ExxonMobil
Refining & Supply Company
Global Remediation
3700 W. 190th Street, TPT #2-7
Torrance, California 90504
(310) 212-3727 Office
(310) 212-1890 Facsimile
marla.d.guensler@exxonmobil.com

Marla D. Guensler
Global Remediation
Project Manager

ExxonMobil
Refining & Supply

February 24, 2005

Ms. Rose Scott
California Regional Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501

Subject: Natural Attenuation Study Report and Corrective Action Plan
ExxonMobil Oil Corporation Service Station 18-HE1
1465 South Main Street
Santa Ana, California
CRWQCB Case #08000256T

Dear Ms. Scott:

Please find enclosed a copy of the Natural Attenuation Study Report and Corrective Action Plan, dated February 24, 2005, for the above referenced site. This document has been prepared by TRC under the direction of ExxonMobil Oil Corporation. This report has been prepared pursuant to TRC Natural Attenuation Groundwater Sampling Workplan dated October 1, 2004.

If you have any questions or comments on the content of this document, please do not hesitate to contact Mr. Anand Helekar of TRC at (949) 753-0101, or the undersigned at (310) 212-3727.

Sincerely,

Marla D. Guensler
Project Manager

cc: Mr. Anand Helekar, TRC
Mr. Ted Lamont, Santa Ana Newport Associates

TRC

Customer-Focused Solutions

February 24, 2005

ExxonMobil Oil Corporation
3700 West 190th Street, TPT #2-7
Torrance, California 90504

ATTN: MS. MARLA GUENSLER

SITE: EXXONMOBIL OIL CORPORATION SERVICE STATION 18-HE1
1465 SOUTH MAIN STREET
SANTA ANA, CALIFORNIA
CRWQCB CASE NO. 083000256T

RE: NATURAL ATTENUATION STUDY REPORT AND CORRECTIVE ACTION PLAN

Dear Ms. Guensler:

On behalf of ExxonMobil Oil Corporation, TRC submits this Natural Attenuation Study Report and Corrective Action Plan for ExxonMobil Oil Corporation Service Station 18-HE1, located at 1465 South Main Street in Santa Ana, California.

If you have any questions regarding this report, please call the undersigned at (949) 753-0101.

Sincerely,

TRC

Anand Helekar, PE
Project Engineer

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21 Technology Drive • Irvine, California 92618
Telephone 949-753-0101 • Fax 949-753-0111

TRC

Customer-Focused Solutions

NATURAL ATTENUATION STUDY REPORT AND CORRECTIVE ACTION PLAN

February 24, 2005

ExxonMobil Oil Corporation Service Station 18-HE1
1465 Main Street
Santa Ana, California

TRC Project No. 23-0047

Prepared For:

ExxonMobil Oil Corporation
3700 West 190th Street, TPT #2-7
Torrance, CA 90504

By:

Anand Helekar, PE
Project Engineer

John Trompeter, RG
Principal Geologist

REGISTERED GEOLOGIST
JOHN D. TROMPETER
NO. 6685
STATE OF CALIFORNIA

TRC
21 Technology Drive
Irvine, California 92618

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A Results of Laboratory Analysis of Soil Samples
B Summary of Groundwater Levels and Chemical Analysis Results
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1.0 INTRODUCTION AND OBJECTIVE

On behalf of ExxonMobil Oil Corporation, TRC submits this Natural Attenuation (NA) Study Report and Corrective Action Plan (CAP) for ExxonMobil Oil Corporation Service Station 18-HE1 (Site), located at 1465 South Main Street in Santa Ana, California (Figure 1). This report is prepared pursuant to the TRC Natural Attenuation Groundwater Sampling Workplan dated October 1, 2004 (TRC, 2004a).

The objective of the NA study is to determine whether NA is occurring at the Site, as indicated by:

- Laboratory and field measurements of select NA parameters for groundwater samples collected in the source area, and upgradient/downgradient of the source area.
- Trends in dissolved-phase hydrocarbon concentrations, particularly in the absence of active remediation by groundwater pump-and-treat.

The objective of the CAP is to recommend a pathway toward achieving site closure, including the most feasible, practical, and cost effective remedial approach.

2.0 SITE DESCRIPTION

The Site is located at the northeast corner of the intersection of Edinger Avenue and Main Street in Santa Ana, California, and is an active gasoline service station (Figures 1 and 2). Station facilities include the following:

- Three gasoline double-walled fiberglass underground storage tanks (USTs), including:
    - One 12,000-gallon regular unleaded.
    - One 10,000-gallon special unleaded.
    - One 10,000-gallon super unleaded.
- One 1,000-gallon used oil UST.
- Three dispenser islands.
- Fiberglass containment boxes situated beneath each dispenser and UST fill ports with fill boxes to provide additional containment.
- A leak detection system to monitor the USTs and the product lines.
- Station building has a small mini-mart store area, storage area, and three service bays. Three hydraulic hoists are located in the station building with one being in each service bay (Figure 2).

Adjacent properties relative to the Site include the following:

- The adjoining shopping center that includes the former Mobil site is located to the north and east, and includes a dry cleaner facility.
- A former Texaco Station (now an American Eagle auto repair facility) is located across Edinger Avenue to the south.
- A medical clinic, shops, and a vehicle service garage are located across Main Street to the west.
- A Jack-in-the-Box restaurant is located across the intersection of Main Street and Edinger Avenue to the southwest.

See Figure 2 for the site plan and intersection map that shows these properties surrounding the Site.

3.0 GEOLOGY AND HYDROGEOLOGY

3.1 REGIONAL GEOLOGY

The Site is located on the western portion of the Downey Plain within the Coastal Plain of Orange County (Herndon, 1992), at an elevation of approximately 74 feet above sea level (National Geodetic Vertical Datum [NGVD] - 1929). This area is bounded by the Santa Ana Mountains to the north and east, and San Joaquin Hills to the south (California Division of Mines and Geology [CDMG], 1985). The deepest identified formation beneath the Site is the Pico formation, which is overlain by the San Pedro formation and Recent deposits. The Recent deposits consists of sand and sandy clay to a depth of approximately 140 feet below grade (fbg) (United States Geological Survey [USGS], 1956). The Santa Ana River is approximately 3 miles west/northwest of the Site and the Pacific Ocean is approximately 8.7 miles to the southwest (USGS, 1981).

3.2 REGIONAL HYDROGEOLOGY

The Site is located in the southeastern portion of the Santa Ana Pressure Area within the Orange County Groundwater Basin. The Pressure Area (including both Santa Ana and Irvine Pressure Areas) is defined as the portion of the basin where significant quantities of surface water and shallow groundwater are inhibited from percolating into the major producing aquifers by clay and silt layers at shallow depths (Herndon, 1992).

The Pressure Area is characterized by three major aquifer systems - Upper, Middle, and Lower. The Upper Aquifer system has an average thickness of approximately 800 feet. Near-surface semi-perched groundwater in the Pressure Area occurs at depths of less than 50 fbg with substantial clayey or silty sediments in the shallow subsurface. The shallowest principal aquifer in the area of

the Site is the Talbert Aquifer, which may be present at depths of approximately 80 fbg. The main production aquifers in the Pressure Area are generally present at depths between 300 and 500 fbg, and behave as confined or "pressure" aquifers (Herndon, 1992).

Water quality suitable for domestic use occurs in the fresh water production aquifers that are landward of the Newport-Inglewood Fault Zone. The Site is approximately 5 miles landward of the fault zone. Near-surface semi-perched groundwater is of poor quality and is not used for production (California Department of Water Resources [DWR], 1967).

Production wells within a one-mile radius of the Site include the following (Orange County Water District [OCWD], 2002):

- City of Santa Ana Well No. SA-26 is located approximately 4,200 feet east/southeast of the Site. The top of well perforations start at 330 fbg.
- Irvine Ranch Water District Well No. IRWD-5 is located approximately 4,600 feet south of the Site. The top of well perforations start at 554 fbg.

The OCWD records indicates these wells are beneficial for public drinking, industrial, and agricultural uses.

3.3 LOCAL HYDROGEOLOGY

Subsurface soils observed during previous investigations at the Site consist of clays, silts, and fine sands. These finer-grained materials are predominantly located from surface to approximately 25 fbg. Sandy soils are generally below 25 fbg.

The average depth to near-surface groundwater beneath the Site measured on August 2, 2004 was approximately 20 fbg with a groundwater gradient and flow direction of 0.014 feet per foot (ft/ft) to the east-northeast (TRC, 2004b). Over the last several years, groundwater levels have fluctuated approximately 3 to 4 feet, and are presently on the lower elevation (deeper) segment of that fluctuation.

4.0 BACKGROUND

4.1 PREVIOUS SOIL ASSESSMENT ACTIVITIES

From September 1986 to August 2000, 19 monitoring wells (MW-1 through MW-19), four vapor extraction wells (VW-9 through VW-12), two vapor probes (PZ-1 and PZ-2) were installed and six soil borings (B-1 through B-4, SB-1 and SB-2) were drilled. Maximum concentrations in soil include the following (WW Irwin, 1996; Alton Geoscience, 1998a; Kleinfelder, 2000):

- Total petroleum hydrocarbons with gasoline distinction (TPH-G): 12,000 milligrams per kilogram (mg/kg) in Boring B-4 at 20 fbg.
- Benzene: 99 mg/kg in Boring B-4 at 20 fbg.
- Methyl tertiary butyl ether (MTBE) and tertiary butyl alcohol (TBA) were only analyzed in soil samples collected from Boring MW-19 and were non-detect (ND).

Refer to Appendix A for a summary of historical soil analytical results.

4.2 PREVIOUS GROUNDWATER ASSESSMENT ACTIVITIES

Groundwater monitoring and sampling activities have been conducted at the site since 1990. The groundwater flow direction has generally been to the east. Hydrocarbon-affected groundwater has generally been detected in the vicinity of the USTs. The matrix on the next page provides a summary of maximum historical hydrocarbon concentrations versus recent conditions (concentrations in micrograms per liter [µg/l]).

PARAMETER	MAXIMUM HISTORICAL VALUES	MAXIMUM RESULTS IN FOURTH QUARTER 2004
Liquid-Phase Hydrocarbons (LPH)	1.21 feet in MW-1 in June 1998	None (Last detected in October 2001)
Dissolved-Phase TPH-G	71,200 µg/l in Well MW-7 in December 1998	42,200 µg/l in Well MW-12
Dissolved-Phase Benzene	13,000 µg/l in Well MW-4 in September 1990	746 µg/l in Well MW-7
Dissolved-Phase MTBE	3,650 µg/l in Well MW-17 in May 2002	100 µg/l in Well MW-16
Dissolved-Phase TBA	21,000 µg/l in Well MW-17 in October 2001	2,060 µg/l in Well MW-17

Refer to Appendix B and the TRC Fourth Quarter 2004 Status and Groundwater Monitoring and Sampling Report for additional details. Refer to Section 5.0 for dissolved-phase TPH-G, benzene, and TBA concentration trends in selected wells.

4.3 STATION UPGRADE ACTIVITIES

In July 1986, a waste-oil UST was removed from the site and a 1,000-gallon waste oil UST was installed in its place. Laboratory analytical results of soil samples collected during excavation activities identified hydrocarbon-affected soil (WW Irwin, 1996).

In December 1993, the fuel dispenser islands were replaced.

4.4 REMEDIAL TESTING

4.4.1 Groundwater

In July 1992, a slug, step-drawdown, and constant-rate groundwater pumping test was conducted at the Site to determine the hydrogeologic characteristic of the near-surface water-bearing zone underlying the site. Head drawdowns from the slug tests ranged from 0.8 to 1.9 feet with eighty percent recovery ranging from 1 to 82 minutes. A sustainable pumping rate of 0.2 gallons per minute (gpm) was determined from step-drawdown pump testing conducted using Monitoring Well MW-8. A constant-rate discharge pumping test was subsequently conducted by pumping groundwater from Monitoring Well MW-8 at a rate of 0.2 gpm for a period of 320 minutes, and observing the water level drawdown in Monitoring Well MW-5. Analysis of the groundwater pump testing results suggest that the near-surface water-bearing zone underlying the site appears to be unconfined. An average hydraulic conductivity of 0.14 foot/day, a drawdown distance of influence of 40 feet from a pumping well, and an average groundwater seepage velocity of 8.2 feet per year was calculated from the tests (Alton Geoscience, 1998a).

4.4.2 Soil Vapor Extraction

In June 1992, a soil vapor extraction (SVE) test was performed at the Site to determine the feasibility of remediating adsorbed-phase hydrocarbons beneath the site using in situ vapor extraction technology. Testing was performed utilizing Vadose Monitoring Well VW-9 and Groundwater Monitoring Wells MW-1 and MW-6, to evaluate the permeability of the vadose zone to air and to determine the estimated radius of influence. High vacuum levels in the vapor extraction wells (approximately 200 inches H_2O), low flow rates (5 to 6 cubic feet per minute[cfm]), and the absence of vacuum communication in the observation wells were indicative of the low- permeability soils beneath the Site (Alton Geoscience, 1998a).

In January 1996, a second vapor extraction test was performed at the Site by W. W. Irwin. Testing was performed utilizing Vadose Monitoring Wells VW-11 and VW-12. The results were similar to the initial vapor extraction test in which high vacuum levels in the vapor extraction wells (approximately 150 inches H_2O), low flow rates (5.5 to 11.5 standard cubic feet per minute[scfm]), and a absence of vacuum communication in the observation wells were indicated (W. W. Irwin, 1996).

4.4.3 Biovent Testing

In November 1997, a respiration test was conducted at the Site to determine the effectiveness of bioventing as a remedial option. From the test results, a calculated rate of oxygen reduction (oxygen utilization rate [K_o]) for the vadose zone in the vicinity of the hydrocarbon-affected soil was approximately 0.13 % per hour or 3.5 % per day, which equates to a biodegradation rate (K_B) of approximately 2.8 mg/kg per day (Alton Geoscience, 1998a).

4.5 REMEDIAL ACTIVITIES

In July 1986, approximately 76.5 cubic yards of waste-oil affected soil was excavated during waste-oil tank removal activities. Residual waste-oil affected soil was not removed from beneath the station building.

Monthly bailouts and service of a downhole product skimmer for the removal of LPH from Monitoring Well MW-1 was initiated in July 1997. LPH removal and maintenance of the skimmer has been discontinued due to minimal effectiveness in product recovery. In March 2002, a Soakease bailer was installed in offsite Well MW-12 for LPH removal, with approximately 2 gallons of LPH being removed. The Soakease bailer was removed in April 2003 due to product no longer being detected in this well.

In July 1997, monthly pumpouts/bailouts of groundwater/LPH from Well MW-1 was initiated. In addition, monthly groundwater pumpouts from Wells MW-6, MW-7, MW-11, MW-12, and MW-17 were initiated in October 1997 for MTBE plume containment. From July 1997 to May 2003, approximately 32,900 gallons of hydrocarbon-affected groundwater was removed during manual bailouts and vacuum truck pumpouts. Due to decreasing and eventual asymptotic hydrocarbon concentrations in groundwater, overpurge pumpouts of on- and off-site wells were discontinued in May 2003.

From December 1997 through March 1998, monthly 8-hour dual-phase vapor extraction events were conducted on Wells MW-1, MW-6, MW-17, and TCW to remediate LPH. LPH thickness in Well MW-1 was reduced from a maximum thickness of 0.70 feet in April 1997 to 0.02 feet in January 1998. Approximately 2 gallons of hydrocarbons and 5,000 gallons of hydrocarbon-affected

groundwater was removed (Alton Geoscience, 1998b). LPH is not detected at the Site since February 2002. Refer to Appendix C for the dual-phase extraction summary sheet and dual-phase extraction data and graphs.

5.0 TRENDS IN GROUNDWATER CONCENTRATIONS

Groundwater monitoring and sampling has been conducted at the Site since 1990. The maximum TPH-G, benzene, and TBA concentrations in groundwater have generally been detected in Monitoring Wells MW-1, MW-7, MW-12, and MW-17. Recent groundwater trends that are associated with these wells from November 2002 to November 2004 are examined in the matrices below and on the following page (described by the most representative general trends and range of values; concentrations in µg/l).

RECENT DISSOLVED-PHASE TPH-G AND BENZENE CONCENTRATIONS TRENDS IN WELLS NOVEMBER 2002 TO NOVEMBER 2004

WELL	CHART No.	TPH-G	BENZENE
MW-1	1	Ranging between 11,000 µg/l and 14,200 µg/l from November 2002 to May 2003. Decreasing to 2,340 µg/l in November 2003. Increasing to between 25,000 µg/l and 26,700 µg/l in February and May 2004. Decreasing to 2,740 µg/l in August 2004 and 3,990 in November 2004.	Ranging from 1,140 µg/l to 1,480 µg/l in February and May 2003. Decreasing to less than 320 µg/l from August 2003 to February 2004 and less than 35 µg/l from May 2004 to November 2004.
MW-7	2	Ranging from 14,500 µg/l to 47,500 µg/l from November 2002 to November 2004.	Ranging from 599 µg/l to 1,440 µg/l from November 2002 to November 2003. Decreased to 350 µg/l in February 2004. Increasing slightly and ranging between 628 µg/l and 950 µg/l from May 2004 to November 2004.
MW-12	3	Increasing from 925 µg/l in November 2002 to 8,760 µg/l in August 2003 to 21,000 µg/l in August 2004 to 42,200 µg/l in November 2004.	Increasing from 30.9 µg/l in November 2002 to 196 µg/l in May 2003 to 607 µg/l in August 2003. Decreasing to 48 µg/l in February 2004 and ranging between 271 µg/l and 470 µg/l from May 2004 to November 2004.

RECENT DISSOLVED-PHASE BENZENE AND TBA CONCENTRATIONS TRENDS IN WELLS NOVEMBER 2002 TO NOVEMBER 2004 (continued)

WELL	CHART No.	BENZENE	TBA
MW-17	4	Decreasing from 1,090 µg/l in November 2002 to 717 µg/l in May 2003 to 555 µg/l in August 2003 to 352 µg/l in May 2004 to 144 µg/l in August 2004 to 19,6 µg/l in November 2004.	Decreasing from 11,100 µg/l in November 2002 to ranging between 2,060 µg/l and 4,200 µg/l from May 2003 to November 2004 (exception of 6,920 µg/l in August 2004).

Based on the matrices presented on the previous page and above and on Charts 1 through 4, it appears that onsite benzene and TBA concentrations in Wells MW-1, MW-7, MW-12, and MW-17 are stable or decreasing. TPH-G concentrations also appear to be stable or decreasing with the exception of Well MW-12.

For additional details refer to Appendix B and the Fourth Quarter 2004 Status and Groundwater Monitoring and Sampling Report.

6.0 NATURAL ATTENUATION STUDY

As applied to petroleum hydrocarbon-affected sites, NA is the physical, chemical, and biological processes that naturally occur in soil and groundwater that promote the degradation/reduction of the mass and mobility of petroleum hydrocarbons. These processes include aerobic/anaerobic biodegradation, volatilization, adsorption, and dispersion. Of these processes, biodegradation is the most prominent NA mechanism. Petroleum hydrocarbons and their constituents are generally biodegradable where indigenous microorganisms have an adequate supply of nutrients and electron acceptors, and biological activity is not inhibited by substances toxic to the organisms. Aerobic biodegradation tends to occur at the fringe of the dissolved plume and consumes oxygen. Anaerobic biodegradation is predominant in the " source" area (USEPA, 1998).

Petroleum hydrocarbons are biodegraded via biological oxidation when electron donors and electron acceptors are combined to produce energy for microbial growth and non-toxic metabolic

byproducts. The matrix on the next page summarizes the methodology for evaluating the presence of biodegradation of petroleum hydrocarbons occurring in groundwater:

METHODOLOGIES FOR EVALUATING THE PRESENCE OF NATURAL ATTENUATION IN GROUNDWATER

CATEGORY	PARAMETER	SIGNIFICANCE IN NA EVALUATIONS
Electron Donor	Dissolved-Phase Hydrocarbons (HCs)	• Decrease in concentration over time. • Limited downgradient lateral extent.
Electron Acceptors	Dissolved Oxygen (DO; O_2)	• Aerobic process. • Generally persists away from the source area. • DO concentration > ~2 mg/l are favorable for aerobic biodegradation; < ~0.5 mg/l not favorable. • DO decreases as aerobic respiration occurs. • CO_2 and organic acids (increase in pH) are metabolic by-products.
	Nitrate (NO_3^-)	• Anaerobic process where DO has been depleted. • Generally occurs near/within the source area. • NO_3^- decreases as anaerobic respiration occurs. • Metabolic by-products are N_2 and CO_2.
	Soluble Manganese [Mn(II)]	• Anaerobic process where DO and NO_3^- have been depleted. • Generally occurs near/within the source area. • Mn(II) decreases as anaerobic respiration occurs. • Metabolic by-product is Mn(IV).
	Ferric Iron [Fe(III)]	• Anaerobic process where DO and NO_3^- have been depleted. • Generally occurs near/within the source area. • Fe(III) decreases as anaerobic respiration occurs. • Metabolic by-product is Fe(II).
	Sulfate (SO_4^{2-})	• Anaerobic process where DO, NO_3^-, and Fe(III) have been depleted. • Generally occurs within the source area. • SO_4^{2-} decreases as anaerobic respiration occurs. • Metabolic by-product is H_2S.
	CO_2	• Anaerobic process where DO, NO_3^-, Fe(III), and SO_4^{2-} have been depleted. • Generally occurs within the source area. • CO_2 decreases as anaerobic respiration occurs. • Metabolic by-product is CH_4 (methanogenesis).

METHODOLOGIES FOR EVALUATING THE PRESENCE OF NATURAL ATTENUATION IN GROUNDWATER
(continued)

CATEGORY	PARAMETER	SIGNIFICANCE IN NA EVALUATIONS
Metabolic By-Products	CO_2 and organic acids (increase in pH)	• Result of microbial aerobic oxidation of O_2.
	N_2 and CO_2	• Result of microbial anaerobic reduction of NO_3^-.
	Soluble manganese [Mn(IV]	• Result of microbial anaerobic reduction of Mn(II).
	Soluble iron [Fe(II)]	• Result of microbial anaerobic reduction of Fe(III).
	H_2S	• Result of microbial anaerobic reduction of SO_4^{2-}.
	CH_4	• Result of microbial anaerobic reduction of CO_2.
Other Geochemical, Biological, and Physical Parameters	Dissolved Inorganic Carbon	• By-product of organic carbon oxidation. • Indicates the difference in microbial oxidation processes inside versus outside the source area.
	Oxidation / reduction potential (ORP or Redox)	• Indicates relative oxidizing or reducing nature of the groundwater system. • May range from ~800 millivolts (mV) (oxygenated) to <400 mV (reducing).
	pH	• Microbes capable of degrading HC compounds prefer pH values varying from ~6 to 8 standard units. • Reduced pH (increased acidity) associated with increased carbonate hardness and alkalinity.
	Specific Conductivity	• Increases as ion concentration increases.
	Temperature	• The solubility of DO is temperature dependent, being more soluble in cold water than in warm water.
	Alkalinity	• Increase above background levels may be produced when carbon dioxide is released by biological activity.
	Dissolved and Total Organic Carbon (DOC)	• Index of microbial activity. • Differentiate background from anthropogenic (man-made) sources.
	Total Organic Carbon (TOC)	• Relatively high amounts may be indicative of a reducing environment.

METHODOLOGIES FOR EVALUATING THE PRESENCE OF NATURAL ATTENUATION IN GROUNDWATER
(continued)

CATEGORY	PARAMETER	SIGNIFICANCE IN NA EVALUATIONS
Other Geochemical, Biological, and Physical Parameters (continued)	Biochemical Oxygen Demand (BOD)	• Measure of the rate oxygen is consumed by bacteria.
	Chemical Oxygen Demand (COD)	• Measure of oxygen used in biological and non-biological oxidation of materials in water.
	Total Heterotrophic Plate Count (THPC)	• Measure of the biological activity.
	Gasoline Oxidizing Population	• Estimation of bacteria that are known to be degraders of gasoline.

To evaluate the NA processes taking place at the site and to determine if biodegradation of the petroleum hydrocarbons is occurring, four groundwater samples were collected on November 22, 2004. Samples were collected from a total of four wells as follows:

- In source area in the vicinity of the gasoline USTs: Well MW-1.
- Crossgradient from the source area: MW-17.
- Upgradient from the source area: MW-2 and MW-6.

Groundwater samples for the NA parameter screening included laboratory analysis for the following analytes using the corresponding EPA test methods:

ANALYTE	EPA TEST METHOD	ANALYTE	EPA TEST METHOD
Carbon Dioxide	SM 4500- CO2D	Iron (II)	SM 3500-FeD
Methane	RSK-175M	Total Organic Carbon	415.1
Total Alkalinity (as $CaCO_3$)	SM 2320B	Dissolved Organic Carbon	415.1
Chloride	300.0	COD	410.1
Nitrate (as N)	300.0	BOD	405.1
Carbon Dioxide	SM 4500-CO2D	ORP	Field
Dissolved Oxygen	Field	pH	Field
Temperature	Field	Conductivity	Field
Sulfate	300.0	Heterotrophic Plate Count	SM 9215 A-B
Ammonia	350.2	Gasoline Oxidizing Population	Proprietary

The NA analytical data is summarized in Table 1. Groundwater monitoring and sampling field data sheets and analytical laboratory reports are included in Appendix D.

7.0 EVALUATION OF POTENTIAL FOR NATURAL ATTENUATION OF PETROLEUM HYDROCARBONS

The matrix on the next page describes the results of NA parameter sampling and evaluates the results in terms of the potential for NA occurrence at the Site:

NA Parameter	Wells and Location Relative to Source Area				Evaluation of Presence of NA
	MW-1	MW-17	MW-2	MW-6	
	Source Well	Cross-gradient	Up-gradient	Up-gradient	
Heterotrophic Plate Count (CFU/ml)	6,300	190	690	180	Microbial bacteria population present in the source area.
Gasoline Oxidizing Population (MPN/ml)	4,300	93	43	43	Microbial bacterial population present in source area is capable of oxidizing hydrocarbons.
BOD (mg/l)	38	6.7	4.4	ND< 1.0	Oxygen being consumed by bacteria in source zone.
COD (mg/l)	130	31	ND< 5.0	15	Oxidation occurring in source zone.
Total Organic Carbon (mg/l)	8.6	6.5	2.2	1.9	Microbial activity in source zone similar to activity cross-gradient and upgradient due to absence of hydrocarbon mass.
Dissolved Organic Carbon (mg/l)	6.4	9.8	3.1	2.5	Microbial activity in source zone similar to activity cross-gradient and upgradient due to absence of hydrocarbon mass.
Carbon Dioxide (mg/l)	34	50	45	30	Limited aerobic metabolic respiration taking place due to absence of hydrocarbon mass.
Dissolved Oxygen (field) (mg/l)	1.85	1.48	2.04	2.25	Oxygen consumption in source zone low due to absence of hydrocarbon mass.
ORP (field) (mV)	No Reading	No Reading	27	-66	Inconclusive.
Methane (µg/l)	6.03	ND< 1.00	ND< 1.00	ND< 1.00	More oxidation of hydrocarbons occurring in source zone.
Total Alkalinity (as $CaCO_3$) (mg/l)	260	830	290	250	Release of carbon dioxide and alkalinity low due to absence of hydrocarbon mass.
Chloride (mg/l)	59	56	59	61	Rate of oxidation-reduction reactions in source zone are low due to absence of hydrocarbon mass.
Nitrate (as N) (mg/l)	ND< 0.10	ND< 0.10	1.6	2.0	Rate of oxidation in source zone are low due to absence of hydrocarbon mass.
Sulfate (mg/l)	510	450	1,100	620	Rate of oxidation in source zone are low due to absence of hydrocarbon mass
Ammonia (mg/l)	ND< 0.10	ND< 0.10	ND< 0.10	ND< 0.10	Rate of oxidation in source zone are low due to absence of hydrocarbon mass.
Iron (II) (mg/l)	ND< 0.10	ND< 0.10	ND< 0.10	ND< 0.10	Rate of oxidation in source zone are low due to absence of hydrocarbon mass.
pH(field)	7.90	7.39	7.39	7.24	Inconclusive.
Temperature (field) (°F)	66.2	72.1	70.8	69.4	Inconclusive.
Conductivity (field) (µohms/cm)	1,530	2,300	2,110	1,550	Inconclusive.

See Table 1 and Appendix D for field and laboratory analytical results.

8.0 OVERVIEW OF FEASIBLE REMEDIAL ACTION

The CAP section of this document is intended to establish a pathway toward achieving site closure utilizing the most technologically feasible, practical, and cost effective remedial approach for this site to remediate the hydrocarbon-affected soil and groundwater. Discussions for each remedial action alternative are presented in this section, and include the advantages, considerations, economics, and site-specific feasibility/application. Remedial action alternatives presented in this section include the following:

1) Groundwater Pump-and-Treat (GWP&T)
2) High-Vacuum Vapor Extraction
3) Dual-Phase Extraction (DPE) and groundwater pumping
4) Enhanced intrinsic remediation in groundwater.
5.) Monitoring and Sampling for Natural Attenuation

8.1 GROUNDWATER PUMP-AND-TREAT

GWP&T generally consists of: (1) downhole extraction of hydrocarbon-affected groundwater using pneumatic or electric turbine pumps, (2) aboveground treatment, and (3) discharge of treated effluent. This technology of extracting dissolved-phase contaminants from the subsurface is most cost-effective at sites where the constituents of concern have a low adsorption coefficient (i.e., MTBE and TBA).

The most common GWP&T process consists of passing recovered groundwater through a series of granular activated carbon (GAC) canisters. Organic contaminants, particularly benzene, toluene, ethylbenzene, and total xylenes (BTEX), MTBE, and TBA adsorb to the GAC beds and are removed from the influent stream. Treated effluent water is typically discharged to a sanitary sewer or storm drain in accordance with state or local permits obtained on a site-specific basis. The GAC beds are removed for recycling when spent, and are replaced with fresh or regenerated carbon. Coconut-shell GAC is more effective than standard GAC in treating MTBE in groundwater.

- Advantages: GWP&T may be effective in limiting the further migration (plume containment) of hydrocarbons in groundwater, or lowering the groundwater level and exposing the upper saturated zone for mass removal by vapor extraction (i.e., dual-phase or multi-phase extraction). Studies and TRC's work experience indicate that GWP&T is effective in recovering dissolved-phase MTBE in groundwater.
- Considerations: Potential factors that may limit the effectiveness of GWP&T are: (1) hydrogeologic factors, such as subsurface heterogeneity, and groundwater-bearing zones of

very low-permeability; (2) a chemical's potential to become adsorbed onto the soil matrix; and (3) potential difficulties in cost-effective treatment of oxygenated-affected groundwater being treated by GAC.

- Estimated Cost: The cost for GWP&T operations may range from $40,000 to $80,000 per year, with an initial capital expense ranging from $50,000 to $100,000.
- Site Application: GWP&T is not recommended as a practical remedial option. GWP&T is not believed to be required to prevent the further migration or capture of hydrocarbons, since concentrations appear to be attenuating by natural processes and hydrocarbons are not migrating offsite.

8.2 HIGH-VACUUM VAPOR EXTRACTION

High-vacuum vapor extraction operations is a technology typically applied for the remediation of hydrocarbon-affected soil in the vadose zone, but can also be utilized for extraction of the capillary fringe and upper saturated zone if groundwater is lowered via GWP&T or high-vacuum DPE. This method typically utilizes vapor extraction well(s) within the source area of the hydrocarbon-affected soil zone to extract hydrocarbon vapors from the subsurface. A vacuum is exerted on the vapor extraction well(s) utilizing a regenerative or positive-displacement blower, and may be enhanced by use of in-line high-vacuum liquid-ring pumps. The vacuum generates an air flow in the vadose zone toward the extraction well, and induces volatilization of gasoline-range hydrocarbon constituents. These extracted hydrocarbon vapors from the subsurface are treated onsite by aboveground vapor extraction/treatment systems that utilize catalytic oxidation, thermal oxidation, carbon, or other suitable technologies.

- Advantages: This method has been proven successful in effectively removing volatile gasoline components from permeable soils.
- Considerations: Vapor extraction may be less effective in remediating volatile hydrocarbons from low-permeability soils (clay and silt). Preferential air flow paths in heterogeneous soils may inhibit air flow and volatilization in lower permeability soil strata. In low-permeability soils and shallow groundwater conditions (i.e., 10 fbg or less), vapor extraction may not be feasible due to rising water covering casing perforations; thus preventing vacuum communication and air flow from the subsurface.
- Estimated Cost: For fixed-based high-vacuum SVE systems, the cost may range from $50,000 to $75,000 per year, with an initial capital expense ranging from $100,000 to $150,000. For periodic mobile high-vacuum SVE events, the cost may range from $20,000 to $80,000 per year, without a capital expense.
- Site Application: High-vacuum SVE is not believed to be a feasible remedial option for this site. Previous high-vacuum vapor extraction events performed at the site were effective in removing hydrocarbon mass from the subsurface. During the March 1998 event, a maximum

concentration of 630 ppmv was detected in Well MW-1, which was reduced to 190 ppmv after 8 hours of high-vacuum SVE operations. Trends in previous hydrocarbon vapor concentrations indicate substantial decreases during the events, and suggests that the remaining hydrocarbon mass may be limited. Even with mobile SVE events, the total mass of soil hydrocarbon vapors had been previously reduced to the extent that additional events are not required due to diminishing concentration/mass removal trends previously indicated.

8.3 DUAL-PHASE EXTRACTION AND GROUNDWATER PUMPING

DPE technology combines the simultaneous extraction of soil vapor and groundwater. This can be achieved by high-vacuum simultaneous extraction of both vapor and groundwater, or utilizing a combination of both traditional GWPT and SVE technologies. By either approach, as groundwater is extracted, the water table may locally depress and expose the soils in the capillary fringe and uppermost saturated zone for vapor extraction. This high-vacuum approach can be applied to soils with a broad range of permeabilities, but is more effective in higher-permeability soils. Thermal or catalytic oxidation technologies are typically applied for the treatment of hydrocarbon vapors.

- Advantages: This remedial approach may remediate exposed hydrocarbons in the capillary fringe and upper saturated zones, particularly from permeable soil types that are absent of clay.
- Considerations: The effectiveness is dependent on adequately depressing the local water table to expose hydrocarbon-affected soil in the capillary fringe/upper saturated zone to vapor extraction. A high yielding groundwater zone may not depress adequately, and may also inhibit the flow rate capacity for vapor extraction. Low-permeability soils may inhibit the effectiveness of vapor extraction in both the unsaturated zone and the dewatered portions of the capillary fringe and upper saturated zone.
- Estimated Cost: For fixed-based high-vacuum GWPT and SVE systems, the cost may range from $80,000 to $120,000 per year. For periodic mobile DPE events, the cost may range from $25,000 to $100,000 per year without a capital expense.
- Site Application: DPE is not believed to be a feasible remedial option for this site. Previous DPE events performed at the site were effective in removing hydrocarbon mass from the subsurface. During the March 1998 event, a maximum concentration of 630 ppmv was detected in Well MW-1, which was reduced to 190 ppmv after 8 hours of DPE operations. Trends in previous hydrocarbon vapor concentrations indicate substantial decreases during the events, and suggests that the remaining hydrocarbon mass may be limited. Even with mobile DPE events, the total mass of soil hydrocarbon vapors had been previously reduced to the extent that additional events are not required due to diminishing concentration/mass removal trends previously indicated.

8.4 ENHANCED INTRINSIC REMEDIATION IN GROUNDWATER

Intrinsic remediation is achieved when naturally occurring attenuation mechanisms, such as biodegradation, result in the reduction in the total mass of hydrocarbons. In groundwater, bacterial populations may utilize dissolved-oxygen for aerobic metabolic respiration of hydrocarbons. Similarly, other electron-accepting ions may be utilized for anaerobic metabolic respiration of hydrocarbons. Oxygen is thermodynamically the most preferred nutrient for biodegradation, but may be deficient in supply. Increasing the oxygen availability may enhance biodegradation processes, and can be provided by methods such as oxygen releasing compounds (ORC) and dissolved-oxygen emitters.

- Advantages: Enhanced bioremediation degrades hydrocarbons in groundwater and may be more cost-effective than other remediation technologies. At active service station sites, this remedial approach is typically less intrusive to station operations, with minimal construction activities involved.
- Considerations: Aerobic biodegradation depends on the availability of nutrients and oxygen, and is typically more effective in high-permeability groundwater zones. The presence of dissolved BTEX may interfere with the effectiveness of enhanced biodegradation of dissolved MTBE/TBA.
- Estimated Cost: For ORC, the cost may typically range from $5,000 to $25,000 per year. For dissolved-oxygen emitters, the operation cost may range from $20,000 to $40,000 per year, with a capital expense ranging from $10,000 to $25,000.
- Site Application: Enhanced bioremediation is not a feasible remedial option for groundwater at this site. While some results from NA parameter sampling indicates that there is an oxidizing population in the source area, other results indicate that the mass of hydrocarbons in the source area may be low such that the addition of oxygen to enhance microbial activity does appear to be necessary.

8.5 MONITORING AND SAMPLING FOR NATURAL ATTENUATION

This approach provides for continuing groundwater monitoring and sampling until a time that dissolved-phase hydrocarbon concentrations diminish/stabilize to levels that the regulatory agency may approve for case closure.

- Advantages: For sites with existing biodegradation processes occurring, and if the length of time to reach diminished/stabilized dissolved-phase hydrocarbon concentrations (ex., less than two years), this approach will likely be most cost effective.
- Considerations: If the time it takes for dissolved-phase hydrocarbon concentrations to diminish/stabilize is greater (ex., more than five years), this approach may not be the most

cost effective.

- Estimated Cost: For this site, the cost will range from $5,000 to $7,500 per year.
- Site Application: This is a feasible alternative for this site. Considering the remaining stable dissolved-phase hydrocarbon concentrations onsite, it is believed that conducting monitoring and sampling for a period of one year will provide enough evidence of hydrocarbon concentration stability and limited mass that a request for regulatory closure can be submitted at that time.

9.0 CONCLUSIONS

Based on the results of this NA study, the following is concluded:

- NA appears to be minimal at this time due to:
  - Limited electron donor mass (petroleum hydrocarbon) to act as a substrate for metabolic respiration.
  - Values of total organic carbon, dissolved organic carbon, carbon dioxide, dissolved oxygen, alkalinity, nitrates, sulfates, ammonia, and iron (II) which are consistent with limited metabolic respiration (which appears to be related to limited electron donor mass).
- The overall environment appears to be consistent with aerobic conditions.
- The potential for NA occurrence would be likely if a higher mass of electron donor material (i.e., petroleum hydrocarbons) as a metabolic substrate were available. This NA study suggests that limited hydrocarbon mass is present in the subsurface, and is consistent with the low dissolved-phase concentrations in groundwater.

10.0 RECOMMENDATIONS

As a result of the NA study and evaluation of hydrocarbon concentration trends, the following is recommended:

- Conduct post-remedial monitoring and sampling for four quarters.
- If dissolved-phase hydrocarbon concentrations remain at the current levels over the next four quarters, a request for closure and no further action will be submitted.
- If dissolved-phase hydrocarbon concentrations increase during the next four quarters, it is recommended that an additional NA study be performed to understand the bio-chemical changes that may occur if the electron donor (i.e., petroleum hydrocarbons) as a substrate becomes available to facilitate metabolic respiration. These results would be evaluated as part of a revised CAP.

The site assessment activities summarized in this report have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, expressed or implied, is made regarding the conclusions and professional opinions presented in this report. The findings and conclusions are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.

11.0 REFERENCES

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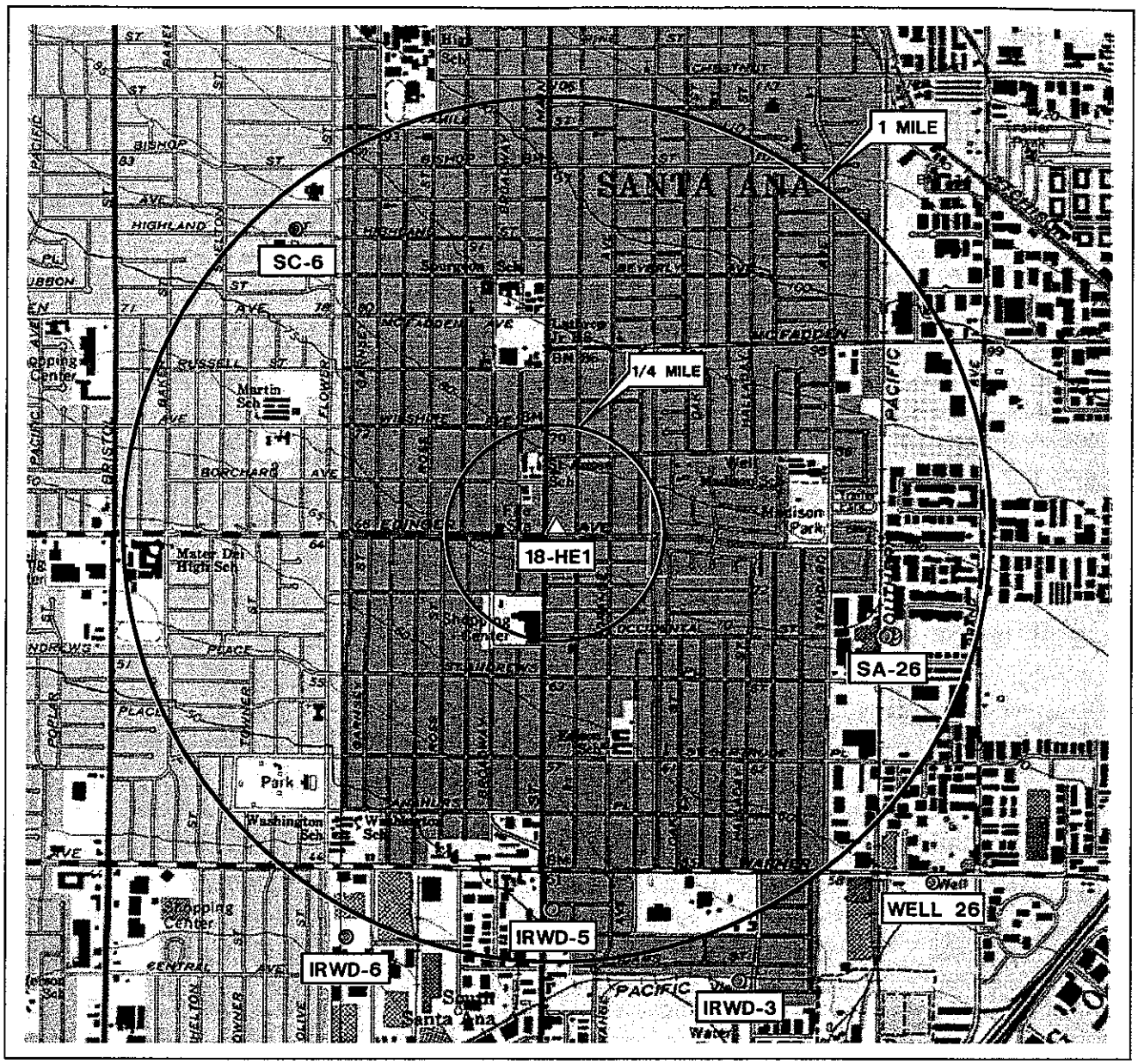
FIGURES



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SCALE 1:24,000

N

LEGEND

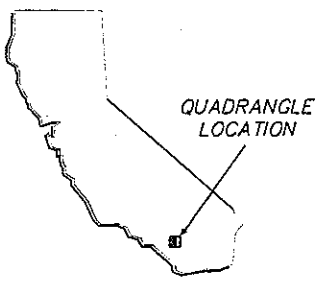
18-HE1	△	Site
SA-26	◎	Production Well
SC-6	●	Multi-Point Monitoring Well

NOTE:

The "Well" label approximately 2,400 feet northeast of the site is an abandoned well.

SOURCE:

United States Geological Survey 7.5 Minute Topographic Map: Tustin Quadrangle



SENSITIVE RECEPTOR AND VICINITY MAP

ExxonMobil Oil Corporation
Service Station 18-HE1
1465 South Main Street
Santa Ana, California

FIGURE 1

TRC

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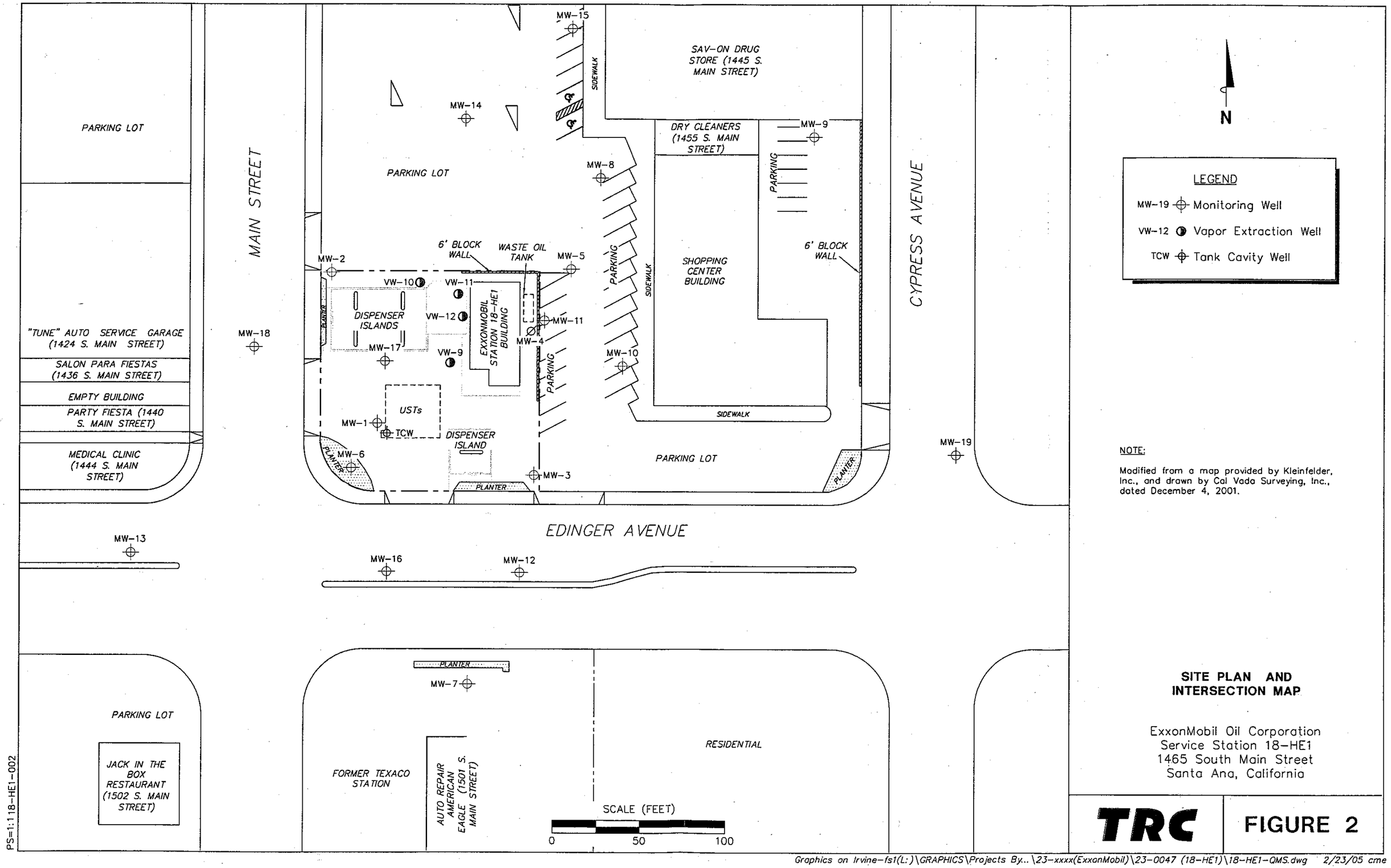
PARKING LOT
MAIN STREET
"TUNE" AUTO SERVICE GARAGE (1424 S. MAIN STREET)
SALON PARA FIESTAS (1436 S. MAIN STREET)
EMPTY BUILDING
PARTY FIESTA (1440 S. MAIN STREET)
MEDICAL CLINIC (1444 S. MAIN STREET)
MW-18
MW-13
MW-15
MW-14
PARKING LOT
MW-8
SIDEWALK
SAV-ON DRUG STORE (1445 S. MAIN STREET)
DRY CLEANERS (1455 S. MAIN STREET)
MW-9
PARKING
SHOPPING CENTER BUILDING
6' BLOCK WALL
CYPRESS AVENUE
MW-2
6' BLOCK WALL
WASTE OIL TANK
MW-5
VW-10
VW-11
VW-12
DISPENSER ISLANDS
EXXONMOBIL STATION 18-HE1 BUILDING
MW-11
MW-4
MW-17
VW-9
MW-10
PARKING
USTs
MW-1
TCW
DISPENSER ISLAND
MW-6
PLANTER
MW-3
PARKING LOT
MW-19
EDINGER AVENUE
MW-16
MW-12
PARKING LOT
JACK IN THE BOX RESTAURANT (1502 S. MAIN STREET)
PLANTER
MW-7
FORMER TEXACO STATION
AUTO REPAIR AMERICAN EAGLE (1501 S. MAIN STREET)
RESIDENTIAL
SCALE (FEET)
0
50
100
N
LEGEND
MW-19 Monitoring Well
VW-12 Vapor Extraction Well
TCW Tank Cavity Well
NOTE:
Modified from a map provided by Kleinfelder, Inc., and drawn by Cal Vada Surveying, Inc., dated December 4, 2001.
SITE PLAN AND INTERSECTION MAP
ExxonMobil Oil Corporation
Service Station 18-HE1
1465 South Main Street
Santa Ana, California
TRC
FIGURE 2
PS=1:118-HE1-002
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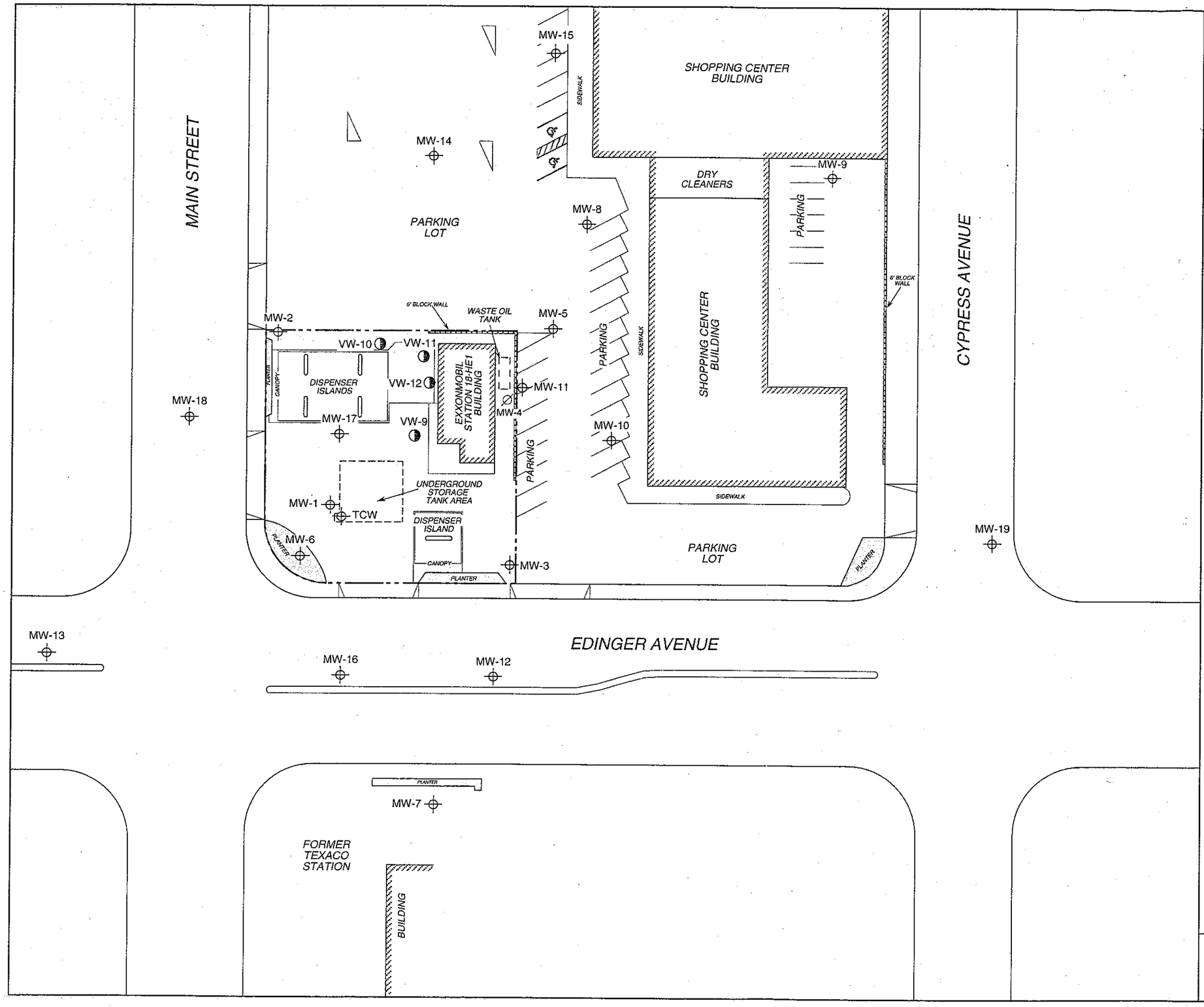


N

LEGEND

MW-19	Groundwater Monitoring Well
VW-11	Vapor Extraction Well
TCW	Tank Cavity Well
MW-4	Abandoned Well

SCALE (FEET)

0 50 100

NOTE:

Modified from a map provided by Kleinfelder, Inc., and drawn by Cal Vada Surveying, Inc., dated December 4, 2001.

SITE PLAN

ExxonMobil Oil Corporation
Service Station 18-HE1
1465 South Main Street
Santa Ana, California

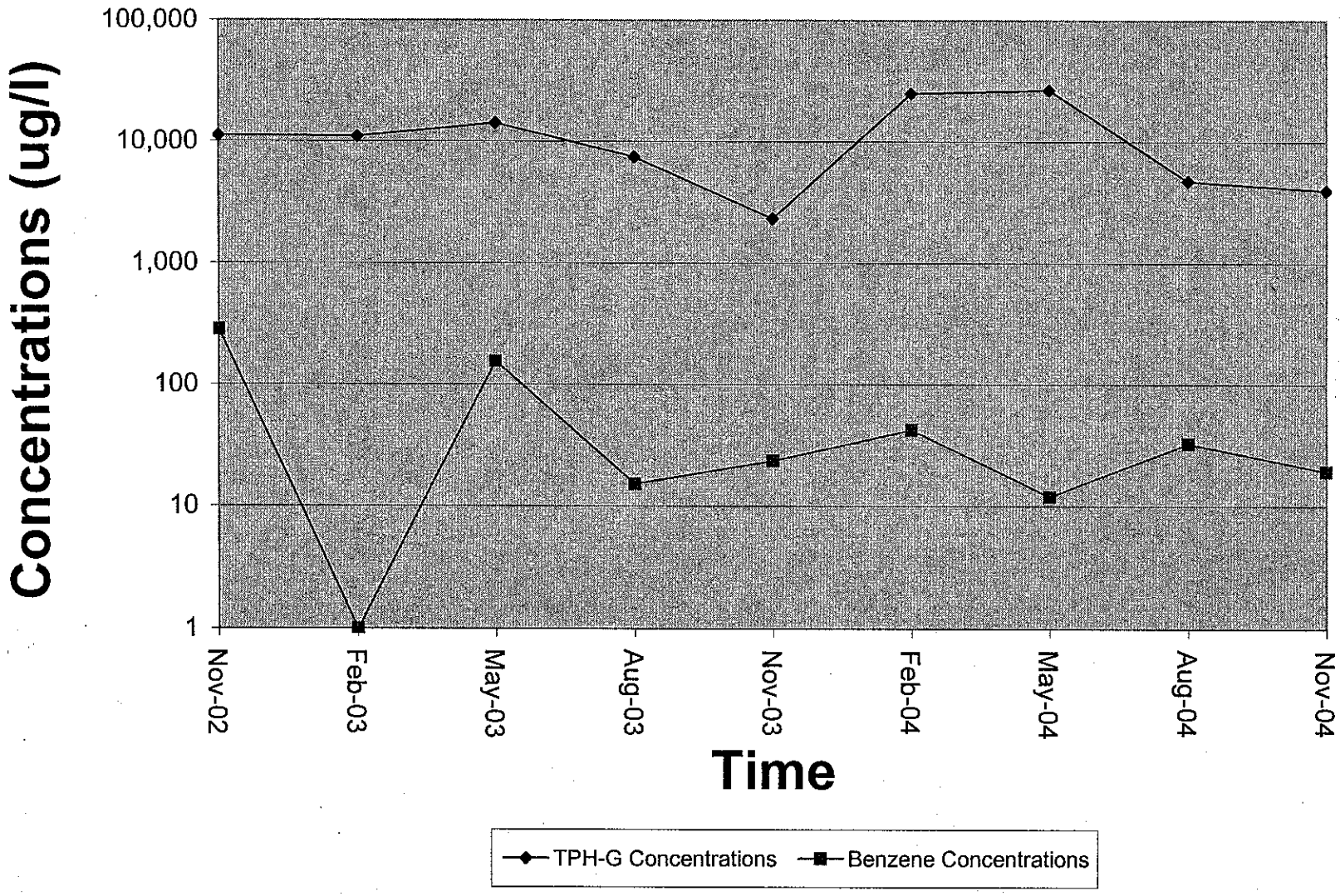
TRC

FIGURE 3

23-0047 18-HE1/QMS (NEW) 11/22/04 cme

CHARTS

Chart 1
Recent Dissolved-Phase TPH-G and Benzene Concentrations in MW-1



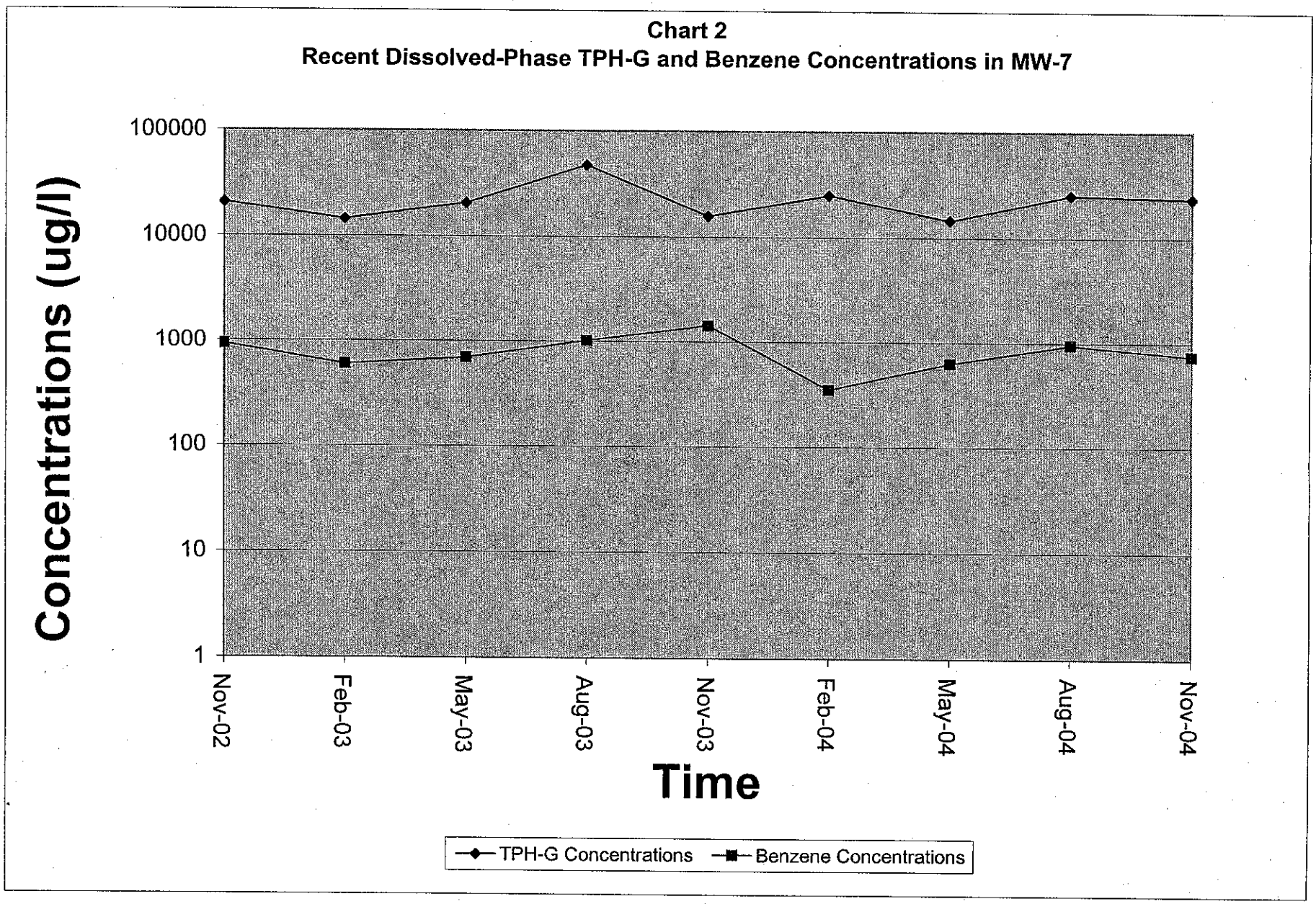


Chart 2
Recent Dissolved-Phase TPH-G and Benzene Concentrations in MW-7
Concentrations (ug/l)
100000
10000
1000
100
10
1
Nov-02
Feb-03
May-03
Aug-03
Nov-03
Feb-04
May-04
Aug-04
Nov-04
Time
TPH-G Concentrations
Benzene Concentrations

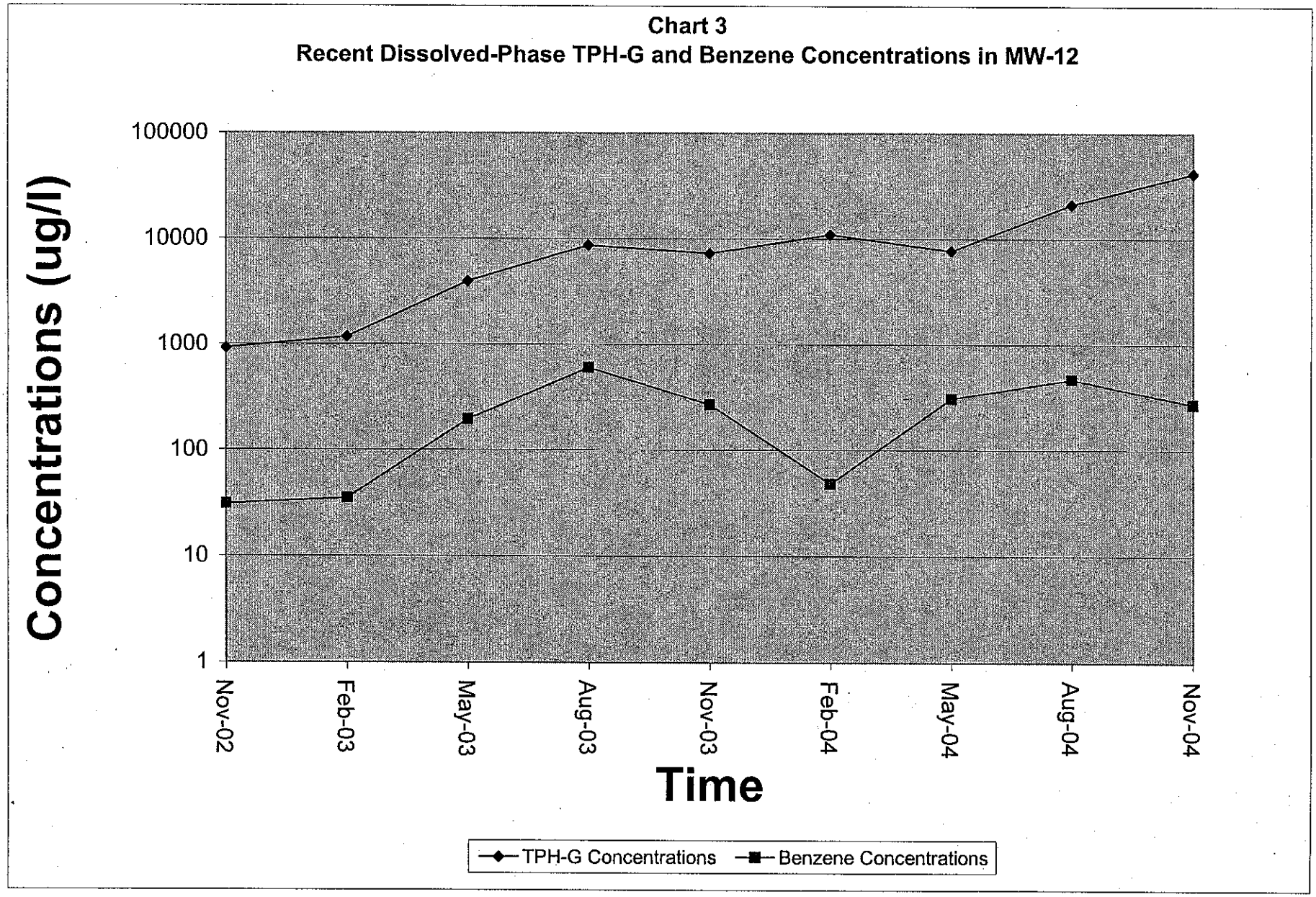
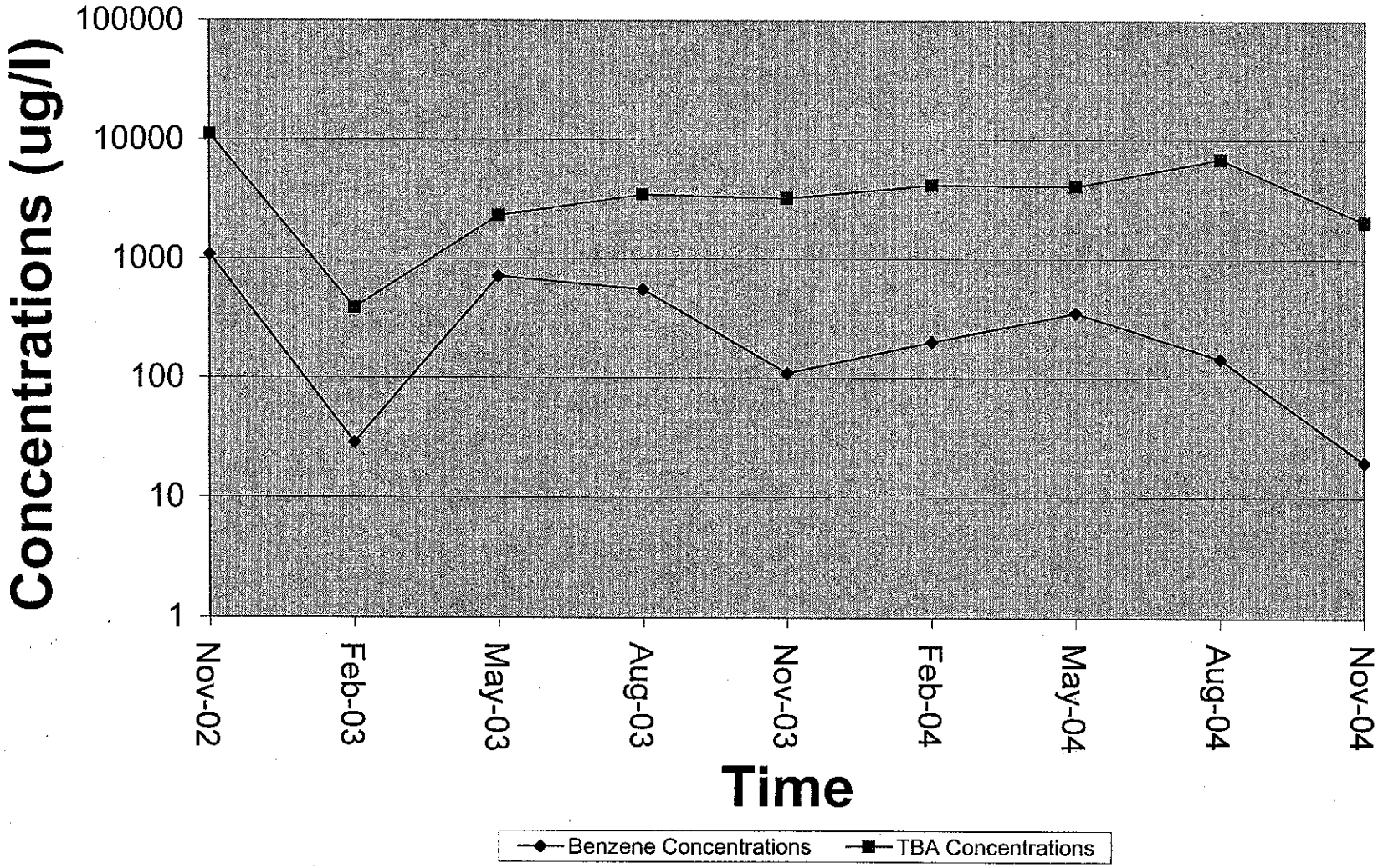


Chart 3
Recent Dissolved-Phase TPH-G and Benzene Concentrations in MW-12
Concentrations (ug/l)
100000
10000
1000
100
10
1
Nov-02
Feb-03
May-03
Aug-03
Nov-03
Feb-04
May-04
Aug-04
Nov-04
Time
TPH-G Concentrations
Benzene Concentrations

Chart 4
Recent Dissolved-Phase Benzene and TBA Concentrations in MW-17



TABLE

Table 1

RESULTS OF LABORTORY ANALYSIS OF NATURAL ATTENUATION PARAMETER SAMPLING

ExxonMobil Oil Corporation Service Station 18-HE1

November 22, 2004

Sample Number	Sample Date	Carbon Dioxide (mg/l)	Methane (ug/l)	Total Alkalinity (as $CaCO_3$) (mg/l)	Chloride (mg/l)	Nitrate (as N) (mg/l)	Sulfate (mg/l)	Ammonia (mg/l)	Iron (II) (mg/l)	Total Organic Carbon (mg/l)	Dissolved Organic Carbon (mg/l)	COD (mg/l)	BOD (mg/l)	ORP (mV)	Dissolved Oxygen (mg/l)	pH	Temperature (°F)	Conductivity (uohms/cm)	Heterotrophic Plate Count (CFU/ml)	Gasoline Oxidizing Population (MPN/ml)
		SM 4500-CO2D	RSK-175M	SM 2320B	300.0	300.0	300.0	350.2	SM3500-FeB	415.1	415.1	EPA 410.1	EPA 405.1	Field	Field	Field	Field	Field	SM9215 A-B	Proprietary
Source Well																				
MW-1	11/22/2004	34	6.03	260	59	ND<0.10	510	ND<0.10	ND<0.10	8.6	6.4	130	38	No Reading	1.85	7.90	66.2	1,530	6,300	4,300
Crossgradient Well																				
MW-17	11/22/2004	50	ND<1.00	830	56	ND<0.10	450	ND<0.10	ND<0.10	6.5	9.8	31	6.7	No Reading	1.48	7.39	72.1	2,300	190	93
Upgradient Wells																				
MW-2	11/22/2004	45	ND<1.00	290	59	1.6	1,100	ND<0.10	ND<0.10	2.2	3.1	ND<5.0	4.4	27	2.04	7.39	70.8	2,110	690	43
MW-6	11/22/2004	30	ND<1.00	250	61	2.0	620	ND<0.10	ND<0.10	1.9	2.5	15	ND<1.0	-66	2.25	7.24	69.4	1,550	180	43

Notes:

COD	= Chemical Oxygen Demand
BOD	= Biochemical Oxygen Demand
ORP	= Oxidation-Reductin Potential
$CaCO_3$	= Calcium Carbonate
N	= Nitrogen
mg/l	= milligrams per liter
ug/l	= micrograms per liter
mV	= millivolts
uohms/cm	= microohms per centimeter
CFU/ml	= Colony Forming Units per milliliter
MPN/ml	= Most Probable Number per milliliter
ND	= not detected at or above laboratory detection limits

APPENDIX A

RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES

TABLE 1

HISTORICAL SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
EXXONMOBIL OIL CORPORTATION SERVICE STATION 18-HE1
14565 SOUTH MAIN STREET
SANTA ANA, CALIFORNIA

SAMPLE LOCATION	SAMPLE DATE	DEPTH (fbg)	TPH-G	TRPH	LEAD	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	TBA	DIPE	ETBE	TAME	ETHANOL	METHANOL	OTHER HVOCs
			EPA METHOD 8015M	EPA METHOD 480.1	EPA METHOD 6010	EPA METHOD 8020/8021B					EPA METHOD 8260B										EPA METHOD 8015	EPA METHOD 8260B
MW-1	9/5/86	15	ND<10	--	ND<2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	9/5/86	20	ND<10	--	ND<2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	9/5/86	22	ND<10	--	ND<2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	9/5/86	27	ND<10	--	ND<2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	9/5/86	24	ND<10	--	ND<2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	9/5/86	19	ND<10	--	6.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	9/5/86	22	ND<10	--	ND<2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/17/86	14	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/17/86	19	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/17/86	23	ND<2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	9/16/90	10	--	ND<10	--	0.041	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	9/16/90	20	--	ND<10	--	0.098	0.12	ND<0.040	0.082	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/16/90	15	ND<5	--	--	ND<0.005	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/16/90	20	ND<5	--	--	ND<0.005	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
B-1	1/17/92	10	ND<5	ND<10	--	ND<0.005	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
B-1	1/17/92	15	ND<5	ND<10	--	0.14	0.084	0.021	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--
B-1	1/17/92	20	1,400	750	--	13	100	30	170	--	--	--	--	--	--	--	--	--	--	--	--	ND
B-1	1/17/92	25	ND<5	ND<10	--	0.16	0.01	ND<0.010	0.063	--	--	--	--	--	--	--	--	--	--	--	--	--
B-2	1/17/92	5	--	ND<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-2	1/17/92	10	ND<5	ND<10	--	ND<0.050	ND<0.050	ND<0.10	ND<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--
B-2	1/17/92	15	--	ND<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-2	1/17/92	20	7,600	760	--	58	53	88	294	--	--	--	--	--	--	--	--	--	--	--	--	ND
B-2	1/17/92	25	ND<5	ND<10	--	0.071	0.10	ND<0.10	ND<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--
B-3	1/17/92	5	--	ND<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-3	1/17/92	10	ND<5	ND<10	--	ND<0.050	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
B-3	1/17/92	15	--	ND<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-3	1/17/92	20	ND<5	ND<10	--	0.048	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
B-3	1/17/92	25	ND<5	ND<10	--	0.006	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
B-4	1/17/92	10	ND<5	ND<10	--	ND<0.050	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
B-4	1/17/92	15	78	25	--	0.087	0.052	0.37	0.93	--	--	--	--	--	--	--	--	--	--	--	--	ND
B-4	1/17/92	20	12,000	15,000	--	99	600	230	1,300	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	1/20/92	10.5	ND<5	--	--	ND<0.050	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	1/20/92	20.5	ND<5	--	--	ND<0.050	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	1/20/92	10.5	ND<5	--	--	ND<0.050	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	1/20/92	20.5	ND<5	--	--	ND<0.050	ND<0.005	ND<0.010	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-9	6/5/92	5	ND<1.0	ND<5.0	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-9	6/5/92	10	340	88	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--	--	--	--	--	--	--	--	--	ND
VW-9	6/5/92	15	850	280	--	8.9	32	13	68	--	--	--	--	--	--	--	--	--	--	--	--	ND

TABLE 1

HISTORICAL SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
EXXONMOBIL OIL CORPORTATION SERVICE STATION 18-HE1
14565 SOUTH MAIN STREET
SANTA ANA, CALIFORNIA

SAMPLE LOCATION	SAMPLE DATE	DEPTH (fbg)	TPH-G	TRPH	LEAD	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	TBA	DIPE	ETBE	TAME	ETHANOL	METHANOL	OTHER HVOCs
			EPA METHOD 8015M	EPA METHOD 480.1	EPA METHOD 6010	EPA METHOD 8020/8021B					EPA METHOD 8260B										EPA METHOD 8015	EPA METHOD 8260B
VW-9	6/5/92	20	3.1	ND<50	--	0.36	0.59	0.10	0.54	--	--	--	--	--	--	--	--	--	--	--	--	*
VW-10	6/5/92	10	ND<1.0	ND<5.0	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
VW-10	6/5/92	15	1.1	ND<50	--	0.15	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
VW-10	6/5/92	20	1,400	560	--	9.3	56	25	140	--	--	--	--	--	--	--	--	--	--	--	--	*
MW-10	12/6/93	5	ND<1.0	17	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-10	12/6/93	10	ND<1.0	7	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-10	12/6/93	15	ND<1.0	20	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-10	12/6/93	20	ND<1.0	13	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-10	12/6/93	25	ND<1.0	18	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-11	12/6/93	5	ND<1.0	13	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-11	12/6/93	10	ND<1.0	13	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-11	12/6/93	15	ND<1.0	21	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-11	12/6/93	20	ND<1.0	17	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-11	12/6/93	25	ND<1.0	20	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-9	12/7/93	5	ND<1.0	13	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-9	12/7/93	10	ND<1.0	10	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-9	12/7/93	15	ND<1.0	15	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-9	12/7/93	20	ND<1.0	13	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-9	12/7/93	25	ND<1.0	8	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-12	12/7/93	5	ND<1.0	10	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-12	12/7/93	10	ND<1.0	9.3	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-12	12/7/93	15	2.3	10	--	0.062	ND<0.05	ND<0.05	0.072	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-12	12/7/93	20	ND<1.0	15	--	0.14	ND<0.05	0.063	0.21	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-12	12/7/93	25	ND<1.0	9.7	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-14	12/7/93	5	ND<1.0	12	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-14	12/7/93	10	ND<1.0	13	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-14	12/7/93	15	ND<1.0	14	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-14	12/7/93	20	ND<1.0	8.8	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-14	12/7/93	25	ND<1.0	5	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-13	12/8/93	5	ND<1.0	5.1	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-13	12/8/93	10	ND<1.0	6.9	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-13	12/8/93	15	ND<1.0	11	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-13	12/8/93	20	ND<1.0	7	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-13	12/8/93	25	23	18	--	0.25	1.4	0.29	1.7	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-16	12/27/94	5	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-16	12/27/94	10	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-16	12/27/94	15	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-16	12/27/94	20	230	ND<5.0	--	0.64	5.6	2.6	12	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-16	12/27/94	25	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	*

TABLE 1

HISTORICAL SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
EXXONMOBIL OIL CORPORTATION SERVICE STATION 18-HE1
14565 SOUTH MAIN STREET
SANTA ANA, CALIFORNIA

SAMPLE LOCATION	SAMPLE DATE	DEPTH (fbg)	TPH-G	TRPH	LEAD	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	TBA	DIPE	ETBE	TAME	ETHANOL	METHANOL	OTHER HVOCs
			EPA METHOD 8015M	EPA METHOD 480.1	EPA METHOD 6010	EPA METHOD 8020/8021B					EPA METHOD 8260B										EPA METHOD 8015	EPA METHOD 8260B
SB-1	12/27/94	5	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	ND
SB-1	12/27/94	10	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	ND
SB-1	12/27/94	15	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	ND
SB-1	12/27/94	20	ND<1.0	ND<5.0	--	ND<0.050	**0.048**	**0.0095**	**0.06**	--	--	--	--	--	--	--	--	--	--	--	--	ND
SB-1	12/27/94	25	**3.3**	**13**	--	ND<0.050	**0.019**	**0.022**	**0.052**	--	--	--	--	--	--	--	--	--	--	--	--	*
SB-2	12/27/94	5	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	*
SB-2	12/27/94	10	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	*
SB-2	12/27/94	15	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	*
SB-2	12/27/94	20	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	*
SB-2	12/27/94	25	ND<1.0	ND<5.0	--	ND<0.050	ND<0.050	ND<0.050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	*
MW-17	12/30/94	5	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	12/30/94	10	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	12/30/94	15	**100**	--	--	**0.53**	**0.86**	**0.75**	**0.9**	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	12/30/94	20	**66**	--	--	**0.68**	**1.8**	**0.32**	**1.4**	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	12/30/94	25	**1.2**	--	--	**0.087**	**0.023**	**0.049**	**0.045**	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	1/16/95	5	ND<1.0	**9.3**	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	1/16/95	10	ND<1.0	**17**	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	1/16/95	15	ND<1.0	**16**	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	1/16/95	20	ND<1.0	**16**	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	1/16/95	25	ND<1.0	**24**	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-11	1/8/96	5	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-11	1/8/96	10.5	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-11	1/8/96	15.5	**220**	--	--	**1.1**	**0.41**	**1.4**	**5.8**	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-11	1/8/96	22	**4,300**	--	--	**26**	**130**	**46**	**270**	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-12	1/8/96	5	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-12	1/8/96	10.5	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-12	1/8/96	15.5	**1.4**	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-12	1/8/96	22	**8.7**	--	--	**0.47**	**0.89**	**0.084**	**0.57**	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	1/8/96	5	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	1/8/96	10	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	1/8/96	15	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	1/8/96	20	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	1/8/96	25	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	1/8/96	30	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	1/8/96	35	ND<1.0	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	8/31/00	5	ND<0.50	--	--	--	--	--	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	--	--	--	--	--	--	--
MW-19	8/31/00	10	ND<0.50	--	--	--	--	--	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	--	--	--	--	--	--	--

TABLE 1

HISTORICAL SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
EXXONMOBIL OIL CORPORTATION SERVICE STATION 18-HE1
14565 SOUTH MAIN STREET
SANTA ANA, CALIFORNIA

SAMPLE LOCATION	SAMPLE DATE	DEPTH (fbg)	TPH-G	TRPH	LEAD	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	TBA	DIPE	ETBE	TAME	ETHANOL	METHANOL	OTHER HVOCs
			EPA METHOD 8015M	EPA METHOD 480.1	EPA METHOD 6010	EPA METHOD 8020/8021B					EPA METHOD 8260B										EPA METHOD 8015	EPA METHOD 8260B
MW-19	8/31/00	15	ND<0.50	--	--	--	--	--	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	--	--	--	--	--	--	--
MW-19	8/31/00	20	ND<0.50	--	--	--	--	--	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	--	--	--	--	--	--	--
MW-19	8/31/00	25	ND<0.50	--	--	--	--	--	--	--	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	--	--	--	--	--	--	--
MW-19	8/31/00	30	ND<0.50	--	--	--	--	--	--	--	**0.0052**	ND<0.0050	**0.0061**	ND<0.0050	ND<0.0050	ND<0.250	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	--

NOTES: Results shown are in milligrams per kilogram (mg/kg).

fbg = feet below grade
ID = identification
-- = not analyzed
EPA = Environmental Protection Agency
ND = not detected
*= Other HVOCs were detected. Refer to the official laboratory report for the analyte detected and the concentration.

TPH-G = total petroleum hydrocarbons as gasoline
MTBE = methyl tert butyl ether
TBA = tertiary butyl alcohol
DIPE = di-isopropyl ether
ETBE = ethyl tertiary butyl ether
TAME = tertiary amyl methyl ether
HVOCs = haloganated volatile organic compounds
TRPH= total recoverable petoleum hydrocarbons

APPENDIX B

SUMMARY OF GROUNDWATER LEVELS AND CHEMICAL ANALYSIS RESULTS

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-1		**(Screen Interval in feet: 17.5-31.5)**											
11/8/2004	76.31	19.83	0.00	56.48	1.07	3990	19.2	21.8	44.9	84.0	5.60	25.0	
MW-2		**(Screen Interval in feet: 16.5-31.5)**											
11/8/2004	76.57	17.96	0.00	58.61	1.35	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-3		**(Screen Interval in feet: 15.5-30.5)**											
11/8/2004	76.51	17.82	0.00	58.69	0.99	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-5		**(Screen Interval in feet: 15-40)**											
11/8/2004	77.46	22.37	0.00	55.09	1.25	95.6	ND<1.00	ND<1.00	ND<1.00	ND<1.00	42.5	27.1	
MW-6		**(Screen Interval in feet: 15-40)**											
11/8/2004	76.44	22.13	0.00	54.31	-5.17	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	3.10	ND<10.0	
MW-7		**(Screen Interval in feet: 10-40)**											
11/8/2004	75.45	18.23	0.00	57.22	1.26	23500	746	422	2120	472	ND<2.00	19.4	
MW-8		**(Screen Interval in feet: 15-45)**											
11/8/2004	77.21	21.49	0.00	55.72	1.65	672	198	2.60	ND<1.00	1.10	ND<2.00	55.1	
MW-9		**(Screen Interval in feet: 15-40)**											
11/8/2004	77.76	22.77	0.00	54.99	1.27	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-10		**(Screen Interval in feet: 15-40)**											
11/8/2004	77.39	22.59	0.00	54.80	1.36	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	45.7	ND<10.0	
MW-11		**(Screen Interval in feet: 15-40)**											
11/8/2004	77.60	18.81	0.00	58.79	1.34	766	8.40	ND<1.00	ND<1.00	ND<1.00	14.7	ND<10.0	
MW-12		**(Screen Interval in feet: 15-40)**											
11/8/2004	76.03	21.87	0.00	54.16	1.06	42200	271	309	1100	2690	71.0	103	
MW-13		**(Screen Interval in feet: 15-40)**											
11/8/2004	75.08	14.59	0.00	60.49	1.61	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-14		**(Screen Interval in feet: 15-40)**											

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-14 continued													
11/8/2004	77.49	19.76	0.00	57.73	1.62	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-15		**(Screen Interval in feet: 15-35)**											
11/8/2004	78.62	19.92	0.00	58.70	1.36	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-16		**(Screen Interval in feet: 15-35)**											
11/8/2004	75.68	22.41	0.00	53.27	0.29	114	ND<1.00	ND<1.00	ND<1.00	ND<1.00	100	ND<10.0	
MW-17		**(Screen Interval in feet: 14-34)**											
11/8/2004	76.74	21.66	0.00	55.08	0.89	194	19.6	ND<1.00	ND<1.00	ND<1.00	42.8	2060	
MW-18		**(Screen Interval in feet: 15-35)**											
11/8/2004	76.31	13.32	0.00	62.99	2.52	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.70	ND<10.0	
MW-19		**(Screen Interval in feet: 10-30)**											
11/8/2004	76.30	22.78	0.00	53.52	0.71	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-1		**(Screen Interval in feet: 17.5-31.5)**											
9/17/1990	--	27.60	0.00	--	--	400	95	1.4	ND	ND	--	--	
1/4/1991	74.69	27.78	0.00	46.91	--	--	80	1.4	0.9	1.5	--	--	
6/17/1993	74.07	24.05	0.00	50.02	--	480	110	1.6	6	ND	--	--	Resurveyed
9/14/1993	74.07	24.56	0.00	49.51	-0.51	74	17	ND	ND	ND	--	--	
12/15/1993	74.07	23.70	0.00	50.37	0.86	640	7.7	1.5	ND	ND	--	--	
3/30/1994	74.07	22.71	0.00	51.36	--	450	160	0.94	1.7	2.5	--	--	
6/13/1994	74.07	23.57	0.00	50.50	-0.86	530	9.2	ND	ND	ND	--	--	
9/1/1994	74.07	23.91	0.00	50.16	-0.34	1600	91	15	2.5	30	--	--	
12/2/1994	74.07	24.22	0.00	49.85	-0.31	1500	120	3	29	ND	--	--	
2/21/1995	74.07	22.19	0.00	51.88	2.03	2900	15	ND	ND	20	--	--	
3/15/1995	74.07	19.09	0.00	54.98	3.10	2500	27	31	ND	28	--	--	
5/15/1995	74.07	20.13	0.00	53.94	-1.04	2600	86	74	7.2	130	--	--	
9/28/1995	74.07	20.73	0.02	53.35	-0.59	--	--	--	--	--	--	--	
10/18/1995	74.07	20.64	0.02	53.44	0.09	--	--	--	--	--	--	--	
7/11/1996	74.07	20.40	<0.01	53.67	--	--	--	--	--	--	--	--	
10/8/1996	74.07	19.39	<0.01	54.68	1.01	--	--	--	--	--	--	--	
1/8/1997	74.07	19.35	<0.01	54.72	0.04	--	--	--	--	--	--	--	
4/30/1997	74.07	19.85	0.70	54.75	0.03	--	--	--	--	--	--	--	
7/24/1997	74.07	19.35	0.10	54.80	0.05	--	--	--	--	--	--	--	
10/24/1997	74.07	20.00	0.08	54.13	-0.67	--	--	--	--	--	--	--	
1/21/1998	74.07	19.05	0.02	55.03	0.90	--	--	--	--	--	--	--	
4/20/1998	74.07	15.50	1.20	59.47	4.44	--	--	--	--	--	--	--	
P 6/1/1998	74.07	--	--	--	--	54000	1900	4700	850	4200	--	--	Pre-purge Overpurge pumpout

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-1 continued													
6/1/1998	74.07	16.86	1.21	58.12	-1.35	53000	1400	5400	1200	6000	--	--	Overpurge pumpout
9/29/1998	74.07	17.76	0.01	56.32	-1.80	--	--	--	--	--	--	--	
12/16/1998	74.07	18.31	0.01	55.77	-0.55	--	--	--	--	--	--	--	
3/11/1999	74.07	18.55	0.00	55.52	-0.25	34000	1600	2400	990	3100	--	--	
6/21/1999	74.07	17.85	0.00	56.22	0.70	44000	1300	3100	900	3800	--	--	
9/17/1999	74.07	18.45	0.00	55.62	-0.60	20000	ND	1100	550	1700	--	--	
12/22/1999	74.07	18.85	0.01	55.23	-0.39	--	--	--	--	--	--	--	
3/2/2000	74.07	19.50	0.00	54.57	-0.66	15000	280	440	400	1100	--	--	
6/21/2000	74.07	18.81	0.00	55.26	0.69	19000	400	1600	580	2500	66	ND<20	
9/12/2000	70.60	19.71	0.01	50.90	-4.36	--	--	--	--	--	--	--	
12/13/2000	70.60	20.34	0.01	50.27	--	--	--	--	--	--	--	--	
2/21/2001	70.06	20.30	0.01	49.77	-0.50	--	--	--	--	--	--	--	
5/21/2001	70.60	18.58	0.00	52.02	2.25	2800	230	28	49	70	650	1500	
8/1/2001	70.60	19.51	0.06	51.13	-0.89	--	--	--	--	--	--	--	
10/31/2001	70.60	20.29	0.07	50.36	-0.77	--	--	--	--	--	--	--	
2/25/2002	76.31	21.02	0.00	55.29	4.93	4000	350	52	110	107	1300	2900	
5/29/2002	76.31	21.35	0.00	54.96	-0.33	22200	882	1630	706	2310	2040	1600	
8/26/2002	76.31	21.54	0.00	54.77	-0.19	14800	512	1470	926	2700	1310	1280	
11/25/2002	76.31	21.92	0.00	54.39	-0.38	11200	285	385	720	1010	715	ND<10.0	
2/19/2003	76.31	21.00	0.00	55.31	0.92	11000	ND<1.00	1480	298	1420	619	620	
5/7/2003	76.31	18.50	0.00	57.81	2.50	14200	155	1140	368	2210	24.1	ND<10.0	
8/5/2003	76.31	19.45	0.00	56.86	-0.95	7480	15.1	103	64.7	498	14.5	86.0	
11/4/2003	76.31	19.64	0.00	56.67	-0.19	2340	23.5	67.6	74.5	346	10.9	ND<10.0	
2/4/2004	76.31	19.09	0.00	57.22	0.55	25000	42	320	220	1600	ND<20	ND<200	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-1 continued													
5/7/2004	76.31	19.48	0.00	56.83	-0.39	26700	11.9	61.3	152	2050	5.80	27.4	
8/2/2004	76.31	20.90	0.00	55.41	-1.42	4740	32.5	18.1	43.6	102	11.5	ND<10.0	
11/8/2004	76.31	19.83	0.00	56.48	1.07	3990	19.2	21.8	44.9	84.0	5.60	25.0	
MW-2	(Screen Interval in feet: 16.5-31.5)												
9/17/1990	--	25.60	0.00	--	--	ND	ND	ND	ND	ND	--	--	
1/4/1991	74.83	25.10	0.00	49.73	--	--	1.6	ND	ND	ND	--	--	
2/25/1993	74.83	22.74	0.00	52.09	2.36	110	12	0.5	ND	ND	--	--	
6/17/1993	74.34	21.57	0.00	52.77	0.68	ND	ND	ND	ND	ND	--	--	Resurveyed
9/14/1993	74.34	22.77	0.00	51.57	-1.20	ND	ND	ND	ND	ND	--	--	
12/15/1993	74.37	22.90	0.00	51.47	-0.10	150	ND	ND	ND	ND	--	--	Resurveyed
3/29/1994	74.37	20.99	0.00	53.38	1.91	53	ND	ND	ND	ND	--	--	
3/30/1994	74.37	--	--	--	--	--	--	--	--	--	--	--	
6/13/1994	74.37	21.37	0.00	53.00	--	ND	ND	ND	ND	ND	--	--	
9/1/1994	74.37	22.25	0.00	52.12	-0.88	ND	ND	ND	ND	ND	--	--	
12/2/1994	74.37	22.18	0.00	52.19	0.07	ND	ND	0.6	ND	1	--	--	
2/21/1995	74.37	19.23	0.00	55.14	2.95	ND	ND	ND	ND	ND	--	--	
3/15/1995	74.37	20.03	0.00	54.34	-0.80	ND	ND	ND	ND	ND	--	--	
5/15/1995	74.37	17.82	0.00	56.55	2.21	ND	ND	ND	ND	ND	--	--	
9/28/1995	74.37	18.44	0.00	55.93	-0.62	ND	ND	ND	ND	ND	--	--	
10/18/1995	74.37	18.49	0.00	55.88	-0.05	--	--	--	--	--	--	--	
P 4/16/1996	74.37	--	--	--	--	ND	ND	ND	ND	ND	--	--	Pre-purge
4/16/1996	74.37	--	--	--	0.00	ND	ND	ND	ND	ND	--	--	
7/11/1996	74.37	18.26	0.00	56.11	--	ND	ND	ND	ND	ND	--	--	
1/8/1997	74.37	16.78	0.00	57.59	--	ND	ND	ND	ND	ND	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-2 continued													
4/30/1997	74.37	17.25	0.00	57.12	-0.47	ND	ND	ND	ND	ND	--	--	
7/24/1997	74.37	16.33	0.00	58.04	0.92	ND	ND	ND	ND	ND	--	--	
10/24/1997	74.37	--	--	--	--	--	--	--	--	--	--	--	
1/21/1998	74.37	16.73	0.00	57.64	--	ND	ND	ND	ND	ND	--	--	
4/20/1998	74.37	--	--	--	--	--	--	--	--	--	--	--	
9/28/1998	74.37	15.07	0.00	59.30	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	74.37	15.45	0.00	58.92	-0.38	--	--	--	--	--	--	--	Monitored Only
3/11/1999	74.37	16.05	0.00	58.32	-0.60	ND	ND	ND	ND	ND	--	--	
6/21/1999	74.37	--	--	--	--	--	--	--	--	--	--	--	
9/17/1999	74.37	16.29	0.00	58.08	--	60	1.6	4.8	0.9	5.0	--	--	
12/21/1999	74.37	--	--	--	--	--	--	--	--	--	--	--	
3/2/2000	74.37	16.31	0.00	58.06	--	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	--	--	
6/21/2000	74.37	--	--	--	--	--	--	--	--	--	--	--	
9/12/2000	70.90	17.75	0.00	53.15	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<20	
12/13/2000	70.90	18.60	0.00	52.30	--	--	--	--	--	--	--	--	
2/21/2001	70.90	17.75	0.00	53.15	0.85	ND<50	ND<1	ND<1	ND<1	ND<1	33	ND<20	
5/21/2001	70.90	16.24	0.00	54.66	1.51	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	74	ND<50	
8/1/2001	70.90	17.41	0.00	53.49	-1.17	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
10/31/2001	70.90	18.52	0.00	52.38	-1.11	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2.3	ND<50	
2/25/2002	76.57	18.68	0.00	57.89	5.51	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<2.0	56	ND<50	
5/29/2002	76.57	19.02	0.00	57.55	-0.34	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10	
8/26/2002	76.57	19.11	0.00	57.46	-0.09	ND<100	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	76.57	19.31	0.00	57.26	-0.20	ND<50.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	76.57	18.49	0.00	58.08	0.82	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	49.1	279	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-2 continued													
5/7/2003	76.57	15.66	0.00	60.91	2.83	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	43.5	953	
8/5/2003	76.57	17.76	0.00	58.81	-2.10	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	21.8	11.6	
11/4/2003	76.57	18.45	0.00	58.12	-0.69	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	21.3	47.3	
2/4/2004	76.57	17.50	0.00	59.07	0.95	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	56	1200	
5/7/2004	76.57	18.58	0.00	57.99	-1.08	ND<50.0	2.50	ND<1.00	ND<1.00	ND<1.00	58.0	277	
8/2/2004	76.57	19.31	0.00	57.26	-0.73	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	11.5	38.4	
11/8/2004	76.57	17.96	0.00	58.61	1.35	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-3	**(Screen Interval in feet: 15.5-30.5)**												
9/17/1990	--	26.85	0.00	--	--	1300	21	9.1	1.4	20	--	--	
1/4/1991	74.53	27.35	0.00	47.18	--	--	35	3.3	22	2.1	--	--	
2/25/1993	74.53	22.41	0.00	52.12	4.94	1300	90	31	34	80	--	--	
6/17/1993	74.29	21.29	0.00	53.00	0.88	16000	67	830	420	1800	--	--	Resurveyed
9/14/1993	74.29	21.82	0.00	52.47	-0.53	15000	88	630	330	1200	--	--	
12/15/1993	74.29	22.55	0.00	51.74	-0.73	4700	110	120	410	1900	--	--	Resurveyed
3/30/1994	74.29	21.35	0.00	52.94	--	7000	13	1000	230	490	--	--	
6/13/1994	74.29	20.89	0.00	53.40	0.46	2600	88	91	110	130	--	--	
9/1/1994	74.29	21.46	0.00	52.83	-0.57	2700	62	81	18	200	--	--	
12/2/1994	74.29	21.93	0.00	52.36	-0.47	2800	26	8.8	77	100	--	--	
2/21/1995	74.29	19.33	0.00	54.96	2.60	5800	72	ND	300	120	--	--	
3/15/1995	74.29	20.18	0.00	54.11	-0.85	2600	17	ND	73	84	--	--	
5/15/1995	74.29	17.82	0.00	56.47	2.36	7000	36	12	100	150	--	--	
9/28/1995	74.29	18.16	0.00	56.13	-0.34	2400	6.2	ND	5.2	5.5	--	--	
P 10/18/1995	74.29	--	--	--	--	ND	ND	ND	ND	ND	--	--	Pre-purge
10/18/1995	74.29	17.85	0.00	56.44	0.00	3700	13	22	5.1	19	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-3 continued													
4/16/1996	74.29	--	--	--	--	1200	6.3	2.1	ND	1.8	--	--	
7/11/1996	74.29	17.50	0.00	56.79	--	ND	ND	ND	ND	ND	--	--	
10/8/1996	74.29	18.12	0.00	56.17	-0.62	ND	ND	ND	ND	ND	--	--	
1/8/1997	74.29	16.78	0.00	57.51	1.34	93	0.94	ND	ND	ND	--	--	
4/30/1997	74.29	16.67	0.00	57.62	0.11	ND	ND	0.59	0.41	4.5	--	--	
7/24/1997	74.29	17.46	0.00	56.83	-0.79	ND	0.8	ND	ND	ND	--	--	
10/24/1997	74.29	18.10	0.00	56.19	-0.64	130	1.0	0.54	2.3	0.71	--	--	
1/21/1998	74.29	17.01	0.00	57.28	1.09	700	8.9	4	29	7.2	--	--	
4/20/1998	74.29	12.64	0.00	61.65	4.37	510	3.3	1.5	17	14	--	--	
9/28/1998	74.29	14.50	0.00	59.79	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	74.29	15.22	0.00	59.07	-0.72	ND	5.0	2.1	2.5	ND	--	--	
3/11/1999	74.29	15.55	0.00	58.74	-0.33	600	3.2	0.9	ND	ND	--	--	
6/21/1999	74.29	15.67	0.00	58.62	-0.12	160	4.0	5.9	2.1	6.6	--	--	
9/17/1999	74.29	16.00	0.00	58.29	-0.33	310	1.0	ND	0.5	0.8	--	--	
12/22/1999	74.29	16.54	0.00	57.75	-0.54	220	3.3	2.7	2.7	5.9	--	--	
3/2/2000	74.29	16.68	0.00	57.61	-0.14	130	1.1	0.44	0.74	0.76	--	--	
6/21/2000	74.29	16.80	0.00	57.49	-0.12	84	ND<0.30	ND<0.30	ND<0.30	ND<0.60	120	ND<20	
9/12/2000	70.84	17.80	0.00	53.04	-4.45	61	ND<1.0	ND<1.0	ND<1.0	ND<1.0	83	ND<20	
12/13/2000	70.84	17.91	0.00	52.93	--	91	ND<1.0	ND<1.0	ND<1.0	ND<1.0	140	ND<20	
2/21/2001	70.84	18.80	0.00	52.04	-0.89	ND<50	ND<1	ND<1	ND<1	ND<1	ND<5	ND<20	
5/21/2001	70.84	16.16	0.00	54.68	2.64	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	23	ND<50	
8/1/2001	70.84	16.71	0.00	54.13	-0.55	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
10/31/2001	70.84	17.50	0.00	53.34	-0.79	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
2/25/2002	76.51	18.40	0.00	58.11	4.77	250	ND<2.5	ND<5.0	ND<5.0	ND<10	660	ND<250	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-3 continued													
5/29/2002	76.51	18.57	0.00	57.94	-0.17	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10	
8/26/2002	76.51	18.30	0.00	58.21	0.27	ND<100	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	76.51	18.28	0.00	58.23	0.02	ND<50.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	76.51	17.89	0.00	58.62	0.39	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
5/7/2003	76.51	17.59	0.00	58.92	0.30	ND<50.0	ND<1.00	3.60	ND<1.00	4.30	ND<2.00	ND<10.0	
8/5/2003	76.51	16.91	0.00	59.60	0.68	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/4/2003	76.51	17.94	0.00	58.57	-1.03	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
2/4/2004	76.51	17.44	0.00	59.07	0.50	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	
5/7/2004	76.51	17.62	0.00	58.89	-0.18	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.50	ND<10.0	
8/2/2004	76.51	18.81	0.00	57.70	-1.19	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/8/2004	76.51	17.82	0.00	58.69	0.99	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-4	**(Screen Interval in feet: 15-40)**												
9/17/1990	--	25.20	0.00	--	--	35000	13000	ND	740	ND	--	--	
1/4/1991	75.66	28.86	0.00	46.80	--	--	8200	ND	540	ND	--	--	
2/25/1993	75.66	24.41	0.00	51.25	4.45	5700	3500	50	ND	ND	--	--	
6/17/1993	75.14	22.00	0.00	53.14	1.89	5100	1400	ND	ND	ND	--	--	Resurveyed
9/14/1993	75.14	22.65	0.00	52.49	-0.65	1700	360	8.5	ND	ND	--	--	
MW-5	**(Screen Interval in feet: 15-40)**												
9/17/1990	--	28.66	0.00	--	--	2700	840	13	35	110	--	--	
1/4/1991	75.44	28.87	0.00	46.57	--	--	160	11	ND	ND	--	--	
P 2/25/1993	75.44	--	--	--	--	290	--	--	--	--	--	--	Pre-purge
2/25/1993	75.44	27.40	0.00	48.04	1.47	--	110	2.9	ND	ND	--	--	
6/17/1993	75.20	25.60	0.00	49.60	1.56	250	63	ND	ND	ND	--	--	Resurveyed
9/14/1993	75.20	26.07	0.00	49.13	-0.47	ND	ND	ND	ND	ND	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-5 continued													
12/15/1993	75.21	25.98	0.00	49.23	0.10	ND	ND	ND	ND	ND	--	--	Resurveyed
3/29/1994	75.21	25.15	0.00	50.06	0.83	ND	ND	ND	ND	ND	--	--	
6/13/1994	75.21	24.85	0.00	50.36	--	100	1.1	ND	ND	ND	--	--	
9/1/1994	75.21	25.31	0.00	49.90	-0.46	ND	ND	ND	ND	ND	--	--	
12/2/1994	75.21	25.48	0.00	49.73	-0.17	86	3.4	4	0.62	3.7	--	--	
2/21/1995	75.21	23.21	0.00	52.00	2.27	ND	7.8	ND	ND	ND	--	--	
3/15/1995	75.21	23.14	0.00	52.07	0.07	ND	2	ND	ND	ND	--	--	
5/15/1995	75.21	21.47	0.00	53.74	1.67	ND	13	ND	ND	ND	--	--	
9/28/1995	75.21	22.05	0.00	53.16	-0.58	61	14	ND	ND	ND	--	--	
10/18/1995	75.21	22.93	0.00	52.28	-0.88	--	--	--	--	--	--	--	
4/16/1996	75.21	--	--	--	--	56	3.8	ND	ND	ND	--	--	
7/11/1996	75.21	21.30	0.00	53.91	--	160	47	ND	ND	ND	--	--	
1/8/1997	75.21	20.35	0.00	54.86	--	62	0.97	ND	ND	ND	--	--	
4/30/1997	75.21	19.67	0.00	55.54	0.68	80	10	ND	ND	ND	--	--	
7/24/1997	75.21	20.35	0.00	54.86	-0.68	150	33	ND	ND	ND	--	--	
10/24/1997	75.21	21.03	0.00	54.18	-0.68	95	32	ND	ND	ND	--	--	
1/21/1998	75.21	20.20	0.00	55.01	0.83	90	22	ND	ND	ND	--	--	
4/20/1998	75.21	15.91	0.00	59.30	4.29	290	23	26	5.2	34	--	--	
9/28/1998	75.21	17.99	0.00	57.22	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	75.21	18.89	0.00	56.32	-0.90	ND	1.8	ND	ND	ND	--	--	
3/11/1999	75.21	--	--	--	--	--	--	--	--	--	--	--	
6/21/1999	75.21	18.92	0.00	56.29	--	ND	0.6	0.4	ND	ND	--	--	
9/17/1999	75.21	--	--	--	--	--	--	--	--	--	--	--	
12/22/1999	75.21	20.19	0.00	55.02	--	ND	ND	ND	ND	ND	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-5 continued													
6/21/2000	75.21	20.38	0.00	54.83	--	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<5.0	ND<20	
9/12/2000	71.71	21.22	0.00	50.49	-4.34	--	--	--	--	--	--	--	
12/13/2000	71.71	21.76	0.00	49.95	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<20	
2/21/2001	71.71	17.30	0.00	54.41	4.46	--	--	--	--	--	--	--	
5/21/2001	71.71	20.04	0.00	51.67	-2.74	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3.5	ND<50	
8/1/2001	71.71	20.94	0.00	50.77	-0.90	--	--	--	--	--	--	--	
10/31/2001	71.71	21.83	0.00	49.88	-0.89	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
2/25/2002	77.46	22.35	0.00	55.11	5.23	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<2.0	ND<1.0	ND<50	
5/29/2002	77.46	22.68	0.00	54.78	-0.33	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	26	
8/26/2002	77.46	23.17	0.00	54.29	-0.49	ND<100	ND<1.00	ND<1.00	ND<1.00	ND<1.00	3.10	27.0	
11/25/2002	77.46	23.45	0.00	54.01	-0.28	76.2	ND<1.00	ND<1.00	ND<1.00	ND<1.00	17.7	ND<10.0	
2/19/2003	77.46	23.12	0.00	54.34	0.33	130	ND<1.00	ND<1.00	ND<1.00	ND<1.00	42.2	22.4	
5/7/2003	77.46	21.70	0.00	55.76	1.42	113	9.70	5.20	1.00	6.10	58.4	20.2	
8/5/2003	77.46	22.44	0.00	55.02	-0.74	150	ND<1.00	ND<1.00	ND<1.00	ND<1.00	69.1	40.2	
11/4/2003	77.46	23.24	0.00	54.22	-0.80	132	ND<1.00	ND<1.00	ND<1.00	ND<1.00	62.7	54.5	
2/4/2004	77.46	23.32	0.00	54.14	-0.08	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	130	170	
5/7/2004	77.46	22.91	0.00	54.55	0.41	219	ND<1.00	ND<1.00	ND<1.00	ND<1.00	189	230	
8/2/2004	77.46	23.62	0.00	53.84	-0.71	134	ND<1.00	ND<1.00	ND<1.00	ND<1.00	53.4	71.2	
11/8/2004	77.46	22.37	0.00	55.09	1.25	95.6	ND<1.00	ND<1.00	ND<1.00	ND<1.00	42.5	27.1	
MW-6	**(Screen Interval in feet: 15-40)**												
9/17/1990	--	25.19	0.00	--	--	ND	12	1.6	1.2	4.3	--	--	
1/4/1991	74.76	26.73	0.00	48.03	--	--	0.6	ND	ND	ND	--	--	
2/25/1993	74.76	22.71	0.00	52.05	4.02	970	ND	ND	ND	22	--	--	
6/17/1993	74.18	20.78	0.00	53.40	1.35	ND	ND	ND	ND	ND	--	--	Resurveyed

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-6 continued													
9/14/1993	74.18	21.94	0.00	52.24	-1.16	ND	ND	ND	ND	ND	--	--	
12/15/1993	74.18	22.00	0.00	52.18	-0.06	680	ND	ND	ND	ND	--	--	
3/30/1994	74.18	21.52	0.00	52.66	--	280	ND	ND	ND	ND	--	--	
6/13/1994	74.18	20.75	0.00	53.43	0.77	840	ND	ND	ND	ND	--	--	
9/1/1994	74.18	21.28	0.00	52.90	-0.53	370	ND	ND	ND	ND	--	--	
12/2/1994	74.18	21.74	0.00	52.44	-0.46	2200	ND	ND	ND	ND	--	--	
2/21/1995	74.18	19.93	0.00	54.25	1.81	520	ND	ND	ND	ND	--	--	
3/15/1995	74.18	19.87	0.00	54.31	0.06	590	ND	ND	ND	ND	--	--	
5/15/1995	74.18	17.15	0.00	57.03	2.72	130	ND	ND	ND	ND	--	--	
9/28/1995	74.18	16.83	0.00	57.35	0.32	ND	ND	ND	ND	ND	--	--	
10/18/1995	74.18	17.23	0.00	56.95	-0.40	--	--	--	--	--	--	--	
P 4/16/1996	74.18	--	--	--	--	ND	ND	ND	ND	ND	--	--	Pre-purge
4/16/1996	74.18	--	--	--	--	ND	ND	ND	ND	ND	--	--	
7/11/1996	74.18	17.48	0.00	56.70	--	ND	ND	ND	ND	ND	--	--	
1/8/1997	74.18	17.02	0.00	57.16	--	ND	ND	ND	ND	ND	--	--	
4/30/1997	74.18	17.36	0.00	56.82	-0.34	68	ND	ND	ND	ND	--	--	
7/24/1997	74.18	--	--	--	--	--	--	--	--	--	--	--	
10/24/1997	74.18	18.04	0.00	56.14	--	ND	ND	ND	ND	ND	--	--	
1/21/1998	74.18	--	--	--	--	--	--	--	--	--	--	--	
4/20/1998	74.18	10.94	0.00	63.24	--	190	ND	ND	ND	ND	--	--	
P 6/1/1998	74.18	--	--	--	--	1500	1.6	23	15	100	--	--	Pre-purge Overpurge pumpout
6/1/1998	74.18	11.86	0.00	62.32	-0.92	1400	24	86	30	120	--	--	Overpurge pumpout
9/28/1998	74.18	12.35	0.00	61.83	-0.49	--	--	--	--	--	--	--	Monitored Only

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-6 continued													
12/16/1998	74.18	13.41	0.00	60.77	-1.06	ND	ND	ND	ND	ND	--	--	
3/11/1999	74.18	14.66	0.00	59.52	-1.25	1500	ND	ND	ND	ND	--	--	
6/21/1999	74.18	13.24	0.00	60.94	1.42	220	ND	ND	ND	ND	--	--	
9/17/1999	74.18	14.48	0.00	59.70	-1.24	360	ND	ND	ND	ND	--	--	
12/22/1999	74.18	12.45	0.00	61.73	2.03	ND	5.4	3.5	2.7	6.1	--	--	
3/2/2000	74.18	13.17	0.00	61.01	-0.72	59	ND<0.30	ND<0.30	ND<0.30	ND<0.60	--	--	
6/21/2000	74.18	13.58	0.00	60.60	-0.41	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	9	ND<20	
9/12/2000	70.74	15.15	0.00	55.59	-5.01	57	ND<1.0	ND<1.0	ND<1.0	ND<1.0	86	ND<20	
12/13/2000	70.74	16.80	0.00	53.94	--	240	ND<1.0	ND<1.0	ND<1.0	ND<1.0	420	ND<21	
2/21/2001	70.74	16.37	0.00	54.37	0.43	ND<50	ND<1	ND<1	ND<1	ND<1	26	ND<20	
5/21/2001	70.74	14.43	0.00	56.31	1.94	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2.4	ND<50	
8/1/2001	70.74	15.19	0.00	55.55	-0.76	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	13	ND<50	
10/31/2001	70.74	16.20	0.00	54.54	-1.01	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1.2	ND<50	
2/25/2002	76.44	16.13	0.00	60.31	5.77	520	ND<0.50	ND<1.0	ND<1.0	ND<2.0	2600	280	
5/29/2002	76.44	16.35	0.00	60.09	-0.22	81.3	ND<1.0	ND<1.0	ND<1.0	ND<1.0	189	ND<10	
8/26/2002	76.44	15.05	0.00	61.39	1.30	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	76.44	14.20	0.00	62.24	0.85	824	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1620	651	
2/19/2003	76.44	13.71	0.00	62.73	0.49	98.7	ND<1.00	ND<1.00	ND<1.00	ND<1.00	115	130	
5/7/2003	76.44	11.75	0.00	64.69	1.96	ND<50.0	ND<1.00	3.20	ND<1.00	3.80	8.40	ND<10.0	
8/5/2003	76.44	13.98	0.00	62.46	-2.23	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	3.10	ND<10.0	
11/4/2003	76.44	12.98	0.00	63.46	1.00	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	3.40	ND<10.0	
2/4/2004	76.44	11.58	0.00	64.86	1.40	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	2.8	ND<10	
5/7/2004	76.44	13.00	0.00	63.44	-1.42	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
8/2/2004	76.44	16.96	0.00	59.48	-3.96	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	7.40	ND<10.0	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-6 continued													
11/8/2004	76.44	22.13	0.00	54.31	-5.17	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	3.10	ND<10.0	
MW-7	**(Screen Interval in feet: 10-40)**												
2/25/1993	--	--	--	--	--	--	--	--	--	--	--	--	
6/17/1993	73.20	--	--	--	--	66000	7300	5600	1800	4000	--	--	
9/14/1993	73.20	24.95	0.02	48.26	--	--	--	--	--	--	--	--	
12/15/1993	73.20	25.27	<0.01	47.93	-0.33	23000	8000	3100	1500	2200	--	--	
3/29/1994	73.20	23.68	<0.01	49.52	1.59	34000	7400	3000	2100	3800	--	--	
6/13/1994	73.20	23.32	<0.01	49.88	--	38000	6400	3200	2000	3100	--	--	
9/1/1994	73.20	23.50	0.00	49.70	-0.18	28000	6700	1600	1200	1900	--	--	
12/2/1994	73.20	24.06	0.00	49.14	-0.56	21000	3200	720	1400	970	--	--	
2/21/1995	73.20	20.31	0.00	52.89	3.75	30000	5300	2900	1800	3400	--	--	
3/15/1995	73.20	23.07	0.00	50.13	-2.76	18000	4000	1200	1900	1700	--	--	
5/15/1995	73.20	18.88	0.00	54.32	4.19	34000	6100	2300	2400	2700	--	--	
9/28/1995	73.20	19.34	0.00	53.86	-0.46	49000	9600	9800	2300	4700	--	--	
P 10/18/1995	73.20	--	--	--	--	30000	4800	2200	2200	3800	--	--	Pre-purge
10/18/1995	73.20	19.35	0.00	53.85	-0.01	30000	6700	4400	2300	3300	--	--	
P 4/16/1996	73.20	--	--	--	--	28000	2100	1500	1900	2600	--	--	Pre-purge
4/16/1996	73.20	--	--	--	--	36000	4100	3100	2100	3200	--	--	
7/11/1996	73.20	19.24	0.00	53.96	--	32000	2600	1400	1800	2400	--	--	
10/8/1996	73.20	19.32	0.00	53.88	-0.08	60000	7500	8500	2000	4900	--	--	
1/8/1997	73.20	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
4/30/1997	73.20	17.23	0.00	55.97	--	17000	1200	210	1700	2000	--	--	
7/24/1997	73.20	17.78	0.00	55.42	-0.55	26000	42	150	1600	1700	--	--	
10/24/1997	73.20	18.60	0.00	54.60	-0.82	21000	2200	360	1900	930	--	--	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-7 continued													
1/21/1998	73.20	17.83	0.00	55.37	0.77	28000	2000	460	1900	1000	--	--	
4/20/1998	73.20	12.68	0.00	60.52	5.15	29000	1600	770	1700	1200	--	--	
9/28/1998	73.20	15.33	0.00	57.87	--	32900	1600	820	2080	1420	--	--	
12/16/1998	73.20	16.31	0.00	56.89	-0.98	71200	5040	4160	5820	5760	--	--	
3/11/1999	73.20	16.67	0.00	56.53	-0.36	31000	2200	540	2000	920	--	--	
6/21/1999	73.20	16.53	0.00	56.67	0.14	33000	1600	900	1900	1400	--	--	
9/17/1999	73.20	17.20	0.00	56.00	-0.67	32000	2000	970	2000	1500	--	--	
12/22/1999	73.20	17.16	0.00	56.04	0.04	30000	1800	990	2100	1600	--	--	
3/2/2000	73.20	17.34	0.00	55.86	-0.18	7500	95	37	370	280	--	--	
6/21/2000	73.20	17.57	0.00	55.63	-0.23	25000	1900	1000	2100	1200	ND<5.0	ND<20	
9/12/2000	69.79	17.35	0.00	52.44	-3.19	18,000	780	390	1,600	360	ND<5.0	ND<40	
12/13/2000	69.79	19.20	0.00	50.59	--	18000	1000	580	1800	640	ND<5.0	ND<50	
2/21/2001	69.79	18.86	0.00	50.93	0.34	28000	910	430	2000	720	ND<5	ND<40	
5/21/2001	69.79	17.30	0.00	52.49	1.56	11000	490	180	1300	167	ND<20	ND<1000	
8/1/2001	69.79	18.06	0.00	51.73	-0.76	29000	850	510	1700	560	ND<20	ND<1000	
10/31/2001	69.79	19.00	0.00	50.79	-0.94	19000	890	460	1600	410	ND<10	ND<500	
2/25/2002	75.45	19.70	0.00	55.75	4.96	19000	1200	460	2000	500	ND<20	ND<1000	
5/29/2002	75.45	19.49	0.00	55.96	0.21	23200	1160	836	1670	904	ND<20	ND<100	
8/26/2002	75.45	19.29	0.00	56.16	0.20	22900	1540	1200	2420	1190	ND<2.00	ND<10.0	
11/25/2002	75.45	18.99	0.00	56.46	0.30	20800	935	691	1770	1200	ND<20.0	ND<100	
2/19/2003	75.45	18.16	0.00	57.29	0.83	14500	599	280	1700	609	ND<2.00	ND<10.0	
5/7/2003	75.45	17.69	0.00	57.76	0.47	20600	696	414	2350	840	ND<2.00	ND<10.0	
8/5/2003	75.45	18.04	0.00	57.41	-0.35	47500	1020	644	1990	614	ND<2.00	ND<10.0	
11/4/2003	75.45	19.08	0.00	56.37	-1.04	15800	1440	877	2200	886	ND<20.0	ND<100	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-7 continued													
2/4/2004	75.45	19.78	0.00	55.67	-0.70	25000	350	95	1700	720	ND<10	ND<100	
5/7/2004	75.45	19.38	0.00	56.07	0.40	14600	628	251	1200	523	ND<2.00	ND<10.0	
8/2/2004	75.45	19.49	0.00	55.96	-0.11	25300	950	418	1870	501	5.10	ND<10.0	
11/8/2004	75.45	18.23	0.00	57.22	1.26	23500	746	422	2120	472	ND<2.00	19.4	
MW-8	**(Screen Interval in feet: 15-45)**												
2/25/1993	--	28.79	0.00	--	--	2600	1100	7.5	ND	18	--	--	
6/17/1993	74.92	25.00	0.00	49.92	--	3300	670	19	ND	120	--	--	
9/14/1993	74.92	25.48	0.00	49.44	-0.48	3200	930	39	ND	130	--	--	
12/15/1993	74.92	25.21	0.00	49.71	0.27	2100	960	26	50	130	--	--	
3/29/1994	74.92	24.48	0.00	50.44	0.73	1000	590	76	ND	18	--	--	
6/13/1994	74.92	24.03	0.00	50.89	--	4700	2500	27	55	55	--	--	
9/1/1994	74.92	24.50	0.00	50.42	-0.47	5500	50	ND	ND	ND	--	--	
12/2/1994	74.92	24.60	0.00	50.32	-0.10	7300	1900	32	60	ND	--	--	
2/21/1995	74.92	22.41	0.00	52.51	2.19	4800	3300	34	110	64	--	--	
3/15/1995	74.92	22.36	0.00	52.56	0.05	4700	2700	35	110	66	--	--	
5/15/1995	74.92	20.45	0.00	54.47	1.91	3800	2100	34	92	78	--	--	
9/28/1995	74.92	21.00	0.00	53.92	-0.55	4200	1600	ND	39	ND	--	--	
P 10/18/1995	74.92	--	--	--	--	ND	320	ND	ND	ND	--	--	Pre-purge
10/18/1995	74.92	21.01	0.00	53.91	0.00	2700	1300	ND	32	ND	--	--	
P 4/16/1996	74.92	--	--	--	--	ND	7.2	ND	ND	ND	--	--	Pre-purge
4/16/1996	74.92	--	--	--	--	1700	1000	ND	23	ND	--	--	
7/11/1996	74.92	20.30	0.00	54.62	--	1200	400	9	18	23	--	--	
10/8/1996	74.92	20.48	0.00	54.44	-0.18	290	7.1	ND	ND	ND	--	--	
1/8/1997	74.92	19.20	0.00	55.72	1.28	ND	15	ND	ND	ND	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-8 continued													
4/30/1997	74.92	18.32	0.00	56.60	0.88	ND	0.59	ND	ND	ND	--	--	
7/24/1997	74.92	18.80	0.00	56.12	-0.48	ND	0.87	ND	ND	ND	--	--	
10/24/1997	74.92	19.34	0.00	55.58	-0.54	ND	1.2	ND	ND	ND	--	--	
1/21/1998	74.92	18.90	0.00	56.02	0.44	ND	0.7	ND	ND	ND	--	--	
4/20/1998	74.92	15.17	0.00	59.75	3.73	ND	ND	ND	ND	ND	--	--	
9/28/1998	74.92	17.00	0.00	57.92	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	74.92	17.54	0.00	57.38	-0.54	ND	1.7	ND	ND	ND	--	--	
3/11/1999	74.92	18.10	0.00	56.82	-0.56	ND	1.5	ND	ND	ND	--	--	
6/21/1999	74.92	--	--	--	--	--	--	--	--	--	--	--	
9/17/1999	74.92	18.42	0.00	56.50	--	ND	2.2	ND	0.7	ND	--	--	
12/22/1999	74.92	--	--	--	--	--	--	--	--	--	--	--	
3/2/2000	74.92	19.16	0.00	55.76	--	ND<50	1.3	ND<0.30	ND<0.30	ND<0.60	--	--	
6/21/2000	74.92	--	--	--	--	--	--	--	--	--	--	--	
9/12/2000	71.50	20.30	0.00	51.20	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<20	
12/13/2000	71.50	21.00	0.00	50.50	--	--	--	--	--	--	--	--	
2/21/2001	71.50	20.12	0.00	51.38	0.88	ND<50	ND<1	ND<1	ND<1	ND<1	ND<5	ND<20	
5/21/2001	71.50	19.30	0.00	52.20	0.82	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
8/1/2001	71.50	20.23	0.00	51.27	-0.93	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
10/31/2001	71.50	21.14	0.00	50.36	-0.91	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
2/25/2002	77.21	21.80	0.00	55.41	5.05	ND<100	23	ND<1.0	ND<1.0	ND<2.0	ND<1.0	ND<50	
5/29/2002	77.21	22.15	0.00	55.06	-0.35	ND<50	1.43	ND<1.0	ND<1.0	ND<1.0	ND<2.0	11.1	
8/26/2002	77.21	22.52	0.00	54.69	-0.37	ND<50.0	6.95	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	77.21	23.02	0.00	54.19	-0.50	87.1	33.9	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	77.21	22.83	0.00	54.38	0.19	94.3	24.5	ND<1.00	ND<1.00	ND<1.00	ND<2.00	27.4	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-8 continued													
5/7/2003	77.21	21.41	0.00	55.80	1.42	165	31.5	3.40	ND<1.00	4.40	ND<2.00	26.7	
8/5/2003	77.21	21.98	0.00	55.23	-0.57	158	31.4	2.50	ND<1.00	ND<1.00	ND<2.00	46.2	
11/4/2003	77.21	22.78	0.00	54.43	-0.80	168	41.7	1.10	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
2/4/2004	77.21	22.86	0.00	54.35	-0.08	180	67	ND<1.0	ND<1.0	ND<1.0	ND<1.0	120	
5/7/2004	77.21	22.40	0.00	54.81	0.46	389	91.9	1.60	ND<1.00	ND<1.00	ND<2.00	72.7	
8/2/2004	77.21	23.14	0.00	54.07	-0.74	144	38.8	ND<1.00	ND<1.00	ND<1.00	ND<2.00	40.5	
11/8/2004	77.21	21.49	0.00	55.72	1.65	672	198	2.60	ND<1.00	1.10	ND<2.00	55.1	
MW-9	**(Screen Interval in feet: 15-40)**												
12/15/1993	--	26.57	0.00	--	--	ND	ND	ND	ND	ND	--	--	
3/29/1994	75.49	25.76	0.00	49.73	--	ND	ND	ND	ND	ND	--	--	
6/13/1994	75.49	25.35	0.00	50.14	--	ND	ND	ND	ND	ND	--	--	
9/1/1994	75.49	25.77	0.00	49.72	-0.42	ND	ND	ND	ND	ND	--	--	
12/2/1994	75.49	25.99	0.00	49.50	-0.22	ND	ND	ND	ND	ND	--	--	
2/21/1995	75.49	23.30	0.00	52.19	2.69	ND	ND	ND	ND	ND	--	--	
3/15/1995	75.49	23.23	0.00	52.26	0.07	ND	ND	ND	ND	ND	--	--	
5/15/1995	75.49	21.55	0.00	53.94	1.68	ND	ND	ND	ND	ND	--	--	
9/28/1995	75.49	22.32	0.00	53.17	-0.77	ND	ND	ND	ND	ND	--	--	
10/18/1995	75.49	22.34	0.00	53.15	-0.02	--	--	--	--	--	--	--	
P 4/16/1996	75.49	--	--	--	--	130	29	ND	ND	ND	--	--	Pre-purge
4/16/1996	75.49	--	--	--	0.00	ND	ND	ND	ND	ND	--	--	
7/11/1996	75.49	20.62	0.00	54.87	--	ND	ND	ND	ND	ND	--	--	
1/8/1997	75.49	19.77	0.00	55.72	--	ND	ND	ND	ND	ND	--	--	
4/30/1997	75.49	17.83	0.00	57.66	1.94	ND	ND	ND	ND	ND	--	--	
7/24/1997	75.49	17.15	0.00	58.34	0.68	ND	ND	ND	ND	ND	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-9 continued													
10/24/1997	75.49	17.34	0.00	58.15	-0.19	ND	ND	ND	ND	ND	--	--	
1/21/1998	75.49	18.40	0.00	57.09	-1.06	ND	ND	ND	ND	ND	--	--	
4/20/1998	75.49	12.70	0.00	62.79	5.70	ND	ND	ND	ND	ND	--	--	
9/28/1998	75.49	12.88	0.00	62.61	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	75.49	14.84	0.00	60.65	-1.96	ND	ND	ND	ND	ND	--	--	
3/11/1999	75.49	--	--	--	--	--	--	--	--	--	--	--	
6/21/1999	75.49	17.49	0.00	58.00	--	ND	1.5	3.4	1.3	4.0	--	--	
9/17/1999	75.49	--	--	--	--	--	--	--	--	--	--	--	
12/22/1999	75.49	19.82	0.00	55.67	--	ND	ND	ND	ND	ND	--	--	
6/21/2000	75.49	20.05	0.00	55.44	--	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<5.0	ND<20	
9/12/2000	72.06	21.02	0.00	51.04	-4.40	--	--	--	--	--	--	--	
12/13/2000	72.06	21.53	0.00	50.53	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<20	
2/21/2001	72.06	21.21	0.00	50.85	0.32	--	--	--	--	--	--	--	
5/21/2001	72.06	19.66	0.00	52.40	1.55	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
8/1/2001	72.06	20.03	0.00	52.03	-0.37	--	--	--	--	--	--	--	
10/31/2001	72.06	22.12	0.00	49.94	-2.09	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
2/25/2002	77.76	22.88	0.00	54.88	4.94	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<2.0	ND<1.0	ND<50	
5/29/2002	77.76	23.16	0.00	54.60	-0.28	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10	
8/26/2002	77.76	23.79	0.00	53.97	-0.63	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	77.76	24.10	0.00	53.66	-0.31	ND<50.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	77.76	23.79	0.00	53.97	0.31	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
5/7/2003	77.76	22.40	0.00	55.36	1.39	ND<50.0	ND<1.00	3.00	ND<1.00	2.70	ND<2.00	ND<10.0	
8/5/2003	77.76	22.98	0.00	54.78	-0.58	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/4/2003	77.76	23.82	0.00	53.94	-0.84	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-9 continued													
2/4/2004	77.76	24.13	0.00	53.63	-0.31	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	
5/7/2004	77.76	23.53	0.00	54.23	0.60	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
8/2/2004	77.76	24.04	0.00	53.72	-0.51	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/8/2004	77.76	22.77	0.00	54.99	1.27	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-10	**(Screen Interval in feet: 15-40)**												
12/15/1993	--	26.27	0.00	--	--	ND	ND	ND	ND	ND	--	--	
3/29/1994	75.12	25.46	0.00	49.66	--	ND	ND	ND	ND	ND	--	--	
6/13/1994	75.12	25.24	0.00	49.88	--	ND	ND	ND	ND	ND	--	--	
9/1/1994	75.12	25.60	0.00	49.52	-0.36	ND	ND	ND	ND	ND	--	--	
12/2/1994	75.12	25.84	0.00	49.28	-0.24	ND	ND	ND	ND	ND	--	--	
2/21/1995	75.12	23.60	0.00	51.52	2.24	ND	1.5	ND	ND	ND	--	--	
3/15/1995	75.12	23.45	0.00	51.67	0.15	ND	0.54	ND	ND	ND	--	--	
5/15/1995	75.12	21.80	0.00	53.32	1.65	ND	0.57	ND	ND	ND	--	--	
9/28/1995	75.12	22.40	0.00	52.72	-0.60	ND	ND	ND	ND	ND	--	--	
P 10/18/1995	75.12	--	--	--	--	ND	ND	ND	ND	ND	--	--	Pre-purge
10/18/1995	75.12	22.35	0.00	52.77	0.00	ND	ND	ND	ND	ND	--	--	
P 4/16/1996	75.12	--	--	--	--	ND	ND	ND	ND	ND	--	--	Pre-purge
7/11/1996	75.12	22.00	0.00	53.12	--	ND	ND	ND	ND	ND	--	--	
10/8/1996	75.12	21.94	0.00	53.18	0.06	ND	ND	ND	ND	ND	--	--	
1/8/1997	75.12	20.65	0.00	54.47	1.29	ND	ND	ND	ND	ND	--	--	
4/30/1997	75.12	19.50	0.00	55.62	1.15	ND	ND	ND	ND	ND	--	--	
7/24/1997	75.12	20.65	0.00	54.47	-1.15	ND	ND	ND	ND	ND	--	--	
10/24/1997	75.12	21.39	0.00	53.73	-0.74	ND	ND	ND	ND	ND	--	--	
1/21/1998	75.12	20.46	0.00	54.66	0.93	120	1.1	0.3	0.9	2.9	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-10 continued													
4/20/1998	75.12	15.93	0.00	59.19	4.53	180	3.3	3.5	0.7	4	--	--	
9/29/1998	75.12	18.79	0.00	56.33	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	75.12	19.25	0.00	55.87	-0.46	ND	ND	ND	ND	1.5	--	--	
3/11/1999	75.12	19.65	0.00	55.47	-0.40	210	ND	ND	ND	ND	--	--	
6/21/1999	75.12	19.15	0.00	55.97	0.50	150	ND	0.5	ND	0.8	--	--	
9/17/1999	75.12	19.70	0.00	55.42	-0.55	190	0.6	0.7	1.8	1.4	--	--	
12/22/1999	75.12	20.46	0.00	54.66	-0.76	160	0.54	0.57	0.42	1.3	--	--	
3/2/2000	75.12	20.10	0.00	55.02	0.36	170	ND<0.30	0.46	ND<0.30	0.88	--	--	
6/21/2000	75.12	20.41	0.00	54.71	-0.31	120	0.70	0.52	ND<0.30	ND<3.0	160	ND<20	
9/12/2000	71.64	21.19	0.00	50.45	-4.26	140	ND<1.0	ND<1.0	ND<1.0	ND<1.0	200	ND<20	
12/13/2000	71.64	21.80	0.00	49.84	--	110	ND<1.0	ND<1.0	ND<1.0	ND<1.0	200	ND<20	
2/21/2001	71.64	20.60	0.00	51.04	1.20	110	ND<1	ND<1	ND<1	ND<1	150	ND<20	
5/21/2001	71.64	20.18	0.00	51.46	0.42	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	65	ND<50	
8/1/2001	71.64	21.00	0.00	50.64	-0.82	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	57	ND<50	
10/31/2001	71.64	21.87	0.00	49.77	-0.87	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	28	ND<50	
2/25/2002	77.39	22.40	0.00	54.99	5.22	ND<100	0.58	ND<1.0	ND<1.0	ND<2.0	20	ND<50	
5/29/2002	77.39	22.58	0.00	54.81	-0.18	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	64.1	ND<10	
8/26/2002	77.39	23.17	0.00	54.22	-0.59	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	37.7	ND<10.0	
11/25/2002	77.39	23.52	0.00	53.87	-0.35	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<5.00	27.0	ND<10.0	
2/19/2003	77.39	23.26	0.00	54.13	0.26	69.7	ND<1.00	ND<1.00	ND<1.00	ND<1.00	74.5	ND<10.0	
5/7/2003	77.39	22.06	0.00	55.33	1.20	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	98.0	ND<10.0	
8/5/2003	77.39	22.68	0.00	54.71	-0.62	102	ND<1.00	ND<1.00	ND<1.00	ND<1.00	102	ND<10.0	
11/4/2003	77.39	23.51	0.00	53.88	-0.83	50.6	ND<1.00	ND<1.00	ND<1.00	ND<1.00	42.6	ND<10.0	
2/4/2004	77.39	23.88	0.00	53.51	-0.37	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	70	ND<10	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-10 continued													
5/7/2004	77.39	23.31	0.00	54.08	0.57	54.5	ND<1.00	ND<1.00	ND<1.00	ND<1.00	75.3	23.2	
8/2/2004	77.39	23.95	0.00	53.44	-0.64	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	31.6	ND<10.0	
11/8/2004	77.39	22.59	0.00	54.80	1.36	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	45.7	ND<10.0	
MW-11	**(Screen Interval in feet: 15-40)**												
12/15/1993	--	24.47	0.00	--	--	2700	1100	32	58	63	--	--	
3/29/1994	75.35	22.59	0.00	52.76	--	2900	1500	11	ND	35	--	--	
6/13/1994	75.35	22.28	0.00	53.07	--	3200	1400	ND	ND	ND	--	--	
9/1/1994	75.35	23.18	0.00	52.17	-0.90	4700	2200	ND	96	ND	--	--	
12/2/1994	75.35	24.29	0.00	51.06	-1.11	1900	460	ND	ND	ND	--	--	
2/21/1995	75.35	20.55	0.00	54.80	3.74	ND	1100	ND	22	ND	--	--	
3/15/1995	75.35	21.46	0.00	53.89	-0.91	2500	1300	ND	44	ND	--	--	
5/15/1995	75.35	19.11	0.00	56.24	2.35	ND	870	ND	41	ND	--	--	
9/28/1995	75.35	19.63	0.00	55.72	-0.52	1100	840	ND	7.5	ND	--	--	
P 10/18/1995	75.35	--	--	--	--	1600	940	ND	ND	ND	--	--	Pre-purge
10/18/1995	75.35	19.94	0.00	55.41	0.00	4600	3300	100	260	ND	--	--	
P 4/16/1996	75.35	--	--	--	--	650	24	ND	ND	1.0	--	--	Pre-purge
4/16/1996	75.35	--	--	--	--	3100	1300	ND	130	ND	--	--	
7/11/1996	75.35	19.70	0.00	55.65	--	1200	430	ND	34	ND	--	--	
10/8/1996	75.35	19.42	0.00	55.93	0.28	2700	57	ND	130	ND	--	--	
1/8/1997	75.35	17.94	0.00	57.41	1.48	1700	1100	ND	47	ND	--	--	
4/30/1997	75.35	17.23	0.00	58.12	0.71	150	1.5	ND	ND	ND	--	--	
7/24/1997	75.35	17.90	0.00	57.45	-0.67	8800	4200	ND	ND	ND	--	--	
10/24/1997	75.35	18.38	0.00	56.97	-0.48	7800	6400	50	650	ND	--	--	
1/21/1998	75.35	17.85	0.00	57.50	0.53	11000	4800	8	560	9	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-11 continued													
4/20/1998	75.35	13.72	0.00	61.63	4.13	9900	4100	10	490	13	--	--	
9/28/1998	75.35	15.90	0.00	59.45	--	13300	6070	14.4	830	ND	--	--	
12/16/1998	75.35	15.94	0.00	59.41	-0.04	2560	4240	4.2	174	ND	--	--	
3/11/1999	75.35	16.85	0.00	58.50	-0.91	9600	5800	24	510	17	--	--	
6/21/1999	75.35	16.43	0.00	58.92	0.42	8200	4400	9.0	410	17	--	--	
9/17/1999	75.35	17.02	0.00	58.33	-0.59	11000	6000	9.0	540	ND	--	--	
12/22/1999	75.35	17.45	0.00	57.90	-0.43	2900	1500	ND	130	ND	--	--	
3/2/2000	75.35	17.64	0.00	57.71	-0.19	1800	420	ND<1.0	44	ND<3.0	--	--	
6/21/2000	75.35	17.83	0.00	57.52	-0.19	790	47	2.5	3.5	5.9	430	200	
9/12/2000	71.86	18.68	0.00	53.18	-4.34	580	120	ND<1.0	15	ND<1.0	450	ND<20	
12/13/2000	71.86	19.64	0.00	52.22	--	3200	1500	11	220	13	360	190	
2/21/2001	71.86	20.30	0.00	51.56	-0.66	3000	1100	12	150	18	480	180	
5/21/2001	71.86	17.64	0.00	54.22	2.66	560	18	ND<10	ND<10	ND<10	1200	ND<500	
8/1/2001	71.86	18.31	0.00	53.55	-0.67	550	ND<5.0	ND<10	ND<10	ND<10	520	ND<500	
10/31/2001	71.86	18.90	0.00	52.96	-0.59	770	ND<2.5	ND<5.0	ND<5.0	ND<5.0	720	380	
2/25/2002	77.60	19.68	0.00	57.92	4.96	790	1.1	ND<1.0	ND<1.0	ND<2.0	160	ND<50	
5/29/2002	77.60	19.51	0.00	58.09	0.17	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10	
8/26/2002	77.60	19.59	0.00	58.01	-0.08	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	77.60	19.60	0.00	58.00	-0.01	ND<50.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	77.60	19.18	0.00	58.42	0.42	1500	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1660	561	
5/7/2003	77.60	20.56	0.00	57.04	-1.38	ND<50.0	1.00	1.50	ND<1.00	ND<1.00	30.2	ND<10.0	
8/5/2003	77.60	20.11	0.00	57.49	0.45	426	ND<1.00	ND<1.00	ND<1.00	ND<1.00	54.8	ND<10.0	
11/4/2003	77.60	18.50	0.00	59.10	1.61	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.20	ND<10.0	
2/4/2004	77.60	20.41	0.00	57.19	-1.91	ND<100	0.74	ND<1.0	ND<1.0	ND<1.0	16	31	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-11 continued													
5/7/2004	77.60	20.44	0.00	57.16	-0.03	75.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	7.30	ND<10.0	
8/2/2004	77.60	20.15	0.00	57.45	0.29	198	1.10	ND<1.00	ND<1.00	ND<1.00	6.00	ND<10.0	
11/8/2004	77.60	18.81	0.00	58.79	1.34	766	8.40	ND<1.00	ND<1.00	ND<1.00	14.7	ND<10.0	
MW-12	**(Screen Interval in feet: 15-40)**												
12/15/1993	--	25.35	0.00	--	--	160	4.4	ND	ND	1.1	--	--	
3/29/1994	73.53	24.58	0.00	48.95	--	ND	0.77	ND	ND	ND	--	--	
6/13/1994	73.53	24.42	0.00	49.11	--	570	15	0.3	0.8	0.9	--	--	
9/1/1994	73.53	24.75	0.00	48.78	-0.33	ND	0.88	ND	ND	ND	--	--	
12/2/1994	73.53	24.01	0.00	49.52	0.74	ND	0.75	ND	ND	ND	--	--	
2/21/1995	73.53	23.41	0.00	50.12	0.60	320	18	ND	1.4	ND	--	--	
3/15/1995	73.53	23.29	0.00	50.24	0.12	150	4.5	ND	ND	ND	--	--	
5/15/1995	73.53	20.82	0.00	52.71	2.47	40	45	0.62	2.7	2.5	--	--	
9/28/1995	73.53	21.50	0.00	52.03	-0.68	410	8.9	0.36	0.42	ND	--	--	
P 10/18/1995	73.53	--	--	--	--	500	21	1	1.2	2	--	--	Pre-purge
10/18/1995	73.53	21.59	0.00	51.94	0.00	470	18	1.1	1.2	0.91	--	--	
P 4/16/1996	73.53	--	--	--	--	1100	77	ND	18	ND	--	--	Pre-purge
4/16/1996	73.53	--	--	--	0.00	640	26	1.1	4.9	1.2	--	--	
7/11/1996	73.53	21.30	0.00	52.23	--	490	17	0.61	6	2.4	--	--	
10/8/1996	73.53	21.22	0.00	52.31	0.08	910	44	ND	29	23	--	--	
1/8/1997	73.53	20.40	0.00	53.13	0.82	780	63	ND	33	9.1	--	--	
4/30/1997	73.53	19.20	0.00	54.33	1.20	7900	2500	52	920	160	--	--	
7/24/1997	73.53	19.82	0.00	53.71	-0.62	3000	250	25	160	130	--	--	
10/24/1997	73.53	20.40	0.00	53.13	-0.58	170	10	0.31	2.3	1.9	--	--	
1/21/1998	73.53	19.98	0.00	53.55	0.42	1400	36	ND	27	30	--	--	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-12 continued													
4/20/1998	73.53	15.25	0.00	58.28	4.73	1000	56	2.5	16	12	--	--	
9/28/1998	73.53	17.94	0.00	55.59	--	2430	94.6	19.9	41.0	63.1	--	--	
12/16/1998	73.53	19.14	0.00	54.39	-1.20	5440	26.4	75.7	219	448	--	--	
3/11/1999	73.53	19.11	0.00	54.42	0.03	6300	570	83	260	450	--	--	
6/21/1999	73.53	18.84	0.00	54.69	0.27	5200	370	81	250	430	--	--	
9/17/1999	73.53	19.35	0.00	54.18	-0.51	3500	140	ND	87	100	--	--	
12/21/1999	73.53	19.73	0.00	53.80	-0.38	890	75	14	18	34	--	--	
3/2/2000	73.53	21.02	0.00	52.51	-1.29	9600	160	100	190	540	--	--	
6/21/2000	73.53	19.47	0.00	54.06	1.55	5500	110	71	140	390	66	ND<20	
9/12/2000	75.76	20.15	0.05	55.65	1.59	--	--	--	--	--	--	--	
12/13/2000	75.76	--	--	--	--	--	--	--	--	--	--	--	
2/21/2001	75.76	19.45	0.00	56.31	--	24000	850	200	970	3300	12	75	
5/21/2001	75.76	--	--	--	--	--	--	--	--	--	--	--	
8/1/2001	75.76	--	--	--	--	--	--	--	--	--	--	--	
10/31/2001	75.76	21.22	0.04	54.57	--	--	--	--	--	--	--	--	
2/25/2002	76.03	21.90	0.02	54.14	-0.43	--	--	--	--	--	--	--	LPH - not sampled.
5/29/2002	76.03	22.12	0.00	53.91	-0.24	1710	15.5	1.35	7.43	33.5	84	ND<10	
8/26/2002	76.03	19.62	0.00	56.41	2.50	971	26.5	1.18	5.15	5.34	46.3	ND<10.0	
11/25/2002	76.03	22.89	0.00	53.14	-3.27	925	30.9	6.6	22.5	12.9	32.4	ND<10.0	
2/19/2003	76.03	22.68	0.00	53.35	0.21	1180	35.1	4.40	32.8	8.20	22.8	ND<10.0	
5/7/2003	76.03	21.57	0.00	54.46	1.11	4020	196	106	168	323	17.6	ND<10.0	
8/5/2003	76.03	22.39	0.00	53.64	-0.82	8760	607	805	438	1040	26.0	ND<10.0	
11/4/2003	76.03	23.16	0.00	52.87	-0.77	7340	270	515	525	1280	32.2	ND<10.0	
2/4/2004	76.03	23.25	0.00	52.78	-0.09	11000	48	76	340	690	160	140	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-12 continued													
5/7/2004	76.03	22.54	0.00	53.49	0.71	7760	309	195	404	1060	164	ND<10.0	
8/2/2004	76.03	22.93	0.00	53.10	-0.39	21400	470	364	500	1110	109	ND<10.0	
11/8/2004	76.03	21.87	0.00	54.16	1.06	42200	271	309	1100	2690	71.0	103	
MW-13	**(Screen Interval in feet: 15-40)**												
12/15/1993	--	21.93	0.00	--	--	1900	190	280	60	180	--	--	
3/29/1994	72.84	18.50	0.00	54.34	--	750	45	88	14	80	--	--	
6/13/1994	72.84	19.21	0.00	53.63	--	1500	76	140	41	110	--	--	
9/1/1994	72.84	20.21	0.00	52.63	-1.00	1600	80	92	23	75	--	--	
12/2/1994	72.84	20.65	0.00	52.19	-0.44	5400	240	580	120	490	--	--	
2/21/1995	72.84	18.93	0.00	53.91	1.72	660	32	75	20	62	--	--	
3/15/1995	72.84	18.76	0.00	54.08	0.17	2500	160	440	110	350	--	--	
5/15/1995	72.84	15.09	0.00	57.75	3.67	2000	110	200	84	180	--	--	
9/28/1995	72.84	12.96	0.00	59.88	2.13	58	0.99	4.8	1.6	5.7	--	--	
P 10/18/1995	72.84	--	--	--	--	ND	ND	ND	ND	ND	--	--	Pre-purge
10/18/1995	72.84	13.25	0.00	59.59	0.00	ND	ND	ND	ND	ND	--	--	
P 4/16/1996	72.84	--	--	--	--	ND	ND	ND	ND	ND	--	--	Pre-purge
4/16/1996	72.84	--	--	--	0.00	59	2.6	3.1	1.4	3.0	--	--	
7/11/1996	72.84	15.22	0.00	57.62	--	ND	ND	ND	ND	ND	--	--	
10/8/1996	72.84	16.10	0.00	56.74	-0.88	93	3.7	1.9	1.3	2.5	--	--	
1/8/1997	72.84	13.36	0.00	59.48	2.74	94	2.1	3.4	1.6	6.5	--	--	
4/30/1997	72.84	14.23	0.00	58.61	-0.87	ND	0.45	ND	ND	ND	--	--	
7/24/1997	72.84	13.95	0.00	58.89	0.28	1800	160	14	99	71	--	--	
10/24/1997	72.84	15.85	0.00	56.99	-1.90	1100	130	96	51	69	--	--	
1/21/1998	72.84	16.06	0.00	56.78	-0.21	480	27	13	7.5	12	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-13 continued													
4/20/1998	72.84	10.24	0.00	62.60	5.82	230	7.9	12	5.5	16	--	--	
9/29/1998	72.84	10.22	0.00	62.62	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	72.84	12.32	0.00	60.52	-2.10	ND	ND	ND	ND	ND	--	--	
3/11/1999	72.84	--	--	--	--	--	--	--	--	--	--	--	
6/21/1999	72.84	13.99	0.00	58.85	--	890	26	3.7	6.2	3.2	--	--	
9/17/1999	72.84	--	--	--	--	--	--	--	--	--	--	--	
12/22/1999	72.84	11.10	0.00	61.74	--	ND	ND	ND	0.37	0.74	--	--	
6/21/2000	72.84	12.63	0.00	60.21	--	99	ND<1.0	ND<0.30	ND<0.30	ND<0.60	ND<5.0	ND<20	
9/12/2000	75.11	15.20	0.00	59.91	-0.30	--	--	--	--	--	--	--	
12/13/2000	75.11	--	--	--	--	--	--	--	--	--	--	--	
2/21/2001	75.11	15.10	0.00	60.01	--	--	--	--	--	--	--	--	
5/21/2001	75.11	13.85	0.00	61.26	1.25	160	5.8	1.7	2.4	ND<1.0	21	ND<50	
8/1/2001	75.11	14.22	0.00	60.89	-0.37	--	--	--	--	--	--	--	
10/31/2001	75.11	15.77	0.00	59.34	-1.55	120	17	4.4	6.7	3.1	ND<1	ND<50	
2/25/2002	75.08	16.11	0.00	58.97	-0.37	180	10	4.2	4.3	5.5	ND<1.0	ND<50	
5/29/2002	75.08	16.09	0.00	58.99	0.02	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10	
8/26/2002	75.08	15.40	0.00	59.68	0.69	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	75.08	14.05	0.00	61.03	1.35	ND<50.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	75.08	13.59	0.00	61.49	0.46	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
5/7/2003	75.08	12.33	0.00	62.75	1.26	ND<50.0	ND<1.00	1.40	ND<1.00	2.90	ND<2.00	ND<10.0	
8/5/2003	75.08	13.70	0.00	61.38	-1.37	76.7	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/4/2003	75.08	14.20	0.00	60.88	-0.50	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
2/4/2004	75.08	14.16	0.00	60.92	0.04	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	1.8	ND<10	
5/7/2004	75.08	14.40	0.00	60.68	-0.24	98.4	ND<1.00	ND<1.00	ND<1.00	ND<1.00	4.30	ND<10.0	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-13	**continued**												
8/2/2004	75.08	16.20	0.00	58.88	-1.80	196	3.90	ND<1.00	ND<1.00	ND<1.00	5.60	ND<10.0	
11/8/2004	75.08	14.59	0.00	60.49	1.61	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-14	**(Screen Interval in feet: 15-40)**												
12/15/1993	--	21.93	0.00	--	--	ND	ND	ND	ND	ND	--	--	
3/29/1994	75.23	18.50	0.00	56.73	--	ND	ND	ND	ND	ND	--	--	
6/13/1994	75.23	19.21	0.00	56.02	--	ND	ND	ND	ND	ND	--	--	
9/1/1994	75.23	20.21	0.00	55.02	-1.00	53	ND	ND	ND	0.83	--	--	
12/2/1994	75.23	20.65	0.00	54.58	-0.44	ND	ND	ND	ND	ND	--	--	
2/21/1995	75.23	21.65	0.00	53.58	-1.00	ND	ND	ND	ND	ND	--	--	
3/15/1995	75.23	20.58	0.00	54.65	1.07	ND	ND	ND	ND	ND	--	--	
5/15/1995	75.23	19.53	0.00	55.70	1.05	ND	ND	ND	ND	ND	--	--	
9/28/1995	75.23	18.89	0.00	56.34	0.64	ND	ND	ND	ND	ND	--	--	
10/18/1995	75.23	19.95	0.00	55.28	-1.06	--	--	--	--	--	--	--	
4/16/1996	75.23	--	--	--	--	ND	ND	ND	ND	ND	--	--	
7/11/1996	75.23	20.00	0.00	55.23	--	ND	ND	ND	ND	ND	--	--	
1/8/1997	75.23	18.42	0.00	56.81	--	ND	ND	ND	ND	ND	--	--	
4/30/1997	75.23	17.53	0.00	57.70	0.89	ND	ND	ND	ND	ND	--	--	
7/24/1997	75.23	--	--	--	--	--	--	--	--	--	--	--	
10/24/1997	75.23	18.36	0.00	56.87	--	ND	ND	ND	ND	ND	--	--	
1/21/1998	75.23	--	--	--	--	--	--	--	--	--	--	--	
4/20/1998	75.23	14.70	0.00	60.53	--	ND	3.8	4.7	1.2	6.9	--	--	
9/28/1998	75.23	15.83	0.00	59.40	--	--	--	--	--	--	--	--	Monitored Only
12/16/1998	75.23	16.07	0.00	59.16	-0.24	ND	ND	ND	ND	ND	--	--	
3/11/1999	75.23	--	--	--	--	--	--	--	--	--	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-14 continued													
6/21/1999	75.23	16.50	0.00	58.73	--	50	5.5	6.5	1.8	5.5	--	--	
9/17/1999	75.23	--	--	--	--	--	--	--	--	--	--	--	
12/22/1999	75.23	18.15	0.00	57.08	--	ND	0.60	0.96	0.82	2.5	--	--	
6/21/2000	75.23	18.77	0.00	56.46	--	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<5.0	ND<20	
9/12/2000	71.75	19.60	0.00	52.15	-4.31	--	--	--	--	--	--	--	
12/13/2000	71.75	20.45	0.00	51.30	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<20	
2/21/2001	71.75	19.90	0.00	51.85	0.55	--	--	--	--	--	--	--	
5/21/2001	71.75	18.83	0.00	52.92	1.07	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
8/1/2001	71.75	19.78	0.00	51.97	-0.95	--	--	--	--	--	--	--	
10/31/2001	71.75	21.61	0.00	50.14	-1.83	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
2/25/2002	77.49	21.23	0.00	56.26	6.12	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<2.0	ND<1.0	ND<50	
5/29/2002	77.49	21.60	0.00	55.89	-0.37	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10	
8/26/2002	77.49	22.42	0.00	55.07	-0.82	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	77.49	22.75	0.00	54.74	-0.33	ND<50.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	77.49	22.66	0.00	54.83	0.09	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
5/7/2003	77.49	20.97	0.00	56.52	1.69	67.2	ND<1.00	9.00	1.80	12.4	ND<2.00	ND<10.0	
8/5/2003	77.49	20.96	0.00	56.53	0.01	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/4/2003	77.49	21.46	0.00	56.03	-0.50	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
2/4/2004	77.49	21.19	0.00	56.30	0.27	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	
5/7/2004	77.49	20.58	0.00	56.91	0.61	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
8/2/2004	77.49	21.38	0.00	56.11	-0.80	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/8/2004	77.49	19.76	0.00	57.73	1.62	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-15	**(Screen Interval in feet: 15-35)**												
9/14/1993	74.06	--	--	--	--	--	--	--	--	--	--	--	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-15 continued													
2/21/1995	--	20.45	0.00	--	--	ND	ND	ND	ND	ND	--	--	
3/15/1995	74.06	20.17	0.00	53.89	--	ND	ND	ND	ND	ND	--	--	
5/15/1995	74.06	18.02	0.00	56.04	2.15	ND	ND	ND	ND	ND	--	--	
9/28/1995	74.06	18.69	0.00	55.37	-0.67	ND	ND	ND	ND	ND	--	--	
P 10/18/1995	74.06	--	--	--	--	ND	ND	ND	ND	ND	--	--	Pre-purge
10/18/1995	74.06	18.85	0.00	55.21	0.00	ND	ND	ND	ND	ND	--	--	
4/16/1996	74.06	--	--	--	--	ND	ND	ND	ND	ND	--	--	
7/11/1996	74.06	18.10	0.00	55.96	--	ND	ND	ND	ND	ND	--	--	
10/8/1996	74.06	17.72	0.00	56.34	0.38	ND	ND	ND	ND	ND	--	--	
1/8/1997	74.06	16.61	0.00	57.45	1.11	ND	ND	ND	ND	ND	--	--	
4/30/1997	74.06	15.33	0.00	58.73	1.28	ND	ND	ND	ND	ND	--	--	
7/24/1997	74.06	17.25	0.00	56.81	-1.92	ND	ND	ND	ND	ND	--	--	
10/24/1997	74.06	--	--	--	--	--	--	--	--	--	--	--	
1/21/1998	74.06	16.26	0.00	57.80	--	ND	ND	ND	ND	ND	--	--	
4/20/1998	74.06	--	--	--	--	--	--	--	--	--	--	--	
9/28/1998	74.06	15.20	0.00	58.86	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	74.06	15.82	0.00	58.24	-0.62	--	--	--	--	--	--	--	Monitored Only
3/11/1999	74.06	16.69	0.00	57.37	-0.87	ND	ND	ND	ND	ND	--	--	
6/21/1999	74.06	--	--	--	--	--	--	--	--	--	--	--	
9/17/1999	74.06	15.45	0.00	58.61	--	ND	ND	ND	ND	ND	--	--	
12/22/1999	74.06	--	--	--	--	--	--	--	--	--	--	--	
3/2/2000	74.06	17.52	0.00	56.54	--	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	--	--	
6/21/2000	74.06	--	--	--	--	--	--	--	--	--	--	--	
9/12/2000	72.88	18.55	0.00	54.33	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<20	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-15 continued													
12/13/2000	72.88	19.90	0.00	52.98	--	--	--	--	--	--	--	--	
2/21/2001	72.88	19.06	0.00	53.82	0.84	ND<50	3	ND<1	ND<1	ND<1	12	ND<20	
5/21/2001	72.88	17.40	0.00	55.48	1.66	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
8/1/2001	72.88	18.39	0.00	54.49	-0.99	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
10/31/2001	72.88	28.63	0.00	44.25	-10.24	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
2/25/2002	78.62	20.42	0.00	58.20	13.95	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<2.0	ND<1.0	ND<50	
5/29/2002	78.62	21.11	0.00	57.51	-0.69	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10	
8/26/2002	78.62	22.10	0.00	56.52	-0.99	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	78.62	22.65	0.00	55.97	-0.55	ND<50.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	78.62	22.70	0.00	55.92	-0.05	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
5/7/2003	78.62	21.21	0.00	57.41	1.49	ND<50.0	ND<1.00	2.40	ND<1.00	3.70	ND<2.00	ND<10.0	
8/5/2003	78.62	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
11/4/2003	78.62	21.61	0.00	57.01	--	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
2/4/2004	78.62	21.64	0.00	56.98	-0.03	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	
5/7/2004	78.62	20.90	0.00	57.72	0.74	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
8/2/2004	78.62	21.28	0.00	57.34	-0.38	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/8/2004	78.62	19.92	0.00	58.70	1.36	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
MW-16	**(Screen Interval in feet: 15-35)**												
2/21/1995	--	21.85	0.00	--	--	550	76	55	21	78	--	--	
3/15/1995	74.86	21.79	0.00	53.07	--	140	43	2.8	ND	9.5	--	--	
5/15/1995	74.86	21.20	0.00	53.66	0.59	210	25	22	5.9	23	--	--	
9/28/1995	74.86	19.35	0.00	55.51	1.85	61	15	2.1	1.5	1.5	--	--	
P 10/18/1995	74.86	--	--	--	--	160	73	17	18	16	--	--	Pre-purge
10/18/1995	74.86	19.74	0.00	55.12	-0.39	ND	6.5	1.6	ND	2.8	--	--	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
P MW-16 continued													
P 4/16/1996	74.86	--	--	--	--	100	57	ND	1.8	ND	--	--	Pre-purge
4/16/1996	74.86	--	--	--	--	ND	10	0.73	ND	1.6	--	--	
7/11/1996	74.86	19.65	0.00	55.21	--	160	48	0.48	8.5	ND	--	--	
10/8/1996	74.86	19.56	0.00	55.30	0.09	220	5.4	ND	ND	ND	--	--	
1/8/1997	74.86	17.40	0.00	57.46	2.16	84	48	ND	2.5	ND	--	--	
4/30/1997	74.86	17.28	0.00	57.58	0.12	ND	2	ND	ND	ND	--	--	
7/24/1997	74.86	17.97	0.00	56.89	-0.69	ND	8.7	1.1	ND	ND	--	--	
10/24/1997	74.86	18.78	0.00	56.08	-0.81	ND	1.8	ND	ND	ND	--	--	
1/21/1998	74.86	18.00	0.00	56.86	0.78	ND	7.9	ND	ND	0.7	--	--	
4/20/1998	74.86	14.64	0.00	60.22	3.36	2500	350	200	88	310	--	--	
9/28/1998	74.86	15.08	0.00	59.78	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	74.86	15.95	0.00	58.91	-0.87	ND	5.0	ND	ND	ND	--	--	
3/11/1999	74.86	17.01	0.00	57.85	-1.06	ND	6.8	1.1	ND	ND	--	--	
6/21/1999	74.86	17.74	0.00	57.12	-0.73	ND	1.8	ND	ND	ND	--	--	
9/17/1999	74.86	18.18	0.00	56.68	-0.44	90	7.6	0.4	1.9	3.9	--	--	
12/22/1999	74.86	17.61	0.00	57.25	0.57	130	21	ND	6.3	17	--	--	
3/2/2000	74.86	17.99	0.00	56.87	-0.38	95	5.1	1.9	4.2	13	--	--	
6/21/2000	74.86	17.42	0.00	57.44	0.57	ND<50	3.7	ND<1.0	1.2	3.1	19	ND<20	
9/12/2000	75.68	19.05	0.00	56.63	-0.81	ND<50	5.0	ND<1.0	ND<1.0	ND<1.0	25	ND<20	
12/13/2000	75.68	--	--	--	--	--	--	--	--	--	--	--	
2/21/2001	75.68	18.83	0.00	56.85	--	ND<50	3	ND<1	ND<1	ND<1	12	ND<20	
5/21/2001	75.68	--	--	--	--	--	--	--	--	--	--	--	
8/1/2001	75.68	--	--	--	--	--	--	--	--	--	--	--	
10/31/2001	75.68	19.66	0.00	56.02	--	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	27	ND<50	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-16 continued													
2/25/2002	75.68	26.11	0.00	49.57	-6.45	ND<100	0.67	ND<1.0	ND<1.0	ND<2.0	21	ND<50	
5/29/2002	75.68	26.59	0.00	49.09	-0.48	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	10.8	ND<10	
8/26/2002	75.68	27.34	0.00	48.34	-0.75	ND<50.0	ND<1.00	1.74	ND<1.00	2.19	6.79	ND<10.0	
11/25/2002	75.68	24.30	0.00	51.38	3.04	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	8.40	ND<10.0	
2/19/2003	75.68	24.38	0.00	51.30	-0.08	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	6.20	ND<10.0	
5/7/2003	75.68	24.69	0.00	50.99	-0.31	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	5.80	ND<10.0	
8/5/2003	75.68	24.46	0.00	51.22	0.23	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	30.3	14.5	
11/4/2003	75.68	24.82	0.00	50.86	-0.36	133	ND<1.00	ND<1.00	ND<1.00	ND<1.00	132	52.8	
2/4/2004	75.68	23.55	0.00	52.13	1.27	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	320	38	
5/7/2004	75.68	23.29	0.00	52.39	0.26	143	ND<1.00	ND<1.00	ND<1.00	ND<1.00	227	19.4	
8/2/2004	75.68	22.70	0.00	52.98	0.59	139	ND<1.00	ND<1.00	ND<1.00	ND<1.00	119	ND<10.0	
11/8/2004	75.68	22.41	0.00	53.27	0.29	114	ND<1.00	ND<1.00	ND<1.00	ND<1.00	100	ND<10.0	
MW-17	**(Screen Interval in feet: 14-34)**												
9/17/1990	73.90	--	<0.01	--	--	--	--	--	--	--	--	--	
1/4/1991	73.90	--	--	--	--	--	--	--	--	--	--	--	
6/17/1993	73.90	--	--	--	--	--	--	--	--	--	--	--	
2/21/1995	--	21.44	0.00	--	--	30000	4900	7100	2500	5900	--	--	
3/15/1995	73.90	21.40	0.00	52.50	--	27000	3900	6200	1800	3500	--	--	
5/15/1995	73.90	20.07	0.00	53.83	1.33	34000	5200	7100	2000	3100	--	--	
9/28/1995	73.90	20.35	0.00	53.55	-0.28	25000	3300	1600	1300	1500	--	--	
P 10/18/1995	73.90	--	--	--	--	38000	7500	17000	1700	9200	--	--	Pre-purge
10/18/1995	73.90	20.60	0.00	53.30	0.00	13000	4300	2700	1600	1900	--	--	
P 4/16/1996	73.90	--	--	--	--	60000	11000	14000	2500	7000	--	--	Pre-purge
4/16/1996	73.90	--	--	--	--	15000	4300	1200	1700	990	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-17 continued													
7/11/1996	73.90	19.38	0.00	54.52	--	54000	7300	8200	1800	5200	--	--	
10/8/1996	73.90	19.40	0.00	54.50	-0.02	38000	3900	2500	2400	2600	--	--	
1/8/1997	73.90	18.68	0.00	55.22	0.72	13000	4700	170	2000	290	--	--	
4/30/1997	73.90	18.25	0.00	55.65	0.43	20000	5800	670	1800	460	--	--	
7/24/1997	73.90	18.42	0.00	55.48	-0.17	24000	ND	730	1900	330	--	--	
10/24/1997	73.90	19.31	0.00	54.59	-0.89	11000	4700	210	1700	190	--	--	
1/21/1998	73.90	18.54	0.00	55.36	0.77	11000	2500	200	970	160	--	--	
4/20/1998	73.90	15.43	0.00	58.47	3.11	14000	2100	110	700	170	--	--	
P 6/1/1998	73.90	--	--	--	--	22000	2300	140	1000	190	--	--	Pre-purge Overpurge pumpout
6/1/1998	73.90	15.41	0.00	58.49	0.02	13000	1400	520	380	590	--	--	Overpurge pumpout
9/28/1998	73.90	17.06	0.00	56.84	-1.65	2020	415	7.0	67.6	10.2	--	--	
12/16/1998	73.90	17.56	0.00	56.34	-0.50	2300	1710	17.3	101	35.6	--	--	
3/11/1999	73.90	17.85	0.00	56.05	-0.29	9300	1900	46	280	100	--	--	
6/21/1999	73.90	17.28	0.00	56.62	0.57	6500	1000	68	88	91	--	--	
9/17/1999	73.90	18.14	0.00	55.76	-0.86	7300	1300	10	69	22	--	--	
12/22/1999	73.90	18.76	0.00	55.14	-0.62	2900	330	32	40	42	--	--	
3/2/2000	73.90	18.85	0.00	55.05	-0.09	1800	120	0.83	3.7	2.4	--	--	
6/21/2000	73.90	18.47	0.00	55.43	0.38	1500	120	2.2	8.6	3.4	890	16000	
9/12/2000	71.03	19.20	0.00	51.83	-3.60	1100	52	ND<1.0	ND<1.0	ND<1.0	410	15000	
12/13/2000	71.03	21.37	0.00	49.66	--	1200	10	ND<1.0	ND<1.0	ND<1.0	210	21000	
2/21/2001	71.03	21.40	0.00	49.63	-0.03	5300	580	ND<5	41	ND<5	3100	15000	
5/21/2001	71.03	20.32	0.00	50.71	1.08	1000	240	ND<10	ND<10	ND<10	500	19000	
8/1/2001	71.03	18.90	0.00	52.13	1.42	970	ND<25	ND<50	ND<50	ND<50	270	18000	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-17 continued													
10/31/2001	71.03	20.21	0.00	50.82	-1.31	890	29	ND<50	ND<50	ND<50	450	21000	
2/25/2002	76.74	24.32	0.00	52.42	1.60	310	23	ND<25	ND<25	ND<50	38	19000	
5/29/2002	76.74	20.97	0.00	55.77	3.35	5100	981	ND<10	26.1	ND<10	3650	19600	
8/26/2002	76.74	20.95	0.00	55.79	0.02	5100	880	14.4	132	21.3	2940	17600	
11/25/2002	76.74	21.74	0.00	55.00	-0.79	4370	1090	21.4	73.0	49.7	1820	11100	
2/19/2003	76.74	21.74	0.00	55.00	0.00	245	28.6	ND<1.00	1.60	ND<1.00	168	389	
5/7/2003	76.74	21.94	0.00	54.80	-0.20	3560	717	234	200	304	386	2320	
8/5/2003	76.74	20.66	0.00	56.08	1.28	2030	555	3.00	54.7	ND<1.00	198	3480	
11/4/2003	76.74	21.89	0.00	54.85	-1.23	656	109	1.60	ND<1.00	ND<1.00	171	3240	
2/4/2004	76.74	22.22	0.00	54.52	-0.33	930	200	ND<5.0	ND<5.0	ND<5.0	140	4200	
5/7/2004	76.74	21.89	0.00	54.85	0.33	1160	352	ND<1.00	1.40	ND<1.00	129	4110	
8/2/2004	76.74	22.55	0.00	54.19	-0.66	984	144	2.00	4.00	ND<1.00	118	6920	
11/8/2004	76.74	21.66	0.00	55.08	0.89	194	19.6	ND<1.00	ND<1.00	ND<1.00	42.8	2060	
MW-18	**(Screen Interval in feet: 15-35)**												
P 4/16/1996	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	Pre-purge
4/16/1996	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
1/8/1997	--	15.42	0.00	--	--	ND	ND	ND	ND	ND	--	--	
4/30/1997	--	16.00	0.00	--	--	ND	ND	1.6	0.75	5.9	--	--	
7/24/1997	--	15.81	0.00	--	--	ND	ND	ND	ND	ND	--	--	
10/24/1997	--	17.75	0.00	--	--	ND	ND	ND	ND	ND	--	--	
1/21/1998	--	16.06	0.00	--	--	ND	ND	ND	ND	ND	--	--	
4/20/1998	--	11.05	0.00	--	--	780	90	76	25	120	--	--	
9/28/1998	--	12.80	0.00	--	--	ND	ND	ND	ND	ND	--	--	
12/16/1998	--	13.38	0.00	--	--	ND	ND	ND	ND	ND	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-18 continued													
3/11/1999	--	14.50	0.00	--	--	ND	ND	ND	ND	ND	--	--	
6/21/1999	--	--	--	--	--	--	--	--	--	--	--	--	
9/17/1999	--	14.90	0.00	--	--	ND	ND	0.3	ND	ND	--	--	
12/21/1999	--	--	--	--	--	--	--	--	--	--	--	--	
3/2/2000	--	14.49	0.00	--	--	ND<50	ND<0.30	0.48	ND<0.30	1.2	--	--	
6/21/2000	--	--	--	--	--	--	--	--	--	--	--	--	
9/12/2000	76.33	15.70	0.00	60.63	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<20	
12/13/2000	76.33	--	--	--	--	--	--	--	--	--	--	--	
2/21/2001	76.33	14.07	0.00	62.26	--	ND<50	ND<1	ND<1	ND<1	ND<1	ND<5	ND<20	
5/21/2001	76.33	13.30	0.00	63.03	0.77	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2.5	ND<50	
8/1/2001	76.33	15.21	0.00	61.12	-1.91	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1.6	ND<50	
10/31/2001	76.33	15.99	0.00	60.34	-0.78	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
2/25/2002	76.31	16.82	0.00	59.49	-0.85	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<2.0	ND<1.0	ND<50	
5/29/2002	76.31	16.97	0.00	59.34	-0.15	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	2.01	ND<10	
8/26/2002	76.31	16.87	0.00	59.44	0.10	ND<100	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	76.31	16.57	0.00	59.74	0.30	ND<50.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	76.31	14.82	0.00	61.49	1.75	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	4.60	ND<10.0	
5/7/2003	76.31	12.49	0.00	63.82	2.33	ND<50.0	ND<1.00	1.80	ND<1.00	2.30	ND<2.00	ND<10.0	
8/5/2003	76.31	--	--	--	--	--	--	--	--	--	--	--	Covered with asphalt
11/4/2003	76.31	15.09	0.00	61.22	--	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.60	ND<10.0	
2/4/2004	76.31	13.24	0.00	63.07	1.85	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	7.3	ND<10	
5/7/2004	76.31	15.09	0.00	61.22	-1.85	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	6.40	ND<10.0	
8/2/2004	76.31	15.84	0.00	60.47	-0.75	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	5.20	ND<10.0	
11/8/2004	76.31	13.32	0.00	62.99	2.52	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.70	ND<10.0	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
MW-19	**(Screen Interval in feet: 10-30)**												
9/12/2000	70.28	20.20	0.00	50.08	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<20	
11/22/2000	70.28	20.86	0.00	49.42	-0.66	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<20	
2/21/2001	70.28	17.10	0.00	53.18	--	ND<50	ND<1	ND<1	ND<1	ND<1	ND<5	ND<20	
5/21/2001	70.28	--	--	--	--	--	--	--	--	--	--	--	
8/1/2001	70.28	--	--	--	--	--	--	--	--	--	--	--	
10/31/2001	70.28	21.23	0.00	49.05	--	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<50	
2/25/2002	76.30	21.96	0.00	54.34	5.29	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<2.0	ND<1.0	ND<50	
5/29/2002	76.30	22.23	0.00	54.07	-0.27	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10	
8/26/2002	76.30	22.74	0.00	53.56	-0.51	ND<100	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/25/2002	76.30	23.10	0.00	53.20	-0.36	ND<50.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<10.0	
2/19/2003	76.30	22.85	0.00	53.45	0.25	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
5/7/2003	76.30	21.82	0.00	54.48	1.03	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
8/5/2003	76.30	22.32	0.00	53.98	-0.50	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/4/2003	76.30	23.14	0.00	53.16	-0.82	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
2/4/2004	76.30	23.60	0.00	52.70	-0.46	ND<100	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	
5/7/2004	76.30	22.96	0.00	53.34	0.64	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
8/2/2004	76.30	23.49	0.00	52.81	-0.53	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
11/8/2004	76.30	22.78	0.00	53.52	0.71	ND<50.0	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<2.00	ND<10.0	
VW-11	**(Screen Interval in feet: 7-22)**												
1/8/1997	--	--	--	--	--	--	--	--	--	--	--	--	
4/30/1997	--	--	--	--	--	--	--	--	--	--	--	--	
9/17/1999	--	--	--	--	--	--	--	--	--	--	--	--	
VW-12	**(Screen Interval in feet: 7-22)**												
1/8/1997	--	--	--	--	--	--	--	--	--	--	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
ExxonMobil Oil Corporation Service Station 18-HE1

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8260B (µg/l)	TBA 8260B (µg/l)	Comments
VW-12 continued													
4/30/1997	--	--	--	--	--	--	--	--	--	--	--	--	
9/17/1999	--	--	--	--	--	--	--	--	--	--	--	--	

APPENDIX C

DUAL-PHASE EXTRACTION DATA

Alton Geoscience, Inc.

Dual-Phase Extraction Progress Report
First Quarter 1998

Summary Sheet

Mobil Service Station 18-HE1
1465 South Main St.
Santa Ana, California

AQMD# **F5242**

VAPOR EXTRACTION PERFORMANCE

Technology used:	**Mobile Dual-Phase Extraction (Thermal/Catalytic Oxidizer)**	Date Started:	**11/14/97**
Number of vapor extraction wells on site:	**4**	Maximum Influent Concentration (ppmv):	**4,670**
Number of vapor extraction wells open:	**varied**	Maximum diluted Influent concentration(ppmv):	**NA**
Operating Days this period	**(1/20/98, 2/24/98, 3/10/98) 1.0**	Gallons of hydrocarbons removed this quarter:	**1.47**
Total Operating Days	**1.67**	Cumulative gallons of hydrocarbons removed:	**1.93**

WELL EXTRACTION DETAIL

JANUARY

Well #	Max. Conc (ppmv)	Min Conc. (ppmv)	Range of Flow (cfm)	Time on each Well
MW-1	3,340	1,490	8.55 - 10.8	0.33 days
MW-6	3,600	790	9.2 - 11.7	0.15 days
MW-17	2,650	560	8.95 - 12.2	0.15 days

FEBRUARY*

Well #	Max. Conc (ppmv)	Min Conc. (ppmv)	Range of Flow (cfm)	Time on each Well
MW-1	--	--	--	0.33 days
MW-6	--	--	--	0.33 days

MARCH

Well #	Max. Conc (ppmv)	Min Conc. (ppmv)	Range of Flow (cfm)	Time on each Well
MW-1	630	190	16.9 - 72.5	0.32 days
MW-6	50	40	14.7 - 19.6	0.31 days
TCW	40	30	81.5 - 112	0.04 days

GROUNDWATER RECOVERY (Method: Alton Mobile Treatment Trailer) NPDES # CA 8000330

Date	Date Treated	Recovery Volume by Water (gallons)
1/21/98	1/21/98	1,000
3/10/98	3/10/98	1,000

ADDITIONAL INFORMATION:

ppmv = parts per million by volume
cfm = cubic feet per minute
in Hg = inches of mercury

* Individual well concentration and flow measurements were not taken during this event.

Prepared by: _____ Antonio D. Quirante

Approved by: _____ John Trompeter, RG

Alton Project No: 23-0047

Submittal Date: 30-Apr-98

DUAL-PHASE VACUUM EXTRACTION DATA
Mobil Station 18-HE1
Santa Ana,CA
11/14/97 - 3/10/98

Table 1

DATE AND TIME	TOTAL WELL VACUUM, (in of Hg)	TOTAL WELL FLOW (CFM)	TOTAL WELL INFLUENT CONC. (PPMV)	SYSTEM INFLUENT CONC. (PPMV)	SYSTEM EFFLUENT CONC. (PPMV)	HYDROCARBON RECOVERY (POUNDS)	HYDROCARBON RECOVERY (GAL)	HOURS OF OPERATION IN PERIOD (1day)	CUMULATIVE DAYS OF OPERATION	WELLS EXTRACTED FROM
11/14/1997 7:15	17	69.5	190	-	0	0.00	0.00	0:00	0.00	MW-1
11/14/1997 7:30	21	41.5	350	-	0	0.06	0.01	0:15	0.01	MW-1
11/14/1997 7:45	27	14.4	50	-	0	0.02	0.00	0:30	0.02	MW-1
11/14/1997 8:00	27.5	12.5	410	-	0	0.01	0.00	0:45	0.03	MW-1
11/14/1997 8:30	27.5	13.9	1180	-	0	0.09	0.01	1:15	0.05	MW-1
11/14/1997 9:00	29	14.2	930	-	0	0.12	0.02	1:45	0.07	MW-1
11/14/1997 9:20	29	15.0	230	-	0	0.05	0.01	2:05	0.09	MW-1
11/14/1997 9:30	29	16.8	530	-	0	0.02	0.00	2:15	0.09	MW-1, MW-6, MW-17
11/14/1997 10:00	29	20.5	350	-	0	0.07	0.01	2:45	0.11	MW-1, MW-6, MW-17
11/14/1997 10:30	29	20.8	1190	-	0	0.13	0.02	3:15	0.14	MW-1, MW-6, MW-17
11/14/1997 10:34	29	19.6	610	-	0	0.02	0.00	3:19	0.14	MW-1, MW-6, MW-17
11/14/1997 11:00	30	14.9	200	-	0	0.05	0.01	3:45	0.16	MW-1
11/14/1997 11:30	30	15.2	190	-	0	0.02	0.00	4:15	0.18	MW-1
11/14/1997 12:00	30	14.3	30	-	0	0.01	0.00	4:45	0.20	MW-1
11/14/1997 12:15	30	14.2	400	-	0	0.01	0.00	5:00	0.21	MW-1
11/14/1997 12:19	30	14.0	320	-	0	0.01	0.00	5:04	0.21	MW-1
11/14/1997 13:00	29.5	11.9	320	-	0	0.05	0.01	5:45	0.24	MW-1
11/14/1997 13:30	29	14.2	330	-	0	0.04	0.01	6:15	0.26	MW-1
11/14/1997 14:00	29.5	10.9	320	-	0	0.03	0.01	6:45	0.28	MW-1
11/14/1997 14:30	29.5	9.6	410	-	0	0.03	0.00	7:15	0.30	MW-1
11/14/1997 15:00	30	9.9	320	-	0	0.03	0.00	7:45	0.32	MW-1
11/14/1997 15:15	29.5	10.1	390	-	0	0.01	0.00	8:00	0.33	MW-1
		TOTAL HC RECOVERED IN PERIOD				**0.89**	**0.14**			
		TOTAL HC RECOVERED IN NOVEMBER (0.33 days)				**0.89**	**0.14**			
12/30/1997 7:00	26	16.1	520	-	0	0.00	0.00	0:00	0.33	MW-6,MW-1

DUAL-PHASE VACUUM EXTRACTION DATA
Mobil Station 18-HE1
Santa Ana,CA
11/14/97 - 3/10/98

Table 1

DATE AND TIME	TOTAL WELL VACUUM, (in of Hg)	TOTAL WELL FLOW (CFM)	TOTAL WELL INFLUENT CONC. (PPMV)	SYSTEM INFLUENT CONC. (PPMV)	SYSTEM EFFLUENT CONC. (PPMV)	HYDROCARBON RECOVERY (POUNDS)	HYDROCARBON RECOVERY (GAL)	HOURS OF OPERATION IN PERIOD (1day)	CUMULATIVE DAYS OF OPERATION	WELLS EXTRACTED FROM
12/30/1997 7:30	25	15.8	470	-	0	0.07	0.01	0:30	0.35	MW-6,MW-1
12/30/1997 8:00	25	15.9	590	-	0	0.07	0.01	1:00	0.38	MW-6,MW-1,MW-17
12/30/1997 8:30	25	15.3	390	-	0	0.06	0.01	1:30	0.40	MW-6,MW-1,MW-17
12/30/1997 9:00	24	15.8	460	-	0	0.05	0.01	2:00	0.42	MW-6,MW-1,MW-17
12/30/1997 9:30	24	20.3	1450	-	0	0.14	0.02	2:30	0.44	MW-6,MW-1,MW-17
12/30/1997 10:00	25	14.7	750	-	0	0.16	0.03	3:00	0.46	MW-6,MW-1,MW-17
12/30/1997 10:30	26	13.6	3010	-	0	0.22	0.04	3:30	0.48	MW-6,MW-1,MW-17
12/30/1997 11:00	27	13.5	1290	-	0	0.24	0.04	4:00	0.50	MW-6,MW-1,MW-17
12/30/1997 11:30	27	13.5	2390	-	0	0.21	0.03	4:30	0.52	MW-6,MW-1,MW-17
12/30/1997 12:00	26	13.6	690	-	0	0.17	0.03	5:00	0.54	MW-1
12/30/1997 12:30	26	13.6	960	-	0	0.09	0.01	5:30	0.56	MW-1
12/30/1997 13:00	27	13.9	670	-	0	0.09	0.01	6:00	0.58	MW-1
12/30/1997 13:30	25.5	13.7	900	-	0	0.09	0.01	6:30	0.60	MW-1
12/30/1997 14:00	26	13.6	970	-	0	0.11	0.02	7:00	0.63	MW-1
12/30/1997 14:30	25.5	13.4	930	-	0	0.11	0.02	7:30	0.65	MW-1
12/30/1997 15:00	26	13.2	870	-	0	0.10	0.02	8:00	0.67	MW-1
		TOTAL HC RECOVERED IN PERIOD				**1.99**	**0.32**			
		TOTAL HC RECOVERED IN DECEMBER (0.33days)				**1.99**	**0.32**			
		CUMULATIVE HC RECOVERED 4TH QUARTER 1997 (0.67 days)				**2.88**	**0.46**			
1/20/1998 7:30	24.5	9.2	4670	260	0	0.00	0.00	0:00	0.67	MW-1, MW-6, MW-17
1/20/1998 8:00	25	11.4	3650	240	0	0.36	0.06	0:30	0.69	MW-1, MW-6, MW-17

DUAL-PHASE VACUUM EXTRACTION DATA
Mobil Station 18-HE1
Santa Ana,CA
11/14/97 - 3/10/98

Table 1

DATE AND TIME	TOTAL WELL VACUUM, (in of Hg)	TOTAL WELL FLOW (CFM)	TOTAL WELL INFLUENT CONC. (PPMV)	SYSTEM INFLUENT CONC. (PPMV)	SYSTEM EFFLUENT CONC. (PPMV)	HYDROCARBON RECOVERY (POUNDS)	HYDROCARBON RECOVERY (GAL)	HOURS OF OPERATION IN PERIOD (1day)	CUMULATIVE DAYS OF OPERATION	WELLS EXTRACTED FROM
1/20/1998 8:30	25	8.5	3220	220	0	0.28	0.05	1:00	0.71	MW-1, MW-6, MW-17
1/20/1998 9:00	25	8.2	3200	210	0	0.22	0.04	1:30	0.73	MW-1, MW-6, MW-17
1/20/1998 9:30	25.5	10.3	2740	300	0	0.23	0.04	2:00	0.75	MW-1, MW-6, MW-17
1/20/1998 10:00	24	8.5	2340	-	0	0.20	0.03	2:30	0.77	MW-1, MW-6, MW-17
1/20/1998 10:30	25	8.9	1120	-	0	0.12	0.02	3:00	0.79	MW-1
1/20/1998 11:00	26	10.8	1030	-	0	0.09	0.01	3:30	0.81	MW-1
1/20/1998 11:30	25.5	8.1	2370	-	0	0.13	0.02	4:00	0.83	MW-1, MW-6, MW-7
1/20/1998 12:00	25.5	8.9	1350	-	0	0.13	0.02	4:30	0.85	MW-1
1/20/1998 12:30	26	8.4	780	-	0	0.08	0.01	5:00	0.88	MW-1
1/20/1998 13:00	26	8.3	930	-	0	0.06	0.01	5:30	0.90	MW-1
1/20/1998 13:30	26	8.9	970	-	0	0.07	0.01	6:00	0.92	MW-1
1/20/1998 14:00	26	8.8	950	-	0	0.07	0.01	6:30	0.94	MW-1
1/20/1998 14:30	26	8.5	920	-	0	0.07	0.01	7:00	0.96	MW-1
1/20/1998 15:00	26	8.8	940	-	0	0.07	0.01	7:30	0.98	MW-1
1/20/1998 15:30	26	8.9	960	-	0	0.07	0.01	8:00	1.00	MW-1
		TOTAL HC RECOVERED IN PERIOD				**2.24**	**0.36**			
		TOTAL HC RECOVERED IN JANUARY (0.33 days)				**2.24**	**0.36**			
2/24/1998 8:00	25	79.5	420	-	0	0.00	0.00	0:00	1.00	MW-1, MW-6
2/24/1998 8:30	25	80.1	510	-	0	0.31	0.05	0:30	1.02	MW-1, MW-6
2/24/1998 9:00	24	78.6	470	-	0	0.32	0.05	1:00	1.04	MW-1, MW-6
2/24/1998 9:30	24	79.2	490	-	0	0.31	0.05	1:30	1.06	MW-1, MW-6
2/24/1998 10:00	24	80.0	520	-	0	0.33	0.05	2:00	1.08	MW-1, MW-6
2/24/1998 10:30	24	97.0	530	-	0	0.39	0.06	2:30	1.10	MW-1, MW-6
2/24/1998 11:00	23.5	95.2	510	-	0	0.42	0.07	3:00	1.13	MW-1, MW-6
2/24/1998 11:30	23.5	110.2	500	-	0	0.43	0.07	3:30	1.15	MW-1, MW-6

DUAL-PHASE VACUUM EXTRACTION DATA
Mobil Station 18-HE1
Santa Ana,CA
11/14/97 - 3/10/98
Table 1

DATE AND TIME	TOTAL WELL VACUUM, (in of Hg)	TOTAL WELL FLOW (CFM)	TOTAL WELL INFLUENT CONC. (PPMV)	SYSTEM INFLUENT CONC. (PPMV)	SYSTEM EFFLUENT CONC. (PPMV)	HYDROCARBON RECOVERY (POUNDS)	HYDROCARBON RECOVERY (GAL)	HOURS OF OPERATION IN PERIOD (1day)	CUMULATIVE DAYS OF OPERATION	WELLS EXTRACTED FROM
2/24/1998 12:00	23.5	113.1	470	-	0	0.45	0.07	4:00	1.17	MW-1, MW-6
2/24/1998 12:30	23.5	105.3	490	-	0	0.44	0.07	4:30	1.19	MW-1, MW-6
2/24/1998 13:00	23	101.4	520	-	0	0.43	0.07	5:00	1.21	MW-1, MW-6
2/24/1998 13:30	23.5	98.5	490	-	0	0.42	0.07	5:30	1.23	MW-1, MW-6
2/24/1998 14:00	24	95.7	510	-	0	0.40	0.06	6:00	1.25	MW-1, MW-6
2/24/1998 14:30	24.5	96.2	480	-	0	0.39	0.06	6:30	1.27	MW-1, MW-6
2/24/1998 15:00	24.5	111.0	450	-	0	0.40	0.06	7:00	1.29	MW-1, MW-6
2/24/1998 15:30	24	107.0	420	-	0	0.39	0.06	7:30	1.31	MW-1, MW-6
2/24/1998 16:00	24	105.5	400	-	0	0.36	0.06	8:00	1.33	MW-1, MW-6
		TOTAL HC RECOVERED IN PERIOD				**6.21**	**0.99**			
		TOTAL HC RECOVERED IN FEBRUARY (0.33days)				**6.21**	**0.99**			
3/10/1998 8:30	5	111.0	40	-	0	0.00	0.00	0:00	1.33	TCW
3/10/1998 8:45	4	106.0	180	-	0	0.05	0.01	0:45	1.34	TCW, MW-1
3/10/1998 9:00	4	104.0	300	-	0	0.10	0.02	1:00	1.35	TCW, MW-1
3/10/1998 9:17	4	97.0	160	-	0	0.11	0.02	1:17	1.37	MW-1, MW-6, TCW
3/10/1998 9:35	13	35.3	370	-	0	0.09	0.01	1:35	1.38	MW-1, MW-6, TCW
3/10/1998 10:30	25.5	29.1	300	-	0	0.16	0.03	2:30	1.42	MW-1, MW-6
3/10/1998 11:00	25	30.1	140	-	0	0.05	0.01	3:00	1.44	MW-1, MW-6
3/10/1998 11:30	26	21.8	140	-	0	0.03	0.00	3:30	1.46	MW-1, MW-6
3/10/1998 12:00	25	20.7	140	-	0	0.02	0.00	4:00	1.48	MW-1, MW-6
3/10/1998 12:30	25.5	21.3	110	-	0	0.02	0.00	4:30	1.50	MW-1, MW-6
3/10/1998 13:00	25.5	21.5	120	-	0	0.02	0.00	5:00	1.52	MW-1, MW-6
3/10/1998 13:30	25.5	20.9	110	-	0	0.02	0.00	5:30	1.54	MW-1, MW-6
3/10/1998 14:00	25.5	21.2	120	-	0	0.02	0.00	6:00	1.56	MW-1, MW-6
3/10/1998 14:30	26	19.9	110	-	0	0.02	0.00	6:30	1.58	MW-1, MW-6

DUAL-PHASE VACUUM EXTRACTION DATA
Mobil Station 18-HE1
Santa Ana,CA
11/14/97 - 3/10/98

Table 1

DATE AND TIME	TOTAL WELL VACUUM, (in of Hg)	TOTAL WELL FLOW (CFM)	TOTAL WELL INFLUENT CONC. (PPMV)	SYSTEM INFLUENT CONC. (PPMV)	SYSTEM EFFLUENT CONC. (PPMV)	HYDROCARBON RECOVERY (POUNDS)	HYDROCARBON RECOVERY (GAL)	HOURS OF OPERATION IN PERIOD (1day)	CUMULATIVE DAYS OF OPERATION	WELLS EXTRACTED FROM
3/10/1998 15:00	25.5	15.5	100	-	0	0.02	0.00	7:00	1.60	MW-1, MW-6
3/10/1998 15:30	26	15.0	110	-	0	0.01	0.00	7:30	1.63	MW-1, MW-6
3/10/1998 16:00	25.5	16.2	100	-	0	0.01	0.00	8:00	1.65	MW-1, MW-6
3/10/1998 16:30	26	15.9	90	-	0	0.01	0.00	8:30	1.67	MW-1, MW-6
		TOTAL HC RECOVERED IN PERIOD				**0.78**	**0.12**			
		TOTAL HC RECOVERED IN MARCH (0.33 days)				**0.78**	**0.12**			
		CUMULATIVE HC RECOVERED 1ST QUARTER 1998 (1.00 days)				9.23	1.47			

SDTW = static depth to water
IN OF Hg = Inches of mercury
CFM = Cubic feet per minute
PPM = parts per million
DEG F = Degrees Fahrenheit
GAL = Gallons
EX = Extraction

Table 2

VAPOR EXTRACTION WELL DATA

Mobil Station 18-HE1

Fullerton, California

11/14/97 to 3/10/98

Date and Time	Well MW-1			Well MW-6			Well MW-17			Well TCW		
	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)
11/14/1997 7:15	190	69.5	17	--	--	--	--	--	--	--	--	--
11/14/1997 7:30	350	41.5	21	--	--	--	--	--	--	--	--	--
11/14/1997 7:45	50	14.4	27	--	--	--	--	--	--	--	--	--
11/14/1997 8:00	410	12.5	27.5	--	--	--	--	--	--	--	--	--
11/14/1997 8:30	1180	13.9	27.5	--	--	--	--	--	--	--	--	--
11/14/1997 9:00	930	14.2	29	--	--	--	--	--	--	--	--	--
11/14/1997 9:20	230	15	29	--	--	--	--	--	--	--	--	--
11/14/1997 9:30	--	--	--	30	17.6	28	50	19.5	28.5	--	--	--
11/14/1997 10:00	650	17.4	29.5	30	17.9	27	50	20.9	29	--	--	--
11/14/1997 10:30	180	16.8	29.5	30	20.8	27.5	50	20.1	29	--	--	--
11/14/1997 10:34	250	17.2	29.5	30	19.4	28	50	19.6	29	--	--	--
11/14/1997 11:00	200	14.9	30	--	--	--	--	--	--	--	--	--
11/14/1997 11:30	190	15.2	30	--	--	--	--	--	--	--	--	--
11/14/1997 12:00	30	14.3	30	--	--	--	--	--	--	--	--	--
11/14/1997 12:15	400	14.2	30	--	--	--	--	--	--	--	--	--
11/14/1997 12:19	320	14	30	--	--	--	--	--	--	--	--	--
11/14/1997 13:00	320	11.9	29.5	--	--	--	--	--	--	--	--	--
11/14/1997 13:30	330	14.2	29	--	--	--	--	--	--	--	--	--
11/14/1997 14:00	320	10.9	29.5	--	--	--	--	--	--	--	--	--
11/14/1997 14:30	410	9.6	29.5	--	--	--	--	--	--	--	--	--
11/14/1997 15:00	320	9.9	30	--	--	--	--	--	--	--	--	--
11/14/1997 15:15	390	10.1	29.5	--	--	--	--	--	--	--	--	--
12/30/1997 7:00	320	13.8	25	340	13.8	--	--	--	--	--	--	--
12/30/1997 7:30	300	13.5	25	290	13.6	--	--	--	--	--	--	--

Table 2

VAPOR EXTRACTION WELL DATA

Mobil Station 18-HE1

Fullerton, California

11/14/97 to 3/10/98

Date and Time	Well MW-1			Well MW-6			Well MW-17			Well TCW		
	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)
12/30/1997 8:00	270	13.4	25	280	13.5	26	320	16.6	26	--	--	--
12/30/1997 8:30	230	13.6	25	390	13.4	26	260	16.3	25.5	--	--	--
12/30/1997 9:00	190	14.5	25	420	13.8	26	230	16.1	25	--	--	--
12/30/1997 9:30	170	14.4	25	400	13.6	26	200	15.8	25.5	--	--	--
12/30/1997 10:00	140	13.3	25	440	13.4	26	250	14.2	25	--	--	--
12/30/1997 10:30	--	--	--	--	--	--	--	--	--	--	--	--
12/30/1997 11:00	360	13.6	28	530	13.6	27	440	13.4	27.5	--	--	--
12/30/1997 11:30	1330	13.5	27	630	13.3	26	430	13.1	25.5	--	--	--
12/30/1997 12:00	690	13.6	26	--	--	--	--	--	--	--	--	--
12/30/1997 12:30	960	13.6	26	--	--	--	--	--	--	--	--	--
12/30/1997 13:00	670	13.9	27	--	--	--	--	--	--	--	--	--
12/30/1997 13:30	900	13.7	25.5	--	--	--	--	--	--	--	--	--
12/30/1997 14:00	970	13.6	26	--	--	--	--	--	--	--	--	--
12/30/1997 14:30	930	13.4	25.5	--	--	--	--	--	--	--	--	--
12/30/1997 15:00	870	13.2	26	--	--	--	--	--	--	--	--	--
1/20/1998 7:30	3340	10.2	24.5	3600	10.9	25	2010	11.2	25.5	--	--	--
1/20/1998 8:00	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 8:30	2930	10.1	25	3260	9.2	25.5	2650	10.4	25.5	--	--	--
1/20/1998 9:00	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 9:30	2700	10.8	25.5	2890	11.7	25.5	2350	12.2	26.5	--	--	--
1/20/1998 10:00	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 10:30	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 11:00	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 11:30	1490	8.55	25.5	790	10.6	25.5	560	8.95	26.5	--	--	--
1/20/1998 12:00	--	--	--	--	--	--	--	--	--	--	--	--

Table 2

VAPOR EXTRACTION WELL DATA

Mobil Station 18-HE1

Fullerton, California

11/14/97 to 3/10/98

Date and Time	Well MW-1			Well MW-6			Well MW-17			Well TCW		
	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)
1/20/1998 12:30	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 13:00	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 13:30	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 14:00	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 14:30	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 15:00	--	--	--	--	--	--	--	--	--	--	--	--
1/20/1998 15:30	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 8:00	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 8:30	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 9:00	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 9:30	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 10:00	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 10:30	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 11:00	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 11:30	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 12:00	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 12:30	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 13:00	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 13:30	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 14:00	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 14:30	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 15:00	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 15:30	--	--	--	--	--	--	--	--	--	--	--	--
(1) 2/24/1998 16:00	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 8:30	--	--	--	--	--	--	--	--	--	--	--	--

Table 2

VAPOR EXTRACTION WELL DATA

Mobil Station 18-HE1

Fullerton, California

11/14/97 to 3/10/98

Date and Time	Well MW-1			Well MW-6			Well MW-17			Well TCW		
	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)	Conc. (ppmv)	Flow (cfm)	Vacuum (in. Hg)
3/10/1998 8:45	590	72.5	10	--	--	--	--	--	--	40	112	4
3/10/1998 9:00	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 9:17	--	--	--	50	14.7	28.5	--	--	--	30	81.5	4
3/10/1998 9:35	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 10:30	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 11:00	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 11:30	630	22.1	26	50	19.6	24.5	--	--	--	--	--	--
3/10/1998 12:00	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 12:30	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 13:00	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 13:30	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 14:00	250	18	25.5	50	15.2	24	--	--	--	--	--	--
3/10/1998 14:30	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 15:00	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 15:30	--	--	--	--	--	--	--	--	--	--	--	--
3/10/1998 16:00	190	16.9	25.5	40	14.7	24.5	--	--	--	--	--	--
3/10/1998 16:30	--	--	--	--	--	--	--	--	--	--	--	--

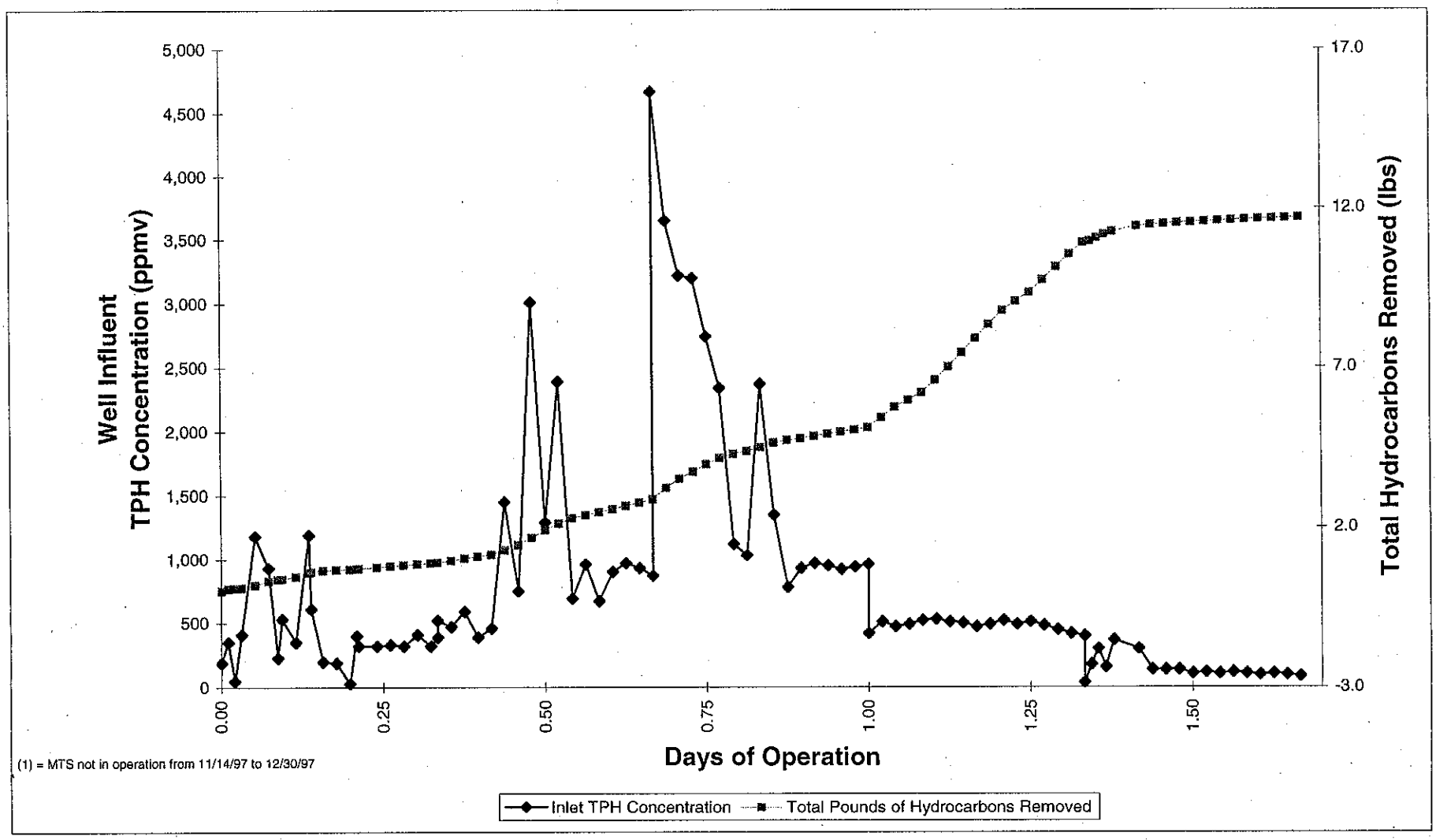
Notes:

= Vapor well closed from operating Vapor Extraction System

-- = Not measured or analyzed

(1) = Individual well concentration and flow measurements were not taken during this event.

WELL INFLUENT TPH CONCENTRATION AND TOTAL HYDROCARBONS REMOVED VS. OPERATION TIME
MOBIL SERVICE STATION 18-HE1
SANTA ANA, CALIFORNIA
11/14/97 - 3/10/98



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APPENDIX D

FIELD DATA SHEETS AND LABORATORY ANALYTICAL REPORTS

TRC
Customer-Focused Solutions

SUBJECT Mobil 18-HEI Natural Attenuation Monitoring & Sampling

SHEET NO. 1 OF
PROJECT NO.
DATE 11/22/04
BY Warren Howe
CHK'D

Well ID	DO	Temp	pH	Cond. x1000	ORP	Time	Notes
MW-2	2.04 mg/l	70.8°F	7.39	2.11	27 mv	13:30	Sampled too
MW-17	1.48 ↓	72.1 ↓	2.39	2.30	Ur mv	14:06	↓
MW-1	1.85 ↓	66.2 ↓	7.90	1.53	Ur mv	14:30	↓
MW-6	2.25 ↓	69.4 ↓	7.24	1.55	-66 mv	1500	↓

A

Calscience Environmental Laboratories, Inc.

December 30, 2004

Anand Helekar
TRC-Alton Geoscience
21 Technology Drive
Irvine, CA 92618-2366

Subject: **Calscience Work Order No.: 04-11-1379**
Client Reference: ExxonMobil 18-HE1

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 11/22/2004 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Don Burley
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	RSK-175M

Project: ExxonMobil 18-HE1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Units
Methane	6.03	1.00	1		ug/L

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

Method Blank	**099-12-010-797**	**N/A**	**Aqueous**	**N/A**	**11/22/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	SM 2320B

Project: ExxonMobil 18-HE1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122ALKD1**

Parameter	Result	RL	DF	Qual	Units
Alkalinity, Total (as CaCO3)	290	5.0	1		mg/L

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122ALKD1**

Parameter	Result	RL	DF	Qual	Units
Alkalinity, Total (as CaCO3)	830	5.0	1		mg/L

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122ALKD1**

Parameter	Result	RL	DF	Qual	Units
Alkalinity, Total (as CaCO3)	260	5.0	1		mg/L

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122ALKD1**

Parameter	Result	RL	DF	Qual	Units
Alkalinity, Total (as CaCO3)	250	5.0	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience
21 Technology Drive
Irvine, CA 92618-2366

Date Received: 11/22/04
Work Order No: 04-11-1379
Preparation: N/A
Method: SM4500-CO2D

Project: ExxonMobil 18-HE1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122CO2D1**

Parameter	Result	RL	DF	Qual	Units
Carbon Dioxide	45	1.0	1		mg/L

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122CO2D1**

Parameter	Result	RL	DF	Qual	Units
Carbon Dioxide	50	1.0	1		mg/L

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122CO2D1**

Parameter	Result	RL	DF	Qual	Units
Carbon Dioxide	34	1.0	1		mg/L

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122CO2D1**

Parameter	Result	RL	DF	Qual	Units
Carbon Dioxide	30	1.0	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 300.0
		Units:	mg/L
Project: ExxonMobil 18-HE1			Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Chloride	59	10	10		Sulfate	1100	200	200	
Nitrate (as N)	1.6	0.1	1						

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Chloride	56	10	10		Sulfate	450	100	100	
Nitrate (as N)	ND	0.10	1						

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Chloride	59	10	10		Sulfate	510	100	100	
Nitrate (as N)	ND	0.10	1						

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Chloride	61	10	10		Sulfate	620	100	100	
Nitrate (as N)	2.0	0.1	1						

Method Blank	**099-05-118-2,453**	**N/A**	**Aqueous**	**N/A**	**11/22/04**	**041122L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Chloride	ND	1.0	1		Sulfate	ND	1.0	1	
Nitrate (as N)	ND	0.10	1						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 350.2

Project: ExxonMobil 18-HE1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123NH3B1**

Parameter	Result	RL	DF	Qual	Units
Ammonia	ND	0.10	1		mg/L

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123NH3B1**

Parameter	Result	RL	DF	Qual	Units
Ammonia	ND	0.10	1		mg/L

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123NH3B1**

Parameter	Result	RL	DF	Qual	Units
Ammonia	ND	0.10	1		mg/L

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123NH3B1**

Parameter	Result	RL	DF	Qual	Units
Ammonia	ND	0.10	1		mg/L

Method Blank	**099-05-075-1,911**	**N/A**	**Aqueous**	**N/A**	**11/23/04**	**41123NH3B1**

Parameter	Result	RL	DF	Qual	Units
Ammonia	ND	0.10	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	SM3500-FeD

Project: ExxonMobil 18-HE1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122FEL1**

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122FEL1**

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122FEL1**

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122FEL1**

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Method Blank	**099-05-111-1,802**	**N/A**	**Aqueous**	**N/A**	**11/22/04**	**41122FEL1**

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 410.1

Project: ExxonMobil 18-HE1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123ODB1**

Parameter	Result	RL	DF	Qual	Units
Chemical Oxygen Demand	ND	5.0	1		mg/L

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123ODB1**

Parameter	Result	RL	DF	Qual	Units
Chemical Oxygen Demand	31	5	1		mg/L

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123ODB1**

Parameter	Result	RL	DF	Qual	Units
Chemical Oxygen Demand	130	5	1		mg/L

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123ODB1**

Parameter	Result	RL	DF	Qual	Units
Chemical Oxygen Demand	15	5	1		mg/L

Method Blank	**099-05-114-18**	**N/A**	**Aqueous**	**N/A**	**11/23/04**	**41123ODB1**

Parameter	Result	RL	DF	Qual	Units
Chemical Oxygen Demand	ND	5.0	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 415.1

Project: ExxonMobil 18-HE1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123TOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	2.2	0.5	1		mg/L

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123TOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	6.5	0.5	1		mg/L

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123TOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	8.6	2.5	5		mg/L

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**N/A**	**11/23/04**	**41123TOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	1.9	0.5	1		mg/L

Method Blank	**099-05-097-1,787**	**N/A**	**Aqueous**	**N/A**	**11/23/04**	**41123TOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	ND	0.50	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 415.1

Project: ExxonMobil 18-HE1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122DOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Dissolved Organic	3.1	0.5	1	B	mg/L

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122DOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Dissolved Organic	9.8	0.5	1	B	mg/L

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122DOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Dissolved Organic	6.4	2.5	5	B	mg/L

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**N/A**	**11/22/04**	**41122DOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Dissolved Organic	2.5	0.5	1	B	mg/L

Method Blank	**099-05-115-294**	**N/A**	**Aqueous**	**N/A**	**11/22/04**	**41122DOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Dissolved Organic	0.55	0.50	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 405.1

Project: ExxonMobil 18-HE1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Started	Date Ended	QC Batch ID
MW-2	**04-11-1379-1**	**11/22/04**	**Aqueous**	**11/22/04**	**11/27/04**	**41122BODB1**

Parameter	Result	RL	DF	Qual	Units
Biochemical Oxygen Demand	4.4	1.0	1		mg/L

MW-17	**04-11-1379-2**	**11/22/04**	**Aqueous**	**11/22/04**	**11/27/04**	**41122BODB1**

Parameter	Result	RL	DF	Qual	Units
Biochemical Oxygen Demand	6.7	1.0	1		mg/L

MW-1	**04-11-1379-3**	**11/22/04**	**Aqueous**	**11/22/04**	**11/27/04**	**41122BODB1**

Parameter	Result	RL	DF	Qual	Units
Biochemical Oxygen Demand	38	1	1		mg/L

MW-6	**04-11-1379-4**	**11/22/04**	**Aqueous**	**11/22/04**	**11/27/04**	**41122BODB1**

Parameter	Result	RL	DF	Qual	Units
Biochemical Oxygen Demand	ND	1.0	1		mg/L

Method Blank	**099-05-054-1,642**	**N/A**	**Aqueous**	**11/22/04**	**11/27/04**	**41122BODB1**

Parameter	Result	RL	DF	Qual	Units
Biochemical Oxygen Demand	ND	1.0	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

TRC-Alton Geoscience	Date Received:	11/22/04
21 Technology Drive	Work Order No:	04-11-1379
Irvine, CA 92618-2366	Preparation:	N/A
	Method:	RSK-175M

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
MW-1	Aqueous	GC 33	N/A	11/23/04	041122D01

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Methane	6.03	6.73	11	0-20	
Ethane	ND	ND	NA	0-20	-
Ethylene	ND	ND	NA	0-20	--

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

TRC-Alton Geoscience	Date Received:	11/22/04
21 Technology Drive	Work Order No:	04-11-1379
Irvine, CA 92618-2366	Preparation:	N/A
	Method:	SM 2320B

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
04-11-1335-1	**Aqueous**	**PH 1**	**N/A**	**11/22/04**	**41122ALKD1**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	29000	29000	0	0-25	
Bicarbonate (as CaCO3)	25000	25000	0	0-25	
Carbonate (as CaCO3)	4600	4600	0	0-25	
Hydroxide (as CaCO3)	ND	ND	NA	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	SM4500-CO2D

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
MW-6	**Aqueous**	**PH 1**	**N/A**	**11/22/04**	**41122CO2D1**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Carbon Dioxide	30	30	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 300.0

Project ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
04-11-1333-1	Aqueous	IC 7	N/A	11/22/04	041122S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Chloride	102	102	50-150	0	0-25	
Nitrate (as N)	102	102	50-150	0	0-25	
Sulfate	106	106	50-150	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

TRC-Alton Geoscience	Date Received:	11/22/04
21 Technology Drive	Work Order No:	04-11-1379
Irvine, CA 92618-2366	Preparation:	N/A
	Method:	EPA 350.2

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
MW-1	**Aqueous**	**N/A**	**N/A**	**11/23/04**	**41123NH3D1**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Ammonia	ND	ND	NA	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	SM3500-FeD

Project ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-6	**Aqueous**	**UV 2**	**N/A**	**11/22/04**	**41122FES1**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Iron (II)	111	109	70-130	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

TRC-Alton Geoscience	Date Received:	11/22/04
21 Technology Drive	Work Order No:	04-11-1379
Irvine, CA 92618-2366	Preparation:	N/A
	Method:	EPA 410.1

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
04-11-1378-1	**Aqueous**	**N/A**	**N/A**	**11/23/04**	**41123ODD1**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Chemical Oxygen Demand	120	120	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 415.1

Project ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
04-11-1378-3	**Aqueous**	**TOC 2**	**N/A**	**11/23/04**	**41123TOCS1**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	113	99	70-130	10	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

TRC-Alton Geoscience		Date Received:	11/22/04
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 415.1

Project ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
04-11-1378-3	**Aqueous**	**TOC 2**	**N/A**	**11/22/04**	**41122DOCS1**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Dissolved Organic	86	93	70-130	4	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

TRC-Alton Geoscience	Date Received:	11/22/04
21 Technology Drive	Work Order No:	04-11-1379
Irvine, CA 92618-2366	Preparation:	N/A
	Method:	EPA 405.1

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Started:	Date Ended:	Duplicate Batch Number
MW-2	**Aqueous**	**BOD 1**	**11/22/04**	**11/27/04**	**41122BODD1**

Parameter	Sample Conc.	DUP Conc	RPD	RPD CL	Qualifiers
Biochemical Oxygen Demand	4.4	4.9	11	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

TRC-Alton Geoscience		Date Received:	N/A
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	RSK-175M

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-010-797	Aqueous	GC 33	N/A	11/22/04	041122L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methane	101	101	79-109	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

TRC-Alton Geoscience		Date Received:	N/A
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 300.0

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-118-2,453	Aqueous	IC 7	N/A	11/22/04	041122L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Chloride	96	97	80-120	0	0-25	
Nitrate (as N)	100	100	80-120	0	0-25	
Sulfate	101	102	80-120	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Laboratory Control Sample

TRC-Alton Geoscience		Date Received:	N/A
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	SM3500-FeD

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-05-111-1,802	Aqueous	UV 2	11/22/04	NONE	41122FEL1

Parameter	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Iron (II)	1.0	1.0	101	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Laboratory Control Sample

TRC-Alton Geoscience		Date Received:	N/A
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 415.1

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-05-097-1,787	Aqueous	TOC 2	11/23/04	NONE	41123TOCL1

Parameter	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Carbon, Total Organic	5.0	5.2	103	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Laboratory Control Sample

TRC-Alton Geoscience		Date Received:	N/A
21 Technology Drive		Work Order No:	04-11-1379
Irvine, CA 92618-2366		Preparation:	N/A
		Method:	EPA 415.1

Project: ExxonMobil 18-HE1

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-05-115-294	Aqueous	TOC 2	11/22/04		41122DOCL1

Parameter	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Carbon, Dissolved Organic	5.0	5.3	95	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 04-11-1379

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
I	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 11/22/04

PAGE: 1 OF 2

LABORATORY CLIENT: TRC-Alton Geoscience
ADDRESS: 21 Technology Drive
CITY: Irvine, CA 92618
TEL: 949-753-0101 FAX: 949-753-0111 E-MAIL:

CLIENT PROJECT NAME / NUMBER: ExxonMobil 18-HE1
PROJECT CONTACT: Anand Helekar
SAMPLER(S): (SIGNATURE) Warren Howe

P.O. NO.: IRV-800-504
QUOTE NO.:
LAB USE ONLY: 1 1 1 3 7 9

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS:
Send HPC to Silliker.
Send Gasoline Oxidizing by MPN to CEM.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	EPA 300.0 Anions (Chloride, NO3, SO4)	SM 2320B Alkalinity	SM 3500-Fe D Ferrous Iron	SM 4500-CO_2D) Carbon Dioxide	EPA 415.1 Dissolved Organic Carbon	EPA 415.1 TOC	EPA 410.1 COD	EPA 350.2 Ammonia	EPA 405.1 BOD	RSK-175 Methane	HPC	Gasoline Oxidizing Population by MPN		Containers
1	MW-2	MW-2	11/22/04	13:30	W	1	X	X	X											1L Poly (no preservative)
					W	1				X	X									500mL Poly (no preservative)
					W	1						X	X							250mL Clear Glass with H_2SO_4
					W	1								X						1L Amber with H_2SO_4
					W	2									X					2 x 1L Poly (no preservative)
					W	1										X				125 mL Amber Glass with HCL
					W	1											X			120mL Bacti Bottle with Sodium Thiosulfate
					W	3												X		3 VOA vials without preservative
					W															
2	MW-17	MW-17	11/22/04	1400	W	1	X	X	X											1L Poly (no preservative)
					W	1				X	X									500mL Poly (no preservative)
					W	1						X	X							250mL Clear Glass with H_2SO_4
					W	1								X						1L Amber with H_2SO_4
					W	1									X					1L Poly (no preservative)
					W	1										X				125 mL Amber Glass with HCL
					W	1											X			125 mL Amber Glass with HCL
					W	1												X		120mL Bacti Bottle with Sodium Thiosulfate
					W	3													X	3 VOA vials without preservative

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Warren Howe		11/22/04	16:08
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	[illegible] CEL	11/22/04	16:08

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 11/22/04
PAGE: 2 OF 2

LABORATORY CLIENT: TRC-Alton Geoscience
ADDRESS: 21 Technology Drive
CITY: Irvine, CA 92618
TEL: 949-753-0101 FAX: 949-753-0111 E-MAIL:

CLIENT PROJECT NAME / NUMBER: ExxonMobil 18-HE1
PROJECT CONTACT: Anand Helekar
SAMPLER(S): (SIGNATURE) Warren Howe

P.O. NO.: IRV-800-504
QUOTE NO.:
LAB USE ONLY: 1 1 - 1 3 7 9

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
Send HPC to Silliker.
Send Gasoline Oxidizing by MPN to CEM.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	EPA 300.0 Anions (Chloride, NO3, SO4)	SM 2320B Alkalinity	SM 3500-Fe D Ferrous Iron	SM 4500-CO2D) Carbon Dioxide	EPA 415.1 Dissolved Organic Carbon	EPA 415.1 TOC	EPA 410.1 COD	EPA 350.2 Ammonia	EPA 405.1 BOD	RSK-175 Methane	HPC	Gasoline Oxidizing Population by MPN		Containers
3	MW-1	MW-1	11/22/04	1430	W	1	X	X	X											1L Poly (no preservative)
					W	1				X	X									500mL Poly (no preservative)
					W	1						X	X							250mL Clear Glass with H_2SO_4
					W	1								X						1L Amber with H_2SO_4
					W	1									X					1L Poly (no preservative)
					W	1										X				125 mL Amber Glass with HCL
					W	1											X			120mL Bacti Bottle with Sodium Thiosulfate
					W	3												X		3 VOA vials without preservative
					W															
4	MW-6	MW-6		1500	W	1	X	X	X											1L Poly (no preservative)
					W	1				X	X									500mL Poly (no preservative)
					W	1						X	X							250mL Clear Glass with H_2SO_4
					W	1								X						1L Amber with H_2SO_4
					W	1									X					1L Poly (no preservative)
					W	1										X				125 mL Amber Glass with HCL
					W	1											X			125 mL Amber Glass with HCL
					W	1												X		120mL Bacti Bottle with Sodium Thiosulfate
					W	3													X	3 VOA vials without preservative

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Warren Howe		11/22/04	16:08
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	CEL	11/22/04	16:08

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 04 - 11 - 1379

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: TRC

DATE: 11/22/04

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature.

_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
3.4 °C IR thermometer.
_____ Ambient temperature.

Initial: dvc

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): ✓

Initial: dvc

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)	✓		
VOA vial(s) free of headspace.	✓		
Tedlar bag(s) free of condensation			✓

Initial: dvc

COMMENTS:

SILLIKER, Inc.
Southern California Laboratory
1139 East Dominguez, Suite I
Carson, CA 90746
310/ 637 7121 Fax 310/ 637 2953

CERTIFICATE OF ANALYSIS

COA No:	SCA-30429552-0
Supersedes:	None
COA Date	11/24/04
Page 1 of 1	

TO:
Mr. Don L. Burley
Project Manager
Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1432

Received From:	Garden Grove, CA
Received Date:	11/22/04
P.O.# / ID:	04-11-1379
Location of Test: (except where noted)	Carson, CA

Analytical Results

Desc. 1:	Sample ID: MW-2	**Desc. 4:**	Matrix: H2O	**Laboratory ID:**	302432894
Desc. 2:	Date: 11/22/04	**Desc. 5:**	Project #: 04-11-1379	**Condition Rec'd:**	NORMAL
Desc. 3:	Time: 1330			**Temp Rec'd (°C):**	3.8

Analyte	Result	Units 43	Method Reference	Test Date	Loc.
Heterotrophic Plate Count	690	/mL	SMEWW 20th, 9215A-B	11/24/04	

Desc. 1:	Sample ID: MW-17	**Desc. 4:**	Matrix: H2O	**Laboratory ID:**	302432895
Desc. 2:	Date: 11/22/04	**Desc. 5:**	Project #: 04-11-1379	**Condition Rec'd:**	NORMAL
Desc. 3:	Time: 1400		93	**Temp Rec'd (°C):**	3.8

Analyte	Result	Units	Method Reference	Test Date	Loc.
Heterotrophic Plate Count	190	/mL	SMEWW 20th, 9215A-B	11/24/04	

Desc. 1:	Sample ID: MW-1	**Desc. 4:**	Matrix: H2O	**Laboratory ID:**	302432896
Desc. 2:	Date: 11/22/04	**Desc. 5:**	Project #: 04-11-1379	**Condition Rec'd:**	NORMAL
Desc. 3:	Time: 1430		4300	**Temp Rec'd (°C):**	3.8

Analyte	Result	Units	Method Reference	Test Date	Loc.
Heterotrophic Plate Count	6300	/mL	SMEWW 20th, 9215A-B	11/24/04	

Desc. 1:	Sample ID: MW-6	**Desc. 4:**	Matrix: H2O	**Laboratory ID:**	302432897
Desc. 2:	Date: 11/22/04	**Desc. 5:**	Project #: 04-11-1379	**Condition Rec'd:**	NORMAL
Desc. 3:	Time: 1500			**Temp Rec'd (°C):**	3.8

Analyte	Result	Units 43	Method Reference	Test Date	Loc.
Heterotrophic Plate Count	180	/mL	SMEWW 20th, 9215A-B	11/24/04	

Vidhya Gangar
Vidhya Gangar, M.S. Laboratory Director

The results of these tests relate only to the samples tested. This report shall not be reproduced except in full, without the written approval of the laboratory.

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
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SEND TO SILLIKER 3.8°C PD

CHAIN OF CUSTODY RECORD

Date 11/22/04

Page 1 of 1

LABORATORY CLIENT:

ADDRESS: SAME AS ABOVE

CITY STATE ZIP

TEL: FAX: E-MAIL:

TURNAROUND TIME: NORMAL
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING FORMS ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: 04-11-1379

PROJECT CONTACT: DON BURLEY

SAMPLER(S): (SIGNATURE)

COELT LOG CODE ☐☐☐☐

P.O. NO.:

LAB USE ONLY ☐☐-☐☐☐☐

COOLER RECEIPT
TEMP = ____ °C

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD POINT NAME (FOR COELT EDF)	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or ____	BTEX/MTBE (8021B) or (8260B)	OXYGENATES (8260B)	VOCs (8260B)	5035 ENCORE PREP	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	CAC, T22 METALS (6010B)	PNAs (8310) or (8270C)	VOCs (TO-14A) or (TO-15)	TPH(G) (TO-3M)	HPC				
	MW-2		11/22/04	1330	H2O	1														X				
	MW-17		↓	1400	↓	1														X				
	MW-1		↓	1430	↓	1														X				
	MW-6		↓	1500	↓	1														X				

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date: 11-22-04	Time: 7:05

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11/20/03 Revision

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CENTER FOR ENVIRONMENTAL MICROBIOLOGY
555 Technology Court, Suite 100, Riverside, CA 92507
Tel: (951) 788-0808; Fax: (951) 788-8011

LABORATORY ANALYTICAL REPORT

PROJECT 04-11-1379
Lab Project No. R04K0035

Report Date: 08 December 2004

Revision 0

Prepared For:

Don Burley
CalScience Environmental Laboratories, Inc.
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714) 895 - 5494
Fax: (714) 894 - 7501

CENTER FOR ENVIRONMENTAL MICROBIOLOGY
555 Technology Court, Suite 100, Riverside, CA 92507
Tel: (951) 788-0808; Fax: (951) 788-8011

08 December 2004

Project No. 04-11-1379

CalScience Environmental Laboratories, Inc.
Attention: Don Burley
7440 Lincoln Way
Garden Grove, CA 92841

Dear Don Burley:

This report contains the test results for the soil/groundwater sample(s) from Project No. 04-11-1379 received under chain of custody by the Center for Environmental Microbiology (CEM) on November 23, 2004. These samples are associated with our Laboratory Project No. R04K0035. Test results are based on analyses specified on the analytical report [following page(s)].

All applicable quality control procedures met laboratory-specified acceptance criteria. There were no deviations from the laboratory procedures.

This report may only be reproduced in full, with the written approval of CEM. This cover letter is an integral part of the analytical report.

If you have any questions, please feel free to call me at (951) 788-0808, or e-mail at biocenter@bioCEM.com.

Sincerely,

William T. Frankenberger, Jr. Ph.D.
Laboratory Director

cc: Project File

CENTER FOR ENVIRONMENTAL MICROBIOLOGY

555 Technology Court, Suite 100, Riverside, CA 92507
Tel: (951) 788-0808; Fax: (951) 788-8011

Analytical Report

Client:	CalScience Environmental Laboratories, Inc.	**CEM Project Number:**	**R04K0035**
Project:	04-11-1379	Date Sampled:	11/23/2004
		Date Received:	11/23/2004
Media Type: Soil/Groundwater		Date Analyzed:	12/08/2004
		Analyst:	Chi Le

Client Sample Number (Lab Sample ID)	Analysis	Sample Matrix	Method[1]	Reporting Limit[2]	Result	Units
MW-2 (R04K0035-1)	Gasoline Oxidizing Population	GW	Proprietary	3.0E+00	4.3E+01	MPN/mL
MW-17 (R04K0035-2)	Gasoline Oxidizing Population	GW	Proprietary	3.0E+00	9.3E+01	MPN/mL
MW-1 (R04K0035-3)	Gasoline Oxidizing Population	GW	Proprietary	3.0E+00	4.3E+04	MPN/mL
MW-6 (R04K0035-4)	Gasoline Oxidizing Population	GW	Proprietary	3.0E+00	4.3E+01	MPN/mL
(Laboratory Control)	Gasoline Oxidizing Population	Soil	Proprietary	3.0E+01	4.3E+05	MPN/g
(Method Blank)	Gasoline Oxidizing Population	Water	Proprietary	3.0E+00	< 3.0E+00	MPN/mL

LEGEND
MPN – Most Probable Number; g – gram; mg – milligrams; kg - kilogram; mL – milliliters; GW – groundwater

Note: [1] Results obtained from Most Probable Number (MPN) estimates for the specified bacterial population (Alef, K. 1995). This analysis was conducted using procedures described by Alef, K. 1995, Methods in Applied Soil Microbiology and Biochemistry (Alef, K. and P. Nannipieri, eds.), Academic Press. San Diego CA.
[2] Reporting Limit may vary by sample matrix due to differences in physical and chemical properties in addition to sample prep/analysis methods. These data are intended to be interpreted in conjunction with the information presented in the cover letter of this report.

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CHAIN OF CUSTODY RECORD

Date 11/22/04

Page 1 of 1

LABORATORY CLIENT:

ADDRESS: SAME AS ABOVE

CITY STATE ZIP

TEL: FAX: E-MAIL:

CLIENT PROJECT NAME / NUMBER: 04-11-1379

PROJECT CONTACT: DON BURLEY

SAMPLER(S): (SIGNATURE)

COELT LOG CODE

P.O. NO.:

LAB USE ONLY

COOLER RECEIPT

TEMP = °C

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING FORMS ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS:
R04K0035

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD POINT NAME (FOR COELT EDF)	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or	BTEX/MTBE (8021B) or (8260B)	OXYGENATES (8260B)	VOCs (8260B)	5035 ENCORE PREP	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	CAC, T22 METALS (6010B)	PNAs (8310) or (8270C)	VOCs (TO-14A) or (TO-15)	TPH(G) (TO-3M)	Gasoline Existing Population by MPN			
1	MW-2		11/22/04	1330	W	3														X			
2	MW-17			1400		3														X			
3	MW-1			1430		3														X			
4	MW-6			1500		3														X			

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	Chris	11/23/04	10:30am
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date:	Time:

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