental Resolutions, Inc. (ERI). October 30, 2000. *Groundwater Monitoring Well Destruction at Former Exxon Service Station 7-0234, 3450 35th Avenue, Oakland, California.* ERI job number 247614.R02.

Graymer, R.W. 2000. Geologic map and map database of the Oakland metropolitan area, Alameda, Contra Costa, and San Francisco Counties, California. USGS, Miscellaneous Field Studies MF-2342.

Groundwater Technology, Incorporated (GTI). 1986. Figure 2, Site Plan.

Harding Lawson Associates (HLA). 1988. Plate 2, Site Plan.

Hickenbottom, Kelvin and Muir, Kenneth S. June 1988. *Geohydrogeology and Groundwater Quality Overview of the East Bay Plain Area, Alameda County, CA.* Alameda County Flood Control and Water Conservation District. 83p.

International Technology Corporation (IT). September 1992. *Site Assessment Report.*

TRC. September 24, 2002. *Report on Underground Storage Tank and Product Piping Removal, Valero Facility No. 3832, 3450 35th Avenue, Oakland, California.* TRC Project No. 41-0412-01.

Ultramar, Inc (Ultramar). October 3, 2002. *UST & Product Piping Removal and Sampling, 3450 35th Avenue, Oakland, California.* Letter from Joseph Aldridge to Keith L. Matthew, City of Oakland Fire Services Agency.

**TABLE 1**
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**
Former Exxon Service Station 7-0234
3450 35th Avenue
Oakland, California


| Well ID | Sampling Date | SUBJ | TOC (feet) | DTW (feet) | GW Elev. (feet) | TPHg (µg/L) | MTBE (µg/L) | B (µg/L) | T (µg/L) | E (µg/L) | X (µg/L) | Total Pb (µg/L) | Organic Pb (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW1 | 07/17/92 | NLPH | 192.00 | 33.02 | 158.98 | 67 | --- | 6.6 | 6.9 | 2.0 | 4.5 | 17 | --- |
| MW1 | 10/22/92 | NLPH | 192.00 | 34.07 | 157.93 | <50 | --- | 2.9 | <0.5 | <0.5 | <0.5 | 16 | --- |
| MW1 | 02/04/93 | NLPH | 192.00 | 29.43 | 162.57 | <50 | --- | 0.8 | <0.5 | <0.5 | <0.5 | 4 | --- |
| MW1 | 05/03/93 | NLPH | 192.00 | 29.72 | 162.28 | 71 | --- | 2.8 | 7.2 | 2.2 | 22 | 40 | --- |
| MW1 | 07/30/93 | NLPH | 192.00 | 32.95 | 159.05 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 5 | --- |
| MW1 | 10/19/93 | NLPH | 192.00 | 34.34 | 157.66 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 12 | --- |
| MW1 | 02/23/94 | NLPH | 192.00 | 31.72 | 160.28 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 4 | --- |
| MW1 | 06/06/94 | NLPH | 192.00 | 31.77 | 160.23 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3 | --- |
| MW1 | 08/18/94 | NLPH | 192.00 | 33.76 | 158.24 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 130 | --- |
| MW1 | 11/15/94 | NLPH | 192.00 | 34.08 | 157.92 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3.0 | <100 |
| MW1 | 02/06/95 | NLPH | 192.00 | 28.50 | 163.50 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | --- | --- |
| MW1 | 05/10/95 | NLPH | 192.00 | 29.30 | 162.70 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | --- | --- |
| MW1 | 09/20/99 | NLPH | 192.00 | 33.30 | 158.70 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <75 | <50 |
| MW1 | Well destroyed in June 2000. | | | | | | | | | | | | |
| MW2 | 07/17/92 | NLPH | 194.85 | 34.65 | 160.20 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3 | --- |
| MW2 | 10/22/92 | NLPH | 194.85 | 35.64 | 159.21 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | -- | --- |
| MW2 | 02/04/93 | NLPH | 194.85 | 31.13 | 163.72 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3 | --- |
| MW2 | 05/03/93 | NLPH | 194.85 | 31.08 | 163.77 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 3 | --- |
| MW2 | 07/30/93 | NLPH | 194.85 | 34.34 | 160.51 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 14 | --- |
| MW2 | 10/19/93 | NLPH | 194.85 | 36.00 | 158.85 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3 | --- |
| MW2 | 02/23/94 | NLPH | 194.85 | 33.92 | 160.93 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3 | --- |
| MW2 | 06/06/94 | NLPH | 194.85 | 33.50 | 161.35 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3 | --- |
| MW2 | 08/18/94 | NLPH | 194.85 | 35.38 | 159.47 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3.0 | --- |
| MW2 | 11/15/94 | NLPH | 194.85 | 35.93 | 158.92 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3.0 | <100 |
| MW2 | 02/06/95 | NLPH | 194.85 | 30.38 | 164.47 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | --- | --- |
| MW2 | 05/10/95 | NLPH | 194.85 | 30.77 | 164.08 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | --- | --- |
| MW2 | 09/20/99 | NLPH | 194.85 | 35.15 | 159.70 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <75 | <0.5 |
| MW2 | Well destroyed in June 2000. | | | | | | | | | | | | |
| MW3 | 07/17/92 | NLPH | 196.90 | 37.24 | 159.66 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 50 | --- |
| MW3 | 10/22/92 | NLPH | 196.90 | 35.95 | 160.95 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 9 | --- |
| MW3 | 02/04/93 | NLPH | 196.90 | 29.85 | 167.05 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3 | --- |
| MW3 | 05/03/93 | NLPH | 196.90 | 29.87 | 167.03 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 3 | --- |

**TABLE 1**
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**
Former Exxon Service Station 7-0234
3450 35th Avenue
Oakland, California


| Well ID | Sampling Date | SUBJ | TOC (feet) | DTW (feet) | GW Elev. (feet) | TPHg (µg/L) | MTBE (µg/L) | B (µg/L) | T (µg/L) | E (µg/L) | X (µg/L) | Total Pb (µg/L) | Organic Pb (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW3 | 07/30/93 | NLPH | 196.90 | 33.85 | 163.05 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 22 | --- |
| MW3 | 10/19/93 | NLPH | 196.90 | 35.89 | 161.01 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 12 | --- |
| MW3 | 02/23/94 | NLPH | 196.90 | 32.88 | 164.02 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | 25 | --- |
| MW3 | 06/06/94 | NLPH | 196.90 | 32.40 | 164.50 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3 | --- |
| MW3 | 08/18/94 | NLPH | 196.90 | 35.07 | 161.83 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3.0 | --- |
| MW3 | 11/15/94 | NLPH | 196.90 | 35.97 | 160.93 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | <3.0 | <100 |
| MW3 | 02/06/95 | NLPH | 196.90 | 28.39 | 168.51 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | --- | --- |
| MW3 | 05/10/95 | NLPH | 196.90 | 28.90 | 168.00 | <50 | --- | <0.5 | <0.5 | <0.5 | <0.5 | --- | --- |
| MW3 | 09/20/99 | NLPH | 196.90 | 34.68 | 162.22 | 75.0 | 1.87 | <0.5 | 11.5 | 1.8 | 18.0 | <75 | <0.5 |
| MW3 | Well destroyed in June 2000. | | | | | | | | | | | | |

| | | |
|---|---|---|
| Notes: | | Data prior to 1999 provided by EA Environmental Science and Engineering in previously submitted reports. |
| SUBJ | = | Results of subjective evaluation. |
| NLPH | = | No liquid phase hydrocarbons present in wells. |
| TOC | = | Top of well casing elevation; datum is mean sea level. |
| DTW | = | Depth to water. |
| GW Elev. | = | Groundwater elevation; datum is mean sea level. |
| TPHg | = | Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015. |
| MTBE | = | Methyl tertiary butyl ether analyzed using EPA Method 8260. |
| BTEX | = | Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8020. |
| Total Pb | = | Total lead analyzed using EPA Method 6010. |
| Organic Pb | = | Organic lead analyzed using CA DHS LUFT method. |
| µg/L | = | Micrograms per liter. |
| mg/L | = | Milligrams per liter. |
| < | = | Less than the stated laboratory reporting limit. |
| --- | | Not sampled/Not analyzed/Not measured/Not applicable. |

**TABLE 2**
**WELL CONSTRUCTION DETAILS**
Former Exxon Service Station 7-0234
3450 35th Avenue
Oakland, California


| Well ID | Date Well Installed | Date Well Destroyed | TOC Elev. (feet) | Borehole Diameter (inches) | Total Depth of Boring (fbgs) | Well Depth (fbgs) | Well Casing Diameter (inches) | Well Casing Material | Screened Interval (fbgs) | Screen Slot Size (inches) | Filter Pack Interval (fbgs) | Filter Pack Material |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW1 | 07/15/92 | Jun-00 | 192.00 | 11 | 45 | 45 | 4 | Schedule 40 PVC | 25-45 | 0.010 | 23-45 | 2/12 Lonestar Sand |
| MW2 | 07/15/92 | Jun-00 | 194.85 | 11 | 45 | 45 | 4 | Schedule 40 PVC | 25-45 | 0.010 | 23-45 | 2/12 Lonestar Sand |
| MW3 | 07/15/92 | Jun-00 | 196.90 | 11 | 45 | 45 | 4 | Schedule 40 PVC | 25-45 | 0.010 | 23-45 | 2/12 Lonestar Sand |

Notes: Well construction details provided by International Technology Corporation in a previously submitted report.
TOC Elev. = Top of well casing elevation; datum is mean sea level.
fbgs = Feet below ground surface.
PVC = Polyvinyl chloride.

**TABLE 3**
**LABORATORY ANALYTICAL RESULTS OF SOIL SAMPLES**
Former Exxon Service Station 7-0234
3450 35th Avenue
Oakland, California


| Sample ID | Sampling Date | Sample Depth (fbgs) | TPHg (mg/kg) | B (mg/kg) | T (mg/kg) | E (mg/kg) | X (mg/kg) | MTBE (mg/kg) |
|---|---|---|---|---|---|---|---|---|
| **Samples from the UST Cavity Sidewall** | | | | | | | | |
| Pit1@12' | 06/14/02 | 12 | <1.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Pit2@11.5' | 06/14/02 | 11.5 | <1.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Pit3@11' | 06/14/02 | 11 | <1.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Pit4@10' | 06/14/02 | 10 | <1.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| **Samples from Beneath Product Piping** | | | | | | | | |
| A-6.4 | 06/25/02 | 6.4 | <1.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| B-4.9 | 06/25/02 | 4.9 | 24 | 0.057 | 0.11 | 0.12 | 1.2 | 0.020 |
| C-6.5 | 06/25/02 | 6.5 | <1.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| D-5.2 | 06/25/02 | 5.2 | <1.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |

Notes:

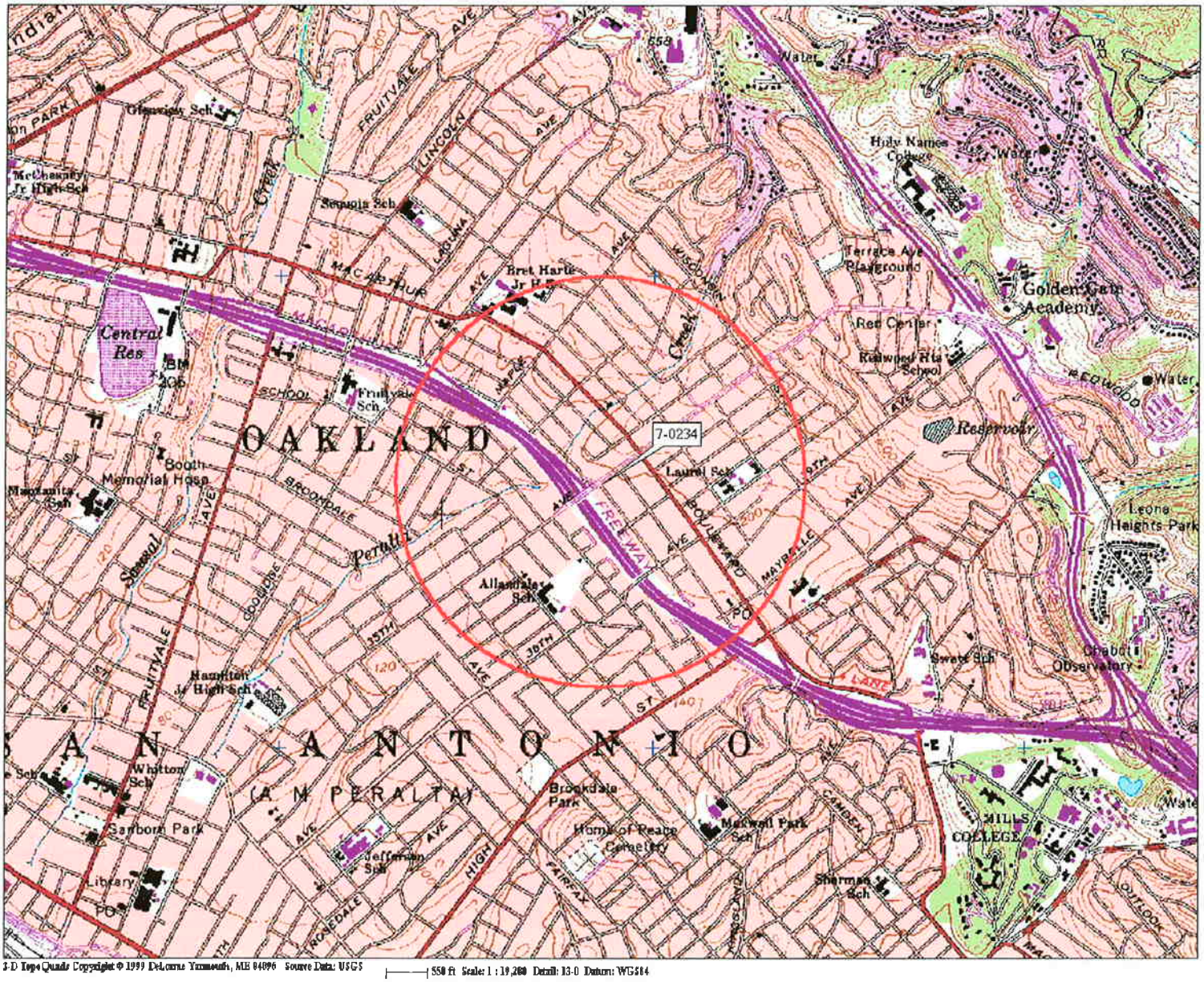
| | | |
|---|---|---|
| TPHg | = | Total petroleum hydrocarbons as gasoline analyzed using modified EPA Method 8015M. |
| MTBE | = | Methyl tertiary butyl ether analyzed using EPA Method 8021B. |
| BTEX | = | Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B. |
| fbgs | = | Feet below ground surface. |
| mg/kg | = | Milligrams per kilogram. |
| < | = | Less than the stated laboratory reporting limit. |

**TABLE 4**
**LABORATORY ANALYTICAL RESULTS OF GRAB GROUNDWATER SAMPLES**
Former Exxon Service Station 7-0234
3450 35th Avenue
Oakland, California


| Sample ID | Sampling Date | Sample Depth (fbgs) | TPHg (µg/L) | MTBE (µg/L) | B (µg/L) | T (µg/L) | E (µg/L) | X (µg/L) |
|---|---|---|---|---|---|---|---|---|
| **UST Cavity Samples** | | | | | | | | |
| Pit Water | 06/14/02 | 11.5a | 5,600 | 12,000 | 140 | 840 | 100 | 530 |
| UST Pit | 6/19/02 b | 13.5a | 680 | 640 | 2.7 | 36 | 18 | 130 |

Notes:

| | | |
|---|---|---|
| TPHg | = | Total petroleum hydrocarbons as gasoline analyzed using modified EPA Method 8015M. |
| MTBE | = | Methyl tertiary butyl ether analyzed using EPA Method 8021B. |
| BTEX | = | Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B. |
| fbgs | = | Feet below ground surface. |
| µg/L | = | Micrograms per liter. |
| < | = | Less than the stated laboratory reporting limit. |
| a | = | Approximate depth to water surface at time of sampling. |
| b | = | Sample collected after removal of approximately 9,000 gallons of water from the UST pit. |




3-D Topo Quads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 550 ft Scale: 1 : 19,200 Detail: 13-0 Datum: WGS84

Topo

## EXPLANATION

1/2-mile radius circle

N

## APPROXIMATE SCALE

0 .5 1 mile

SOURCE:
Modified from a map
provided by
DeLorme 3-D TopoQuads

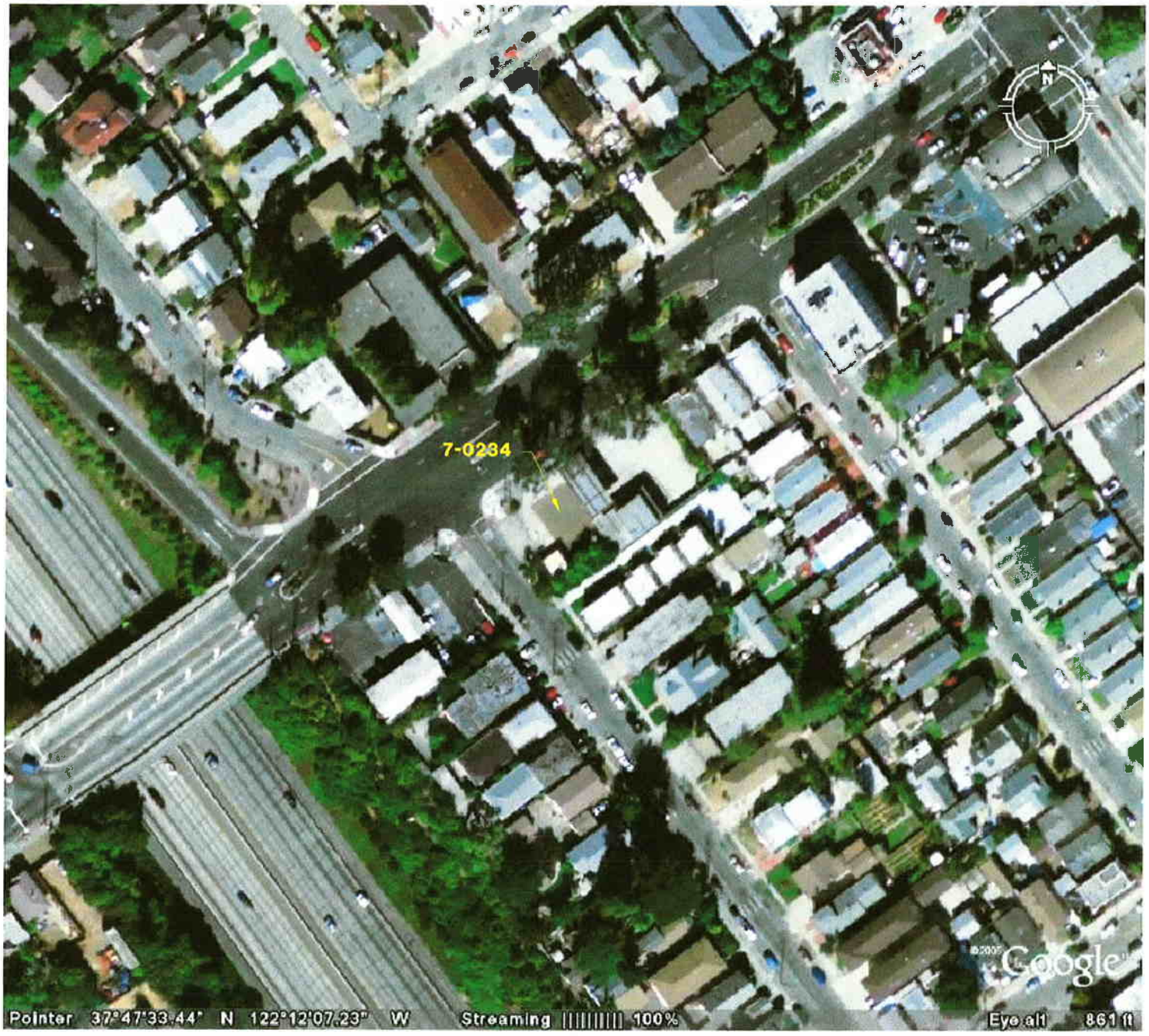
ERI
VALUE, QUALITY, RESPONSE

# SITE VICINITY MAP

FORMER EXXON SERVICE STATION 7-0234
3450 35th Avenue
Oakland, California

**PROJECT NO.**
2476

**PLATE**
1




FN 2476 W01 AERIAL_SP

EXPLANATION

NOT TO SCALE

N

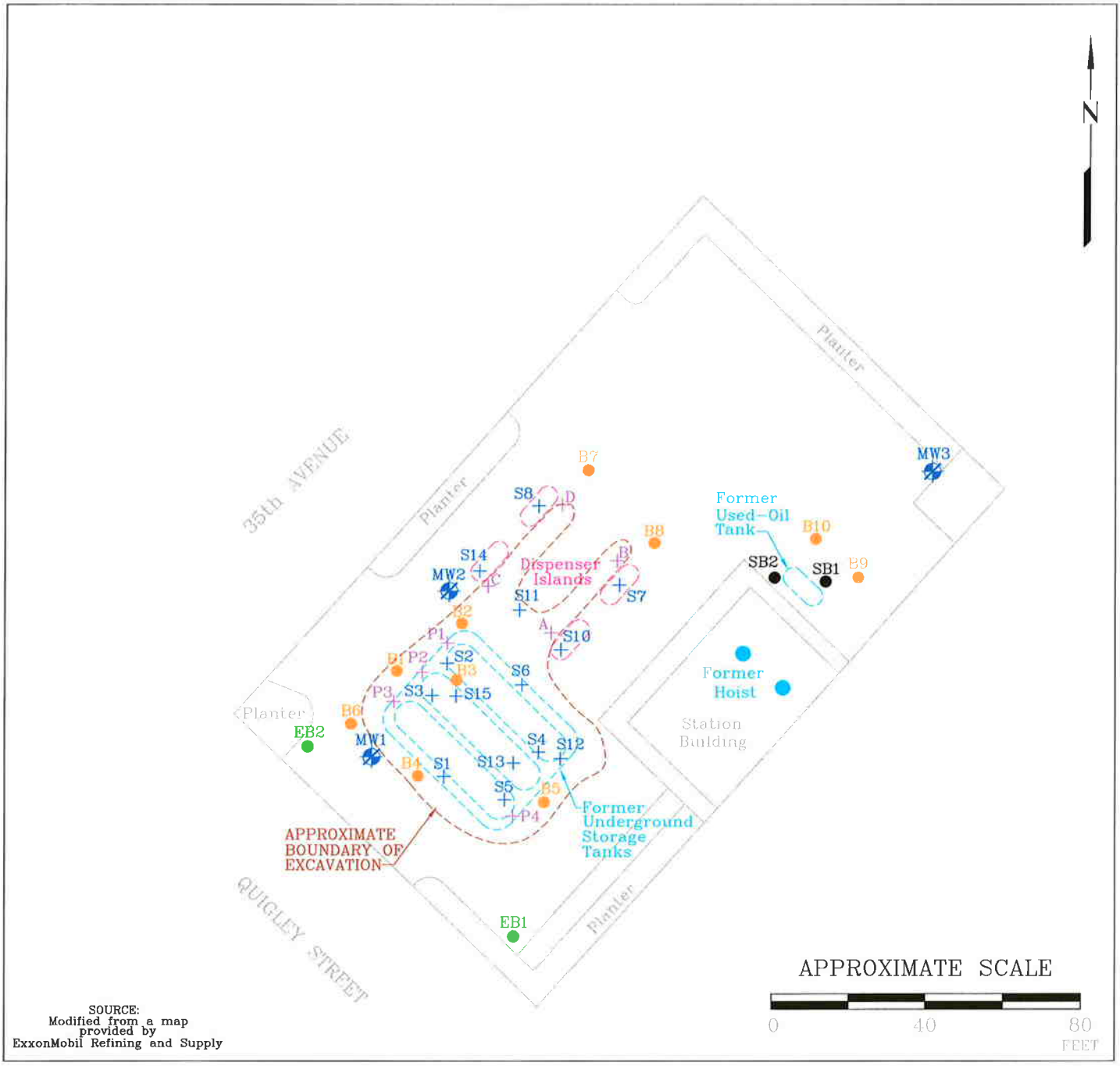
ERI
VALUE, QUALITY, RESPONSE

# LOCAL AREA MAP

FORMER EXXON SERVICE STATION 7-0234
3540 35th Avenue
Oakland, California

**PROJECT NO.** 2476

**PLATE** 2




SOURCE:
Modified from a map
provided by
ExxonMobil Refining and Supply

FN 2476 07 W01 GSP-SSA_SP

## EXPLANATION

- MW1 — Destroyed Groundwater Monitoring Well
- SB2 — Soil Boring (GTI, 1986)
- EB2 — Soil Boring (HLA, 1988)
- B10 — Soil Boring (Alton, 1991)
- S15 — Soil Sample Location (Alton, 1991)
- P4 — Soil Sample Location (TRC, 2002)

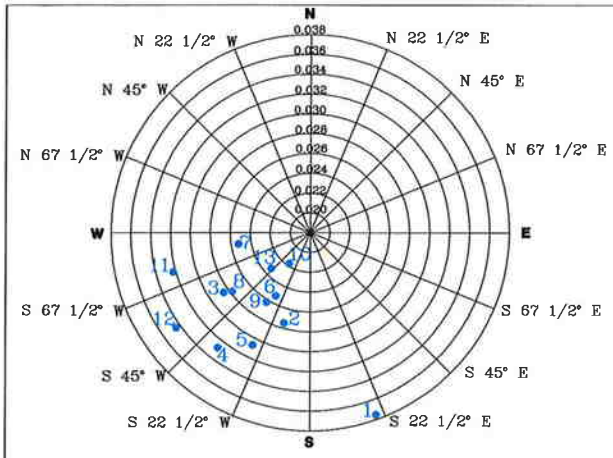
ERI
VALUE, QUALITY, RESPONSE

# GENERALIZED SITE PLAN

FORMER EXXON SERVICE STATION 7-0234
3450 35th Avenue
Oakland, California

**PROJECT NO.** 2476

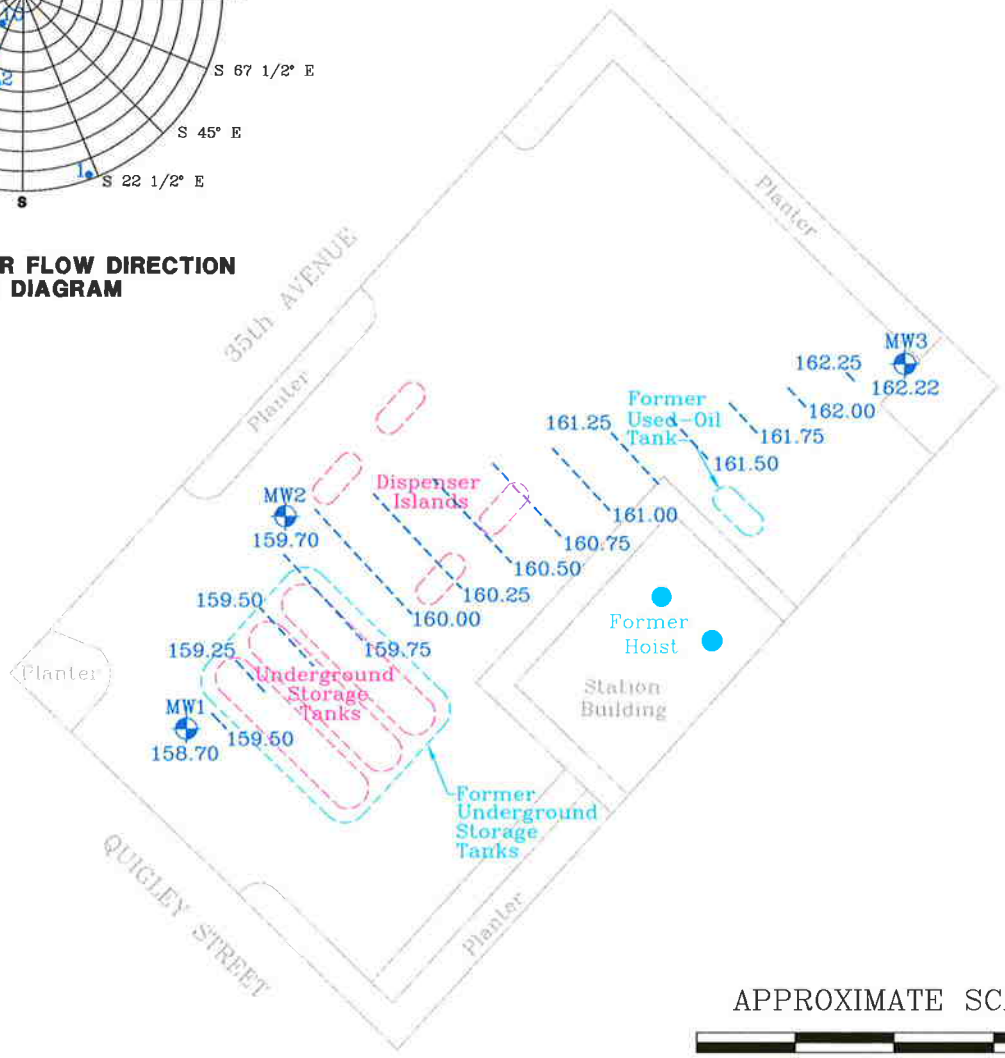
**PLATE** 3




Rose diagram developed by evaluating the groundwater gradient direction from the quarterly monitoring data. Each circle on the rose diagram represents the direction of groundwater flow and magnitude of the gradient during the numbered monitoring event.

| | | | |
|---|---|---|---|
| 1: Q923 | 5: Q933 | 9: Q943 | 13: Q993 |
| 2: Q924 | 6: Q934 | 10: Q944 | |
| 3: Q931 | 7: Q941 | 11: Q951 | |
| 4: Q932 | 8: Q942 | 12: Q952 | |

**GROUNDWATER FLOW DIRECTION ROSE DIAGRAM**




SOURCE:
Modified from a map provided by ExxonMobil Refining and Supply

FN 07 W01 3TR QM 1999_SP

## EXPLANATION

MW3 — Groundwater Monitoring Well

162.22 — Groundwater elevation in feet; datum is mean sea level

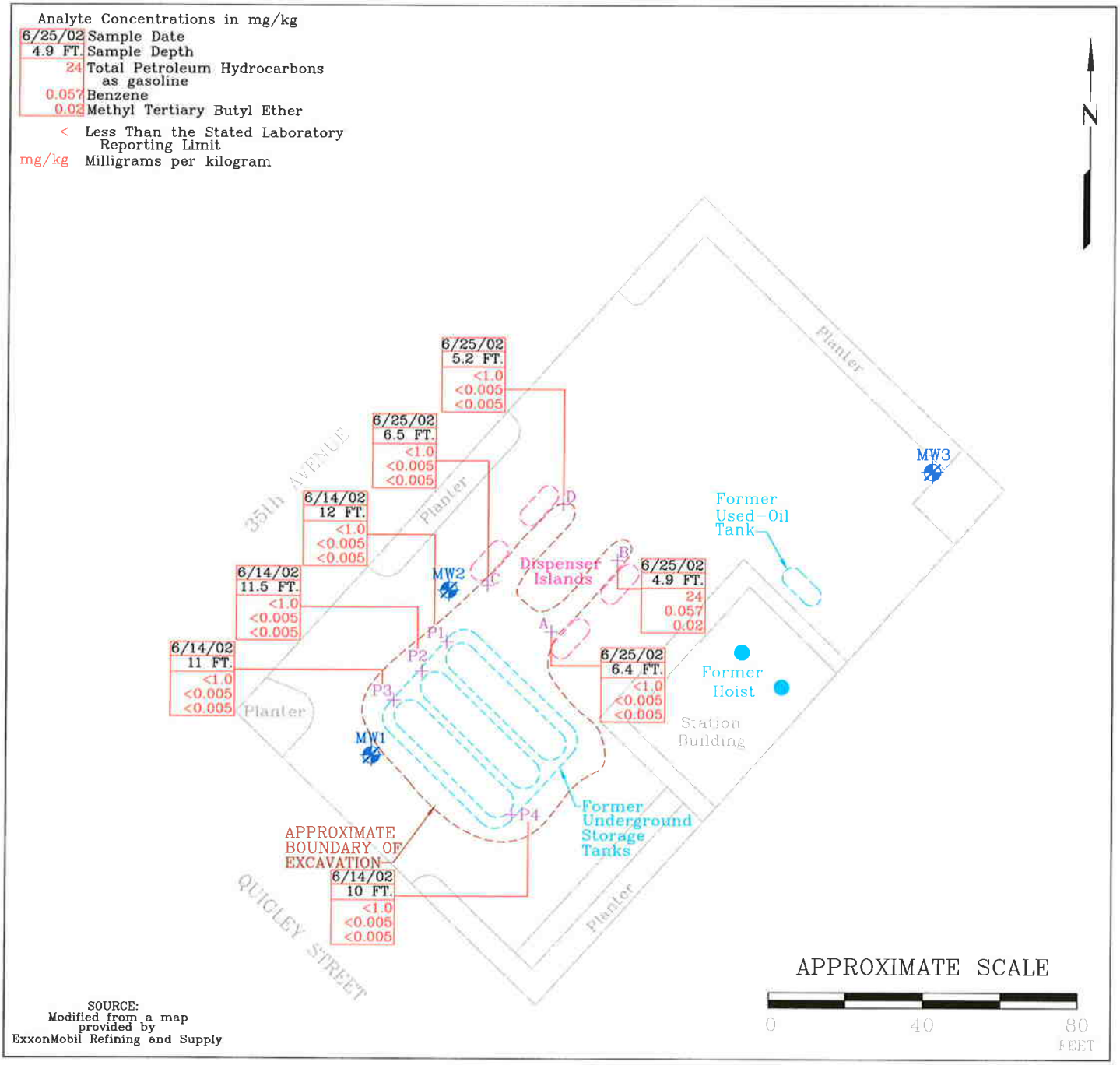
162.25 ----- Line of Equal Groundwater Elevation; datum is mean sea level

ERI
VALUE, QUALITY, RESPONSE

# GROUNDWATER ELEVATION MAP
## September 20, 1999
FORMER EXXON SERVICE STATION 7-0234
3450 35th Avenue
Oakland, California

**PROJECT NO.** 2476

**PLATE** 4




FN 2476 07 W01 GSP-SSA_SP

## EXPLANATION

MW1 Destroyed Groundwater Monitoring Well

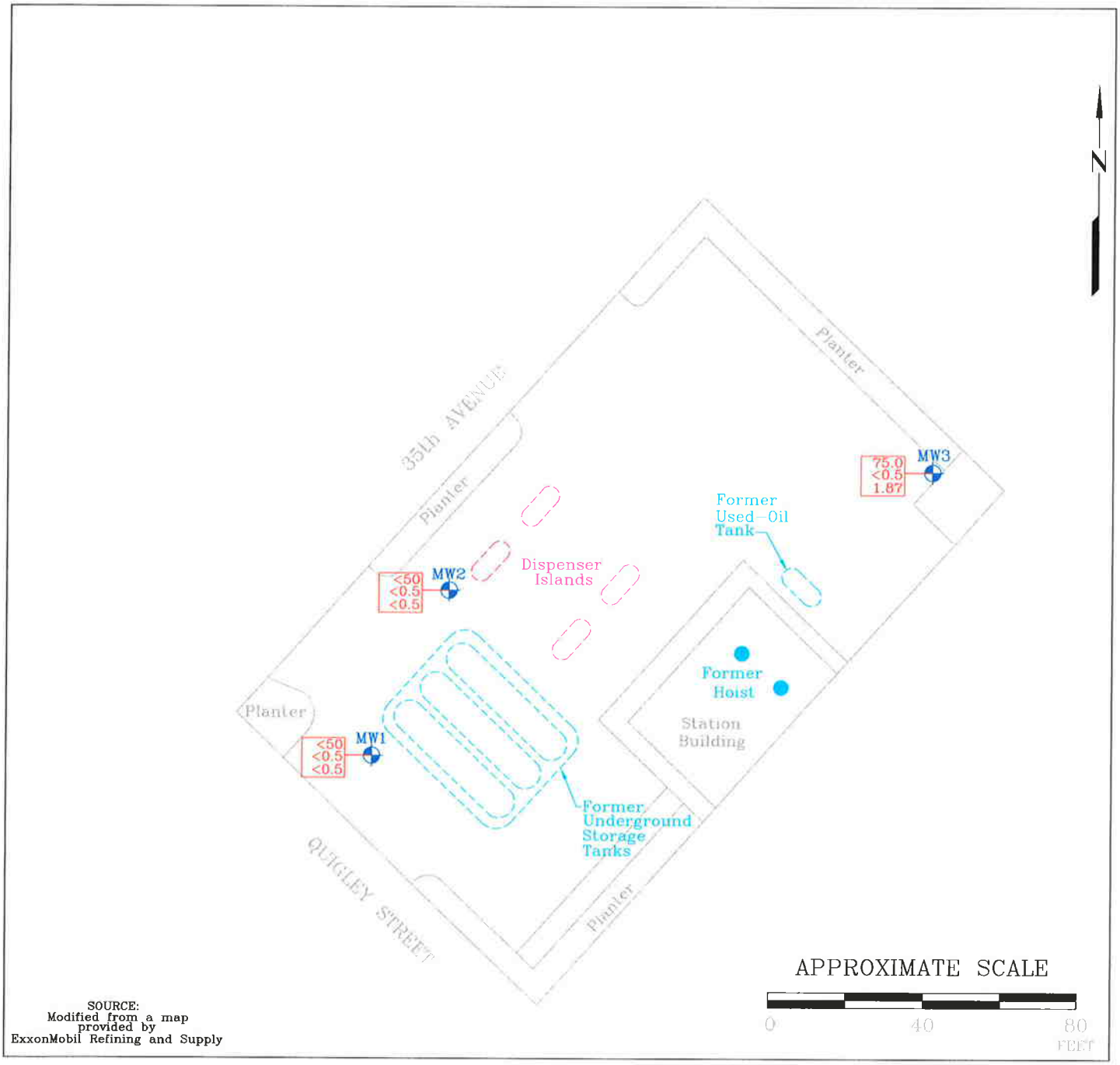
P4 + Soil Sample Location (TRC, 2002)

ERI
VALUE, QUALITY, RESPONSE

# SELECT SOIL ANAYTICIAL RESULTS

FORMER EXXON SERVICE STATION 7-0234
3450 35th Avenue
Oakland, California

| PROJECT NO. |
|---|
| 2476 |
| **PLATE** |
| 5 |




SOURCE:
Modified from a map
provided by
ExxonMobil Refining and Supply

FN 07 W01 3TR QM 1999_SP

## EXPLANATION

MW3 — Groundwater Monitoring Well

Analyte Concentrations in ug/L
Sampled September 20, 1999

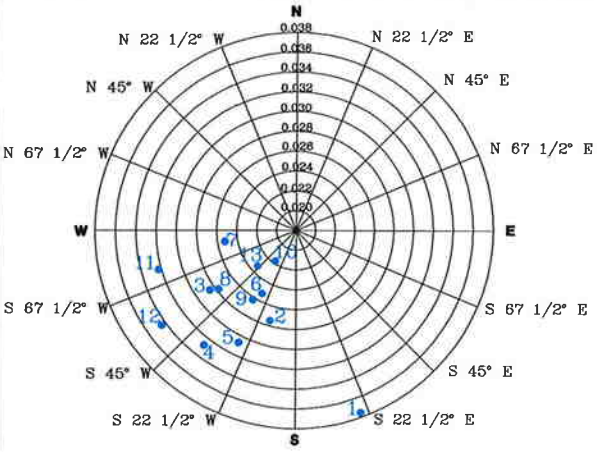
- 75.0 Total Petroleum Hydrocarbons as gasoline
- <0.5 Benzene
- 1.87 Methyl Tertiary Butyl Ether
- < Less Than the Stated Laboratory Reporting Limit
- ug/L Micrograms per Liter

ERI
VALUE, QUALITY, RESPONSE

# SELECT GROUNDWATER ANALYTICAL RESULTS
## September 20, 1999
FORMER EXXON SERVICE STATION 7-0234
3450 35th Avenue
Oakland, California

**PROJECT NO.** 2476

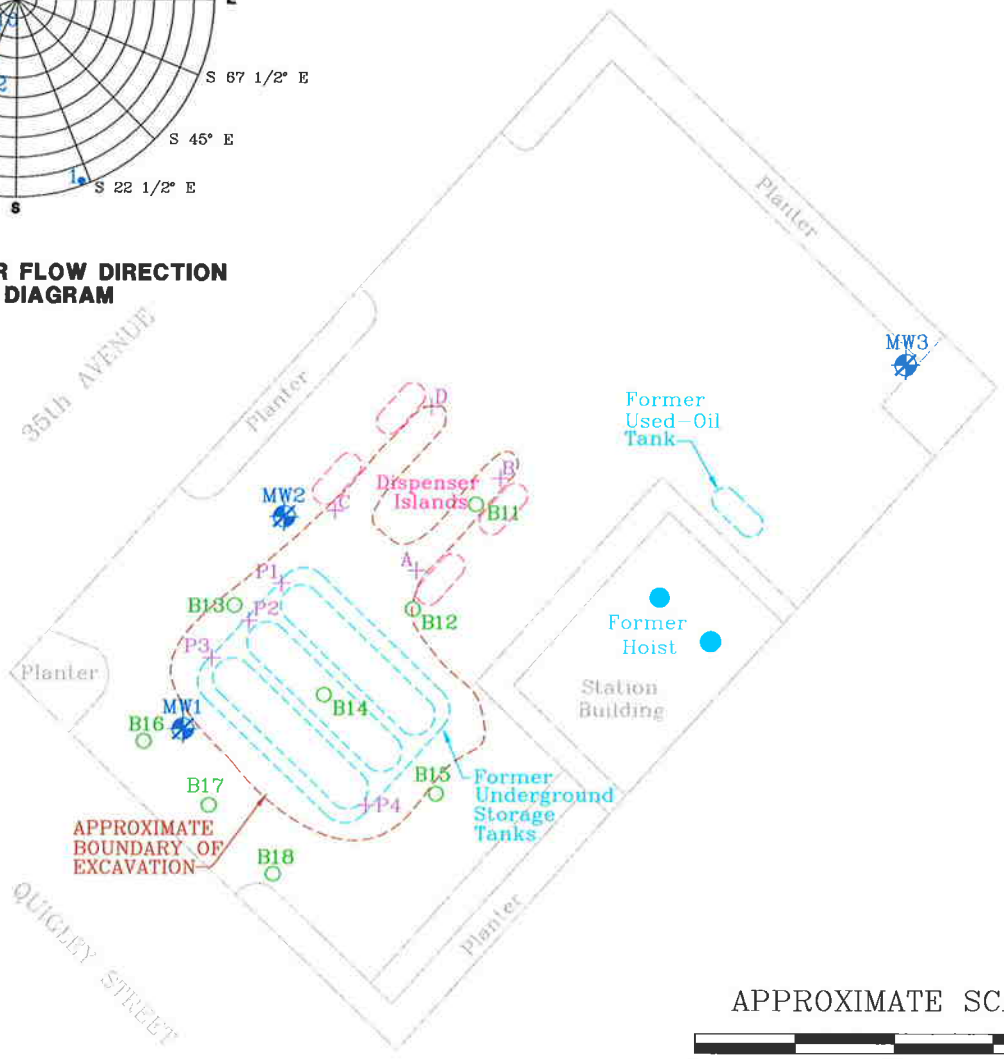
**PLATE** 6




Rose diagram developed by evaluating the groundwater gradient direction from the quarterly monitoring data. Each circle on the rose diagram represents the direction of groundwater flow and magnitude of the gradient during the numbered monitoring event.

1: Q923 5: Q933 9: Q943 13: Q993
2: Q924 6: Q934 10: Q944
3: Q931 7: Q941 11: Q951
4: Q932 8: Q942 12: Q952

**GROUNDWATER FLOW DIRECTION ROSE DIAGRAM**




APPROXIMATE SCALE

0 40 80 FEET

SOURCE:
Modified from a map provided by ExxonMobil Refining and Supply

FN 2476 07 W01 GSP-SSA_SP

## EXPLANATION

MW1 — Destroyed Groundwater Monitoring Well

P4 — Soil Sample Location (TRC, 2002)

B18 — Proposed Soil Boring

ERI
VALUE, QUALITY, RESPONSE

# PROPOSED SOIL BORING LOCATIONS

FORMER EXXON SERVICE STATION 7-0234
3450 35th Avenue
Oakland, California

**PROJECT NO.** 2476

**PLATE** 7

# ATTACHMENT A

# REGULATORY CORRESPONDENCE

ALAMEDA COUNTY
**HEALTH CARE SERVICES**
AGENCY
DAVID J. KEARS, Agency Director

March 14, 2007

(510) 5[illegible]
FAX (510) 337-9[illegible]

Mr. Robert Ehlers
Valero Refining Company
PO Box 696000
San Antonio, TX 78269

Ms. Jennifer Sedlachek
ExxonMobil
4096 Piedmont Avenue, #194
Oakland, CA 94520

Mr. R.J. Dold
BNY Western Trust Company
3200 SW FRWY #3050
Houston, TX 77027

MHCB (USA) Leasing Corp
c/o Ad Valorem Tax Department
PO Box 690110
San Antonio, TX 78269-0110

Subject: Fuel Leak Case No. RO0002515 and Geotracker Global ID #T06019757161, 3450 35th Avenue, Oakland, CA 94619 – Request for Work Plan

Dear Messrs. Ehlers, Ortega, Dold and Ms. Sedlachek:

Alameda County Environmental Health (ACEH) staff have reviewed the fuel leak case file and the report entitled, "Report on Underground Storage Tank (UST) and Product Piping Removal" dated October 8, 2002 and prepared by TRC. The report summarizes results from the removal of three 12,000 gallon USTs, fuel dispensers and conveyance piping. As a result of the contamination found onsite, an unauthorized release was documented and ACEH established a fuel leak case for the site. Consequently, ACEH identified ExxonMobil, Valero, BNY Western Trust Company and MHCB Leasing and Finance Corporation as responsible parties for the above referenced site.

ACEH names a "Responsible Party," as defined under 23 C.C.R Sec. 2720. Section 2720 defines a responsible party four (4) ways. An RP can be:

1) "Any person who owns or operates an underground storage tank used for the storage of any hazardous substance."
2) "In the case of any underground storage tank no longer in use, any person who owned or operated the underground storage tank immediately before the discontinuation of its use."
3) "Any owner of property where an unauthorized release of a hazardous substance from an underground storage tank has occurred."
4) "Any person who had or has control over an underground storage tank at the time of or following an unauthorized release of a hazardous substance."

ACEH has named the responsible parties for this site as detailed below.

*Existence of Unauthorized Release*

In July 2000, after the sale and transfer of the property and facilities to Valero, ExxonMobil received case closure from ACEH for the site located at 3450 35th Ave., Oakland, California. Valero purchased the property and facilities from ExxonMobil in June 2000. At no time since transfer of ownership did Valero either operate the fuel system or store fuel at the site. In June

2002, Valero removed three 12,000 gallon USTs and associated appurtenances. During the excavation and UST removal, approximately 140 cubic yards of fill material was excavated from the UST tank pit and transported offsite for disposal. Confirmation sampling conducted in conjunction with the UST removal detected elevated concentrations of petroleum hydrocarbons in soil and groundwater. Total petroleum hydrocarbons as gasoline (TPHg), benzene and methyl tert-butyle ether (MtBE) were detected in groundwater at concentrations up to 5,600 micrograms per liter (µg/L), 140 µg/L and 12,000 µg/L, respectively.

*Responsible Party Identification*

ExxonMobil is the primary responsible party because they owned or operated an underground storage tank used for the storage of any hazardous substance (Definition 1). In addition, ExxonMobil was the owner and operator of the USTs immediately before discontinuation of its use (Definition 2). Furthermore, ExxonMobil was the owner of property where an unauthorized release of a hazardous substance from an underground storage tank has occurred (Definition 3).

Valero Refining Company is a responsible party because they owned the tanks when the unauthorized released was detected (Definition 1), and Valero had control over the USTs when the release was detected (Definition 4).

BNY Western Trust Company is a responsible party they owned the property where an unauthorized release occurred (Definition 3).

MHCB (USA) Leasing Corp. is a responsible party because they purchased the property where an unauthorized release occurred (Definition 3).

Based on the elevated concentrations of TPH and TPH constituents detected in groundwater beneath you site an investigation is required to evaluate the extent of soil and groundwater contamination beneath your site. We recommend that your investigation incorporate expedited site assessment techniques to collect soil samples, and depth-discrete groundwater samples prior to the installation of groundwater monitoring wells. Expedited site assessment tools and methods are a scientifically valid and cost-effective approach to fully define the three-dimensional extent of groundwater contamination., Technical protocol for expedited site assessments are provide in the U.S Environmental Protection Agency's "Expedited Site Assessments for Underground Storage Tanks: a Gulde for Regulators," (EPA 510-B-97-001), dated March 1997. Therefore, we recommend that you utilize direct push technology to collect soil samples and depth-discrete groundwater samples prior to the installation of groundwater monitoring wells. Sampling locations should be located to assess the extent of soil and groundwater contamination. Other options for additional investigation or remediation may also be appropriate at your site. In addition, we request that you immediately pursue any off-site access agreements that you may need to complete your investigation activities.

The extent of groundwater contamination has not been fully defined for the site. Therefore, ACEH requests that you **submit a Work Plan by March 30, 2007** detailing your proposal to assess the extent of soil and groundwater contamination. This report is being requested pursuant to the Regional Water Quality Control Board's authority under Section 13267 of the California Water Code.

**TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Steven Plunkett), according to the following schedule:

**March 30, 2007 – Work Plan for Site Assessment**

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or

certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

LANDOWNER NOTIFICATION REQUIREMENTS

Pursuant to California Health & Safety Code Section 25297.15, the active or primary responsible party for a fuel leak case must inform all current property owners of the site of cleanup actions or requests for closure. Furthermore, ACEH may not consider any cleanup proposals or requests for case closure without assurance that this notification requirement has been met. Additionally, the active or primary responsible party is required to forward to ACEH a complete mailing list of all record fee title holders to the site.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please be aware that you may be eligible for reimbursement of the costs of investigation from the California Underground Storage Tank Cleanup Fund (Fund). In some cases, a deductible amount may apply. If you believe you meet the eligibility requirements, we strongly encourage you to call the Fund for an application.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 383-1767.

Sincerely,

Steven Plunkett
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

Donna Drogos, ACEH
Steven Plunkett, ACEH
File

## Melanie Trumbo

**From:** Jim F. Chappell
**Sent:** Sunday, April 01, 2007 1:40 PM
**To:** Melanie Trumbo
**Subject:** FW: Alameda County Case No. RO0002515; 3450 35th Avenue, Oakland, CA

02 2476 2007 0362035 w01

-----Original Message-----
From: jennifer.c.sedlachek@exxonmobil.com [mailto:jennifer.c.sedlachek@exxonmobil.com]
Sent: Sunday, April 01, 2007 11:57 AM
To: Jim F. Chappell
Cc: ruth.m.ivory-moore@exxonmobil.com; Geoffrey Waterhouse; Robert.Ehlers@valero.com
Subject: Fw: Alameda County Case No. RO0002515; 3450 35th Avenue, Oakland, CA

FYI. Thanks, Jennifer

Jennifer C. Sedlachek
510.547.8196
510.547.8706 FAX
jennifer.c.sedlachek@exxonmobil.com



----- Forwarded by Jennifer C Sedlachek/West-US/ExxonMobil on 04.01.07 11:55 AM -----

| | | |
|---|---|---|
| "Plunkett, Steven, Env. Health" <steven.plunkett@acgov.org> | | To |
| | <jennifer.c.sedlachek@exxonmobil.com> | |
| | | cc |
| 03.29.07 04:00 PM | | Subject |
| | RE: Alameda County Case No. RO0002515; 3450 35th Avenue, Oakland, CA | |

Jennifer,

ACEH has received the request from ExxonMobil regarding a two week extension for the submission of a work plan. ACEH approves your request for an additional two weeks to prepare the work plan. The new deadline will be April 13, 2007.

Regards,
Steven Plunkett
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

510-383-1767
510-337-9355 Fax
steven.plunkett@acgov.org

-----Original Message-----
From: jennifer.c.sedlachek@exxonmobil.com
[mailto:jennifer.c.sedlachek@exxonmobil.com]
Sent: Thursday, March 29, 2007 3:25 PM
To: Plunkett, Steven, Env. Health
Cc: jchappell@eri-us.com; Geoffrey Waterhouse; ruth.m.ivory-moore@exxonmobil.com; Robert.Ehlers@valero.com
Subject: Alameda County Case No. RO0002515; 3450 35th Avenue, Oakland, CA
Importance: High

Mr. Plunkett,

Thank you for taking the time to speak with me today concerning the above referenced site. As we discussed, I am writing to confirm your approval
of a two week extension to submit the Work Plan requested in your letter dated March 14, 2007. The new due date will be April 13, 2007.

The extension will provide ExxonMobil time to discuss the site and required work plan with the other RPs. Thanks again for your willingness to work
with the RPs on this matter.

Thanks, Jennifer

Jennifer C. Sedlachek
510.547.8196
510.547.8706 FAX
jennifer.c.sedlachek@exxonmobil.com

# ATTACHMENT B

# BORING LOGS

4 of 5

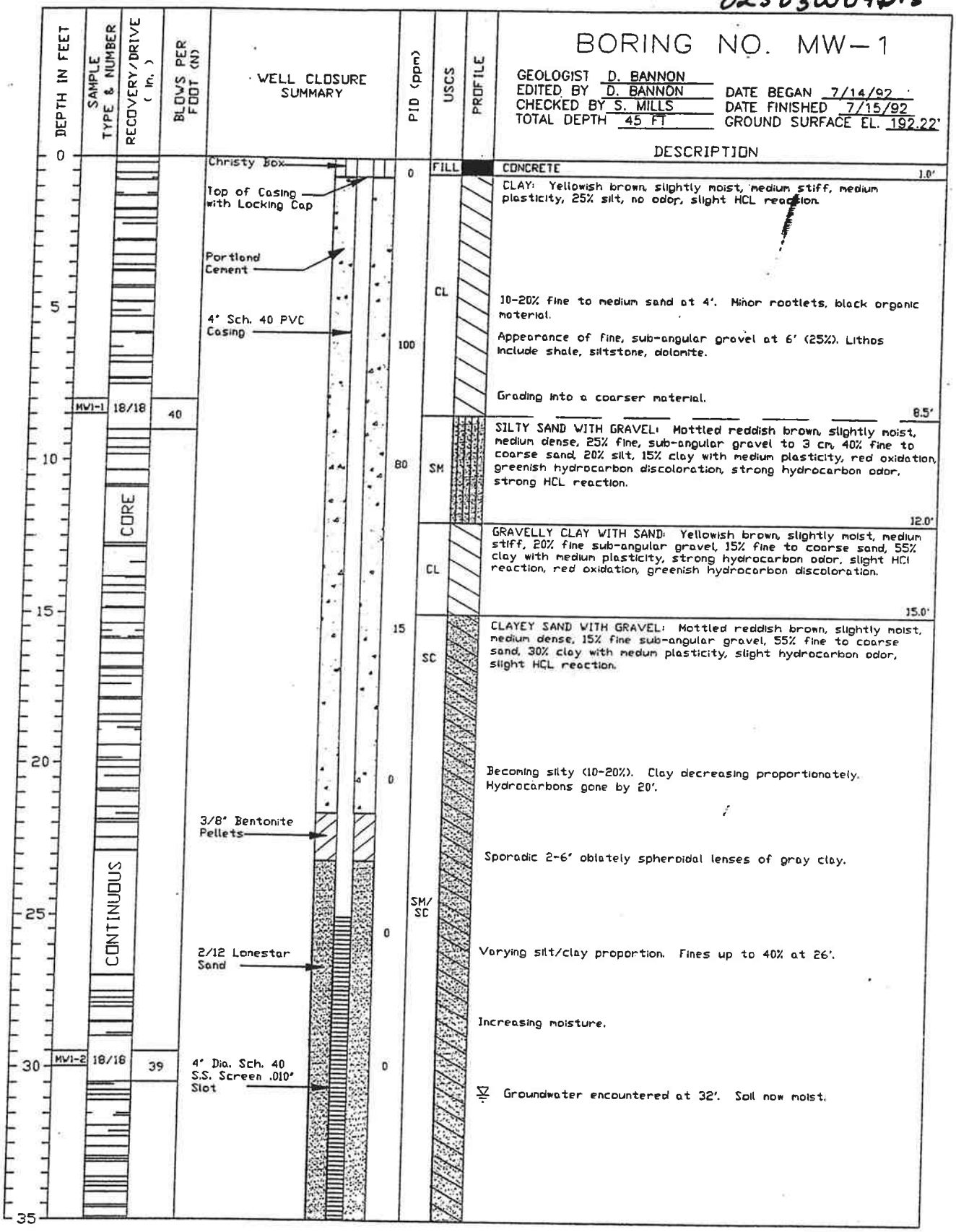
01-545F

02503W04D15

# BORING NO. MW-1

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT

DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL. 192.22'




DRILLING CO.: SIERRA PACIFIC EXPLORATION 1428
DRILL METHOD: HOLLOW STEM AUGER
SAMPLING METHOD: CONTINUOUS CORE

PROJECT NO.: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA



SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

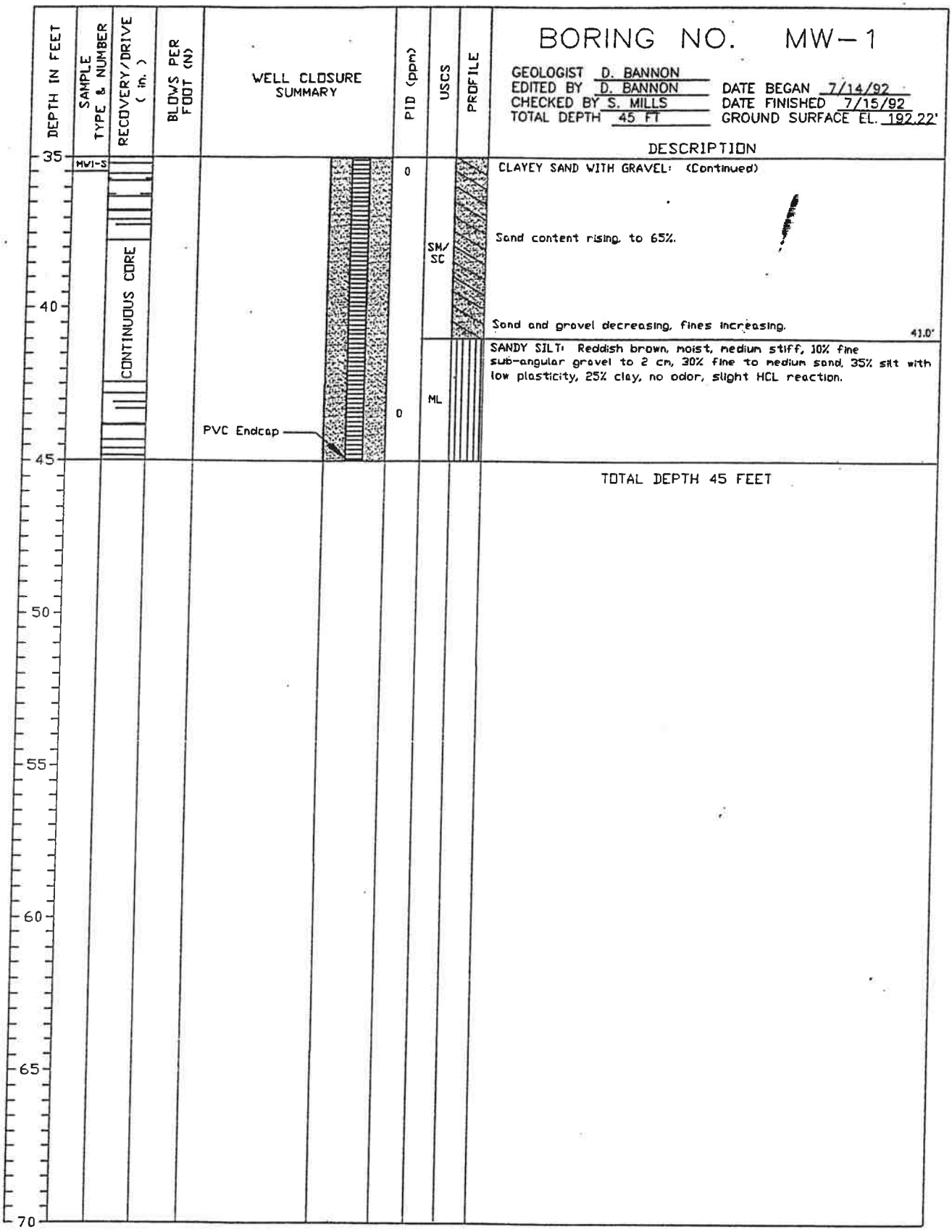
INTERNATIONAL TECHNOLOGY CORPORATION

595 01-545F

# BORING NO. MW-1

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT

DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL. 192.22'




SHEET 2 OF 2

DRILLING CO.: SIERRA PACIFIC EXPLORATION 1428
DRILL METHOD: HOLLOW STEM AUGER
SAMPLING METHOD: CONTINUOUS CORE

SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

PROJECT NO.: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA

INTERNATIONAL TECHNOLOGY CORPORATION

4 7 5

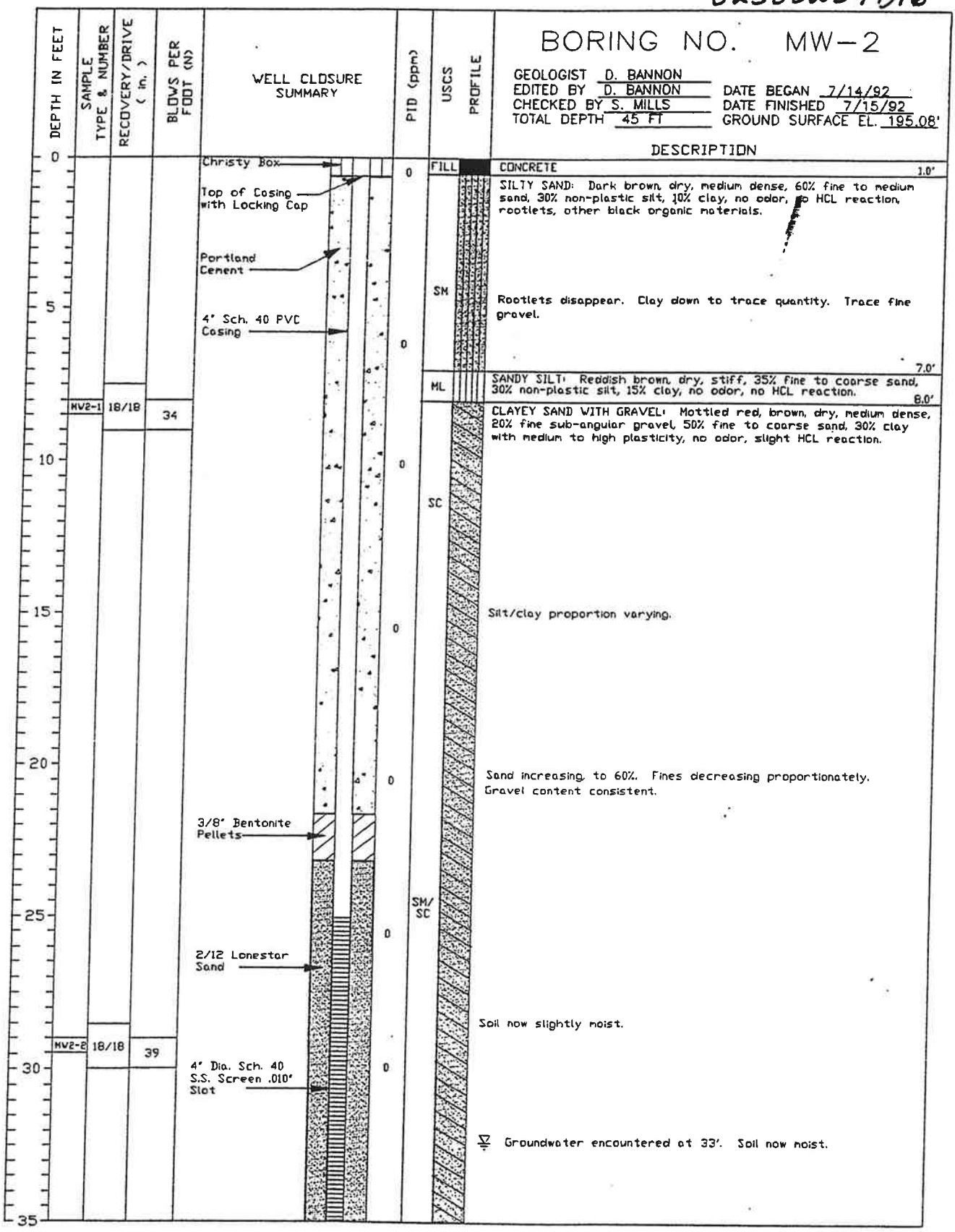
01-545G

02S03W04D16

# BORING NO. MW-2

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT

DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL. 195.08'




DRILLING CO.: SIERRA PACIFIC EXPLORATION 1428
DRILL METHOD: HOLLOW STEM AUGER
SAMPLING METHOD: SPLIT SPOON (SS) SAMPLER

PROJECT NO.: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA



SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY CORPORATION

5 of 5

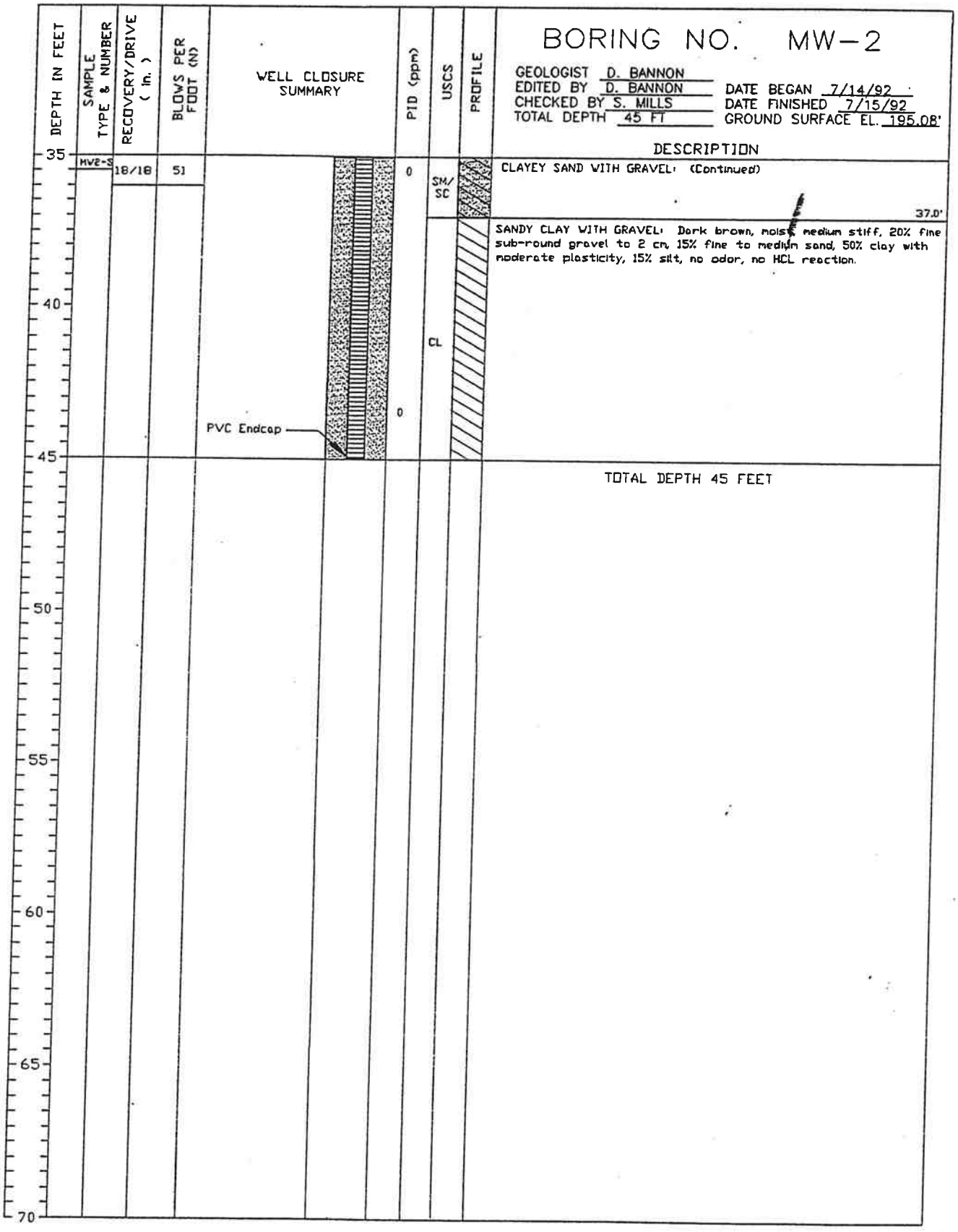
01-545G

02S03W04D/6

# BORING NO. MW-2

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT

DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL. 195.08'




SHEET 2 OF 2

DRILLING CO.: SIERRA PACIFIC EXPLORATION
DRILL METHOD: HOLLOW STEM AUGER
SAMPLING METHOD: SPLIT SPOON (SS) SAMPLER

SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

PROJECT NO.: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA

INTERNATIONAL TECHNOLOGY CORPORATION

405

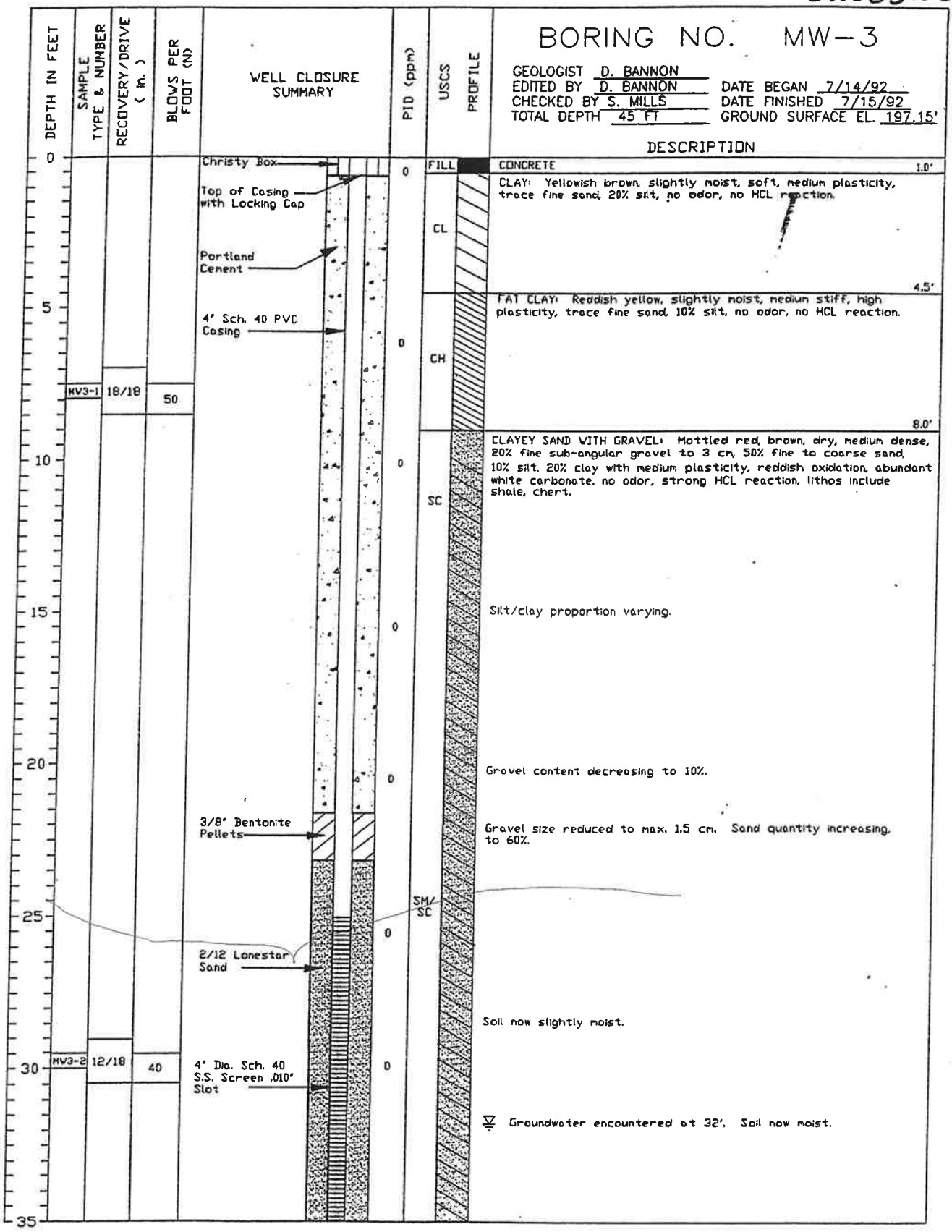
01-545H

02503W04D17

# BORING NO. MW-3

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT

DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL. 197.15'




DRILLING CO.: SIERRA PACIFIC EXPLORATION 1428
DRILL METHOD: HOLLOW STEM AUGER
SAMPLING METHOD: SPLIT SPOON (SS) SAMPLER

PROJECT NO.: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA



SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY CORPORATION

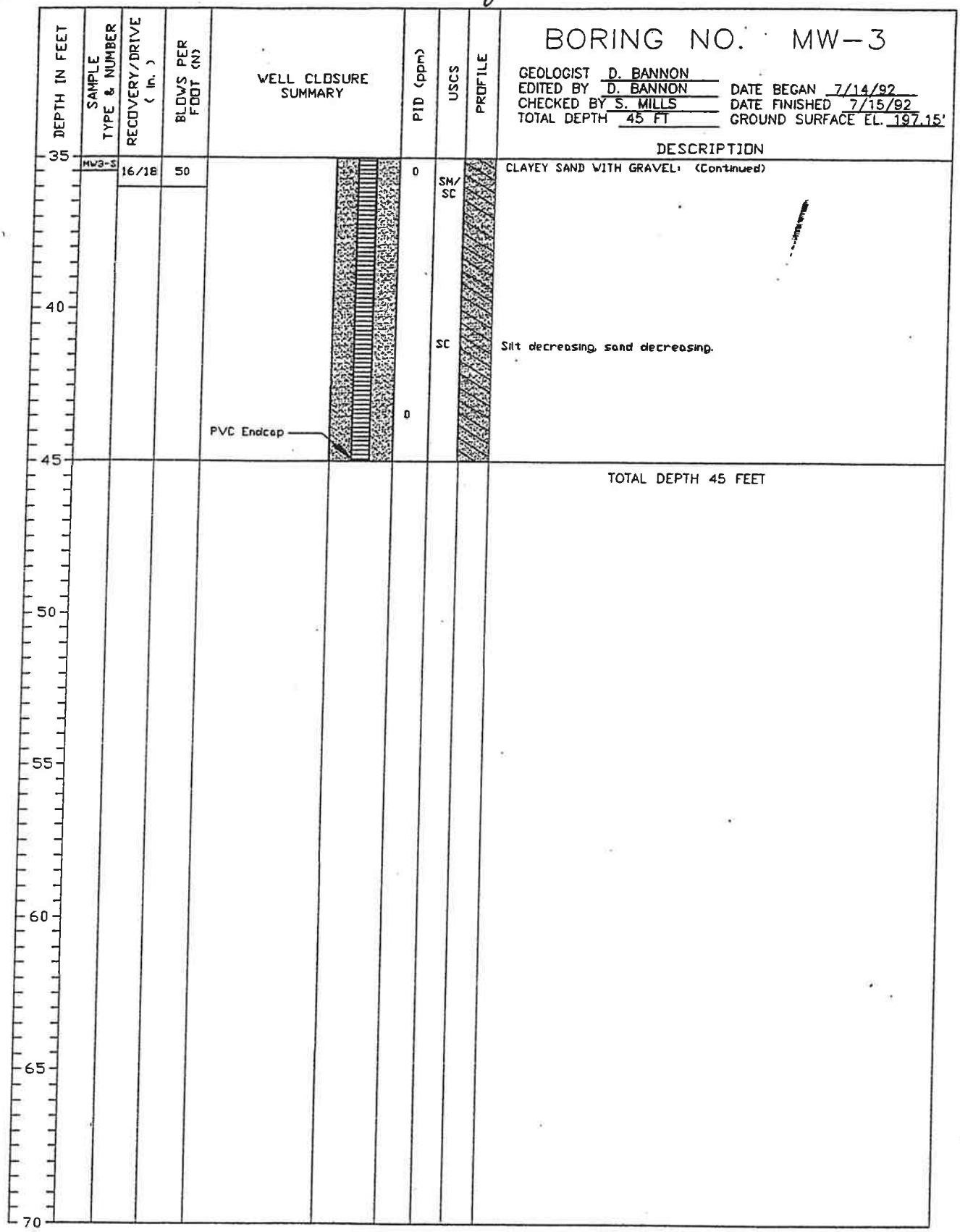
5q6

5q 01-5451-1

# BORING NO. MW-3

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT

DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL. 197.15'




DRILLING CO.: SIERRA PACIFIC EXPLORATION
DRILL METHOD: HOLLOW STEM AUGER
SAMPLING METHOD: SPLIT SPOON (SS) SAMPLER

PROJECT NO.: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA



SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY CORPORATION

# ATTACHMENT C

# FIELD PROTOCOL

# FIELD PROTOCOL

Site Safety Plan

Field work will be performed by ERI personnel in accordance with a Site Safety Plan developed for the site. This plan describes the basic safety requirements for the subsurface investigation and the drilling of soil borings at the work site. The Site Safety Plan is applicable to personnel and subcontractors of ERI. Personnel at the site are informed of the contents of the Site Safety Plan before work begins. A copy of the Site Safety Plan is kept at the work site and is available for reference by appropriate parties during the work. The ERI geologist will act as the Site Safety Officer.

Drilling of Soil Borings

Prior to the drilling of soil borings, ERI will acquire necessary permits from the appropriate agency(ies). ERI will also contact Underground Service Alert (USA) and a private underground utility locator (per ExxonMobil protocol) before drilling to help locate public utility lines at the site. ERI will clear the proposed locations to a depth of approximately 4 or 8 feet (depending on the location), before drilling to reduce the risk of damaging underground structures.

The soil borings will be advanced using dual-tube or direct-push technology. A dual tube system consists of a large diameter (up to 3.5 inches) outer rod which serves as a temporary drive casing nested with an inner sample rods and sample barrel (up to 2.6 inches) used to obtain and retrieve the soil cores. The dual tubes are simultaneously pushed, pounded, or vibrated into the ground.

As the rods are advanced, soil is forced up inside of a three-foot sample barrel that is attached to the end of the inner rods. Soil samples are collected in stainless steel or clear plastic sample liners inside the sample barrel as both rods are advanced. After being driven three feet, the inner rods and sample barrel are retrieved, and the sample liners are removed from the sample barrel and are either package for chemical analysis or visually inspected for lithologic identification. Clean empty liners are placed into a new three foot sample barrel and attached to the rods and lowered to the bottom of the hole and the process is repeated until the total depth of the boring is reached.

The larger outer diameter rods are left in place while the inner rod and sample barrel is retrieved. This prevents the boring from collapsing and ensures that the soil samples are collected from the targeted depth rather than potentially be contaminated with slough from higher up in the boring.

The drive casing, sampling rods, sample barrels, and tools will be steam-cleaned before use and between borings to minimize the possibility of cross-hole contamination. The rinsate will be contained in drums and stored on site. ERI will coordinate with Exxon Mobil for appropriate disposal of the rinsate.

Drilling will be performed under the observation of a field geologist, and the earth materials in the borings will be identified using visual and manual methods, and classified as drilling progresses using the Unified Soil Classification System.

Soil samples will be monitored with a photo-ionization detector (PID), which measures hydrocarbon concentrations in the ambient air or headspace above the soil sample. Field instruments such as the PID are useful for indicating relative levels of hydrocarbon vapors, but do not detect concentrations of hydrocarbons with the same precision as laboratory analyses. Soil samples selected for possible chemical analysis will be sealed promptly with Teflon® tape and plastic caps. The samples will be labeled and placed in iced storage for transport to the laboratory. Chain-of-Custody records will be initiated by the geologist in the field, updated throughout handling of the samples, and sent with the samples to the laboratory. Copies of these records will be in the final report. Cuttings generated during

drilling will be placed on plastic sheeting and covered and left at the site. ERI will coordinate with Exxon Mobil for the soil to be removed to an appropriate disposal facility.

Grab Groundwater Sample Collection through Direct-Push Rods

At first encountered groundwater, the sample barrel and inner rods will be removed from the boring. Small diameter well casing with 0.010" slotted well screen may be installed to facilitate the collection of groundwater samples. The temporary well is lowered through the drive casing and then the drive casing is pulled up approximately 0.5 feet to 2 feet to expose the slotted interval and allow groundwater to flow into the boring. Groundwater samples may then be collected from within the drive casing with a new disposable bailer or peristaltic pump. When using dual-wall direct-push technology, the outer rods seal off upper portions of the aquifer while coring to the lower depths. Groundwater samples from lower depths can be collected by removing the inner coring rods while the outer rods remain in place, and attaching drive rods to a groundwater sampling probe such as the HydroPunch II® (HP II), which is then inserted inside the outer rods of the dual-wall equipment. A 5-foot long disposable screen and tip is inserted into the HP-II, the HP-II is pushed to the desired depth and the outer body of the HP-II is retracted. The disposable screen is exposed to the ground water and a ¾-inch inner-diameter bailer is lowered through the rods and into the screened zone for sample collection.

Grab Groundwater Sampling

The Hydropunch® sampler (or similar) provides a method for collecting groundwater samples at multiple depths in the same boring. To sample groundwater, the sample tool is pushed to the selected depth beneath the water table, then withdrawn to expose an inlet screen. Alternatively, a temporary casing is placed within the casing. A water sample is then collected and promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.

Boring Grouting

After soil and grab groundwater sampling have been completed, all borings will be backfilled with cement grout containing less that 5 percent pure sodium bentonite. The grout will be pumped through a tremie pipe positioned at the bottom of the borings.