ExxonMobil
Environmental Services
4096 Piedmont Avenue #194
Oakland, CA 94611
925.787.4718

Jennifer Sedlachek
US Western Area Execution
Project Manager

ExxonMobil

RECEIVED
By Alameda County Environmental Health 3:53 pm, Dec 15, 2017

December 15, 2017

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

Subject: **Closure Request**
Former Exxon Service Station 70234
3450 35th Avenue, Oakland, California
ACHCSA File No. RO0002515

Dear Mr. Nowell:

Attached for your review and comment is a copy of the Closure Request for the above subject site. This report, prepared by ETIC, presents and discusses the conceptual site model; evaluates the data for the former Exxon Service Station 70234 against criteria for closure under the State Water Resources Control Board's Low Threat Underground Storage Tank Closure Policy; and requests that the Alameda County Health Care Services Agency (ACHCSA) Case No. RO0002515 be closed.

Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or comments, please contact Mr. Ryan Haughy of ETIC at (626) 432-5999 x 2503 or me at 925.787.4718

Sincerely,

Jennifer C. Sedlachek
EMES Project Manager

Attachment: ETIC's Closure Request

c: w/ attachment:
Mr. Bieu Tran, 13081 Brookpark Road, Oakland, CA 94619
Mr. Shay Wideman, The Valero Companies, Environ. Liability Mgt., P.O. Box 696000, San Antonio, TX 78269
c: w/o attachment: Mr. Ryan Haughy, ETIC

ETIC
CONSULT ENGINEER CONSTRUCT

250 W. Colorado Boulevard | Suite 110 | Arcadia, CA 91007
Phone 626.432.5999 | Fax 626.432.5998
www.eticeng.com | License No. 624022

Closure Request

Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Prepared for

ExxonMobil Oil Corporation

Prepared by

ETIC
250 West Colorado Boulevard, Ste. 110
Arcadia, California 91007
(626) 432-5999

12/15/17

Kate Lamb
Senior Project Manager

Date

12/15/17

Ryan Haughy, P.G. #7851
Program Manager

PROFESSIONAL GEOLOGIST
RYAN R. HAUGHY
No. 7851
STATE OF CALIFORNIA

Date

December 2017

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
ACHCSA	Alameda County Health Care Services Agency, Environmental Health Services
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CDHS	California Department of Health Services
CH_4	methane
CPT	cone-penetrating test
DWR	California Department of Water Resources
EA	EA Engineering, Science and Technology
ESL	environmental screening level
ExxonMobil	ExxonMobil Oil Corporation
Fe^{2+}	ferrous iron
ft/day	feet per day
gpm	gallons per minute
LTCP	Low Threat Underground Storage Tank Closure Policy
MCL	maximum contaminant limit
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
Mn^{2-}	manganese
MTBE	methyl tertiary butyl ether
NO_3	nitrate
O_2	dissolved oxygen
PAH	Polycyclic Aromatic Hydrocarbons
ppm	parts per million
SO_4^{2-}	sulfate
SWRCB	State Water Resources Control Board
TBA	tertiary butyl alcohol
TPH-d	Total Petroleum Hydrocarbons as diesel
TPH-g	Total Petroleum Hydrocarbons as gasoline
TPH-mo	Total Petroleum Hydrocarbons as motor oil
TRC	TRC Solutions
USEPA	United States Environmental Protection Agency
UST	underground storage tank

SITE CONTACTS

Site Name:	Former Exxon Service Station 70234
Site Address:	3450 35th Avenue Oakland, California
Current property owner:	Bieu Tran
Current site use:	Vacant lot with former station building and canopy.
ExxonMobil Project Manager:	Jennifer C. Sedlachek ExxonMobil Environmental Services Company 4096 Piedmont Avenue #194 Oakland, California 94611 (510) 547-8196
Consultant to ExxonMobil:	ETIC 250 W. Colorado Blvd, Suite 110 Arcadia, California 91007 (626) 432-5999
ETIC Project Manager:	Kate Lamb
Regulatory Oversight:	Keith Nowell Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577 (510) 567-6764

1.0 INTRODUCTION

At the request of ExxonMobil Environmental Services Company, and on behalf of ExxonMobil Oil Corporation (ExxonMobil), ETIC has prepared this Request for Closure for Former Exxon Service Station 70234, located at 3450 35th Avenue in Oakland, California. ETIC submits this request for closure based on the findings from the ETIC letter dated 12 December 2017 which addresses the issues raised by the Alameda County Health Care Services Agency (ACHCSA) during the 19 October 2017 meeting. The objective of this Request for Closure is to present and discuss the conceptual site model; evaluate the data for the former Exxon Service Station 70234 against criteria for closure under the State Water Resources Control Board's Low Threat Underground Storage Tank Closure Policy (LTCP); and request that the Alameda County Health Care Services Agency (ACHCSA) Case No. RO0002515 be closed.

2.0 BACKGROUND

2.1 SITE LOCATION AND LAND USE

Former Exxon Service Station 70234 is located at 3450 35th Avenue in Oakland, California, as shown on Figures 1 through 4. The site is on the eastern corner of the intersection of 35th Avenue and Quigley Street. An active Chevron-branded service station (former Unocal Service Station 6129) is located southwest across Quigley Street. Residential properties adjoin the service stations immediately to the southeast and northeast and northwest across 35th Avenue. Interstate 580 is located 250 feet further southwest.

An Exxon-branded service station operated at the site until 2000 when it was sold to Valero Energy Corporation. The service station was decommissioned when underground storage tanks (USTs) and fueling systems were removed in 2002; the excavation from which the USTs were removed was filled with gravel and resurfaced (TRC Solutions [TRC] 2002). The station building, canopy, and concrete paving remain, and the perimeter is surrounded by a fence.

Topography slopes generally across the site and further beyond to the southwest toward San Francisco Bay. The site is approximately 2 miles northeast of the Oakland Estuary, as shown on Figure 1; the Oakland Estuary connects to San Leandro Bay to the south and Oakland Inner Harbor to the north. Both connect to the San Francisco Bay. Peralta Creek is the closest surface water, passing approximately 600 feet to the northwest (crossgradient of the site) and flowing southeast toward the estuary and San Francisco Bay.

Water is supplied to consumers in the neighborhood by East Bay Municipal Utilities District; no wells that provide water for drinking have been identified in the immediate neighborhood. Figure 3 shows the known underground utilities in the site vicinity. A well 62 feet deep with a 6-inch borehole was installed in 1977 and reportedly was used for irrigation. This well is located in the backyard of a residence, approximately 675 feet west-southwest beyond Interstate 580, as shown on Figures 1 and 2. Records provided by the California Department of Water Resources (DWR) and the Alameda County Public Works Department do not list any wells used for domestic water supply; wells listed within a 2,000-foot radius are monitoring and test wells (ETIC 2015a).

2.2 UNDERGROUND STORAGE TANKS AND HYDRAULIC LIFTS

Before 1991, three single-walled, 8,000-gallon USTs stored gasoline that was dispensed from pumps on two islands, as shown on Figure 3. In August 1991, the three 8,000-gallon gasoline USTs were removed and were replaced with three 12,000-gallon, double-walled, fiberglass USTs (Alton Geoscience 1992). Gasoline was stored in the USTs and was dispensed from pumps on the two dispenser islands, as shown on Figure 3. In June 1997, one 500-gallon used-oil UST and two hydraulic hoists were removed (EA Engineering, Science and Technology [EA] 1997). The fuel system was decommissioned when the three 12,000-gallon gasoline USTs and associated product piping were removed in 2002 (TRC 2002). The excavations were backfilled with gravel, and the surfaces were repaved with concrete.

2.3 SUMMARY OF PREVIOUS INVESTIGATIONS

Soil and groundwater beneath the site have been investigated since 1986. As part of the initial environmental case requiring investigation of petroleum hydrocarbons in soil samples collected when the steel USTs were replaced in 1991, groundwater monitoring wells MW1 through MW3 were installed. Fourteen soil borings (B1 through B10, EB1, EB2, SB1, and SB2) were advanced in 1988 and 1991. Between 2007 and 2014, investigations included:

- Advancement of 10 soil borings (B11 through B21) in 2007 and 2009.
- Installation of six groundwater monitoring wells (MW4 through MW9) in 2009.
- Installation and testing of groundwater extraction well RW1 in 2011 and 2012.
- Advancement of three borings for cone-penetrating tests (CPTs) in 2014.
- Advancement of six borings from which grab groundwater samples were collected using a Hydropunch® (H1-70, H1-95, H2-62, H2-80, H3-65, and H3-90) in 2014.
- Installation of six soil-vapor monitoring probes (V1 through V6) in 2014.

Groundwater monitoring and sampling has been conducted since 1988, as directed by the ACHCSA and the California Regional Water Quality Control Board, San Francisco Bay Region. Well and soil boring locations are shown on Figure 4. Well construction details are presented in Table 1; soil sample analytical results are summarized in Tables 2 and 3; historical groundwater sample analytical results are summarized in Tables 4 through 6; and vapor sample analytical results are summarized in Table 7.

2.4 SUMMARY OF PREVIOUS REMEDIAL MEASURES

On 28 August 1991, three 8,000-gallon USTs were removed. Total Petroleum Hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and xylenes (BTEX) were found in soil samples collected from the excavations, as presented in Table 2. Consequently, approximately 1,200 cubic yards of fill and native soil were excavated to remove the impacted soil and to enlarge the excavation to accommodate the larger USTs. The excavated soil was transported and disposed of at Chemical Waste Management in Kettleman City, California. TPH-g and benzene were detected at concentrations up to 5 milligrams per kilograms (mg/kg) and 0.36 mg/kg, respectively, in soil samples collected from the limits of the enlarged excavation (Alton Geoscience 1991).

In June 1997, one 500-gallon used-oil UST and two hydraulic hoists were removed. TPH-g, Total Petroleum Hydrocarbons as diesel (TPH-d), and Total Petroleum Hydrocarbons as motor oil (TPH-mo) were detected at concentrations of 8.6 mg/kg, 200 mg/kg, and 680 mg/kg, respectively, in a soil sample (T1-12) collected 12 feet below ground surface (bgs). TPH-d and TPH-mo were detected at concentrations of 47 mg/kg and 150 mg/kg, respectively, in samples collected from the stockpile of soil excavated from around and beneath the UST. Soil was also excavated when the hydraulic lifts were removed; the concentrations of TPH as hydraulic oil were 99 mg/kg in H1-8 and 2,100 mg/kg in H2-8 (EA 1997). A hard copy of this report was submitted to the agency in a

letter dated 12 December 2017.

In July 2000, ACHCSA closed the Fuel Leak Case (STID 519) for the site, certifying that the investigation and corrective action were complete for the former USTs removed in 1991 (ACHCSA 2000).

In June 2002, three 12,000-gallon, double-walled, fiberglass USTs were removed to decommission the service station. Approximately 170 cubic yards of pea gravel and soil were excavated (TRC 2002). TPH-g, BTEX, and methyl tertiary butyl ether (MTBE) were not detected in four soil samples collected from the sidewalls of the UST excavation, as shown in Table 2. TPH-g, BTEX, and MTBE were not detected in three of the four soil samples collected beneath the product piping. TPH-g (24 mg/kg), benzene (0.057 mg/kg), toluene (0.11 mg/kg), ethylbenzene (0.12 mg/kg), total xylenes (1.2 mg/kg), and MTBE (0.020 mg/kg) were detected in soil sample B collected approximately 4.9 feet bgs beneath the northeastern dispenser island (TRC 2002). On 19 June 2002, 8,900 gallons of water were removed from the north and south ends of the UST cavity using a vacuum truck. A sump was dug in the north end of the cavity to increase water production. The base of the sump 13.5 feet bgs exposed native soil beneath the pea gravel remaining in the excavation. TPH-g, benzene, and MTBE were detected in a sample collected from water remaining in the sump at concentrations of 680 micrograms per liter (µg/L), 2.7 µg/L, and 640 µg/L, respectively (TRC 2002).

In March 2007, the ACHCSA opened an environmental case for the site when MTBE was detected in groundwater collected from the UST excavation during the 2002 UST removal (TRC 2002). The presence and extent of petroleum hydrocarbons and MTBE in soil and groundwater at the site have been investigated progressively since the case was re-opened in 2007. The investigations have included the collection and analysis of soil, groundwater, and soil-vapor samples from soil borings, borings for CPT and Hydropunch®, groundwater monitoring and extraction wells, and soil-vapor monitoring probes.

In December 2011, Cardno ERI installed and tested recovery well RW1 to observe aquifer characteristics and to assess the feasibility of groundwater pump-and-treat as a remediation strategy for dissolved-phase petroleum hydrocarbons in groundwater (Cardno ERI 2012a). The assessment/evaluation included step-drawdown and constant-rate groundwater pumping tests. Cardno ERI accounted for the removal and disposal of 1,200 gallons of water and approximately 0.02 pound of TPH-g, 0.02 pound of MTBE, and 0.01 pound of benzene (Cardno ERI 2012a). ERI Cardno recommended evaluating other remedial alternatives because pumping at a rate of 0.3 gallons per minute (gpm) could not be sustained, and the mass of petroleum hydrocarbons removed was low (<0.02 pound).

Masses and volumes of soil and groundwater removed to date are summarized below:

- 1,200 cubic yards of soil disposed of off-site.
- 10,100 gallons of groundwater disposed of off-site.

3.0 CONCEPTUAL SITE MODEL

Gasoline, comprising petroleum hydrocarbons and fuel oxygenates, was stored in the USTs and was dispensed from the fueling facilities; no diesel fuel or other chemicals were stored in the USTs or dispensed from the fuel systems at the site. Petroleum hydrocarbons and fuel oxygenates have been identified and investigated as the primary compounds of concern.

3.1 SOURCE OF PETROLEUM HYDROCARBONS

Analytical data from soil and groundwater samples collected during multiple investigations identify the USTs and fueling systems as the likely sources of the compounds of concern. The highest concentrations of petroleum hydrocarbons have been measured in soil samples collected from soils near the USTs and fueling systems, including soil samples collected from the UST excavation in 1991 and from soil beneath the fuel lines and dispensers in 1991 and 2002. The USTs were replaced in 1991 with larger USTs, and the three 12,000-gallon USTs were removed in 2002 when the service station was decommissioned. TPH-d and TPH-mo were detected in soil samples collected from below the used-oil UST at concentrations up to 200 mg/kg and 680 mg/kg, respectively. No halogenated or semivolatile organic compounds or polycyclic aromatic hydrocarbons (PAHs) were detected in samples collected from the samples of soil collected near the used-oil UST or the stockpile of soil excavated from there. Naphthalene was not analyzed during the tank removal; however, naphthalene and polycyclic aromatic hydrocarbons (PAHs) were not detected in the soil samples from soil vapor probe V6 (which was located approximately 2 feet north of the former waste-oil tank) at 6.5 feet bgs. If used-oil had been released at the surface near the top of the tank or from overspill, the release would have affected shallow soils near the tank and in nearby soil boring V6 there is no naphthalene or PAHs present.

The primary source of compounds of concern (petroleum hydrocarbons and fuel oxygenates) has been removed—the USTs and fuel distribution systems were removed in 2002. The site has been vacant since 2002. The compounds of concern are TPH-g, BTEX, MTBE, and tertiary butyl alcohol (TBA). No other volatile, semivolatile, halogenated organic compounds, or PAHs have been detected in soil samples collected that would require further investigation or follow up.

3.2 AFFECTED MEDIA

3.2.1 Soil

The area of highest petroleum hydrocarbon concentrations in soil was primarily around the USTs considering the distribution of compounds of concern beneath the southeast corner of the former tank field. The fine sediments/soils (clays, silty and sandy clays, silts, clayey and sandy silts, and dense/stiff soils) beneath the site are likely either distal portions of alluvial fans originating from rocks of the Franciscan Formation in the East Bay Hills or lake or floodplain (estuarine) deposits into which the alluvial fans flowed and mingled. The shallow sediments are part of the East Bay Plain Subbasin that is a northwest trending alluvial plain extending from San Pablo Bay on the north, Franciscan Basement rocks in the East Bay Hills to the east, San Francisco Bay to the west, and Niles Cone Groundwater Basin to the south. The East Bay Plain Subbasin aquifer beneath the

shallow sediments consists of unconsolidated deposits of Quaternary age with a cumulative thickness of about 1,000 feet (DWR 2003).

The petroleum hydrocarbons infiltrated silts and clays down to groundwater first encountered approximately 30 feet bgs. The secondary source is defined by TPH-g, benzene, and MTBE in soil samples collected from the following borings and wells at the western and southern limits of the excavation for the tank field, as shown on Figure 4 and in Tables 2 and 3:

- **Soil boring B15 (immediately adjacent southeastern end of former tank field):** TPH-g at concentrations of 300 mg/kg and 3.3 mg/kg were detected in soil samples collected 20 feet bgs (highest concentration in the boring) and 35.5 feet bgs (total depth sampled of the boring) on 15 November 2007 from clay with sand, silty clay, and clayey sand. Benzene concentrations of 6.1 mg/kg and 0.28 mg/kg were detected at those depths, and the maximum MTBE concentration in soil was detected at 0.26 mg/kg at 35.5 feet bgs. During the same investigation, TPH-g was measured at a concentration of 18,000 µg/L in a grab groundwater sample collected from groundwater at approximately 38 feet bgs, noted in the boring log as first-encountered groundwater.
- **Groundwater monitoring well MW5 (<10 feet immediately south of B15 at the southeastern end of the former tank field):** TPH-g was detected at concentrations ranging from 200 mg/kg to 5.4 mg/kg in soil samples collected from sandy clay 20 feet bgs and from clay with sand at 35 feet bgs on 5 March 2009, respectively. Benzene concentrations at these depths were 5.4 mg/kg and <0.050 mg/kg, respectively. The only detected MTBE concentration above the laboratory reporting limit was 0.036 mg/kg at 15 feet bgs. Groundwater is noted on the boring log at 37 feet bgs.
- **Recovery well RW1 (~15 feet west of MW5):** Concentrations of TPH-g ranged from 1.3 mg/kg in a sample collected from clay with sand 15 feet bgs (near the approximate bottom of the tank pit excavation) to 440 mg/kg in a sample collected from clay with sand and gravel 40 feet bgs. Benzene concentrations were not detected above the laboratory reporting limit. MTBE concentrations were detected at concentrations ranging from 0.0053 mg/kg at 15 feet bgs to 0.94 mg/kg at 34 feet bgs. Groundwater was encountered 29 feet bgs, stabilizing near 32 feet bgs.
- **Soil borings B17 and B18 (west, downgradient, of excavation and former tank field):** TPH-g was detected at maximum concentrations of 90 mg/kg (B17, 11 feet bgs) in a sandy clay and 24 mg/kg (B18, 35 feet bgs) in clayey sand in November 2007. Benzene concentrations were not detected, except for two detections at 0.052 and 0.0052 mg/kg in B17 at 11 and 16 feet bgs. MTBE was detected at maximum concentrations of 1.7 mg/kg (B17, 35.5 feet bgs) in clayey sand and 0.54 mg/kg (B18, 30 feet bgs) in a clayey sand. TPH-g, benzene, and MTBE were detected at concentrations of 630 µg/L, 1.8 µg/L, 2,200 µg/L, respectively, in a grab groundwater sample collected from B17 at 37 feet bgs and concentrations of 4,300 µg/L, 52 µg/L, and 1,400 µg/L from B18 at 38 feet bgs in November 2007.
- **Soil boring for Hydropunch H1-CPT (~8 feet southwest of RW1 and ~5 feet east of**

B18): TPH-g, BTEX, and MTBE were not detected at concentrations equal to or greater than their respective laboratory reporting limits in a soil sample collected from a sandy silt 54 feet bgs. TPH-g, benzene, and MTBE concentrations were not detected in grab groundwater samples from borings immediately adjacent at H1-CPT (H1-70 and H1-95) collected 56.5 to 70 feet bgs and 85 to 95 feet bgs.

- **Soil borings B19, B20, and B21 and boreholes for monitoring wells MW6, MW8, and MW9:** No TPH-g, BTEX, or MTBE was detected in soil samples collected from these soil borings or boreholes (except for MTBE in B19 at concentrations of 0.51 mg/kg at 35.5 feet bgs and 0.048 mg/kg at 39.5 feet bgs), further delineating the extent of petroleum hydrocarbons in soil to a mass limited to approximately 20 feet to 45 feet bgs beneath the southern end of the former tank field.

The results and observations described above characterize a secondary source of gasoline in silt and clay between 20 feet and 45 feet bgs beneath the southern end of the former tank field. The concentrations of TPH-g ranged from 1.7 mg/kg to 440 mg/kg. Depths where groundwater was first encountered ranged from 29 feet bgs to 38 feet bgs; groundwater frequently stabilized around 30 feet bgs, meaning that some of the petroleum hydrocarbons were stranded in the interstices of soil above and below the water table and that groundwater rises and falls (~9 feet) through the soils that host the petroleum hydrocarbon mass. The soils in which the petroleum hydrocarbons were found are silty to sandy clay, clayey to sandy silt, and clayey to silty sand. The soils characterized in a CPT (H1-CPT) in this immediate area range from clay to sandy and clayey silt, interspersed with very dense stiff soil. No liquid-phase petroleum hydrocarbons have been observed in any of the samples from either soil borings or wells.

Soils have been characterized down to 100 feet bgs; logs for borings, boreholes, and three CPTs describe a soil stratigraphy comprising silty to sandy clay, clayey to sandy silt, clayey to silty sand, and dense stiff soil. Gravel has been described but does not comprise a separate lithology. TPH-g, BTEX, and MTBE were detected in samples collected from vadose zone soils at concentrations up to 90 mg/kg (B17 at 11 feet bgs) (shown in Table 2). Concentrations of TPH-g, BTEX, and MTBE were not detected in soil samples collected from shallow soils away from the southern end of the tank field—MW6, MW7, B19, B20, and B21 to the southwest; B13 to the northwest; MW4 to the northeast; and MW8 and MW9 to the southeast.

Based on the extent and magnitude of residual petroleum hydrocarbon concentrations found in soil borings and soil samples collected at the site between 2001 and 2014; soil conditions are adequately defined beneath the site, are found around the southeastern area of the former UST area, and are primarily found in fine-grained sediments which limit their ability to disperse.

3.2.2 Groundwater

Logs for borings and boreholes for monitoring wells and CPT borings capture a soil stratigraphy comprising fine soils: silty and sandy clay; clayey and sandy silt; clayey and silty sand; and very dense stiff soil, as illustrated on Figures 11 through 13. No coarse soils/sediments that might be permeable or transmissive were described. Groundwater is approximately 30 feet bgs; depths to

first-encountered groundwater range from 29 feet bgs to 38 feet bgs. Depths to groundwater monitored since 1992 range from 26 feet bgs to 37 feet bgs (elevations range from 158 to 169 feet above mean sea level). A groundwater gradient ranging from 0.013 to 0.025 feet per foot to the southwest has been observed/documented. The fineness of the soils/sediments and low gradient combine to characterize a soil stratigraphy that is semipervious and constitutes a poor aquifer. This characterization is illustrated by Cardno ERI's hydraulic testing in 2012. Cardno ERI estimated/observed the following by reducing and modeling the data from step drawdown and continuous drawdown tests on RW1:

- Transmissivity (T) = 1.971 gallons per day per foot.
- Storativity = 0.016.
- Hydraulic conductivity (K) = 5.8 x 10^{-4} centimeter per second (1.644 feet per day [ft/day]).

Cardno ERI estimated that the radius of (pumping) influence produced by pumping at a rate of 0.2 gpm would be approximately 14 feet downgradient; ERI also noted that pumping at 0.33 gpm could not be sustained (Cardno ERI 2012b). An average groundwater velocity to characterize movement of groundwater beneath the site can be calculated using following:

- Darcy's Law for linear groundwater velocity [$v= -Ki/\delta$].
- The hydraulic conductivity estimated from Cardno ERI's tests (K = 1.644 ft/day).
- An average hydraulic gradient from groundwater monitoring (i = 0.014).
- An average soil porosity from soil samples collected when the soil-vapor monitoring probes were installed in 2014 (δ = 37.6 percent).

The rate of groundwater flow to the southwest is predicted/estimated to be slow, approximately 0.0057 feet per day. Groundwater elevations and observed gradient for 1 November 2017 are shown on Figure 5.

Lateral Extent of Dissolved-phase Petroleum Hydrocarbons in Groundwater

Analytical results for groundwater samples collected from wells and grab groundwater samples at the site are presented cumulatively in Tables 4 and 5. Concentrations of TPH-g, benzene, MTBE, and TBA measured in samples collected on 27 April and 1 November 2017 for the Chevron site and the Former Exxon Station site are presented on Figure 6. The temporal changes of concentrations are plotted against groundwater elevations in hydrographs in Appendix A. Petroleum hydrocarbons in groundwater beneath the site originate beneath the former tank field and extend southwest to the adjoining Chevron station. The distribution of dissolved-phase petroleum hydrocarbons is described physically and temporally in the following:

- The distributions of TPH-g, benzene, and MTBE are defined by concentrations in samples of groundwater greater than water quality objectives (100 µg/L for TPH-g, 1 µg/L for benzene, and 13 µg/L for MTBE). The petroleum hydrocarbons and fuel oxygenates in groundwater are mingled between the Chevron station site and the Former Exxon Service

Station 70234. The combined plume extends past MW-3 on the west (downgradient) side of the Chevron station property (Figure 6). The historical distribution of dissolved-phase petroleum hydrocarbons is shown on Figures 7 and 8, represented by TPH-g and MTBE, respectively. The data plotted in Figures 7 and 8 is from grab groundwater samples collected from the Chevron station property in November 2006 and the groundwater monitoring data from wells in May 2009. This representation gives a valid, general presence of TPH-g and MTBE distributed across the sites given the slow groundwater velocity and the fact that the former Exxon site did not operate during the sampling range. The figures show a comingling of concentrations between the two sites giving evidence of two separate source areas—one on the Chevon site and one on the Former Exxon site. This is primarily supported by the increase in groundwater concentrations in the soil borings downgradient of the Chevron dispenser islands and USTs.

- Benzene was detected in samples collected from MW5 and RW1 at concentrations greater than or equal to the laboratory detection limits. Benzene concentrations were not detected in grab groundwater samples collected from borings B19, B20, and B21 in 2009 when the borings were advanced. Based on higher previous laboratory reporting limits, the ACHCSA requested that ETIC have MW-7 analyzed with a lower detection limit than previously reported for benzene. Benzene was not detected above the laboratory reporting limit of 2.5 µg/L during the most recent Fourth Quarter 2017 groundwater sampling event.
- TPH-g, benzene, MTBE, and TBA concentrations have not been found in samples collected from MW4 (upgradient), MW8 (crossgradient), and MW9 (crossgradient) at concentrations equal to or greater than laboratory detection limits.
- Concentrations of TPH-g and MTBE have progressively declined over time (March 2009 through November 2017) in samples collected from MW5, RW1, and MW6. Concentrations of TPH-g and MTBE have decreased in samples from both MW-3 on the Chevron station, the well farthest downgradient, and MW5 (closest to the source) over time, as shown in the concentration and groundwater elevation versus time plots in Appendices A and B. The maximum concentrations of TPH-g and MTBE were observed in 2006 from borings southwest of MW-3 (Figures 7 and 8) at the Chevron station and in 2009 from samples collected from MW5 and RW1.
- The maximum concentrations of TPH-g and MTBE in samples from the Chevron station wells MW-1 and MW-2 were observed in 2011 and have declined since. The concentrations of MTBE in the groundwater samples from MW-1 have been steady from 600 µg/L in 2016 to 570 µg/L in the Fourth Quarter 2017. In MW-2, MTBE concentrations have been declining from 2,100 µg/L in 2003 to currently 89 µg/L in the Fourth Quarter 2017.
- Well MW7 and Chevron well MW-1 have shown increasing trends, likely the result of a more northwesterly flow dominance of groundwater beneath the site (Figure 5).
- Dissolved-phase petroleum hydrocarbons are in groundwater beneath both the Chevron station and Former Exxon Service Station 70234. The source of petroleum hydrocarbons

and MTBE is not singular to the Former Exxon Service Station. If the former Exxon Service Station were the singular source, concentrations of TPH-g and MTBE in samples from MW1 and MW2 on the Chevron station would have been expected to start low, rise over time, and then decline as the dissolved-phase hydrocarbons passed the wells. Instead the concentrations do not mimic a "wave" of TPH-g and MTBE dispersed from MW5 on Former Exxon Service Station 70234 dispersing passed and through MW1 and MW2 at the Chevron station. Concentrations of TPH-g and MTBE were at maximum concentrations at either end of the dissolved-phase plume as investigations began and have declined in both over time.

- Groundwater flow velocity calculated for the site of 0.0057 feet per day suggests that if the release occurred in 1990, groundwater beneath the site is estimated to have traveled 56 feet downgradient; if a release occurred in 2000, groundwater is estimated to have traveled 35 feet downgradient. The low groundwater velocity would limit the dispersion of petroleum hydrocarbons and fuel oxygenates.
- The mingled plume has diminished over time in size, extent, and length.

Liquid-phase hydrocarbons have not been observed in groundwater samples collected from Former Exxon Service Station 70234 or from the Chevron station.

Vertical Extent of Dissolved-phase Petroleum Hydrocarbons and MTBE in Groundwater

Groundwater monitoring wells at the site are completed from 25 feet bgs to approximately 40 feet bgs. The highest concentrations of petroleum hydrocarbons in soil were detected in samples from 25 feet bgs to 45 feet bgs, the screened interval of the wells. The vertical extent of TPH-g, BTEX, and MTBE in groundwater is further assessed by the advancement of six Hydropunch® borings in 2014 (ETIC 2014). Groundwater samples were collected at multiple depths in higher permeable soils identified during CPT boring activities at three locations: H1 southwest edge for USTs, H2 northeast area of the site, and H3 northwest of the USTs (Figure 3). TPH-g, BTEX, and MTBE were not detected in groundwater samples collected between 56 to 95 feet bgs, as shown in Tables 4 and 5.

Analysis of Trends in Groundwater Concentrations

Trends in concentrations of TPH-g, BTEX, and MTBE in groundwater can indicate whether the residual source of the dissolved-phase petroleum hydrocarbons is shrinking, stable, or expanding.

Hydrographs of concentrations of TPH-g, benzene, MTBE, and TBA and elevations of groundwater versus time for groundwater monitoring wells MW4, MW5, MW6, MW7, MW8, MW9, and RW1 are provided in Appendix A. The following are observations:

- Of the wells that are farther away from the residual source (wells MW4, MW7, MW8, and MW9), only MW7 has a history of concentrations above the reporting limits for TPH-g, benzene, MTBE, and TBA. The concentrations of TPH-g, MTBE, and TBA in samples collected from MW7 have increased progressively since the well was installed.

- In wells that are nearer to the residual source (MW5, MW6, and RW1), the concentrations of TPH-g and MTBE are decreasing. Concentrations of benzene and TBA are stable and/or decreasing.

- The elevations of groundwater have fluctuated through a range of 7 feet to 9 feet, but elevations have generally decreased over time. The fluctuations in elevations do not appear to strongly influence the concentrations of dissolved-phase petroleum hydrocarbons, although groundwater is currently an average depth of 26 feet bgs, above the highest concentrations of TPH-g detected in a soil sample collected from RW1 (420 mg/kg at 37 feet bgs, collected in 2011) and below the highest concentration detected in soil samples collected from MW5 (260 mg/kg at 20 feet bgs in a very stiff sandy clay lithology, collected in 2009). Some petroleum hydrocarbons may be stranded just above the capillary fringe.

- Hydrographs from three groundwater monitoring wells (MW-1 through MW-3), from the Chevron station, were generated using information from GeoTracker (Appendix B). MW-1 and MW-2 are closest to the site, and concentrations of TPH-g, MTBE, and TBA have varied over time in samples collected from each well. However, most recently, the trend in concentrations of TPH-g, MTBE, and TBA is decreasing. Benzene concentrations have been detected equal to or greater than their respective laboratory reporting limits in samples collected from MW-3 (Chevron station). TBA was detected in the most recent sampling event for MW-3, but the general trend has been decreasing since the maximum concentration was detected in 2007. TPH-g and MTBE concentrations have been detected consistently in samples collected from MW-3, furthest downgradient, but the historic trend is decreasing over time.

Natural Attenuation

Geochemical parameters are evaluated versus location relative to the source to assess the microbial processes near the dissolved-phase petroleum hydrocarbon concentrations. Changes in the geochemical parameters correlating with constituent concentrations are an indication that petroleum hydrocarbons are biodegrading. This data analysis provides a secondary line of evidence for biogeochemical processes. If these conditions exist, decreases in constituent concentrations may be due to biodegradation, not just dilution or dispersion, which do not alter the geochemical conditions. Geochemical parameters and general interpretations are listed below (ASTM 1998; ExxonMobil 2003).

ANALYTE	BIODEGRADATION	EVALUATION
Dissolved Oxygen (O_2)	Aerobic	Aerobic conditions exist when [O_2] is >2 mg/L. Anaerobic conditions exist when [O_2] is <2 mg/L. Reduction in [O_2] near the source may indicate its use as an electron acceptor.
Nitrate (NO_3^-)	Anaerobic	Reduction of [NO_3^-], [SO_4^{2-}], or [Mn^{2-} near the source may indicate use as electron acceptors.
Sulfate (SO_4^{2-})		

Manganese (Mn^{2-})		
Ferrous Iron (Fe^{2+})	Anaerobic Product	Elevated [Fe^{2+}] and [CH_4] near the source may indicate production through anaerobic biodegradation.
Methane (CH_4)		
pH	--	Lower pH may indicate either aerobic or anaerobic biodegradation.
Bicarbonate	--	Elevated concentrations near the source may indicate either aerobic or anaerobic biodegradation.

In May and December 2015 and in June 2016, samples for geochemical analysis were obtained from wells MW4, MW5, MW6, MW7, MW8, MW9, and RW1. For this analysis, MW5 and RW1 are designated as source wells; MW6 and MW7 as downgradient wells; and MW4, MW8, and MW9 as non-source wells. The analytical results for natural attenuation parameters are provided in Table 7.

The following are observations from reviewing the geochemical data:

- Alkaline pH, Fe^{2+}, and CH_4 are produced, and O_2 and NO_3 are depleted in samples from MW5 and RW1, indicating anaerobic natural attenuation processes are occurring.

- Alkaline pH and CH_4 in samples from MW6 are greater than pH and CH_4 in samples from upgradient well MW4, and nitrate and O_2 are depleted in MW6 and, to a lesser extent, in MW7, indicating anaerobic natural attenuation.

- When comparing parameters in wells nearer the source to parameters in the non-source wells, particularly in MW4 (the most upgradient well), the differences in parameters indicating biodegradation are noticeable. CH_4, Fe^{2+}, and alkaline pH are produced, and O_2 and NO_3^- are depleted.

Per the geochemical data, the depletion of O_2 and NO_3 and production of CH_4 and Fe^{2+} near and downgradient of the source are conditions favorable for the biodegradation (natural attenuation) of BTEX and MTBE.

TBA/MTBE Ratios

Anaerobic biodegradation typically transforms MTBE into TBA, decreasing concentrations of MTBE and increasing or maintaining concentrations of TBA (ExxonMobil 2003). A TBA/MTBE ratio greater than 1 identifies biodegradation. TBA/MTBE ratios for source wells MW5 and RW1; fringe wells MW6 and MW7; and downgradient wells MW-1, MW-2, and MW-3 on the Chevron station are listed below.

Date	Relevance	Well	Concentration (µg/L)		TBA/MTBE Ratio
			MTBE	TBA	
Third Quarter 2009	Maximum detected MTBE concentration	MW6	6,600	1,100	0.167
Fourth Quarter 2010	~ 1 year following maximum MTBE concentration	MW6	6,100	2,400	0.393
		MW5	3,400	1,500	0.441
		MW7	140	27	0.193
		MW-1	92	10	0.108
		MW-2	730	10	0.014
		MW-3	490	10	0.020
Fourth Quarter 2011	~ 2 years following maximum MTBE concentration	MW6	6,400	<1,000	0.156
		MW5	3,200	<500	0.156
		MW7	300	<50	0.167
		MW-1	150	41	0.273
		MW-2	1,500	400	0.267
		MW-3	890	73	0.082
Fourth Quarter 2012	~ 3 years following maximum MTBE concentration	MW6	5,400	<1,000	0.185
		MW5	2,700	730	0.270
		MW7	290	<50	0.172
		MW-1	140	47	0.336
		MW-2	1,300	420	0.323
		MW-3	500	160	0.320
Fourth Quarter 2013	~ 4 years following maximum MTBE concentration	MW6	4,800	2,100	0.438
		MW5	370	1,100	2.97
		MW7	460	200	0.435
		RW1	520	1,100	2.12
		MW-1	270	<10	0.037
		MW-2	100	<10	0.100
		MW-3	100	<10	0.100
Fourth Quarter 2014	~ 5 years following maximum MTBE concentration	MW6	530	2,100	3.96
		MW5	120	600	5.00
		MW7	660	<250	0.378
		RW1	590	1,300	2.20
		MW-1	180	<10	0.055

Date	Relevance	Well	Concentration (µg/L)		TBA/MTBE Ratio
			MTBE	TBA	
		MW-2	980	<10	0.010
		MW-3	250	<10	0.040
4nd Quarter 2015	~ 6 years following maximum MTBE concentration	MW6	36	530	14.72
		MW5	94	790	3.31
		MW7	220	<80	0.364
		RW1	110	1,300	11.82
		MW-1	48	10	0.210
		MW-2	1,300	10	0.007
		MW-3	240	10	0.042

Per the tabulated ratios, anaerobic biodegradation is active near the source (MW5, MW6, and RW1). Beginning in 2014, all the TBA/MTBE ratios are greater than 1 in wells MW5, MW6, and RW1. The TBA/MTBE ratios in wells MW-1, MW-2, and MW-3 on the Chevron station, downgradient of the site, are less than 1, indicating anaerobic biodegradation is not as prevalent. During the Fourth Quarter 2017 sampling event, the TBA/MTBE ratio was greater than one for MW-1; however, the offsite data has indicated a consistent TBA/MTBE ratio below 1. The different MTBE/TBA ratios indicate that the MTBE there might also be different in composition than what is at the site.

3.2.3 Soil Vapor

As noted above, groundwater is approximately 30 feet bgs. The most likely point of the source of petroleum hydrocarbons was into clayey to sandy silt and/or silty to sandy clay beneath the former USTs at approximately 15 feet bgs. The distance from the source and the static groundwater table comprises a vadose zone through which the petroleum hydrocarbons would have percolated/infiltrated to reach groundwater (a bioattenuation zone). The petroleum hydrocarbons having infiltrated the vadose zone and contacting groundwater would then dissolve into the groundwater and disperse slowly with it to the west. The volatile compounds BTEX and MTBE of gasoline establish phase equilibrium in the soil and groundwater, resulting in equilibrium distributions into soil vapor:

- Volatiles in the soil equilibrate with phases in soil vapor and in soil moisture.
- Volatiles dissolved in groundwater equilibrate with soil vapor above. Volatiles in the soil vapor then equilibrate by sorbing to soil, dissolving in soil moisture, and persisting as soil vapor.

In April 2014, to address the LTCP considerations of bioattenuation in the vadose zone and in response to ACHCSA's concerns regarding possible exposure of present or future human occupants of buildings to petroleum vapors from soil and/or groundwater in indoor air, soil vapor samples were collected from five soil vapor monitoring wells (shown on Figure 4) and were

chemically analyzed. Soil vapor monitoring probes V1, V2, V3, and V5 were advanced to 7 feet bgs, and soil vapor monitoring well V4 was advanced to 7.25 feet bgs. Soil samples collected during the investigation were analyzed for TPH-g (using USEPA Method 8015B); BTEX, fuel oxygenates, and naphthalene (using USEPA Method 8260B); and PAHs (using USEPA Method 8270C). Soil-vapor samples were analyzed for petroleum hydrocarbons and naphthalene using USEPA Methods TO-15 and TO-17 per guidance from the California Department of Toxic Substances Control. TPH-g was detected in the vapor samples at concentrations up to 36,000 micrograms per cubic meter ($\mu g/m^3$) (V2). Benzene was detected in the vapor samples at concentrations up to 3.4 $\mu g/m^3$ (V5). The concentrations for TPH-g and benzene were less than the respective residential environmental screening levels (ESLs) of 50,000 $\mu g/m^3$ and 48 $\mu g/m^3$ set by the California Regional Water Quality Control Board, San Francisco Bay Region (2016) and were less than LTCP media-specific criteria for vapor intrusion to indoor air assuming no bioattenuation zone residential scenario (benzene = 85 $\mu g/m^3$). The concentrations of oxygen in samples collected from the boreholes for the five vapor probes was greater than 8 percent (ETIC 2014). The LTCP policy indicates the presence of a bioattenuation zone (oxygen greater than 4 percent) increases the soil gas criteria by a factor of 1,000 (SWRCB 2012).

In November 2014, a sixth soil vapor monitoring probe (V6) was installed near the former used-oil UST. Samples collected from the upper 6 feet of V6 were analyzed for physical parameters and were chemically analyzed for petroleum hydrocarbons per direction of the ACHCSA. Samples were analyzed for BTEX, fuel oxygenates, naphthalene, and PAHs. No petroleum hydrocarbons were detected at concentrations equal to or greater than laboratory detection limits in soil samples collected from the upper 6 feet of V6. The analytical data for soil samples from this investigation near the former used-oil UST meet the concentration criteria under the LTCP, as shown in Table 3. The concentrations of petroleum hydrocarbons in soil vapor do not present an unacceptable risk for occupants through either the dermal contact pathway for soil or exposure to indoor air (ETIC 2015b).

3.3 EVALUATION OF RECEPTORS AND PATHWAYS TO EXPOSURE

Petroleum hydrocarbons released to fine soils at the southern end of the former USTs have migrated though the vadose zone down to groundwater and having dispersed into the groundwater are attenuating downgradient and off site, primarily through diffusion and limited advection Petroleum hydrocarbons, particularly TPH-g, BTEX, and MTBE, also volatilize from soil and groundwater into soil vapor. Volatile petroleum hydrocarbons and MTBE may migrate further through pore space in the soils and reach the surface. Potential exposure pathways and receptors to petroleum hydrocarbons and MTBE at the site were evaluated considering current and possible future reconfigurations of the land use and conditions at and near the site. Analytical data for samples collected from soil, soil vapor, and groundwater were compared to ESLs, California Human Health Screening Levels, and concentration criteria for the LTCP.

The site is unoccupied, and the station building and canopy remain. The land use for the adjacent properties are residential and commercial. Considering the land use as described, receptors and pathways have been evaluated recognizing that a complete exposure pathway consists of the

following:

- A source and mechanism of release.
- A contaminant or chemical of concern.
- One or more media (e.g., soil, groundwater, soil vapor, or air) that are affected by a release, retain it, and transport it.
- Points of potential contact with the affected media (referred to as the exposure point).
- An exposure route at the point of contact (e.g., inhalation, ingestion, or dermal contact).

The receptors evaluated for the site include the following:

- Site occupants.
- Future construction/maintenance workers.
- Off-site receptors.

Site-specific exposure pathways and receptors summarized below:

- Inhalation of volatiles from soil to outdoor air (on-site receptor).
- Inhalation of volatiles from soil to indoor air (on-site receptor).
- Inhalation of volatiles from groundwater to outdoor air (on-site receptor).
- Inhalation of volatiles from groundwater to indoor air (on-site receptor).
- Ingestion, dermal contact, and inhalation of volatiles and particulates from soil at or near ground surface (on-site receptor or construction worker).
- Ingestion, dermal contact, and inhalation of volatiles and particulates from soil at or near ground surface (future on-site construction worker).
- Ingestion or dermal contact with affected groundwater (on-site and off-site receptors and construction workers).
- Inhalation of volatiles from groundwater to outdoor/indoor air (offsite receptors)

The exposure pathways are evaluated below:

- Inhalation of vapors from the subsurface is potentially a complete exposure pathway. TPH-g, benzene, and ethylbenzene were detected in samples of soil vapor collected near the former fueling facilities at concentrations up to 36,000 $\mu g/m^3$, 3.4 $\mu g/m^3$, and 3.8 $\mu g/m^3$, respectively; each is less than their respective residential ESLs for soil vapor, as shown in Table 7. Additionally, the concentrations of benzene, ethylbenzene, and naphthalene were less than criteria presented in the LTCP.
- Petroleum hydrocarbons and MTBE were released to soils beneath the former USTs at least 15 feet bgs. TPH-mo and TPH-d were detected in soil beneath the former used-oil tank, and hydraulic oil was detected in soil in the hydraulic lift excavations. A construction worker excavating soil in these areas could be potentially exposed to petroleum hydrocarbons, MTBE, and hydraulic fluid. This exposure pathway may be completed by

construction workers excavating soil. Consequently, a site-specific health and safety plan should be prepared and implemented by anyone conducting construction to address the dermal exposure pathway. Analytical data for soil samples collected from former Exxon Service Station 70234 meet the residential ESLs and concentration criteria under the LTCP.

- TPH-g, benzene, and MTBE have been detected in samples of groundwater at concentrations greater than ESLs and water quality objectives. Potable water is supplied to the site by East Bay Municipal Utilities District, and the well identified 675 feet west-southwest is reportedly used only for irrigation. Consequently, dermal contact with or ingestion of TPH-g, benzene, and MTBE in groundwater that is more than 30 feet bgs is not an exposure pathway for on-site and off-site residents and construction workers. Exposure to petroleum hydrocarbons and MTBE in groundwater through excavation or construction dewatering is also unlikely because groundwater is at 30 feet bgs.

4.0 CLOSURE ACCORDING TO LTCP CRITERIA

Petroleum hydrocarbons and fuel oxygenates were observed in soil locally beneath the former UST tank field and in groundwater beneath and downgradient of the USTs. As shown in Section 3.3, the petroleum hydrocarbons and fuel oxygenates that persist beneath the site pose a low threat to human health and safety and to the environment. Below is a summary of the site-specific conditions relative to the LTCP:

The unauthorized release at the former Exxon Service Station 70234 qualifies for closure under the LTCP because the following general criteria are met:

- The site is located within the service area of East Bay Municipal Utility District.
- The unauthorized release consists only of petroleum; the USTs at the site stored and dispensed gasoline. No other volatile organic compounds or naphthalene have been found in soil and groundwater samples.
- The USTs and fuel distribution system were removed in 2002.
- No free product has been observed in either the soils or groundwater at the site.
- Secondary source removal was conducted through excavation and groundwater removal activities. Additional secondary source removal will occur through natural attenuation processes as described in Section 3.2.2.
- Samples of soil and groundwater have been analyzed for MTBE, and the results are reported cumulatively in Tables 2 and 4.
- Nuisance does not exist at the site.

Analysis of medial-specific criterial under the LTCP:

- **Groundwater-specific Criteria.** Based on characterization of the nature and extent of the area affected by petroleum hydrocarbons and fuel oxygenates at this site, ETIC requests the ACHCSA to consider the groundwater-specific criteria Condition #5. Condition #5 indicates that "The regulatory agency determines, based on an analysis of site specific conditions that under current and reasonably anticipated near-term future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame."
    - Fine soils comprising clayey to sandy silts, sandy to silty clays, and very dense, stiff soils; extend continuously down to 100 feet bgs. Groundwater is at approximately 30 feet bgs and is predicted to flow slowly to the southwest (0.0057 feet per day). Petroleum hydrocarbons and fuel oxygenates have been transported and mixed with a release from the adjoining Chevron station and are now comingled. Data shown on Figures 7 and 8 suggest that a source on the Chevron site exists on the southwest (downgradient) edge of the property.
    - Groundwater occurs in semipervious sandy to clayey silts and sandy to silty clays that limit dispersion downgradient (estimated at less than 0.0057 feet per day). Concentrations of TPH-g, benzene, and MTBE are decreasing over time in samples

collected from all wells but remain in MW5, MW7, and RW1 at concentrations exceeding water quality criteria.

  - The feasibility of using groundwater pump-and-treat to remediate TPH-g, benzene, and MTBE in groundwater is challenged by the ability of the groundwater zone to yield water as indicated by the results of pumping tests. Considering the results of pumping tests on RW1, consultants concluded that pumping to achieve a predicted radius of influence could not be sustained.
  - The depletion of oxygen, nitrate, and ferrous iron, the production of methane in wells near the source, and the decreases in concentrations over time in samples collected from monitoring wells at the site and at the Chevron station are evidence that the petroleum hydrocarbons are attenuating naturally.
  - Source removal has included excavation and disposal of 1,200 cubic yards of soil and disposal of 10,100 gallons of groundwater.

- **Petroleum Vapor Intrusion to Indoor Air.** Scenario 4 – Direct Measurement of Soil Gas Concentrations. The threat to indoor air quality is low, given the low concentrations of petroleum hydrocarbons, benzene, and naphthalene in shallow soil and given that the concentrations of TPH-g, benzene, and naphthalene in soil-vapor samples collected approximately 5 feet below slab grade are less than residential ESLs and LTCP criteria under the more conservative scenario of no bioattenuation zone (oxygen concentrations detected in soil gas at the site indicated a bioattenuation zone is present).
- **Direct Contract.** In soil samples analyzed for benzene, ethylbenzene, naphthalene, and PAHs between 2002 and 2014, concentrations do not exceed the concentrations summarized in the LTCP that would have adverse effects to human health from 0 to 10 feet bgs (LTCP 2012). Although naphthalene was not analyzed during the used-oil tank removal; naphthalene and PAHs were not detected in the soil samples from soil vapor probe V6 (which was located approximately 2 feet north of the former waste-oil tank) at 6.5 feet bgs. The petroleum hydrocarbons and fuel oxygenates comprising the residual secondary source in soil and groundwater pose a low threat to workers should they excavate on site because they are primarily between 20 and 45 feet bgs, deeper beneath ground surface where most excavation might be accomplished. The threat to human health and the environment from exposure to petroleum hydrocarbons and fuel oxygenates in groundwater at the site is low. Water is supplied to businesses and residences nearby by East Bay Municipal Utilities District. Groundwater is more than 30 feet bgs and is not used locally for water supply. The nearest well that may use water for irrigation is approximately 675 feet west-southwest. Water does not flow at the surface to the nearest surface water in Peralta Creek, more than 600 feet north.
- **Outdoor Air Exposure.** In soil samples analyzed for benzene, ethylbenzene, naphthalene, and PAHs between 2002 and 2014, concentrations do not exceed the concentrations summarized in the LTCP that would have adverse effects to human health from volatilization to outdoor air (LTCP 2012).

5.0 CONCLUSIONS

Petroleum hydrocarbons and fuel oxygenates in groundwater extend off site, downgradient of former Exxon Service Station 70234. Concentrations of petroleum hydrocarbons in samples collected from wells off site and on site at former Exxon Service Station 70234 have decreased over time. Oxygen and nitrate have been depleted, and ferrous iron and methane have been produced in wells near the source, providing evidence of biodegradation and natural attenuation. Fine soils that host groundwater and petroleum hydrocarbons and fuel oxygenates dissolved in it slow the flow of groundwater and dispersion of solutes but also limit the effectiveness of recovery methods other than natural attenuation to remediate petroleum hydrocarbons and fuel oxygenates from the groundwater. The threat to human health and the environment is low. Anticipating that the petroleum hydrocarbons and fuel oxygenates will continue to attenuate, it is recommended that this case be closed per the LTCP.

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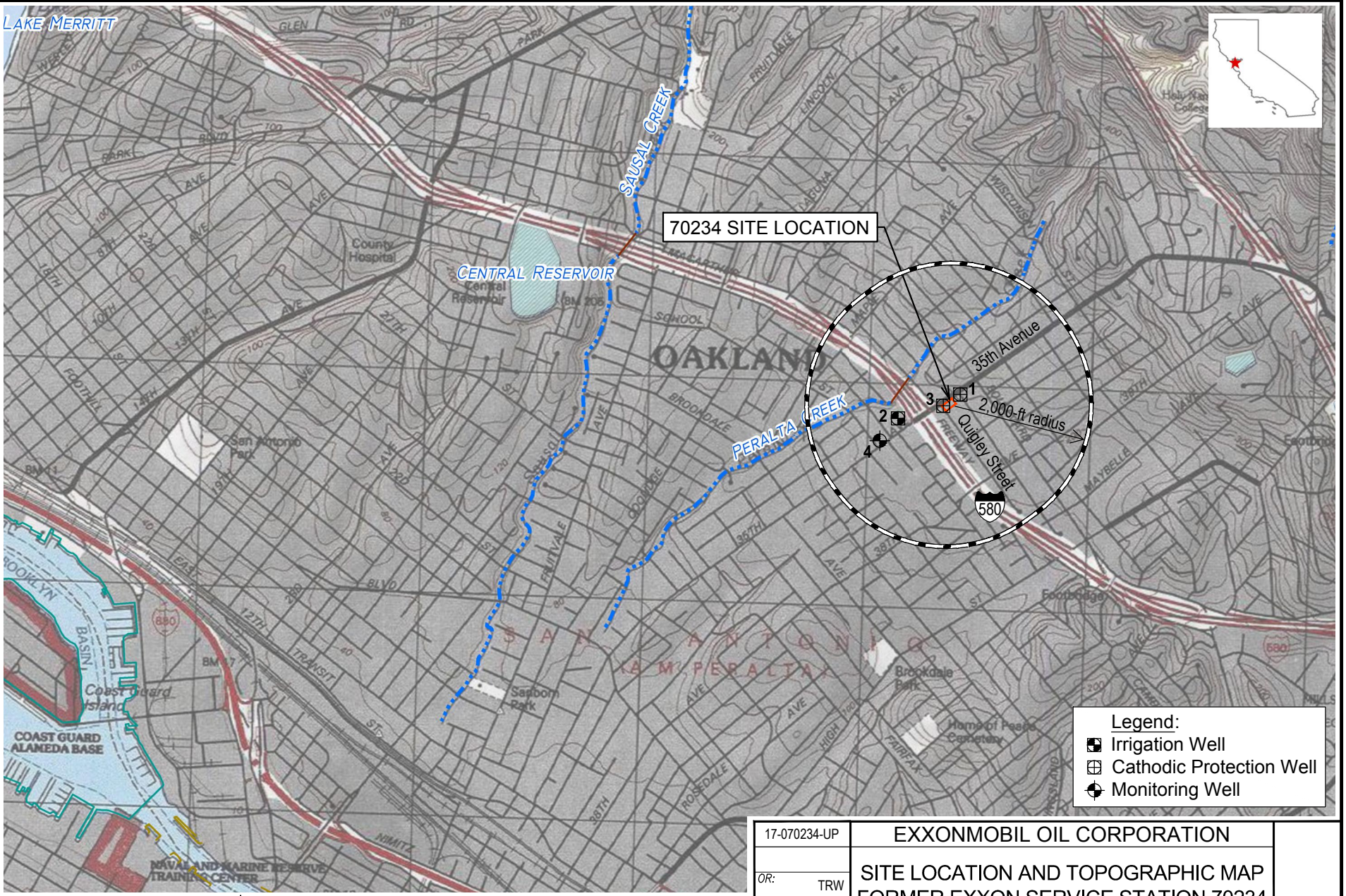
Figures



ETIC
CONSULT ENGINEER CONSTRUCT
250 W. COLORADO BLVD.
SUITE 110
ARCADIA, CA 91007
(626) 432-5999

17-070234-UP	EXXONMOBIL OIL CORPORATION
OR: TRW	SITE LOCATION AND TOPOGRAPHIC MAP
DR: AJW	FORMER EXXON SERVICE STATION 70234
CK:	3450 35th AVENUE
FR:	OAKLAND, CALIFORNIA

FIGURE: 1

0 150 300

APPROX. SCALE (feet)

ETIC
CONSULT ENGINEER CONSTRUCT

250 W. COLORADO BLVD.
SUITE 110
ARCADIA, CA 91007
(626) 432-5999

17-070234-UP	EXXONMOBIL OIL CORPORATION
OR: TRW	VICINITY MAP
DR: AJW	FORMER EXXON SERVICE STATION 70234
CK:	3450 35th AVENUE
FR:	OAKLAND, CALIFORNIA

FIGURE: 2

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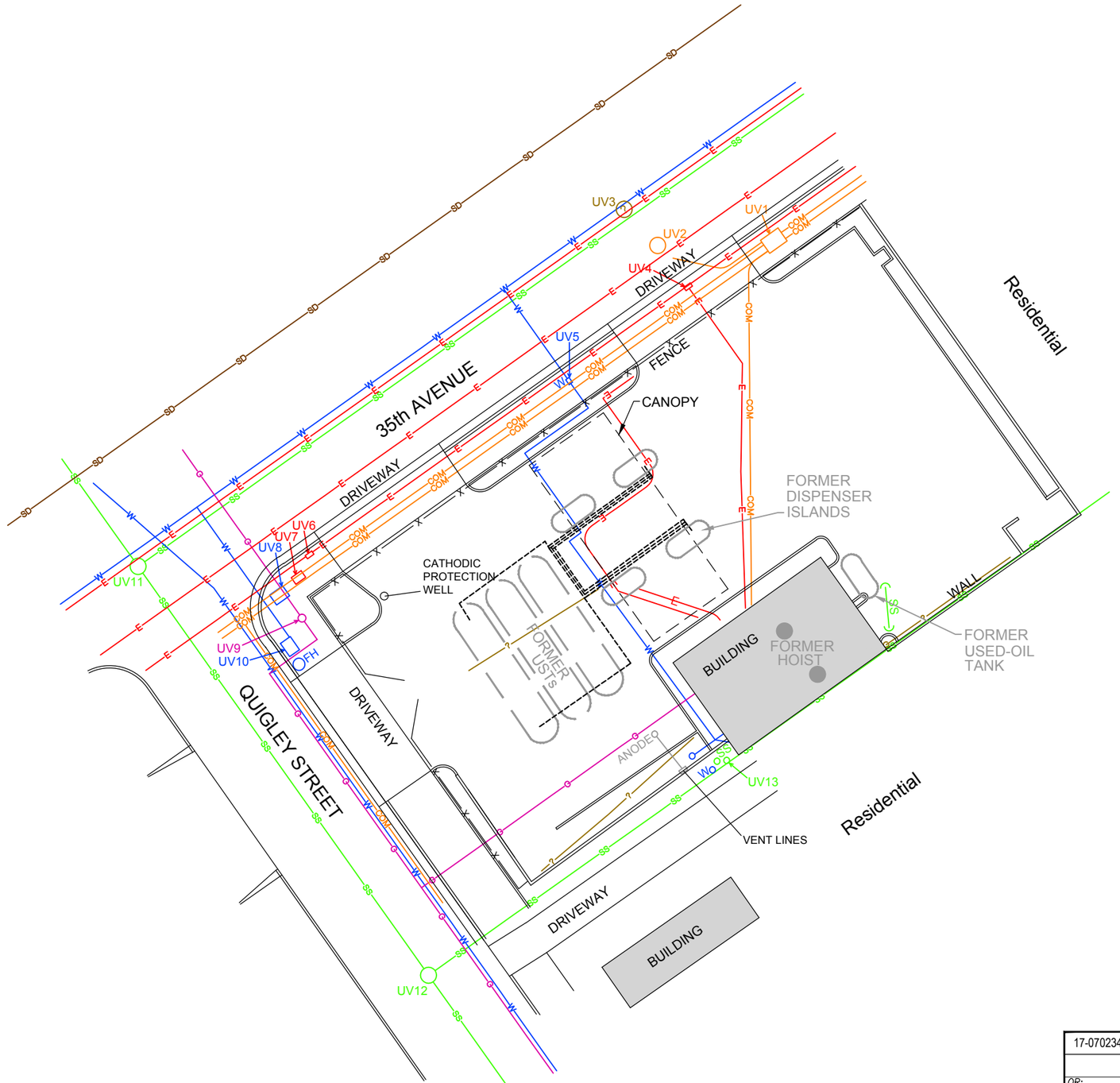


LEGEND:

- E — ELECTRIC
- G — GAS
- COM — TELEPHONE/TELECOM
- SS — SANITARY SEWER
- SD — STORM DRAIN
- W — WATER
- ? — UNKNOWN
- DASHED WHERE INFERRED
- UV — UTILITY VAULT
- FH — FIRE HYDRANT

NOTE:
UTILITY LOCATIONS SHOWN ARE SKETCHED APPROXIMATIONS FROM RECORD SCHEMATICS AND DO NOT REPRESENT VERIFIED ALIGNMENTS. OTHER UTILITIES MAY EXIST IN THE AREA.

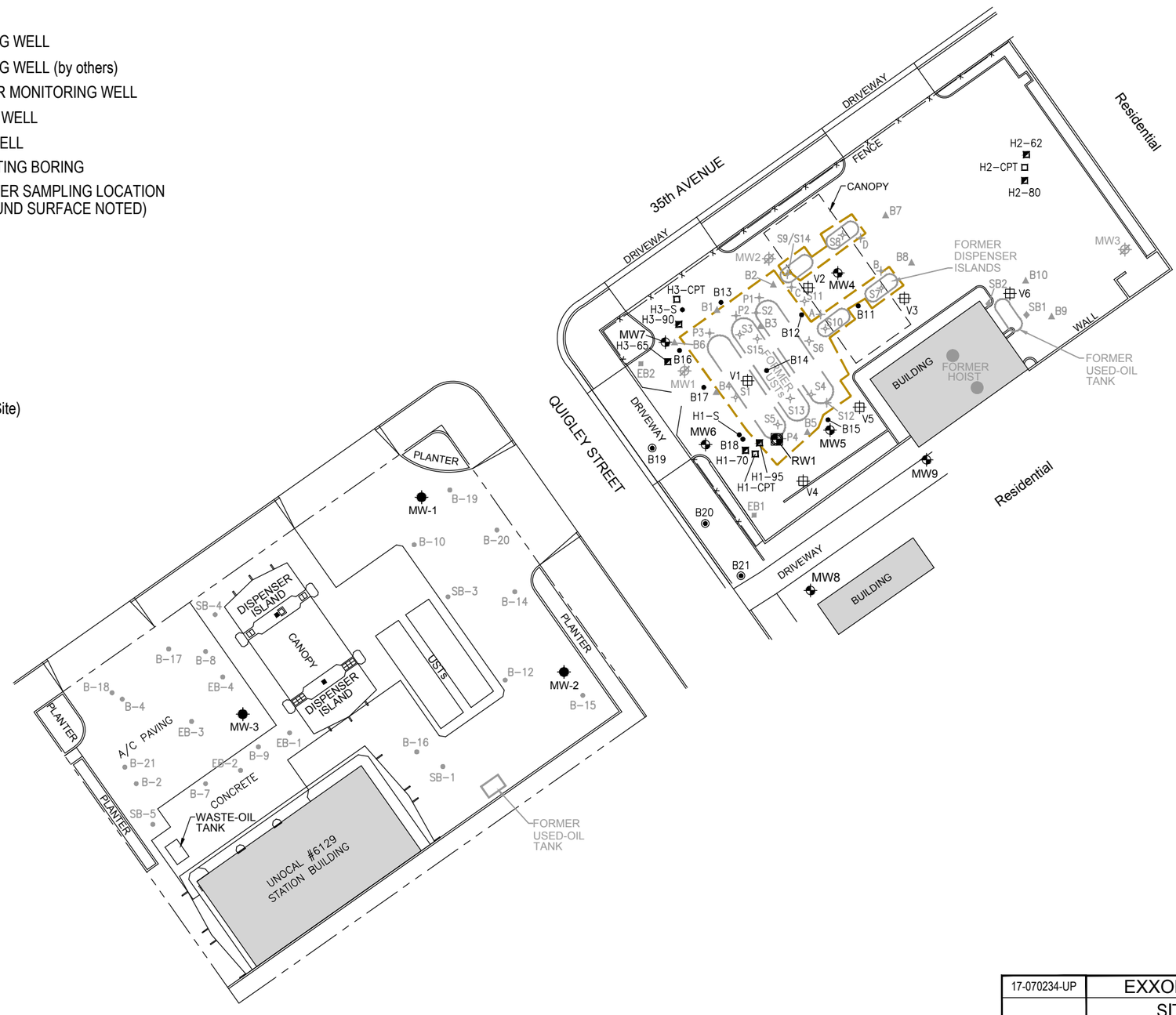
0 15 30
APPROX. SCALE (feet)

ETIC
CONSULT ENGINEER CONSTRUCT
250 W. COLORADO BLVD.
SUITE 110
ARCADIA, CA 91007
(626) 432-5999

17-070234-UP	EXXONMOBIL OIL CORPORATION
DR: TRW	SITE MAP SHOWING USTs, DISTRIBUTION PIPING, AND UTILITIES
DR: AJW	FORMER EXXON SERVICE STATION 70234
CK:	3450 35th AVENUE
FR:	OAKLAND, CALIFORNIA
	FIGURE: 3

LEGEND:

- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- V1 — SOIL VAPOR MONITORING WELL
- H3–CPT — CONE PENETROMETER TESTING BORING
- H3–65 — HYDROPUNCH GROUNDWATER SAMPLING LOCATION (WITH DEPTH BELOW GROUND SURFACE NOTED)
- H3–S — SOIL BORING
- SOIL BORING (GTI, 1986)
- SOIL BORING (HLA, 1988)
- SOIL BORING (Alton, 1991)
- SOIL SAMPLE (Alton, 1991)
- SOIL SAMPLE (TRC, 2002)
- SOIL BORING (ERI, 2007)
- SOIL BORING (ERI, 2009)
- SOIL BORING (Unocal #6129 Site)



N

0 20 40

APPROX. SCALE (feet)

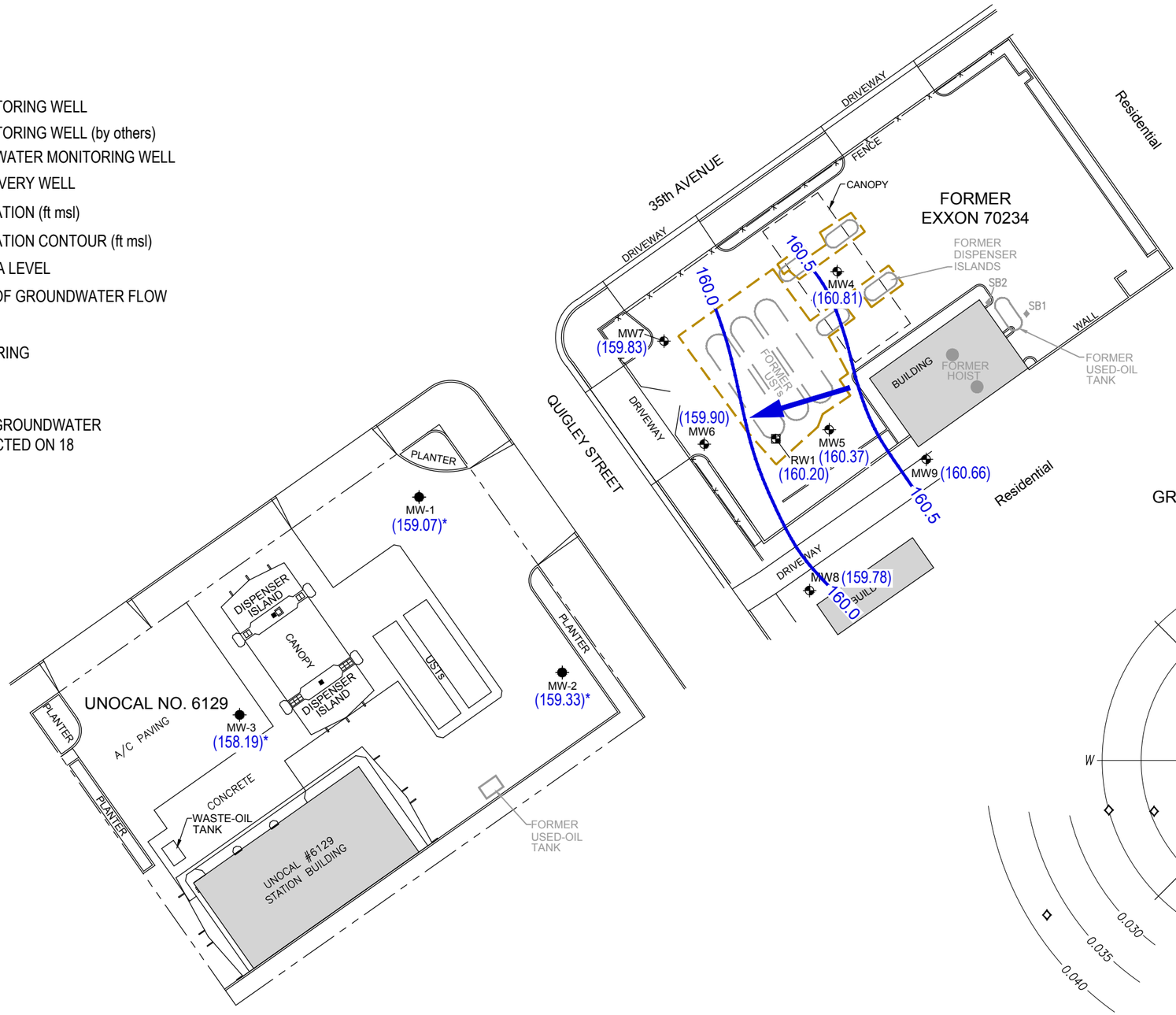
17-070234-UP	EXXONMOBIL OIL CORPORATION	
	SITE MAP SHOWING BORING AND WELL LOCATIONS FORMER EXXON SERVICE STATION 70234 3450 35th AVENUE	FIGURE: 4
OR: TRW DR: AJW CK: FR:	OAKLAND, CALIFORNIA	

ETIC CONSULT ENGINEER CONSTRUCT
250 W. COLORADO BLVD.
SUITE 110
ARCADIA, CA 91007
(626) 432-5999

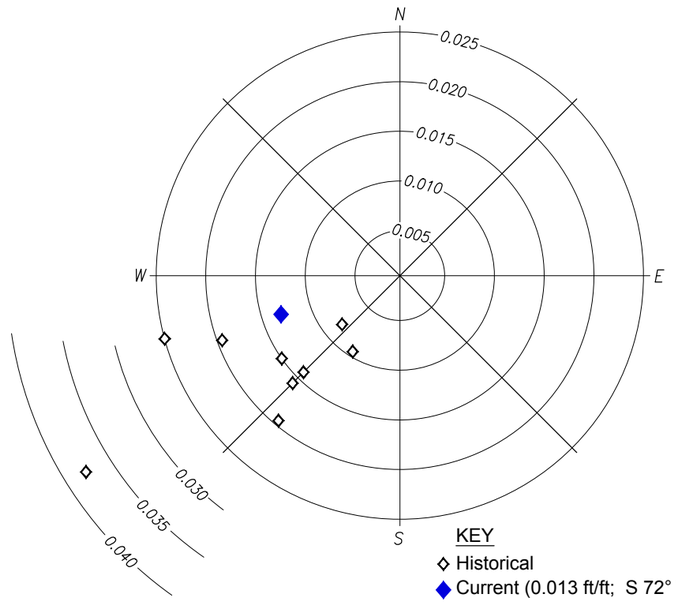
LEGEND:

- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- (160.81) GROUNDWATER ELEVATION (ft msl)
- 160.0 GROUNDWATER ELEVATION CONTOUR (ft msl)
- ft msl FEET ABOVE MEAN SEA LEVEL
- GENERAL DIRECTION OF GROUNDWATER FLOW
- NS NOT SAMPLED
- * NOT USED IN CONTOURING

NOTES:
1. UNOCAL NO. 6129 GROUNDWATER SAMPLING CONDUCTED ON 18 OCTOBER 2017.



GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT



ETIC CONSULT ENGINEER CONSTRUCT
250 W. COLORADO BLVD.
SUITE 110
ARCADIA, CA 91007
(626) 432-5999

17-070234-UP	EXXONMOBIL OIL CORPORATION
OR: RW	GROUNDWATER ELEVATION CONTOUR MAP
DR: AJW	1 NOVEMBER 2017
CK:	FORMER EXXON SERVICE STATION 70234
FR:	3450 35th AVENUE
	OAKLAND, CALIFORNIA
	FIGURE: 5

LEGEND:

- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL

TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

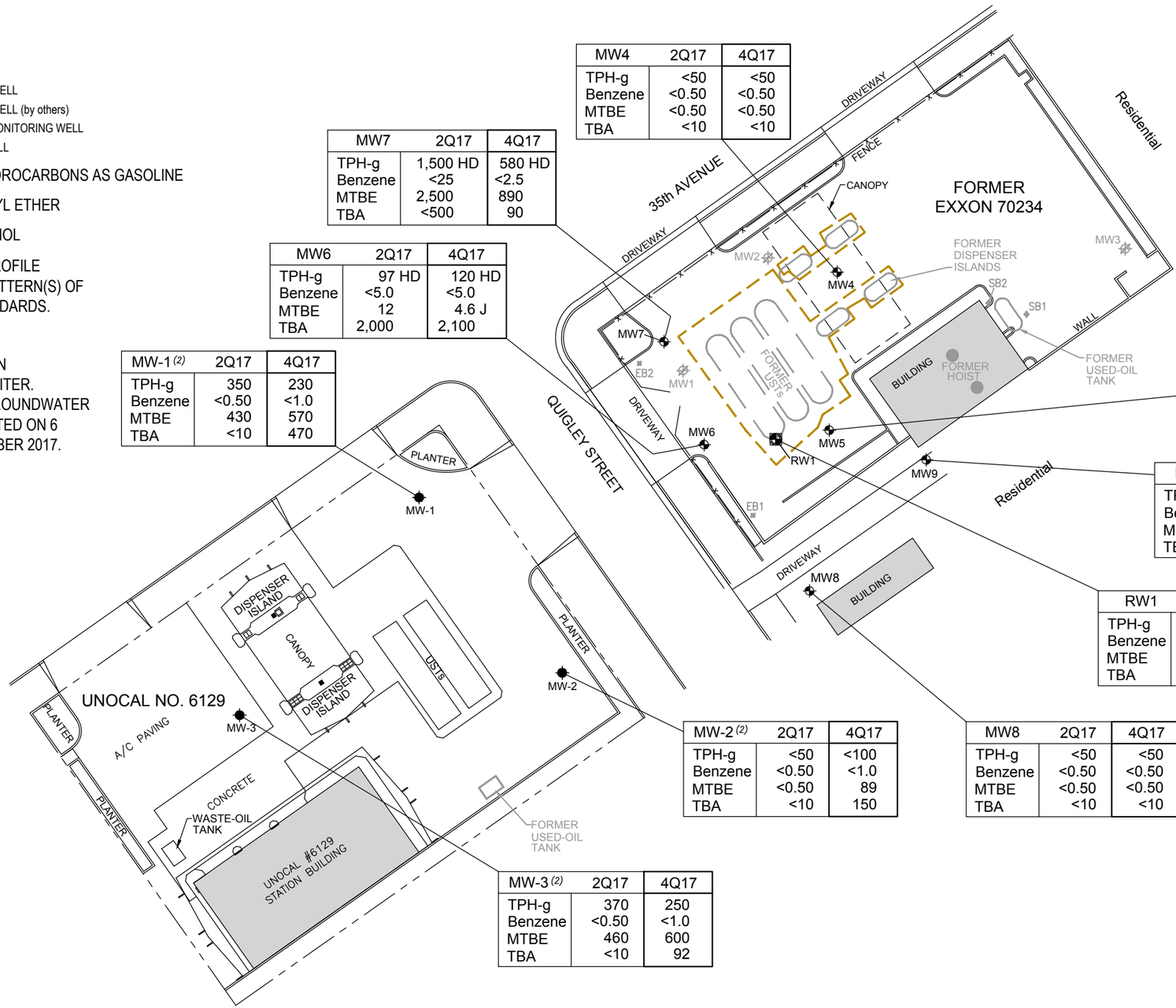
MTBE METHYL TERTIARY BUTYL ETHER

TBA TERTIARY BUTYL ALCOHOL

HD CHROMATOGRAPHIC PROFILE INCONSISTENT WITH PATTERN(S) OF REFERENCE FUEL STANDARDS.

NOTES:

1. CONCENTRATIONS IN MICROGRAMS PER LITER.
2. UNOCAL No. 6129 GROUNDWATER SAMPLING CONDUCTED ON 6 APRIL AND 18 OCTOBER 2017.



MW4	2Q17	4Q17
TPH-g	<50	<50
Benzene	<0.50	<0.50
MTBE	<0.50	<0.50
TBA	<10	<10

MW7	2Q17	4Q17
TPH-g	1,500 HD	580 HD
Benzene	<25	<2.5
MTBE	2,500	890
TBA	<500	90

MW6	2Q17	4Q17
TPH-g	97 HD	120 HD
Benzene	<5.0	<5.0
MTBE	12	4.6 J
TBA	2,000	2,100

MW-1 (2)	2Q17	4Q17
TPH-g	350	230
Benzene	<0.50	<1.0
MTBE	430	570
TBA	<10	470

MW5	2Q17	4Q17
TPH-g	470 HD	380 HD
Benzene	39	56
MTBE	230	87
TBA	240	530

MW9	2Q17	4Q17
TPH-g	<50	<50
Benzene	<0.50	<0.50
MTBE	<0.50	<0.50
TBA	<10	<10

RW1	2Q17	4Q17
TPH-g	1,600 HD	880 HD
Benzene	1,100	520
MTBE	660	290
TBA	1,300	2,200

MW-2 (2)	2Q17	4Q17
TPH-g	<50	<100
Benzene	<0.50	<1.0
MTBE	<0.50	89
TBA	<10	150

MW8	2Q17	4Q17
TPH-g	<50	<50
Benzene	<0.50	<0.50
MTBE	<0.50	<0.50
TBA	<10	<10

MW-3 (2)	2Q17	4Q17
TPH-g	370	250
Benzene	<0.50	<1.0
MTBE	460	600
TBA	<10	92

0 20 40

1″ = 40 FEET

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ETIC CONSULT ENGINEER CONSTRUCT

250 W. COLORADO BLVD.
SUITE 110
ARCADIA, CA 91007
(626) 432-5999

17-070234-UP	
OR:	RW
DR:	AJW
CK:	
FR:	

EXXONMOBIL OIL CORPORATION

GROUNDWATER ANALYTICAL DATA
27 APRIL AND 1 NOVEMBER 2017
FORMER EXXON SERVICE STATION 70234
3450 35th AVENUE
OAKLAND, CALIFORNIA

FIGURE: 6

LEGEND:

EXCAVATED AREA

GROUNDWATER MONITORING WELL

GROUNDWATER MONITORING WELL (by others)

DESTROYED GROUNDWATER MONITORING WELL

GROUNDWATER RECOVERY WELL

SOIL BORING (Unocal #6129 Site)

(5,300) TPH-g CONCENTRATION (µg/L) - FORMER EXXON SITE

TPH-g CONCENTRATION CONTOUR (µg/L)

(460) TPH-g (TPPH) CONCENTRATION (µg/L) - CHEVRON/UNOCAL SITE

TPH-g (TPPH) CONCENTRATION CONTOUR (µg/L)

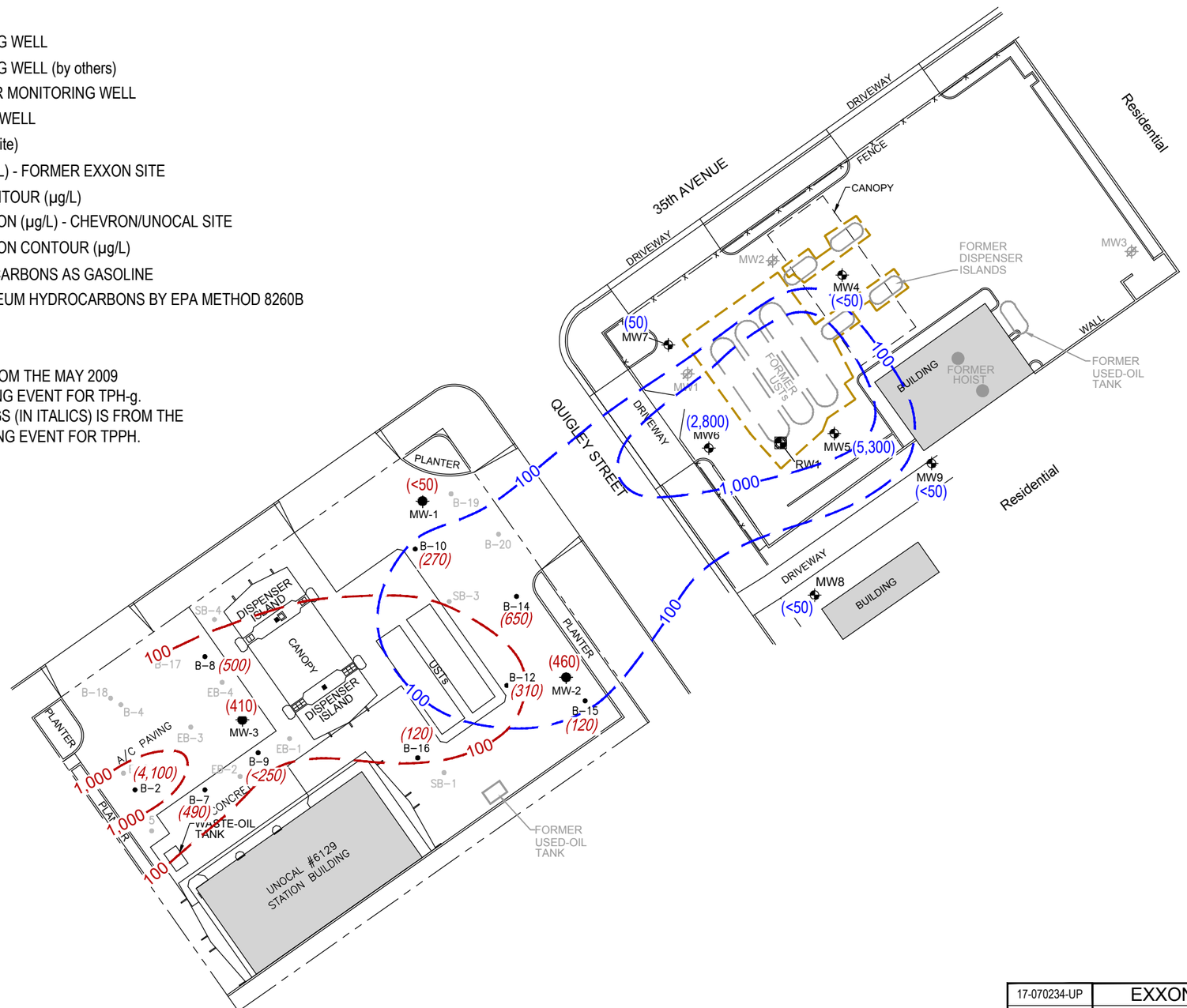
TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS BY EPA METHOD 8260B

µg/L MICROGRAMS PER LITER

NOTES:

1. DATA FROM WELLS IS FROM THE MAY 2009 GROUNDWATER SAMPLING EVENT FOR TPH-g.
2. DATA FROM SOIL BORINGS (IN ITALICS) IS FROM THE NOVEMBER 2006 SAMPLING EVENT FOR TPPH.



0 20 40

APPROX. SCALE (feet)

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ETIC CONSULT ENGINEER CONSTRUCT

250 W. COLORADO BLVD.
SUITE 110
ARCADIA, CA 91007
(626) 432-5999

17-070234-UP	EXXONMOBIL OIL CORPORATION
OR: TRW	HISTORICAL ISOCONCENTRATION MAP FOR TPH-g
DR: AJW	FORMER EXXON SERVICE STATION 70234
CK:	3450 35th AVENUE
FR:	OAKLAND, CALIFORNIA

FIGURE: 7

MAY 28, 2009

NOVEMBER 23, 2011

LEGEND:

- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- GROUNDWATER RECOVERY WELL
- (890) BENZENE CONCENTRATION (µg/L)
- BENZENE CONCENTRATION CONTOUR (µg/L)
- µg/L MICROGRAMS PER LITER

BENZENE Concentration

- >100,000 µg/L
- 10,000-100,000 µg/L
- 1,000-10,000 µg/L
- 100-1,000 µg/L
- 10-100 µg/L
- 1-10 µg/L

N

0 25 50

APPROX. SCALE (feet)

17-070234-UP	EXXONMOBIL OIL CORPORATION	
OR: TRW	HISTORICAL ISOCONCENTRATION MAPS FOR BENZENE	
DR: AJW	FORMER EXXON SERVICE STATION 70234	FIGURE:
CK:	3450 35th AVENUE	8A
FR:	OAKLAND, CALIFORNIA	

ETIC CONSULT ENGINEER CONSTRUCT
250 W. COLORADO BLVD.
SUITE 110
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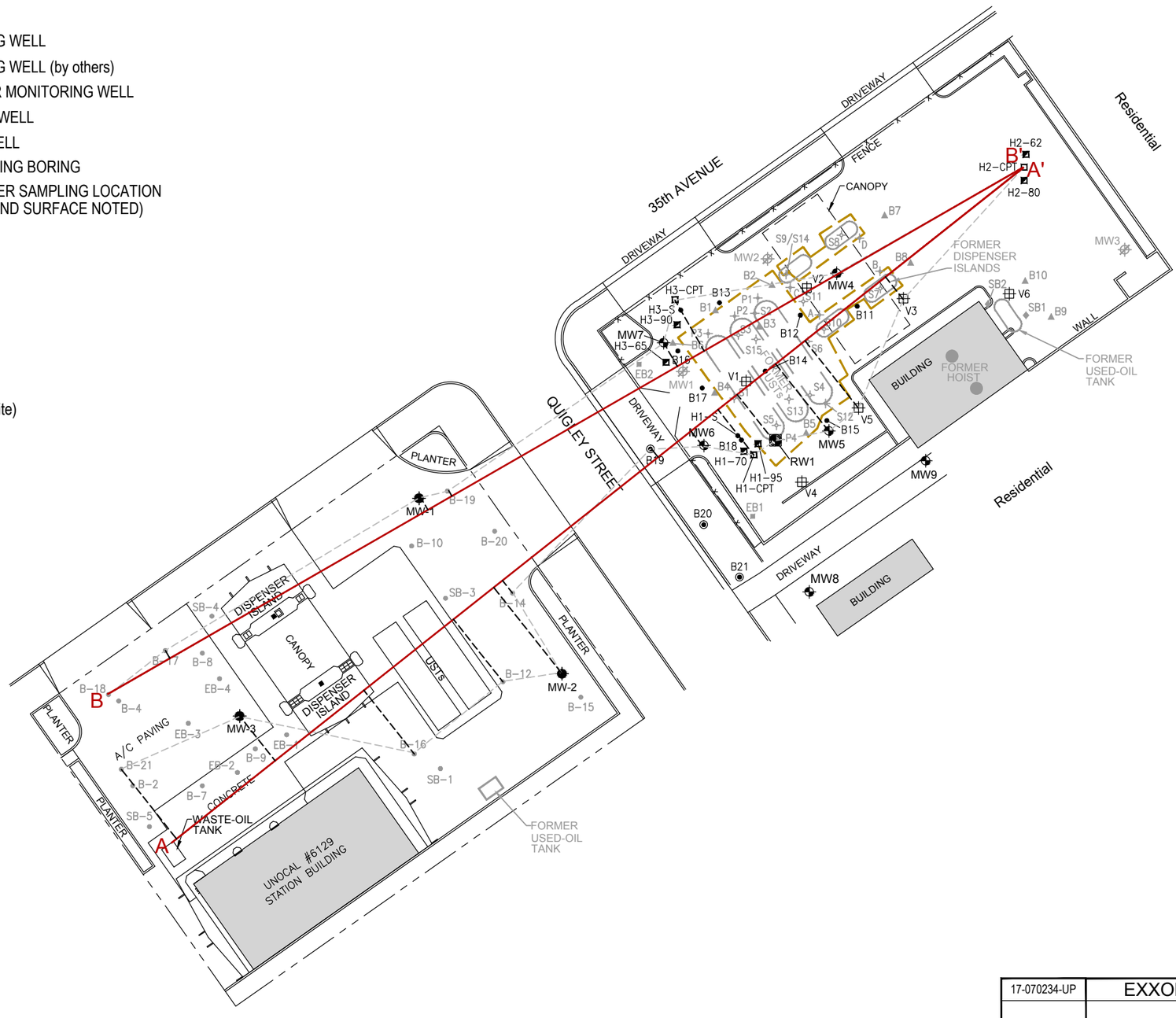
LEGEND:

- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- V1 — SOIL VAPOR MONITORING WELL
- H3–CPT — CONE PENETROMETER TESTING BORING
- H3–65 — HYDROPUNCH GROUNDWATER SAMPLING LOCATION (WITH DEPTH BELOW GROUND SURFACE NOTED)
- H3–S — SOIL BORING
- SOIL BORING (GTI, 1986)
- SOIL BORING (HLA, 1988)
- SOIL BORING (Alton, 1991)
- SOIL SAMPLE (Alton, 1991)
- SOIL SAMPLE (TRC, 2002)
- SOIL BORING (ERI, 2007)
- SOIL BORING (ERI, 2009)
- SOIL BORING (Unocal #6129 Site)



0 20 40

APPROX. SCALE (feet)

17-070234-UP	EXXONMOBIL OIL CORPORATION
	SITE MAP SHOWING CROSS-SECTIONS LOCATIONS OF CONE PENETROMETER TESTING BORINGS
DR: TRW	FORMER EXXON SERVICE STATION 70234
DR: AJW	3450 35th AVENUE
CK:	OAKLAND, CALIFORNIA
FR:	FIGURE: 9

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CONSULT ENGINEER CONSTRUCT
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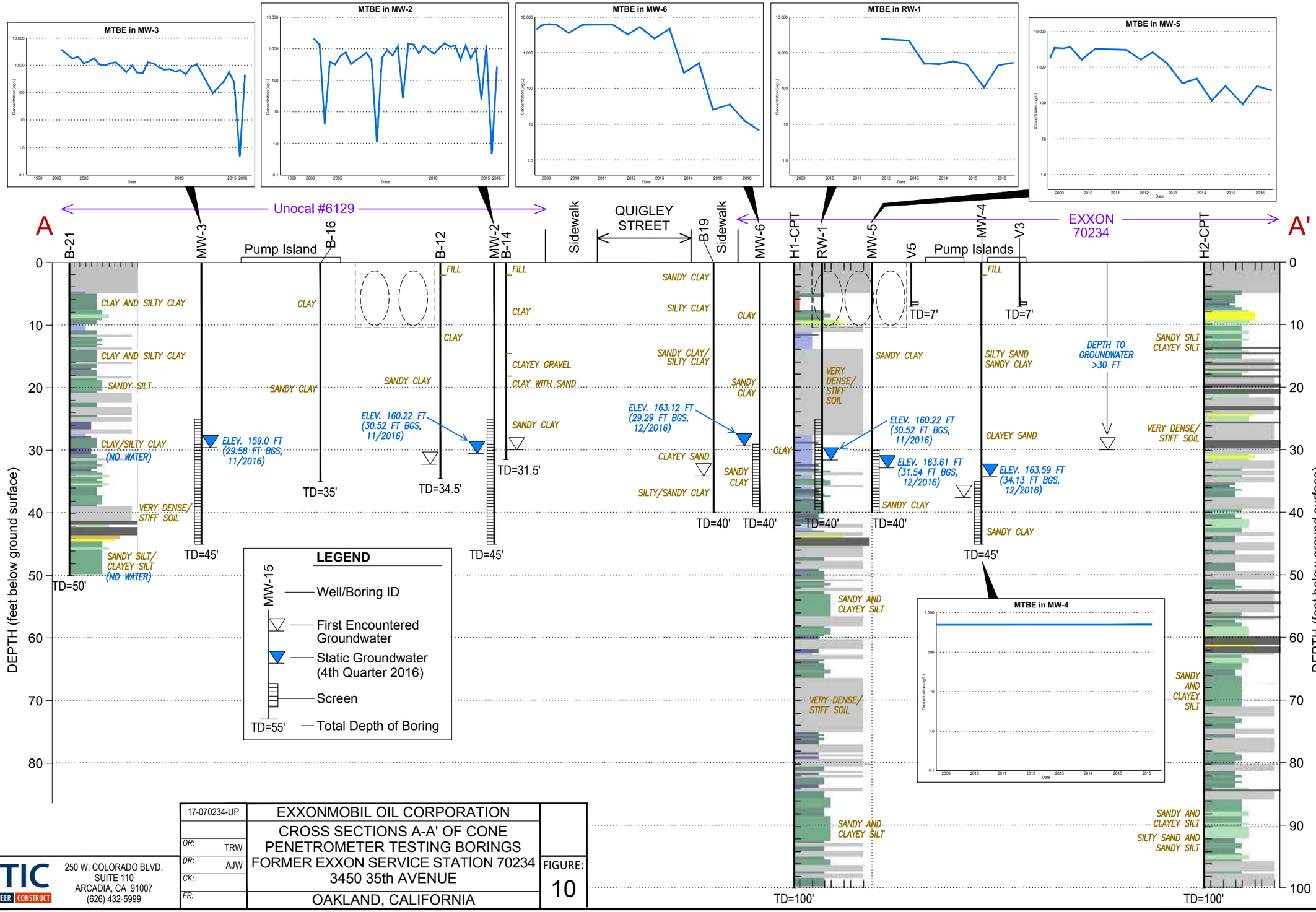

17-070234-UP	EXXONMOBIL OIL CORPORATION	
OR: TRW	CROSS SECTIONS A-A' OF CONE PENETROMETER TESTING BORINGS	
DR: AJW	FORMER EXXON SERVICE STATION 70234	FIGURE:
CK:	3450 35th AVENUE	10
FR:	OAKLAND, CALIFORNIA	

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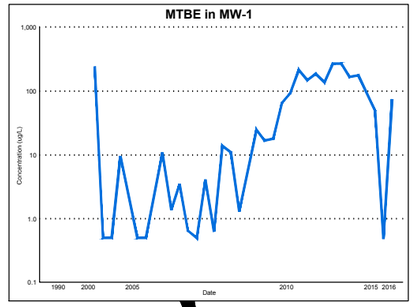

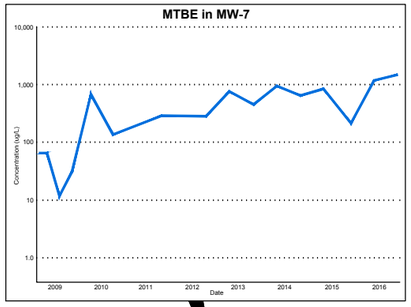

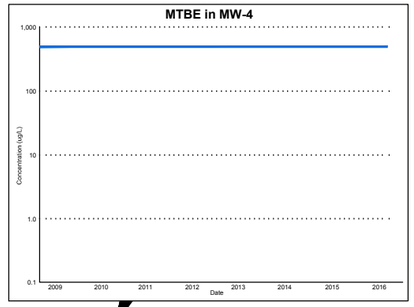

B

B'

Unocal #6129

EXXON 70234

QUIGLEY STREET

Sidewalk

Sidewalk

Pump Island

Pump Islands

B-18

B-17

MW-1

B-19

MW-7

H3-CPT

MW-4

H2-CPT

SILTY SAND AND SANDY SILT

SANDY SILT AND CLAYEY SILT

VERY DENSE/STIFF SOIL

SANDY SILT CLAYEY SILT

VERY DENSE/ STIFF SOIL

CLAY AND SILTY CLAY (NO WATER)

SILTY SAND, SANDY CLAY, AND CLAYEY SILT (NO WATER)

TD=55'

TD=55'

TD=55'

ELEV. 159.98 FT (30.81 FT BGS, 11/2016)

TD=45'

CLAY

CLAY

VERY DENSE/ STIFF SOIL

SANDY SILT CLAYEY SILT

(NO WATER)

(NO WATER)

SILTY CLAY

SANDY CLAY

SANDY CLAY

ELEV. 162.67 FT (31.67 FT BGS, 12/2016)

CLAYEY SAND

TD=40'

SANDY SILT CLAYEY SILT

VERY DENSE/ STIFF SOIL

VERY DENSE/STIFF SOIL

CLAY AND SILTY CLAY

SANDY SILT AND CLAYEY SILT

CLAY AND SILTY CLAY

TD=100'

FILL

SILTY SAND SANDY CLAY

CLAYEY SAND

CLAY AND SILTY CLAY

VERY DENSE/ STIFF SOIL

ELEV. 163.59 FT (34.13 FT BGS, 12/2016)

SANDY CLAY

TD=45'

DEPTH TO GROUNDWATER >30 FT

SANDY SILT CLAYEY SILT

VERY DENSE/ STIFF SOIL

SANDY SILT CLAYEY SILT

SANDY AND CLAYEY SILT SILTY SAND AND SANDY SILT

TD=100'

DEPTH (feet below ground surface)

0
10
20
30
40
50
60
70
80
90
100

LEGEND

MW-15 — Well/Boring ID

First Encountered Groundwater

Static Groundwater (4th Quarter 2016)

Screen

TD=55' — Total Depth of Boring

17-070234-UP	EXXONMOBIL OIL CORPORATION	
	CROSS SECTIONS B-B' OF CONE PENETROMETER TESTING BORINGS FORMER EXXON SERVICE STATION 70234 3450 35th AVENUE	FIGURE: 11
OR: TRW		
DR: AJW		
CK:		
FR:	OAKLAND, CALIFORNIA	

ETIC ENGINEERING CONSULT ENGINEER CONSTRUCT
250 W. COLORADO BLVD.
SUITE 110
ARCADIA, CA 91007
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Tables

TABLE 1 WELL CONSTRUCTION DETAILS,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date Installed	Date Destroyed	Elevation TOC (feet)	Borehole Diameter (inches)	Total Depth of Boring (feet bgs)	Well Depth (feet bgs)	Casing Diameter (inches)	Casing Material	Screened Interval (feet bgs)	Slot Size (inches)	Filter Pack Interval (feet bgs)	Filter Pack Material
MW1	07/15/92	Jun-00	192.00	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW2	07/15/92	Jun-00	194.85	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW3	07/15/92	Jun-00	196.90	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW4	03/02/09	---	197.62	8	45	45	2	Sch. 40 PVC	35-45	0.020	33-45	#3 Sand
MW5	03/06/09	---	196.35	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW6	03/09/09	---	192.41	8	40	39	2	Sch. 40 PVC	29-39	0.020	27-39	#3 Sand
MW7	03/09/09	---	194.34	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW8	03/04/09	---	192.96	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW9	03/05/09	---	195.16	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
RW1	12/22/11	---	195.15	10	40	40	4	Stainless Steel	25-39.5	0.020	23-40	#2/12 Sand
V1	04/14/14	---	---	5	7	6.75	0.25	Stainless Steel	6.25-6.75	0.0057	6-7	#3 Sand
V2	04/15/14	---	---	5	7	6.75	0.25	Stainless Steel	6.25-6.75	0.0057	6-7	#3 Sand
V3	04/15/14	---	---	5	7	6.75	0.25	Stainless Steel	6.25-6.75	0.0057	6-7	#3 Sand
V4	04/15/14	---	---	5	7.25	6.75	0.25	Stainless Steel	6.25-6.75	0.0057	6-7.25	#3 Sand
V5	04/15/14	---	---	5	7	6.75	0.25	Stainless Steel	6.25-6.75	0.0057	6-7	#3 Sand
V6	11/07/14	---	---	3	6.7	6.4	0.25	Stainless Steel	5.9-6.4	0.0057	5.7-6.7	#3 Sand

Notes: Data prior to 2013 provided by Cardno ERI.

TOC Top of well casing elevation; datum is mean sea level.
PVC Polyvinyl chloride.
feet bgs Feet below ground surface.
--- Not applicable.

TABLE 2 CUMULATIVE ANALYTICAL RESULTS FOR TPH-G, BTEX, AND MTBE IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	TPH-g (mg/kg)	Kerosene (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	EHC-HO (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
Used-Oil UST Confirmation Soil Sample														
T1-12	06/18/97	---	8.6a	---	200b	680c	---	---	ND	0.038	0.016	0.046	---	8.8
Hydraulic Hoist Confirmation Samples														
H1-8	06/18/97	---	---	---	---	---	99d	---	---	---	---	---	---	---
H2-8	06/18/97	---	---	---	---	---	2,100d	---	---	---	---	---	---	---
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	---
Soil Samples from 1991 UST Excavation														
S1	08/28/91	10	<1.0	---	---	---	---	---	<0.005	<0.005	<0.005	<0.005	---	<5
S2	08/28/91	10	<1.0	---	---	---	---	---	<0.005	<0.005	<0.005	<0.005	---	<5
S3	08/28/91	10	<1.0	---	---	---	---	---	<0.005	<0.005	<0.005	<0.005	---	<5
S4	08/28/91	10	290	---	---	---	---	---	2.8	6.5	5.2	27	---	<5
S5	08/28/91	10	3.5	---	---	---	---	---	0.27	0.096	0.064	0.32	---	<5
S6	08/28/91	11	4.1	---	---	---	---	---	0.19	0.13	0.056	0.23	---	<5
S7	08/28/91	3	4.0	---	---	---	---	---	0.66	0.040	0.11	0.13	---	<5
S8	08/28/91	3	<1.0	---	---	---	---	---	<0.005	<0.005	<0.005	<0.005	---	<5
S9	08/28/91	3	210	---	---	---	---	---	1.4	7.2	3.0	18	---	<5
S10	08/28/91	3	<1.0	---	---	---	---	---	<0.005	0.031	0.029	0.067	---	<5
S11	08/28/91	1.5	<1.0	---	---	---	---	---	<0.005	<0.005	<0.005	<0.005	---	<5
S12	08/28/91	15	3.1	---	---	---	---	---	0.36	0.048	0.052	0.16	---	---
S13	08/28/91	15	1.8	---	---	---	---	---	0.26	0.008	0.009	0.041	---	---
S14	08/28/91	4	5.0	---	---	---	---	---	0.047	0.063	0.009	0.041	---	---
S15	08/28/91	15	<1.0	---	---	---	---	---	<0.005	<0.005	<0.005	<0.005	---	---
Soil Borings														
B1	3/20/91	15.5	<1.0	---	---	---	---	---	0.011	0.007	0.011	0.04	---	---
B1	3/20/91	20.5	<1.0	---	---	---	---	---	0.012	0.007	0.01	0.04	---	---

TABLE 2 CUMULATIVE ANALYTICAL RESULTS FOR TPH-G, BTEX, AND MTBE IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	TPH-g (mg/kg)	Kerosene (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	EHC-HO (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
B2	3/20/91	15.5	<1.0	---	---	---	---	---	0.036	0.026	0.012	0.055	---	---
B2	3/20/91	20.5	<1.0	---	---	---	---	---	0.0073	0.0063	0.0098	0.038	---	---
B3	3/20/91	10.5	1	---	---	---	---	---	0.006	0.006	0.008	0.036	---	---
B3	3/20/91	15.5	440	---	---	---	---	---	0.7	5.4	4.7	24	---	---
B4	3/20/91	10.5	5	---	---	---	---	---	0.013	0.019	0.014	0.082	---	<5
B4	3/20/91	15.5	6.6	---	---	---	---	---	0.039	0.043	0.027	0.12	---	---
B4	3/20/91	20.5	<1.0	---	---	---	---	---	0.0076	0.0073	0.011	0.054	---	---
B5	3/20/91	10.5	26	---	---	---	---	---	0.055	0.061	0.17	0.67	---	---
B6	3/20/91	10.5	240	---	---	---	---	---	0.28	2.2	2.8	13	---	---
B6	3/20/91	15.5	1.4	---	---	---	---	---	0.0055	0.0054	0.009	0.034	---	---
B7	3/20/91	10.5	<1.0	---	---	---	---	---	0.006	0.006	0.008	0.033	---	---
B8	3/20/91	10.5	<1.0	---	---	---	---	---	0.006	0.005	0.008	0.035	---	---
B9	3/20/91	10.5	---	---	---	---	---	<50	---	---	---	---	---	---
B10	3/20/91	10.5	---	---	---	---	---	<50	---	---	---	---	---	---
S-5-B11	09/05/07	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-10-B11	09/10/07	10	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-13.5-B11	09/10/07	13.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-18-B11	09/11/07	18	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-20-B11	09/11/07	20	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-25.5-B11	11/14/07	25.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-29.5-B11	11/14/07	29.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-34.5-B11	11/14/07	34.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-5-B12	09/04/07	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-15.5-B12	11/13/07	15.5	43	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-20.5-B12	11/13/07	20.5	3.2	---	---	---	---	---	0.076	<0.0050	0.0053	<0.0050	0.15	---
S-5-B13	09/05/07	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-10-B13	09/10/07	10	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-14.5-B13	09/10/07	14.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-20-B13	09/10/07	20	4.3	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---

TABLE 2 CUMULATIVE ANALYTICAL RESULTS FOR TPH-G, BTEX, AND MTBE IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	TPH-g (mg/kg)	Kerosene (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	EHC-HO (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
S-25-B13	11/12/07	25	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-30-B13	11/12/07	30	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-35-B13	11/12/07	35	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-5.0-B14	09/06/07	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-16-B14	11/13/07	16	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-20.5-B14	11/13/07	20.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.031	---
S-5-B15	09/04/07	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-10.5-B15	11/15/07	10.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-15.5-B15	11/15/07	15.5	1.1	---	---	---	---	---	0.32	0.019	0.017	0.074	0.12	---
S-20-B15	11/15/07	20	300	---	---	---	---	---	6.1	36	14	72	<0.25	---
S-25.5-B15	11/15/07	25.5	220	---	---	---	---	---	3.1	18	6.8	36	<0.12	---
S-30.5-B15	11/15/07	30.5	59	---	---	---	---	---	2.9	5.6	1.5	20	<0.25	---
S-35.5-B15	11/15/07	35.5	3.3	---	---	---	---	---	0.28	0.21	0.26	0.79	0.26	---
S-5-B16	09/04/07	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-11-B16	11/14/07	11	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-15.5-B16	11/14/07	15.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-21-B16	11/14/07	21	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-26-B16	11/14/07	26	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-30.5-B16	11/14/07	30.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-34.5-B16	11/14/07	34.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.021	---
S-38.5-B16	11/14/07	38.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-5-B17	09/05/07	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-11-B17	11/13/07	11	90	---	---	---	---	---	0.052	<0.0050	0.086	0.020	0.036	---
S-16-B17	11/13/07	16	<0.50	---	---	---	---	---	0.0052	<0.0050	<0.0050	<0.0050	0.099	---
S-21-B17	11/13/07	21	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.011	---
S-24.5-B17	11/13/07	24.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.59	---
S-31-B17	11/13/07	31	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-35.5-B17	11/13/07	35.5	0.85	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	1.7	---
S-5-B18	09/04/07	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-10-B18	11/12/07	10	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-15-B18	11/12/07	15	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.0051	---
S-20-B18	11/12/07	20	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.019	---
S-25-B18	11/12/07	25	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.18	---
S-30-B18	11/12/07	30	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.54	---

TABLE 2 CUMULATIVE ANALYTICAL RESULTS FOR TPH-G, BTEX, AND MTBE IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	TPH-g (mg/kg)	Kerosene (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	EHC-HO (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
S-35-B18	11/12/07	35	24	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.53	---
S-5-B19	02/25/09	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-10-B19	03/02/09	10	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-15.5-B19	03/03/09	15.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-20.5-B19	03/03/09	20.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-25.5-B19	03/03/09	25.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-30.5-B19	03/03/09	30.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-35.5-B19	03/03/09	35.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	0.51	---
S-39.5-B19	03/03/09	39.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	0.048	---
S-5-B20	02/25/09	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-10.5-B20	03/03/09	10.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-15.0-B20	03/03/09	15.0	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-20.5-B20	03/03/09	20.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-25.5-B20	03/03/09	25.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-30.5-B20	03/03/09	30.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-35.5-B20	03/03/09	35.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-39.5-B20	03/03/09	39.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-5-B21	02/25/09	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-10.5-B21	03/04/09	10.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-15-B21	03/04/09	15	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-20.5-B21	03/04/09	20.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-25.5-B21	03/04/09	25.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-30.5-B21	03/04/09	30.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-35.5-B21	03/04/09	35.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-39.5-B21	03/04/09	39.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
Monitoring and Recovery Wells														
MW1	07/14/92	8	<1.0	---	---	---	---	---	<0.0050	<0.0050	<0.0050	0.0064	---	<10
MW1	07/14/92	29.5	<1.0	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	---	<10
MW2	07/14/92	28	<1.0	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	---	<10
MW3	07/14/92	29.5	<1.0	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	---	<10
S-5-MW4	02/25/09	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-10.5-MW4	03/02/09	10.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-15.5-MW4	03/02/09	15.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-20.5-MW4	03/02/09	20.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---

TABLE 2 CUMULATIVE ANALYTICAL RESULTS FOR TPH-G, BTEX, AND MTBE IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	TPH-g (mg/kg)	Kerosene (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	EHC-HO (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
S-25.5-MW4	03/02/09	25.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-30.5-MW4	03/02/09	30.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-35.5-MW4	03/02/09	35.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-40-MW4	03/02/09	40	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-44.5-MW4	03/02/09	44.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-5-MW5	02/27/09	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-10-MW5	03/05/09	10	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-15-MW5	03/05/09	15	0.70	---	---	---	---	---	0.22	0.022	0.071	0.31	0.036	---
S-20-MW5	03/05/09	20	260	---	---	---	---	---	5.4	19	11	63	<5.0	---
S-25-MW5	03/06/09	25	41	---	---	---	---	---	<0.0050	0.069	0.15	0.75	<0.50	---
S-30-MW5	03/06/09	30	0.91	---	---	---	---	---	0.14	0.0061	0.011	0.036	<0.50	---
S-35-MW5	03/06/09	35	5.4	---	---	---	---	---	<0.050	3.9	1.5	15	<0.50	---
S-39.5-MW5	03/06/09	39.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-5-MW6	02/27/09	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-10-MW6	03/09/09	10	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-15.5-MW6	03/09/09	15.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	0.011	---
S-20.5-MW6	03/09/09	20.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	0.015	---
S-25.5-MW6	03/09/09	25.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-30.5-MW6	03/09/09	30.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	0.063	---
S-35.5-MW6	03/09/09	35.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-39.5-MW6	03/09/09	39.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-5-MW7	02/27/09	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-10.5-MW7	03/09/09	10.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-15.5-MW7	03/09/09	15.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-20.5-MW7	03/09/09	20.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-25.5-MW7	03/09/09	25.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-30.5-MW7	03/09/09	30	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-35.5-MW7	03/09/09	35.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-39.5-MW7	03/09/09	39.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-5-MW8	02/25/09	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-10.5-MW8	03/04/09	10.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-15.5-MW8	03/04/09	15.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-20.5-MW8	03/04/09	20.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-25.5-MW8	03/04/09	25.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-30.5-MW8	03/04/09	30.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---

TABLE 2 CUMULATIVE ANALYTICAL RESULTS FOR TPH-G, BTEX, AND MTBE IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	TPH-g (mg/kg)	Kerosene (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	EHC-HO (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
S-35.5-MW8	03/04/09	35.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-39.5-MW8	03/04/09	39.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-5-MW9	02/25/09	5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-10-MW9	03/05/09	10	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-15-MW9	03/05/09	15	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-20-MW9	03/05/09	20	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-25-MW9	03/05/09	25	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-30-MW9	03/05/09	30	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-35-MW9	03/05/09	35	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-40-MW9	03/05/09	40	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	---
S-5.0-RW1	12/22/11	5.0	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-15.0-RW1	12/22/11	15.0	1.3e	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.0053	---
S-25.0-RW1	12/22/11	25.0	6.5e	---	---	---	---	---	<0.0050	<0.0050	<0.0050	0.029	0.0066g	---
S-28.0-RW1	12/22/11	28.0	27e	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
S-31.0-RW1	12/22/11	31.0	1.7	---	---	---	---	---	<0.0050	0.0072	<0.0050	0.096	0.50	---
S-32.5-RW1	12/22/11	32.5	0.95	---	---	---	---	---	<0.0050	<0.0050	<0.0050	0.0087	0.72	---
S-34.0-RW1	12/22/11	34.0	2.3e	---	---	---	---	---	<0.0050	<0.0050	<0.0050	0.0053	0.94	---
S-37.0-RW1	12/22/11	37.0	420	---	---	---	---	---	<0.50	<0.50	0.88	10	<0.50	---
S-38.5-RW1	12/22/11	38.5	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.0071	---
S-40.0-RW1	12/22/11	40.0	440	---	---	---	---	---	<1.0	<1.0	2.1	29	<1.0	---
Soil Stockpile Samples														
SP-1(S-SP1-S-SP4)	09/12/07	---	<0.10	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	7.2
SP(1-4)	06/18/97	---	ND	---	47b	150c	---	---	ND	ND	ND	ND	---	8.7
SP-2	03/09/09	---	<0.50	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	5.83
S-SP1 (1,2,3,4)	12/22/11	---	40	8.0	<5.0	<25	---	---	0.0068	0.012	0.048	0.46	<0.50	4.50
Soil Vapor Monitoring Wells														
V1-7	04/14/14	7	<0.51	---	---	---	---	---	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	---
V2-3	04/15/14	3	<0.52	---	---	---	---	---	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	---
V2-6.5	04/15/14	6.5	<0.49	---	---	---	---	---	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	---
V3-3	04/15/14	3	<0.49	---	---	---	---	---	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	---
V3-6.5	04/15/14	6.5	<0.48	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
V4-6.5	04/15/14	6.5	<0.48	---	---	---	---	---	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	---
V5-6.5	04/15/14	6.5	<0.49	---	---	---	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---
V6,3	11/07/14	3	<0.49	---	---	---	---	---	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	---
V6,6.5	11/07/14	6.5	<0.50	---	---	---	---	---	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	---

TABLE 2 CUMULATIVE ANALYTICAL RESULTS FOR TPH-G, BTEX, AND MTBE IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	TPH-g (mg/kg)	Kerosene (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	EHC-HO (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
Soil Borings 2014														
H1-54	04/15/14	54	<0.50	---	---	---	---	---	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	---
H3-54	04/14/14	54	<0.52	---	---	---	---	---	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	---
Tier 1 ESLs Feb. 2016 (Rev. 3)			100	---	230	5,100	---	---	0.0	2.9	1.4	2.3	0.023	80

Notes:

TPH-g	Total Petroleum Hydrocarbons as gasoline analyzed using EPA Method 8015M.
Kerosene	Kerosene analyzed using EPA Method 8015B.
TPH-d	Total Petroleum Hydrocarbons as diesel.
TPH-mo	Total Petroleum Hydrocarbons as motor oil.
EHC-HO	Extractable hydrocarbons as hydraulic oil.
TOG	Total oil and grease.
BTEX	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B/8260B.
MTBE	Methyl tertiary butyl ether analyzed using EPA Method 8021B/8260B
Lead	Lead analyzed using EPA Method 6010B.
feet bgs	Feet below ground surface.
mg/kg	Milligrams per kilogram.
ND	Not detected at or above the laboratory reporting limit.
NE	Not establlished.
<	Less than the stated laboratory reporting limit.
---	Not analyzed/not applicable.
a	Unidentified C8-C12.
b	Unidentified C9-C24.
c	Unidentified C16-C36.
d	Unidentified C16-C40.
e	Hydrocarbon pattern does not match that of the specified standard.
Tier 1 ESLs	Tier 1 Environmental Screening Levels San Francisco Bay Regional Water Quality Control Board, February 2016, (Rev. 3).

Analytical data prior to 2013 provided by Cardno ERI.

TABLE 3 CUMULATIVE ANALYTICAL RESULTS FOR FUEL OXYGENATES, HALOGENATED VOLATILE ORGANIC COMPOUNDS, METALS, AND PAHs IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	1,2-DCA (mg/kg)	EDB (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Ethanol (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)	HVOCs (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	Naphthalene (mg/kg)	PAHs (mg/kg)
Used-Oil UST Confirmation Soil Sample																		
T1-12	06/18/97	---	---	---	---	---	---	---	---	---	ND	ND	ND	47	56	84	---	---
Hydraulic Hoist Confirmation Samples																		
Not analyzed for these analytes.																		
Samples from the UST Cavity Sidewall																		
Not analyzed for these analytes.																		
Samples from Beneath Product Piping																		
Not analyzed for these analytes.																		
Soil Samples from 1991 UST Excavation																		
Not analyzed for these analytes.																		
Samples Collected from Soil Borings prior to 2007																		
Not analyzed for these analytes.																		
S-5-B11	09/05/07	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-10-B11	09/10/07	10	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-13.5-B11	09/10/07	13.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-18-B11	09/11/07	18	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-20-B11	09/11/07	20	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-25.5-B11	11/14/07	25.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-29.5-B11	11/14/07	29.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-34.5-B11	11/14/07	34.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-5-B12	09/04/07	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-15.5-B12	11/13/07	15.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-20.5-B12	11/13/07	20.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-5-B13	09/05/07	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-10-B13	09/10/07	10	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-14.5-B13	09/10/07	14.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-20-B13	09/10/07	20	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-25-B13	11/12/07	25	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-30-B13	11/12/07	30	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-35-B13	11/12/07	35	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-5.0-B14	09/06/07	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-16-B14	11/13/07	16	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-20.5-B14	11/13/07	20.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-5-B15	09/04/07	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-10.5-B15	11/15/07	10.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15.5-B15	11/15/07	15.5	0.011	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20-B15	11/15/07	20	<0.25	<0.25	<0.50	<0.50	<0.50	<2.5	<12	---	---	---	---	---	---	---	---	---
S-25.5-B15	11/15/07	25.5	<0.12	<0.12	<0.25	<0.25	<0.25	<1.2	<6.2	---	---	---	---	---	---	---	---	---

TABLE 3 CUMULATIVE ANALYTICAL RESULTS FOR FUEL OXYGENATES, HALOGENATED VOLATILE ORGANIC COMPOUNDS, METALS, AND PAHs IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	1,2-DCA (mg/kg)	EDB (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Ethanol (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)	HVOCs (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	Naphthalene (mg/kg)	PAHs (mg/kg)
S-30.5-B15	11/15/07	30.5	<0.25	<0.25	<0.50	<0.50	<0.50	<2.5	<12	---	---	---	---	---	---	---	---	---
S-35.5-B15	11/15/07	35.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	0.25	<0.25	---	---	---	---	---	---	---	---	---
S-5-B16	09/04/07	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-11-B16	11/14/07	11	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-15.5-B16	11/14/07	15.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-21-B16	11/14/07	21	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-26-B16	11/14/07	26	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-30.5-B16	11/14/07	30.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-34.5-B16	11/14/07	34.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-38.5-B16	11/14/07	38.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-5-B117	09/05/07	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-11-B17	11/13/07	11	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-16-B17	11/13/07	16	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-21-B17	11/13/07	21	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-24.5-B17	11/13/07	24.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	0.20	---	---	---	---	---	---	---	---	---	---
S-31-B17	11/13/07	31	<0.0050	<0.0050	<0.010	<0.010	<0.010	0.15	---	---	---	---	---	---	---	---	---	---
S-35.5-B17	11/13/07	35.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-5-B18	09/04/07	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-10-B18	11/12/07	10	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-15-B18	11/12/07	15	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-20-B18	11/12/07	20	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-25-B18	11/12/07	25	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-30-B18	11/12/07	30	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-35-B18	11/12/07	35	<0.0050	<0.0050	<0.010	<0.010	<0.010	0.70	---	---	---	---	---	---	---	---	---	---
S-5-B19	02/25/09	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-10-B19	03/02/09	10	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15.5-B19	03/03/09	15.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20.5-B19	03/03/09	20.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-25.5-B19	03/03/09	25.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-30.5-B19	03/03/09	30.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-35.5-B19	03/03/09	35.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-39.5-B19	03/03/09	39.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-5-B20	02/25/09	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-10.5-B20	03/03/09	10.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15.0-B20	03/03/09	15.0	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20.5-B20	03/03/09	20.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-25.5-B20	03/03/09	25.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-30.5-B20	03/03/09	30.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-35.5-B20	03/03/09	35.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-39.5-B20	03/03/09	39.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-5-B21	02/25/09	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---

TABLE 3 CUMULATIVE ANALYTICAL RESULTS FOR FUEL OXYGENATES, HALOGENATED VOLATILE ORGANIC COMPOUNDS, METALS, AND PAHs IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	1,2-DCA (mg/kg)	EDB (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Ethanol (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)	HVOCs (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	Naphthalene (mg/kg)	PAHs (mg/kg)
S-10.5-B21	03/04/09	10.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15-B21	03/04/09	15	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20.5-B21	03/04/09	20.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-25.5-B21	03/04/09	25.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-30.5-B21	03/04/09	30.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-35.5-B21	03/04/09	35.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-39.5-B21	03/04/09	39.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
Monitoring and Recovery Wells																		
MW1	07/14/92	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	07/14/92	29.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	07/14/92	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	07/14/92	29.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-MW4	02/25/09	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-10.5-MW4	03/02/09	10.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15.5-MW4	03/02/09	15.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20.5-MW4	03/02/09	20.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-25.5-MW4	03/02/09	25.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-30.5-MW4	03/02/09	30.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-35.5-MW4	03/02/09	35.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-40-MW4	03/02/09	40	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-44.5-MW4	03/02/09	44.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-5-MW5	02/27/09	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-10-MW5	03/05/09	10	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15-MW5	03/05/09	15	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20-MW5	03/05/09	20	<5.0	<5.0	<10	<10	<10	<50	<250	---	---	---	---	---	---	---	---	---
S-25-MW5	03/06/09	25	<0.50	<0.50	<1.0	<1.0	<1.0	<5.0	<25	---	---	---	---	---	---	---	---	---
S-30-MW5	03/06/09	30	<0.50	<0.50	<1.0	<1.0	<1.0	<5.0	<25	---	---	---	---	---	---	---	---	---
S-35-MW5	03/06/09	35	<0.50	<0.50	<1.0	<1.0	<1.0	<5.0	<25	---	---	---	---	---	---	---	---	---
S-39.5-MW5	03/06/09	39.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-5-MW6	02/27/09	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-10-MW6	03/09/09	10	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15.5-MW6	03/09/09	15.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20.5-MW6	03/09/09	20.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-25.5-MW6	03/09/09	25.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-30.5-MW6	03/09/09	30.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-35.5-MW6	03/09/09	35.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	0.054	<0.25	---	---	---	---	---	---	---	---	---
S-39.5-MW6	03/09/09	39.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-5-MW7	02/27/09	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-10.5-MW7	03/09/09	10.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15.5-MW7	03/09/09	15.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20.5-MW7	03/09/09	20.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-25.5-MW7	03/09/09	25.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---

TABLE 3 CUMULATIVE ANALYTICAL RESULTS FOR FUEL OXYGENATES, HALOGENATED VOLATILE ORGANIC COMPOUNDS, METALS, AND PAHs IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	1,2-DCA (mg/kg)	EDB (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Ethanol (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)	HVOCs (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	Naphthalene (mg/kg)	PAHs (mg/kg)
S-30.5-MW7	03/09/09	30	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-35.5-MW7	03/09/09	35.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-39.5-MW7	03/09/09	39.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-5-MW8	02/25/09	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-10.5-MW8	03/04/09	10.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15.5-MW8	03/04/09	15.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20.5-MW8	03/04/09	20.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-25.5-MW8	03/04/09	25.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-30.5-MW8	03/04/09	30.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-35.5-MW8	03/04/09	35.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-39.5-MW8	03/04/09	39.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-5-MW9	02/25/09	5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-10-MW9	03/05/09	10	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-15-MW9	03/05/09	15	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-20-MW9	03/05/09	20	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-25-MW9	03/05/09	25	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-30-MW9	03/05/09	30	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-35-MW9	03/05/09	35	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-40-MW9	03/05/09	40	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	---	---	---	---	---	---	---
S-5.0-RW1	12/22/11	5.0	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-15.0-RW1	12/22/11	15.0	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-25.0-RW1	12/22/11	25.0	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-28.0-RW1	12/22/11	28.0	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-31.0-RW1	12/22/11	31.0	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-32.5-RW1	12/22/11	32.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	0.17	---	---	---	---	---	---	---	---	---	---
S-34.0-RW1	12/22/11	34.0	<0.0050	<0.0050	<0.010	<0.010	<0.010	0.42	---	---	---	---	---	---	---	---	---	---
S-37.0-RW1	12/22/11	37.0	<0.50	<0.50	<1.0	<1.0	<1.0	<5.0	---	---	---	---	---	---	---	---	---	---
S-38.5-RW1	12/22/11	38.5	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	---	---
S-40.0-RW1	12/22/11	40.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	---	---	---	---	---	---	---	---	---	---
Soil Stockpile Samples																		
SP-1(S-SP1-S-SP4)	09/12/07	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.020	---	---	---	---	---	---	---	---	---	---
SP(1-4)	06/18/97	---	---	---	---	---	---	---	---	ND	ND	---	ND	55	53	43	---	---
SP-2	03/09/09	---	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.050	<0.25	---	---	ND	---	---	---	---	---	---
S-SP1 (1,2,3,4)	12/22/11	---	<0.0050	<0.0050	<0.010	<0.010	<0.010	0.076	---	a	---	---	---	---	---	---	---	---
Soil Vapor Monitoring Wells																		
V1-7	04/14/14	7	---	---	<0.010	<0.010	<0.010	<0.051	---	---	---	---	---	---	---	---	<0.051	---
V2-3	04/15/14	3	---	---	<0.0096	<0.0096	<0.0096	<0.048	---	---	---	---	---	---	---	---	<0.048	---
V2-6.5	04/15/14	6.5	---	---	<0.010	<0.010	<0.010	<0.052	---	---	---	---	---	---	---	---	<0.052	---
V3-3	04/15/14	3	---	---	<0.011	<0.011	<0.011	<0.053	---	---	---	---	---	---	---	---	<0.053	---
V3-6.5	04/15/14	6.5	---	---	<0.0099	<0.0099	<0.0099	<0.050	---	---	---	---	---	---	---	---	<0.050	---
V4-6.5	04/15/14	6.5	---	---	<0.010	<0.010	<0.010	<0.051	---	---	---	---	---	---	---	---	<0.051	---

TABLE 3 CUMULATIVE ANALYTICAL RESULTS FOR FUEL OXYGENATES, HALOGENATED VOLATILE ORGANIC COMPOUNDS, METALS, AND PAHs IN SOIL,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Sampling Date	Depth (feet bgs)	1,2-DCA (mg/kg)	EDB (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Ethanol (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)	HVOCs (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	Naphthalene (mg/kg)	PAHs (mg/kg)
V5-6.5	04/15/14	6.5	---	---	<0.010	<0.010	<0.010	<0.050	---	---	---	---	---	---	---	---	<0.050	---
V6,3	11/07/14	3	---	---	<0.010	<0.010	<0.010	<0.051	---	---	---	---	---	---	---	---	<0.051	<0.020
V6,6.5	11/07/14	6.5	---	---	<0.010	<0.010	<0.010	<0.051	---	---	---	---	---	---	---	---	<0.051	<0.020
Soil Borings 2014																		
H1-54	04/15/14	54	---	---	<0.010	<0.010	<0.010	<0.051	---	---	---	---	---	---	---	---	<0.051	---
H3-54	04/14/14	54	---	---	<0.010	<0.010	<0.010	<0.052	---	---	---	---	---	---	---	---	<0.052	---
Tier 1 ESLs February 2016 (Rev. 3)			0.0045	0.00033	NE	NE	NE	0.075	NE	---	---	---	39	+++	86	23,000	0.033	#

Notes:

1,2-DCA	1,2-dichloroethane analyzed using EPA Method 8260B.
EDB	Ethylene dibromide (1,2-dibromoethane) analyzed using EPA Method 8260B.
DIPE	Di-isopropyl ether analyzed using EPA Method 8260B.
ETBE	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
TAME	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	Tertiary butyl alcohol analyzed using EPA Method 8260B.
Ethanol	Ethanol analyzed using EPA Method 8260B.
VOCs	Volatile organic compounds.
SVOCs	Polycyclic aromatic hydrocarbons.
HVOCs	Halogenated volatile organic compounds analyzed using EPA Method 8260B.
PAHs	Polycyclic aromatic hydrocarbons.
feet bgs	Feet below ground surface.
mg/kg	Milligrams per kilogram.
ND	Not detected at or above the laboratory reporting limit.
NE	Not established.
<	Less than the stated laboratory reporting limit.
---	Not analyzed/not applicable.
a	1.1 mg/kg 1,2,4-trimethylbenzene; 0.16 mg/kg 1,3,5-trimethylbenzene; 0.022 mg/kg isopropyltoluene; 0.078 mg/kg naphthalene; 0.059 mg/kg n-butylbenzene; 0.091 mg/kg n-propylbenzene; 0.0070 p-isopropyltoluene; 0.012 sec-butylbenzene.
Soil Tier 1ESLs	Tier 1 Environmental Screening Levels San Francisco Bay Regional Water Quality Control Board, February 2016, (Rev. 3)
+++	The ESLs for chromium are cited according to Cr+3 or Cr+6

Analytical data prior to 2013 provided by Cardno ERI.

TABLE 4 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
MW1	SCREEN INTERVAL (feet bgs) 25-45												
MW1	07/15/92	---	Well installed.										
MW1	07/17/92	192.00	33.02	158.98	0.00	67	6.6	6.9	2.0	4.5	---	17	---
MW1	10/22/92	192.00	34.07	157.93	0.00	<50	2.9	<0.5	<0.5	<0.5	---	16	---
MW1	02/04/93	192.00	29.43	162.57	0.00	<50	0.8	<0.5	<0.5	<0.5	---	4	---
MW1	05/03/93	192.00	29.72	162.28	0.00	71	2.8	7.2	2.2	22	---	40	---
MW1	07/30/93	192.00	32.95	159.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	5	---
MW1	10/19/93	192.00	34.34	157.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW1	02/23/94	192.00	31.72	160.28	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	4	---
MW1	06/06/94	192.00	31.77	160.23	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW1	08/18/94	192.00	33.76	158.24	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	130	---
MW1	11/15/94	192.00	34.08	157.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW1	02/06/95	192.00	28.50	163.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	05/10/95	192.00	29.30	162.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	09/20/99	192.00	33.30	158.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<50
MW1	Well destroyed in June 2000.												
MW2	SCREEN INTERVAL (feet bgs) 25-45												
MW2	07/15/92	---	Well installed.										
MW2	07/17/92	194.85	34.65	160.20	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	10/22/92	194.85	35.64	159.21	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	--	---
MW2	02/04/93	194.85	31.13	163.72	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	05/03/93	194.85	31.08	163.77	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW2	07/30/93	194.85	34.34	160.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	14	---
MW2	10/19/93	194.85	36.00	158.85	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	02/23/94	194.85	33.92	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	06/06/94	194.85	33.50	161.35	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	08/18/94	194.85	35.38	159.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW2	11/15/94	194.85	35.93	158.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW2	02/06/95	194.85	30.38	164.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	05/10/95	194.85	30.77	164.08	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	09/20/99	194.85	35.15	159.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<0.5
MW2	Well destroyed in June 2000.												
MW3	SCREEN INTERVAL (feet bgs) 25-45												
MW3	07/15/92	---	Well installed.										

TABLE 4 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
MW3	07/17/92		196.90	37.24	159.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	50	---
MW3	10/22/92		196.90	35.95	160.95	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	9	---
MW3	02/04/93		196.90	29.85	167.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	05/03/93		196.90	29.87	167.03	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW3	07/30/93		196.90	33.85	163.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	22	---
MW3	10/19/93		196.90	35.89	161.01	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW3	02/23/94		196.90	32.88	164.02	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	25	---
MW3	06/06/94		196.90	32.40	164.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	08/18/94		196.90	35.07	161.83	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW3	11/15/94		196.90	35.97	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW3	02/06/95		196.90	28.39	168.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	05/10/95		196.90	28.90	168.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	09/20/99		196.90	34.68	162.22	0.00	75.0	<0.5	11.5	1.8	18.0	1.87	<75	<0.5
MW3	Well destroyed in June 2000.													
MW4	SCREEN INTERVAL (feet bgs) 35-45													
MW4	03/02/09		---	Well installed.										
MW4	03/30/09		197.62	30.94	166.68	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	04/02/09		197.62	Well surveyed.										
MW4	05/28/09		197.62	32.00	165.62	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	08/31/09		197.62	35.43	162.19	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	12/11/09		197.62	35.01	162.61	0.00	<50	<0.50	0.83	<0.50	1.1	<0.50	---	---
MW4	05/07/10		197.62	29.11	168.51	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	11/01/10		197.62	34.95	162.67	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/27/11	a	197.62	30.65	166.97	0.00	---	---	---	---	---	---	---	---
MW4	11/23/11		197.62	33.49	164.13	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/24/12		197.62	30.02	167.60	0.00	58	0.84	4.4	0.64c	3.5	<0.50	---	---
MW4	10/31/12		197.62	35.14	162.48	0.00	110	5.3	45	4.2	21	<0.50	---	---
MW4	05/02/13	e	197.62	32.03	165.59	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	11/09/13		197.62	36.53	161.09	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	05/12/14	a	197.62	33.51	164.11	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	11/19/14	a	197.62	36.96	160.66	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	05/13/15	a	197.62	34.01	163.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	12/16/15	a	197.62	37.31	160.31	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	06/15/16	a	197.62	34.13	163.49	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	12/20/16	a	197.62	34.03	163.59	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---

TABLE 4 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
MW4	04/27/17	a	197.62	28.29	169.33	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	**11/01/17**	**a**	**197.62**	**36.81**	**160.81**	**0.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	---	---
MW5	SCREEN INTERVAL (feet bgs) 30-40													
MW5	03/06/09		---	Well installed.										
MW5	03/30/09		196.35	30.05	166.30	0.00	4,200	540	140	<12	310	1,900		
MW5	04/02/09		196.35	Well surveyed.									---	---
MW5	05/28/09		196.35	31.45	164.90	0.00	5,300	890	150	<25	140	3,600	---	---
MW5	08/31/09		196.35	34.70	161.65	0.00	5,800	550	<100	<100	<100	3,500	---	---
MW5	12/11/09		196.35	34.52	161.83	0.00	4,000b	230	<100	<100	<100	3,800	---	---
MW5	05/07/10		196.35	30.84	165.51	0.00	2,700b	73	5.3	3.6	6.5	1,700	---	---
MW5	11/01/10		196.35	33.93	162.42	0.00	2,400b	320	71	21	40	3,400	---	---
MW5	05/27/11	a	196.35	31.65	164.70	0.00	---	---	---	---	---	---	---	---
MW5	11/23/11		196.35	32.58	163.77	0.00	1,900b	72	2.7	3.1	8.1	3,200	---	---
MW5	05/24/12		196.35	30.26	166.09	0.00	2,900b	54	31	5.2	17	1,700	---	---
MW5	10/31/12		196.35	33.94	162.41	0.00	2,200b	220	72	8.7	47	2,700	---	---
MW5	05/02/13	c	196.35	31.33	165.02	0.00	2,200b	61	<0.50	3.8	7.9	1,300	---	---
MW5	11/09/13		196.35	35.69	160.66	0.00	1,300b	120	<5.0	<5.0	8.8	370	---	---
MW5	05/12/14	a	196.35	32.64	163.71	0.00	1,200	120	<5.0	<5.0	<5.0	490	---	---
MW5	11/19/14	a	196.35	36.05	160.30	0.00	1,400 HD	140	2.0 J	<2.5	4.7	120	---	---
MW5	05/13/15	a	196.35	33.31	163.04	0.00	1,100 HD	74	<2.5	<2.5	2.7	310	---	---
MW5	12/16/15	a	196.35	36.34	160.01	0.00	760	150	2.0 J	1.8 J	4.6	94	---	---
MW5	06/15/16	a	196.35	33.63	162.72	0.00	840 HD	150	1.4 J	1.8 J	4.1	300	---	---
MW5	12/20/16	a	196.35	32.8	163.55	0.00	1,000 HD	160	<5.0	<5.0	<5.0	230	---	---
MW5	04/27/17	a	196.35	27.54	168.81	0.00	470 HD	39	<5.0	<5.0	<5.0	230	---	---
MW5	**11/01/17**	**a**	**196.35**	**35.98**	**160.37**	**0.00**	**380 HD**	**56**	**<2.5**	**<2.5**	**1.4 JA**	**87**	---	---
MW6	SCREEN INTERVAL (feet bgs) 29-39													
MW6	03/09/09		---	Well installed.										
MW6	03/30/09		192.41	26.94	165.47	0.00	2,800	0.91	<0.50	<0.50	<0.50	4,800	---	---
MW6	04/02/09		192.41	Well surveyed.									---	---
MW6	05/28/09		192.41	28.04	164.37	0.00	2,800	<100	<100	<100	<100	6,000	---	---
MW6	08/31/09		192.41	30.57	161.84	0.00	4,900	<100	<100	<100	<100	6,600	---	---
MW6	12/11/09		192.41	30.78	161.63	0.00	4,900b	<100	<100	<100	<100	6,200	---	---
MW6	05/07/10		192.41	25.42	166.99	0.00	2,900b	2.7	<0.50	0.74c	<1.0	3,700	---	---
MW6	11/01/10		192.41	30.68	161.73	0.00	850b	2.1	<0.50	<0.50	<1.0	6,100	---	---

TABLE 4 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
MW6	05/27/11	a	192.41	27.07	165.34	0.00	---	---	---	---	---	---	---	---
MW6	11/23/11		192.41	29.25	163.16	0.00	1,600b	<0.50	<0.50	<0.50	<1.0	6,400	---	---
MW6	05/24/12		192.41	26.36	166.05	0.00	2,000b	1.3c	9.7	0.97c	5.5	3,400	---	---
MW6	10/31/12		192.41	30.74	161.67	0.00	1,400b	3.8	28	2.2	11	5,400	---	---
MW6	05/02/13		192.41	27.91	164.50	0.00	1,900b	<0.50	<0.50	<0.50	<0.50	2,600	---	---
MW6	11/09/13		192.41	32.15	160.26	0.00	3,600b	<40	<40	<40	<40	4,800	---	---
MW6	05/12/14	a	192.41	29.28	163.13	0.00	190 HD	<5.0	<5.0	<5.0	<5.0	280	---	---
MW6	11/19/14	a	192.41	32.49	159.92	0.00	420 HD	<10	<10	<10	<10	530	---	---
MW6	05/13/15	a	192.41	29.81	162.60	0.00	200 HD	<10	<10	<10	<10	26	---	---
MW6	12/16/15	a	192.41	32.76	159.65	0.00	62 HD	<2.5	<2.5	<2.5	<2.5	36	---	---
MW6	06/15/16	a	192.41	30.01	162.40	0.00	120 HD	<0.50	<0.50	<0.50	<0.50	13	---	---
MW6	12/20/16	a	192.41	29.29	163.12	0.00	71 HD	<0.50	<0.50	<0.50	<0.50	7	---	---
MW6	04/27/17	a	192.41	24.46	167.95	0.00	97 HD	<5.0	<5.0	<5.0	<5.0	12	---	---
MW6	**11/01/17**	**a**	**192.41**	**32.51**	**159.90**	**0.00**	**120 HD**	**<5.0**	**<5.0**	**<5.0**	**<5.0**	**4.6 J**	---	---
MW7	SCREEN INTERVAL (feet bgs) 30-40													
MW7	03/09/09		---	Well installed.									---	---
MW7	03/30/09		194.34	29.15	165.19	0.00	55	<0.50	<0.50	<0.50	<0.50	66	---	---
MW7	04/02/09		194.34	Well surveyed.										
MW7	05/28/09		194.34	30.16	164.18	0.00	50	<1.0	<1.0	<1.0	<1.0	67	---	---
MW7	08/31/09		194.34	33.31	161.03	0.00	<50	<0.50	0.60	<0.50	<0.50	12	---	---
MW7	12/11/09		194.34	32.71	161.63	0.00	<50	0.78	1.7	0.62	2.4	31	---	---
MW7	05/07/10		194.34	27.54	166.80	0.00	510b	<0.50	<0.50	<0.50	<1.0	700	---	---
MW7	11/01/10		194.34	32.82	161.52	0.00	68b	<0.50	<0.50	<0.50	<1.0	140	---	---
MW7	05/27/11	a	194.34	28.85	165.49	0.00	---	---	---	---	---	---	---	---
MW7	11/23/11		194.34	31.39	162.95	0.00	190b	<0.50	<0.50	<0.50	<1.0	300	---	---
MW7	05/24/12	a	194.34	28.31	166.03	0.00	---	---	---	---	---	---	---	---
MW7	10/31/12		194.34	32.86	161.48	0.00	230b	2.9	21	1.8	9.2	290	---	---
MW7	05/02/13		194.34	29.93	164.41	0.00	570b	<0.50	<0.50	<0.50	<0.50	790	---	---
MW7	11/09/13		194.34	34.23	160.11	0.00	370b	<10	<10	<10	<10	460	---	---
MW7	05/12/14	a	194.34	31.33	163.01	0.00	310 HD	<10	<10	<10	<10	980	---	---
MW7	11/19/14	a	194.34	34.31	160.03	0.00	400 HD	<12	<12	<12	<12	660	---	---
MW7	05/13/15	a	194.34	31.65	162.69	0.00	660 HD	<20	<20	<20	<20	870	---	---
MW7	12/16/15	a	194.34	34.62	159.72	0.00	110 HD	<4.0	<4.0	<4.0	<4.0	220	---	---
MW7	06/15/16	a	194.34	31.96	162.38	0.00	740 HD	<4.0	<4.0	<4.0	<4.0	1,200	---	---
MW7	12/20/16	a	194.34	31.67	162.67	0.00	1,200 HD	<25	<25	<25	<25	1,500	---	---

TABLE 4 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
MW7	04/27/17	a	194.34	26.64	167.70	0.00	1,500 HD	<25	<25	<25	<25	2,500	---	---
MW7	**11/01/17**	**a**	**194.34**	**34.51**	**159.83**	**0.00**	**580 HD**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	**890**	---	---
MW8	SCREEN INTERVAL (feet bgs) 30-40													
MW8	03/04/09		---	Well installed.										
MW8	03/30/09		192.96	27.35	165.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	04/02/09		192.96	Well surveyed.									---	---
MW8	05/28/09		192.96	28.72	164.24	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	08/31/09		192.96	31.93	161.03	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	12/11/09		192.96	31.24	161.72	0.00	<50	0.74	1.6	0.59	2.3	<0.50	---	---
MW8	05/07/10		192.96	25.68	167.28	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	11/01/10		192.96	31.18	161.78	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	05/27/11		192.96	27.55	165.41	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	11/23/11		192.96	29.74	163.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	05/24/12		192.96	26.93	166.03	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	10/31/12		192.96	31.35	161.61	0.00	75	2.5	19	1.7	8.7	<0.50	---	---
MW8	05/02/13		192.96	28.44	164.52	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	11/09/13		192.96	32.89	160.07	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	05/12/14	a	192.96	30.27	162.69	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	11/19/14	a	192.96	33.16	159.80	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	05/13/15	a	192.96	30.35	162.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	12/16/15	a	192.96	33.41	159.55	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	06/15/16	a	192.96	30.68	162.28	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	12/20/16	a	192.96	29.38	163.58	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	04/27/17	a	192.96	24.74	168.22	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	**11/01/17**	**a**	**192.96**	**33.18**	**159.78**	**0.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	---	---
MW9	SCREEN INTERVAL (feet bgs) 30-40													
MW9	03/05/09		---	Well installed.										
MW9	03/30/09		195.16	28.31	166.85	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	04/02/09		195.16	Well surveyed.									---	---
MW9	05/28/09		195.16	29.69	165.47	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	08/31/09		195.16	33.20	161.96	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	12/11/09		195.16	32.62	162.54	0.00	<50	0.73	1.7	0.54	2.2	<0.50	---	---
MW9	05/07/10		195.16	26.59	168.57	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	11/01/10		195.16	32.45	162.71	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---

TABLE 4 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
MW9	05/27/11		195.16	29.62	165.54	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	11/23/11		195.16	30.56	164.60	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	05/24/12		195.16	27.94	167.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	10/31/12		195.16	32.66	162.50	0.00	140	6.9	38	2.7	13	<0.50	---	---
MW9	05/02/13		195.16	29.58	165.58	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	11/09/13		195.16	Well inaccessible.										
MW9	05/12/14	b	195.16	Well inaccessible.										
MW9	11/19/14	a	195.16	34.60	160.56	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	05/13/15	a	195.16	31.66	163.50	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	12/16/15	a	195.16	34.84	160.32	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	06/15/16	a	195.16	31.98	163.18	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	12/20/16	b	195.16	Well inaccessible.										
MW9	04/27/17	a	195.16	25.79	169.37	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	**11/01/17**	**a**	**195.16**	**34.50**	**160.66**	**0.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**---**	**---**
RW1	SCREEN INTERVAL (feet bgs) 29-39.5													
RW1	12/22/11		---	Well installed.										
RW1	12/30/11		195.15	Well surveyed.										
RW1	05/24/12		195.15	28.55	166.60	0.00	5,500b	920	5.9c	51	14	2,500	---	---
RW1	10/31/12	a	195.15	---	---	---	---	---	---	---	---	---	---	---
RW1	05/02/13	c	195.15	30.27	164.88	0.00	4,300b	1,200	<2.5	41	14	2,300	---	---
RW1	11/09/13		195.15	34.64	160.51	0.00	810b	210	<10	<10	<10	520	---	---
RW1	05/12/14	a	195.15	31.54	163.61	0.00	830 HD	450	<10	13	<10	490	---	---
RW1	11/19/14	a	195.15	34.94	160.21	0.00	910 HD	450	<10	<10	<10	590	---	---
RW1	05/13/15	a	195.15	32.26	162.89	0.00	1,300 HD	560	<5.0	8.1	2.4 JA	480	---	---
RW1	12/16/15	a	195.15	35.22	159.93	0.00	310 HD	150	<5.0	<5.0	<5.0	110	---	---
RW1	06/15/16	a	195.15	32.4	162.75	0.00	1,300	850	3.6 J	17	5.5	450	---	---
RW1	12/20/16	a	195.15	31.54	163.61	0.00	2,400 HD	1,100	<20	18 J	<20	540	---	---
RW1	04/27/17	a	195.15	26.62	168.53	0.00	1,600 HD	1,100	<20	41	21	660	---	---
RW1	**11/01/17**	**a**	**195.15**	**34.95**	**160.20**	**0.00**	**880 HD**	**520**	**5.2 J**	**11 J**	**9.8 JA**	**290**	**---**	**---**
Grab Groundwater Samples														
Pit Water	06/14/02		---	---	---	---	5,600	140	840	100	530	12,000	---	---
UST Pit	06/19/02		---	---	---	---	680	2.7	36	18	130	640	---	---

TABLE 4 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	Total Pb (µg/L)	Organic Pb (mg/L)
W-38-B11	11/14/07	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
W-15-B12	11/13/07	---	---	---	---	8,400	67	<5.0	140	150	78	---	---
W-40-B13	11/12/07	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	0.53	---	---
W-15-B14	11/13/07	---	---	---	---	2,500	1.7	3.0	26	13	16	---	---
W-38-B15	11/15/07	---	---	---	---	18,000	3,400	2,500	330	2,000	12,000	---	---
W-40-B16	11/15/07	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	7.7	---	---
W-37-B17	11/13/07	---	---	---	---	630	1.8	<0.50	4.1	1.4	2,200	---	---
W-38-B18	11/12/07	---	---	---	---	4,300	52	<12	56	96	1,400	---	---
W-35-B19	03/03/09	---	---	---	---	4,400	<0.50	<0.50	<0.50	<1.0	7,100	---	---
W-35-B20	03/03/09	---	---	---	---	640	<0.50	<0.50	<0.50	<1.0	440	---	---
W-35-B21	03/03/09	---	---	---	---	<50	<0.50	<0.50	<0.50	<1.0	1.4	---	---

TOC Top of casing.
LPH Liquid-phase hydrocarbons.
TPH-g Total Petroleum Hydrocarbons as gasoline.
MTBE Methyl tertiary butyl ether.

bgs Below ground surface.
µg/L Micrograms per liter.
-- Not sampled or not analyzed.

Total Pb Total lead analyzed using EPA Method 6010.
Organic Pb Organic lead analyzed using CA DHS LUFT method.

a Well purged prior to sampling.
b Well inaccessible.
c Well sampled the following day.

HD Chromat. profile inconsistent with the ref. fuel stnds.
J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA Analyte positively identified but quantitation is an estimate.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology. Data prior to 2013 provided by Cardno ERI.

TABLE 5 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW1	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW1	Well destroyed in June 2000.										
MW2	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW2	Well destroyed in June 2000.										
MW3	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW3	Well destroyed in June 2000.										
MW4	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/28/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	12/11/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/07/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	11/01/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/27/11	b	---	---	---	---	---	---	---	---	---
MW4	11/23/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/24/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	10/31/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/03/13		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	11/09/13		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	05/12/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<1.0
MW4	11/19/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	05/13/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	12/16/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	06/15/16		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	12/20/16		--	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	04/27/17		--	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	**11/01/17**		**--**	**<0.50**	**<0.50**	**<0.50**	**<10**	**<0.50**	**<0.50**	**---**	**---**
MW5	03/30/09		---	<12	17	<12	450	<12	<12	---	---
MW5	05/28/09		---	<25	<25	<25	530	<25	<25	---	---
MW5	08/31/09		---	<100	<100	<100	<1,000	<100	<100	---	---
MW5	12/11/09		---	<100	<100	<100	2,000	<100	<100	---	---
MW5	05/07/10		---	<25	<25	<25	400	<25	<25	---	---
MW5	11/01/10		---	<50	<50	<50	1,500	<50	<50	---	---
MW5	05/27/11	b	---	---	---	---	---	---	---	---	---
MW5	11/23/11		---	<50	<50	<50	<500	<50	<50	---	---
MW5	05/24/12		---	<50	<50	<50	1,400	<50	<50	---	---
MW5	10/31/12		---	<50	<50	<50	730	<50	<50	---	---
MW5	05/03/13		---	<20	<20	<20	590	<20	<20	---	---
MW5	11/09/13		---	<5.0	<5.0	<5.0	1,100	<5.0	<5.0	---	---
MW5	05/12/14		---	<5.0	<5.0	<5.0	1,000	<5.0	<5.0	---	<10
MW5	11/19/14		---	<2.5	<2.5	<2.5	600	<2.5	<2.5	---	---
MW5	05/13/15		---	<2.5	<2.5	<2.5	950	<2.5	<2.5	---	---
MW5	12/16/15		---	<2.5	<2.5	<2.5	790	<2.5	<2.5	---	---
MW5	06/15/16		---	<2.5	<2.5	<2.5	720	<2.5	<2.5	---	---
MW5	12/20/16		---	<5.0	4.7 J	<5.0	680	<5.0	<5.0	---	---
MW5	04/27/17		--	<5.0	<5.0	<5.0	240	<5.0	<5.0	---	---
MW5	**11/01/17**		**--**	**<2.5**	**1.8 J**	**<2.5**	**530**	**<2.5**	**<2.5**	**---**	**---**
MW6	03/30/09		---	<0.50	<0.50	1.3	410	<0.50	0.82	---	---
MW6	05/28/09		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	08/31/09		---	<100	<100	<100	1,100	<100	<100	---	---
MW6	12/11/09		---	<100	<100	<100	2,600	<100	<100	---	---
MW6	05/07/10		---	<100	<100	<100	<1,000	<100	<100	---	---

TABLE 5 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW6	11/01/10		---	<50	<50	<50	2,400	<50	<50	---	---
MW6	05/27/11	b	---	---	---	---	---	---	---	---	---
MW6	11/23/11		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	05/24/12		---	<100	<100	<100	2,700	<100	<100	---	---
MW6	10/31/12		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	05/02/13		---	<40	<40	<40	570	<40	<40	---	---
MW6	11/09/13		---	<40	<40	<40	2,100	<40	<40	---	---
MW6	05/12/14		---	<5.0	<5.0	<5.0	1,700	<5.0	<5.0	---	<10
MW6	11/19/14		---	<10	<10	<10	2,100	<10	<10	---	---
MW6	05/13/15		---	<10	<10	<10	2,400	<10	<10	---	---
MW6	12/16/15		---	<2.5	<2.5	<2.5	530	<2.5	<2.5	---	---
MW6	06/15/16		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW6	12/20/16		---	<0.50	<0.50	<0.50	2,400	<0.50	<0.50	---	---
MW6	04/27/17		--	<5.0	<5.0	<5.0	2,000	<5.0	<5.0	---	---
MW6	**11/01/17**		**--**	**<5.0**	**<5.0**	**<5.0**	**2,100**	**<5.0**	**<5.0**	**---**	**---**
MW7	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW7	05/28/09		---	<1.0	<1.0	<1.0	<10	<1.0	<1.0	---	---
MW7	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW7	12/11/09		---	<0.50	<0.50	<0.50	12	<0.50	<0.50	---	---
MW7	05/07/10		---	<0.50	<0.50	<0.50	130	<0.50	<0.50	---	---
MW7	11/01/10		---	<2.5	<2.5	<2.5	27	<2.5	<2.5	---	---
MW7	05/27/11	b	---	---	---	---	---	---	---	---	---
MW7	11/23/11		---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/24/12	b	---	---	---	---	---	---	---	---	---
MW7	10/31/12		---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/02/13		---	<5.0	<5.0	<5.0	57	<5.0	<5.0	---	---
MW7	11/09/13		---	<10	<10	<10	<200	<10	<10	---	---
MW7	05/12/14		---	<10	<10	<10	<200	<10	<10	---	<20
MW7	11/19/14		---	<12	<12	<12	<250	<12	<12	---	---
MW7	05/13/15		---	<20	<20	<20	<400	<20	<20	---	---
MW7	12/16/15		---	<4.0	<4.0	<4.0	<80	<4.0	<4.0	---	---
MW7	06/15/16		---	<4.0	<4.0	<4.0	380	<4.0	<4.0	---	---
MW7	12/20/16		---	<25	<25	<25	210 J	<25	<25	---	---
MW7	04/27/17		--	<25	<25	<25	<500	<25	<25	---	---
MW7	**11/01/17**		**--**	**<2.5**	**<2.5**	**<2.5**	**90**	**<2.5**	**<2.5**	**---**	**---**
MW8	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/28/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	12/11/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/07/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/01/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/27/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/23/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/24/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	10/31/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/02/13		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/09/13		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	05/12/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<1.0
MW8	11/19/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	05/13/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	12/16/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	06/15/16		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	12/20/16		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	04/27/17		--	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---

TABLE 5 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW8	**11/01/17**		**--**	**<0.50**	**<0.50**	**<0.50**	**<10**	**<0.50**	**<0.50**	**---**	**---**
MW9	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/28/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	12/11/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/07/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/01/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/27/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/23/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/24/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	10/31/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/02/13		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/09/13	b	---	Well inaccessible.							
MW9	11/19/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	05/13/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	12/16/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	06/15/16		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	12/20/16	b	---	Well inaccessible.							
MW9	04/27/17		--	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	**11/01/17**		**--**	**<0.50**	**<0.50**	**<0.50**	**<10**	**<0.50**	**<0.50**	**---**	**---**
RW1	05/24/12		---	<50	<50	<50	1,900	<50	<50	---	---
RW1	10/31/12	b	---	---	---	---	---	---	---	---	---
RW1	05/03/13		---	<40	<40	<40	880	<40	<40	---	---
RW1	11/09/13		---	<10	<10	<10	1,100	<10	<10	---	---
RW1	05/12/14		---	<10	<10	<10	840	<10	<10	---	<20
RW1	11/19/14		---	<10	<10	<10	1,300	<10	<10	---	<20
RW1	05/13/15		---	<5.0	<5.0	<5.0	880	<5.0	<5.0	---	---
RW1	12/16/15		---	<5.0	<5.0	<5.0	1,300	<5.0	<5.0	---	---
RW1	06/15/16		---	<5.0	<5.0	<5.0	1,300	<5.0	<5.0	---	---
RW1	12/20/16		---	<20	32	<20	1,600	<20	<20	---	---
RW1	04/27/17		--	<20	<20	<20	1,300	<20	<20	---	---
RW1	**11/01/17**		**--**	**<12**	**14**	**<12**	**2,200**	**<12**	**<12**	**---**	**---**
Grab Groundwater Samples											
Pit Water	06/14/02		11.5a	---	---	---	---	---	---	---	---
UST Pit	06/19/02		13.5a	---	---	---	---	---	---	---	---
W-38-B11	11/14/07		38	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---
W-15-B12	11/13/07		15	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<500	---
W-40-B13	11/12/07		40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---
W-15-B14	11/13/07		15	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<100	---
W-38-B15	11/15/07		38	<25	<25	<25	1,900	<25	<25	<2,500	---
W-40-B16	11/15/07		40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	85	---
W-37-B17	11/13/07		37	<0.50	<0.50	<0.50	58	<0.50	<0.50	<50	---
W-38-B18	11/12/07		38	<12	<12	<12	<250	<12	<12	<1,200	---
W-35-B19	03/03/09		35	<50	<50	<50	<500	<50	<50	<5,000	---
W-35-B20	03/03/09		35	<0.50	<0.50	<0.50	12	<0.50	<0.50	<50	---
W-35-B21	03/03/09		35	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50	---

EDB 1,2-Dibromoethane analyzed using EPA Method 8260B.
1,2-DCA 1,2-Dichloroethane analyzed using EPA Method 8260B.

TABLE 5 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)

TBA	Tertiary butyl alcohol analyzed using EPA Method 8260B.
TAME	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
ETBE	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
DIPE	Di-isopropyl ether analyzed using EPA Method 8260B.
Ethanol	Ethanol analyzed using EPA Method 8260B.
µg/L	Micrograms per liter.
---	Not sampled/Not analyzed/Not measured/Not applicable.
a	Approximate depth to groundwater surface at time of sampling.
b	Well inaccessible.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology, data prior to 2013 provided by Cardno ERI.

B	Analyte was present in the associated method blank.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.

TABLE 6 NATURAL ATTENUATION PARAMETER ANALYTICAL RESULTS,
FORMER MOBIL SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

			Laboratory Parameters					Field Parameters					
Well Number	Date		Alkalinity as CaCO3 (mg/L)	Ferrous Iron (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Methane (µg/L)	Temperature (Celsius)	pH	EC (µS/cm)	Total Dissolved Solids (mg/L)	ORP (mV)	DO (mg/L)
MW4	05/13/15	a	172	<0.100	68	2.4	0.173 J	18.1	7.12	584.1	645.6	--	5.11
MW4	12/16/15	a	169	<0.100	65	2.5	0.358 J	18.4	7.18	540.2	365.7	--	--
MW4	06/15/16	a	170	<0.100	63	2.2	0.0470 J	18.8	6.97	545.9	371.6	--	--
MW4	12/20/16	a	175	<0.100	63	2.5	0.0650 J	18.2	7.05	534.7	366.4	--	--
MW4	04/27/17	a	172	<0.100	63	2.6	0.0530 J	19.3	7.23	546.6	373.6	--	--
MW4	**11/01/17**	**a**	**163**	**<0.100**	**64**	**2.8**	**0.0500 J**	**19.0**	**6.88**	**553.1**	**378.9**	**--**	**--**
MW5	05/13/15	a	324	2.15	32	0.76	28.1	17.8	7.03	870.1	593.8	--	3.98
MW5	12/16/15	a	352	2.69	28	0.36	25.0	17.5	6.66	839.2	584.1	--	--
MW5	06/15/16	a	356	1.97	30	0.59	28.1	18.5	6.45	861.8	599.3	--	--
MW5	12/20/16	a	382	2.14	26	0.22	37.7	18.2	6.58	877.6	589.7	--	--
MW5	04/27/17	a	308	2.80	43	0.54	53.4	18.5	6.59	735.0	507.6	--	--
MW5	**11/01/17**	**a**	**336**	**1.54**	**29**	**0.29**	**35.1**	**18.0**	**6.31**	**729.0**	**503.4**	**--**	**--**
MW6	05/13/15	a	427	<0.100	42	0.35	5.09	18.0	7.00	945.4	660.1	--	4.32
MW6	12/16/15	a	484	<0.100	43	0.14	2.71	18.4	6.89	963.5	669.3	--	--
MW6	06/15/16	a	471	<0.100	38	0.26	7.05	19.4	6.65	972.4	681.4	--	--
MW6	12/20/16	a	501	<0.100	35	0.31	10.2	18.5	6.90	1,010	709.2	--	--
MW6	04/27/17	a	428	<0.100	36	0.43	7.10	19.3	7.04	911.1	634.8	--	--
MW6	**11/01/17**	**a**	**513**	**0.0713 J**	**35**	**0.22**	**7.90**	**18.7**	**6.50**	**1,003**	**702.9**	**--**	**--**
MW7	05/13/15	a	254	<0.100	61	1.6	1.67	18.5	7.16	719.1	510.2	--	4.34
MW7	12/16/15	a	222	<0.100	64	1.8	8.51	19.4	6.72	637.0	437.9	--	--
MW7	06/15/16	a	270	<0.100	58	1.3	7.54	19.8	6.71	726.0	499.3	--	--
MW7	12/20/16	a	276	<0.100	63	1.5	3.72	19.5	6.74	727.0	500.4	--	--
MW7	04/27/17	a	342	<0.100	56	1.3	0.796 J	19.9	6.95	830.3	575.4	--	--
MW7	**11/01/17**	**a**	**251**	**<0.100**	**60**	**2.0**	**2.66**	**19.5**	**6.60**	**656.1**	**450.5**	**--**	**--**
MW8	05/13/15	a	208	<0.100	42	7.3	0.983 J	17.7	7.16	595.3	410.1	--	5.07
MW8	12/16/15	a	229	<0.100	42	8.3	0.182	17.5	7.09	769.7	533.4	--	--
MW8	06/15/16	a	198	<0.100	38	7.5	0.152 J	18.0	6.74	573.2	396.4	--	--
MW8	12/20/16	a	214	<0.100	45	9.2	0.0710 J	17.7	7.16	614.4	425.5	--	--

TABLE 6 NATURAL ATTENUATION PARAMETER ANALYTICAL RESULTS,
FORMER MOBIL SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

			Laboratory Parameters					Field Parameters					
Well Number	Date		Alkalinity as CaCO3 (mg/L)	Ferrous Iron (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Methane (µg/L)	Temperature (Celsius)	pH	EC (µS/cm)	Total Dissolved Solids (mg/L)	ORP (mV)	DO (mg/L)
MW8	04/27/17	a	158	<0.100	34	8.2	0.241 J	18.0	7.54	528.1	359.0	--	--
MW8	**11/01/17**	**a**	**248**	**<0.100**	**46**	**9.3**	**0.183 J**	**17.7**	**7.29**	**762.2**	**528.2**	**--**	**--**
MW9	05/13/15	a	252	<0.100	41	6.0	0.0530	17.9	7.09	835.3	582.4	--	4.79
MW9	12/16/15	a	258	<0.100	39	5.6	0.0510	17.4	6.89	876.9	605.8	--	--
MW9	06/15/16	a	257	<0.100	39	6.3	0.0610 J	18.5	7.02	824.2	572.3	--	--
MW9	12/20/16	b	--	--	--	--	--	--	--	--	--	--	--
MW9	04/27/17	a	250	<0.100	42	7.0	<1.00	18.6	7.45	804.5	557.9	--	--
MW9	**11/01/17**	**a**	**254**	**<0.100**	**38**	**6.2**	**0.0400 J**	**17.9**	**6.82**	**751.3**	**519.9**	**--**	**--**
RW1	05/13/15	a	359	<0.100	43	0.77	1.85	18.4	7.05	849.1	590.7	--	4.11
RW1	12/16/15	a	301	<0.100	40	0.85	1.62	17.4	6.98	819.0	569.2	--	--
RW1	06/15/16	a	379	<0.100	37	0.64	3.26	18.6	6.92	873.4	608.0	--	--
RW1	12/20/16	a	372	<0.100	38	0.67	6.73	18.0	7.02	895.9	625.1	--	--
RW1	04/27/17	a	427	<0.100	38	0.82	6.72	19.1	7.52	993.3	694.9	--	--
RW1	**11/01/17**	**a**	**385**	**<0.100**	**34**	**0.74**	**6.24**	**18.4**	**6.59**	**856.7**	**596.3**	**--**	**--**

DO	Dissolved oxygen.	mg/L	Milligrams per liter.
ORP	Oxidation/reduction potential.	mV	Millivolts.
EC	Conductivity.	--	Not sampled or not analyzed.
µS/cm	MicroSiemens per centimeter.	a	Well purged prior to sampling.
µg/L	Micrograms per liter.	b	Well inaccessible.
<0.100	Concentration not detected above reporting limit (e.g. Reporting limit is 0.100 µg/L).		

J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

TABLE 7 SOIL VAPOR ANALYTICAL RESULTS,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

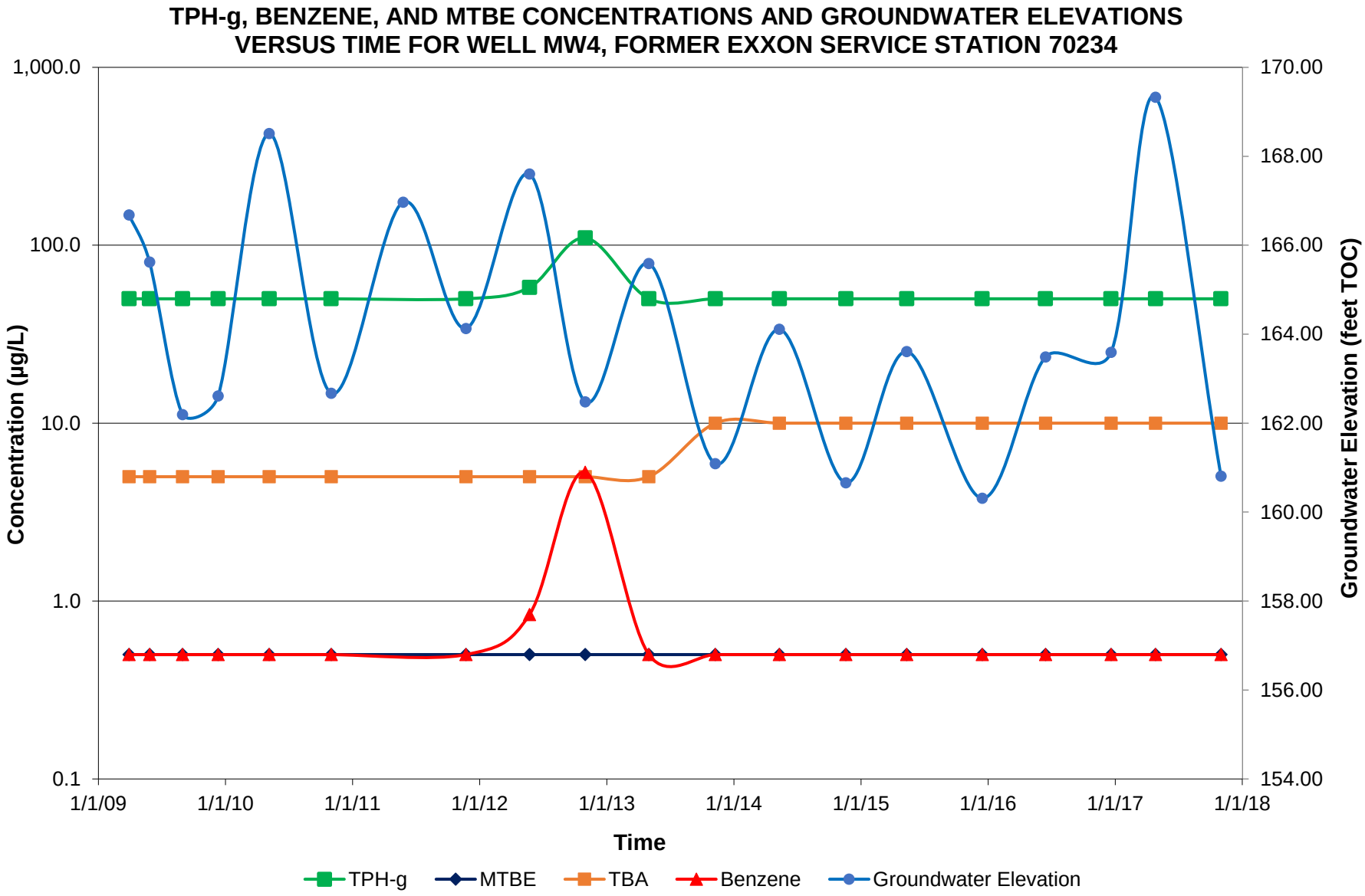
Soil Vapor Monitoring Well	Screened Interval Depth (feet bgs)	Sampling Date	Concentration (% by Volume)				(% by volume)		Concentration (µg/m^3)											
			Oxygen and Argon	Carbon Dioxide	Methane	Lab Helium	Field Helium in Purged Soil Vapor	Field Helium under Shroud	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	Naphthalene
V1	6.25-6.75	04/22/14	12.9	4.81	<0.500	0.0348	0	21.7	30,000	<7.4	75	<10	<10	<34	<28	<39	<39	<39	<120
V2	6.25-6.75	04/22/14	14.2	7.09	<0.500	0.0220	0	21.7	36,000	<6.5	110	<8.9	<8.9	<29	<25	<34	<34	<34	<110/<20*
V3	6.25-6.75	04/22/14	15.4	5.76	<0.500	0.0969	0	38.8	24,000	<1.6	110	3.8	2.7	<7.2	<6.1	<8.4	<8.4	<8.4	<26
V4	6.25-6.75	04/23/14	18.7	3.01	<0.500	0.0241	0	23.6	24,000	<1.6	<1.9	<2.2	<2.2	<7.2	<6.1	<8.4	<8.4	<8.4	<26
V5	6.25-6.75	04/23/14	8.76	6.20	<0.500	0.0209	--	22.0	22,000	3.4	46	<2.2	<2.2	<7.2	<6.1	<8.4	<8.4	<8.4	<26
V5 (duplicate)	6.25-6.75	04/23/14	9.12	6.03	<0.500	0.0298	--	22.0	19,000	3.2	38	2.5	2.3	<7.2	<6.1	<8.4	<8.4	<8.4	<26
V6	5.9-6.4	11/19/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
V6	5.9-6.4	02/18/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
V6	5.9-6.4	02/20/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tier 1 ESLs February 2016 (rev 3)									50,000	48	160,000	560	52,000	5,400	--	--	--	--	41
LTCP Commerical			--	--	--	--	--	--	--	280	--	3,600	--	--	--	--	--	--	310
LTCP Residential									--	85	--	1,100	--	--	--	--	--	--	93

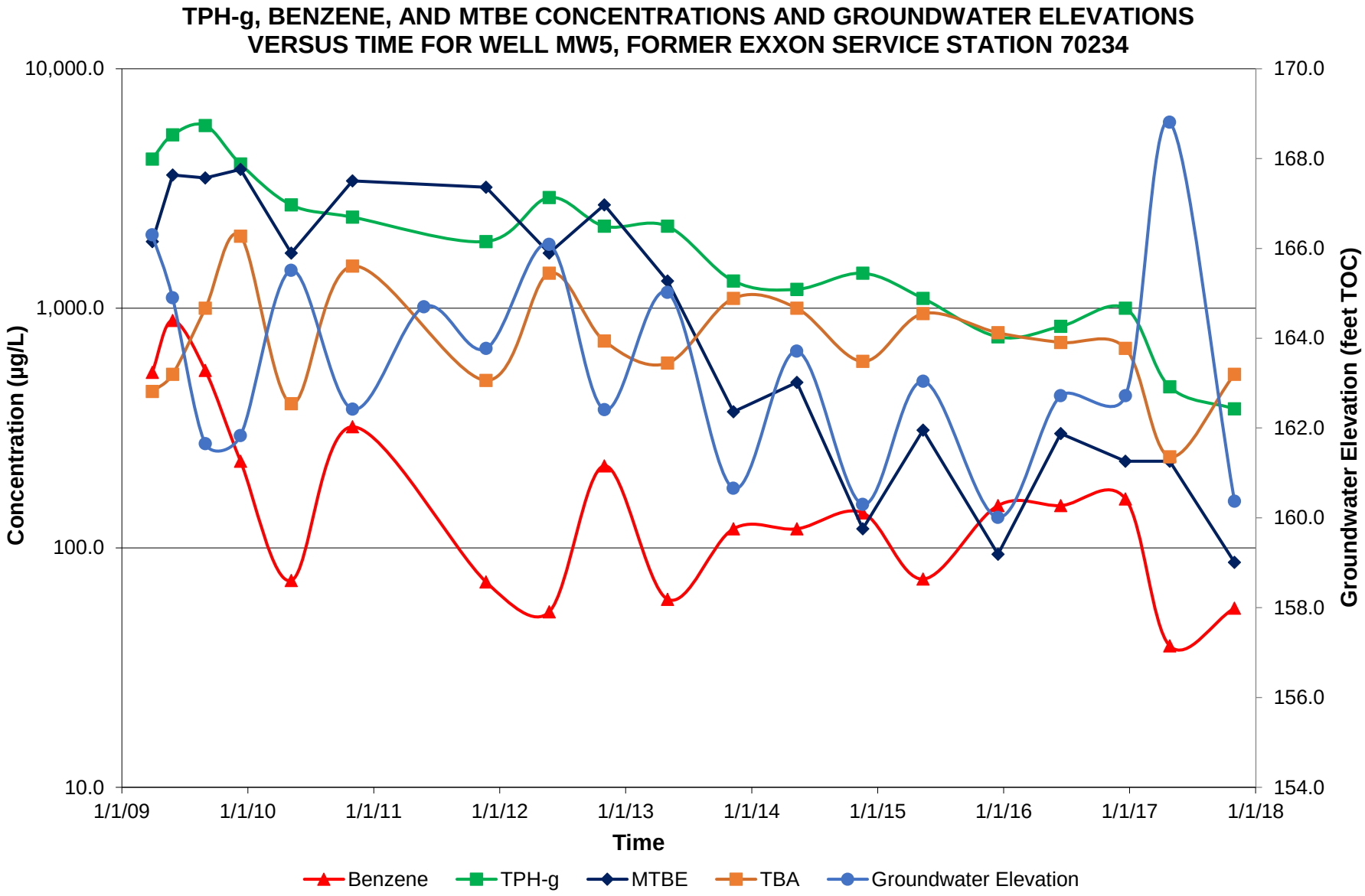
Notes:

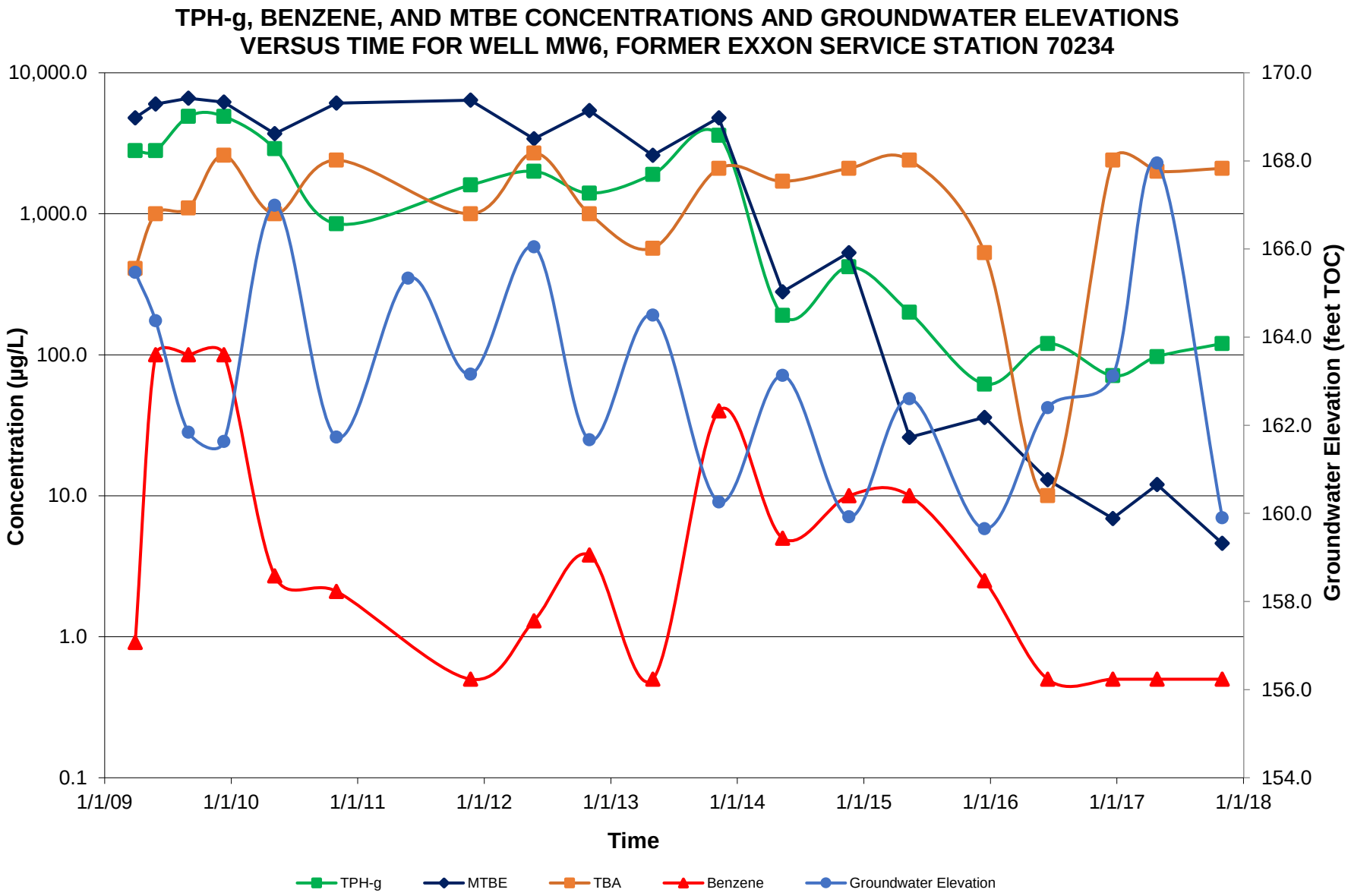
bgs	Below ground surface.
TPH-g	Total Petroleum Hydrocarbons as gasoline.
MTBE	Methyl tertiary butyl ether.
TBA	Tertiary butyl alcohol.
ETBE	Ethyl tertiary butyl ether.
DIPE	Di-isopropyl ether.
TAME	Tertiary amyl methyl ether.
%	Percent.
µg/m^3	Micrograms per cubic meter.
--	Not analyzed, not measured, or not applicable.
Tier 1 ESLs	Environmental Screening Level, Subslab/Soil Gas, San Francisco Bay Regional Water Quality Control Board, February 2016.
LTCP	Low threat closure policy soil gas criteria for the no bioattenuation zone. California Regional Water Quality Control Board, 2012.
<26	Not detected at or above the reporting limit indicated.
NE	Not established.
*	The first result is from EPA Method TO-15. The second result is from EPA Method TO-17.

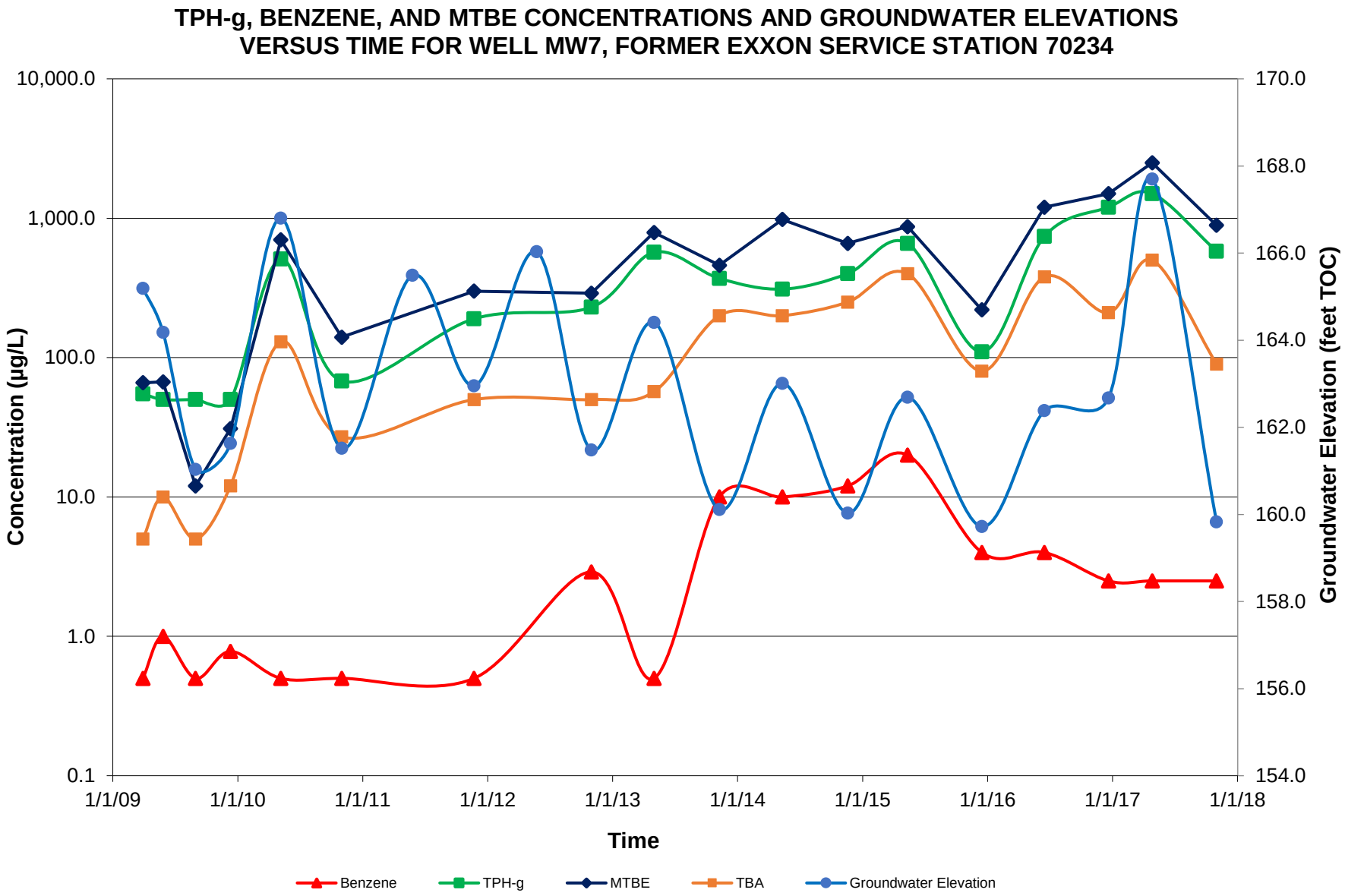
Appendix A

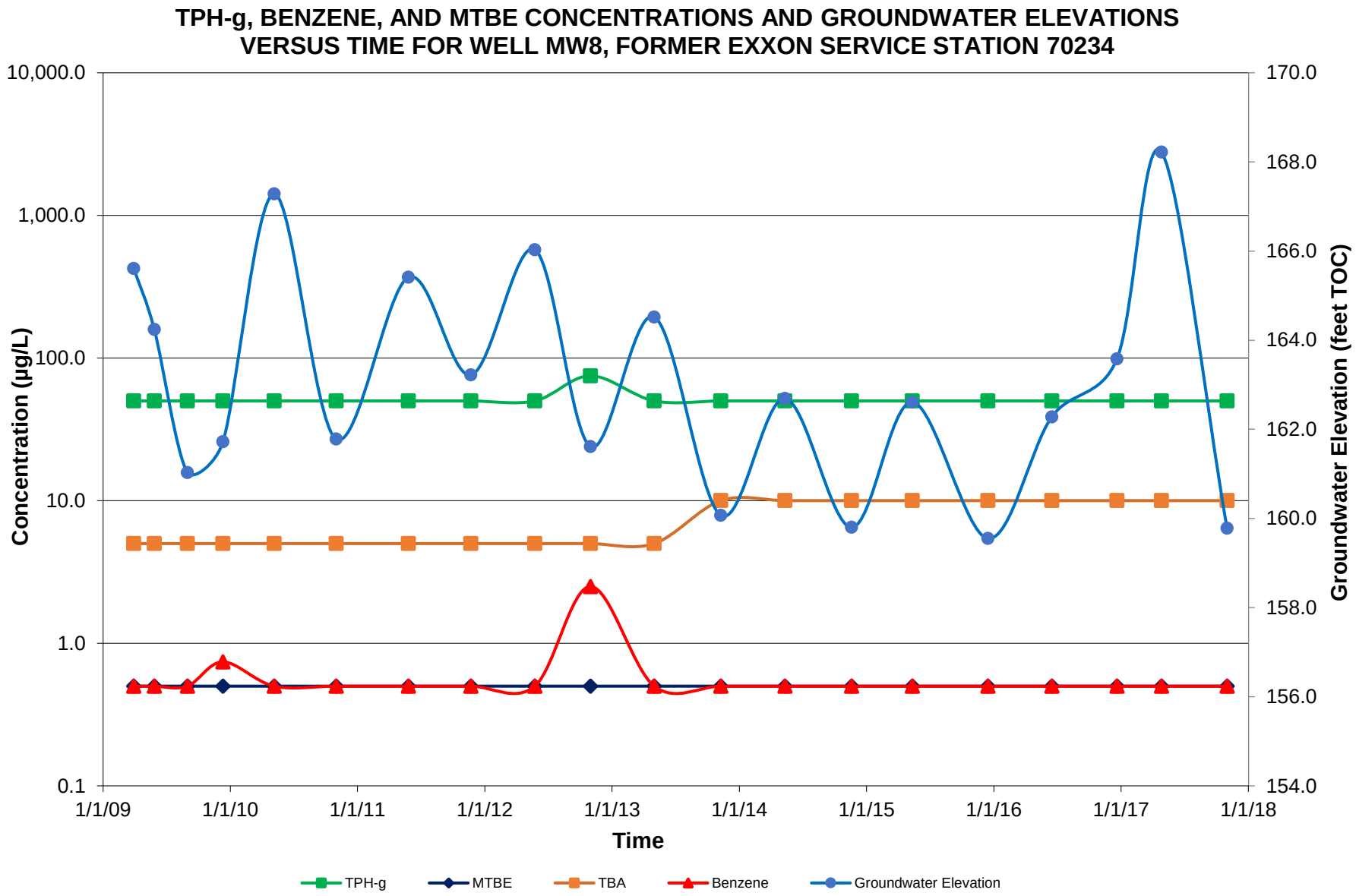
Hydrographs

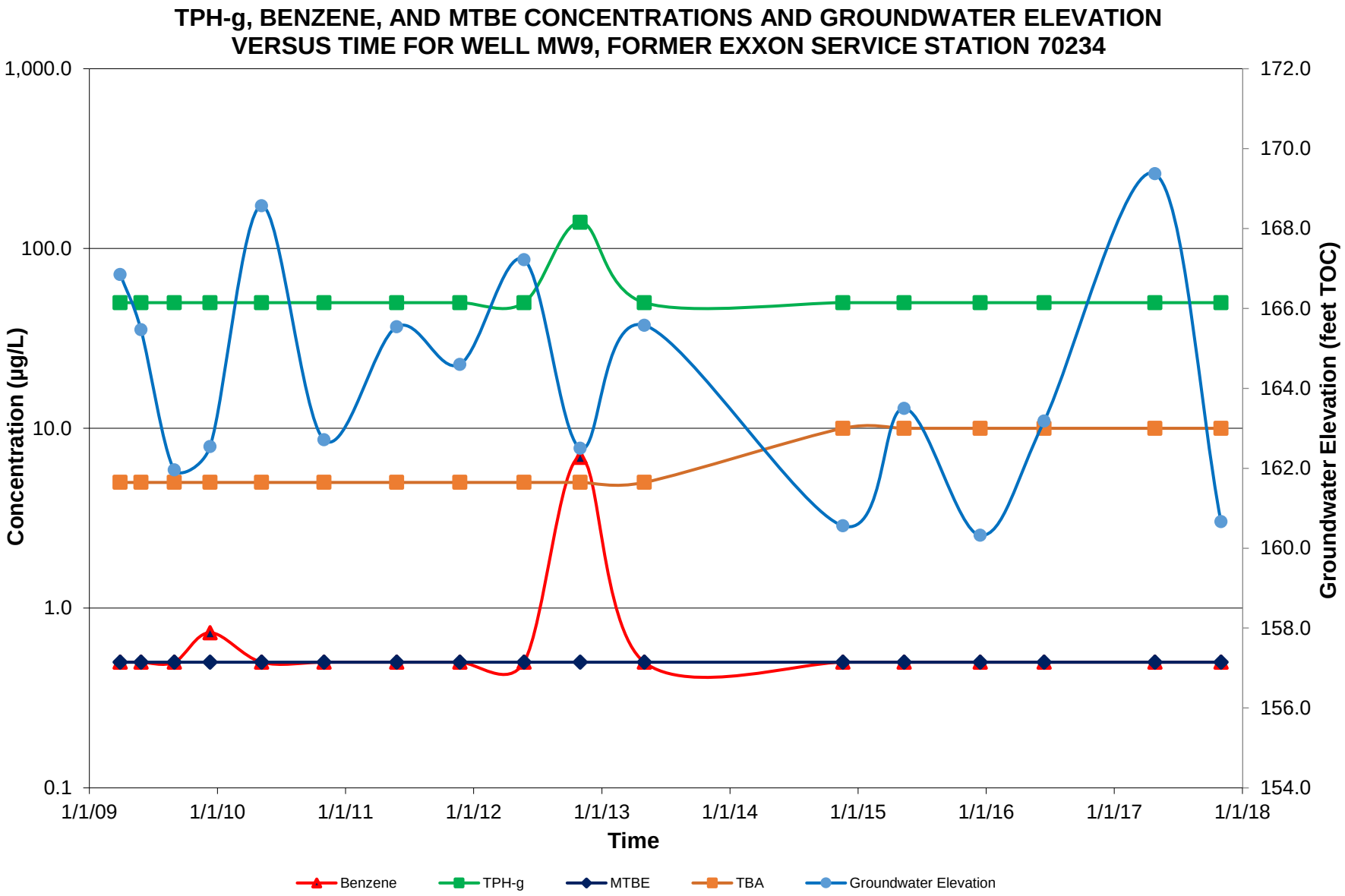

TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME FOR WELL MW4, FORMER EXXON SERVICE STATION 70234
1,000.0
100.0
10.0
1.0
0.1
Concentration (µg/L)
170.00
168.00
166.00
164.00
162.00
160.00
158.00
156.00
154.00
Groundwater Elevation (feet TOC)
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18
Time
TPH-g
MTBE
TBA
Benzene
Groundwater Elevation

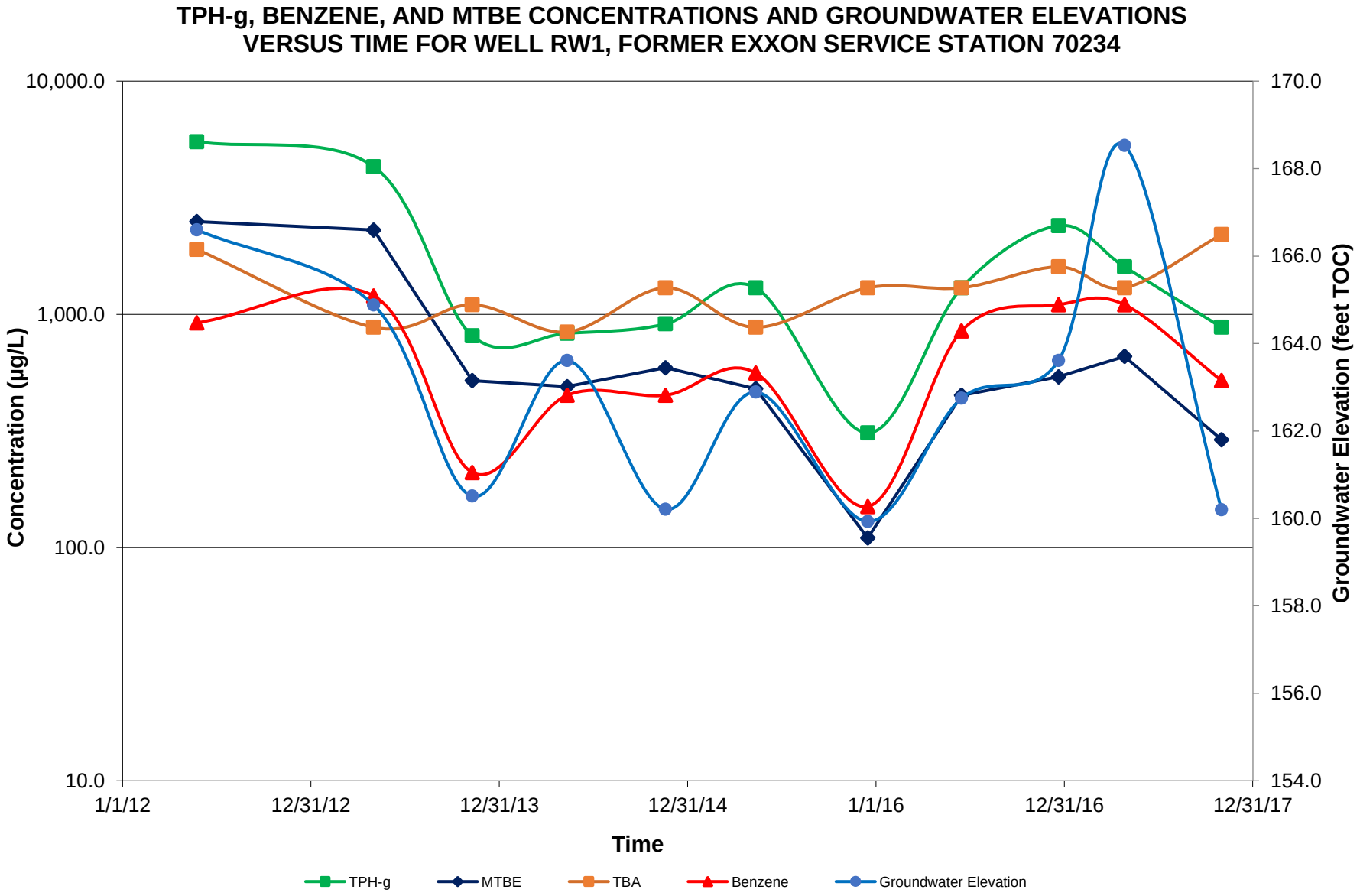

TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME FOR WELL MW5, FORMER EXXON SERVICE STATION 70234
Concentration (µg/L)
10,000.0
1,000.0
100.0
10.0
Groundwater Elevation (feet TOC)
170.0
168.0
166.0
164.0
162.0
160.0
158.0
156.0
154.0
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18
Time
Benzene
TPH-g
MTBE
TBA
Groundwater Elevation


TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME FOR WELL MW6, FORMER EXXON SERVICE STATION 70234
10,000.0
1,000.0
100.0
10.0
1.0
0.1
Concentration (µg/L)
170.0
168.0
166.0
164.0
162.0
160.0
158.0
156.0
154.0
Groundwater Elevation (feet TOC)
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18
Time
TPH-g
MTBE
TBA
Benzene
Groundwater Elevation


TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME FOR WELL MW7, FORMER EXXON SERVICE STATION 70234
Concentration (µg/L)
10,000.0
1,000.0
100.0
10.0
1.0
0.1
Groundwater Elevation (feet TOC)
170.0
168.0
166.0
164.0
162.0
160.0
158.0
156.0
154.0
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18
Time
Benzene
TPH-g
MTBE
TBA
Groundwater Elevation

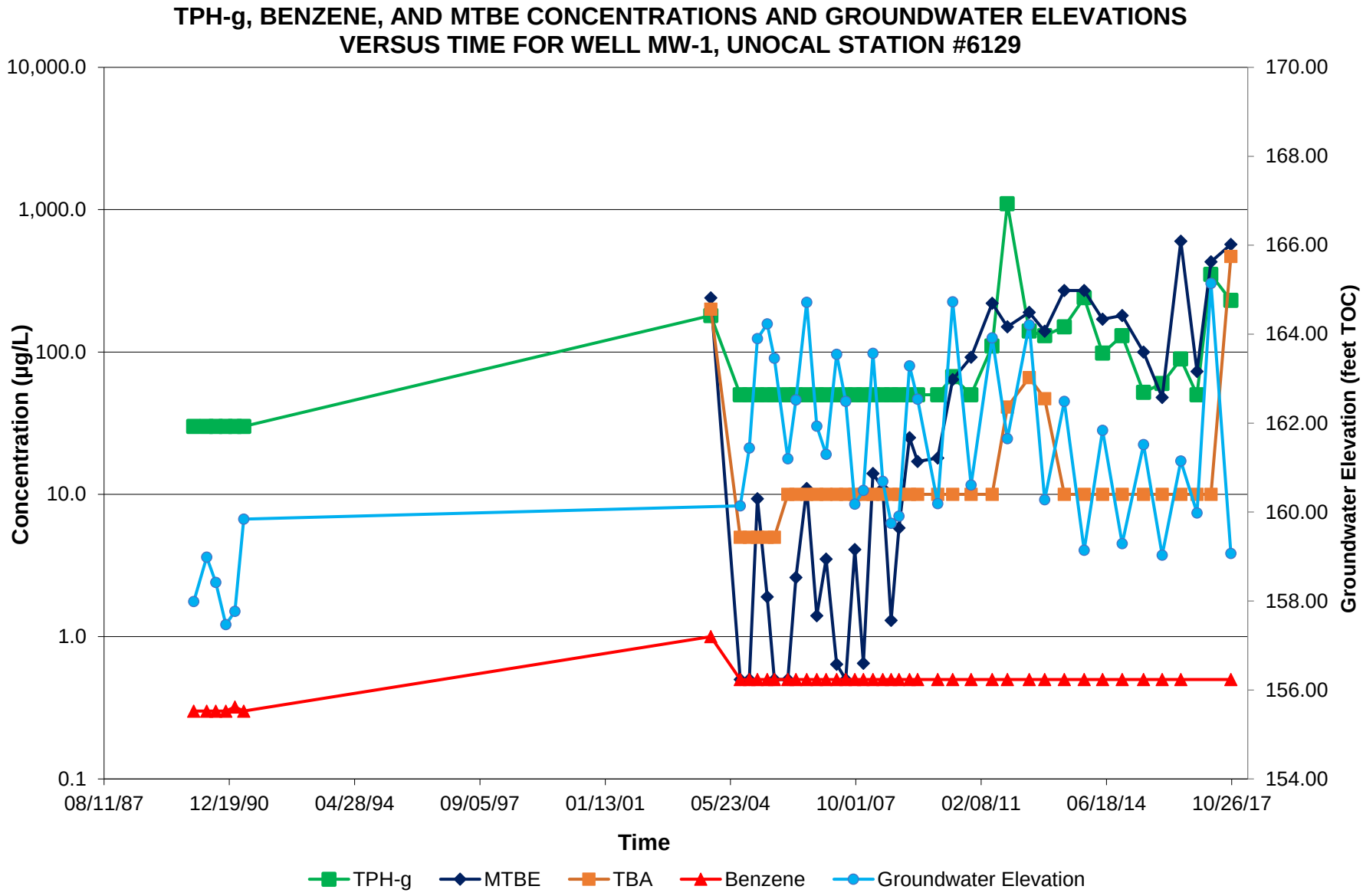

TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME FOR WELL MW8, FORMER EXXON SERVICE STATION 70234
10,000.0
1,000.0
100.0
10.0
1.0
0.1
Concentration (µg/L)
170.0
168.0
166.0
164.0
162.0
160.0
158.0
156.0
154.0
Groundwater Elevation (feet TOC)
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18
Time
TPH-g
MTBE
TBA
Benzene
Groundwater Elevation

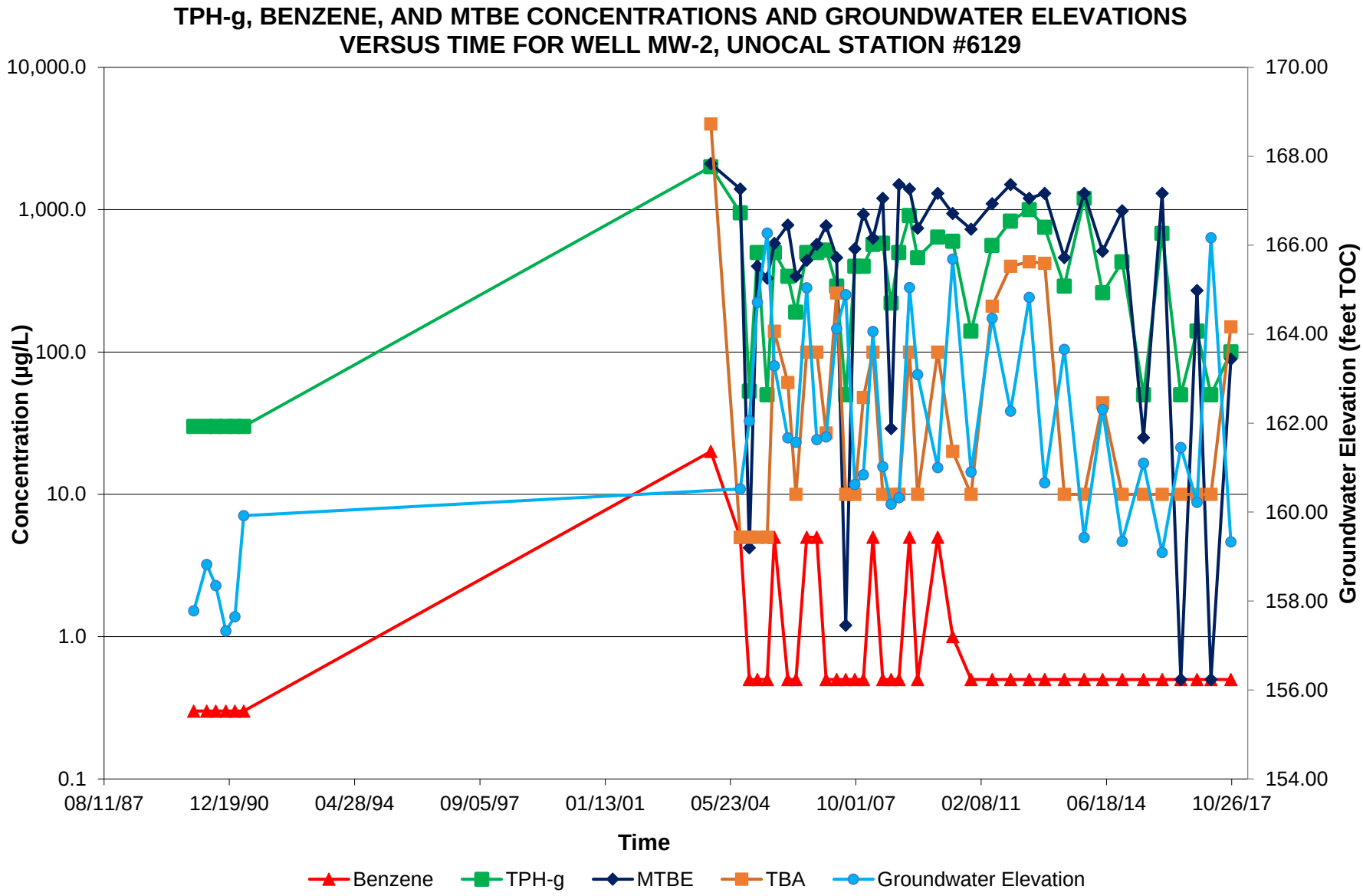

TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATION VERSUS TIME FOR WELL MW9, FORMER EXXON SERVICE STATION 70234
1,000.0
100.0
10.0
1.0
0.1
Concentration (µg/L)
172.0
170.0
168.0
166.0
164.0
162.0
160.0
158.0
156.0
154.0
Groundwater Elevation (feet TOC)
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18
Time
Benzene
TPH-g
MTBE
TBA
Groundwater Elevation

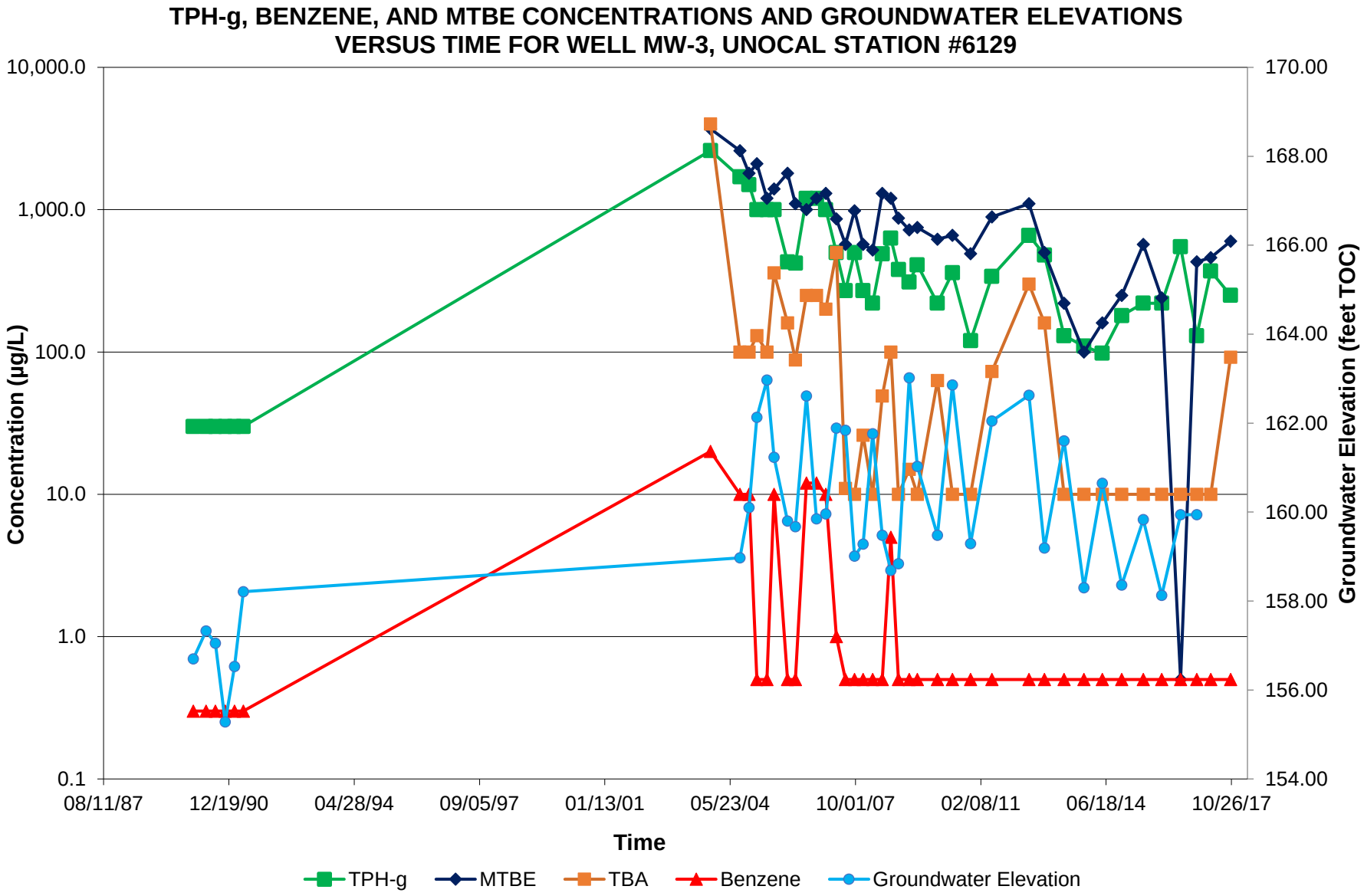

TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME FOR WELL RW1, FORMER EXXON SERVICE STATION 70234
10,000.0
1,000.0
100.0
10.0
Concentration (µg/L)
170.0
168.0
166.0
164.0
162.0
160.0
158.0
156.0
154.0
Groundwater Elevation (feet TOC)
1/1/12
12/31/12
12/31/13
12/31/14
1/1/16
12/31/16
12/31/17
Time
TPH-g
MTBE
TBA
Benzene
Groundwater Elevation

Appendix B

Unocal #6129 Hydrographs


TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME FOR WELL MW-1, UNOCAL STATION #6129
10,000.0
1,000.0
100.0
10.0
1.0
0.1
Concentration (µg/L)
170.00
168.00
166.00
164.00
162.00
160.00
158.00
156.00
154.00
Groundwater Elevation (feet TOC)
08/11/87
12/19/90
04/28/94
09/05/97
01/13/01
05/23/04
10/01/07
02/08/11
06/18/14
10/26/17
Time
TPH-g
MTBE
TBA
Benzene
Groundwater Elevation


TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME FOR WELL MW-2, UNOCAL STATION #6129
10,000.0
1,000.0
100.0
10.0
1.0
0.1
Concentration (µg/L)
170.00
168.00
166.00
164.00
162.00
160.00
158.00
156.00
154.00
Groundwater Elevation (feet TOC)
08/11/87
12/19/90
04/28/94
09/05/97
01/13/01
05/23/04
10/01/07
02/08/11
06/18/14
10/26/17
Time
Benzene
TPH-g
MTBE
TBA
Groundwater Elevation


TPH-g, BENZENE, AND MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME FOR WELL MW-3, UNOCAL STATION #6129
10,000.0
1,000.0
100.0
10.0
1.0
0.1
Concentration (µg/L)
170.00
168.00
166.00
164.00
162.00
160.00
158.00
156.00
154.00
Groundwater Elevation (feet TOC)
08/11/87
12/19/90
04/28/94
09/05/97
01/13/01
05/23/04
10/01/07
02/08/11
06/18/14
10/26/17
Time
TPH-g
MTBE
TBA
Benzene
Groundwater Elevation